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GEORGETOWN WELL SITING

1.0 INTRODUCTION

1.1 *Background*

The Georgetown water supply system is currently supplied by a spring located approximately four miles northeast of the town in the Right Hand Fork Canyon. The topographic location of the spring is: 1000 feet (ft.) South 2500 ft. West from the Northeast Corner of Section 10, Township 11 South, Range 44 East, Boise Base & Meridian as shown in **Figure 1**. **Figure 1** is modified from a portion of the U.S. Geological Survey (USGS) 7.5 series Quadrangle Map for Georgetown, Idaho (USGS, 1970). Production of the spring is approximately 1200 gallon per minute (gpm). Water from the spring is transmitted through an 8-inch transmission line to a 200,000 gallon water storage tank located about 1000 ft. southwest of the confluence of Georgetown Canyon and the Right Hand Fork and at an elevation of about 6400 ft. Georgetown plans to redevelop the spring to prevent surface water influence, if any, and increase its production. A well capable of producing 425 gpm is desired to supply water to the town during redevelopment of the spring. In the future, the well will be used as a backup water resource for the spring. The town would like to locate a well close to the water tank and power lines in order to use the existing water collection and distribution facilities.

1.2 *Objective*

The objective of this study was to determine if favorable well sites exist in the vicinity of the existing water storage tank. In order to determine favorable groundwater zones in the area, we completed the following tasks:

- Obtained and reviewed published and readily available unpublished geologic and hydrogeologic data of the area.
- Reviewed geologic, construction and aquifer yields of existing wells in the area.
- Identified potential well locations and depths.
- Evaluated well locations for potential yield and water quality.

No fieldwork beyond a site visit was completed as part of our evaluation of potential well sites.

2.0 GEOLOGIC DATA

This section includes a summary description of the surface and subsurface geology in the Georgetown area. The purpose of this section is to identify, characterize, and map the extent of: (1). Geologic units (aquifers) which provide acceptable, sufficient and economic quantities of groundwater. (2). Geologic units which may set vertical and horizontal limits on groundwater flow (aquitards or confining beds). (3). Faults which may be barriers or influence groundwater flow. (4). Fractures and/or karst features which may provide local and regional controls on groundwater production.

The geology of the Georgetown area is characterized by the "Bannock Overthrust Zone" (Figure 2). The Bannock Overthrust is interpreted as a westward-dipping imbricate overthrust zone possibly several tens of miles wide extending at least from southwestern Montana to north-central Utah (F.C. Armstrong and E.R. Cressman, 1963). The upper plates of the thrust moved to the northeast in response to an unknown force. Steep eastward-trending tear faults formed during thrusting probably in response to differential movement among the eastward-moving thrust plates.

Georgetown is located at the southeast boundary of the "Bear River Valley" from Georgetown to Threemile Knoll, which is the almost uninterrupted northward continuation of "Bear Lake Valley" (Figure 2). An important feature of the Bannock Overthrust is the folding of this originally near horizontal and rather regular thrust surface (Richards and Mansfield, 1912). Renewed compressional forces, acting in the same direction as the original thrusting, folded the fault surface into anticlinal and synclinal folds, some of which were locally overturned to the northeast. In the southern part of the area four folds, two anticlines and two synclines were recognized. The western anticline arches over Bear River Valley, the syncline next east passes beneath the Aspen Range and the town of Georgetown and Montpelier. The crest of the eastern anticline is exposed in Georgetown Canyon, on the Left Fork of Twin Creek, and in the Slug Creek window; the eastern syncline passes beneath Snowdrift Mountain.

Consolidated rocks exposed in the vicinity of the water storage tank include: Mississippian Age Madison limestone (Mm) and Brazer limestone (Mb), Jurassic Age Nugget sandstone (Jn) and Twin Creek limestone (Jt), and Tertiary Age Salt Lake formation (Tsl). Quaternary alluvium hill wash, talus and terrace gravel are not shown on the geologic map of the Georgetown area (Figure 2). Two southwest-dipping normal faults run through the water tank area and their dip angles are unknown. Georgetown Canyon and the Right Fork Creek cut through this area.

3.0 EXISTING DATA AND EVALUATION

Based on review of water rights records in the Georgetown area, four wells (Well #6, #7, #8 and #9 in Figure 1) were drilled northeast of the town in Section 7, T11S, R44E, Boise Base and Meridian. Their depths ranged from 65 to 400 ft. with yields varying from 5 to 500 gpm. Well #7, owned by A.M. Thompson, was 231 ft. deep and had the largest yield among the four wells. The yield/drawdown ratio (specific capacity) of this well was 500gpm/30ft. The well appeared to have tapped the unconsolidated sandy gravel aquifer according to its well log. The other three wells were not as deep as the Thompson's well and their yields were low ranging from 10 to 35 gpm. In the vicinity of the water storage tank, three wells were drilled (Section 4, Township 11 South, Range 44 East, Boise Base & Meridian as shown in Figure 1). Their depth ranged from 60 to 220 ft. Their specific capacities ratios were less than one (gpm/ft.). The driller reported that Well #1 (220 ft. deep) penetrated into "hard or broken limestone". The static water level at the completion of the well was 33 ft. below grade. An air test indicated a yield of 5 gpm with an unknown drawdown. The well log also indicated that water quality from this well was good. Well #2 was 100 ft. deep and the static water level was 31 ft. below grade. Its specific capacity was (15-20)gpm/29ft.. Well #3, the closest well to the water storage tank, was only 60 ft. deep and the static water level was 13 ft. below grade. Its specific capacity was 25 gpm/27 ft..

4.0 WELL LOCATIONS

The Thompson's well (Well #7), drilled in the unconsolidated sandy gravel aquifer, was pumped at 500 gpm with only 30 ft. drawdown. The other three wells close to the Thompson's well do not yield as much probably due to their shallow depths. Based on the production of the Thompson's well, potential future well development appears to be good in this area. However, a production well located in this area is not economically feasible because the town wants to use the existing water storage tank, which is about three miles to the northeast. A more economical option is to locate a production well of adequate quantity and quality of water close to the water storage tank.

The yields of the three existing wells (Well #1, 2 and 3 in Figure 1) are not promising. Local geological data indicated that these three wells were drilled in the Tertiary Age Salt Lake Formation (Tsl), which consists of conglomerate, tuff, and sandstone unit (Kariya *et. al.*, 1994) though the driller's well log showed that the

bedrock encountered was "hard or broken limestone". It is shown in **Figure 2** that the Salt Lake Formation or the so-called "limestone" is on the down-thrown plate of a normal fault. It is impossible to judge the porosity and fracturing conditions of the "limestone" with the existing data. We believe that the "limestone" is not quite fractured to conduct water to the wells.

