

Planning and Zoning Commission Hearing Date: December 19, 2024 Canyon County Development Services Department

# PLANNING DIVISION STAFF REPORT

CASE NUMER:	RZ2021-0053
APPLICANT/REPRESENTATIVE:	MASON AND ASSOCIATES, INC
PROPERTY OWNER:	Thornton Gallup LLC
APPLICATION:	Rezone
LOCATION:	14180 Gadsden Ln., Caldwell Also referenced as a portion of the NE ¼ of Section 3, T4N, R3W, BM, Canyon County, Idaho. Parcel R34479 (31.39 acres)
ANALYST:	Michelle Barron, Principal Planner
REVIEWED BY:	Carl Anderson, AICP, Planning Supervisor

#### **REQUEST:**

The applicant, Will Mason, Mason & Associates, Inc., representing Thornton Gallup, LLC, requests an amendment to the official zoning map in order to rezone the property from Agricultural "A" to Single Family Residential "R1".

PUBLIC NOTIFICATION:	
Neighborhood meeting conducted on:	May 5, 2021
JEPA notice sent on:	July 31, 2023
Agency and Full Political notice:	November 19, 2024
Neighbor notification within 600 feet mailed on:	November 19, 2024
Newspaper notice published on:	November 19, 2024
Notice posted on site on:	November 19, 2024

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#### 1. BACKGROUND:

The parcel was created by an administrative land division in 1994 (LS2004-139).

Case #: RZ2021-0053 – THORNTON GALLUP, LLC Hearing Date: December 19, 2024 The application was originally submitted under Pioneer Homes. At the end of 2021, the application was amended to the current applicant, Thornton Gallup, LLC. The property is currently located within the Agricultural zone, with a 2020 and 2030 future land use of Residential. The land owner applied under the 2020 Comprehensive Plan.

The applicant is applying for a Rezone without conditions but has provided a concept plan for a future subdivision with 23 residential lots and public roads. **(Exhibit A3)** 

The applicant has had a Phase One Environmental Assessment completed (Exhibit A5.2 and A5.7b), as well as a NP1 study since the parcel is in a Nitrate Priority area. (Exhibit A5.1) The applicant has also provided resources regarding ground water analysis in the area. (Exhibit 5.3) In response to neighbor concerns regarding endangered species, the applicant reached out to the United States Fish and Wildlife Services and provided information on endangered species. (Exhibit 5.5)

During their review, the Highway District No. 4 discovered that parcel number R34482012 was owned by Canyon County and is in the way of an access for the proposed development. More information is provided in the analysis section of Table 3 criteria 07-07-05(1)F below.

In 2024, the land owner of parcel R34480010 applied for a private road through this parcel to be able to obtain a building permit. In the future plan for the development, this road will become a public road to serve the development.

#### 2. HEARING BODY ACTION:

Pursuant to Canyon County Ordinance Article 07-06-01 (3) requests for comprehensive plan changes and ordinance amendments may be consolidated for notice and hearing purposes. Although these procedures can be considered in tandem, pursuant to Idaho Code section 67-6511(b), the commission, and subsequently the board, shall deliberate first on the proposed amendment to the comprehensive plan; then, once the commission, and subsequently the board, has made that determination, the commission, and the board, should decide the appropriateness of a rezone within that area. This procedure provides that the commission, and subsequently the board, considers the overall development scheme of the county prior to consideration of individual requests for amendments to zoning ordinances. The commission, and subsequently the board, should make clear which of its findings relate to the proposed amendment to the comprehensive plan and which of its findings relate to the request for an amendment to the zoning ordinance.

Pursuant to Canyon County Ordinance Article 07-06-01 (4)B if an amendment to a zone or zone boundary is approved, then the approved amendment shall be effective immediately upon written approval and shall be established and clearly indicated, as soon as practicable, on the zoning map or maps adopted as part of this chapter. The board shall, when considering an application for an amendment to the zoning ordinance, consider the comprehensive plan and other evidence gathered through the public hearing process.

The commission should consider the procedures outlined above within Canyon County Ordinance 07-06-01(3).

#### **OPTIONAL MOTIONS:**

**Approval of the Application**: "I move to approve RZ2021-0053, THORNTON GALLUP, LLC finding the application **does** meet the criteria for approval under Article 07.07.05 of Canyon County Zoning Regulations, **finding that**; [*Cite reasons for approval*].

**Denial of the Application**: "I move to deny RZ2021-0053, THORNTON GALLUP, LLC finding the application **does not** meet the criteria for approval under Article 07.06.05 of Canyon County zoning Regulations, **finding that** [*cite findings for denial based on the express standards outlined in the criteria* & *the actions, if any, the applicant could take to obtain approval (ref.ID.67-6519(5)*].

**Table the Application:** "I move to continue RZ2021-0053, THORNTON GALLUP, LLC to a [*date certain or uncertain*]

#### **3. HEARING CRITERIA**

HEA	HEARING CRITERIA (07-06-05(1)): The commission shall review the particular facts and circumstances of each proposed						
	zoning amendment and make a recommendation regarding the same to the board. The presiding party shall make its						
	review in terms of the following standards and shall find adequate evidence regarding the following criteria when						
			posed zoning dis	trict boundary amendment:			
C	Compliant County Ordinance and Staff Review						
Yes	No	N/A	Code Section Analysis				
			07-07-05(1) A.	Is the proposed zone change generally consistent with the comprehensive plan;			
			Staff Analysis	The proposed zone change is generally consistent with the Comprehensive plan.			
				The Future Land Use Map from the 2020 Comprehensive Plan designates this parcel as Residential.			
				The proposed development aligns with the following goals and policies:			
				Chapter 1. Property Rights:			
				<b>Policy 1.</b> No person shall be deprived of private property without due process of law.			
$\boxtimes$		П		<b>Policy 8</b> . Promote orderly development that benefits the public good and protects the individual with a minimum of conflict.			
				Chapter 2. Population:			
				<b>Goal 1.</b> Consider population growth trends when making land use decisions. <b>Policy 2.</b> Encourage future high-density development to locate within incorporated cities and/or areas of city impact.			
				<b>Policy 3.</b> Encourage future population to locate in areas that are conducive for residential living and that do not pose an incompatible land use to other land uses.			
				Chapter 4. Economic Development:			
				<b>Policy 7.</b> Canyon County should identify areas of the county suitable for commercial, industrial and residential development. New development should be located in close proximity to existing infrastructure and in areas where			

#### Table 1. Zoning Amendment Criteria Analysis

Page **3** of **12** 

		<u> </u>		agricultural uses are not diminished.	
				Chapter 5. Land Use	
				<b>Goal 1.</b> To encourage growth and development in an orderly fashion, minimize	
				adverse impacts on differing land uses, public health, safety, infrastructure and	
				services.	
				<b>Goal 4.</b> To encourage development in those areas of the county which provide	
				the most favorable conditions for future community services.	
				<b>Goal 5.</b> Achieve a land use balance, which recognizes that existing agricultural	
				uses and non-agricultural development may occur in the same area.	
				<b>Goal 8.</b> Consider adjacent county land uses when reviewing county-line	
				development proposals.	
				<b>Policy 1.</b> Review all residential, commercial and industrial development	
				proposals to determine the land use compatibility and impact to surrounding	
				areas.	
				<b>Policy 2.</b> Encourage orderly development of subdivisions and individual land	
				parcels, and require development agreements when appropriate.	
				<b>Residential:</b> This policy recognizes that population growth and the resulting	
				residential development should occur where public infrastructure, services and	
				facilities are available or where there is a development pattern already	
				established.	
				1. Encourage high density development in areas of city impact.	
				Chapter 11. Housing Component	
				<b>Goal 1.</b> Encourage opportunities for a diversity of housing choices in Canyon	
				County.	
				<b>Policy 1.</b> Encourage a variety of housing choices that meet the needs of families, v	/arious a
	<u> </u>		27 07 05/1) D	and incomes.	
			07-07-05(1) B.	When considering the surrounding land uses, is the proposed zone change more	
			Ct off Amarkunia	appropriate than the current zoning designation;	
			Staff Analysis	In consideration of the surrounding land uses, the proposed zone change to "R1"	
				is more appropriate than the current zoning designation of "A".	
				There are 40 subdivisions in the area with 711 late with the average let give of	
				There are 48 subdivisions in the area with 711 lots with the average lot size of	
				1.78 acres. There are also 4 subdivisions going through the subdivision process with an additional 70 lots with the average lot size of 1.52 acres. (Exhibit B2.2 and	
				with an additional 70 lots with the average lot size of 1.53 acres. (Exhibit B2.3 and B2.4)	
				B2.4)	
				The area is prodominantly residential. There are soveral subdivisions in the area	
$\boxtimes$				The area is predominantly residential. There are several subdivisions in the area	
				that are still zoned Agricultural, but the lot sizes and uses are consistent with a	
				Residential designation. (Exhibit B2.2)	
				Residential designation. (Exhibit B2.2)	
				Residential designation. <b>(Exhibit B2.2</b> ) The parcel is located in the Residential designation in both the 2020 and the 2022	
				Residential designation. <b>(Exhibit B2.2</b> ) The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. ( <b>Exhibit B2.7</b> ) The parcel is also located in	
				Residential designation. <b>(Exhibit B2.2)</b> The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. <b>(Exhibit B2.7)</b> The parcel is also located in the Area of City Impact for the City of Middleton. The zoning designation for the	
				Residential designation. <b>(Exhibit B2.2)</b> The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. <b>(Exhibit B2.7)</b> The parcel is also located in the Area of City Impact for the City of Middleton. The zoning designation for the Future Land Use Map for the City of Middleton identifies the parcel as being in	
				Residential designation. <b>(Exhibit B2.2)</b> The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. <b>(Exhibit B2.7)</b> The parcel is also located in the Area of City Impact for the City of Middleton. The zoning designation for the	
				Residential designation. <b>(Exhibit B2.2)</b> The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. <b>(Exhibit B2.7)</b> The parcel is also located in the Area of City Impact for the City of Middleton. The zoning designation for the Future Land Use Map for the City of Middleton identifies the parcel as being in the Residential designation. <b>(Exhibit B2.8)</b>	
				Residential designation. <b>(Exhibit B2.2)</b> The parcel is located in the Residential designation in both the 2020 and the 2022 Canyon County Comprehensive Plan. <b>(Exhibit B2.7)</b> The parcel is also located in the Area of City Impact for the City of Middleton. The zoning designation for the Future Land Use Map for the City of Middleton identifies the parcel as being in	

			<ul> <li>A. Promote the public health, safety, and welfare of the people of the County by encouraging the protection of viable farmland and farming operations;</li> <li>B. Limit urban density development to Areas of City Impact in accordance with the Comprehensive Plan;</li> <li>C. Protect fish, wildlife, and recreation resources, consistent with the purposes of the "Local Land Use Planning Act", Idaho Code title 67, chapter 65;</li> <li>D. Protect agricultural land uses, and rangeland uses, and wildlife management areas from unreasonable adverse impacts from development; and</li> <li>E. Provide for the development of schools, churches, and other public and quasi-public uses consistent with the comprehensive plan.</li> <li>Pursuant to Canyon County ordinance 07-10-25 (3) the purpose of the "R1" zoning district is to promote and enhance predominantly single-family living areas at a low density standard.</li> </ul>			and and farming bact in accordance tent with the Code title 67, d wildlife cts from d other public and plan. se of the "R1"
			Direction	Existing Use	Primary Zone	Other Zone
			N	Residential Subdivisions	A	RR
			S	Residential Subdivisions	RR	Α
			E	Residential Subdivisions	Α	RR
			w	Residential Subdivisions	Α	R1, RR
				al), "R-R" (Rural Residential), "R-1" (Sing 'C-2" (Service Commercial), "M-1" (Light		
			Surrounding Land Use Cases: Since 2018, there have been five approved subdivisions in the area. There was a There have also been five approved rezones in the area including: RZ2019-0040 Rezone from "A" Agricultural to "R1" Single Family Residential RZ2019-0034 Rezone from "A" Agricultural to "R1" Single Family Residential RZ2021-0016 Rezone from "A" Agricultural to "R1" Single Family Residential RZ2022-0006 Rezone from "A" Agricultural to "CR-R1" Conditional Rezone - Single Family Residential RZ2022-0009 Rezone from "A" Agricultural to "C1" Neighborhood Commercial (Exhibit B2.2) See Staff Analysis of 07-06-05(1)D&C for additional review.			
		07-06-05(1) C.		osed zoning map amendment		
$\boxtimes$		Staff Analysis	The propose	ed zone change to "R1" is con	npatible with surrour	nding land uses.
			Pursuant to	Canyon County Ordinance 07	7-02-03, land uses are	e compatible if: a)
			they do not	directly or indirectly interfere	e or conflict with or n	negatively impact
			-	r and b) they do not exclude o		

		<ul> <li>and private services. A compatibility determination requires a site-specific</li> <li>analysis of potential interactions between uses and potential impacts of existing</li> <li>and proposed uses on one another. Ensuring compatibility may require mitigation</li> <li>from or conditions upon a proposed use to minimize interference and conflicts</li> <li>with existing uses.</li> <li>The surrounding land uses are predominantly residential. There are several</li> <li>subdivisions in the area, many that were created with a Conditional Use Permit</li> <li>several years ago. The process that was in place left the zoning designation</li> <li>Agricultural even though the use was changed to residential.</li> <li>The parcel is surrounded by residential subdivisions. The lot sizes range from .32</li> <li>acres to 6.33 acres. The average subdivision lot size is 1.78 acres.</li> </ul>
		There is a portion of the parcel that is an irrigation drain that lies on the west side of the property that may house wildlife according to the applicant's letter of intent <b>(Exhibit A2).</b> They do not plan on disturbing this area.
		An agricultural use in this area could prove difficult because of the residential nature of the area.
		See Staff Analysis of 07-06-05(1)D&B for additional review.
	07-06-05(1) D.	Will the proposed zoning map amendment negatively affect the character of the
		area? What measures will be implemented to mitigate impacts?
	Staff Analysis	The proposed use will not negatively affect the character of the area. Any necessary measures to mitigate impacts are detailed below.
		Character of the Area:
		The character of the area is predominantly residential. There are several subdivisions in the area that are still zoned Agricultural, but the lot sizes and uses are consistent with a Residential designation. (Exhibit B2.2)
		With the lot sizes ranging from 1 acre to 1.24 acres, this development is similar to neighboring development.
		There is minimal productive agriculture in the area as this area of the county, within the Area of City Impact for Middleton, which has been designated in the Canyon County Comprehensive Plan Future Land Use Map as well as the City's Future Land Use Map as residential. <b>(Exhibit B2.7 and B2.8)</b>
		The City of Middleton entered into a Pre-Annexation agreement with the developer recognizing that the City will be progressing out toward this area and will require annexation once the City becomes adjacent. According to the applicant's letter of intent, the City requested easements be put in place for future Water and Sewer connections. <b>(Exhibit D4 and A2).</b> See further review in Table 3 Area of City Impact.
		Staff Analysis

	07-07-05(1) E.	Will adequate facilities and services including sewer, water, drainage, irrigation
		and utilities be provided to accommodate the proposed zoning map amendment;
	Staff Analysis	The project will have adequate sewer, water, drainage, irrigation, and utilities to accommodate the proposed zone map amendment based on the analysis contained herein.
		Individual septic systems are requested for each lot. This parcel is within the Northeast Canyon Nitrate Priority area. An NP1 study has been conducted for the site <b>(Exhibit A5.1)</b> and Southwest District Health issued an approval letter with conditions (Four proposed lots will need extended treatment systems, Maximum house size permitted is a four (4) bedroom house (300 gallons per day), if lots are added, the study must be resubmitted and/or amended, and Secondary dwellings are not approved for this proposed subdivision without resubmitting and amending the NP study.) ( <b>Exhibit D12</b> )
		Water: Individual wells are requested for each lot. Notice was given to the Idaho Department of Water Resources of this proposed development, but no comments were received in regards to potable water. A comment was received by IDWR confirming that this parcel is not in a floodplain.
		The applicant has provided information from Idaho Department of Water Resources monitoring well closest to the proposed development that show the water levels vary from year to year and that this area is not of concern by IDWR. (Exhibit X) They have also included in their presentation materials slides from "Treasure Valley Aquifer System" presented September 3, 2014. <b>(Exhibit A5.7c)</b>
		<b>Drainage:</b> Individual lot owners will be responsible for retention and treatment of storm water runoff including the application of perimeter lot berming to prevent direct lot discharge into irrigation facilities. The drainage along the proposed roads will be reviewed at the Preliminary Plat stage. (Exhibit A2)
		Irrigation: The parcel is served by Black Canyon Irrigation District. The parcel has a valid water right for 20.52 acres. The applicant is proposing a lateral reroute that has been reviewed by Black Canyon Irrigation District. No discharge of excess water will enter the established drainage system according to the applicant. (Exhibit A1.2a) (worksheet)Black Canyon Irrigation District submitted a letter with direction on compliance with required easements, approval of construction drawings, obtaining a Bureau of Reclamation license agreement and other requirements as noted in Exhibit D2. The Army Corp of Engineers submitted a letter stating that there are no waters of the United States, including wetlands within the project area. (Exhibit D1)
		<b>Utility:</b> Utilities are available to the parcel as there is currently a residential structure on the parcel.

		07-07-05(1) F.	Does legal access to the subject property for the zoning map amendment exist or will it exist at the time of development;
$\boxtimes$		Staff Analysis	The subject property does / does not have legal access for the zoning map amendment and/or will exist at the time of the development. See review and analysis detailed below. Legal access does exist to the parcel. In 2024, the land owner of parcel R34480010 applied for a private road through this parcel to be able to obtain a building permit. In the future plan for the development, this road will become a public road to serve the development. During their review, the Highway District No. 4 discovered that parcel number R34482012 was owned by Canyon County and is in the way of an access for the proposed development. The Highway District said that the county road Freezeout Road is built partially on this parcel. With coordination through Development Services, the Canyon County Prosecuting Attorney's office, the Board of County Commissioners and Highway District 4 have come to an agreement to transfer ownership of this .04-acre parcel to the Highway District 4 for Right of Way. The ownership of this parcel has been transferred to Highway District 4. <b>(Exhibit F)</b>
		07-07-05(1) G.	Does the proposed zoning map amendment require public street improvements
			in order to provide adequate access to and from the subject property to minimize
			undue interference with existing or future traffic patterns created by the proposed development? What measures have been taken to mitigate road
			improvements or traffic impacts; and
		Staff Analysis	The proposed zone map amendment will require public street improvements in
			order to provide adequate access to and from the subject property in order to minimize undue interference with existing and/or future traffic patterns created
			by the proposed development. Any necessary measures to mitigate road
			improvements and/or traffic impacts are detailed below.
			Highway District 4 has submitted comment letters for this project. The August 24,
$\boxtimes$			2023 letter stated that the 23 proposed residential lots will generate
			approximately 218 new vehicle trips per day, about half of the 500 trips/day threshold which would require a traffic impact study. The approximate 20 peak
			hour trips from the development are not anticipated to have significant direct
			effect on the public roadway intersections at Freezeout/SH 44 or Freezeout/Willis
			Rd. <b>(Exhibit D7.1)</b>
			The applicant is proposing public road infrastructure to access the proposed
			development. The applicant has been working with Highway District 4 and have been provided updated requirements in a letter dated December 3, 2024. The
			applicant will continue to work with the Highway District 4 to resolve any issues
			at the time of platting. (Exhibit D7.2)
			The following measures will be implemented to mitigate impacts:

			As per the Highway District 4 letter dated August 24, 2023, (Exhibit D7.1) the
			collection of transportation impact fees at the time of access permit will provide
			mitigation of any cumulative effects of the new vehicle trips.
			The public roads will be paved within the development to reduce any dust that
			would otherwise occur with a gravel roadway.
		07-07-05(1) H.	Will the proposed zoning map amendment impact essential public services and
			facilities, such as schools, police, fire and emergency medical services? What
			measures will be implemented to mitigate impacts?
		Staff Analysis	The proposed uses is not anticipated to impact essential public services and
			facilities including, but not limited to schools, police, fire and emergency medical
			services. Any necessary measures to mitigate impacts are detailed below.
			The services will not be negatively impacted by such use, and/or require
			additional public funding in order to meet the needs created by the requested
			use.
			Calcadar
			Schools: Middleton School District was noticed on July 21, 2022 and again on Nevember
			Middleton School District was noticed on July 31, 2023 and again on November 19, 2024 and no response was received.
			19, 2024 and no response was received.
			Kuna School District commented and stated that they had no comment. (Exhibit
$\boxtimes$			D10)
			Police:
			The Canyon County Sheriff Office was noticed and no comment was received.
			Fire protection & Emergency Medical Services:
			Canyon County Emergency Services was noticed and a comment was received by
			Christine Wendelsdorf, Emergency Management Coordinator that stated the
			need to check into the parcel potentially being in the floodplain. (Exhibit D6) The
			Idaho Department of Water Resources did confirm that the parcel is not in the
			floodplain <b>(Exhibit D8)</b>
			The Middleton Rural Fire District responded on August 28, 2023 and stated that
			the development will be served by the Fire District with a response time of 7
			minutes under ideal driving conditions to the proposed entrance off Freezeout
			Road. (Exhibit D11)

Table	3. Area	of City	y Impact
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CCCC	CCCO 09-09-01: Middleton Area of City Impact (Plans and Ordinances) Ordinance						
Compliant		ant	nt County Ordinance and Staff Review				
Yes	No	N/A	Code Section	Code Section Analysis			
$\boxtimes$			09-09-13	<b>Applicable Ordinances</b> : The Canyon County zoning ordinance (Chapter 7 of CCCO) and the Canyon County subdivision ordinance (Chapter 7, article 17 of CCCO) shall apply in the Middleton area of city impact.			

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Staff Analysis	Area of City Impact:
	The City of Middleton did not respond with any comments to the County. There
	is a statement in the Letter of Intent provided by the applicant, <b>Exhibit A2</b> ,
	regarding discussion with the City of Middleton and their desire for a Pre-
	annexation agreement being entered into and the request for easements to be provided for future City sewer and water services. According to the Letter of Intent, the City Engineer has reviewed the proposed Preliminary Plat and believes the right-of-way easements will accommodate future City water and sewer. A Pre-annexation agreement was entered into with the City of Middleton. <b>(Exhibit</b> <b>D11)</b>
	The City of Middleton's Area of City Impact is in subjection to the Canyon County Code of Ordinances with the request that comments from the City be considered as part of the decision. Since there were no comments received directly from the City of Middleton and a pre-annexation agreement was entered into, planning staff has determined that the City has no objections to this proposal.

#### 4. AGENCY COMMENTS:

Agencies including the Canyon County Sheriff's Office, Canyon County Paramedics/EMT, Middleton Fire Protection District, Black Canyon Irrigation District, Highway District No. 4, Middleton School District, Greater Middleton Area Recreation, Idaho Transportation Department, COMPASS, Idaho Power, Intermountain Gas, Canyon County Engineering, Canyon County Building Department, Canyon County Code Enforcement Department, Idaho Department of Water Resources (Water Rights), Canyon County Soil Conservation District, Southwest District Health, Department of Environmental Quality, Environmental Protection Agency, Idaho Fish and Game and the City of Middleton were notified of the subject application.

Staff received agency comments from Highway District 4, Army Corp of Engineers, Black Canyon Irrigation District, Canyon County Soil Conservation District, Emergency Management Coordinator, Middleton Fire Protection District, Idaho Department of Water Resources, and Idaho Transportation Department.

Comments were also received from Kuna School District and the City of Nampa from the Full Political Noticing that takes place when a Rezone is applied for in accordance with the Local Land Use Planning Act, Idaho Code 67-6509.

The Southwest District Health approval letter and the City of Middleton Pre-annexation Agreement were provided by the applicant.

All agency comments received by the aforementioned materials deadline are located in Exhibit D.

Pursuant to Canyon County Ordinance 01-17-07B Materials deadline, the submission of late documents or other materials does not allow all parties time to address the materials or allow sufficient time for

public review. After the materials deadline, any input may be verbally provided at the public hearing to become part of the record.

#### 5. PUBLIC COMMENTS:

Staff received six (6) total written public comments by the materials deadline of December 8, 2024. Generally, of the comments received, all six (6) were opposed to the R-1 rezone proposal. All public comments received by the aforementioned materials deadline are located in **Exhibit E**.

Pursuant to Canyon County Ordinance 01-17-07B Materials deadline, the submission of late documents or other materials does not allow all parties time to address the materials or allow sufficient time for public review. After the materials deadline, any input may be verbally provided at the public hearing to become part of the record.

#### 6. SUMMARY:

In consideration of the application and supporting materials, staff concludes that the proposed rezone **are compliant** with Canyon County Ordinance 07-06-05. A full analysis is detailed within the staff report.

#### 7. EXHIBITS:

#### A. Application Packet & Supporting Materials

- 1. Master Application
  - 1.1. Updated Master Application
  - 1.2. Original Master Application
    - a. Irrigation Plan
    - b. Land Use Worksheet
- 2. Letter of Intent
- 3. Concept Plan (Freezeout Ridge Preliminary Plat)
- 4. Neighborhood Meeting
- 5. Studies and additional materials provided by applicant
  - 5.1. Level 1 Nutrient Pathogen Study
  - 5.2. Phase 1 Environmental Site Assessment dated April 21, 2021
  - 5.3. IDWR Groundwater Levels
  - 5.4. IDWR Groundwater Monitoring Well
  - 5.5. US Fish & Wildlife Services IPaC Resource List
  - 5.6. Discussion regarding Conditional Rezone vs. Rezone
  - 5.7. Applicants PowerPoint Presentation and Supporting documents
    - a. Power Point Presentation by applicant
    - b. Phase I Environmental Site Assessment updated May 18, 2022
    - c. IDWR Treasure Valley Aquifer System dated September 3, 2014
    - d. Level I Nutrient Pathogen Study dated January 14, 2021

#### **B.** Supplemental Documents

- 1. Parcel Tool
- 2. Cases Maps/Reports
  - 2.1. Aerial
  - 2.2. Zoning and Classification Map
  - 2.3. Subdivision Map

- 2.4. Subdivision & Lot Report
- 2.5. Case Map
- 2.6. Case Summary
- 2.7. Canyon County Future Land Use Map
- 2.8. Middleton Future Land Use Map
- 2.9. Dairy, Feedlot and Gravel Pit Map
- C. Site Visit Photos: December 11, 2024

#### D. Agency Comments Received by: Month Day, Year

- 1. ARMY CORP OF ENGINEERS; Received: August 23, 2021
- 2. BLACK CANYON IRRIGATION DISTRICT; Received: August 30, 2023
- 3. CANYON SOIL CONSERVATION DISTRICT; Received: November 20, 2024
- 4. CITY OF MIDDLETON AND FREEZEOUT PRE-ANNEXATION AGREEMENT; Received: September 23, 2021
- 5. CITY OF NAMPA; Received: November 19, 2024
- 6. EMERGENCY MANAGEMENT COORDINATOR; Received: November 20, 2024
- 7. HIGHWAY DISTRICT 4; Received: June 27, 2023
  - 7.1. Updated letter; Received: August 24, 2023
  - 7.2. Updated letter; Received: December 2, 2024
- 8. IDAHO DEPARTMENT OF WATER RESOURCES; Received: November 9, 2024
- IDAHO TRANSPORTATION DEPARTMENT; Received: August 1, 2023
   9.1. Updated letter; Received: November 25, 2024
- 10. KUNA SCHOOL DISTRICT; Received: November 20, 2024
- 11. MIDDLETON RURAL FIRE PROTECTION DISTRICT; Received: August 28, 2023
- 12. SOUTHWEST DISTRICT HEALTH; Received: June 15, 2021

#### E. Public Comments Received by: Month Day, Year

- 1. DEBBIE WHITE; Received: December 9, 2024
- 2. JASON ROACH; Received: December 8, 2024
- 3. JUDY CORDENIZ; Received: November 20, 2024
- 4. LEANN STEPHENS & BEN SCHNEIDER; Received: December 9, 2024
- 5. RYAN AND JILL CHRIS; Received: December 9, 2024
- 6. STEVE CARNAHAN; Received: December 9, 2024
- 7. TASHA ROACH; Received: December 8, 2024

#### F. Agreement between Canyon County and Highway District 4 RE: parcel no. R34482012

# Exhibit A1.1

# MASTER APPLICATION

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT 111 North 11<sup>th</sup> Avenue, #140, Caldwell, ID 83605 www.canyonco.org/dsd.aspx Phone: 208-454-7458 Fax: 208-454-6633



OWNER NAME: Thornton Gallup LLC	
OWNER MAILING ADDRESS: PO BOX 1495 Nampa ID 8365	3
OWNER PHONE: 208.8BO. 0539 EMAIL: athanton estee head me	tal
I consent to this application and allow DSD staff / Commissioners to enter the property for site inspections. If owner(s) are a business entity	
Signature: Date: 12/4.21	
(AGENT) CONTACT NAME: Will Mason	
ARCHITECT COMPANY NAME: Mason & Associates, Inc	
BUILDER MAILING ADDRESS: 924 3rd street South Ste B Name	a
PHONE: 208-454-0256 EMAIL: WATASON MASSON AND SOCIATAS. US	
STREET ADDRESS: 23442 Freeze out Rd	
PARCEL #: R3447900000 LOT SIZE/AREA: 31.41 Acres	
SITE INFO LOT: BLOCK: SUBDIVISION:	
QUARTER: NW SECTION: 3 TOWNSHIP: 4N RANGE: 3L	υ
ZONING DISTRICT: AG FLOODZONE (YES/	
HEARINGCONDITIONAL USECOMP PLAN AMENDMENTCONDITIONAL REZON	IE
LEVEL	
APPSMINOR REPLATVACATIONAPPEAL	
SHORT PLAT SUBDIVISION FINAL PLAT SUBDIVISION FINAL PLAT SUBDIVISIO	N
DIRECTORSADMINISTRATIVE LAND DIVISIONEASEMENT REDUCTIONSIGN PERMIT	
DECISIONPROPERTY BOUNDARY ADJUSTMENTHOME BUSINESSVARIANCE 339	\$ >
APPSPRIVATE ROAD NAMETEMPORARY USEDAY CARE	
OTHER	
CASE NUMBER: RZ 2021-0053 DATE RECEIVED:	
RECEIVED BY: APPLICATION FEE: CK MO CC CA	SH

Revised 1/3/21

5.7	Exhibit A1.2
015-1001 fm	
Master Application	J
Canyon County Development Services 1115 Albany Street www.canyoncounty.org Phone 208-454-7458 fax 208-454-6	
Owner(s) information: Name: Pioneer Homes	Address: 719 13+ 5. St. B
Telephone: (208) 468 - 9200 Fax	Email: briane pioncerhonesidaho.com
City: Nampa State: 1D Zip: 83/151	<u>Pione er flormes / Die Fall</u> Signature: (Owpers) Date
I consent to this application and agree to allow DSD Staff / Commissioners to enter the property for site inspections.	If owner(s) are a business entity, please include business documents, including those that indicate the person(s) who is eligible to sign.
Applicant: Representative / Business Name:	Additional Contact if applicable: Business Name:
Name: Mason & Associates Inc.	Name:
Address:         924         3 rd         St.         Ste.8           City:         Nompo         State:         ID         Zip:         83.051	Address:
Telephone: (208) 454 - 0256 Fax: 208 - 467 - 4130	State.         Ztp.           Telephone:         Fax:
	Email:
Email: WMO-50n @ moson and associates.US I certify this information is correct to the best of my	Engineer//Surveyor if applicable: Business Name:
knowledge.	Name: Will Mason Phone: (208) 454-0254 Address: 924 3rd St. S. Sr. 8 Fax: N/A
William J. Mason 10/14/2021	City: Nompo State: 1D Zip 3365/
Signature: (Applicant) Date	Email: Whispon @ mason and associates, US
Area of Impact: <u>middleton</u> Subdivision:	wnship: <u>4 N.</u> Range: <u>3 M.</u> Zoning: <u>AG</u> Lot: <u>Block</u> :
Check application type: <u>Administra</u>	tive Applications
<ul> <li>Assisted Care Facility</li> <li>Bed and Breakfast</li> <li>Day Care Facility</li> <li>Reduction Frontage, Easement, Road Lot</li> <li>Floodplain Development</li> <li>Home Business: New Application Renewal</li> <li>Land Division Administrative</li> <li>Mineral Extraction short term</li> <li>Public Service Agency Telecom &gt;75'</li> </ul>	<ul> <li>Parcel Inquiry</li> <li>Property Boundary Adjustment</li> <li>Quasi-Public Use</li> <li>Sign</li> <li>Temporary Use  New Application  Renewal</li> <li>Utility Facility</li> <li>Variance up to 33%</li> <li>Wind Energy System Small</li> <li>Zoning Compliance Certificate</li> </ul>
	evel Applications
□ Appeal □ Comprehensive Plan Change□Text □Map □ Conditional Use □ Road Name Change	<ul> <li>Time Extension</li> <li>Variance</li> <li>Zoning Ordinance Amendment Map Text</li> </ul>
<u>Subdivisi</u>	on Applications
<ul> <li>Final Plat</li> <li>Short Plat</li> <li>Preliminary Plat</li> </ul>	<ul> <li>Plat Amendment or Minor Replat</li> <li>Simple Changes to a Plat</li> <li>Vacation of Plat, Lot, Road, Easement</li> </ul>
Office Use Only: Case #: Received by: J RZDJ - 005 3 SD2221 0055	Date: 0/18 Fees: Receipt #:
Master Annlication must be accompanied with	$\pi \approx 30$ an application checklist relative to application type.
interest in the second	Rev.11.5.10



015-360

COUNTY DE LA COUNT

**CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT** 

111 N. 11<sup>th</sup> Ave. #140 • Caldwell, Idaho • 83605 • Phone (208) 454-7458 Fax: (208) 454-6633 • www.canyoncounty.org/dsd

# **APPLICATION FOR IRRIGATION PLAN APPROVAL**

(Idaho Code 31-3805)

Applicant(s)	Name	(208) 468 - Daytime Telept S. Suite B Nompa, 1D City, State	hono Number
Representative Name	Brian Falck 719 1 St. S. Sui Street Address	(208) 468 - 9200 Daytime Telephone Number / E-mail Add + e B Nampa, 1D City, State	ress 83651 Zlp
Location of Subject Pro	perty: <u>23442</u> Freez Two Nearest Cross Stre	ets or Property Address	<u>10 83607</u> City
Assessor's Account Nur	nber(s): R <u>344790000</u>	2 Section <u>3</u> Township <u>4 N</u>	Range $\underline{SW}$ .
	ter rights available to it.	it. If dry places sign this desures to a	

return to the Development Services Department representative from whom you received it.