Based on the geological and hydrogeological data available and our evaluation presented in the above section, two alternative well sites were outlined (Well A and Well B in **Figure 1**). Well A is about 800 ft. southeast of the water storage tank in the Right Hand Fork and Well B is about 700 ft. northeast of the water storage tank at the intersection of Georgetown Canyon and the Right Hand Fork. Both well sites are to be located in the potential Mississippian Madison aquifer. The topographic map shows that the Madison limestone aquifer may receive recharge from the mountain areas to the northeast, east and southeast through the Right Hand Fork and Georgetown Canyon. Three faults run through the potential well site area: two southwest dipping normal faults and a west-dipping overthrust fault (**Figure 2**). The Madison limestone in the shear zone is probably more fractured than the Salt Lake formation in which the three existing wells did not yield much water. Furthermore, if the Madison limestone is indeed quite fractured, the recharge from the mountain areas to the limestone aquifer will probably be enhanced by the faults described above. We expect greater potential of water development in the Madison limestone in the fault zone than in the Salt Lake formation. Though both well sites are selected in the potential Madison limestone aquifer, Well A appears to be a better choice than Well B. A mine dump is located about four miles northeast of Well B and at the edge of Georgetown Canyon. There is a potential for the mine dump to serve as a potential contamination source through surface water infiltration. No hydrogeological study of the Georgetown area is available when this report is prepared. We do not know the exact groundwater flow direction in our study area. Based on the topographic data, we expect that groundwater flows in the direction from topographical higher Well A to topographical lower Well B. Therefore, the probability of water contamination at Well A by the mine dump is lower than at Well B.

5.0 WELL DEPTHS, POTENTIAL YIELDS AND WATER QUALITY

5.1 *Well Specific Capacity Estimate*

The success of water development in our study area depends largely on the fracturing conditions in the Madison limestone. As presented, no well drilling records in the Madison limestone of this area have been found. Without any well

log or pumping test data, potential yields can only be estimated based on the local geological/hydrogeological conditions. Hydraulic conductivity K of karst limestone ranges widely from 0.3 to 3000 ft/day (Freeze and Cherry, 1979). It was assumed that hydraulic conductivity of the Madison limestone aquifer of the study area is approximately 3 ft/day. Based on the geologic information described in Section 2.0, the thickness of the Madison limestone aquifer B is assumed to be 200 ft. Because no constant rate pumping test data were available, we used the following empirical formula developed by Farri (1997) to estimate the specific capacity (SC) of the well.

$$T = 0.85 SC^{1.07} \quad (1)$$

Where, T is the transmissivity (m^2/day), and SC is the specific capacity (m^2/day) of the well. Based on the above hydraulic conductivity and aquifer thickness of the Madison limestone, the transmissivity $T (= KB)$ of the aquifer is $56 m^2/day$ (or $600 ft^2/day$). The calculated specific capacity of the well by using equation (1) is about $15.5 m^3/day/ft$ (or $2.8 gpm/ft$). The required drawdown to produce 425 gpm will be approximately 150 ft.

5.2 *Proposed Well Depth*

Based on the static water levels of the existing wells #1, #2 and #3 in Georgetown Canyon, it is expected that the static water levels at the two alternate well sites are approximately 30 ft. below grade. Therefore, we expect both Well A and Well B to have the potential to produce 425 gpm of water if they are drilled to a depth of about 300 ft. in the Madison limestone. The top 100 ft. should be sealed/grouted to prevent surface water influence on the aquifer. The bottom 200 ft. will be perforated to yield groundwater to the wells. Therefore, when the well is pumped at 425 gpm, the drawdown in the well will be around 150 ft., or the water level will be 180 feet below grade. The distance from the top of the aquifer to the water level during pumping is approximately 80 ft, close to one-third of the aquifer thickness.

5.3 *Water Quality*

There is no report of water quality concerns in the Georgetown area. The spring supplying water to the Georgetown water system appears to be of good quality. However, no records of wells drilled in the Madison limestone of this area have

been found when this report is prepared. Water quality data are not available to evaluate the potential water quality issues.

6.0 RELATIONSHIP OF THE PROPOSED WELL AND THE EXISTING SPRING

As stated in Section 1.0, the Georgetown water supply system is currently supplied by a spring located approximately four miles northeast of the town in the Right Hand Fork Canyon (Figure 1). Production of the spring is approximately 1200 gpm. Georgetown plans to redevelop the spring to prevent surface water influence, if any, and increase its production. The proposed well is a supplementary well and will be used to supply water to the town during the redevelopment of the spring. In the future, the well will be used as a backup water resource for the spring. The well will be used only when the spring is not in use. Therefore, after the well is completed, no additional groundwater will be tapped from the regional groundwater system. We believe that Georgetown does not need additional water rights for construction of the proposed well because:

- a. The spring is located approximately one mile up-gradient of the proposed well site. During the redevelopment of the spring, water from the spring (1200 gpm) will not be tapped and be discharged to the Right Hand Fork. Therefore, the aquifer located down-gradient of the spring and up-gradient of the proposed well site will be recharged by the spring water and the Right Hand Fork.
- b. Only a portion of the water discharged from the spring, when it is not in use, will be withdrawn from the proposed well (the proposed maximum pumping rate will be 425 gpm), the majority of the water will be discharged to the regional groundwater system down-gradient of the proposed well site. Therefore, the well will not reduce the groundwater storage of the regional aquifer down-gradient of the well.
- c. Groundwater in the close vicinity of the proposed well will be affected locally and it is expected to be small because the projected maximum production is approximately one-third of the spring production.
- d. In general, when the proposed well is in use while the spring is not in operation, the groundwater storage of the regional aquifer down-gradient of the proposed well site will increase by approximately 800 gpm.

7.0 TEST WELL VERSUS PRODUCTION

A test well program is proposed to reduce the large risk and costs associated with installing a large diameter production well. While this phased approach will

ultimately cost more if the project progresses to installing a large capacity production well capable of producing 425 gpm, there are opportunities to save costs by abandoning sites which have low apparent production potential based on the geologic data collected during the small diameter borehole exploratory drilling program. We recommend the installation of two 6-inch test wells at the depths previously noted (**Figure 1**) and conducting aquifer pump tests to verify the aquifer transmissivity and yield.

8.0 LIMITATIONS

The services provided on this project, as described in this report, include professional opinions and judgments based on the data collected and analyzed. We performed these services according to currently accepted water resources engineering principles and practices conducted in this area at this time.

No test wells have been drilled nor have aquifer pump tests been performed. The following information was used to derive our calculations and arrive at our conclusions:

1. Data from previous investigations.
2. Data from available published literature.
3. Our knowledge of and experience in the local area.

The report does not provide a warranty as to variable subsurface conditions that may actually exist. This report does not apply to the areas outside of the study zone. In addition, evaluation of geologic and hydrogeologic conditions is a difficult task. Engineers and hydrogeologists must occasionally make general judgments leading to conclusions with incomplete knowledge of the geologic history, subsurface conditions and hydraulic characteristics present. More extensive studies including subsurface exploration may be necessary to reduce the inherent risk associated with evaluating water resources.

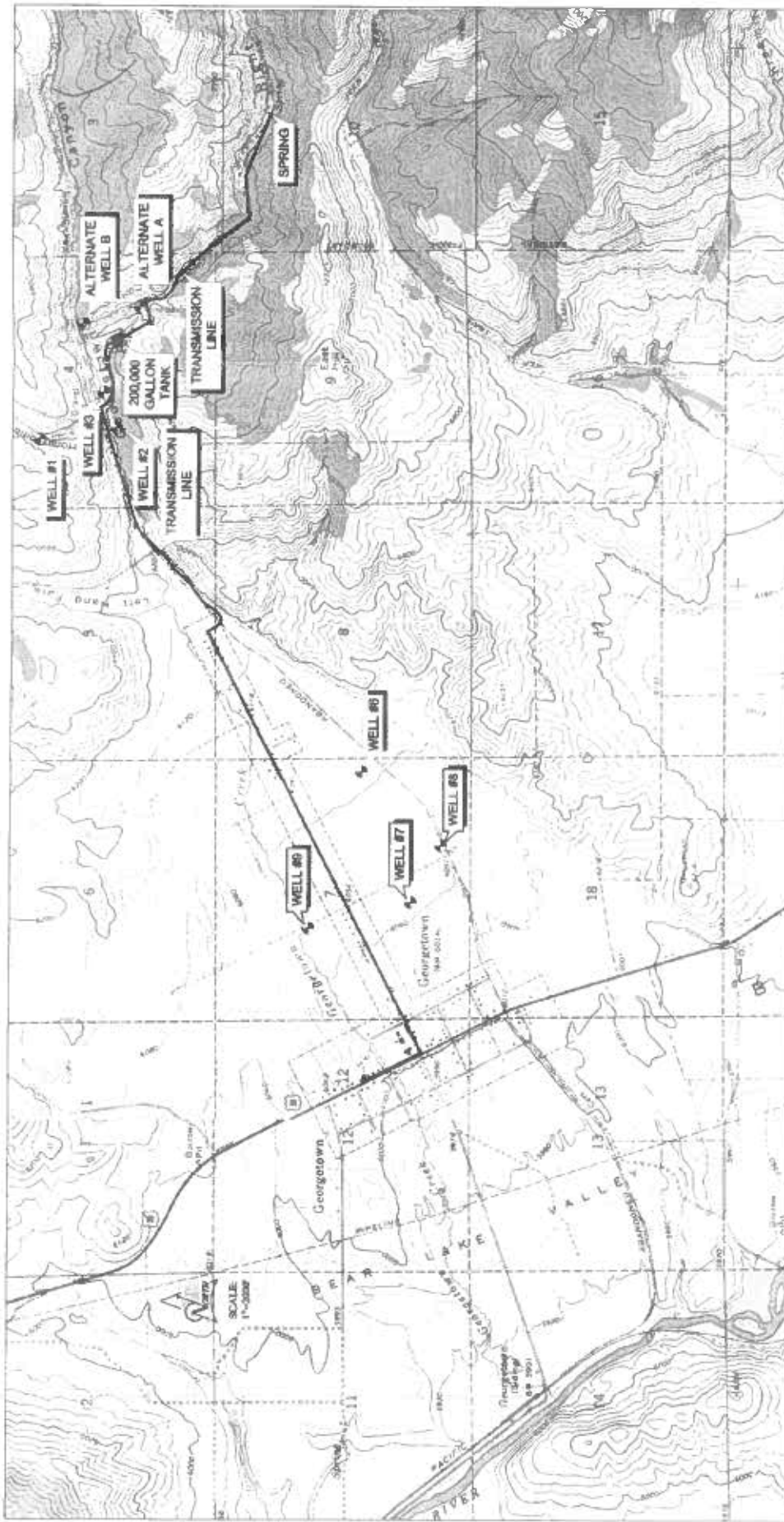
9.0 REFERENCES

- Armstrong F.C. and E.R. Cressman 1963. The Bannock thrust Zone, Southeastern Idaho. Geological Survey Professional Paper 374-J.
- Kariya K.A. *et. al.* 1994. Hydrology of Cache Valley, Cache county, Utah, and Adjacent Part of Idaho, with Emphasis on Simulation of Ground-Water Flow. U.S. Geological Survey.

Georgetown
Hydrogeologic Assessment/Well Siting Study
Sunrise Project No. E8070.06