Idaho Code 31-3805 states that when all or part of a subdivision is "located within the boundaries of an existing irrigation district or canal company, ditch association, or like irrigation water delivery entity ... no subdivision plat or amendment to a subdivision plat or any other plat or may recognized by the city or county for the division of land will be accepted, approved, and recorded unless:"

- a. The appropriate water rights and assessment of those water rights have been transferred from said lands or excluded from an irrigation entity by the owner; or
- b. The owner, person, firm, or corporation filing the subdivision plat or amendment to a subdivision plat or map has provided underground tile or conduit for lots of one (1) acre or less, or a suitable system for lots of more than one (1) acre which will deliver water to those land owners within the subdivision who are also within the irrigation entity with the appropriate approvals:

- 1. For proposed subdivisions located within negotiated area of city impact, both city and county zoning authorities must approve such irrigation system in accordance with Idaho Code Section 50-1306. In addition, the irrigation entity charged with the delivery of water to said lands must be advised regarding the irrigation system.
- 2. For proposed subdivisions outside of negotiated areas of city impact, the delivery system must be approved by the Planning and Zoning Commission and the Board of County Commissioners with the advice of the irrigation entity charged with the delivery of water to said lands.

To better understand your irrigation request, we need to ask you a few questions. A list of the map requirements follows the short questionnaire. Any information missing information may result in the delay of your request before the Planning and Zoning Commission and ultimately the approval of your irrigation plan by the Board of County **Commissioners.** 

1.	Are you within an area of negotiated City Impact? X Yes No
2.	What is the name of the irrigation and drainage entities servicing the property?
	Irrigation: Black Canyon Irrigation District
	Drainage: Black Canyon Irrigation District
3.	How many acres is the property being subdivided? $\pm 31.41$ ACRES
4.	What percentage of this property has water? $\pm 65\%$
5.	How many inches of water are available to the property? 20.52 acres of water
6.	How is the land currently irrigated?       Surface       Irrigation Well         Sprinkler       Above Ground Pipe       Underground Pipe
7.	How is the land to be irrigated <u>after</u> it is subdivided? Surface Irrigation Well Sprinkler Above Ground Pipe Underground Pipe
	Please describe how the head gate/pump connects to the canal and irrigated land and where ditches and/or pipes go.
11	le are proposing the new headgate be in the last box in the ew reroute located on the south side of property. The he bes into a weirbox that feeds our proposed pump stati
	Is there an irrigation easement(s) on the property?
<u>_1r</u>	. How do you plan to retain storm and excess water on each lot? Idividual lots are responsible for retention i treatment of Storm
-N	prevent direct lot discharge into irrigation facilities.

into

irrigation

facilities

11. How do you plan to process this storm water /excess irrigation water prior to it entering the established drainage system? (i.e. oil, grease, contaminated aggregates)

Through	Fil	tration	NO	dischar	ap of	PXCRSS	Win ter	will
enter	the	estab	libhed	drainage	SVSte	m		- yern
				0	and the second s			

#### **Irrigation Plan Map Requirements**

The irrigation plan must be on a scalable map and show all of the irrigation system including all supply and drainage structures and easements. Please include the following information on you map:

- 1 All canals, ditches, and laterals with their respective names.
- 2 Head gate location and/or point if delivery of water to the property by the irrigation entity.
- Rise locations and types, if any.
- Easements of all private ditches that supply adjacent properties (i.e. supply ditches and drainage ways).
- 5 Slope of the property in various locations.
- **6** Direction of water flow (use short arrows  $\rightarrow$  on your map to indicate water flow direction).
- 7 Direction of wastewater flow (use long arrows ---------> on you map to indicate waste water direction).
- 8 Location of drainage ponds or swales, if any where wastewater will be retained on the property.
- 9 Other information: \_\_\_\_\_

Also, provide the following documentation:

П

- Copy of any water users' association / agreement currently in effect which shows water schedules and maintenance responsibilities.
  - Copy of all new easements ready for recording (irrigation supply and drainage).

If you are in a city area of impact, please include a copy of the approvals by the city planning and zoning commission and city council of your irrigation plan.

I, the undersigned, agree that prior to the Development Services Department accepting this application I am responsible to have all of the required information and site plans.

I further acknowledge that the irrigation system, as approved by the Planning and Zoning Commission and ultimately the Board of County Commissioners, must be <u>bonded</u> and/or <u>installed</u> prior to the issuance of a zoning compliance or building permit.

Signed: Pioneen Homes De Fack	Date:	/	/
Applicant / Property Owner		(Application	Submitted)
Accepted By:	Date:	/	/

Director / Staff



	ON COUNTY DEVELOPMENT SERVICES 11 <sup>th</sup> Avenue, Caldwell, ID 83605 Phone: 208-454-7458 Fax: 208-454-6633
GENER/	AL (4 common)
1.	How Many Lots are you proposing? <u>24</u> (20 Residental)
2.	Average Lot Size of the Residential Parcels? Acres
IRRIGA	TION
1.	Irrigation Water is Provided via 🔲 Irrigation Well 🛛 🖾 Surface Water
2.	What percentage of the property has water? $\frac{\pm 05}{8}$ %
	How many inches of water are available to property? 20.52 ocres of water
עי דכ 5.	ater runoff including the application of perimeter lot berning ater runoff including the application of perimeter lot berning prevent direct lot discharge into irrigation facilities How do you plan to process storm water / excess irrigation water prior to it entering the established drainage system? Through filtration NO discharge of excess water ill enter the established drainage system.
1.	Roads within the Development will be: Market Public Private N/A
HILLSI	DE DEVELOPMENT
1.	Of the total lots requested, how many of the lots will contain slopes greater than 15%?
	Residential Non-Buildable Common
2.	Will the proposed Road(s) be located within any area that has slopes greater than 15%
	🗆 Yes 🙀 No
SUBDI	/ISIONS WITHIN AN AREA OF CITY IMPACT
1.	Will you be requesting waivers of Subdivision Improvements from the City?
	🕱 Yes 🗆 No
2.	If yes, which waivers will you be requesting?
	🖾 Curbs 🖾 Gutters 🐹 Sidewalks 🖾 Streetlights 🗖 Landscaping

18



Mason &, Associates Inc

Professional Engineers, Land Surveyors and Planners

924 3rd St. So. Ste B, Nampa, ID 83651 Ph (208) 454-0256 Fax (208) 467-4130 Email: wmason@masonandassociates.us

### LETTER OF EXPLANATION REZONE AND PRELIMINARY PLAT FREEZEOUT ESTATES SUBDIVISION

This is a request for a rezone and preliminary plat for parcel number R34479 located east of Freezeout Road and south of Willis Road, Middleton, Canyon County Idaho. The property is currently zoned County Agricultural. The parcel is approximately 31 acres. We are requesting County Residential (R-1) zoning. The lots will range in size from 1-1.24 acres.

Canyon County's future land use map indicates the future designation of this property as residential. This property is also in the City of Middleton's impact area and their future land use zone is residential. The City of Middleton has requested the developer enter into an agreement to annex the lots into the City as soon as the City reaches the property. The City has also asked for easements to be provided for future City sewer and water services. The City Engineer has reviewed the preliminary plat and believe right-of-way easements will accommodate future City water and sewer.

A Nutrient Pathogen Study has been completed. Southwest District Health (SWDH) and the Idaho Department of Environmental Quality (DEQ) have both reviewed the study.

A Phase One Environmental Assessment was also done and is included.

There are four subdivisions within 300 feet or less of this property, Willis Estates, Saddleback Ridge, Ranchette Estates, and North Slope Estates. Lot sizes in these four subdivisions vary from 4.88 acres to 0.36 acres. The average size lot size for these subdivisions is 1.25 acres. The request for the R-1 zone with the preliminary plat depicted lots ranging from 1-1.24 acres is consistent with the surrounding subdivision land use and lot size.

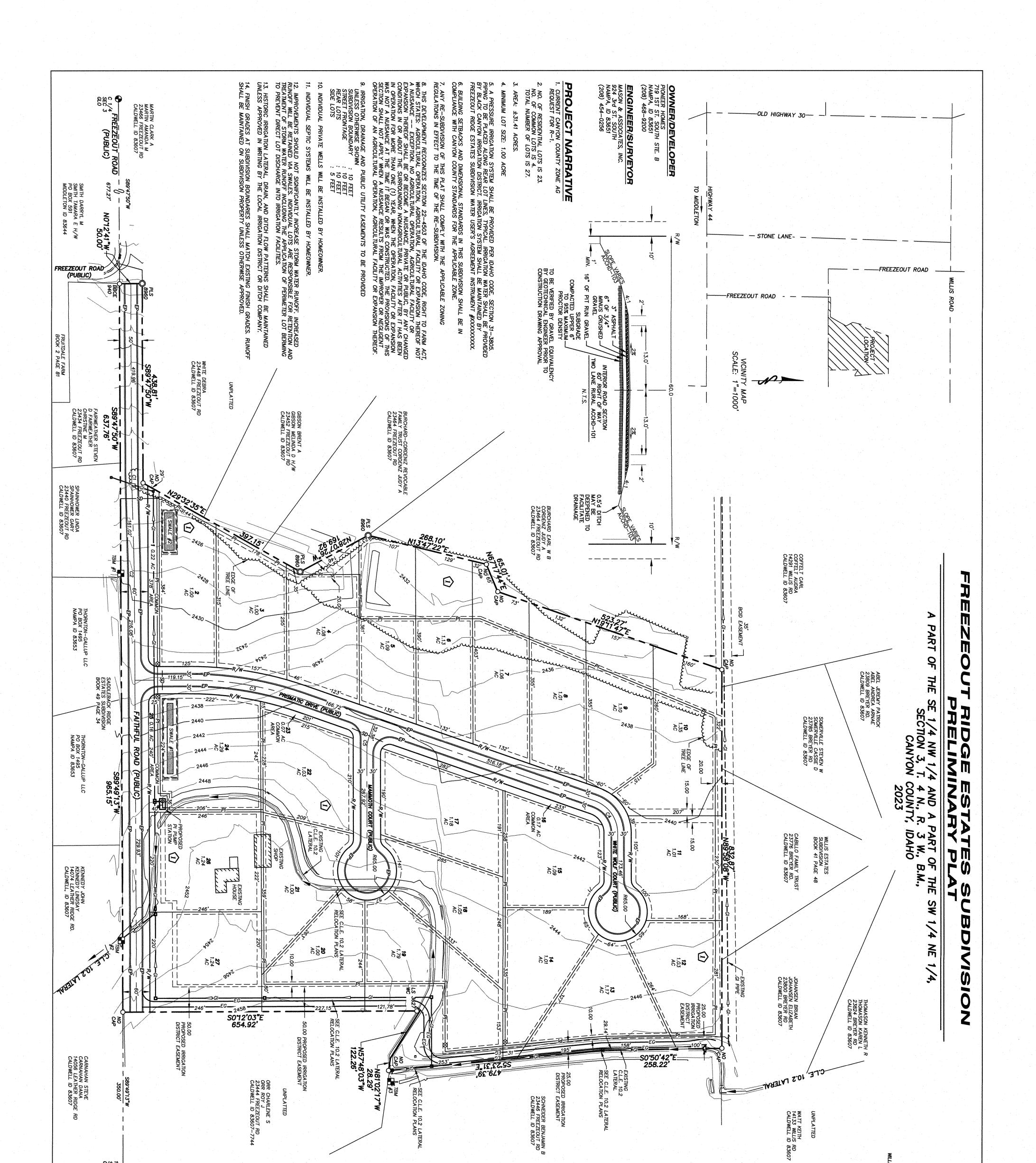
Neighbor Concerns: The neighbors have voiced their concerns for endangered species. There is an irrigation drainage area on the west side of the property. There are no plans to disturb the area that may house wildlife. Included in this packet is the United States Fish and Wildlife Services endangered species list for this specific property. Per U.S Fish and Wildlife's Information for Planning and Consulting (IPaC), this location is likely to be home to a threatened plant called the Slickspot Peppergrass. It is also likely to be home to the monarch butterfly which is only considered a candidate. There are no other plants or animals that U.S Fish or Wildlife is concerned about in this area and there are no endangered plants or animals that utilize this property. The irrigation drainage area will not be used for a building area. It will remain a drainage area.

Mason &

Professional Engineers, Land Surveyors and Planners Page 2 of 2

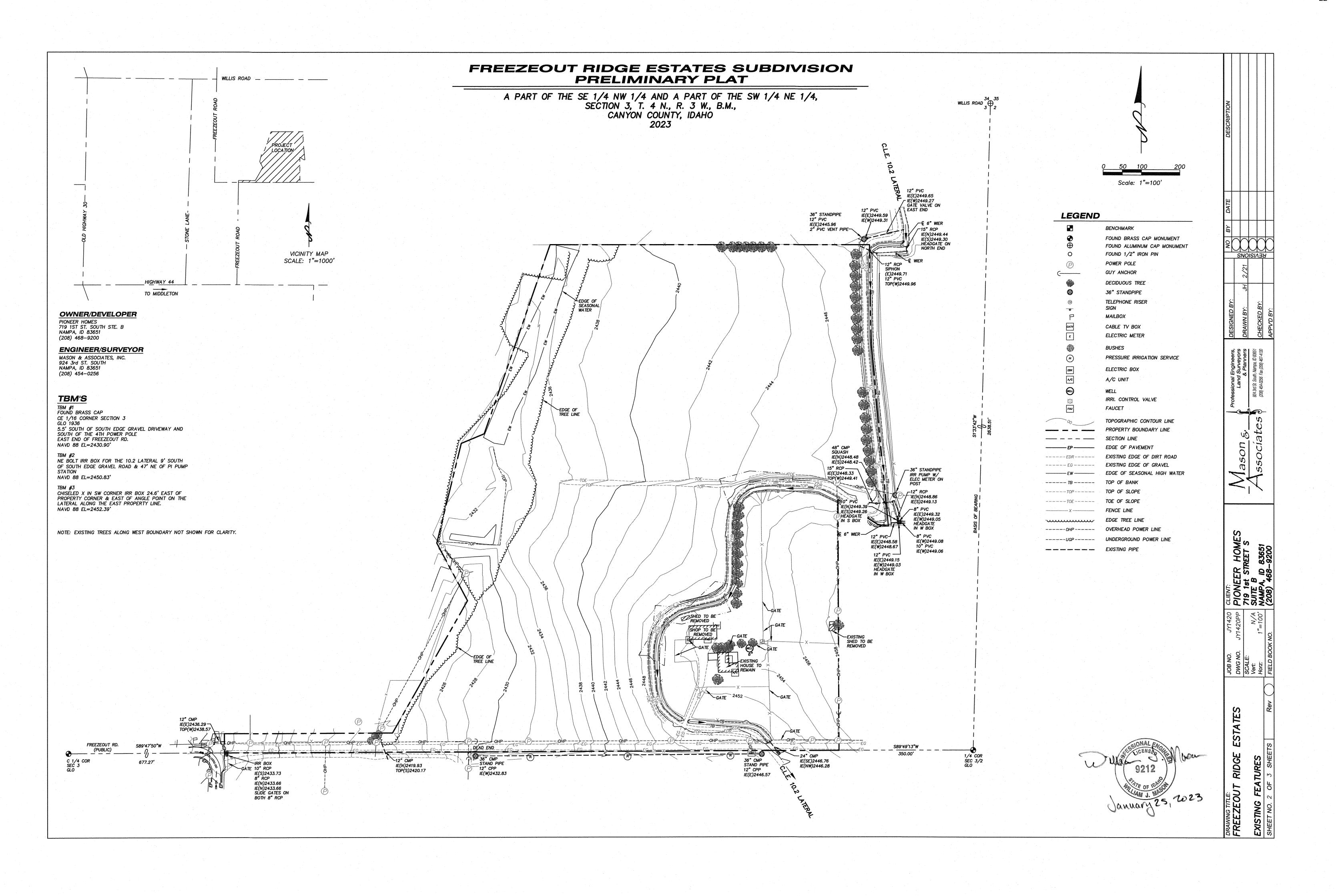
The neighbors have also expressed concern their wells are in danger of going dry. Included in this packet are the results of Idaho Department of Water Resources (IDWR) monitoring well closest to this subdivision. These results indicate water levels vary from year to year but this area is not an area of concern for IDWR. The monitoring well 04N 03W 04DCB1 is approximately 1.2 miles from this location. The highest level of groundwater recorded was in 2019.

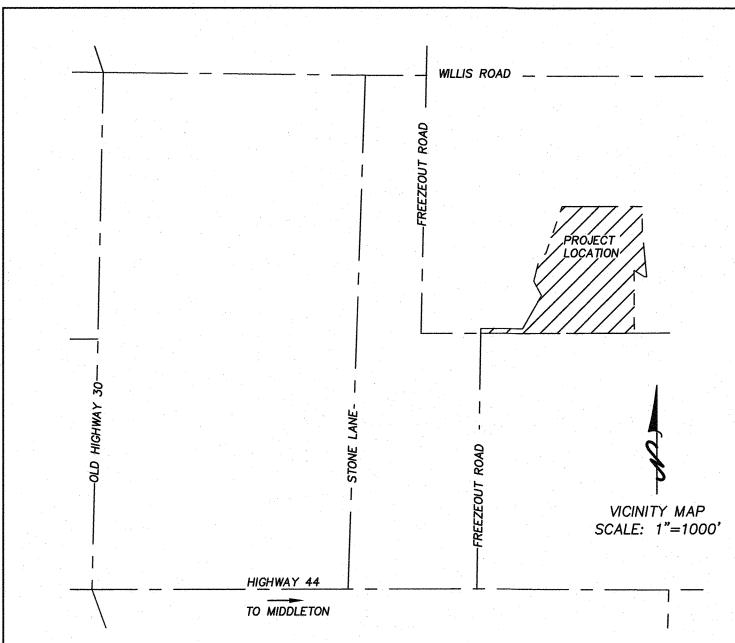
We believe that a request for R-1 zoning is in compliance with the County's comprehensive plan and is desired by the City of Middleton. The layout fits well with the surrounding residential subdivisions.



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1/4 COR SEC 3/2 GLO S1'33'42"W BASIS OF BEARING 6 34 3 4 3 5 2638.51' 8 2 8 8 TBM #1 FOUND BRASS CAP CE 1/16 CORNER SECTION 3 GLO 1936 5.5' SOUTH OF SOUTH EDGE GRAVEL DRIVEWAY AN OF THE 4TH POWER POLE EAST END OF FREEZEOUT RD. NAVD 88 EL=2430.90' SHEET 1- PRELIMINARY PLAT SHEET 2- EXISTING FEATURES SHEET 3- GRADING, IRRIGATION, NOTE: EXISTING IBM #2 VE BOLT IRR BOX FOR THE 10.2 LATERAL 9' SOUTH OF SOUTH EDGE GRAVEL ROAD & 47' NE OF PI PUMP STATION VAVD 88 EL=2450.83' ATERAL  $\otimes \textcircled{O} \circ \textcircled{O} \oplus \textcircled{O} \blacksquare$ R/W-#3 ELED X IN SW CORNER IRR BOX 24.6' EAST OF PERTY CORNER & EAST OF ANGLE POINT ON THE RAL ALONG THE EAST PROPERTY LINE. ) 88 EL=2452.39' EGEND Ð SO P EG  $\leq$ 19'22'34" **'26'23**" Janua TREES ab -OUND SENC+ NOT RAPHIC CONTOUR LINE BRASS ARK D PRESSURE IRRIGATION LINE EDGE OF PAVEMENT WAY Chord 37.69 38.29 GRAVITY IRON IRON 3 CAP FOR S ę PIN 00 ..... β AP GRAVEL 2023 ARITY. VUMENT MONUMENT Ø Tange 18.85 19.15 ATION 1200 AND SOUTH A ON PIPE ROAD DRAWING TITLE: DATE DESCRIPTION NO BY CLIENT: JOB NO. JY1420 ESIGNED BY: Professional Engineers, (1) CS FREEZEOUT RIDGE ESTATES PIONEER HOMES 10/24/22 Mason & REVISED PER COUNTY ENGINEER COMMENTS DWG NO. JY1420PP Land Surveyors 719 1st STREET S SUITE B NAMPA, ID 83651 (208) 468-9200 3/21 & Planners DRAWN BY: SCALE: N/A 1"=100' Vert: 924 3rd St. South, Nampa, ID 83651 ssociates PRELIMINARY PLAT CHECKED BY: Horz: (208) 454-0256 Fax (208) 467-4130 SHEET NO. 1 OF 3 SHEETS Rev FIELD BOOK NO. APPV'D BY:





#### OWNER/DEVELOPER PIONEER HOMES

719 1ST ST. SOUTH STE. B NAMPA, ID 83651 (208) 468-9200 ENGINEER/SURVEYOR MASON & ASSOCIATES, INC. 924 3rd ST. SOUTH NAMPA, ID 83651 (208) 454-0256

# TBM'S

TBM **#1** FOUND BRASS CAP

CE 1/16 CORNER SECTION 3 GLO 1936

5.5' SOUTH OF SOUTH EDGE GRAVEL DRIVEWAY AND SOUTH OF THE 4TH POWER POLE EAST END OF FREEZEOUT RD. NAVD 88 EL=2430.90'

TBM #2 NE BOLT IRR BOX FOR THE 10.2 LATERAL 9' SOUTH OF SOUTH EDGE GRAVEL ROAD & 47' NE OF PI PUMP STATION NAVD 88 EL=2450.83'

TBM #3 CHISELED X IN SW CORNER IRR BOX 24.6' EAST OF PROPERTY CORNER & EAST OF ANGLE POINT ON THE LATERAL ALONG THE EAST PROPERTY LINE. NAVD 88 EL=2452.39'

-G/NG — 2423.9f

2422.20

CAP

-

S89'47'50"W

637.76'

438.81' \$89**`**47`50"W

# NOTES

1. IRRIGATION PROVIDED BY BLACK CANYON IRRIGATION DISTRICT.

2. A PRESSURE IRRIGATION SYSTEM SHALL BE PROVIDED PER IDAHO CODE, SECTION 31-3805. PIPING TO BE PLACED ALONG REAR LOT LINES, TYPICAL. IRRIGATION WATER SHALL BE PROVIDED BY BLACK CANYON IRRIGATION DISTRICT. IRRIGATION SYSTEM SHALL BE MAINTAINED BY FREEZEOUT RIDGE ESTATES SUBDIVISION WATER USER'S AGREEMENT INSTRUMENT #XXXXXXXXX.

3. INDIVIDUAL PRIVATE WELLS WILL BE INSTALLED BY HOMEOWNER.

4. INDIVIDUAL SEPTIC SYSTEMS WILL BE INSTALLED BY HOMEOWNER.

5. IMPROVEMENTS SHOULD NOT SIGNIFICANTLY INCREASE STORM WATER RUNOFF. PUBLIC STREET STORM DRAINAGE SHALL BE CONVEYED VIA ROADSIDE BORROW DITCHES INTO STORM DRAINAGE DISPOSAL FACILITIES. STORM DRAINAGE FACILITIES SHALL BE LOCATED WITHIN AN EASEMENT, OUTSIDE OF THE PUBLIC RIGHT-OF-WAY. THE HOMEOWNERS ASSOCIATION, UNDERLYING PROPERTY OWNER OR ADJACENT PROPERTY OWNER IS RESPONSIBLE FOR ALL STORM DRAINAGE FACILITIES OUTSIDE THE PUBLIC RIGHT-OF-WAY, INCLUDING ALL ROUTINE AND HEAVY MAINTENANCE. INDIVIDUAL LOT OWNERS ARE RESPONSIBLE FOR THE APPLICATION OF PERIMETER LOT BERMING TO PREVENT DIRECT LOT STORMWATER DISCHARGE INTO IRRIGATION FACILITIES.

6. HISTORIC IRRIGATION LATERAL, DRAIN, AND DITCH FLOW PATTERNS SHALL BE MAINTAINED UNLESS APPROVED IN WRITING BY THE LOCAL IRRIGATION DISTRICT OR DITCH COMPANY.

7. FINISH GRADES AT SUBDIVISION BOUNDARIES SHALL MATCH EXISTING FINISH GRADES. RUNOFF SHALL BE MAINTAINED ON SUBDIVISION PROPERTY UNLESS OTHERWISE APPROVED.

8. EXISTING TREES ALONG WEST BOUNDARY NOT SHOWN FOR CLARITY.

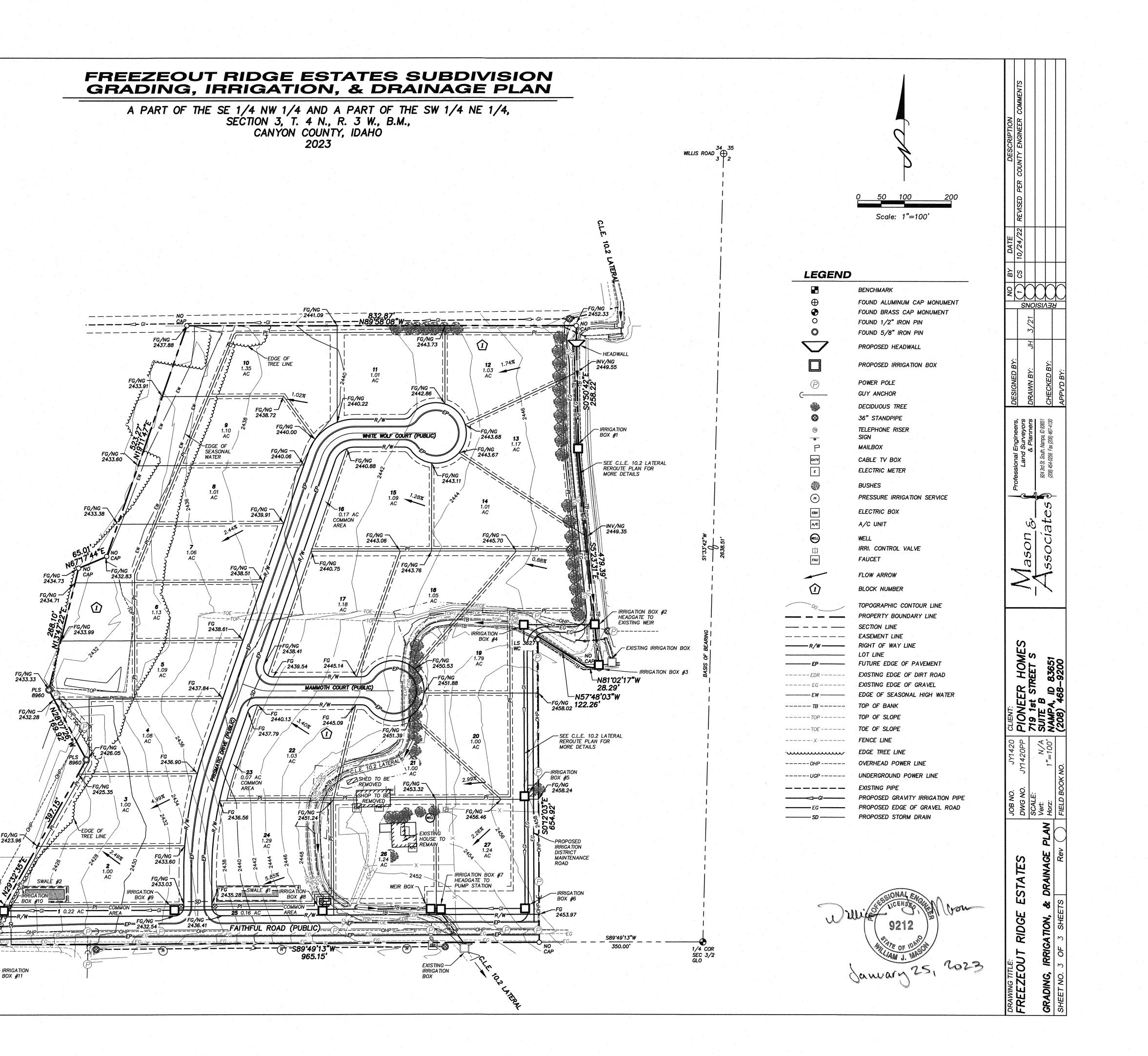
S89\*47'50"W

N072'41"W+

677.27'

FREEZEOUT ROAD

(PUBLIC)





Mason & Associates Inc

Professional Engineers, Land Surveyors and Planners

924 3<sup>rd</sup> St. So. Suite B, Nampa, ID 83651 Ph (208) 454-0256 Fax (208) 467-4130

April 20, 2021

Dear Property Owner and Neighbor,

You are invited to participate in an onsite neighborhood meeting on May 5<sup>th,</sup> 2021 between 6:00-6:30 pm. The location of the meeting is 23442 Freezeout Road, Caldwell. For further clarification please refer to the attached exhibit.

If you are uncomfortable due to the COVID-19 you may utilize one of the avenues below to voice your concern and questions. Please be willing to offer your name and address so that your opinions can be passed along to Canyon County Development Services.

A rezone is being requested to change the current agricultural land use to residential (R-1) land use along with a preliminary plat.

Contact information:

Mail:

#### **Email:**

**Phone:** 

(208) 454-0256 Ask for Angie

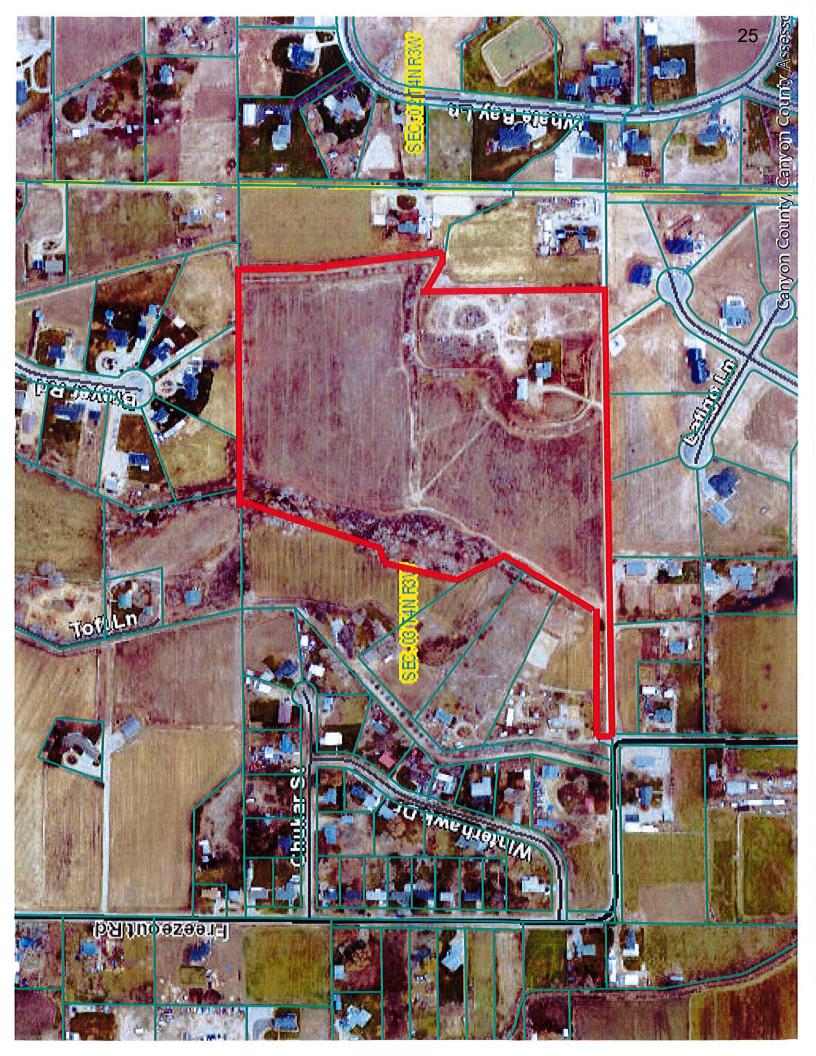
Mason & Associates, Inc.

Attn: Angie Cuellar 924 3<sup>rd</sup> Street South, Ste. B Nampa, ID 83651 acuellar@masonandassociates.us

Thank you,

· lle

Angie Cuellar, Planner Mason & Associates, Inc.



# **NEIGHBORHOOD MEETING SIGN-UP**

CANYON COUNTY DEVELOPMENT SERVICES DEPARTMENT 111 North 11<sup>th</sup> Avenue, #140, Caldwell, ID 83605



www.canyonco.org/dsd.aspx Phone: 208-454-7458 Fax: 208-454-6633

NEIGHBORHOOD MEETING SIGN UP SHEET CANYON COUNTY ZONING ORDINANCE §07-01-15						
Applicants shall conduct a neighborhood meeting for any proposed comprehensive plan amendment, zoning map amendment (rezone), subdivision, variance, conditional use, zoning ordinance map amendment, or other requests requiring a public hearing.						
SITE INFO	ORMATION					
Site Address: O Freezeout Rd Parcel Number: R34479						
City: Middleton	City: Middleton State: ID ZIP Code:					
Notices Mailed Date: April 20, 2021	Notices Mailed Date: April 29, 2071 Number of Acres: 31 Current Zoning: AG					
Description of the Request: rezone and preliminary plat.	Description of the Request:					
APPLIÇANT / REPRESE	NTATIVE INFORMATION					
Contact Name: Will Mason / Br	ian Falk					
Company Name: Mason and Associates / Pioneer Homes						
Current address: 924 3rd Street S						
City: Nampa State: ID ZIP Code: 8365/						
Phone: (208) 454-0256 Cell: Fax:						
Email: wmason@masonandassociates.us						

	MEETING INFORMATION
DATE OF MEETING: May 5, 2021	MEETING LOCATION: On site
MEETING START TIME: Upm	MEETING END TIME: Jon
ATTENDEES: See below	
NAME (PLEASE PRINT)	SIGNATURE: ADDRESS:
1. Harman Menne	Laar 23377 Free enet al
2. STEVE DEBLASIO (52)	S 14217 LANGO LANE
3. Far Burchavel St	Edy Cordeniz 23464 FVEEROUT Rd
4. VALERIE ORR	23444 FREELEDUT RP
5. CHARLENE ORR	23444 FREEZEDUT RD 23448 Freizeart Rd
6. Debbie White 7. BEN B. SCHNETOER	
8. Brand Sil S	23452
. Jame + Tamie Snit	h 23417 Freezeput Bd
d	

Revised 11/25/20

				da	0		
10.	STEVE	AND DANA	CAROSAHAN	Lel	< 1405h	LOATTOR 10	1045 10
11.	STOREN	FAIRWOATHO	n Ston M	munut	23434	FREEZEUNT	RODO
12.	Glenn	n Kach	Ble	- Koch	2330		t,
13.	harles	ADRR		23444	FREESE	out Rd	
14.	TEED	VAJOLO	ö	23776 B	REYER	RD,	
15.							
16.							
17.							
18.			ε,				
19.							
20.							

### NEIGHBORHOOD MEETING CERTIFICATION:

I certify that a neighborhood meeting was conducted at the time and location noted on this form and in accordance with Canyon County Zoning Ordinance § 07-01-15.

APPLICANT/REPRESENTATIVE (Please print);-

BRTAN FALCK APPLICANT/REPRESENTATIVE (Signature):

DATE: 5 / 5 / 21

# LEVEL 1 NUTRIENT PATHOGEN STUDY FREEZEOUT RIDGE ESTATES SUBDIVISION

23442 Freezeout Road Caldwell, ID

-

#### **PREPARED FOR:**

Mr. Brian Falck Pioneer Homes 719 1st Street South, Suite B Nampa, ID 83651

#### PREPARED BY:

Atlas Technical Consultants, LLC 2791 South Victory View Way Boise, ID 83709

January 14, 2021 B201724g



2791 South Victory View Way Boise, ID 83709 (208) 376-4748 | oneatlas.com

January 14, 2021

Atlas No. B201724g

Mr. Brian Falck Pioneer Homes 719 1st Street South, Suite B Nampa, ID 83651

Subject: Level 1 Nutrient Pathogen Study Freezeout Ridge Estates Subdivision 23442 Freezeout Road Caldwell, ID

Dear Mr. Falck:

In compliance with your instructions, Atlas has conducted a Level 1 Nutrient Pathogen Study for the above referenced development. Atlas researched and analyzed pertinent geologic conditions in the vicinity of the project site, and the data was used to estimate the downgradient nitrate concentration from the proposed development. Our scope of services is provided in the following report, and the components of this report are listed in the **Table of Contents**. We have provided a PDF copy for your review and distribution.

Atlas would be pleased to continue our role as geotechnical engineers during project implementation. Additionally, Atlas has great interest in providing materials testing and special inspection services during construction of this project. If you will advise us of the appropriate time to discuss these services, we will meet with you at your convenience.

If you have any questions, please call us at (208) 376-4748.

Respectfully submitted,

Ethan Salove, PE Geotechnical Engineer

Monica Saculles, PE Senior Geotechnical Engineer

Distribution: Fritz Durham, Idaho Department of Environmental Quality (PDF Copy); Brigitta Gruenberg, Southwest District Health (PDF Copy); William Mason, Mason & Associates, Inc. (PDF Copy). 29



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# 1. INTRODUCTION

This report presents results of a Level 1 Nutrient Pathogen (NP) Study conducted for the proposed Freezeout Ridge Estates Subdivision in Caldwell, ID. This study has been conducted to determine whether the proposed number of residential lots for the site will exhibit a negligible impact on groundwater conditions and whether a comprehensive Level 2 NP Study, as outlined by Southwest District Health (SWDH), will be required.

# 1.1 Authorization

Authorization to perform this analysis was given in the form of written authorization to proceed from Mr. Brian Falck of Pioneer Homes to Monica Saculles of Atlas Technical Consultants (Atlas), on October 14, 2020. Said authorization is subject to terms, conditions, and limitations described in the Professional Services Contract entered into between Pioneer Homes and Atlas. Our scope of services for the proposed development has been provided below.

# 1.2 Purpose

The purpose of this study is to determine the various site parameters present, which in turn will determine whether the proposed number of residential lots for the site will exhibit a negligible impact on groundwater conditions. Specifically, this study complies with requirements established by Canyon County and the SWDH for area developments in accordance with the Idaho Department of Environmental Quality (IDEQ) guidelines dated 6 May 2002.

# 1.3 Scope of Investigation

The scope of this study included reviewing geologic literature, assembling an inventory of available reports of wells (domestic, irrigation, or other) in the immediate area, reviewing available water resource reports, and performing a site reconnaissance of the project site. At an additional fee, Atlas will perform on-site evaluation of soils within the proposed septic system drainfield locations following approval of the preliminary plat; however, at that time, a SWDH or IDEQ representative must be present to observe and approve this work.

# **1.4 Warranty and Limiting Conditions**

The field observations and research reported herein are considered sufficient in detail and scope to form a reasonable basis for the purposes cited above. Atlas warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted professional engineering practice in the fields of site civil engineering, soil mechanics, and engineering geology, only for the site described in this report. No other warranties are implied or expressed.



These engineering methods have been developed to provide the client with information regarding apparent or potential engineering conditions relating to the subject property within the scope cited above and are necessarily limited to the conditions observed at the time of the site visit and research. The report is also limited to the information available at the time it was prepared. In the event additional information is provided to Atlas following the report, it will be forwarded to the client in the form received for evaluation by the client. There is a distinct possibility that conditions may exist which could not be identified within the scope of the investigation or which were not apparent during the site investigation.

This report was prepared for the use of Pioneer Homes, and their retained design consultants ("Client"). Conclusions and recommendations presented in this report are based on the agreed upon scope of work outlined in the report and the Contract for Professional Services between Client and Atlas Technical Consultants ("Consultant"). Use or misuse of this report, or reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither Client nor Consultant make any representation of warranty to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown to Client or Consultant. Neither Client non Consultant shall have any liability to, or indemnifies or holds harmless third parties for any losses incurred by the actual or purported use or misuse of this report. No other warranties are implied or expressed.

# 2. PROJECT DESCRIPTION AND EXISTING SITE CONDITIONS

# 2.1 **Project and Vicinity Description Including Site Topography and Drainage**

The proposed development is located north of the City of Caldwell, Canyon County, ID, and occupies a portion of the SE¼NE¼ and SW¼NE¼ of Section 3, Township 4 North, Range 3 West, Boise Meridian. The site address is 23442 Freezeout Road in Caldwell, Idaho.

Currently, the proposed development consists of 31.4 acres of agricultural land with a residence located in the southeastern portion of the parcel. A general westerly slope is present across the site. The project site is bordered on the south by a private driveway, bordered by a small drainage swale to the west, and bordered on the north and east by existing rural residential/agricultural properties. The proposed development will consist of 20 single-family residential lots with individual wells and septic systems.

No stormwater drainage facilities are located in the vicinity of the site, and the project site does not receive off-site drainage. Stormwater drainage for the project site is achieved by percolation through surficial soils. Regional drainage is north and west towards the Boise River. A topographic map and general site map are located in **Appendix I**.



# 2.2 Regional Geology

The project site is located within the western Snake River Plain of southwestern Idaho and eastern Oregon. The plain is a northwest trending rift basin, about 45 miles wide and 200 miles long, that developed about 14 million years ago (Ma) and has since been occupied sporadically by large inland lakes. Geologic materials found within and along the plain's margins reflect volcanic and fluvial/lacustrine sedimentary processes that have led to an accumulation of approximately 1 to 2 km of interbedded volcanic and sedimentary deposits within the plain. Along the margins of the plain, streams that drained the highlands to the north and south provided coarse to fine-grained sediments eroded from granitic and volcanic rocks, respectively. About 2 million years ago the last of the lakes was drained and since that time fluvial erosion and deposition has dominated the evolution of the landscape.

The project site is underlain by "Gravel of Deer Flat Terrace" as mapped by Othberg and Stanford (1993). Gravel of Deer Flat Terrace extends from Lake Lowell northeast to the area just south of Wilder. The surface of this terrace may have been offset by several northwest trending faults. Deposits include sandy pebble gravel grading at depth to coarse pebbly sand. Deposited on the fourth terrace above the floodplain in the western Boise Valley. North of Caldwell and Middleton Tertiary sediments are exposed between terrace remnants. Terrace sediments are typically greater than 30 feet thick and mantled with loess 1-4 meters (3-13 feet) thick, contain 45% pedogenic clay and very well developed duripans. A geologic map showing the approximate site boundary is included in **Appendix II**.

# 2.3 Localized Geology and Hydrogeology

Based on review of Well Driller's Reports (well logs) maintained at the IDWR website for portions of three immediately adjacent sections, Atlas assessed the localized geology and hydrogeology for the site and surrounding areas. Further description of the well log research can be found in the **Well Driller's Report Review** section of this report. In general, well logs in the area show that near surface soils consist primarily of topsoil and hardpan/cemented soils that are underlain by sands and gravels with intermittent clay layers.

The well logs also showed static groundwater levels generally ranging from around 6 to 75 feet below ground surface. First encountered water was not always listed on the well logs, but based on available data and assessing depths of the first water bearing zones that were documented, first encountered water appears to range from roughly 8 to 95 feet below ground surface. In some limited instances, first encountered water wasn't noted until depths of up to 134 feet. The water depths appear to vary with location and topography.



# 2.4 Soil Survey Review

Atlas reviewed the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Service website for soil survey information on Canyon County. Research indicated that the project site is characterized by Elijah-Chilcott silt loams and Elijah-Vickery silt loams. Specific soils characteristics, as defined by the USDA NRCS, have been listed below for each of these soils and soil survey data from the NRCS website has been included in **Appendix III** of this report:

- Elijah-Chilcott silt loam Elijah-Chilcott soils occur on terraces. These soils are classified as well drained and the most limiting soil layer has a very low to moderately low capacity to transmit water. Typical soil profiles of the Elijah-Chilcott silt loams include silt loam and silty clay loam at the surface, followed by cemented material underlain by very gravelly sand. Slopes of Elijah-Chilcott soils are typically 1 to 3 percent.
- Elijah-Vickery silt loam Elijah-Vickery soils occur on terraces. These soils are classified as well drained and the most limiting soil layer has a very low to moderately low capacity to transmit water. Typical soil profiles of the Elijah-Vickery silt loams include silt loam, loam, and silty clay loam at the surface, followed by cemented material underlain by very gravelly sand or coarse sand. Slopes of Elijah-Vickery soils are typically 3 to 7 percent.

# 2.5 Review of Nutrient Pathogen Studies in the Vicinity of the Project Site

Atlas has filed a request for information with IDEQ and the SWDH to view nutrient pathogen studies completed near the referenced site. Atlas was provided copies of 6 such studies (outlined below). Information gathered from review of these documents is referenced within the **Hydraulic Conductivity** section of this report.

- Addendum to Level I Nutrient Pathogen Study, Proposed Sagebrush Estates Subdivision, Canyon County, Idaho, prepared by Terracon and dated September 18, 2007
- Addendum for Level 1 Nutrient-Pathogen Evaluation, Purple Sage Estates Subdivision No. 2, SW of Purple Sage Road and El Paso Road, Portion of Canyon County parcel No. R38128010 Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated December 22, 2017
- Level 1 Nutrient-Pathogen Evaluation, Sunset Ridge Subdivision, SEC of Willis Road and El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated July 13, 2017
- Level 1 Nutrient-Pathogen Evaluation, Willis Road Subdivision, NEC of Willis Road and El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated March 1, 2017
- Revised Level 1 Nutrient-Pathogen Evaluation, Purple Sage Subdivision No. 3, South of Purple Sage and West of El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated September 11, 2019
- Level One Nutrient Pathogen Study, Saddleback Ridge Estates, Middleton, Idaho, prepared by Applied Intellect and dated April 30, 2019



# 3. SITE PARAMETERS FOR LEVEL 1 NITRATE MASS-BALANCE ANALYSIS

#### 3.1 Water Budge Parameters

#### 3.1.1 Well Driller's Report Review

Prior to 1967 in the State of Idaho, driller's logs for wells were submitted to Idaho Department of Water Resources (IDWR) on a voluntary basis. After 1967, it became and Idaho requirement to submit logs for all wells drilled. However, the state was unable to track or enforce completion of this requirement until 1987 when well permits were also required by the state. Therefore, available records maintained by the IDWR may be incomplete for the area researched.

Atlas conducted a review of Well Driller's Reports (well logs) maintained at the IDWR website for portions of three immediately adjacent sections. A total of 31 Well Driller's Reports on file for this area were copied and are included in **Appendix IV** of this report, along with a map showing approximate well locations. Although numerous well logs are available for the site vicinity, only 17 wells provided complete pump test data. A spreadsheet showing tabulated data from these 17 well logs can be found in **Appendix IV**.

Of these wells, several did not have aquifer bottom recorded and were excluded from analysis. Well number 4 was drilled greater than 100 feet past first encountered water and was likewise eliminated from analysis. Atlas was left with 12 well logs that were used for hydraulic conductivity analysis.

From the 17 wells with complete pump test data, discharge rates ranging from 12 to 60 gallons per minute were reported. Drawdown data generally ranged from 5 to 80 feet, though some well logs reported drawdown as high as 150 feet. Soils commonly encountered included sand and gravel sediments with intermittent clay layers.

# 3.1.2 Hydraulic Conductivity

Atlas calculated the transmissivity of each of the wells using the following relationship provided by Razack and Huntley (C.W. Fetter, 2001):

$$T = 33.6 \left(\frac{Q}{h_0 - h}\right)^{0.67}$$

Where:

T = Transmissivity (feet²/day) Q = Pumping Rate (feet³/day) h<sub>0</sub>-h = Drawdown (feet)

The hydraulic conductivity values for each of the wells were then obtained by the following relationship (C.W.Fetter, 2001):

 $K = \frac{T}{h}$ 

Where:

K = Hydraulic Conductivity (feet/day) T = Transmissivity (feet<sup>2</sup>/day) b = Aquifer Thickness (feet)



Using the previously stated equations with the stated input data, Atlas obtained calculated hydraulic conductivity values that ranged from 7 to 181 feet/day. Atlas calculated the average hydraulic conductivity value as 65 feet/day. Additionally, based on six previous NP Studies that have been conducted within the vicinity of the project site, hydraulic conductivity values of 70 feet per day were used and approved during the IDEQ/SWDH review process. Based on this evidence, hydraulic conductivity values reflective of fine sand to coarse sand with some gravel are considered to be most reflective of the shallow groundwater flow regime across the site, and typical hydraulic conductivity rates for these sediments vary approximately from 3 to 300 feet/day (C.W. Fetter, 2001). For the mass-balance spreadsheets, Atlas used a hydraulic conductivity of 65 feet/day, which is the calculated average of the well logs and more conservative than the values used in previous NP studies.

#### 3.1.3 Groundwater Gradient and Direction

For groundwater gradient information within the vicinity of the site, a review of the available literature developed for the region was conducted. Specifically, Atlas reviewed the map provided to Atlas by the IDEQ during the public records request. This map showed the groundwater contour elevations in the vicinity of the site. Based on these groundwater contour elevations, Atlas found that a 50 foot drop in elevation occurs in the area over a distance of roughly 10,475 linear feet. This drop in groundwater elevation yields a hydraulic gradient of 0.00477 feet/feet. A southwestern groundwater flow direction (roughly 220° Azimuth) was also determined based on this map. For this report, Atlas used a hydraulic gradient of 0.00477 feet/feet for the mass-balance spreadsheet. Atlas has presented a map of the IDEQ groundwater flow contours in **Appendix V** of this report.

#### 3.1.4 Mixing Zone Thickness

In the mass-balance spreadsheets, the mixing zone thickness refers to the induction zone anticipated for the septic tank effluent or contaminate source. IDEQ guidance states that the value of the mixing zone thickness varies with distance from the proposed location of the septic system to the property boundary as follows:

- If distance is less than 500 feet to the property boundary, use a mixing zone thickness of 15 feet.
- If distance is between 500 and 1,000 feet to the property boundary, use a mixing zone thickness of 30 feet.
- If distance is greater than 1,000 feet to the property boundary, use a mixing zone thickness of 60 feet.

Since the distance between the closest individual septic system location to the property boundary will be less than 500 feet, Atlas used a value of 15 feet as the mixing zone thickness for the massbalance spreadsheets.



### 3.1.5 Aquifer Widths Perpendicular to Flow

Atlas used a southwest groundwater flow direction (approximately 220° Azimuth) and the property site plan to determine the aquifer widths for the mass-balance spreadsheets. For the individual lots on the project site, Atlas determined that 179.20 to 362.88 feet are the aquifer widths that are perpendicular to the southwesterly flow direction. A site map with the perpendicular widths identified is located in **Appendix VI** of the report.

### 3.1.6 Area of Parcel, Percent of Lot Impervious, and Number of Proposed Lots

The Client described the project as 31.4 acres with 20 proposed lots that are approximately 1.00 to 1.89 acres in size. For the mass-balance spreadsheets, Atlas analyzed each of the 20 lots on 1.00 to 1.89 acres and estimated that less than five percent of the parcel would be impervious to percolation as a result of the proposed development.

### 3.1.7 Gallons of Septic Tank Effluent

The Client described the project as having individual septic tank systems for each proposed single-family residential lot. For the mass-balance spreadsheets, Atlas used the default value of 300 gallons per day for the septic system as the amount of effluent discharge.

### 3.1.8 Regional Climatology and Natural Recharge Rate

For the region, the annual average temperature ranges from 20°F to 91°F with extremes from roughly -4°F to 102°F. The region has average wind speeds of up to 11 miles per hour in spring with a prevailing direction from the southeast. The pH of surface water, groundwater, and soil in the region typically range from 7 to 9. Average precipitation for the region is on the order of 10 to 12 inches per year.

The natural recharge rate (NRR) has been estimated using the following relationship provided by IDEQ:

NRR = 0.0046(Annual Precipitation in inches)<sup>2</sup>

Using the above relationship, an annual precipitation rate of 11.45 inches yields an estimated natural recharge rate of 0.6 inches per year, and this value was used in the mass-balance spreadsheets. A copy of the research data showing the annual precipitation for the project area is included in **Appendix VII**.



#### 3.2 Nitrogen Budget Parameters

#### 3.2.1 Vicinity Water Quality and Background Groundwater Nitrate Concentration

Atlas reviewed well monitoring data from the IDEQ and IDWR websites for 12 wells in the project site vicinity. Of these 12 wells, only 5 of them had been monitored within the past 10 years. The most recent monitoring event for these 5 wells occurred in 2013 and nitrate concentration ranged from 2.3 to 6.3 mg/L. Atlas averaged the highest nitrate value obtained from each of the 5 assessed wells, which resulted in a nitrate concentration of 4.1 mg/L. Therefore, Atlas used a value of 4.1 mg/L as the background nitrate level for the mass-balance spreadsheets in this report. A spreadsheet showing tabulated data from these 12 well logs, as well as a map showing the well locations, can be found in **Appendix VIII**.

#### 3.2.2 Septic Tank Effluent Concentrations

In the mass-balance spreadsheets, the value for septic tank effluent concentrations refers to the amount of nitrate (nitrate concentration) that is anticipated to be released into the groundwater system from effluent or a contaminate source. Currently, there are three types of septic tank systems: a regular septic tank system and two nitrate reducing systems:

- A regular septic tank releases a nitrate concentration of 45 mg/L in the effluent discharge.
- A 40 percent nitrate reducing system releases a nitrate concentration of 27 mg/L in the effluent discharge.
- A 65 percent nitrate reducing system releases a nitrate concentration of 16 mg/L in the effluent discharge.

#### 3.2.3 Denitrification Rate and Nitrate in Natural Recharge Rate

In the mass-balance spreadsheets, the values for the denitrification rate and nitrate in natural recharge are preset default values set by IDEQ. Atlas used the default value of 0 for the Denitrification Rate and 0.3 mg/L for the Nitrate in Natural Recharge for the mass-balance spreadsheets.

#### 4. LEVEL 1 NITRATE MASS-BALANCE ANALYSIS

Nitrate is the most mobile constituent of concern in domestic wastewater and has an impact on public health when the maximum contaminant level (MCL) is exceeded (nitrate-N >10.0 mg/L). For this reason, nitrate is usually the limiting factor in determining appropriate lot sizes and onsite wastewater treatment system design and placement. According to the <u>Nutrient-Pathogen</u> <u>Evaluation Program for On-Site Wastewater Treatment Systems May 2002</u>, IDEQ considers an increase of 1.0 mg/L nitrate, or less, predicted to occur at the down-gradient boundary of each individual lot as demonstrating a negligible impact. To evaluate the impact of nitrate on the groundwater system in the vicinity of the proposed project, a mass-balance approach, recommended by SWDH and IDEQ, has been performed. Note that calculations for this approach do not take into consideration actual alignment of individual wastewater treatment systems.



The mass-balance spreadsheets for down-gradient nitrate concentration of the individual lots with the smallest aquifer width perpendicular to groundwater flow for each size of lot are present in **Appendix IX**. A summary of values used in the analysis are presented in **Table 1** and results of the analyses are presented in **Table 2**.

Water Budget	Value Used
Hydraulic Conductivity (ft/day)	65
Hydraulic Gradient	0.00477
Mixing Zone Thickness (ft)	15
Percent of Parcel that is Impervious (%)	5
Septic Tank Effluent (gpd/home)	300*
Natural Recharge Rate (in/yr)	0.6
Nitrogen Budget	Value Used
Upgradient Groundwater Concentration (mg/L)	4.1
Denitrification Rate (decimal fraction)	0*
Nitrate in Natural Recharge (mg/L)	0.3*
Point of Compliance Nitrate Concentration Goal (mg/L)**	5.1

\*Numbers represent the default values recommended by IDEQ and SWDH.

\*\*Upgradient groundwater concentration (mg/L) plus 1 mg/L equates to point of compliance nitrate concentration goal.

Results of the mass-balance analysis for the individual lots with the smallest aquifer widths perpendicular to groundwater flow for each size of lot are outlined below. Mass-balance spreadsheets for 40% nitrate reducing septic systems were only prepared for the lots that were incapable of supporting a standard septic system.

#### Table 2 – Individual Lot Mass-Balance Analysis for Various Septic Tank Systems

	Smallest Aquifer Width	Downgradient Nitrate Concentration (mg/L)		
	Perpendicular to Groundwater Flow Direction (feet)	Standard Septic Systems	40% Nitrate Reducing Systems	
1.00	228.41	5.6*	4.9	
1.01	226.05	5.6*	4.9	
1.04	179.20	5.9*	5.1	
1.14	290.89	5.3*	4.7	
1.20	326.11	5.1	N/A	
1.24	262.50	5.4*	4.8	
1.30	302.70	5.2*	4.7	
1.34	300.99	5.2*	4.7	

\*Value exceeds the point of compliance nitrate concentration goal of 5.1 mg/L.



	Smallest Aquifer Width	Downgradient Nitrate Concentration (mg/L)	
Lot Area (acres)	Perpendicular to Groundwater Flow Direction (feet)	Standard Septic Systems	40% Nitrate Reducing Systems
1.40	313.27	5.2*	4.7
1.42	302.05	5.2*	4.7
1.46	326.11	5.1	N/A
1.50	211.51	5.7*	5.0
1.69	345.17	5.1	N/A
1.87	344.61	5.1	N/A
1.89	236.19	5.5*	4.9

#### Table 2 (cont'd) – Individual Lot Mass-Balance Analysis for Various Septic Tank Systems

\*Value exceeds the point of compliance nitrate concentration goal of 5.1 mg/L.

#### 5. CONCLUSIONS AND RECOMMENDATIONS

Mass-balance spreadsheets for down-gradient nitrate concentration have been prepared for the individual lots with the smallest aquifer widths perpendicular to groundwater flow for each lot size. All spreadsheets are presented in the **Appendices** of this report. The results indicated that all lots were below the Point of Compliance Nitrate Concentration of 5.1 mg/L when using the 40 percent nitrate reduction septic system; however, lots 4, 7, 8, and 10 were below using a standard septic system. Therefore, the proposed development does not exceed the down-gradient Point of Compliance Nitrate Concentration of 5.1 mg/L when using a 40 percent nitrate reduction septic system for above mentioned lots. As a result, the development meets the criteria of a negligible impact as defined by the IDEQ.

Note that IDEQ and SWDH must review and approve the parameter values developed for this Level 1 NP Study and the mass-balance spreadsheets prior to subdivision approval. Also, note the following:

- If changes in the number of lots are desired, a revised lot layout must be provided to Atlas, and this study must be resubmitted or amended.
- This report must be submitted to the SWDH with a preliminary plat as well as the Subdivision Engineering Report (SER). Also, SWDH requires a preliminary development meeting to begin the SER process.
- To verify soil profile components at actual drainfield locations, soil exploration by test pits or borings, with approval by SWDH personnel, will be required following development of the preliminary plat.

Again, these results, as of the completion of this report, have not been reviewed by IDEQ or SWDH. Therefore, a revision in assumed hydraulic conductivity value, or other parameters used in the mass-balance spreadsheet, may be required subsequent to the SWDH and IDEQ review, and consequently, the allowable number of lots may change significantly. If so, the SWDH and IDEQ will request that this report be resubmitted or amended with revised values.