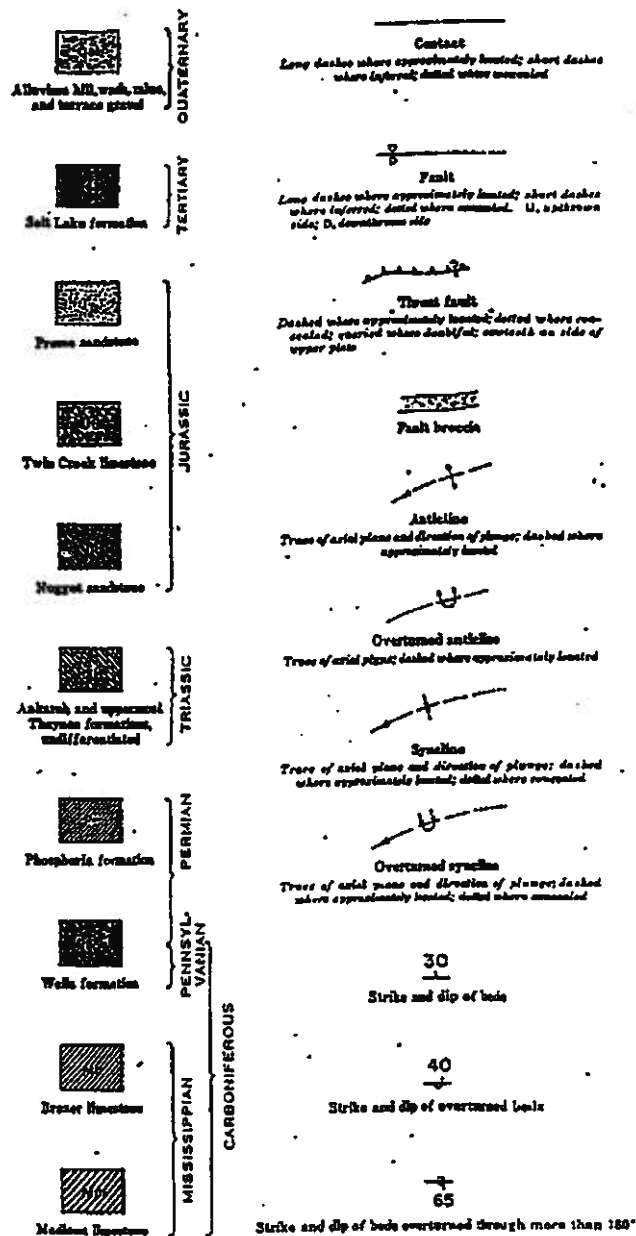
Freeze R.A. and J.A. Cherry 1979. Groundwater. Prentice-Hall, Inc.

Farri, Paolo, 1997. Transmissivity in the Geothermal Euganean Basin: A Geostatistical Analysis. Journal of Ground Water, September-October, Vol. 35.



REVISIONS	SUNRISE ENGINEERING, INC. CONSULTING ENGINEERS & LAND SURVEYORS 12221 So. Independence Ave. Dr., Suite 120, Bldg. 10, Dallas, TX 75244  GEORGETOWN WATER SOURCE STUDY FIGURE 1. AREA MAP <table><tr><th>SLA</th><th>EUS</th><th>PGE</th></tr><tr><td>10-31-98</td><td>2.2.1</td><td>1 OF 1</td></tr></table>	SLA	EUS	PGE	10-31-98	2.2.1	1 OF 1
SLA	EUS	PGE					
10-31-98	2.2.1	1 OF 1					

EXPLANATION



Source: Geological Survey Professional Paper 374-J, 1963

FIGURE 2(B). GEOLOGY IN THE VICINITY OF THE POTENTIAL WELL SITES

Georgetown Well Siting
Georgetown, Idaho

Sunrise Project No.
EB070.06

Date: March 24, 1999

Draw by: ZZ

Scale: 1 inch = 0.5 miles



APPENDIX - DRILLER'S WELL LOGS

2-23-1999 9:26AM

FROM SUNRISE ENGINEERING 307 885 8501

P. 2

99-02-23 08:17 WILTON, IED INC.

P. 1

Well #1

Form 22M
4/82STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORTUSE TYPEWRITER OR
BALLPOINT PENState 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 C. Ford Kellen
Address 1780 W. Quince #152
Drilling Permit No. 11-986-013
Water Right Permit No. _____

7. WATER LEVEL

Static water level 33 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature 50 °F Quality Good
Describe quality or treatment of water supply _____

2. NATURE OF WORK

- ☒
- New well
- ☐
- Deepened
- ☐
- Replacement
-
- ☐
- Well diameter increase
- ☐
- Modification
-
- ☐
- Abandoned (describe abandonment or modification procedure
-
- such as grout, screen, materials, plug depth, etc. in Remarks
-
- log, section 8.)

8. WELL TEST DATA

☐ Pump ☐ Sucker ☒ Air ☐ Other _____

Discharge G.P.M.	Discharge Head	Static Pressure
<u>5</u>		

3. PROPOSED USE

- ☒
- Domestic
- ☐
- Irrigation
- ☐
- Monitor
-
- ☐
- Industrial
- ☐
- Stock
- ☐
- Water Disposal or Injection
-
- ☐
- Other _____ (Specify type)

4. METHOD DRILLED

- ☒
- Rotary
- ☒
- Air
- ☐
- Auger
- ☐
- Reverse rotary
-
- ☐
- Cable
- ☐
- Mud
- ☐
- Other _____
-
- (Specify type, hydraulic, etc.)

5. WELL CONSTRUCTION

Casing schedule: ☐ Steel ☐ Concrete ☐ Other _____

Thickness	Depth	From	To
<u>1.10</u> inches	<u>5</u> inches	<u>1</u> foot	<u>1.5</u> feet
<u>1.50</u> inches	<u>1</u> inches	<u>1</u> foot	<u>1.50</u> feet
_____ inches	_____ inches	_____ feet	_____ feet

Was casing drive shoe used? ☐ Yes ☒ NoWas a packer or seal used? ☐ Yes ☒ NoPerforated? ☐ Yes ☒ NoHow perforated? ☐ Percussive ☐ Knife ☐ Rock ☐ GunSize of perforation? 7/16 inches by 12 inches

Number _____

2.0 perforations 10.0 feet 10.0 feet1.0 perforations 1.0 feet 1.0 feet

_____ perforations _____ feet _____ feet

Was screen installed? ☐ Yes ☒ No

Manufacturer _____ Type _____

Top Packer or Hydraulic _____

Bottom of Telepipe _____

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 _____ Material used in seal: ☐ Cement grout☒ Bentonite ☐ Pudding clay ☐ _____Sealing procedure used: ☐ Slurry air☒ Surface casing ☐ Overbore to seal depthMethod of joining casing: ☐ Threaded ☒ Welded