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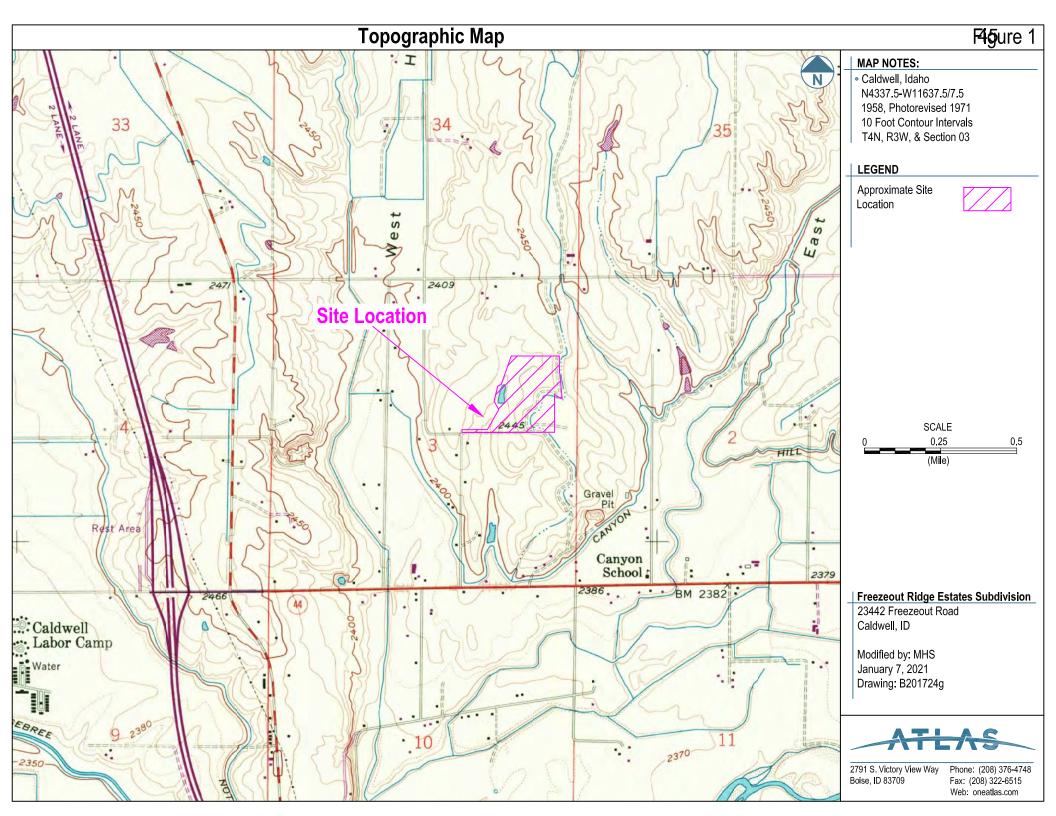
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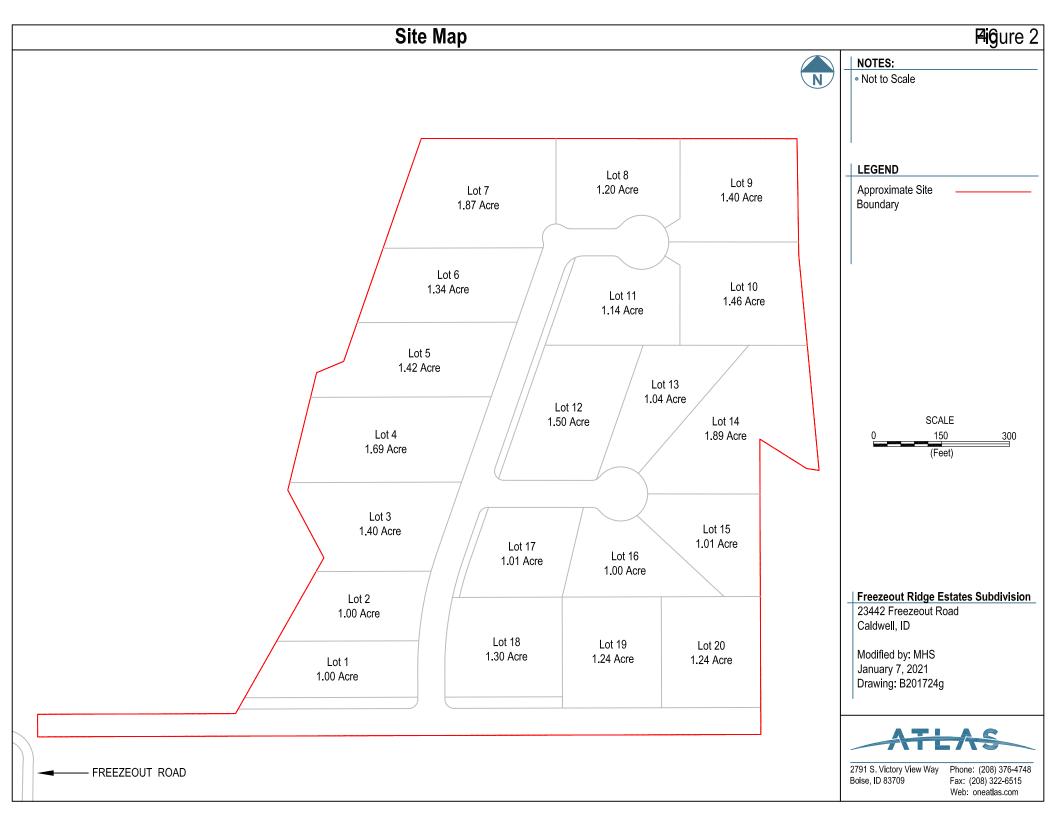


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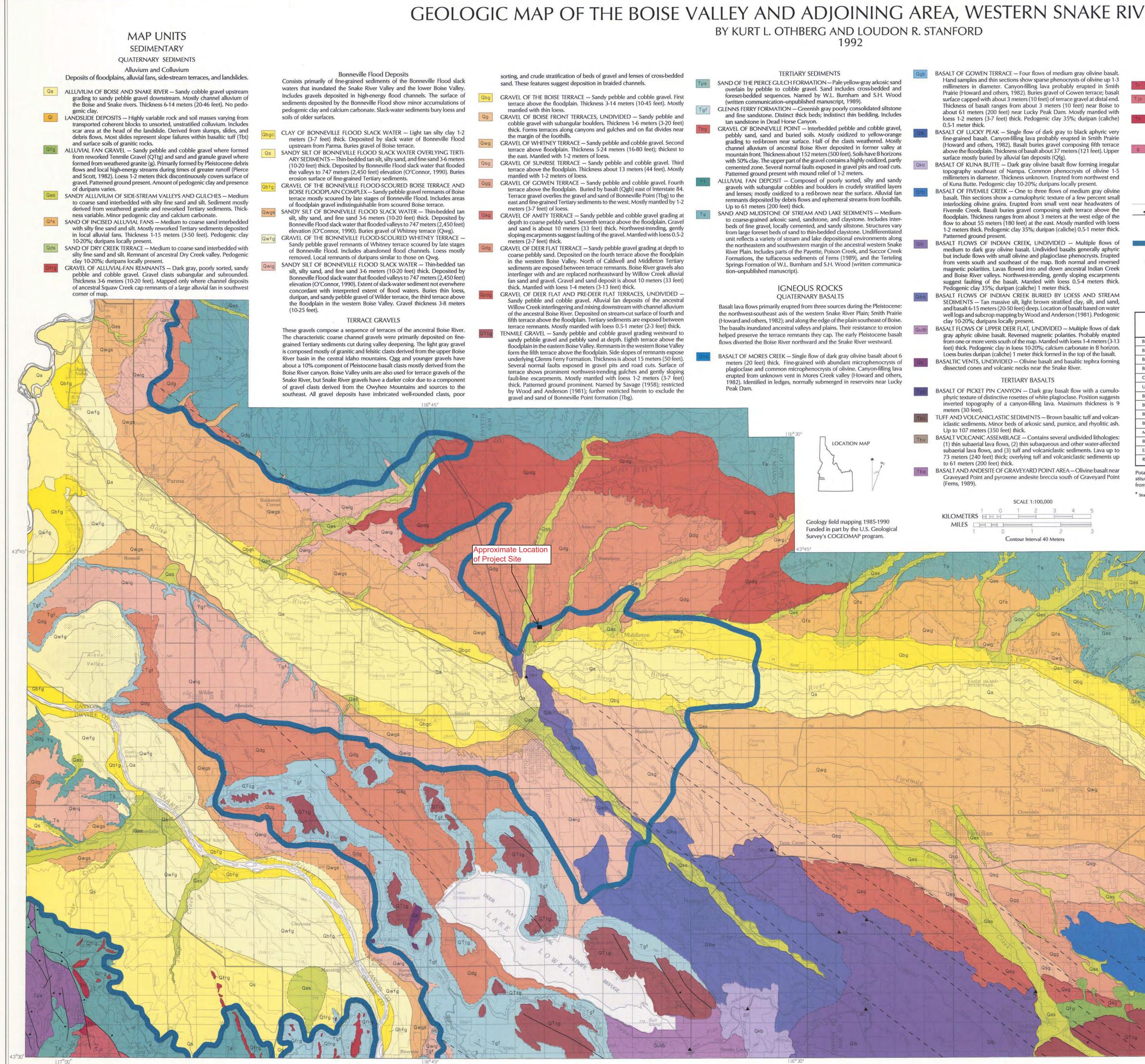
Appendix I TOPOGRAPHIC MAP AND GENERAL SITE MAP

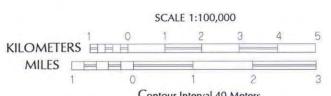






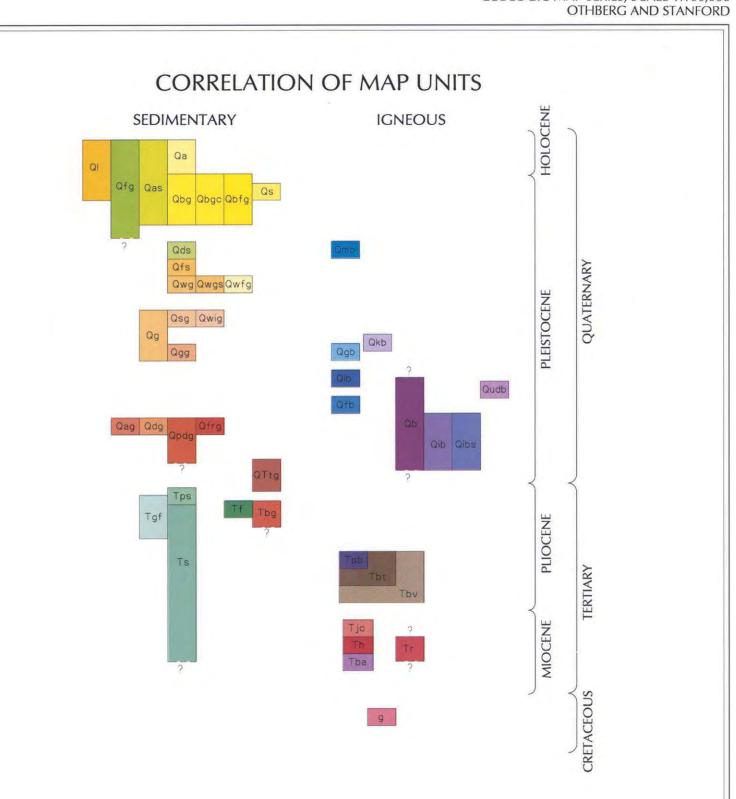
# GEOLOGIC MAP OF THE BOISE VALLEY AND ADJOINING AREA, WESTERN SNAKE RIVER PLAIN, IDAHO BY KURT L. OTHBERG AND LOUDON R. STANFORD





Published and sold by the Idaho Geological Survey University of Idaho, Moscow, Idaho 83843

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### Pedogenic<sup>1</sup> clay and duripans<sup>2</sup> on terraces.

			Map	Unit		
	Qbg Qbgc Qwig <sup>3</sup>	Qwg Qds	Qsg	Qgg	Qag Qdg <sup>4</sup> Qpdg	QTtg
CLAY (percent) 50 25 0						
DURIPAN (meters) 2 1 0						

Soil data adapted from Collett (1980), Priest and others (1972), and the University of Idaho Soil Characterization Laboratory Collett, R. A., 1980, Soil survey of Ada County area, Idaho: U.S. Department of Agriculture, Soil Conservation Service, 327 p., 72

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commonly called caliche. <sup>3</sup> The Bonneville Flood slack-water sediments that form the surface of Qwig (gravel of Wilder terrace) bury a duripan about 0.5 meter thick that formed in the top of the gravel.

<sup>4</sup> The surface of Qdg (gravel of Deer Flat terrace) is buried by loess from near Lake Lowell to near Wilder. The thick duripan lies at depths of 1-4 meters (3-13 feet).

> U.S.G.S. 1:100,000 topographic base Projection and 10,000 meter grid, zone 11, Universal Transverse Mercator

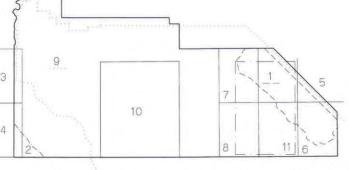
> > 1927 North American Datum

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## ADDITIONAL SOURCES OF GEOLOGIC MAPPING



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- 1. Wood, S.H., and W.L. Burnham, 1983, Boise, Idaho, geothermal system: Transactions of the Geothermal Resources Council, v. 7, p. 215-225.
- Cartography by Loudon R. Stanford on a computer-aided cartographic system at the Idaho Geological Survey Typography by Ann G. Killen
- Map reviewed by Roy M. Breckenridge, Willis L. Burnham, and Monte D. Wilson
- Digital four-color separations by Optronics Specialty, Inc., Chatsworth, California Printed by Joslyn & Morris, Inc., Boise

RHYOLITE OF THE BOISE FRONT – Pinkish gray porphyritic rhyolite, dark gray vitrophyre, and gray perlite. JUMP CREEK RHYOLITE - Mostly gray porphyritic rhyolite and quartz latite. Plagioclase phenocrysts up to 15 millimeters. Lava flow or remobilized welded tuff HORNBLENDE-BIOTITE RHYOLITE - Black glassy rhyolite; light gray where

TERTIARY RHYOLITES

- devitrified. CRETACEOUS GRANITIC ROCKS
- GRANITIC ROCKS OF THE IDAHO BATHOLITH Light gray biotite granite and granodiorite. Medium to coarse grained and equigranular to porphyritic. Includes pegmatite zones and dikes of rhyolite and basalt.

## MAP SYMBOLS

	IT I STITLE CES
	Contact: approximately located; dashed where inferred
<u> </u>	Fault: approximately located; dashed where inferred; dotted where concealed; ball and bar on downthrown side
15 Y	Strike and dip of bedding
	Approximate upper limit of Bonneville Flood slack water
	Sand dune fields
	Basalt sampling site

Basalt sampling site

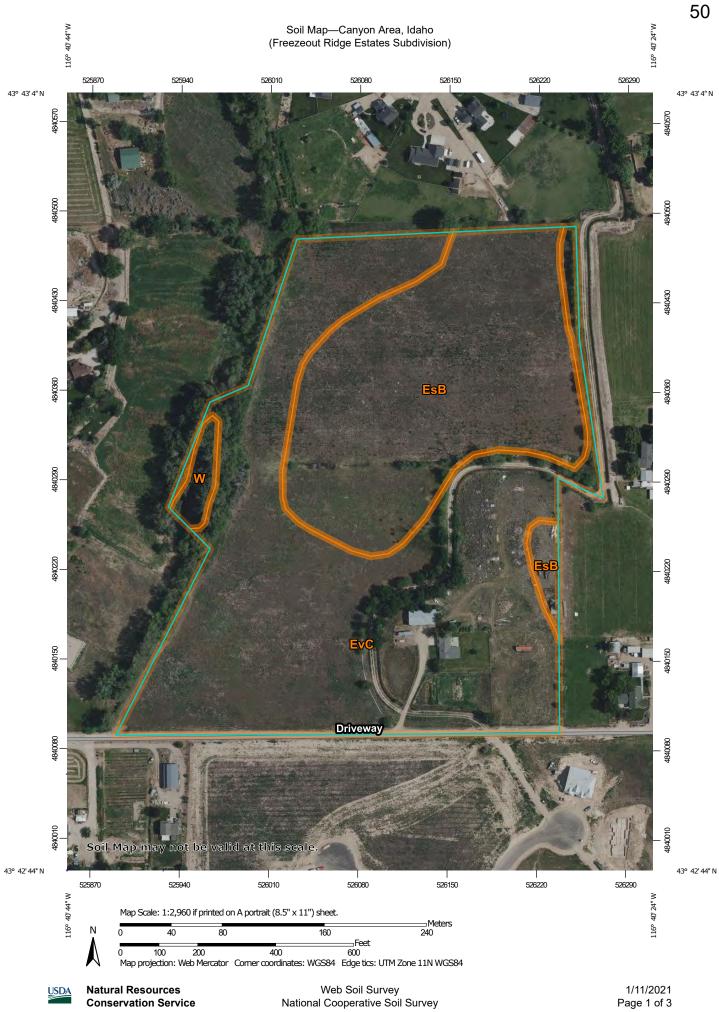
## Magnetic Polarities, K/Ar Ages, and <sup>40</sup>Ar/<sup>39</sup>Ar Ages of Basalts

Rock Unit	Field Number	Polarity	Latitude	Longitude	Age (Ma) <sup>1</sup> potassium-argon <sup>2</sup> argon-argon
Basalt of Mores Creek	MC-1	N	43°31.52′	116°3.76′	0.107 0.012 1
Basalt of Gowen terrace	GT-4	N	43°31.33'	116°4.24′	0.572 0.210 1
Basalt of Kuna Butte (South Side)	SS	N	43°31.51′	116°32.03′	0.387 0.031 2
Basalt of Lucky Peak	LP-4	N	43°31.85'	116°3.66'	1.364 0.210 1*
Caldwell lava flow	CBR	R	43°41.31'	116°41.06′	0.799 0.095 2
Upper Deer Flat lava flow	UDF	R	43°30.29′	116°34.38′	0.922 0.184 2
Basalt of Fivemile Creek	30-3	N	43°32.67'	116°9.38′	0.974 0.098 1
Basalt of Fivemile Creek	FM1	N	43°30.27′	116°6.91′	
Basalt of Fivemile Creek	FM2	N	43°31.52'	116°4.45'	
Basalt of Hubbard surface	TCC-1	N	43°31.92'	116°20.20'	1.001 0.098 1
Mason Creek lava flow	MA	N?	43°33.72'	116°28.23'	1.231 0.123 2
Black Cat Road lava flow	BC	R	43°31.43'	116°27.15'	
East Nampa lava flow	NSS	R	43°36.23′	116°31.12′	1.165 0.125 2
Rawson Canal lava flow	RC	R	43°34.09′	116°27.12′	

Potassium-argon and argon-argon analyses provided by the Berkeley Geochronology Center. Institute of Human Origins, University of California, Berkeley, California. Magnetic polarity results from field fluxgate magnetometer using five samples per site.

\* Stratigraphic relationships indicate the K-Ar age of the basalt of Lucky Peak is too old (Othberg and Burnham, 1990).

## Appendix III SOIL SURVEY INFORMATION



National Cooperative Soil Survey

**Conservation Service** 

MAP LEGEND		MAP INFORMATION	
Area of Interest (AOI)SoilsSoilsSoil Map Unit PolygonSoil Map Unit LinesSoil Map Unit LinesSoil Map Unit LinesSoil Map Unit PointsSpecial FeaturesImage: Special Clay SpotSolosed DepressionImage: Special Clay SpotImage: Special Clay S	<ul> <li>Spoil Area</li> <li>Stony Spot</li> <li>Very Stony Spot</li> </ul>	<ul> <li>The soil surveys that comprise your AOI were mapped at 1:20,000.</li> <li>Warning: Soil Map may not be valid at this scale.</li> <li>Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.</li> <li>Please rely on the bar scale on each map sheet for map measurements.</li> <li>Source of Map: Natural Resources Conservation Service Web Soil Survey URL: Coordinate System: Web Mercator (EPSG:3857)</li> <li>Maps from the Web Soil Survey are based on the Web Mercato projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.</li> <li>This product is generated from the USDA-NRCS certified data a of the version date(s) listed below.</li> <li>Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020</li> <li>Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.</li> </ul>	
<ul> <li>Saline Spot</li> <li>Sandy Spot</li> <li>Severely Eroded Spot</li> <li>Sinkhole</li> <li>Slide or Slip</li> <li>Sodic Spot</li> </ul>		Date(s) aerial images were photographed: Jun 10, 2020—Jun 26, 2020 The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.	

## Map Unit Legend

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI
EsB	Elijah-Chilcott silt loams, 1 to 3 percent slopes	10.1	36.3%
EvC	Elijah-Vickery silt loams, 3 to 7 percent slopes	17.3	62.1%
W	Water	0.4	1.6%
Totals for Area of Interest		27.9	100.0%

### Canyon Area, Idaho

#### EsB—Elijah-Chilcott silt loams, 1 to 3 percent slopes

#### Map Unit Setting

National map unit symbol: 2q0v Elevation: 2,300 to 5,300 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 90 to 170 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Elijah and similar soils: 55 percent Chilcott and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Elijah**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Lacustrine deposits and/or loess and/or alluvium

#### **Typical profile**

Ap - 0 to 9 inches: silt loam Bt - 9 to 19 inches: silty clay loam Bk - 19 to 22 inches: silt loam Bkqm - 22 to 40 inches: cemented material C - 40 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

USDA

#### **Description of Chilcott**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Volcanic ash and/or mixed alluvium and/or loess

#### **Typical profile**

A - 0 to 10 inches: silt loam Bt - 10 to 26 inches: silty clay Bk - 26 to 31 inches: loam Bkqm - 31 to 46 inches: cemented material 2C - 46 to 60 inches: very gravelly sand

#### **Properties and qualities**

Slope: 1 to 3 percent
Depth to restrictive feature: 3 to 19 inches to abrupt textural change; 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 2.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: D Ecological site: R011XY001ID - LOAMY 8-12 - Provisional Hydric soil rating: No

### Data Source Information

Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020



### Canyon Area, Idaho

#### EvC—Elijah-Vickery silt loams, 3 to 7 percent slopes

#### Map Unit Setting

National map unit symbol: 2q0w Elevation: 2,000 to 5,200 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 100 to 160 days Farmland classification: Farmland of statewide importance, if irrigated

#### Map Unit Composition

Elijah and similar soils: 60 percent Vickery and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### Description of Elijah

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Lacustrine deposits and/or loess and/or alluvium

#### **Typical profile**

Ap - 0 to 9 inches: silt loam Bt - 9 to 19 inches: silty clay loam Bk - 19 to 22 inches: silt loam Bkqm - 22 to 40 inches: cemented material C - 40 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

USDA

#### **Description of Vickery**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess and/or volcanic ash and/or alluvium derived from igneous rock

#### **Typical profile**

A - 0 to 4 inches: silt loam Bw - 4 to 17 inches: silt loam Bk - 17 to 34 inches: loam Bkqm - 34 to 47 inches: cemented material 2C - 47 to 60 inches: coarse sand

#### **Properties and qualities**

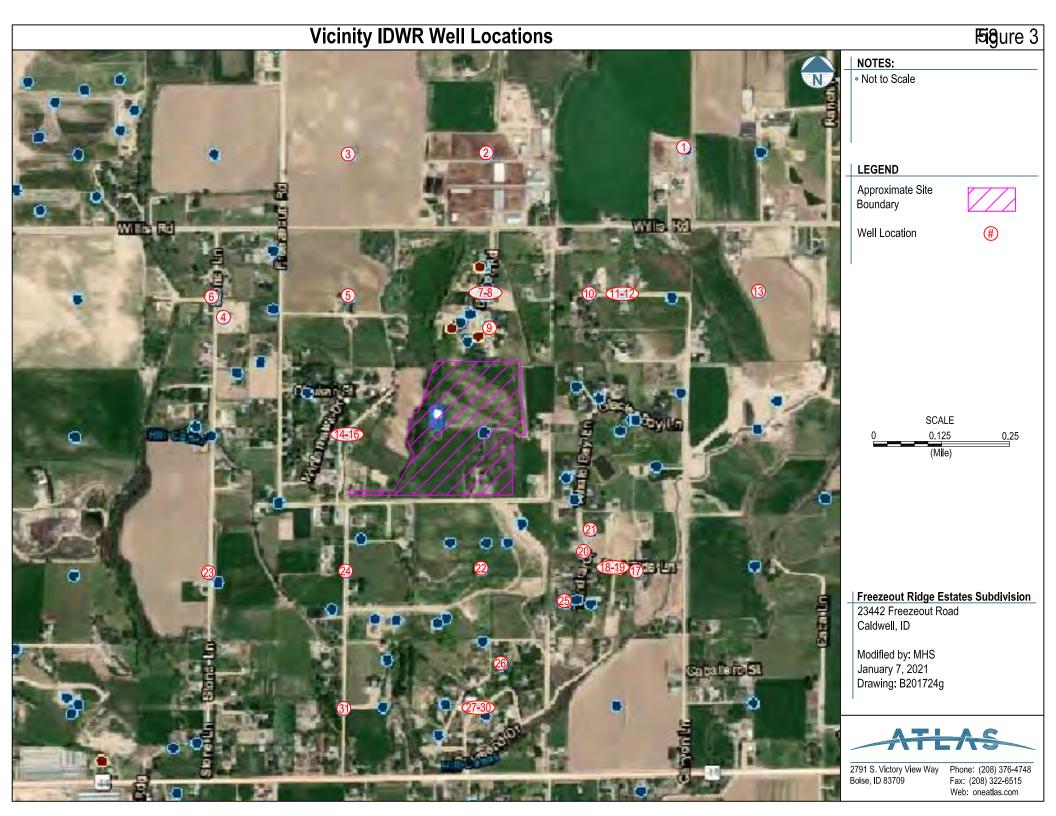
Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.1 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

### **Data Source Information**

Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020 Appendix IV SITE LOCATION WITH VICINITY WELLS MAP AND IDWR DRILLER'S WELL LOGS



Describe control device \_\_\_\_

### IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0066280			
Drilling Permit No. 965483-871542			
Water right or injection well # 63-33545			
2 OWNER			
Name Daniel McLeran / Josh Sylvester			
Address 13758 Willis Rd			
City Caldwell State ID Zip 83607			
3.WELL LOCATION:			
Twp. 5 North X or South C Rge. 3 East or West X S/K 1/4 S/W 1/4 S/W 1/4 S/W 1/4			
Sec. <u>35</u> $S/E$ 1/4 $S/W$ 1/4 $S/W$ 1/4 $S/W$ 1/4			
Gov't Lot         County Canyon           Lat.         43         • 43.3614         (Deg. and Decimal minutes)			
Govi Lot County Statistics			
Long(Deg. and Decimal minutes)			
ddress of Well Site 13758 Willis			
City Caldwell			
Lot Bik Sub. Name			
4. USE:			
Other			
5. TYPE OF WORK:			
X New well       Replacement well       Modify existing well         Abandonment       Other			
6. DRILL METHOD:			
7. SEALING PROCEDURES:			
Seal material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method/procedure 5&3/4bentonite 0 47 1.750LBS overbore drypour			
5&3/4bentonite 0 47 1,750LBS overbore drypour			
8. CASING/LINER: Diameter (nominal) From (ft) To (ft) Gauge/ Schedule Material Casing Liner Threaded Welded			
ELLI Imal family hand			
6 +1.5 137 .250 steel			
Was drive shoe used? X Y IN Shoe Depth(s) 137			
9. PERFORATIONS/SCREENS:			
Perforations DY X N Method			
Manufactured screen XIY IN Type 18 slot Johnson			
Method of installation wash into sand			
From (ff) To (ff) Slot size Number/ff Diameter Material Gauge or Schedule			
140 150 18 5 stainless .250			
Length of Headpipe 7' Length of Tailpipe Valve 6"			
Packer X Y D N Type 3 lip rubber K			
10.FILTER PACK:			
Filter Material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method			
11. FLOWING ARTESIAN:			
Flowing Artesian? Y N Artesian Pressure (PSIG)			

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) 75	Static water level (ft) 75
Water temp. ( <sup>0</sup> F) Cold	Bottom hole temp. ( <sup>0</sup> F)
removables	voll con

Describe access port removable well cap

p Bailer	Air	Flowing artesian
	X	

13. LITHOLOGIC LOG and/or repairs or abandonment:

	TULUG	IC LUG	and/or repairs or abandonment:	·····	
Bore Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Wa Y	ter N
12	0	4	fill dirt		х
12	4	12	clay and cleachy		X
12	12	30	Isand	1	х
10	30	47	sandy clay	1	х
6	47	57	sandy clay		х
6	57	75	sand with small gravels	1	х
6	75	112	gravel	X	
6	112	141	sand with clay layers	X	
6	141	150	sand	X	
				1	
				1	
				1	
				1	
		1		1	
		<b> </b>			<u> </u>
			DEOFINES	1	
			RECEIVED	1	<u> </u>
				1	
			APR 2 1 2014		
		1		1	
			WATER RESOURCES		
		1	WESTERN REGION	1	
		1		1	<b> </b>
		1		1	1
	1	1		1	
	[			1	1
	1				
		1		1	
	1	1		1	1
	1	1		1	1
Compl	eted Dep	th (Meas	surable): 150		<u>.</u>
Date S	tarted: A	pr 8, 2	014 Date Completed: Apr 10, 20	14	
			TIFICATION:		
			imum well construction of a deade ware as and	4	-4

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

Company Name Nu Acre Driving LLC	Co. No. 701
*Principal Driller	Date Apr 17, 2014
*Driller	Date
*Operator II	_ Date
Operator I	Date

\* Signature of Principal Driller and rig operator are required.

JSE TYPEWRITER OR	
BALL POINT PEN	

# State of Idaho Department of Water Administration

## WELL DRILLER'S REPORT

WELL DRILLI					() yg	í AN		
State law requires that this report be filed with the Dir days after the completion of					30 14 0	<u> </u>		
1. WELLOWNER NameA. A. Jackaon	6	Static wa	LEVEL	51feet below land s	surface			
Name_N.A. Jackson Address 1223 N Michigan	ן F ר	lowing empera	? 🗆 Y iture	′es ,)⊠ No G.P.M. flov °F. Quality	w		_	
Owner's Permit No	Artesian closed-in pressurep.s.i. Controlled by 🗆 Valve 🗆 Cap 🗆 Plug							
2. NATURE OF WORK	8. V	VELLT	EST DA	ATA				
V New well Deepened Replacement		] Pump		Bailer 🗆 Othe	er Hours P			
Abandoned (describe method of abandoning)		2.0						
3. PROPOSED USE	•							
🖉 Domestic 🗆 Irrigation 🗆 Test	9.		OGIC I	LOG	04156			
🗆 Municipal 🛛 Industrial 🗖 Stock	Hole Diam,	From	pth To	Material			ter No	
4. METHOD DRILLED	10	6	6	Top sail + How	2 pon		X	
💢 Cable 🗆 Rotory 🗆 Dug 🗆 Other	8	18 58	58 68	Sandy clash	<u>ek</u>	+	$\hat{\mathbf{x}}$	
5. WELL CONSTRUCTION	200	68	70	Sand cloyto	der -		X	
Diameter of hole inches Total depthfeet Casing schedule:X Steel Concrete	8	95	120	dand & day &	tratus			
1250 inches 8 inches +1.5 feet 855 feet				······				
inches inches feet feet feet feet						+		
inches inches feet feet feet feet						<b></b>		
Was a packer or seal used? 🖸 Yes 🖉 No		<u> </u>		······································				
Perforated?  Yes  No How perforated?  Factory  Knife  Torch								
Size of perforation inches by inches Number From To								
perforations feet feet feet feet								
perforations feet feet		·)				+		
Well screen installed? 🛛 🖓 Yes 💢 No Manufacturer's name				· · · · · · · · · · · · · · · · · · ·	·····			
Type Model No Diameter Slot size Set from feet to feet		∲			<u> </u>			
Diameter Slot size Set from feet to feet	 							
Gravel packed?  Yes X No Size of gravel feet to feet	·							
Surface seal? Yes INO To what depth feet Material used in seal I Cement grout Puddling clay								
6. LOCATION OF WELL								
<ol> <li>COCATION OF WELL</li> <li>Sketch map location must agree with written location.</li> </ol>	10.				1	~ ^		
67.55		ork sta	rted	<u> / - 27 - 72</u> finished	12-4-			
wε ε	Т	his well	l was dri	RTIFICATION illed under my supervision a of my knowledge.				
	Bil	I Do riller's of	ly W	Drilling & Devel	apment "	<u>42</u> ber	_	
County Campan	$\mathcal{P}_{A}$	ddress	<u>7</u> . C.	Id well d	daho	/  7 ~	-	
S 17 1/2 SE 1/2 Sec. 34, T. 5 N/8, R. 3 4/W		igned By	Ľ.	yoty 1	2-19-7 Date	<u>~2</u>	-	
USE ADDITIONAL SHEETS IF NECESSARY FORWARD				ND NINK CODICO TO TH			_	

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT. and the second sec

#### 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.

1. WELL OWNER	7. WATER LEVEL	
Danie Pallard		
Name Jumin Radford Address RS Coldunal Ida	Static water level 5 feet below land surface.	
Address RS Calduard Uda	Flowing? 🗆 Yes 🔀 No G.P.M. flow Artesian closed-in pressure p.s.i.	
	Controlled by:  Valve Cap Plug	
Owner's Permit No	Temperature ºF. Quality <i>Gurd</i>	
2. NATURE OF WORK	8. WELL TEST DATA	
🛱 New well 🗆 Deepened 🛛 Replacement	Pump 🗆 Bailer 🎾 🗆 Other	
$ec{\square}$ Abandoned (describe method of abandoning)	Discharge G.P.M. Pumping Level Hours Pu	
	140 65 24	
3. PROPOSED USE		
🔊 Domestic 🗔 Irrigation 🗆 Test 🗆 Municipal	9. LITHOLOGIC LOG 106447	
□ Other (specify type)	Hole Depth Diam From To Material	Water
	Diam. From To Material	Yes No
4. METHOD DRILLED	6 16 39 Land Clery	
🗆 Rotary 🗆 Air 🗋 Hydraulic 🗌 Reverse rotary	6 39 53 Fireford from	Ŕ
X Cable Dug Other	6 53 67 Goul Elay	
	6" 617 179 Cur 28 Sound X ground	$X \vdash$
5. WELL CONSTRUCTION	- Completer Will open forthom	
Casing schedule: 🔎 Steel 🗀 Concrete 🗔 Other	Cu con cy conet	
Thickness Diameter FromTo		
$O_{250}^{\text{Thickness}}$ inches $C_{79}^{\text{To}}$ inches + $L_{79}^{\text{To}}$ feet		
inches inches feet		
inches feet feetfeet feet		
Was casing drive shoe used? 💢 Yes 🖾 No		
Was a packer or seal used? 🗆 Yes 🗖 No		
Perforated?		
Size of perforation inches by inches		
Number From To		
perforations feet feet		
perforations feet feet		
Well screen installed?  Yes X No		
Manufacturer's name		
Type Model No	0)26500411	
DiameterSlot sizeSet fromfeet tofeet         DiameterSlot sizeSet fromfeet tofeet		
Gravel packed?	TOZEGENVE DA AUG 5 1980	
Placed from feet to feet	A Resources	
Surface seal depth 20 Material used in seal: Cement grout	AUG 6 1980 Department of Water Resources Western Regional Office	
Sealing procedure used:	AUG 6 1980 Western Regience	
🕱 Overbore to seal depth	Designment of Water Resources	
Method of joining casing:  Threaded Welded Solvent	Provincent of Marce Attention	
Weld		
Describe access port	10. 2 25/00 4	1 Cm
	10. Work started 2an 25/8 Ginished Zeb 1/	<u>80</u>
6. LOCATION OF WELL	11. DRILLERS CERTIFICATION	
Sketch map location must agree with written location.		
	I/We certify that all minimum well construction standard complied with at the time the rig was removed.	
Subdivision Name	6 11/ 1 Whey Some	6 <sup>-1</sup>
	Firm Name Aland Knice Andling Firm No. 20	<u>)</u>
	Firm Name David Knee Credley Firm No. 20 Address Calley Date Jun 5	180
Lot No Block No		
	Signed by (Firm Official) Runner Wits 3764	
County Concept 21	and $L$	
	(Operator) factore 1	
<u>SLU % AE % Sec. 34</u> , T <u>57</u> N/S, R <u>3W</u> E/W.	-	