Describe access port Plug in case

6. LITHOLOGIC LOG

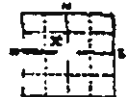
Depth	From	To	Material	Notes
<u>0</u>	<u>1.9</u>	<u>1.9</u>	<u>Consolidated Gravel</u>	<u>X</u>
<u>1.9</u>	<u>2.9</u>	<u>2.9</u>	<u>"</u>	<u>X</u>
<u>2.9</u>	<u>3.0</u>	<u>3.0</u>	<u>Porosity Gravel and</u>	<u>X</u>
<u>3.0</u>	<u>3.3</u>	<u>3.3</u>	<u>Consolidated Gravel</u>	<u>X</u>
<u>3.3</u>	<u>3.5</u>	<u>3.5</u>	<u>Random</u>	<u>X</u>
<u>3.5</u>	<u>3.7</u>	<u>3.7</u>	<u>Hard Limestone</u>	<u>X</u>
<u>3.7</u>	<u>3.8</u>	<u>3.8</u>	<u>"</u>	<u>X</u>
<u>3.8</u>	<u>3.9</u>	<u>3.9</u>	<u>"</u>	<u>X</u>
<u>3.9</u>	<u>4.0</u>	<u>4.0</u>	<u>Random</u>	<u>X</u>
<u>4.0</u>	<u>4.1</u>	<u>4.1</u>	<u>"</u>	<u>X</u>
<u>4.1</u>	<u>4.2</u>	<u>4.2</u>	<u>"</u>	<u>X</u>
<u>4.2</u>	<u>4.3</u>	<u>4.3</u>	<u>"</u>	<u>X</u>
<u>4.3</u>	<u>4.4</u>	<u>4.4</u>	<u>"</u>	<u>X</u>
<u>4.4</u>	<u>4.5</u>	<u>4.5</u>	<u>"</u>	<u>X</u>
<u>4.5</u>	<u>4.6</u>	<u>4.6</u>	<u>"</u>	<u>X</u>
<u>4.6</u>	<u>4.7</u>	<u>4.7</u>	<u>"</u>	<u>X</u>
<u>4.7</u>	<u>4.8</u>	<u>4.8</u>	<u>"</u>	<u>X</u>
<u>4.8</u>	<u>4.9</u>	<u>4.9</u>	<u>"</u>	<u>X</u>
<u>4.9</u>	<u>5.0</u>	<u>5.0</u>	<u>"</u>	<u>X</u>
<u>5.0</u>	<u>5.1</u>	<u>5.1</u>	<u>"</u>	<u>X</u>
<u>5.1</u>	<u>5.2</u>	<u>5.2</u>	<u>"</u>	<u>X</u>
<u>5.2</u>	<u>5.3</u>	<u>5.3</u>	<u>"</u>	<u>X</u>
<u>5.3</u>	<u>5.4</u>	<u>5.4</u>	<u>"</u>	<u>X</u>
<u>5.4</u>	<u>5.5</u>	<u>5.5</u>	<u>"</u>	<u>X</u>
<u>5.5</u>	<u>5.6</u>	<u>5.6</u>	<u>"</u>	<u>X</u>
<u>5.6</u>	<u>5.7</u>	<u>5.7</u>	<u>"</u>	<u>X</u>
<u>5.7</u>	<u>5.8</u>	<u>5.8</u>	<u>"</u>	<u>X</u>
<u>5.8</u>	<u>5.9</u>	<u>5.9</u>	<u>"</u>	<u>X</u>
<u>5.9</u>	<u>6.0</u>	<u>6.0</u>	<u>"</u>	<u>X</u>
<u>6.0</u>	<u>6.1</u>	<u>6.1</u>	<u>"</u>	<u>X</u>
<u>6.1</u>	<u>6.2</u>	<u>6.2</u>	<u>"</u>	<u>X</u>
<u>6.2</u>	<u>6.3</u>	<u>6.3</u>	<u>"</u>	<u>X</u>
<u>6.3</u>	<u>6.4</u>	<u>6.4</u>	<u>"</u>	<u>X</u>
<u>6.4</u>	<u>6.5</u>	<u>6.5</u>	<u>"</u>	<u>X</u>
<u>6.5</u>	<u>6.6</u>	<u>6.6</u>	<u>"</u>	<u>X</u>
<u>6.6</u>	<u>6.7</u>	<u>6.7</u>	<u>"</u>	<u>X</u>
<u>6.7</u>	<u>6.8</u>	<u>6.8</u>	<u>"</u>	<u>X</u>
<u>6.8</u>	<u>6.9</u>	<u>6.9</u>	<u>"</u>	<u>X</u>
<u>6.9</u>	<u>7.0</u>	<u>7.0</u>	<u>"</u>	<u>X</u>
<u>7.0</u>	<u>7.1</u>	<u>7.1</u>	<u>"</u>	<u>X</u>
<u>7.1</u>	<u>7.2</u>	<u>7.2</u>	<u>"</u>	<u>X</u>
<u>7.2</u>	<u>7.3</u>	<u>7.3</u>	<u>"</u>	<u>X</u>
<u>7.3</u>	<u>7.4</u>	<u>7.4</u>	<u>"</u>	<u>X</u>
<u>7.4</u>	<u>7.5</u>	<u>7.5</u>	<u>"</u>	<u>X</u>
<u>7.5</u>	<u>7.6</u>	<u>7.6</u>	<u>"</u>	<u>X</u>
<u>7.6</u>	<u>7.7</u>	<u>7.7</u>	<u>"</u>	<u>X</u>
<u>7.7</u>	<u>7.8</u>	<u>7.8</u>	<u>"</u>	<u>X</u>
<u>7.8</u>	<u>7.9</u>	<u>7.9</u>	<u>"</u>	<u>X</u>
<u>7.9</u>	<u>8.0</u>	<u>8.0</u>	<u>"</u>	<u>X</u>
<u>8.0</u>	<u>8.1</u>	<u>8.1</u>	<u>"</u>	<u>X</u>
<u>8.1</u>	<u>8.2</u>	<u>8.2</u>	<u>"</u>	<u>X</u>
<u>8.2</u>	<u>8.3</u>	<u>8.3</u>	<u>"</u>	<u>X</u>
<u>8.3</u>	<u>8.4</u>	<u>8.4</u>	<u>"</u>	<u>X</u>
<u>8.4</u>	<u>8.5</u>	<u>8.5</u>	<u>"</u>	<u>X</u>
<u>8.5</u>	<u>8.6</u>	<u>8.6</u>	<u>"</u>	<u>X</u>
<u>8.6</u>	<u>8.7</u>	<u>8.7</u>	<u>"</u>	<u>X</u>
<u>8.7</u>	<u>8.8</u>	<u>8.8</u>	<u>"</u>	<u>X</u>
<u>8.8</u>	<u>8.9</u>	<u>8.9</u>	<u>"</u>	<u>X</u>
<u>8.9</u>	<u>9.0</u>	<u>9.0</u>	<u>"</u>	<u>X</u>
<u>9.0</u>	<u>9.1</u>	<u>9.1</u>	<u>"</u>	<u>X</u>
<u>9.1</u>	<u>9.2</u>	<u>9.2</u>	<u>"</u>	<u>X</u>
<u>9.2</u>	<u>9.3</u>	<u>9.3</u>	<u>"</u>	<u>X</u>
<u>9.3</u>	<u>9.4</u>	<u>9.4</u>	<u>"</u>	<u>X</u>
<u>9.4</u>	<u>9.5</u>	<u>9.5</u>	<u>"</u>	<u>X</u>
<u>9.5</u>	<u>9.6</u>	<u>9.6</u>	<u>"</u>	<u>X</u>
<u>9.6</u>	<u>9.7</u>	<u>9.7</u>	<u>"</u>	<u>X</u>
<u>9.7</u>	<u>9.8</u>	<u>9.8</u>	<u>"</u>	<u>X</u>
<u>9.8</u>	<u>9.9</u>	<u>9.9</u>	<u>"</u>	<u>X</u>
<u>9.9</u>	<u>10.0</u>	<u>10.0</u>	<u>"</u>	<u>X</u>