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

Drilling Permit No. $202510 - 20815$ Water right or injection well # 2. OWNER: Name Steven Levine Address P.O. Box 400 City Middleton State ID Zip 83644 3.WELL LOCATION: Twp. 4 North I or South I Rge. 3 East or West I Sec. 3					
2. OWNER:					
Steven Levine         Address P.O. Box 400         City Middleton         State ID       Zip 83644         3.WELL LOCATION:         Twp. 4       North I or South I Rge. 3       East I or West I         Sec. 3      1/4       NE       1/4       NW       1/4         Gov't Lot       County Canyon					
Address       P.O. Box 400         City       Middleton         State       ID         Zip       83644         3.WELL LOCATION:         Twp.       4         North IX       or         Sec.       3         Image: 1/4       NE         ME       1/4         NE       1/4         ME       1/4         Gov't Lot       County Canyon         Lat       43         0<43.094					
City       Middleton       State       ID       Zip       83644         3.WELL LOCATION:       Twp.       4       North ⊠ or South □       Rge.       3       East □       or West ⊠         Sec.       3      1/4       NE       1/4       NW       1/4         Gov't Lot        County       Canyon					
3.WELL LOCATION: Twp. <u>4</u> North X or South Rge. <u>3</u> East or West X Sec. <u>3</u> 1/4 <u>NE</u> 1/4 <u>NW</u> 1/4 Gov't Lot <u>County Canyon</u> Lat. 43 043.094 (Dec. and Decimal minutes)					
Twp.       4       North Image: No					
Gov't Lot County Canyon					
Gov't Lot County Canyon					
Gov't Lot County Canyon					
Lat. 43 0 43.094 (Dec. and Decimal minutes)					
Long. <u>116</u> 041.092 (Deg. and Decimal minutes) 23854 Stoppe Longe (Deg. and Decimal minutes)					
23854 Stopo Lano					
Address of Well Site 20004 Stone Lane					
(Give at least name of read + Distance to Road or Landmark) City Middleton					
(Give at least name of mad + Distance to Road or Landmark)					
Lot Bik Sub. Name					
4. USE:					
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 ft <sup>3</sup> ) Placement method/procedure					
Seal material         From (ft)         To (ft)         Quantity (lbs or ft <sup>3</sup> )         Placement method/procedure           3/4 Bent.         0'         44'         27 bags         Overbore					
8. CASING/LINER:					
Diameter From (ft) To (ft) Gauge/ Material Casing Lines Threaded Welded					
(nominal)     (nominal)     Schedule     Material     Casing Liner     Interaction of the schedule       6"     +2     116     .250     Steel     Image: Schedule     Image: Schedule					
Was drive shoe used? X Y N Shoe Depth(s) 116' 9. PERFORATIONS/SCREENS:					
Was drive shoe used?       X       N       Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations       Y       N       Method					
Was drive shoe used?       X       N       Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations       Y       N       Method         Manufactured screen       X       N       Type Johnson					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen X Y N N Type         Johnson         Method of installation         Wash Down					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen X Y N N Type         Johnson         Method of installation         Wash Down         From (ft) To (ft)       Slot size         Number/ft       Diameter (nominal)       Material         Gauge or Schedule					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen X Y N N Type         Johnson         Method of installation         Wash Down         From (ft)       Slot size					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen X Y N N Type         Johnson         Method of installation         Wash Down         From (ft) To (ft)       Slot size         Number/ft       Diameter (nominal)       Material         Gauge or Schedule					
Was drive shoe used?       X       N       N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:       Perforations       Y       N       Method         Manufactured screen       X       N       N Type       Johnson         Method of installation       Wash Down       Material       Gauge or Schedule         From (ft)       To (ft)       Slot size       Number/ft       Diameter (nominal)       Material       Gauge or Schedule         124'       119'       18       5       SS       N/A					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen Y N DN Type         Johnson         Method of installation         From (ft)       To (ft)         Slot size       Number/ft         Diameter       Material         Gauge or Schedule         124'       119'         18       5         SS       N/A         Length of Headpipe       10'					
Was drive shoe used?       X       N       N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:       Perforations       Y       N       Method         Manufactured screen       X       N       N Type       Johnson         Method of installation       Wash Down       Material       Gauge or Schedule         From (ft)       To (ft)       Slot size       Number/ft       Diameter (nominal)       Material       Gauge or Schedule         124'       119'       18       5       SS       N/A					
Was drive shoe used? X Y N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen Y N DN Type         Johnson         Method of installation         From (ft)       To (ft)         Slot size       Number/ft         Diameter       Material         Gauge or Schedule         124'       119'         18       5         SS       N/A         Length of Headpipe       10'					
Was drive shoe used? X Y N Shoe Depth(s)     9. PERFORATIONS/SCREENS:   Perforations Y N Method      Manufactured screen Y N N Type     Johnson   Method of installation      From (ft)   To (ft)   Slot size   Number/ft   Diameter   (nominal)   Material   Gauge or Schedule     124'   119'   18   5   SS   N/A   Length of Headpipe 10'    Packer X Y N N Type					
Was drive shoe used? X Y N Shoe Depth(s)     9. PERFORATIONS/SCREENS:   Perforations Y N Method     Manufactured screen Y N N type   Johnson Method of installation   Manufactured screen Y N N type     Johnson     Method of installation     From (ft) To (ft)   Slot size   Number/ft   Diameter   (nominal)   Material   Gauge or Schedule   124'   119'   18   5   SS   N/A   Length of Headpipe 10'    Length of Tailpipe    Packer X Y N Type   10.FILTER PACK:					
Was drive shoe used? X I N Shoe Depth(s)       116'         9. PERFORATIONS/SCREENS:         Perforations Y X N Method         Manufactured screen X Y N Nype         Johnson         Method of installation         Wash Down         From (ft)       To (ft)         Slot size       Number/ft         Diameter       Material         Gauge or Schedule         124'       119'         18       5         SS       N/A         Length of Headpipe       10'         Length of Headpipe       10'         Length of Headpipe       N Type         10.FILTER PACK:       Filter Material         From (ft)       To (ft)       Quantity (lbs or ft <sup>3</sup> )         Placement method					

Flowing Artesian?	X N Artesian Pressure (PSIG)
Describe control device	

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft)	5' Static water level (ft)	10'
Water temp. (ºF) <u>56</u>	Bottom hole temp. ( <sup>0</sup> F)	

Describe access port Well Cap

scharge or	Test duration	7			
ield (gpm)	(minutes)	Pump	Bailer	Air	Flowing artesian
GPM	30 min.			$\mathbf{X}$	
	0			GPM         30         min.         III           omments:         Iron 1         PH 7.5         Hardness 4	

#### 13. LITHOLOGIC LOG and/or repairs or abandonment:

13. LIT	HOLOG	IC LOG	and/or repairs or abandonment:		
Bore Dia.	From	То	Remarks, lithology or description of repairs or	Wa	ter
(in)	(ft)	(ft)	abandonment, water temp.	Y	N
10"	0'	3'	Topsoil		Х
10"	3'	5'	Tan Clay		Х
10"	5'	32'	Gravel	Х	
10"	32'	35'	Brown Clay		Х
10"	35'	40'	Tan Clay		Х
10"	40'	44'	Tan Clay		Х
6"	44'	57'	Sand	Х	
6"	57'	64'	Tan Clay		Х
6"	64'	73'	Sand	X	
6"	73'	77'	Tan Clay		Х
6"	77'	80'	Sandy Clay	X	
6"	80'	90'	Sand	X	
6"	90'	112'	Sandy Clay	X	
6"	112'	116'	Tan Clay		Х
6"	116'	124'	Sand	X	
			RECEIVE	<del>.</del> n	
			RECEIVI		
·					
			JUN 1 2 2013	<b>}</b>	
			WATER RESOURC	20	
			WATER HESS WESTERN REGIO	14	
			104		
	eted Dept				
Date St	larted: Ju	in 3, 20	Date Completed: Jun 5, 2013		

#### 14. DRILLER'S CERTIFICATION:

 $\ensuremath{\text{I/We}}$  certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Adamson Pump & Drilling	Co. No. 457
*Principal Driller Dave Rechamse	Date Jun 10, 2013
*Driller phi Auton	<sub>Date</sub> Jun 10, 2013
*Operator II	Date Jun 10, 2013
Operator I_Sam Navarro	Date

\* Signature of Principal Driller and rig operator are required.

USE TYPEWRITER OR
BALL POINT PEN

#### State of Idaho Department of Water Administration

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R	pe	2' 2'		0
Y	<u>َمْ (</u>	Ŋ,	ץי קיק	- <sup>1</sup>

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WELL DRILLER'S REPORT

State law requires that this report be within 30 days after compl	e filed v etion or	vith the aband	e State onment	Reclamation Engineer V	8 1 7	-*		
1. WELL OWNER 7. WATER LEVEL								
Name RON BALE	ne							
Address ROUTE # 7 CALDWELL, IDAHO	F . Т	lowing empera	? 🗆 Y ature	′es ⊠ No G.P.M. flow °F. Quality	G.P.M. flow			
Owner's Permit No.	A	rtesian	closed-i	in pressurep.s.i.				
	┥───	···		· · · · · · · · · · · · · · · · · · ·	🗆 Plug			
2. NATURE OF WORK	8. 1	VELLT	EST DA	<b>NTA</b>			:	
🕱 New well 🛛 Deepened 🗆 Replacement		C Pump		🗆 Bailer 🔍 Other				
Abandoned (describe method of abandoning)		ischarge		Draw Down	Hours P	-		
		<b>-</b>		·	<u> </u>			
3. PROPOSED USE								
🖬 Domestic 🛛 Irrigation 🗔 Test	9.1	ІТНОІ	LÓGIC L	_OG				
Municipal Industrial Stock	Hole	De	pth	 Material			iter	
	Diam.	From	т <u>о</u> 5	TOPSOFF		Yes	N₀ X	
4. METHOD DRILLED	8" 8"	5	10	HARD PAN + SANI		<u> </u>	Ŷ	
🕅 Cable 🗔 Rotory 🗆 Dug 🗔 Other	811	_10 _15	15 19	SAND BRAUZL		<u> </u>	X X	
5. WELL CONSTRUCTION	6"	19	20	GRAVEL SANDY CLAY		+	X X	
Diameter of hole $\underline{6^{\prime\prime}}$ inches Total depth $\underline{10.5}$ feet	6"	40 50	50	SAND		X	X	
Casing schedule: 💢 Steel 🗆 Concrete	6"	65		SANDYCLAY LAYE, SAND	<u> </u>	X		
inches feet	111	60	64 70	SANDY CLAY SAND		×	X	
	611	70 85	85	SANDY CLAY LAY	ERS		X	
inches inches feet feet	6	97	105	CIAY SAND		×	×	
	6"	<b>PD</b> 5	<u> </u>	SAND		X		
Was a packer or seal used? □ Yes			-					
How perforated?   Factory  Knife  Torch Size of perforation  inches by  inches								
Number From To						$\dot{+}$		
perforations feet feet feet feet		-						
perforations feet feet								
Well screen installed?								
Type Model No.		<u> </u>		<u> </u>				
Diameter Slot size Set from feet to feet feet								
Gravel packed? 🗆 Yes 🗷 No Size of gravel					<u>~</u>			
Placed from feet to feet								
Surface seal? 🖾 Yes 🔲 No To what depth feet					<u></u>			
Material used in seal 🔲 Cement grout 🛛 🗷 Puddling clay								
6. LOCATION OF WELL								
Sketch map location must agree with written location.	10.   W	ork star	rted 🎝		AUG 6.	19.71		
w e	11. DRILLER'S CERTIFICATION			d this second i	le.			
65	This well was drilled under my supervision and this report is true to the best of my knowledge.				• *****			
	BELL DOTY WELL DRELLING 42 Driller's or Firm's Name Number ROUTE # 7 CALDWELL, IDAHO							
Country Country Country		iller's or	Firm's N		Numb	er	-	
County <u>CONYON</u>	I AC	101/6255					-	
<u>NB/ ¼ N E. ¼ Sec.</u> , T. <u>4</u> N/9, R. <u>3</u> @/W	Sig	gned By	22	For. 8-13	Date			

USE ADDITIONAL SHEETS IF NECESSARY

Signed By Date
FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

REC	EI	VED
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Form	238-7				
4/92					

STATE OF IDAHO SEP 0 3 1993 USE TYPEWRITER OR DEPARTMENT OF WATER RESOURCES Department of Water Resources

64

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

within 30 days after the compl	etion o	ir aban					
1. WELL OWNER		NATER					
Name <u>GOLDY EUNICE OR CLARENCE FRIEND</u>		Static w	ater le	vel <u> </u>	feet below la	nd surface.	
Address 23853 STONE LANE Cable 83605					🖄 No G.F		
	Artesian closed-in pressure p.s.i. Controlled by:						
Drilling Permit No. <u>63-93-W-0480</u>							
Water Right Permit No	.			Descri	°F. Quality be artesian or temperature zon	nes below.	
	+						
2. NATURE OF WORK	8. V	VELL 1	'EST D	ATA			
XX New well 🛛 Deepened 🗆 Replacement	( C	🗆 Pum	р	🗆 В	ailer XX Air 🗆	Other	
Well diameter increase     Modification	1				· · · · · · · · · · · · · · · · · · ·		
Abandoned (describe abandonment or modification procedures		)ischarge	G.P.M.		Pumping Level		Pumped
such as liners, screen, materials, plug depths, etc. in lithologic	25				40	15HRS	·
log, section 9.)		<u> </u>			<u> </u>		
3. PROPOSED USE						70651	
XX Domestic 🗆 Irrigation 🗆 Monitor	9. L	ITHOL	OGIC	LQG		UUL	
Industrial Stock Waste Disposal or Injection	Bore	De	oth		Metasial		Water
Other (specify type)	Dia <u>m.</u>	From	То		Material		Yes No
	6	0					X
4. METHOD DRILLED	6	14			<u>VEL</u>		X
Rotary     Air     Auger     Reverse rotary	6	26		CLA			<u> </u>
XX Cable  I Mud  Other	6	<u>34</u> 45			D & CLAY D & CLAY LAYERS		X X
	6	<u>45</u> 53			D <u>&amp; CLAY LAYERS</u> D		
5. WELL CONSTRUCTION	6	59	62	CLA	У У		X
	6	62		SAN			X
Casing schedule: XX Steel  Concrete Other To Thickness Diameter From To							
•250 inches <u>6</u> inches + <u>2</u> feet <u>62</u> feet	<u> </u>			 		<u> </u>	
inches feet feet				<u> </u>			<u> </u>
inches inches feet feet							
Was casing drive shoe used? XX Yes 🛛 No	<u> </u>				<sup></sup>		
Was a packer or seal used? 🗀 Yes 💢 No							+
Perforated?  Factory  Knife  Torch  Gun	<b></b>						
Size of perforation? inches by inches							
Number From To							
perforations feet feet	<b> </b>	ļ			<u> </u>		
perforations feet feet	<u>}</u>						
perforations feet feet	<u> </u>				<u> </u>		
Well screen installed? 🗀 Yes 🖾XNo Manufacturer Type					······································		
Top Packer or Headpipe Type							
Bottom of Tailpipe							
Diameter Slot size Set from feet to feet		<u> </u>					<u>  </u>
Diameter Slot size Set from feet to feet	┣───	┨┈───┤		-fin	TEP ENTON		<u>├ -                                   </u>
Gravel packed?  Yes XX No Size of gravel feet to feet to feet					HE GELV	╞╾┼┠┼┫────	┝──┼──┨
1 1 1 1 2 2 2 1 2 1 1 2 1 2 2 2 2 2 2 2	<u> </u>					ק¦#/	┼──┼╺─┨
Surface seal depth <u>20</u> Material used in seal: 🛛 Cement grout				9	SEP 0 8 1002	<u> </u>	
🖾 Bentonite 🛛 Puddling clay 🛛		]					
X Bentonite       Puddling clay          Sealing procedure used:       Image: Slurry pit         Via and the sealed of				Da	pertment of Water meso	ROFIL	
$\Box$ lemp. surface casing $\Delta A$ Overpore to seal depth		<u> </u>			Western Regional Offici	ि कहा थहा से थू (ह 8	
Method of joining casing:	<b> </b>	<u> </u>		<u> </u>	FF	C 0 9 199	┶━ः─└╍╍╼┥
	10.				· •••	- 0 <b>9</b> 199.	4
Describe access port		Work s	tarted	7-1	7-93 finished		
	<u> </u>	<u></u>		··· <u>.</u>	· · · ·		
6. LOCATION OF WELL	11.	DRILLE	ER'S C	ERTI	ICATION		
Sketch map location must agree with written location.		l/We ce	ertifv ti	hat al	I minimum well constr	uction stand	ards⊶were
Subdivision Name			ed with	at th	e time the rig was remo		
	1		B	ILL	DOTY DRILLING		
			1	NL C	INC. Firm		
Lot No Block No		Addres	ر مم	υσ () <del>★}Ωμ</del>	ALLOWAY ELL, ID 8360 Pate	8-24-93	المحتصور
County <u>CANYON</u>		Signal	hu Dri	ilina C		6.7	
Address of Well Site <u>23853 STONE LANE</u>		JUGUEO			Supervisor	gy,	—— [
(give at least name of road) T. <u>4N.</u> N Ø or S □			i	and			ļ
<u>NE</u>	}		(Op	erator			
	1				(If different than the	orilling Sup ווווחס	ervisor)

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

USE TYPEWRITER OR BALL POINT PEN Department of Water Administration						3/2	, 9,
State law requires that this report be filed with the Directory					Whi	N' , A	Ъ.
days after the completion or					115	で	
1. WELL OWNER			LEVEL	_	/ /		
Name Jogan Kerr Address Caldwell Odaho				el <u>43</u> feet below land su			
Address aldwell Odaho	F	lowing?	? 🗆 Y	res 🛛 No G.P.M. flow °F. Quality			
		Artesian	closed-i	in pressure p.s.i.	···		
Owner's Permit No				= •	🗆 Plug		_
2. NATURE OF WORK	8. V	VELLT	EST DA				_
💢 New well 🛛 Deepened 🖾 Replacement		] Pump		🔀 Bailer 🔲 Other			
Abandoned (describe method of abandoning)	<b>۔۔۔</b>	)ischarge		Draw Down	Hours Pu	Impea	ļ 
				· · ·			
	┟───				<u> </u>		
3. PROPOSED USE				<u> </u>			
🗶 Domestic 🗀 Irrigation 🛄 Test	9. 1	LITHOL	-OGIC L	LOG			
	Hole	Ďe	pth	Material			ater
🗆 Municipal 🖾 Industrial 🗖 Stock	Diam.	From	To 6	7-5 14	77	Yes	N₀ X
4. METHOD DRILLED	10	6	15	Hard Pant	nand_	+	Ŷ
🕱 Cable 🗀 Rotory 🗆 Dug 🗔 Other	10	15	18	Close and	A	<b></b>	肉
	R	18	38	Bandy croy e	ayers.	╂	Ŕ
5. WELL CONSTRUCTION	8	68	20	clait		<u>t</u>	X
Diameter of hole $\frac{20}{5}$ inches Total depth $\frac{20}{5}$ feet	8	20	80	Pand & Chay	loyers	$\vdash$	<b>[</b>
Casing schedule: 🕅 Steel 🗆 Concrete		+	<u> </u>	· · · · · · · · · · · · · · · · · · ·		+	┼
$250$ inches inches +_2 feet $68$ feet						<b>—</b>	Γ.
inches inches feet feet	$\vdash$	<u> </u>	<u> </u>			<u> </u>	<u> </u>
inches inches feet feet feet feet							
inches inches feet feet	<u> </u>		<b> </b>			╉╼╾╼┙	<u> </u>
Was a packer or seal used? 🔲 Yes 🔎 No	<u> </u>		<u> </u>		<u> </u>	<u> </u>	
Perforated? I Yes X No Perforated?							
How perforated?   Factory  Knife  Torch						+	<u> </u>
Size of perforation inches by inches Number From To	<u> </u>						
perforations feet feet	 	<u>-</u>		·		+	<u> </u>
perforations feet feet feet							
	'		<b> </b>		<del>6</del>	┨───┤	<b> </b>
Well screen installed? 🛛 🗆 Yes 🕅 No Manufacturer's name							
Type Model No	<sup> </sup>		<u> </u>	<u> </u>		<b> </b>	
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet							
		[]	 				<b>.</b>
Gravel packed?			<u> </u>				
Placed from feet to feet	<u> </u>	┞───┥				<b>—</b>	<b>—</b>
Surface seal? X Yes INO To what depth feet	[]		<u>ا</u>			┝╼╌┥	 
Material used in seal 🔲 Cement grout 🔎 Puddling clay							
6. LOCATION OF WELL	l	. <u> </u>	<u> </u>	<u> </u>		<u> </u>	
Sketch map location must agree with written location.	10.		,	5 A11 70	N-AC	<u>ہ</u> <	ۍ د
	w	ork star	rted	7 - 2 4 - 72 finished_	1-48	-/	2
3	·•					Ð	
				RTIFICATION illed under my supervision an	- this report	 1	
·····				of my knowledge.		15	
			_	IND A: ID	Λ.,	IJ.	1
ð	DUL	riller's or	24)N	ill onling of your	<u>Algement</u> Numt	<u>7</u>	-
County Caryon	19	メ_	1 <u>C</u>	aldwell_	· ··	-U1	
NE NE DILLE	À	daress	10	Insta 19	(-14-1	72	-
NE 1/4 NE 1/4 Sec. 3, T. 4 N/2, R. 3 @/W	$-\mathcal{U}_{si}$	<u>) / /</u> igned By	1_(	your in	Date	0	

USE ADDITIONAL SHEETS IF NECESSARY

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

				-	TROISI	00	
Form 238-7 IDAHO DEPARTMENT OF WATE	RR	ESOL	RCES	<b>с</b>	10 11 9	66	
WELL DRILLER'S R					Office Use Only Inspected by		
1. WELL TAG NO. D -0023835					Twp Rge	Sec	
					1/41/4		
DRILLING PERMIT NO	11.		L TES ump	STS:	Lat: : Long: □Air □Flowing /	<u>:</u> : Artesian	
2. OWNER: - CEE Oall		Yield gal.	'	Drawdown	Pumping Level	Time	
2. OWNER: JEFE BEIL NameEFE BEIL AddressE, PITKIN	3	0		25	90	6 HRS	
Address 1.3.5 E. PITKIN City MERIDIAN State 10 Zip 83612							_
State 10 21p 8.3012	L Wata	Tomp	58	0	lBottom ho		
3. LOCATION OF WELL by legal description:	Wate	r Quality	test or	comments:		le temp.	
Sketch map location must agree with written location.					Depth first Water	Encounter 90	
	12.	LITHO	)LOGI	C LOG: (Des	cribe repairs or abando	onment) Wate	r
W Twp. <u>4</u> North or South Rge. <u>3</u> East or West Sec. <u>3</u> <i>UE</i> 1/4 <u>ME</u> 1/4 <u>1/4</u> 1/4 Gov't Lot <u>County</u> <u>Angeres</u> <u>Job scres</u> Lat: : Long: <u>1/4 Job scres</u> <u>1/4</u> <u></u>	Bore Dia,	From	To	Remarks: Litholo	igy, Water Quality & Temp	erature Y	N
wRge. <u>3</u> East □ or West	0	0	2	TOP SO	12		
" Sec. <u>3</u> , <u><i>ME</i></u> 1/4 <u>NE</u> 1/4 <u>1/4</u> 1/4	10	2	8	HARD	PAN		
Gov't Lot County	10	8	45	CLAY	- BROWN		Ц
s Address of Well Site <u>14133</u> Willis RD	6	45	68	SANDY		2060 N	Н
City MidDile Ton	6	68. 90	GC	SANDY	GANNE!		Y
(Give at least name of road + Distance to Road or Landmark)	E.	1.5		SANDY	<u> </u>		
LtBlkSub. Name							
				· · · · · · · · · · · · · · · · · · ·			_
4. USE: ▲Domestic □ Municipal □ Monitor □ Irrigation			<b>—</b> —	·			·
☐ Thermal ☐ Injection ☐ Other							[
5. TYPE OF WORK check all that apply (Replacement etc.)							
🔀 New Well 🗌 Modify 🗔 Abandonment 🛛 Other		<u> </u>					_
6. DRILL METHOD				· · · · · · ·			-
7. SEALING PROCEDURES SEAL/FILTER PACK AMOUNT METHOD							_
Malerial From To Sacks or Pounds							-
BENTONITE O' 30 15 BAG OVERBORE							
					RECEIVED		
Was drive shoe used?	<u> </u>						-
Was drive shoe used? Ar I N Shoe Depth(s) Was drive shoe seal tested? I Y N How?				······································	EC 2 7 2002		╡.
8. CASING/LINER:					WATER RESOURCES		
Diameter From To Gauge Material Casing Liner Welded Threaded					WESTERN REGION		_
6" 72 95 1/4 STEEL X . X .							_
	-						-
Length of Headpipe Length of Tailpipe							
9. PERFORATIONS/SCREENS							
Perforations Method							
Screens Screen Type		npleted		epth 951		(Measurable)	
From To Slot Size Number Diameter Material Casing Liner	Dati	e: Sta	rted <u>/</u>	1-19-02	Completed_//	-25-02	►
	13.	DRIL	LER'S	CERTIFICA	TION		
	l/We o	ertify tha	at all mir	nimum well construct	tion standards were complied	l with at	
the time the rig was removed:							
	Сотра	алу Мал	A	KY'SWEII	DKILING Firm N	0. <u>317</u>	
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:			ŸĮ,	Un D			
<u>45</u> ft. below ground Artesian pressureIb. Depth flow encounteredft. Describe access port or		Official	10	W.W.	Le 12-2	<u>10-02</u>	
control devices:	and Driller	or Oper	nator 1	TR 1. ): 1	Date 12-2	0-07	
	PUILO	or oher	ың <u></u> м	· AM			

FORWARD	WHITE	COPY	ΤO	WATER	RESOURCES

(Sign once if Firm Official & Operator)

.

Form	238-7
6/07	

### IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

L TAG NO. D 2055974 Permit No. 909744-858315				LEVEL and WELL TESTS: ntered (ft) 43 Static water level (ft)	47	,
right or injection well #	-	r temp. (⁰l		Bottom hole temp. (°F)	ĮΝ	
NER: Chaney Stotts Construction	Descr	ibe acces	ss port _	wellcap	<u> </u>	
Chener Storts	<u>Well t</u>	test:		Test method:		
ss P.O.Box 299	Draw	vdown (feet	/ yie	charge or Test duration Id (gpm) (minutes) Pump Bailer		lowing
Votus	5	2	4	Ogpm 60min []	X	
L LOCATION:						
Y North 🕰 or South 🗆 Rge. 🏄 East 🗋 or West 🕅				omments: <u>Non e</u>		
1/4 <u>NE</u> 1/4 <u>NE</u> 1/4 <u>NE</u> 1/4		HOLOG	IC LOG	and/or repairs or abandonment:		
A	Bore Dia.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.		ater
ot County_Canyon	(in) (入				- <b>Y</b>	N
43 0 43.077' (Deg. and Decimal minutes)	10	19	The	100 201		
1160 40.507 (Deg. and Decimal minutes)	5	81	14	prown lay		
s of Well Site 23824 Bruer PD	5	19	20	Pandy Clay	-+	<u> </u>
City Calderel	1	38	UZ	Clau Banks		
st name of road + Distance to Road or Landmark)	6	47	97	avmily 1	r	1
9_ Bik Sub. Name////SEST	-	1			<b>`</b>	1
: restic $\Box$ Municipal $\Box$ Monitor $\Box$ Irrigation $\Box$ Thermal $\beta$ leightion						
nestic 🗋 Municipal 📋 Monitor 📄 Irrigation 📄 Thermal 💆 Injection						
E OF WORK:						
vell 🔲 Replacement well 📋 Modify existing well						
ndonment  Other						
			<b> </b>			<u> </u>
Rotary 🔲 Mud Rotary 🗋 Cable 📋 Other		+		·		
LING PROCEDURES:						
al material From (ft) To (ft) Quantity (ibs or ft <sup>3</sup> ) Placement method/procedure					<del></del>	┥
Nomil Chp D 38 1200/65 porchole hydrated						+
						+
SING/LINER:						1
l) (ft) <sup>10</sup> (π) Schedule Material Casing Liner Inreaded Weided						
12 85 250 Steel & D						
			ļ			+
	ļ	RE	CEI			
ive shoe used? <b>X</b> I N Shoe Depth(s)						
•		AL	N n 4	2010		
RFORATIONS/SCREENS:		-			_	+
ations Y XN Method		WATE	RES	OURCES		-
	~	VVES				
d of installation Set with Sand line pullback		-				
t) To (ft) Slot size Number/ft Diameter Material Gauge or Schedule			4h (114	971	<b>-</b>	
		eted Dep			10	- 0
577,20 N/7 4'2 PVC N/17		Started:	12-	17-09 Date Completed: 12-	18-0	29
				TIFICATION:	الان ادمالي	
		centity that me the rig		imum well construction standards were com moved.	plied with	a.
of Headpipe Length of Tailpipe			<u> </u>	and Remothalling	45	-7
DY DN Type	Comp	bany Nam		W 1227 TTOUTINT 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	$\sim$	
TER PACK: NON C	- *Princ	cipal Drill	SA	ave (Calay son Date 1	2-2:	3-04
ter Material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method	- *Drille	ar (	Mar	Sadon Date	スー	⊋⁄-
		or	11	Date fe	7	<u>)</u>
	*Oper	rator II	th	nother Dated		1_0
OWING ARTESIAN:	, Oper	atori	/	Date		
	•					
g Artesian? Y X Artesian Pressure (PSIG)	* Sig	nature of	í Princip	al Driller and rig operator are required.		

Form 238-7 6/07

IDAHO	DEPART	ИENT OF W	ATER F	RESOURCES
	WELL	DRILLER'S	REPO	RT

1. WELL TAG NO. D. 0070229	12. SI		VATER	LEVEL and WELL TESTS:		
Drilling Permit No. 97/230-877287	Depth	first wat	er encou	untered (ft) 52' Static water level (ft)	51'	
Water right or injection well #	Water	temp. ( <sup>0</sup>	<sub>F)</sub> 56°	Bottom hole temp. (°F)		
2. OWNER:	Descri	be acces	ss port	Nell Cap		
Name Allen & Rachelle Boshaw	Well to			Test method:		
Address 5 S. Honey Dr.	Draw	down (feet		scharge or Test duration Pump Bailer		Flowing artesian
City Nampa State ID Zip 83687	70'		40 G	SPM 45 minutes 🔲 🔲	×	
3.WELL LOCATION:						
Twp. 4 North 🖾 or South 🗋 Rge. 3 East 🔲 or West 🗵				omments: Hardness 9 PH 7.6 Iron .8		
Sec. 2 1/4 NW 1/4 NW 1/4 1/4 1/4	13. LIT	HOLOG		and/or repairs or abandonment:	<del></del>	
	Dia.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.		later
Gov't Lot County Canyon	(in) 10"	0'	ļ	Hardpan	Y	X
Lat. 43 • 43.132 (Deg. and Decimal minutes) Long. 116 • 40.289 (Deg. and Decimal minutes)	10"	5'	Law and the second	Brown Clay	+	$+\hat{\mathbf{x}}$
Long. 116 0 40.289 (Deg. and Decimal minutes)	10"	14'	and the second	Sand	+	X
Address of Well Site End of Canyon Lane - 1-1/4 mile north of	10"	33'	42'	Brown Sandy Clay	1	<u>† x</u>
Hwy 44 (Give at least name of road + Distance to Road or Landmiatk) City Caldwell	6"	42'		Brown Sandy Clay	T	X
Lot Blk Sub. Name	6"	52'		Sand and Gravel	X	
4. USE:	6"	93'	97'	Clay		
X Domestic Municipal Monitor Irrigation Thermal Injection	6" 6"	97' 106'		Sand	X	
Other	6"	119'		Sandy Clay Clay w/Sand Strips	+ x	X
5. TYPE OF WORK:	6"	128'		Clay	+^-	x
New well     Replacement well     Modify existing well     Abandonment     Other	6"	142'		Sand	x	+
6. DRILL METHOD:						
X Air Rotary Mud Rotary Cable Other						<u> </u>
7. SEALING PROCEDURES:						
Seal material         From (ft)         To (ft)         Quantity (lbs or ft')         Placement method/procedure           3/4 Bent.         0'         42'         23 bags         10" Overbore		umbionissisioisiss				
			***********************			+
				RECEIVED	C. C	
8. CASING/LINER: Diameter From (tt) To (tt) Gauge/ Material Casing Liner Threaded Welded					+	†
(nominal) (Tom (ii) Schedule Material Casing Liner Inteaded Welded				NOV 1 2 2015		
6" +2 139' .250 Steel 🗵 🗆 🖾						
				WATER RESOURCES		ļ
Was drive shoe used? X Y IN Shoe Depth(s)		********				+
9. PERFORATIONS/SCREENS:					1	i
Perforations I Y X N Method						
Manufactured screen X Y IN Type Alloy						<b>_</b>
Method of installation Wash Down			*******			<u> </u>
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule			h (8.8	149'	- <del>1</del>	<b>I</b>
144' 149' .018 5' 5" SS		ted Dept		Havic).	<u> </u>	
		arted: No			Э	
					. مغنان د ام س	
		e the rig		mum well construction standards were complien noved.	30 With i	ai
Length of Headpipe 11' Length of Tailpipe		-			7	
Packer 🗵 Y 🔲 N Type K-packer			°7	nson Pump & Drilling Co. No. 45	- 004	
10.FILTER PACK: Filter Material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method	*Princip	bal Drille	$\square_i$	ice adamstic Date Nov	5, 201	- -
	*Driller	<u></u>	in A	SVARCO Date Nov	5, 201	5
	*Opera			Date	<u></u>	<del></del>
11. FLOWING ARTESIAN:	Operat	or 1 <u>J</u>	<u>osh</u>	Young Date Nov !	5, 2015	5
Flowing Artesian? TY X N Artesian Pressure (PSIG)	* Signa	ture of	Principa	al Driller and rig operator are required.		

Describe control device \_

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 Dir days after the completion or					<b>O</b>	,	M		
1.	WELL OWNER	1		LEVEL		of Water Atimini	^			
	Name JOHN BISHOP		tatic wa	ater leve	feet below land su	urface	stratio	a		
1	Name JOHN BISHOP RT. 7 Address CALDWELL FORHO	F ا	lowing		'es 🖾 No G.P.M. flow	/				
	Address CHLDWELL FURMO				ed-in pressure p.s.i.					
	Owner's Permit No					🗋 Plug				
2.	NATURE OF WORK	8. V	/ELL T	EST DA						
	X New well Deepened D Replacement	_	] Pump		🕱 Bailer 🛛 Other					
	•		ischarge		Draw Down	Hours Pu	mped			
	Abandoned (describe method of abandoning)		72		Z					
		<u> </u>								
3.	PROPOSED USE	┣───								
	🕱 Domestic 🗔 Irrigation 🗖 Test	9.1	Ітноі	.OGIC I	OG					
		Hole		pth	1	<u> </u>	Wa	ter		
	Municipal      Industrial      Stock	Diam,	From	To	Material	0 1 004	Yes	No		
4.	METHOD DRILLED	<u>e</u> 2		20 52	SANDY BROWN BROWN SAND					
	🗶 Cable 🗆 Rotory 🗇 Dug 🗆 Other		52	60	BROWNSAND GRAVEL	. <u> </u>	$ \neq$			
5	WELL CONSTRUCTION									
Э.		. <u> </u>				. <u></u>				
	Diameter of hole <u>6</u> inches Total depth <u>7</u> feet Casing schedule: Steel Concrete									
	Thickness Qiameter From To	<u> </u>								
	<u>1280</u> inches <u>6</u> inches + <u>feet</u> <u>70</u> feet inches <u>feet</u> feet <u>feet</u> feet	<b> </b>								
	inches inches feet feet									
	inches inches feet feet	┢───			· · · · · · · · · · · · · · · · · · ·		╉╼╾┥			
	Was a packer or seal used? 🛛 Yes 🛛 🕱 No	ļ								
	Perforated?   Yes X No	<u>}</u>		<u> </u>	· · · · · · · · · · · · · · · · · · ·		+			
	How perforated?  Factory  Knife Torch Size of perforation inches by inches									
	Number From To									
	perforations feet feet	[			<u></u>		<b></b>			
	perforations feet feet	F								
	Well screen installed?   Yes X No	<u> </u>				<u>Ł</u>	+			
	Manufacturer's name Model No	[			001151	_·	<u> </u>			
	Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet					<u> </u>				
			<u> </u>			- <u></u>	$\left\{ - \right\}$			
	Gravel packed?  Yes X No Size of gravel Placed from feet to feet									
	Surface seal? X Yes I No To what depth 18 feet									
	Material used in seal  Cement grout  Puddling clay		<u> </u>				$\left\{ - \right\}$			
6.	LOCATION OF WELL		<u> </u>							
0.	Sketch map location must agree with written location.	10.								
	N N		ork sta	rted	7-25-72_finished	0CT-2	6-1	22		
						÷	<u> </u>			
	w E				RTIFICATION illed under my supervision a	nd this report	is			
		t	rue to ti	he best	of my knowledge.	م۲` م				
			Mar	70	R MELL DR. 11	NOG	13			
	County CANYON	6	riller's o	r Firm's I	<u>R WELL PR. LL</u> Name HOMEPALE I	Numl	per	-		
	<b>/</b>	<b>K</b>	<u>9 X</u>	5//	HOMEPALC I N	· UH,		-		
	<u>NW % NW % Sec. 2., T. 4. NM, R. 3. M</u> /W		igned By	tt	mto no	·	2			
		° ۱	igneu DY		0	Dala				

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

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	Form 238-7 3/95-C96

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### **IDAHO DEPARTMENT OF WATER RESOURCES** WELL DRILLER'S REPORT

8	337	570	) 70
Inspecte	Office d by	Use On	ly
Inspecte Twp	Rge		Sec
	/4	1/4	1/4

1/4

Long:

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1/4

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: :

1. DRILLING PERMIT NO	11.	WEL	L TES	TS:	Lat: ;	Long: :	:
Other IDWR No. D0042258			Pump	Bailer	🛛 Air 🔲 Fl	owing Artes	ian
2. OWNER:				awdown	Pumping Level	Time	
Name BRIAN MC MILLAN/CHRIS BELL	50				80	4 HR	
Address 729 BANKSIDE		· · ·					
City EAGLE State ID Zip 83616	Wet	or Tom			Pottom halo ton		
3. LOCATION OF WELL by legal description:	Wat	er Oual	y ity test	or comments	Bottom hole ten	.ip	
Sketch map location must agree with written location	v• a		ity test	De	pth first Water Enc	ountered 68	
N	12	LITH	nLOG		Describe repairs of		_
Twp. 4 North 🛛 or South 🗌	14,		JLUU	пс 100. (.	Describe repairs 0	I AVANUUIII	тепт)
	Wa	ter					
w $E$ Rge. <u>3</u> East $\Box$ or West $\boxtimes$	Bore	From	To	Remarks:Li	thology, Water Quali	ty & Temp.	Y
Sec. <u>2</u> <u>1/4</u> <u>NW 1/4</u> <u>NW 1/4</u> <u>1/50 scres</u>	4 Dia 10"	0	2	TOP SOIL	<u></u>		╌┟┍╼╼
10 acres 40 acres 160 acres	10	2	18		T A X		
Gov't lot County CANYON	6"			BROWN C			
· · · · · · · · · · · · · · · · · · ·		18	22	BROWNC	LAY		
Lat: : Long: : :	6"	22	53	GRAVEL			
Address of Well Site 13832 RED TIDE LN	6"	53	68	BROWN C			<u> </u>
City CALDWELL (Give at least name of road + Distance to Road or Landmark)	6"	68	127	SAND CLA			
	6"	127		BROWN C			
Lt. <u>26</u> Blk. <u>1</u> Sub. Name <u>NORTH SLOPE #2</u>	6"	140	147	FINE SAN	0		
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							-ii
Air Rotary Cable Mud Rotary Other			1				
7. SEALING PROCEDURES							
SEAL/FILTER PACK AMOUNT METHOD		1					-
Material From To Sacks or Pounds			1				
BENTONITE 0 18 450 POUR		1		— <del>M</del> I	EGEIVED		
		1					<u> ~</u> ¦
		<u> </u>	<u> </u>	M	10V 2 5 2005		
Was drive shap was 2 67 V CI N Shap Death(a) 129		1	<b>.</b>				-
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>138</u> Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air		+			TER RESOURCES	hite	
8. CASING/LINER:	.	+		00	TOTALA		
Diameter From To Gauge Material Casing Liner Welded Threaded	·	<u> </u>			<b>UINM</b>		
6" +2 138 250 STEEL 🛛 🗂 🖾 🗂		+	<u> </u>				
5" 131 142 250 STEEL 🛛 🗆 🖾		+				· · · ·	
		<u> </u>		· · · · · · · · · · · · · · · · · · ·			<del>-</del>
	-	+		· · · · · · · · · · · · · · · · · · ·		<u></u>	
Length of Headpipe <u>11'</u> Length of Tailpipe		melator	l I Donti	h;_147		Measurable	<u>_</u>
9. PERFORATIONS/SCREENS  Perforations Method		e: Starte				leted <u>11/21/</u>	
							2005
						ndanta wa	
From To Slot Size Number Diameter Material Casing Liner					ell construction star g was removed.	nuarus were	
142 147 <b>20</b> 5" SS 🗆 🗆	com	Pitor w	וטו מו נו		5 mas removed.		
	Firm	n Name	GEOR	GE POST W	ELL DRILLING	Firm N	Ja 56
			<u></u>	/2	1	i um r	<u>.</u>
· · · · · · · · · · · · · · · · · · ·	Firr	n Officia	al 🖌	S/ A	E A	Date 1	1/22/
10. STATIC WATER LEVEL OR ARTESIAN			I				
PRESSURE:	Sun	ervisor	or Oner	ator		Date	
50ft. below ground Artesian Pressure 1b	- op		Per		irm Official & Operato		

Describe access port or control

Depth flow encountered 140 ft.

devices: WELL CAP

Firm No.	563

Date	11/22/2005

----**T T** 

visor (	or Operator_			
	(Sign	once if Firm	Official a	& Operator)

Date: 11/22/2005 Time:9:04:35 AM

	-
USE TYPEWRITER	d a
BALL POINT PEN	





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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

days after the completion	or abanc	onment	or the s	wen.			
1. WELL OWNER	7. V	VATER	LEVEL	Departmen		~~	
N DAVICANIAS				· ····································			
Name DON CAWARD				el <u>45</u> feet below land			
RT-7 Address CALDWELL IDAHO	-	Flowing?  Yes No G.P.M. flow Temperature° F. Quality Good					
		Artesian closed-in pressure p.s.i.					
Owner's Permit No				🗆 Valve 🛛 Cap			
		<u> </u>		<u> </u>			
2. NATURE OF WORK	8. V	VELLT	EST DA	NTA ·			
🕅 New well 🛛 Deepened 🗆 Replacement		] Pump	'n	🛇 Bailer 🛛 Oth			
			G.P.M.	Draw Down	Hours P	umped	
Abandoned (describe method of abandoning)		15		10	2		
							-
3. PROPOSED USE	<u> </u>						
🕅 Domestic 🔲 Irrigation 🔲 Test 🗇 Other (specify type	, †				041	<b>70</b>	2
	' 9. 1	LITHOL	LOGIC	LOG			
🗋 Municipal 🔲 Industrial 🕱 Stock 🗖 Waste Disposal or	Hole		ppth	Material			iter
Injection	Diam,					Yes	No
4. METHOD DRILLED	76	21	21_	SAUDY BROW	NGLAY	<del>.</del>	
			12	BROWNSAND	GRHUC	<u> </u>	
🕅 Cable 🛛 Rotory 🗆 Dug 🗔 Other		82	<b>Fr</b>	WHITESAN		1>	
	-					1	
5. WELL CONSTRUCTION			ļ				ļ
Diameter of hole inches Total depthfee	.t	<u> </u>	┥	······································	<u> </u>		<b> </b>
Casing schedule: 🕱 Steel 🗆 Concrete		·}	<u> </u>	<u> </u>			╂
Thickness Diameter From To	<b> </b>	1	<u> </u>	+ ··· _ ·· - ··· - · · · · · · · · · · ·	·	+	†—
250 inches <u>6</u> inches + <u>feet</u> feet <u>28</u> fee							
inches inches feet feet	т 	<u> </u>	<u> </u>		·		
inches inches feet feet		<u></u>	·[· · · ·	· · ·			┣
inches inches feet feet	<b>π</b>	<u> </u>		} 		+	┟┯╍
	[	<u> </u>	<del> </del>	L			}──
Was a packer or seal used? □ Yes					· · · · · · · · · · · · · · · · · · ·		<u> </u>
How perforated?  Factory  Knife  Torch		<u>  </u>	ļ				
Size of perforation inches by inches		<b>}</b>	<u> </u>	<u> </u>		+	
Number From To		╞──	<u> </u>				
perforations feet fee	- (						
perforations feet fee							
	` <b> </b>		<u> </u>	/ /		+	
Well screen installed? 🛛 Yes 🔎 No	}		<u>}</u>	<u></u>		╉──┤	·
Manufacturer's name	-			<u></u>		+	
Type Model No Diameter Slot size Set from feet to fee	-				···		
DiameterSlot sizeSet fromfeet tofee	ť					↓	
· · · ·				· · · · · · · · · · · · · · · · · · ·		┽┈┥	
Gravel packed?  Yes X No Size of gravel	- []				<u> </u>	╪╾╶┦	
Placed from feet to feet							
Surface seal depthMaterial used in seal 🛛 🗔 Cement grou	₀┝╌──┤	 			_··.	[·]	
🗆 Puddling clay 🛛 🗖 Well cutting						┼┈┤	
Sealing procedure used - Starry pit - Temporery surface cosing					······································	$\left\{ - \right\}$	
🔀 Overbore to sed dept	· .	······································	······			4k	<u></u>
6. LOCATION OF WELL	10.						
	L w	ork star	rted <u>HA</u>	<u>RC/1-13-04</u> finished	MAKCH-	20-	24
Sketch map location must agree with written location. $\begin{pmatrix} 2 & 2 \\ N & N \end{pmatrix}$	<b></b>				<u>۸ ر</u>	~	
	H. D	RILLER	S CERTI	FICATION		A	
Subdivision Name	F	irm Nor	na Hyp.	TZER WELL DR.	LL WE	. 9:	3
W							
Lot No Block No		ddress 🛃	SOX 4	511 HOHEDAL	C Date 3-	1-7	4
		ioned -	(=	Official) Junet	m &	-	
	1 3	WHOU DY	(r#m (	micial of a transferred	angu-	<u> </u>	-
S O O O O O O O	{			M			
County CANYON	.[			nd materi)	11 1	•	
County <u>CRNYON</u> <u>NE % Na % Sec. 2, T. 4 N/8, R. 3 @/W</u>	.[			nd rotor)	11 11	, 	-

USE TYPEWRITER OR
BALL POINT PEN

#### State of Idaho Department of Water Resources

USE TYPEWRITER OR	_				•	72.	$\sum$
BALL POINT PEN					$\bigcap \mathcal{Y}$	/ 1 · ~ 1 ·	'(f
WELL DRILL						0 1	(Z)
State law requires that this report be filed with th days after the completion o					1/4-	<u>a</u>	74 1
1. WELLOWNER Name James Filmor Address Addresh	7. WATER LEVEL Static water level 20feet below land surface Flowing? [] Yes No G.P.M. flow Temperature° F. Quality Gas C						
Owner's Permit No	A	rtesian	closed-i	n pressurep.s.i.	🗇 Plug		
2. NATURE OF WORK	8. W	ELL T	EST DA	ТА		<u>-</u>	
New well  Deepened  Replacement	🗆 Pump 🖾 Bailer 🛛 🔀 Other						
Abandoned (describe method of abandoning)		ischarge	G.P.M.	Draw Down	Hours Pr	umped	) 
			······································		<u> </u>		
3. PROPOSED USE	┣───			<u> </u>	<u> </u>		
Domestic Irrigation Test Other (specify type)	9. L	.ітноі	.OGIC L	.OG			
I Municipal □ Industrial □ Stock □ Waste Disposal or Injection	Hole Diam.			Material			ter No
4. METHOD DRILLED	F	10	10	TOPSOIL HARY PAR			Ķ
Cable 🗆 Rotory 🗆 Dug 🗆 Other	6	20	30	GRAUTL .	,	+	Ŕ
	6	30	40 50	SANLY CAA	<u>v <del>x</del>o san</u> V	<u>e</u>	Ø
5. WELL CONSTRUCTION	6	50	60	Sanity Ch	<u>. Ay</u>	×	
Diameter of hole inches Total depthfeet		10	20	CLAY		$\mathbf{X}$	-
Casing schedule: Steel Concrete	10	80		CLAY with		$\underline{r}$	
Thickness Diemeter + From feet 77 feet		[		YAINS OFU	ATR- Hold	+	┼──
inches inches feet feet feet feet		·					<b></b>
inches inches feet feet feet	<u> </u>		ļ	·		-	┼
inches feet feet feet feet	· ·			······································			
Was a packer or seal used?  Yes X No	<b> </b>					+	<del> </del>
Perforated?  Yes X No How perforated?			-				<u> </u>
How perforated?  Factory  Knife  Torch Size of perforation inches by inches			<b></b>				ļ
Number From To							<u>+</u>
perforations feet feet feet					<u> </u>	+	<u> </u>
perforations feet feet				<u> </u>			<u> </u>
Well screen installed? 🛛 Yes 🙀 No	<b> </b>			001160			
Manufacturer's name				-2.00			
Type Model No Diameter Slot size Set from feet to feet						'	┼──
Diameter Slot size Set from feet to feet							<u> </u>
Gravel packed? 🗆 Yes 🗙 No Size of gravel	<sup> </sup>			· · · · ·		+	<u> </u>
Placed from feet to feet							
Surface seal depth_32_Material used in sealCement grout	<b> </b>					+	
🔁 Puddling clay 🛛 🗛 Well cuttings							
Secting procedure used X Sturry pit  Temporary surface casing							
Overbore to seel depth							
6. LOCATION OF WELL	w	ork sta	rted <u>/</u>	- 15- finished	<u>1/~24-)</u>	6	
Sketch map location must agree with written location.	<b>Г</b>					~	
G3 N Subdivision Name	II. D	Firm Name DD WELL PALLIANS Firm NOT					
W E Lot No Block No	ļ ,	Address 3/0 5 // Dote 1-26-25					
County CANYON	s	iigned b;		Official)	v		_
SW WE Sec. 3, TAN N/S, R. 3W E/W	ļ		(Оре	protor)	<u>r~</u>	<u> </u>	-

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER
BALL POINT PEN
DALETOINTTEN

## State canaba Department of Water Administration

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	,		

WELL DRILLI	ER'S	S RE	EPOI	RT			
State law requires that this report be filed with the Dir days after the completion or	ector, [	Departm	nent of V	Nater Administration within 30	'	(	
1. WELL OWNER	7. V	NATER	LEVEL	L		<del></del>	
Name LARRY LENHASTER	5	Static w	ater leve	el <u>35</u> feet below land sur	rface		
Name LARRY LENHASTER Address CALOWELL J. P.A.140	l F	Flowing	? 🗋 Y	Yes D No G.P.M. flow F. Quality 6000			·
	A	Artesian	closed-	in pressurep.s.i.	····		
Owner's Permit No		D Plug					
2. NATURE OF WORK	] 8. V	VELL T	EST DA	ATA			
🛠 New well 🗆 Deepened 🗔 Replacement	1	🛛 Pump		🗆 Bailer 🙀 Other	AIR		<del>.</del>
Abandoned (describe method of abandoning)		) ischarge		Draw Down	Hours Put	mpec	1
· · · · · · · · · · · · · · · · · · ·						·	
3. PROPOSED USE							
			- <u></u>		33069		
🖼 Domestic 🔲 Irrigation 🔲 Test 🖾 Other (specify type)	9. 1	···			·	-	
🖾 Municipal 🔲 Industrial 🕅 Stock 🗂 Waste Disposal or Injection	Hole Diam,		Apth To	Material			oter No
4. METHOD DRILLED	6	0	2	TOPSOL		• • • • •	Ē
	├	2	11 28	HARO PAN			K
🗙 Cable 🗆 Rotory 🗀 Dug 🗆 Other		28	42	BROWN SAND GRAVEL		<u> </u>	6
5. WELL CONSTRUCTION		42	96	BROWN SAND			Z
		92	105	BROWNCLAY WHIJESAND		7	$\vdash$
Diameter of hole inches Total depth <u>105</u> feet Casing schedule: Steel		105		WAILSAPV		/	
Casing schedule: 😼 Steel 🗆 Concrete Thickness Diameter From To	[						
		+	[	<u> </u>	·····		–
inches inches feet feet						······	
inches inches feet feet feet feet		· .	[ . 				
inches inches feet feet	<b>_</b>	<b>+</b>		· · · · · · · · · · · · · · · · · · ·			<u> </u>
Was a packer or seal used? 🛛 🗆 Yes 🛛 🕱 No							<u> </u>
Perforated? 🛛 Yes 🕱 No		}4		 			<u> </u>
How perforated?  Factory  Knife Torch		ł		· · · · · · · · · · · · · · · · · · ·			┝╼╸
Size of perforation inches by inches Number From To	 						
perforations feet feet	·······	<u>}</u> ·───┤					
perforations feet feet				·			<u> </u>
perforations feet feet							
Well screen installed? 🛛 Yes 😾 No		-· <b> </b>					
Manufacturer's name Model No							
Diameter Slot size Set from feet to feet							
DiameterSlot size Set from feet to feet						-	
Gravel packed? 🗆 Yes 🙀 No Size of gravel				· · · · · · · · · · · · · · · · · · ·			
Placed from feet to feet		<b> </b>					
Surface seal depth Material used in seal Cement grout							
Survice seal deprin Material used in seal L., Cement grout Puddling clay 💯 Well cuttings							
Sealing procedure used I Sturry pit I Temporary surface casing				! 			
Coverbore to seal depth	<u> </u>	<u> k</u>	A	······································			
6. LOCATION OF WELL	10.					•	
	Wa	ork star	ted <u>7</u> -	<u>-30-74</u> finished <u>8</u>	1-2-74		-
Sketch map location must agree with written location. 63	13 N				<u> </u>		
						<u>.</u>	_
Subdivision Name	Fi	rm Nor	w <u>M</u> E	TZER WELL DR	L. Firm No.	73	2
E Lot No Block No				511 HOMEDALE	<b>C</b> 200	-1	4
	Si	gned by		Official) Renald M.	<u>f</u> w		-
County CANYON			an	d	~		

USE ADDITIONAL SHEETS IF NECESSARY FORWARD

(Operator)\_

USE TYPEWRITER C
-
BALL POINT PEN
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# State of ho Department of Water Administration

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14.4 30	<b>13</b>	

WELL DRILLER'S REPORT

State law requires that this report be filed with the Di days after the completion o	rector,	Departn	nent of t	Water Administration within 3	10		1
State law requires that this report be filed with the Di days after the completion of 1. WELL OWNER	7.	WATER		L · · · · · · · · · · · · · · · · · ·	t of Water Are-		4
Name EARY LASHER		Static w	ater lev	el _2.5 feet below land se	urface		ίω <sub>μ</sub>
Address CALOWELL IORHO		Flowing Temper	]? □ ` ature	Yes □ No G.P.M. flov °F. Quality <u>&amp;&amp; ∠</u>	/		••
		Artesiar	closed	-in pressurep.s.i,	L		
Owner's Permit No.		Control	led by	🗆 Valve 🗆 Cap	🗆 Plug		
2. NATURE OF WORK	8. \	WELL T	EST D	ΑΤΑ			
🗡 New well 🛛 Deepened 🗆 Replacement	L	🗆 Pump		🗆 Bailer 🛛 🛱 Other	R	iR	
Abandoned (describe method of abandoning)		Discharge ろと		Draw Down	Hours P		d
			<u> </u>		<del>×</del>		
3. PROPOSED USE	- <u> </u>				· · · · ·		
🕅 Domestic 🔲 Irrigation 🛄 Test 🔲 Other (specify type)	9.	LITHOI	OGIC	LOG	0417	03	
Municipal Industrial 🛛 Stock 🗂 Waste Disposal or	Hole Diam.	· · · · · · · · · · · · · · · · · · ·	pth	Material			ster
	8	From	т <u>о</u> /2	BROWN CLAY	<u></u>	Yes.	
4. METHOD DRILLED	<b>_</b>	12	21	GRADEL + SAN	0	+	
🕅 Cable 🗀 Rotory 🗆 Dug 🗆 Other		21	26 38	BROWN SAND SANDY BROWN	OLAY	+	$\vdash$
5. WELL CONSTRUCTION	<b> </b>	38	83	BUICK SAND B	ROWN		$\mathbb{Z}$
Diameter of hole inches Total depthfeet		105	105	BROWN CLAY BROWN SAND	,		$\leftarrow$
Casing schedule: X Steel Concrete	ļ					<b>_</b>	
Thickness Diameter From To 250 inches <u>8</u> inches + / feet <u>85</u> feet		1				+	┼──
inches inches feet feet	<b> </b> _					<u>†</u>	<b> </b>
inches inches feet feet feet feet						╉─┤	
inches inches feet feet					· · · · · · · · · · · · · · · · · · ·		
Was a packer or seal used? 🔲 Yes 💆 No				<u> </u>		┝╍┙┥	-
Perforated?							
How perforated?  Factory  Knife  Torch Size of perforation inches by inches				· · · · · · · · · · · · · · · · · · ·		$\left\{ - \right\}$	├
Number From To						$\square$	
perforations feet feet feet				· · · · · · · · · · · · · · · · · · ·	<u> </u>		
perforations feet feet						┝─┤	
Well screen installed? □ Yes 📈 No						╡────┤ ┥╌╍╸╌┥	
Manufacturer's name 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 feet to feet to feet							
Surface seal depth Material used in seal Cement grout				14			
Survice seal ceptin_ <u></u> Material used in seal Cement grout Puddling clay Well cuttings							
Sealing procedure used I Starry pit I Temporary surface casing							
Noverbore to each depth	<del></del>		<u> </u>	······································			
5. LOCATION OF WELL	10. Wa	wk start	od <b>A/ A</b>	and and the second		7.1	
Sketch map location must agree with written location.				<u> Rc H-27-74</u> finished <u>A</u>		<u> </u>	-
	H. DR	ILLERS	CERTI	FICATION			-
Subdivision Name				ZER WELL DRILL	Wreim N-	<b>9</b> 9	,
Lot No Block No				H KOHEDRLE	•	-17	:
County CONYON	Sig	ned by I	(Firm O anı	fficial) <u>Kinnet m</u>	Jent f	$\overline{}$	•
			(Opera	ptor)		AF	
USE ADDITIONAL SHEETS IF NECESSARY					LUNUT H	Ĵiii.	Ĵ,

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

]	Form 238-7
2	3/95-C96

v<sup>3</sup>

## IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

83	75				
Inspect	ed b	у			<b></b>
Twp_		_Rge		_Sec_	<u> </u>
	1/4		_1/4 _		_1/4
Lat:	:	:	Long:	:	:

					1/4;	1/4; Long: :	1/4 : ;
1. DRILLING PERMIT NO. 0 -0 -3 -9156 -	11.	WELI				<del>````````````````````````````````</del>	· · · ·
Other IDWR No.	Visid		Pump	Bailer awdown	A11 Pumping Level	Flowing Artes	sian
2. OWNER:		M			135ft	2hours	, <u>_</u>
Name Larry Meridith	00017	<u> </u>			1551		
Address 26190 Moonglow Dr.							
City Middleton State ID Zip 83644	Wate	r Tem	57De	gF	Bottom hole	temp.	
3. LOCATION OF WELL by legal description:				or comments:		• <u></u>	
Sketch map location must agree with written location				De	oth first Water ]	Encountered 42:	ft
N	<b>12.</b> ]	LITH	DLOG	HC LOG: (1	Describe repair	rs or abandonn	nent)
Twp. 4 North 🛛 or South 🗌				```	-		
Pre 3 Fast ar West	Wat						
W $E E Rgc. 2 Last D W Cst [A]$	Bore	From	То	Remarks:Li	hology, Water Q	uality & Temp	YN
Sec. <u>3</u> 1/4 <u>NE 1/4</u> <u>SE 1/4</u> 10 acres 160 acres	. <u>Dia</u> 10"	0	2	Sandy Top	Soil		
	#	2	8	Brown Clay			
s Gov't lot County Canyon	11	8	-18				
Lat: : : Long: : :	"	18	20	Gravel and	Sand		
Address of Well Site South Side of Red Tide .25mile	6"	20	50	Gravel and			-k#
	- <del>"</del>	50	57	Tan Clay			-A
West of Canyon City Middleton (Give at least name of road + Distance to Road or Landmark)	19	57	97	Sand			
Lt. <u>27</u> Blk. <u>1</u> Sub. Name		97		4		<u> </u>	
LA. <u>27</u> DIK. <u>1</u> 500. Wallie			108	Tan Clay	<u> </u>		
4 TICE.		108	123	Sand			_¤k
4. USE:		123	133	Tan Clay			┉╷╷
Domestic	"	133	140	Fine Sand			_
5. TYPE OF WORK check all that apply (Replacement etc.)				Į			┉┝╴╢╴
New Well Modify Abandonment Other			<b></b>				
6. DRILL METHOD				L			
Air Rotary [] Cable [] Mud Rotary [] Other							
7. SEALING PROCEDURES							
SEAL/FILTER PACK AMOUNT METHOD							
Material From To Sacks or							
Pounds							
Bentonite 0 20 750Lbs Dry Pour							
					•		
Was drive shoe used? 🛛 Y 🗖 N Shoe Depth(s) <u>133ft</u>						· · ·	-i-ii
Was drive shoe seal tested? $\square$ Y $\boxtimes$ N How?				RE	CEIVE	D	-i-i-
8. CASING/LINER:			<u> </u>			·	╶┼╌┟╴
Diameter From To Gauge Material Casing Liner Welded Threaded		· · · ·		M	AY 2 5 2005	<u>, , , , , , , , , , , , , , , , , , , </u>	—( i i i
6" +2 133 .250 Steel			<u> </u>			<u> </u>	┷┟─╟
5" 130 135 258 Steel					ER HESOURCI		╶╁╴╢
				┟───₩╘	STERN REGIO	<b>N</b>	╼┝╌╬╴
Length of Headpipe 5tt Length of Tailpipe						•== ·	╼┟╌╬╴
9. PERFORATIONS/SCREENS	Cor	nnleter	i 1 Dent	h: 140		(Measurable	<u>"</u>
Perforations Method		: Starte			C	ompleted 5-18-0	
Screens Screen Type johnson	And the second distances in th	_		CERTIFIC		<u> </u>	15
						standards were	
From To Slot Size Number Diameter Material Casing Liner					was removed.		;
$135 140 .010 - 5"$ SS $\Box$	vom	LIGG W.	11	ie chile die Hg	,		
	Firm	Name	COON	SE WELL DE	RILLING	Firm l	No. <u>409</u>
				1 1	<u> </u>		
	Firm	Offici		Aul.	1 ( man .	Date -	5-23-05
10. STATIC WATER LEVEL OR ARTESIAN			° <b>−</b> ¶		1777		
PRESSURE:	Supe	rvisor	or Oper	rator /	h Ka	Date 5	5-23-05
<u>44ft. below ground</u> Artesian Pressure <u>lb</u>	r.		<b>1</b>		irm Official & Op	erator)	

Date: 5/23/2005 Time:5:51:11 PM

44ft. below ground		Artesian Pressure	1b
Depth flow encountered	ft.	Describe access port	or control
devrices:			

Office Use Only       76         Well ID No.       408277         Inspected by
Inspected by
Twp Rge Sec         1/4 1/4 1/4         Lat; : Long: :         Bailer         Air         Pumping Level         Time         NH         4/0         ISMin         Pumping Level         Time         NH         4/0         ISMin         92         Or comments:         CLOG:         (Describe repairs or abandonment)         Water         Remarks:         Lithology Water Quality & Temperature         Y         Remarks:         Lithology Water Quality & Temperature         Y         Sravel         Clay         X         Clay         X         X         Clay         X
S: Lat; : Long: : Bailer Air Flowing Artesian Drawdown Pumping Level Tipe NH 4/D 15Min Bottom hole temp 1/// or comments: C/CAY Depth first Water Encounter 20 CLOG: (Describe repairs or abandonment) Water Remarks: Lithology Water Quality & Temperature Y N Brn Clay Cravel / Clay Layest K Gravel / Thin Clay Layest K Cravel / Thin Clay Layest K Clay
Bailer       Air       Flowing Artesian         Drawdown       Pumping Level       Time         NH       4/0       15 Min         9°       Bottom hole temp.       10         or comments:       Cleav       Bottom hole temp.         Depth first Water Encounter       20         CLOG:       (Describe repairs or abandonment)       Water         Remarks:       Lithology Water Quality & Temperature       Y       N         Brn, Clay       X       X         Gravel       / Clay       X       X         Clay       X       X       X         Clay       X       X       X         Clay       X       X       X
Drawdown       Pumping Level       Time         NH       4/0       15 Min         9 <sup>2</sup> Bottom hole temp.       10         9 <sup>2</sup> Depth first Water Encounter       20         0 cromments:       CLOG: (Describe repairs or abandonment)       Water         Remarks:       Lithology Water Quality & Temperature       Y       N         Brn       Clay       X       X         Gravel       / Clay       Layers       X         Clay       X       X       X         Clay       X       X       X
NH       10       15 Min         9       Bottom hole temp.       10         9       Depth first Water Encounter       20         0 r comments:       CLOY       Depth first Water Encounter         20       Depth first Water Encounter       20         CLOG:       (Describe repairs or abandonment)       Water         Remarks:       Lithology Water Quality & Temperature       Y       N         Brn       Clay       X       X         Gravel       / Clay       Layers       X         Clay       X       X       X         Clay       X       X       X         Clay       X       X       X
9°       Bottom hole temp.         or comments:       C/CAY         Depth first Water Encounter       20         CLOG:       (Describe repairs or abandonment)       Water         Remarks:       Lithology Water Quality & Temperature       Y       N         Brn       Clay       X         Grave       / Clay       X         Grave       / Clay       X         Grave       X       X         Clay       X         Clay       X         Clay       X         Clay       X
or comments: <u>C/CAV</u> Depth first Water Encounter <u>20</u> <b>C LOG: (Describe repairs or abandonment)</b> Water <b>Remarks:</b> Lithology Water Quality & Temperature Y N Brn Clay Gravel / Clay Layest K Gravel / Thin Clay Layers K Gravel X Clay X Clay X Clay X
or comments: <u>C/CAV</u> Depth first Water Encounter <u>20</u> <b>C LOG: (Describe repairs or abandonment)</b> Water <b>Remarks:</b> Lithology Water Quality & Temperature Y N Brn Clay Cravel / Clay Layes Cravel / Thin Clay Layers K Cravel X Cravel X Clay And Sand X
Depth first Water Encounter 20 CLOG: (Describe repairs or abandonment) Water Remarks: Lithology Water Quality & Temperature Y N Brn Clay Gravel / Clay Layers K Gravel / Thin Clay Layers K Gravel X Clay X Clay X Clay X
CLOG: (Describe repairs or abandonment)       Water         Remarks: Lithology Water Quality & Temperature       Y       N         Brn, Clay       X         Gravel / Clay Layers       K         Gravel / Thin Clay Layers       X         Gravel / Thin Clay Layers       X         Clay       X         Hinc Sand       X
Remarks: Lithology Water Quality & Temperature     Y     N       Brn Clay     X       Gravel / Clay Layers     X       Gravel / Thin Clay Layers     X       Gravel / Thin Clay Layers     X       Clay     X       Hinc Sand     X
Brn Clay X Gravel / Clay Layers X Gravel / Thin Clay Layers X Gravel X Clay X Hine Sand X Clay X
Cravel / Clay Layers K Gravel / Thin Clay Layers K Gravel X Clay X Hinc Sand K Clay X
Gravel / Thin Clay Layers X Gravel X Clay X Hine Sand X Clay X
Clay X Clay X Hint Sand X Clay X
Clay X Clay X
Clay
Clay K
Corse Sand X
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WATER RESOURCES
WESTERN REGION
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12/2/2 = 12/2
ERTIFICATION
ninimum well construction standards were complied with at the noved STLUAN ADAMSON
among a partilor
MACSITC PUMP + DRamas 48:
Holomon Date 5/2004
Delonion Date 15/2000
Delonion Date 15/2000
i M