No

Work started 7-24-73 finished 7-29-73

9. LOCATION OF WELL

Sketch map location must agree with written location.



Subdivision Name _____

Lot No. _____ Block No. _____

County _____

Address of Well Site Quince Ave. El. 8.520

(Give to nearest corner of block)

S.E. 1/4 N.W. 1/4 Sec. 4 T. 11 N. ☐ or S. ☐R. 44 E. ☐ or W. ☐

10. DRILLER'S CERTIFICATION

I/We certify that all minimum well construction standards were
complied with at the time the rig was removed.First Name Nelson Firm No. 115Address Solo Springs St. 8.5.73Signed by Drilling Supervisor Kay Nelson

and _____

(Operator) Walter D.

(If different than the Drilling Supervisor)

'99-02-23 08:18 WALTON, INC.

P.2

Form 238-7
2/95IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT
Use Typewriter or Ballpoint Pen

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

Well #2

1. DRILLING PERMIT NO.

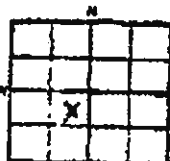
Other IDWR No. Tag 4141

2. OWNER:

Name Cracknell David R.Address PO Box 58City Georgetown State Id Zip 83239

3. LOCATION OF WELL by legal description:

Sketch map location (must agree with written location).



Twp. 11 North ☐ or South ☐
Rge. 44 East ☐ or West ☐
Sec. 4 NE ☐ SE ☐ SW ☐ NW ☐
Govt Lot _____ County Bear Lake
Lat _____ Long _____

Address of Well Site GeorgetownCity Georgetown

Driller 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		METHOD
Material	From	To	Depth	Notes	
BENTONITE CHIP	0	20	45016	ore hole	

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

8. CASING/LINER:

Casing	From	To	Depth	Material	Casing	Liner	Weight	Threading
6"	0	20	120	5700	6"	6"	6"	6"
6"	11	90	"	"	6"	6"	6"	6"

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method Down Hole
☐ Screens Screen Type _____

From	To	Set Size	Number	Depth	Material	Casing	Liner
60	90	30	30			6"	6"

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

31 ft. below ground Artesian pressure _____ ft.Depth flow encountered _____ ft. Describe access port or control devices: Plug and cap

11. WELL TESTS:

☐ Pump ☐ Sailer

Test Station	Flow Rate	Pressure	Time
15220	60	3 hrs.	

Water Temp. 52°Bottom Hole Temp. 52°

Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Depth	Remarks: Lithology, Water Quality & Temperature	Y	N
15220	Overburden		X
15220	Broken 15'		
15220	" "		
15220	Hard "		
15220	Broken "		
15220	Hard "		
15220	Broken " 4 GPM	Y	
15220	Hard "		
15220	Broken " 12 GPM	X	

Completed Depth 100 (Measurable)
Date Started 11-6-97 Completed 11-6-97

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 Nelson Drilling Inc. Firm No. 315Firm Officer Ray Nelson Date 11-11-97Supervisor or Operator Shelby C. C. Date 11-11-97

(Sign only if Firm Officer & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Well #

FORWARD WHITE COPY TO WATER RESOURCES

3-01-1999 8:28AM

FROM SUNRISE ENGINEERING 307 885 8501

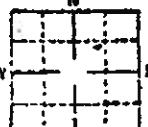
P. 2

SEP-01-98 TUE 08:07 AM

P. 02

Well #4

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 <u>Town of Bennington</u> <u>26 E. 2nd N.</u> Address <u>Bennington, Montpelier, Idaho 83254</u> <u>11-69-5-022</u> Owner's Permit No. <u>11-07377</u>	7. WATER LEVEL Static water level <u>dry</u> <u>101</u> 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 _____ <i>Give date and time of temperature reading below.</i>																															
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as milling, plug depths, etc. in lithologic log)	8. WELL TEST DATA ☐ Pump ☐ Boiler ☐ Air ☐ Other _____ <table border="1"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td></tr> </tbody> </table>	Discharge G.P.M.	Pumping Level	Hours Pumped																												
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4. METHOD DRILLED ☒ Rotary ☐ Air ☐ Hydraulic ☐ Reverse rotary ☐ Cable ☐ Dug ☐ Other _____																																
5. WELL CONSTRUCTION Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____ Thickness _____ inches Diameter _____ inches From _____ feet To _____ feet 250 _____ inches _____ inches _____ feet _____ feet _____ inches _____ inches _____ feet _____ feet _____ inches _____ inches _____ feet _____ feet Was casing drive shoe used? ☒ Yes ☐ No Was a necker or seal used? ☐ Yes ☒ No Forcortaged? ☐ 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 _____ Shot size _____ Set from _____ feet to _____ feet Diameter _____ Shot size _____ Set from _____ feet to _____ feet Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____ Placed from _____ feet to _____ feet Surface seal depth <u>20'</u> Material used in seal: ☐ Cement grout ☒ Bentonite ☐ Puddling clay ☐ _____ Sealing procedure used: ☐ Shurry pit ☐ Temp. surface casing ☐ Overbore to seal depth Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent ☐ Weld ☐ Cemented between struts Describe access port _____ <u>Well Cap</u>	 RECEIVED DEC 28 1998 DIRECTOR OF WATER RESOURCES IDAHO DEPARTMENT OF WATER RESOURCES  RECEIVED MAR 28 1999 IDAHO DEPARTMENT OF WATER RESOURCES																															
6. LOCATION OF WELL Sketch map location must agree with written location.  Subdivision Name _____ Lot No. _____ Block No. _____ County _____ State _____ Lake _____ T. 12 S. 36 E. R. 16 S. 36 E.	10. DRILLERS CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name <u>Andrew Well Drilling</u> Firm No. <u>5</u> Address <u>1260 E. 17th Street</u> Date <u>10/24/89</u> <u>Idaho Falls Idaho 83404</u> Signed by (Firm Official) <u>James H. Hays</u> and (Operator) <u>Opel Hays</u>																															