FORWARD WHITE COPY TO WATER RESOURCES

63 INJECTION WELL FORM 238-7 IDAHO DEPARTMENT OF WATER BESC						840115 Office Use 0	nly,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	7
6/02 WELL DRILLER'S REPORT		JE2			Well ID N Inspected		Sec	_
1. WELL TAG NO. D $0046577$ DRILLING PERMIT NO. $894729 - 840115$ Water Right or Injection Well No. $63 - W - 217 - 001$	12. V		ESTS:	Bailer		4 1/4 : Long: □ Flowing Ar	1/4 : :	
2. OWNER: Name C+S Interiors Abram Antonucci Address 55, ZON Wildgoose City Meridian State ID Zip 83642	· _	rield gal. ー、、 いいして		Drawdov <b>30 G</b>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Pumping Level	Tim	e
City Meridian State JD Zip 83642 3. LOCATION OF WELL by legal description:		r Temp.		590	Alone		n hole temp.	
You must provide address or Lot, Blk, Sub. or Directions to well. Twp North I or South				comments: _	•	_ Depth first Wa		
Rge.     3     East     or     West     X       Sec.     2	Bore Dia.	From	То	Remarks:	-	r abandonment) er Quality & Temp		Water     Y   N
Lat: : : Long: : Canym Lane Address of Well Site Z3Z81 Canym Lane	0000	031518	3 15 18	Sort Brn Cl Brn Cl	lay lay +G	Pravel		K K
Lt. 28 Blk. Sub. Name North Slope ESTATes	6	18	42	Grave				<b>X</b>
USE:     Domestic Municipal Monitor Irrigation     Thermal Injection								
5. TYPE OF WORK check all that apply       (Replacement etc.)         New Well       Modify       Abandonment			•					
6. DRILL METHOD:								
7. SEALING PROCEDURES								
Gran Kent 0 18 40046 Ouerbore								
Was drive shoe used?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?         Was drive shoe seal tested?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?						·		
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded Casing Liner Welded Threaded Welded Threaded				Ī	RECE	IVED		
					JUN 2	6 2006		
Length of HeadpipeLength of Tailpipe Packer					WATER RE WESTER	SOURCES N REGION		
9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method								
From To Slot Size Number Diameter Material Casing Liner			Death		42		() ( )	urable)
		npleted e: Stai		0/9/04	1	Completed	6/9/	
10. FILTER PACK						MSOR	mplied with	at the
Filter Material         From         To         Weight / Volume         Placement Method		he rig v bany Na	Ň	Arean AT		ump	_ Firm No.	483
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Princi and	ipal Dril	ier	flad	Journ 1	Date	» <u>*/19</u>	106
Image: Market State       Artesian pressurelb.         Depth flow encounteredft.       Describe access port or control devices:	Drille	r or Ope	erator I	Jn 1	m	Date		106
	Opera	ator I				Date perator <i>Required.</i> of Driller/Operate		
FORWARD WHITE COPY	TO W	ATER						

				6	<u>83632</u>	.1		
62					Office Use	Only	78	
Form 238-7 IDAHO DEPARTMENT OF WATER RESC	OURCES	5				079	<u>7                                    </u>	
6/02 WELL DRILLER'S REPORT	Г				cted by	-		Í
1. WELL TAG NO. D <u>004/972</u>					Rge			
DRILLING PERMIT NO.					1/4 1/4			
Water Right or Injection Well No.	12. WELL			Lat:	: : Lon	-	·	l
		Pump	Bailer	Air	E Flowing		Time	—
2. OWNER: Seff Shelman	34		Biulius	···· -	736	31	ars.	
Name Seff Shelmun Address 16380 Franklin Rd. Apt. E-4								
City Nampa State Id Zip 83687						_		
	Water Tem	р			Bott	om hole tei	тр	
3. LOCATION OF WELL by legal description:	Water Qua	lity test or	comments:	900	d clear	col	X	
You must provide address or Lot, Blk, Sub. or Directions to well. Twp. If North Ar or South				·	Depth first V			
Rige. 3 East D or West P	13. LITHO	DLOGIC	LOG: (Descri	ibe repai	rs or abandonme	nt)	Wa	ater
Sec. 3 NE 1/4 SE 1/4 1/4	Bore Dia, Fror	n To	Remarks:	Lithology,	Water Quality & Te	mperature	Y	N
	100	4	TADS	nél				X
Lat: : : Long: Address of Well Site 23363 Tundra Ct.	664	20	Sand	411	ar			F
City Caldwell	620		Sand	691	avel			r
(Grve at least name of road + Distance to Road or Landmark)		67	Brnch	y				h
(Gree at least name of road + Distance to Road or Landmark) Lt. <u>18</u> Blk. Sub. Name <u>North Slope ESF</u> .	67	73	meds	Sand			1	$\parallel$
	72	3 94	ISPA C	la y				1
4. USE:		4/05	Sandy	'Ç/a,	¥			4
🗶 Domestic 🗌 Municipal 🗌 Monitor 🗌 Irrigation		2/18	ESACI	ay			x	<u>n</u>
Thermal Injection Other	17	1 133	FINCS					F
5. TYPE OF WORK check all that apply (Replacement etc.)	12		med S		· · · · · · · · · · · · · · · · · · ·		V	+
New Well Modify Abandonment Other	100	100	<i>m</i>					
6. DRILL METHOD:							_	<u> </u>
7. SEALING PROCEDURES								-
Seal Material From To Vejob Volume Seal Placement Method			+		<u> </u>			
Permiplag 0 18 550/65 10"ourbore			<u>.</u>					
Was drive shoe used? $MY \square N$ Shoe Depth(s) $33-8$							-	
Was drive shoe used? Was drive shoe seal tested? Was drive shoe seal tested? Was drive shoe seal tested? Was drive shoe seal tested? Was drive shoe used? Was drive shoe u								
8. CASING/LINER:					·			
Diameter From To Gauge Material Casing Liner Welded Threaded							_	
6 72 133-8 250 Steel 0 0 20 0								
				-	FOELVE	= D		+
Length of Headpipe 5 Length of Tailpipe				— <del>R</del>	ECEIVE	- 2	-	
Packer RY DN Type 3-Rib		-		_	OCT 2 5 20	<u> </u>		
9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method					NATER RESOUR			
Screen Type & Method of Installation John Son Wash DU. Valu	c –				WESTERNALES		-	
From To Slot Size Number Diameter Material Casing Liner			<u> </u>	13	8-ff	/8	/leasura	
133 138 20 6"Tele S.S. []	Complet	ed Depth	al-a		- 1'	G/.	, /	10ie)
	Date: S	Started	9/26	105	Completed	41	70	<u>ຍ</u>
			ERTIFICATIO				(als 4 1)	h.a.
10. FILTER PACK	I/We certil time the ri	-		onstructio	on standards were	complied w	ith at tr	ıe
Filter Material From To Weight / Volume Placement Method		° ~			offal de	The	. e	-2-2
	Company	Name 2	<u>26.3.0</u>	<u>n Lee</u>	<u>v/drs/ing</u>	Firm I	<u>ر</u> ر	<u> </u>
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Principal (	Drille	DU	an	tom 0	ate 10	121	105
ft. below ground Artesian pressurelb.	and	- / /	/					
Depth flow encounteredft. Describe access port or control devices:	Driller or (	perator II			L	ate		
Sani Seal Well Cap	Operator I					ate		
1		٥r			ig Operator <i>Require</i> ature of Driller/Ope			

Operator I must have signature of Driller/Operator



# IDAHO DEPARTMENT OF WATER RESOURCES

8356	2	9	79
0.0			

I1/87 JGE V IDAHO DEPARTMENT OF WA		ES	Office Use On Inspected by	ly
	REPORT		Inspected by Twp <u>4A1</u> Rge <u>30</u>	J Sec 2
1. WELL TAG NO. D 0041755			1/4 SW 1/4	NW 1/4
DRILLING PERMIT NO.	11. WELL TES	STS	Lat: : Long	
Other IDWR No.		Bailer	X Air Flowing	A magine
2. OWNER:	Yield gal./min.	Drawdown	Pumping Level	Time
IameMCCLURE - BLUE CANYON HOMES	40	· · · · · · · · · · · · · · · · · · ·	110	2 HR
ddress 23444 WHALE BAY	·			
MIDDLETON         State         ID         Zlp         83644	L			
3. LOCATION OF WELL by legal description:	Water Temp.		Bottom hole temp.	
ketch map location must agree with written location.	water Quality test of	r comments:	D. 4 5 4 44 5 -	
N			Uepth linst Water Encoun	ter
	12. LITHOLO		escribe repairs or abandon	ment) Vis
Twp4 North 🔀 or South 🗋	Bore Dia, From	To Remarks:	Lithology, Water Quality & Tem	
E Rge.         3         East         or         West         X           Sec.         2         1/4         SW 1/4         NW 1/4         NW 1/4           Gov't Lot         County CANYON         To acres         To acres         To acres	10 0	5 TOP SO	NL/ HARD PAN	iperature Y
Sec. 2 1/4 SW1/4 NW 1/4		20 SANDY	CLAY	
Gov't Lot County CANYON	6 20	30 SAND/ S	SOME CLAY	
S Lat. Long:		70 SAND/ (	SRAVEL	X
Address of Wetl Sits SAME	70	85 <u>SAND</u>		<b>X</b>
(Sive at least name of road + Distance to Road or Landmark)	85	109 SANDY		
Bik. Sub. Name	116		SAND/ CLAY	
	124	134 SAND / .		X
USE: X Damestic Municipal Monitor Intraction				<b>^</b>
K Damestic     Municipal     Monitor     Irrigation       Thermal     Injection     Other				
Image: Second state of the second s				
SEALING PROCEDURES:				
Seal/Filter Pack AMOUNT METHOD		<u> </u>		
Pounda				
ENTONITE 0 18 400# POUR				
is drive shoe used? XY N Shoe Depth(s) 118				·
is drive shoe seal tested? XY N How? AIR			<u> </u>	
	F		·····	
CASING/LINER:		PECE	IVED	
meter From To Guage Material Casing Liner Welded Threeded				
<u>6 +2 118 250STEEL</u> X			<del>) 6 2005</del>	
<u>4.5 114 134 PVC </u>	I			
	<b>}</b> ── <u></u> <u></u>	WATER F	RESOURCES	
	<b> </b>	WESTE	RN REGION	
PERFORATIONS/SCREENS:	I			— <u> </u>
Perforations Method				
A Company	Completed Depth 1	34	····	(Measurable)
A Screen Type		9/2005	Completed 8/30/2	
	Date: Started 8/29			
To.         Slot Size         Number         Diameter         Material         Casing         Liner           114         134         20         4.5         PVC         X	L			
om To. Slot Size Number Diameter Material Casing Liner 114 134 20 4.5 PVC X	13. DRILLER'S	CERTIFICAT		
To.     Slot Size     Number     Diameter     Material     Casing     Liner       114     134     20     4.5     PVC     IX	13. DRILLER'S			ed with at
om To. Slot Size Number Diameter Material Casing Liner 114 134 20 4.5 PVC X	13. DRILLER'S	CERTIFICAT	ION: ion standards were complia	ed with at

×	Ground	re voai	an i prosecute	1Q,
Depth flow encountered		ft.	Describe access port or contr	ol
levices:			•	

and Driffer or Operator —	Chris Janis (Sign once il Firm Official & Operator)	Date <u>9/2/2005</u>
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1		835570	
02		Office Use Only	80
Form 238-7 IDAHO DEPARTMENT OF WATER RES	-	Well ID No. 40606	<u> </u>
WELL DRILLER'S REPOR	Т	Inspected by Twp Rge Sec	
1. WELL TAG NO. D <u>0041771</u>		1/4 1/4 1/4	
DRILLING PERMIT NO.	12. WELL TESTS:		r t
Water Right or Injection Well No.		Bailer XAir Di Flowing Artesian	
2. OWNER:	Yield gal./min.		ime
	100	123 2hi	<u>rs</u>
Address 3910 H:11 Rd.			
Name_ <u>Blackhorse</u> Construction Address <u>3910 Hill Rd.</u> City <u>Boise</u> State Zip <u>83703</u>			
3. LOCATION OF WELL by legal description:	water temp.	comments: Good Clear Color	ip
You must provide address or Lot, Blk, Sub. or Directions to well.		,	
Twp North 🖉 or South 🗆	NO Smil		
Rge East or West A		LOG: (Describe repairs or abandonment)	Water
Sec. 3	Bore Dia. From To	Remarks: Lithology, Water Quality & Temperature	YN
	004	Top Soil	$\top$
Address of Well Site 23336 Tundra Ct. City Caldwell	47	Clay & Sand	$\times$
(Give at least name of read + Dislance to Road or Landmark) City Caldwell	8	Hid Pan	-
(Give at least name of road + Distance to Road or Landmark) Lt. 23 Blk Sub. Name NOrth Slope EST.	1 8 13	Sand	イン
	621 41	Clay & Sand	1-12
4. USE:	41 53	Sandy Clax	- Fr
A. USE:     Monicipal □ Monitor □ Irrigation	5371	Broclay	1 IF
□ Thermal □ Injection □ Other	71 78	Sancyclay	+
	78 81	Sand	+
5. TYPE OF WORK check all that apply (Replacement etc.)	8196	Bracky,	
XNew Well 🗌 Modify 📋 Abandonment 🗌 Other	76 109	SandyClay	
6. DRILL METHOD:	107 116	Reach and	X
🗶 Air Rotary 🗌 Cable 🗌 Mud Rotary 🗌 Other	115 125	med Sand	x
7. SEALING PROCEDURES	110 000	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>	
Seal Material From To Weight Volume Seal Placement Method			
Derma Dlug 0 19 550/10 10'overbore			
Was drive shoe used? $\cancel{XY} \Box N$ Shoe Depth(s) $/15$			
Was drive shoe seal tested? CY XN How?			
8. CASING/LINER:			
Diameter From To Gauge Material Casing Liner Welded Threaded			
6 + 2-4" 115 250 steel 0 0 × 0			
Length of Headpipe 5 Length of Tailpipe 2		VED	
Packer $\bigotimes$ $\square$ N Type $\underline{3 - R'_{16}}$		RECEIVED OCT 25 2005	
	<b>├</b> ── <b>├</b> ─── <b>├</b> ─── <b>│</b>	25 2005	
9. PERFORATIONS/SCREENS PACKER TYPE		0C1 23 2003	
Perforation Method		WATER RESOURCES WESTERN REGION	
From To Slot Size Number Diameter Material Casing Liner		WESTERN HEOR	
115 125 20 6" Tele S.S	Completed Depth	(Me	asurable)
	Date: Starled	8/ <u>35/05</u> Completed <u>8/36</u>	<u>6/a5</u>
	14. DRILLER'S CE	ERTIFICATION	
10. FILTER PACK		inimum well construction standards were complied with	at the
Filter Material From To Weight / Volume Placement Method	time the rig was remo		
	Company Name 💋	CC: S:ON WEIL dr: 11 ing Film No PACALLON Date 9/0	522
	Principal Driller	7. DO Anison note 91	6/04
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	and		<i>(</i>
23       ft. below ground       Artesian pressurelb.         Depth flow encounteredtt. Describe access port or control devices:      lb.	and Driller or Operator II	Date	<i>(</i>
33_ft. below ground Artesian pressurelb.			

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F677 238-7 195 IDAHO DEPARTMENT OF WA	
WELL DRILLER'S Use Typewriter or Ballpo	
1. DRILLING PERMIT NO. <u>63 - 97 - W- 0406 - 000</u> Other IDWR No	11. WELL TESTS:      174
2. OWNER: Hector Villarreal NameAddress	Yield gal./min.     Drawdown     Pumping Level     Time       30     5     10     1
City Caldwell State Til Zip 836 05	Water Temp Bottom hole temp
3. LOCATION OF WELL by legal description: Sketch map location must agree with written location.	Water Quality test or comments: Depth first Water Encountered 12. LITHOLOGIC LOG: (Describe repairs or abandonment) water
Twp North 🗹 or South 🗆	Bore Dia. From To Remarks: Lithology, Water Quality & Temperature Y
$\begin{bmatrix} \text{Rge.} \\ 3 \\ \text{Sec.} \\ 3 \\ \text{Gov't Lot} \\ \end{bmatrix}$	8° 0 4 dirt 1° 4 9 saudy dirt 1° 8 9 saudy dirt
Gov't Lot County 40 acres to acres Lat: : Long: : Address of Well Site 23547 Stone Ln	6 9 22 Sundy clay
(Give at least name of road + Dislance to Road or Landmark)	30 38 Fine sund - 4 38 41 white clay
LtBlkSub. Name	41 58 silly clay 58 66 clay 66 75 silt
4. USE: Domestic	75 76 good sand to
5. TYPE OF WOP <sup>レ</sup> check all that apply       (Replacement etc.)         New Well       Modify       □ Abandonment       □ Other         6. DRILL METHOD       □       □       □	96 104 geod sand 104 105 clay
🗆 Air Rotary 🛛 🕞 Cable 🖾 Mud Rotary 🗆 Other	
7. SEALING PROCEDURES	
Material From To Sacks or Bentonite 3 25 150 pour in	RECEIVED RECEIVED
Was drive shoe used? $EY \equiv N$ Shoe Depth(s)	MAR 0 4 1993 FEB 1 3 1998 WATER RESOURCES
Was drive shoe seal tested?  Y  How? 8. CASING/LINER:	Department of Water Resources WESTERN REGION
Diameter     From     To     Gauge     Material     Casing     Liner     Welded     Threaded       6 378     + 2     98     ,250     57     -     1     1     1	RECEIVED RECEIVED
Length of Headpipe Length of Tailpipe	DEC 1 2 1997 DEC 0 5 1997
9. PERFORATIONS/SCREENS	Department of Water Resources WESTERN REGION
Screen Screen Type <u>304 97ainless</u>	Completed Depth <u>05</u> (Measurable Date: Started <u>7/7/97</u> Completed <u>7/io/97</u>
From     To     Slot Size     Number     Diameter     Material     Casing     Liner       99     104     .016	13. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with
	the time the rig was removed.
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE: ft. below ground Artesian pressurelb.	Firm Official Ralph Robinson Date 7/10/97
Depth flow encountered <u>16</u> ft. Describe access port or control devices: <u>removable Lett 5cm / Cap</u>	and Supervisor or Operator Date

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USE TYPEWRIT	ER OR
BALL POINT	PEN

State of Idaho Department of Water Resources

11 · · · · · · · · · · · · · · · · · ·	,
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BALL POINT PEN WELL DRILLE	5016	: DE			. Son Kere	• <sup>1</sup> .		
State law requires that this report be filed with the	Direct	or, Depo	rtment -	of Water Percurces within 30	e Sog Kere	4	r.	
days after the completion or 1. WELL OWNER	1			rell.	1. sec	4 		
				-60 feet below land su	rfaa.			
Name LARRY LEMHASTER Address CALDWELL DOAMO	F	lowing?	ΠY	es 🗆 No G.P.M. flow	□ No G.P.M. flow			
Address CALDWell JDAMO	4			° F. Quality <i>&amp;OOD</i> n pressurep.s.i.	YERPS,			
Owner's Permit No		Controlle	d by	🗋 Valve 🔲 Cap	🗋 Plug			
2. NATURE OF WORK	8. V	VELLTI	EST DA	ТА				
🕅 New well 🛛 Deepened 🔲 Replacement	L	] Pump		🗋 Bailer 🛛 🕱 Other				
		ischarge	G.P.M.	Draw Down	Hours Pu	mped		
3. PROPOSED USE					<u> </u>			
🕅 Domestic 🔲 Irrigation 🗌 Test 🔲 Other (specify type)	9.1	LITHOL	OGICI	.06				
🗋 Municipal 🔲 Industrial 😡 Stock 🔲 Waste Disposal or	Hole	De	pth	Material		ju	ter	
Injection	Diam.	From	To Y	TOPSOIL		Yes	No	
4. METHOD DRILLED		4 5	5 32	HAROPAN BROWNSAND	<u>-</u>	┼──	6	
🕅 Cable 🛛 Rotory 🗋 Dug 🗖 Other	<u> </u>	32	74	FRAUEL		+	Ž	
5. WELL CONSTRUCTION		74	80 110	BROWN SAND SANDY BROWN	CLAY	<u>+</u>	$\mathbb{Z}$	
Diameter of hole inches Total depthfeet		110	<u>130</u> 134	BROWN SAN BROWN CLAY		<u> </u>	$\ge$	
Casing schedule: 🛛 Steel 🗆 Concrete Thickness Diameter From To		134		WHITE SANK	2	$\vdash$		
<u>.250</u> inches <u>6</u> inches + <u>/</u> feet <u>/33</u> feet inches inches feet <u></u> feet	<u> </u>	•						
inches inches feet feet	<u> </u>					<b>†</b>	<u> </u>	
inches feet feet feet feet feet feet feet feet						+	<u> </u>	
Was casing drive shoe used ? 🕅 Yes 🔲 No Was a packer or seal used? 🗇 Yes 🎉 No						$\square$	<b>—</b>	
Perforated?		1				<u>†                                    </u>	<b> </b>	
Size of perforation inches by inches						<u>+</u>	<u>↓</u>	
perforations feet feet						<u> </u>	+	
perforations feet feet feet	<u> </u>					<u> </u>		
Well screen installed? 🖸 Yes 🛿 No	<u> </u>	· · ·		001153		<del> </del>		
Manufacturer's name Model No		<u> </u>			······	<u>+</u> -		
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet						+	<u></u> -	
						$\pm$		
Gravel packed?						+	+	
Surface seal depth_18 Material used in seal 🛛 Cement grout						$\frac{1}{1}$	+-	
Puddling clay      Well cuttings				· · · · · · · · · · · · · · · · · · ·				
Sealing procedure used 🛄 Sturry pit 🔲 Temporary surface casing 😡 Overbore to seel depth		<u> </u>	<u> </u>	I	<u> </u>	4	<u> </u>	
6. LOCATION OF WELL	10. V	Nork sta	rted 3	-15-75 finished	3-24-	<u>15</u>		
Sketch map location must agree with written location.	┢───							
63 <u> </u>	1				0.44	1	7 7	
Weight and the second secon	1			ETZER WELL				
Lot No Block No		Address	RT:	HOMEDALE JO	T Dote P -	<u>- 7-</u>	<u>~</u> >	
		Signed b		Official) <u>Knatt 7</u>	1-ber			
County CANYON				erator)	<u></u>	i		
NW 45E 4 Sec. 3, T. 4 N/4, R. 3 MW	<u> </u>				·			
USE ADDITIONAL SHEETS IF NECESSARY FORWARD	THEV	VHITE (	COPYT	O THE DEPARTMENT				

6	3	Form 238-7 3/95-C96
(/	-	5/35-030

devices: WELL CAP

### **IDAHO DEPARTMENT OF WATER RESOURCES** WELL DRILLER'S REPORT

	836	22583
	Office Use	
Inspecte Twp	d by	_
Twp	Rge	Sec

1/4

1/4

1/4

<b>1. DRILLING PERMIT NO.</b> 419 -53	11 '	WELI	TES	rs.	Lat: ;	Long: :	:	
Other IDWR No.				Bailer	🛛 Air 🔲 I	Flowing Artesi	an	
2. OWNER:	Yield	gal/min.	Dr	awdown	Pumping Level	Time		
Name CORY HAMRICK	50			<u>.</u>	115	1 HR		$\Box$
Address 9935 GANTERBURY							<u> </u>	_
City BOISE State ID Zip 83704		- T				<b>I</b> .		_
3. LOCATION OF WELL by legal description:	Wate	r Temp - Ouali	), tv: toot /	or comments:	_Bottom hole te			-
Sketch map location <u>must</u> agree with written location	W alt	a Quan	ly lest		oth first Water En	countered 75		—
N	12 1	TTH/			Describe repairs		ont)	—
Twp. 4 North 🛛 or South 🗌	12.1				reserve repairs	or analidoum	entj	
	Wate	er						
W E Rge. 3 East or West $\times$	Bore	From	To	Remarks:Lit	hology, Water Qua	lity & Temp.	Y	N
W E Rge. 3 East or West $\square$ Sec. 2 1/4 SW 1/4 SW 1/4 $\frac{1}{10 \text{ acres}}$ SW 1/4 SW 1/4	Dia. 10"	0	4	TOP SOIL			┶╾╅	$\sim$
	10"	4	18	BROWN CI	AV		╶┤──┦	$\bigotimes$
s Gov't lot County CANYON	6"	18	35	BROWN CI			┥─╢	$\bowtie$
Lat::Long:::	6"	35	75	GRAVEL			╡─┦	$\bowtie$
Address of Well Site TUNDRA CT.	6"	75	114	SAND CLA	V STRIPS		╶┝┛	А
	6"	114	120	TAN CLAY			-4	
(Give at least name of road + Distance to Road or Landmark)	6"	120	128	SAND			╶╄┤	Р
Lt. 20 Blk. 1 Sub. Name_NORTHSLOPE ESTATE		120	120		· · · ·		P	
Sur <u>20</u> Blat <u>7</u> Blat <u>7</u> Blat Manio <u>Hortmobor B EDTM</u> IT					· · · · · · · · · · · · · · · · · · ·		╧┝═┤	$\vdash$
4. USE:						<u></u>	+	$\vdash$
Domestic Municipal Monitor Irrigation							╧╧┻╣	$\vdash$
Thermal Injection Other				<u>H_E</u>	CEIVED	<del></del>	┥╌┨	
5. TYPE OF WORK check all that apply (Replacement etc.)							┥┤	
New Well 🗌 Modify 🗌 Abandonment 🗍 Other				<u>St</u>	<u>P 2 7 2005</u>		╺┼╌┨	
6. DRILL METHOD					R RESOURCES		╺┼──┦	
🛛 Air Rotary 🗋 Cable 🗌 Mud Rotary 🗋 Other				WES	STERN REGION-		┥┛╏	
7. SEALING PROCEDURES						<u> </u>	┥╌┥	
SEAL/FILTER PACK AMOUNT METHOD			ļ			· · · · · · · · · · · · · · · · · · ·	┽╌╢	
Material From To Sacks or				<b>-</b>	Dini	1 .	-	
Pounds           BENTONITE         0         18         450         POUR				V	un anti-	HAL	╧╌╢	
							-	
					<u> </u>		┥┦	
					· •		┥┤╢	
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s)						<u></u>	┽╌╢	
Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air							┥┤	$\vdash$
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded					<u>-</u>		╇	$\vdash$
6" +2 118 250 STEEL 🛛 🗆 🖂 🗆							╉━╢	$\vdash$
							┥─╢	Н
			· · ·	· · · · · · · · · · · · · · · · · · ·			╺┟──┤	Н
Length of Headpipe 8' Length of Tailpipe							╺┝─┤	⊢
9. PERFORATIONS/SCREENS	Соп	pleted	Denth	128		(Measurable)	<u></u>	Ч
Perforations Method		: Starte				pleted <u>09/22/2</u>		
Screens Screen Type huston				CERTIFIC		pieted <u>oprilizi</u>	000	
					ell construction st	andards were		
From To Slot Size Number Diameter Material Casing Liner					was removed.			
123 128 250 5" SS								
	Firm	Name	GEOR	<u>GE POST WE</u>	LL DRILLING	Firm N	o. <u>56</u>	3
		-		1				
10. STATIC WATER LEVEL OR ARTESIAN	Firm	Officia	1	<u>S//</u>	le -	Date 09	1/23/2	200
PRESSURE:			500	- /-		_		
63ft. below ground Artesian Pressure lb	Supe	rvisor o			<b>*</b>	Date		
Depth flow encountered 120 ft. Describe access port or control				(Sign once if Fi	rm Official & Opera	tor)		
- · · · · · · · · · · · · · · · · · · ·								

Date: 9/23/2005 Time:2:19:52 PM

Attn: Rob Amended well Loy O.K. Phil 5/1/84

Form 238-7 3/95-C96

devices: WELL CAP

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

		- / /	/ 84	
	Offic	e Use Or <b>836</b>	lly	
Inspec	<del>led b</del> y	<u>836</u>	415	
Twp_	Rge	e	Sec	
	1/4	1/4	1/4	
I at ·		Long	· ·	1

1. DRILLING PERMIT NO419 -55	11. WEI	LL TES	STS:	long: : :	
Other IDWR No. REVISED 04/28/2006		Pump		ing Artesian	
2. OWNER:	Yield gal/m	in. D	rawdown Pumping Level	Time	
Name BOB WRIGHT	90		1001	HR	
Address 318					
City PETRA WAY State ID Zip 83607	Water Ten				
3. LOCATION OF WELL by legal description:	Water Out	up. Lity test	Bottom hole temp or comments:		
Sketch map location must agree with written location	Water Que	uity test	Depth first Water Encoun	stered 75	—
N	12 LITE	0100	GIC LOG: (Describe repairs or al		
Twp 4 North 🛛 or South 🗌	12, DIT		DIC LOG. (Describe repairs of a	Dangonment)	,
	Water				
w E Rge $\underline{3}$ East $\Box$ or West $\boxtimes$	Bore From	1 To	Remarks: Lithology, Water Quality &	t Temp. Y	N
Sec. <u>3</u> <u>1/4</u> <u>SE 1/4</u> <u>NW 1/4</u> <u>10 acres</u> <u>40 fcros</u> <u>160 acres</u>	<u>Dia</u> 10" 0	4	TOP SOIL		
	10" 4	18	BROWN CLAY		K)
s Gov't lot County CANYON	6" 18	37	BROWN CLAY		ĸ
Lat:: Long:::	6" 37	56	GRAVEL		Ð
Address of Well Site 14085 SILVER RIDGE RD.	6" 56	75	BROWN CLAY		H
City CALDWELL	6" 75	109	SAND AND CLAY STRIPS	k	P
(Give at least name of road + Distance to Road or Landmark)	6" 109	114	TAN CLAY		H
Lt 2 Blk 1 Sub Name SLEEPY HOLBIN	6" 114	120	SAND		<sup>1</sup>
		120		<u> </u>	╬{
4. USE:			·····		$\square$
🛛 Domestic 🗌 Municipal 🔲 Monitor 🔲 Irrigation			· · · · · · · · · · · · · · · · · · ·	┉┉┉┉	
Thermal Injection I Other		·	WELL MADE FINE SAND/PUT		╬┷┥
5. TYPE OF WORK check all that apply (Replacement etc.)	<u> </u>		4" SCREEN AND LINER IN TO S	TOP	╟─┥
New Well 🗌 Modify 🗋 Abandonment 🗋 Other		+	FINE SAND	<u>,,,,,,</u>	<b>  </b>
6. DRILL METHOD		+			
🛛 Air Rotary 🗌 Cable 🗌 Mud Rotary 🗌 Other	}		IVED REC	EIVE	6
7. SEALING PROCEDURES		₣┶┙			H
SEAL/FILTER PACK AMOUNT METHOD	}		0 5 2006 MAY	012003	
Material From To Sacks or Pounds	<b>├── ┼─</b> ──	MAY	1.1.7000		
BENTONITIE 0 18 450 POUR	┣─── <b>─</b> ┣────	UNTER		RECOURCE	<b>}</b>
		WEST	EAN REGION	ERN REGION	┝╼┩
	<u>}</u> }		AMINIAI		
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>113</u>					
Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air	┟━━━━╉╴───				<b></b>
8. CASING/LINER:			┝──┼┽╞╸╲╱┼╺┱╞═	┍╂╌╲╌┝┤	H
Diameter From To Gauge Material Casing Liner Welded Threaded					H
<u>6" +2 113 250 STEEL</u> 🛛 🗆 🖾 🗆		╋───┥			H
<u>5" 107 115 250 STEEI</u> ⊠ □ ⊠ □		1			
4" 15 115 PVC 🗆 🖾 🗆 🗆					<b>⊢</b> -1
Length of Headpipe 8' Length of Tailpipe	·····		······································		
9. PERFORATIONS/SCREENS	Completed	1 Depth	: 120 (Mea	surable)	╘╼┫
Perforations Method	Date: Starte	d <del> 09/29</del>	12005-4-27 - Qo Completed	109/30/2005	
Screen Screen Type huston/sand stopper			CERTIFICATION	4-27-6	~
			minimum well construction standard	- 7 - 4 - 7 - C ds were	$\varphi$
From To Slot Size Number Diameter Material Casing Liner			e time the rig was removed.		
115 120 020 5° S.S.	-		_		
<u>115   119 4" SS </u>	Firm Name	GEOR	<u> JE POSI WELL DRILLING</u>	Firm No. <u>56.</u>	3
			1		
10. STATIC WATER LEVEL OR ARTESIAN	Firm Officia	al	Sin-	Date 09/30/2	2005
PRESSURE:				Date 4-2	1-N-
58ft. below ground Artesian Pressure 1b	Supervisor of		ator	Date ' '	<u> </u>
Depth flow encountered 114 ft Describe access port or control		(	(Sign once if Firm Official & Operator)		

Date: 4/28/2006 Time:8:14:21 AM

12	
10 -	Form 238-7
<b>W</b>	3/95-C96

### IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

82	b'	415	•	
(	Office	Use O	nly	
ted b	У			
	Rge		Sec	
_1/4		1/4		1/4
:	:	Long:	:	- :
		ted by	ted by Rge _1/41/4	RgeSec 1/41/4

1. DRILLING PERMIT NO 419 -55	11	WEL	т тро	S.T.S.	Lat: : :	Long: :	:	
Other IDWR No.	11		L IL: Pump		Air 🗌 Flo		:	
2. OWNER:	Yiel	d gal/min		rawdown	Pumping Level	Time	lan	-
Name BOB WRIGHT	90				100	1 HR		$\neg$
Address 318								
City PEIRA WAY State ID Zip 83607	L							
3. LOCATION OF WELL by legal description:	Wat	er Temj	p		_Bottom hole tem	р		_
Sketch map location <u>must agree with written location</u>	Wat	er Qual	ity test	or comments:				
N		·			oth first Water Enco			
	12.	LITH	OLOG	HC LOG: (D	escribe repairs or	abandonm	ent)	
Twp <u>4</u> North 🛛 or South 🗌								
W Rge <u>3</u> East or West 🖂	Wat Bore	From	То	1 Dementer 7 40		0.00	1 1	
$\frac{1}{10 \text{ acres}} = \frac{1}{10 \text{ acres}} = \frac{1}{40 \text{ acres}} = \frac{1}{10 \text{ acres}} = \frac{1}{10$	Dia				nology, Water Quality	æ temp.	Y	Ν
TO acres 40 acres 160 acres		0	4	TOP SOIL			Π	$\square$
Gov't lot County CANYON	10"	4	18	BROWN CL				$\square$
	6"	18	37	BROWN CL	AY			M
Lat: Long:	6"	37	56	GRAVEL			T	M
Address of Well Site 14085 SILVER RIDGE RD.	6"	56	75	BROWN CL	AY		П	۶Ż
City CALDWELL (Give at least name of road + Distance to Road or Landmark)	6"	75	109	SAND AND	CLAY STRIPS			Π́.
	6"	109	114	TAN CLAY	·····	·······	ťÌ	
Lt. 2Blk_1Sub_Name_SLEEPY HOLBIN	6"	114	120	SAND			М	Ĥ.
						· · · · · · · · · · · · · · · · · · ·	兯	H
4. USE:					· · · · · · · · · · · · · · · · · · ·			-
🛛 Domestic 🔲 Municipal 📋 Monitor 🔲 Irrigation							11	H
Thermal Injection Other	[			····			i - i	H
5. TYPE OF WORK check all that apply (Replacement etc.)							┼─╢	
New Well D Modify Abandonment Other							Η	j
6. DRILL METHOD							┼─╢	
Air Rotary 🗌 Cable 🗌 Mud Rotary 🗌 Other		··					┝╌╢	-
7. SEALING PROCEDURES							┢━╢	
SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or							┢─╢	_
Material From To Sacks or Pounds	<b>├</b> ───┤						┢╾╢	
BENTONTITE 0 18 450 POUR	}	t-		u			┝──╢	_
								_
					<del></del>		┝╌╢	
				-	Attax			
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>113</u> Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air		ł			HHHAI			_
8. CASING/LINER:					<b>WINTL</b>	•		_
Diameter From To Gauge Material Casing Liner Welded Threaded		<u>+</u>		- RECE				
$6"$ +2 113 250 STEEL $\square$ $\square$ $\square$		ŀ						
		<u> </u>			4 2005			
				0010	4 2000			
Length of Headpipe 8' Length of Tailpipe				WATER RE	ESOURCES			_
Length of Headpipe <u>8'</u> Length of Tailpipe 9. PERFORATIONS/SCREENS				WESTERI	N REGION			
		pleted ]				asurable)		
□ Perforations Method [ ☑ Screens Screen Type huston [		Started	_			ed <u>09/30/20</u>	05	
Ex bereens bereen Type <u>musion</u>				CERTIFICA				
From To Slot Size Number Diameter Material Casing Liner	1/We a	ernity th	nat all i	ninimum well	construction standa	rds were		
195 200 020 5" S.S.	compl	ied with	i at the	time the rig w	as removed.			
115 1207	Firm ?	Jama C	RODC	<u>E POSI WELI</u>		T:_ >7	=	
	т. II III 1		LOKU	LICOI WELL		Firm No.	263	
	Firm (	Official	1	5-1	12	Date 00/2	0.00	)0 <i>E</i>
10. STATIC WATER LEVEL OR ARTESIAN	1 1111 (					Date 09/3	0/20	02
PRESSURE:	Super	visor or	Onerat	~ ОГ		Data		
<u>58ft. below ground</u> Artesian Pressure 1b	Dupor	NUT VI			Official & Operator)	Date		
Depth flow encountered <u>114</u> ft Describe access port or control devices: WELL CAP	_				( a primer)			
TOTICOS, WEDL CAP	Date: 10	0/3/2005	Time 7	•51•25 AM	-			

Date: 10/3/2005 Time: 7:51:25 AM

FEB 1 9 2006



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Form 238-7 11/97 JGE IDAHO DEPARTMENT OF WAT	TER RESOURCES Office Use On	ıly
WELL DRILLER'S I	REPORT Inspected by	
	Twp Rge	- ~
1. WELL TAG NO. D 0047730 DRILLING PERMIT NO.	1/4 1/4 1/4 1/4 Lat: : : Lon	
Other IDWR No. 63.W. 228.001	11. WELL TESTS:	
	Pump Bailer X Air Flowing Yield gal./min. Drawdown Pumping Level	
2. OWNER: Name Sidney Roberts	40 gpm 80' 80'	
Address 23117 White Oak Dr.		
City Caldwell State ID Zip 83605		<u> </u>
3. LOCATION OF WELL by legal description:	Water Temp. 56 Bottom hole temp. Water Quality test or comments:	5
Sketch map location must agree with written location.	Depth first Water Encou	Int
Ν	12. LITHOLOGIC LOG: (Describe repairs or abando	'nn
	Bore	
Twp. 4 North X or South	Dia From To Remarks: Lithology, Water Quality & Te	۶m
E Rge 3 East or West X	10" 0 4' Top Soil 10" 4' 18' Brown Clay	
Sec. 3 1/4 SE 1/4 SE 1/4 SE 1/4 Gov/t Lot Coupty Contract 40 acres 160 acres	6" 18' 30' Brown Clay	
	6'' 30' 48' Gravel	
s Address of Well Site 23117 White Oak Dr.	6'' 48' 63' Sand	
(Give at least name of road + Distance to Road or Landmark)	6'' <u>63' 76' Heaving Sand</u> 6'' 76' 83' Sand	
(Give at least name of road + Distance to Road or Landmark) Lt. 5Blk. 1Sub. Name Sleepy Hollow	6" 76' 83' Sand 6" 83' 88' Brown Clay	
	6'' 88' 98' Sand	
4. USE: Domestic Municipal Monitor Irrigation		
Thermal X Injection Other		
X New Well       Modify       Abandonment       Other         6. DRILL METHOD:       X Air Rotary       Cable       Mud Rotary       Other		
7. SEALING PROCEDURES:		
Seal/Filter Pack AMOUNT METHOD Material From To Sacks of		
Bentonite 0 18' 10 Sacks Overbore		
	· · · · · · · · · · · · · · · · · · ·	
Was drive shoe used? X Y N Shoe Depth(s) 86'		
Was drive shoe seal tested? XY N How? Air		
8. CASING/LINER:		
Diameter From To Guage Material Casing Liner Weided Threaded		
6"         +2'         86'         .250 Steel         X         X           5"         80'         88'         .250 Steel         X         X         X	SCANNED RECEIVED	)—
<u>5'' 80' 88' .250 Steel</u> <u>X</u> <u>X</u>		
Length of Headpipe 8' Length of Tailpipe 0	AUG 1 5 2007 JAN 1 7 2027	
9. PERFORATIONS/SCREENS:		<u> </u>
Perforations Method Washdown	WATER RESOURCES WESTERN REGION	) 
X Screens Screen Type Johnson	Completed Depth 98'	_
From To Slot Size Number Diameter Material Casing Liner	Date: Started 1/5/2007 Completed 1/8/	21
88' 98' .020 5" SS X		<u> </u>
	13. DRILLER'S CERTIFICATION: I/We certify that all minimum well construction standards were con the time the rig was removed.	np
	Company Name Treasure Valley Drilling Fir	rm

**10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:** F 64 H

55	ft. below ground	Artesia	an pressure	lb
Depth flow encount	ered 65	ft.	Describe access port of	
devices Cap				

and (1.14 CIN)	sure Valley Drilling	0.
A JAK ETHO	Date -	1/9
(Sign once it Firm Operator)	(Sign once if Firm Special & Operator) Date	/9

	 		le temp. 56	
80'		8	i0'	1 Hr
Drawdown	F	umping l	_evel	Time
Bailer	XAir		Flowing Arte	esian
-	Lat:		Long:	: :
		1/4	1/4	1/4

Rge Sec

Nater Encounter 65'

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

2. LII	Water				
Bore Dia	From	То	Remarks: Lithology, Water Quality & Temperature	Y	N
10"	0	4'	Top Soil		
10"	4'	18'	Brown Clay		
6"	18'	30'			
6''	30'	48'	Gravel		
6''	48'	63'	Sand		
6"	63'	76'	Heaving Sand	X	
6''	76'	83'	Sand		
6''	<u>83'</u>	88'	Brown Clay	· ·	
6"	88'	98'	Sand	X	
				-ı	
				.	
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	201	<i><b>MN</b></i>	ED RECEIVED		
	ALIO	4 5 4		 	
	AUG	122	1007 JAN 17 2007		
: i			jJAW_L(_ <u>68691</u>		
	+		WATER RESOURCES	1	
i			WESTERN REGION		
 Complet	ed Depth	<u></u>	(Moos	- surable	
	started 1/				-)
Date. 3	1/:	5/2007	Completed 1/8/2007	=	_

rds were complied with at

9/2007

e <b>1/9/2007</b>	

560

FORWARD WHITE COPY TO WATER RESOURCES

86

Form 238-7 9/82

## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRIT

## 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	7.	WATE	ER LEV	EL			
Name Darrel + Sherri Anylen	Static water level $\frac{186''}{6}$ feet below land surface.						
	Flowing?       Yes       Image: Contract of the standard stand						
Address 8212 Bine Ridge Lin. Boise, Id. 33705	25 Artesian closed-in pres			ed-in pressure p.s.i. ⁄: 🖾 Valve 🗆 Cap 🗔	Dhua		
Owner's Permit No. <u>63-90-Z-036</u>		Temp	erature	<pre></pre>			
					below.		
2. NATURE OF WORK	8.	WELL	. TEST	DATA			
Prew well Deepened Replacement		🗆 Pump 🗆 Bailer 🗗 Äir 🗆 Other					
Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		Discharg	e G.P.M.		Hours Pun	nped	
		10		30'			
3. PROPOSED USE	╉╌───						
					0801.0	9_	
🖉 Domestic 🛛 Irrigation 🗔 Test 🗆 Municipal 🗇 Industrial 🗇 Stock 🔅 Waste Disposal or Injection	9, LITHOLOGIC LOG						
□ Other (specify type)	Bore Depth Diam. From To Material			Wa	_		
	C C		8	talsail	<u> </u>	Y es	No
4. METHOD DRILLED		8	21	silf + sind			2
🖾 Rotary 🖾 Air 🗆 Hydraulic 🗆 Reverse rotary		21	22 25	clay clayt sound			
Cable     Dug     Other		+	30	alay			~
5. WELL CONSTRUCTION	]	30 32	32. 40	gravel aby + sind			
Casing schedule: 🖉 Steel 📋 Concrete 🗆 Other		40	45	Sand		~	
Thickness Diameter From To	├	45 54	54 55	chy			
Thickness     Diameter     From     To       .250     inches     inches     116     feet       inches     inches     inches     feet		<i></i>	2.2				
inches inches feet feet	<u> </u>						
inches inches feet feet		12		BUVIEI			
Was casing drive shoe used?		IA C					
Perforated?			APR	2 1990			
How perforated?		Band	tmont	of Water Resources			
Number From To		nebs	ntimeur				
perforations feet feet feet feet							
perforations feet feet			<b>├</b> ──┤ <i>·</i>				
Manufacturer's name Model No							
Diameter Slot size Set from feet to feet							
DiameterSlot sizeSet fromfeet tofeet Gravel packed? Yes III No Size of gravel							
Placed from feet to feet	<u> </u>						
Surface seal depth <u>30</u> Material used in seal: Bentonite <b>Puddling clay</b>							
Sealing procedure used: 🖾 Slurry pit 🗇 Temp, surface casing				·			
☐ Overbore to seal depth Method of joining casing: □ Threaded							
Weld		·					
Cemented between strata     Describe access port	10.	-		1 1			
		Wo	rk starte	ed <u>3/4/90</u> finished	3/6/90	2	_
6. LOCATION OF WELL	11.	DRIL	LERS C			•	
Sketch map location must agree with writter action				that all minimum well constru	uction standar	ds we	ere
	n	compl	ied with	at the time the rig was remov	ed.		
W E Subdivision Name	<b>U</b> .	,∕Firm N	Name (	Sem State Drilling Fi	rm No. 27	Z	
w E E							
Lot No Block No				N. Eayle Rel. Eagle D		<i>v</i>	-
	<b>y</b>	Signed	l by (Fir	m Official) Lyloy E.	Jull		_
County Canyon	1			and Operator) Duriel K	, QM		
<u>SE % SE % Sec. 3, T. 4</u> OS, R. 3 ED.	J		(0	Operator): 1 Juniel 7	. Sulli	•	-
	0.0141-	DD					
USE ADDITIONAL SHEETS IF NECESSARY - F	UKWA			FE COPY TO THE DEPARTM	ENI		

## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRIT	8 ER	OR
BALLPOINT	PEN	I .

## WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources

State law requires that this report be filed wit within 30 days after the comple					m		
1. WELL OWNER	7.	WATE	ER LEV	VEL			
Name <u>Phillip Villarreal c/o Rick Sweaney</u>				level <u>6          </u> feet below la ⊐ Yes 🙀 No        G.P.M. flo			
Address <u>Caldwell</u> , Idaho <u>R</u> 83605	Artesian closed-in pressure      p.s.i.       Controlled by:     U Valve     Cap     Plug						
Owner's Permit No							
2. NATURE OF WORK	8.	WELL	. TEST	DATA		<b></b>	
☑ New well  ☐ Deepened  ☐ Replacement ☐ Abandoned (describe abandonment procedures such as				····	Other		
materials, plug depths, etc. in lithologic log)		Discharge		Pumping Level	Hours Pui		
3. PROPOSED USE			<u> </u>				
🖾 Domestic 🛛 Irrigation 🔲 Test 🗔 Municipal	9.	LITHO	) DLOGI	I IC LOG	<u>I</u>		
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other (specify type)	Bore Diam	Dep From	_	Material			iter s No
4. METHOD DRILLED	<u>8</u>	Ö	20	sand & clay layers		x.	
🖾 Rotary 🖾 Air 🗆 Hydraulic 🗔 Reverse rotary	6	55	62			×	×
Cable Dug Other		bZ	- 70.	sand		-x-	+
Casing schedule: X Steel Concrete Other Thickness Diameter From To 250 inches 6 inches 21611 fort 50 fort				· · · · · · · · · · · · · · · · · · ·			<b> </b>
<u>.250</u> inches <u>6</u> inches + <u>2'6''</u> feet <u>58</u> feet inches <u>inches</u> feet <u>feet</u> feet							
inches feet						-	
Was casing drive shoe used? 23 Yes							-
Perforated?  Yes X No How perforated?  Factory  Knife  Torch							
Size of perforation inches by inches Number From To							<u> </u>
perforations feet feet feet feet feet feet feet feet							
perforations feet  feet feet feet feet feet feet feet feet feet feet  fee					YEM		F
Manufacturer's name Type Model No Diameter Slot size Set fromfeet tofeet				6.15 m A AV 7 1 1 10	285		
Diameter Slot size Set from feet to feet				Department of Wate	r Desources		
Gravel packed?				Western Regione			
🗆 Bentonite 🛛 🖾 Puddling clay 🛛 💷 🔤							
Sealing procedure used:					MOTU M	m	
Welde Cemented between strata				Mil	KULUN		-
Describe access port	10.	Wor	k start	ed <u>10-05-84</u> finished	10-05-94		
6. LOCATION OF WELL			-				
Sketch map location <u>must</u> agree with written location. N		I/We c	ertify	that all minimum well constru	uction standard	ds we	əre
Subdivision Name				n at the time the rig was remov			
w E [			DF	RILLING	- · <del>-</del>		-
Lot No Block No			Сe	<u>F. 7 BX. 311</u> aldwell, Idaho .83605 rm Official)		<b>)</b>	_
S County <u>Canyon</u>				and	0		
<u>SW</u> ½ <u>SE</u> ½ Sec. <u>3</u> , T. <u>4</u> N/ <b>8</b> , R. <u>3</u> /W.			ιι	Operator) <u>Scolladi</u>			_

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

JSE TYPEWRITER OR	
BALL POINT PEN	

State of Idaho Department of Water Administration

## WELL DRILLER'S REPORT

Priver A.

State law requires that this report be filed with the Dire days after the completion or	ector, D raband	epartm	ent of W of the v	ater Administration within 3 well.	o ( / A /	<i>) "</i>	1
1. WELL OWNER	7. V	ATER	LEVEL	· · · · · · · · · · · · · · · · · · ·			
Name	Static water level <u>7</u> 1 feet below land surface						
	Flowing? [] Yes KI No G P.M. flow						
Address MIDELTON ID.	Temperature F. Quality good Artesian closed-in pressure p.s.i.						
Owner's Permit No					🗆 Plug		·
2. NATURE OF WORK	8 1	/ELL T	EST DA				<u> </u>
· · · ·							
Y New well 🗆 Deepened 🗆 Replacement		Pump		🗆 Bailer 🏾 🏝 Other			
Abandoned (describe method of abandoning)	6	ischarge O	<u>G.P.M.</u>	Draw Down	Hours Pr 2	Imped	
					+		
3. PROPOSED USE							
X Domestic Irrigation Test Other (specify type)	9. 1		OGIC I	.0G		-	
Municipal Industrial Stock Waste Disposal or	Hole Diam.	De	pth To	Material		Wa Yes	
	8	-1	Ø	top soil & haed	pan		X
4. METHOD DRILLED	8	<u>10</u> 18	18 30	clay clay into gravel		$\frac{1}{x}$	X
Cable 🗆 Rotory 🗆 Dug 📮 Other	6	30	40	gravel into clay			X
5. WELL CONSTRUCTION	6	40	48	clay into light gi	ay sand	XX	
Diameter of hole inches Total depthfeet							
Diameter of hole inches Total depth _40feet Casing schedule: ⊠ Steel □ Concrete			 				<u> </u>
250 <sup>Thickness</sup> <u>6</u> Diameter From <u>47</u> To inches <u>6</u> inches <u>+</u> <u>1</u> feet <u>47</u> feet							
inches inches +_ +_ feet ++ feet	<u> </u>						
inches inches feet feet				<u> </u>		+	
inches inches feet feet feet feet feet							
	<u> </u>					╁─┤	
Was a packer or seal used? □ Yes ǚ No Perforated? □ Yes 豉 No							
How perforated? 🛛 Factory 🖾 Knife 🛛 Torch						+	
Size of perforation inches by inches Number From To				· · · · · · · · · · · · · · · · · · ·			
perforations feet feet					<u>-</u>		
perforations feet feet feet							
				001150	•	+	
Well screen installed?						$\square$	
Type Model No				· - · · · · · · · · · · · · · · · · · ·	· · · · · ·		
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet							
						-	
Gravel packed?	<sup> </sup>	<u> </u>		· · · · · · · · · · · · · · · · · · ·		+	
Surface seal depth_ <u>18</u> Material used in seat 🛛 D Cement grout							
D Puddling clay 🖄 Well cuttings		<b>_</b>			<del></del>	+	
Sealing procedure used 🛛 🖾 Sturry pit 🗖 Temporary surface casing							
Overbore to seal depth							
6. LOCATION OF WELL	10. W	ork sta	rted <u>5</u>	/10/74 finished .	511/74		_
Sketch map location must agree with written location.	<b> </b>						
6 <del>4 1</del>				FICATION		1 m	
Subdivision Name	F	irm Na	meD&	D WELL DRILLING	Firm N	<u>a 25</u> /	1
W E	1	ddrass	<u>310 s</u>	, llstreet	Date <u>9/17</u>	1/74	
Lot No Block No	-			1/1	D		
CANYON CANYON	Signed by (Firm Official)						
County			_	wrator)	-/ -		_
SE 15 E 1/ Sec. 3, T. 4/ N/S, R. 3 EM	ł		-				

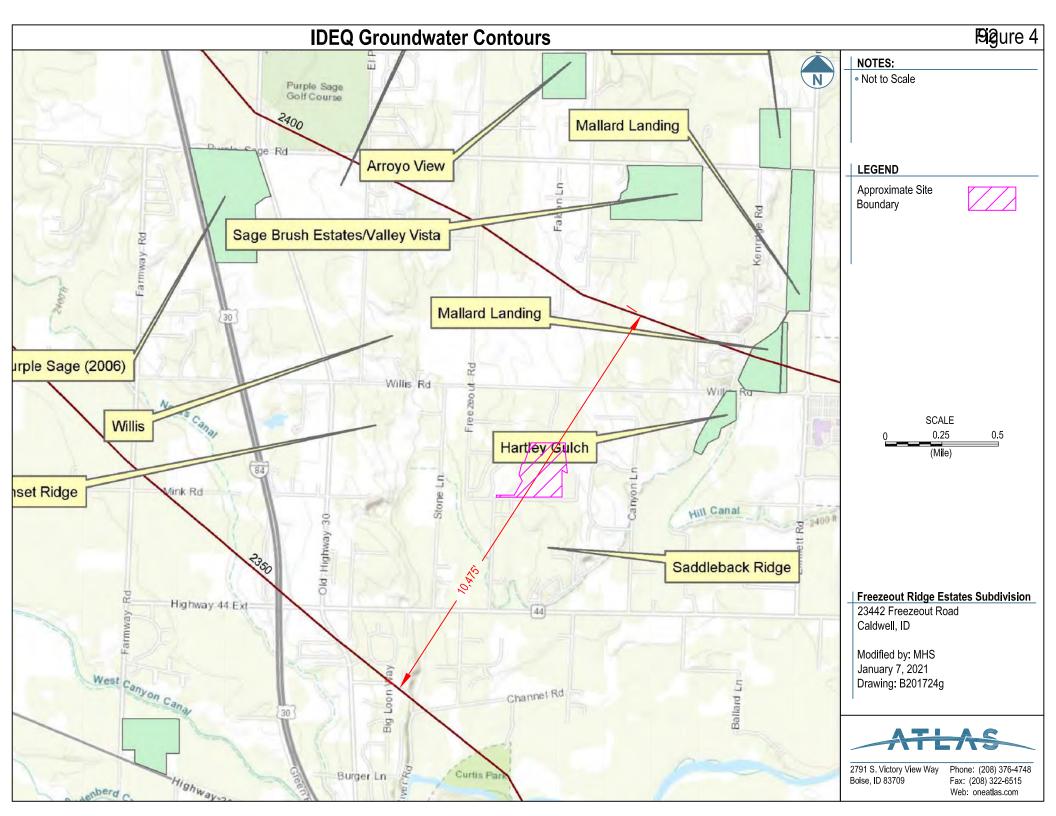
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FORWARD THE WHITE COPY TO THE DEPARTMENT

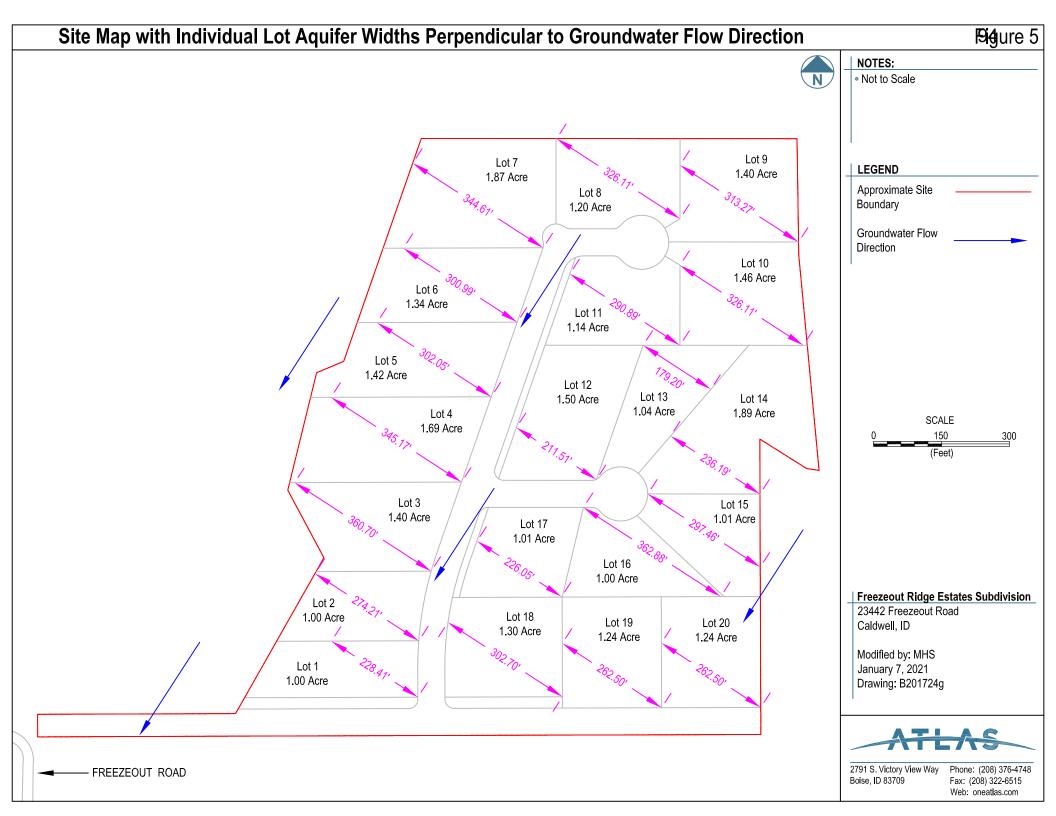
Form 238-7 1/78 STATE O DEPARTMENT OF W WELL DRILLE State law requires that this report be filed with within 30 days after the complete	VATER RESOURCES       BALLPOINT PEN         R'S REPORT       In the Director, Department of Water Resources
1. WELL OWNER Name <u>Ray</u> JOANSON Address <u>Box 123 Middleton</u> Owner's Permit No.	7. WATER LEVEL Static water level feet below land surface. Flowing? □ Yes X No G.P.M. flow Artesian closed-in pressure p.s.i. Controlled by: □ Valve □ Cap □ Plug Temperature °F. Quality
2. NATURE OF WORK  X New well  Deepened  Replacement  Abandoned (describe method of abandoning)	8. WELL TEST DATA  Pump Kailer Air Other  Discharge G.P.M. Pumping Level Hours Pumped
3. PROPOSED USE	<u> </u>
(specify type)	9. LITHOLOGIC LOG Hole Depth Water Diam. From To Material Yes No <b>8 10 1 10 5 C</b> A a a <b>4 4 5 6 1 5 1 1 1 1 1 1 1 1 1 1</b>
□ Rotary □ Air □ Hydraulic □ Reverse rotary X Cable □ Dug □ Other	6 5 10 Hard PHN 6 10 16 CLOY & SAND 6 18 28 SPArel 6 28 40 CLOY & STREAKS & SAND
5. WELL CONSTRUCTION Casing schedule: Steel Concrete Other Thickness Diameter inches inches feet inches feet inches feet inches feet inches feet Was casing drive shoe used? Yes Was a packer or seal used? Yes Was a packer or seal used? Yes Was casing drive shoe used? The feet Was casing drive shoe used? The feet Steel Concrete Concre	6 KO JJ S SANA
perforations      feetfeetfeet         Well screen installed?       Yes         Wanufacturer's name      Model No         Type Model No      Model No         Diameter Slot size Set fromfeet tofeet      feet tofeet         Diameter Slot size Set fromfeet tofeet      feet tofeet         Gravel packed?       Yes       No      Size of gravel         Placed from feet tofeet tofeet      feet          Surface seal depth Material used in seal: Cement grout	DEC 15 1982 Department of Water Resources Department of Water Resources Department of Water Resources 10
6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name W W W S County Canyon FRU: +Dale Farms Sec 3-4-3 SW % SE % Sec. 3, T. 405, R. 3 E	Work started 12-1-8/ finished 1223-8/ 11. DRILLERS CERTIFICATION DQ I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name Daught by Will Firm No. 3.33 Address At 2 Wilder to Att Date 12-9-8/ Signed by (Firm Official Data Daught by and 45 Less (Operator) Durane Daught by TaXI

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Appendix V IDEQ GROUNDWATER CONTOUR MAP



Appendix VI SITE PLAN WITH AQUIFER WIDTH MAP FOR INDIVIDUAL LOTS



## Appendix VII HISTORIC PRECIPITATION/CLIMATE DATA FOR PROJECT LOCATION



Monthly Geo

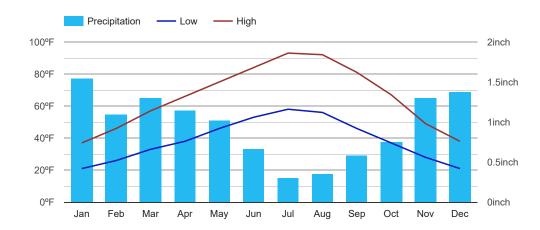
#### Climate Caldwell - Idaho

### 

	Ja (January)	Fe (February)	Ma (March)	Ap (April)	Ma (May)	Ju (June)
Hi	37	46	57	66	75	84
Lo	21	26	33	38	46	53
Pre.	1.54	1.10	1.30	1.14	1.02	0.67

	Ju (July)	Au (August)	Se (September)	Oc (October)	No (November)	De (December)
Hi	93	92	81	67	49	38
Lo	58	56	46	37	28	21
Pre.	0.31	0.35	0.59	0.75	1.30	1.38

Hi : Average high in °F - Lo : Average low in °F - Pre. : Average precipitation in inch - DP : Days with precipitation - Sun : Hours of sunshine



#### Caldwell Climate Graph - Idaho Climate Chart

#### **Tensar International**

Tensar Geogrids, The Advanced Geosynthetic Stabilization Solutio

Annual low temperature 39°F	
Annual high temperature 65°F	

#### Share

#### Station Data

Monthly averages Caldwell Longitude: -116.636, Latitude: 43.6419 Average weather Caldwell, ID - 83605