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

3-01-1999 8:29AM

FROM SUNRISE ENGINEERING 307 885 8501

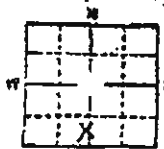
P. 3

SEP-01-88 TUE 09:08 AM

P. 03

Well #5

The 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 <u>Bert Westlake</u> Address <u>Rt. # 2 223 E. Center Hennington</u> <u>Montpelier, Ida. 83254</u> Owner's Permit No. <u>11-89-E010</u>		7. WATER LEVEL Static water level <u>70</u> feet below land surface. Flowing? ☐ Yes ☒ No G.P.M. flow _____ American closed-in structure _____ a.s.l. Controlled by: ☐ Valve ☐ Cap ☐ Plug Temperature _____ °F. Quality <u>GOOD</u> Describe condition or composition of water below																																																																							
2. NATURE OF WORK ☒ New well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		8. WELL TEST DATA ☐ Pump ☐ Saker ☒ Air ☐ Other _____ <table border="1"> <thead> <tr> <th>Discharge G.P.M.</th> <th>Pumping Level</th> <th>Hours Pumped</th> </tr> </thead> <tbody> <tr> <td>60</td> <td>120'</td> <td>3</td> </tr> </tbody> </table>		Discharge G.P.M.	Pumping Level	Hours Pumped	60	120'	3																																																																
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6. LOCATION OF WELL Sketch: map location must agree with written location.  Subdivision Name _____ Lot No. _____ Block No. _____ County <u>BOISE</u> SE <u>2</u> SW <u>9</u> T. <u>12</u> N. R. <u>44</u> E. <u>4</u>		USE ADDITIONAL SHEETS IF NECESSARY - FORWARD THE WHITE COPY TO THE DEPARTMENT																																																																							

RECEIVED

JUL 11 1989

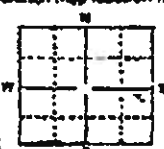
Department of Water Resources
Boise District Office

SEP-01-98 TUE 08:10 AM

P.08

Well #6

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 <u>G.A. SINS</u> Address <u>Gorge town</u> Owner's permit No. _____	7. WATER LEVEL Static water level <u>50</u> feet below land surface Flowing? ☐ Yes ☒ No S.P.M. flow _____ Temperature _____ ° F. Quality _____ Arterial noted in pressure _____ P.S.I. Controlled by ☐ Valve ☐ Cap ☐ Plug																																				
2. NATURE OF WORK Re-flow well? ☐ Deepened ☐ Replacement Abandoned (describe method of abandonment) _____	8. WELL TEST DATA <u>P.A. test</u> 1) Pump 2) Sailer 3) Other _____ Discharge G.P.M. _____ On _____ Flow Pressure _____ <u>5-15</u> _____ <u>1</u>																																				
3. PROPOSED USE ☒ Domestic ☐ Irrigation ☐ Test ☐ Other (specify type) _____ ☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection	9. LITHOLOGIC LOG <table border="1"> <thead> <tr> <th>Depth</th> <th>From</th> <th>To</th> <th>Material</th> <th>Water</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>5</td> <td>CLAY BROWN</td> <td>1</td> </tr> <tr> <td>5</td> <td>5</td> <td>20</td> <td>SAND GRAY</td> <td>1</td> </tr> <tr> <td>20</td> <td>20</td> <td>35</td> <td>CLAY BROWN</td> <td>1</td> </tr> <tr> <td>35</td> <td>35</td> <td>45</td> <td>CLAY BROWN</td> <td>1</td> </tr> <tr> <td>45</td> <td>45</td> <td>65</td> <td>Gravel</td> <td>1</td> </tr> </tbody> </table>	Depth	From	To	Material	Water	0	0	5	CLAY BROWN	1	5	5	20	SAND GRAY	1	20	20	35	CLAY BROWN	1	35	35	45	CLAY BROWN	1	45	45	65	Gravel	1						
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45	45	65	Gravel	1																																	
4. METHOD DRILLED 1) Cable ☐ 2) Rotary ☒ 3) Dry ☐ 4) Other _____																																					
5. WELL CONSTRUCTION Diameter of hole <u>6</u> inches Total depth <u>65</u> feet (Casing schedule: ☐ Steel ☒ Concrete) <table border="1"> <thead> <tr> <th>Thickness</th> <th>Diameter</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td><u>280</u> inches</td> <td><u>6</u> inches</td> <td><u>1</u> foot</td> <td><u>65</u> feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ inches</td> <td>_____ inches</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> Was casing drive shoe used? ☒ Yes ☐ No Was a pecker or seal used? ☐ Yes ☒ No Perforated? ☐ Yes ☒ No How perforated? ☐ Factory ☐ Knife ☐ Torch Size of perforation _____ inches by _____ inches <table border="1"> <thead> <tr> <th>Number</th> <th>From</th> <th>To</th> </tr> </thead> <tbody> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> <tr> <td>_____ perforations</td> <td>_____ feet</td> <td>_____ feet</td> </tr> </tbody> </table> 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 <u>20</u> Material used in seal ☒ Cement grout ☐ Pudding clay ☐ Wall casing Sealing procedure used ☐ Slurry pit ☐ Temporary surface casing ☒ Overbore to seal depth	Thickness	Diameter	From	To	<u>280</u> inches	<u>6</u> inches	<u>1</u> foot	<u>65</u> feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	_____ inches	_____ inches	_____ feet	_____ feet	Number	From	To	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	_____ perforations	_____ feet	_____ feet	
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_____ perforations	_____ feet	_____ feet																																			
6. LOCATION OF WELL Sketch map location must agree with written location  Subdivision Name _____ Lot No. _____ Block No. _____ County <u>BRAZOS</u> <u>Lake</u> <u>R.P. N. 5E. 4 Sec. 7 T. 11 N. R. 4E. E. 1</u>	10. Work started <u>12-1-74</u> finished <u>12-1-78</u> 11. WELLER'S CERTIFICATION I, <u>James L. Lister</u> , certify that the well shown on this report was drilled and completed in accordance with the rules and regulations of the State of Texas. Signed by (print name) <u>James L. Lister</u> and _____ Capacity _____																																				

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

3-01-1999 8:31AM

FROM SUNRISE ENGINEERING 307 885 8501

P. 7

SEP-01-98 TUE 08:10 AM

P. 07

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

Well #7

WELL OWNER:

Name A. M. ThompsonAddress GEORGETOWN LAKEOwner's Permit No. G. 2. 3. 47NATURE OF WORK (check): Replacement well ☐New well ☒ Deepened ☐ Abandoned ☐Water is to be used for: IRRIGATION FARMMETHOD OF CONSTRUCTION: Rotary ☐ Cable ☒Dug ☐ Other ☐CASING SCHEDULE: (explain) Threaded ☐ Welded ☐

10 "Diam. from 0 ft. to 231 ft.

"Diam. from ft. to ft.

"Diam. from ft. to ft.

"Diam. from ft. to ft.

Thickness of casing: 1/2" Material:Steel ☒ concrete ☐ wood ☐ other ☐PERFORATED? Yes ☒ No ☐ Type of perforator used: TeachSize of perforations: 6" by 1/2"424 perforations from 67 ft. to 231 ft.

perforations from ft. to ft.

perforations from ft. to ft.

perforations from ft. to ft.

WAS SCREEN INSTALLED? Yes ☐ No ☒

Manufacturer's name

Type Model No.

Diam. Slot size Set from ft. to ft.

Diam. Slot size Set from ft. to ft.

CONSTRUCTION: Well gravel packed? Yes ☐No ☐ size of gravel Gravel

placed from ft. to ft. Surface seal

provided? Yes ☐ No ☐ To what depth?

ft. Material used in seal:

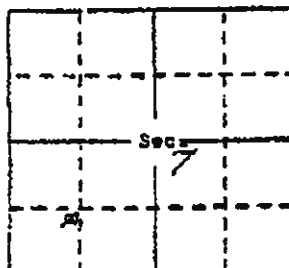
Did any strata contain unusable water? Yes ☐No ☒ Type of water:

Depth of strata ft. Method of sealing

strata off:

Surface casing used? Yes ☐ No ☒Cemented in place? Yes ☐ No ☐

Locate well in section



LOCATION OF WELL: County SW & NW Sec. 7 T. 11 R. 4E

Use other side for additional remarks

Size of drilled hole: 10" Totaldepth of well: 231 Standing waterLevel below ground: 231 Temp. 50.0Fahr. 500 Test delivery: 500 gpmor 1/2 cfs Pump? ☒ Ball ☐

Size of pump and motor used to make test:

1/2 THANE 90 SETTING 200 HP MOTORLength of time of test: 6 Hrs. 15 Min.Drawdown: 30 ft. Artesian pressure: ft.above land surface Give flow 0 cfsor 0 gpd. Shutoff pressure:Controlled by: Valve ☐ Cap ☐ Plug ☐No control ☐ Does well leak around casing?Yes ☐ No ☐

DEPTH MATERIAL WATER

FROM TO YES OR NO

FEET FEET

0 2 TOP 3/4" BLOCK2 18 GRAVEL BOUNDRY CLAY18 28 "28 36 "36 46 "46 57 GRAVEL CLAY BOUNDRY57 61 "61 69 "69 91 "91 99 "99 111 SAND GRAVEL111 113 "113 119 "119 122 "122 126 "126 130 "130 133 "133 142 "142 145 "145 151 "151 163 "163 169 "169 180 "180 185 "185 187 "187 187 "187 228 GRAVEL & BOUNDRY228 231 CLAYWork started: APR 9 1965Work finished: MAY 10 1965

Well Driller's Statement: This well was

drilled under my supervision and this report

is true to the best of my knowledge.

Name: HART WEST LAKEAddress: BENNINGTON LAKESigned by: HartLicense No. 11111 Date: OCT 17 1967

SEP-01-98 TUE 08:11 AM

P. 08

Well #8

Form 238-7

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Office Use Only			
Inspected by			
Typ	Page	Sec	
1/4	1/4	1/4	
Lat	Long		

1. DRILLING PERMIT NO. 11-96-E-008-000

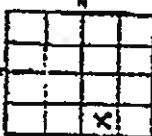
Other IDWR No.

2. OWNER:

 Name John M. Donald
 Address P.O. Box 103
 City Georgetown State Idaho Zip 83439

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.


 Twp. 11 North ☐ or South ☒
 Rge. 44 East ☐ or West ☒
 Sec. 7 1/4 SW 1/4 SE 1/4
 Govt Lot _____ County _____
 Lat _____ Long _____
Address of Well Site 1/2 mile landCity Georgetown

L. _____ B. _____ 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			AMOUNT	METHOD
Shells	From	To	Shells or Gravel	
Bentonite Unit 2			19 350 lbs	over hole

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

8. CASING/LINER:

Depth	From	To	Material	Casing	Line	Notes	Remarks
1	0	19	2 1/2" Steel	2 1/2"	19		
2	19	99	6"	6"	99		

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

☒ Perforations Method PERFORATOR Over Hole☐ Screens Screen Type _____

From	To	Start Date	Number	Duration	Material	Casing	Line
80	100	8-13-96	30				

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

2.5 ft. below ground Artesian pressure _____ lb.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Baller

Tested Area	Duration	Pumping Level	Flow
35		90'	3600

Water Temp. 50° Bottom hole temp. 50°

Water Quality Test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment) _____

Depth	From	To	Remarks: Lithology, Water Quality & Temperature	Notes
11	0	2	OVERBURDEN	X
12	2	13	Gravel + clay	
13	13	19	clay	
14	19	92	clay + gravel	
15	92	100	Gravel	X

RECEIVED

AUG 28 1996

Department of Water Resources

RECEIVED

AUG 13 1996

Department of Water Resources
Eastern Region
 Complete Depth 100 (ft)
 Date Started 8-6-96 Completed 8-7-96

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 Nelson Drilling Inc. Firm No. 215Firm Official Ray Nelson Date 8-10-96
 and
 Supervisor or Operator J. H. H. H. Date 8-10-96
 (Sign only if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES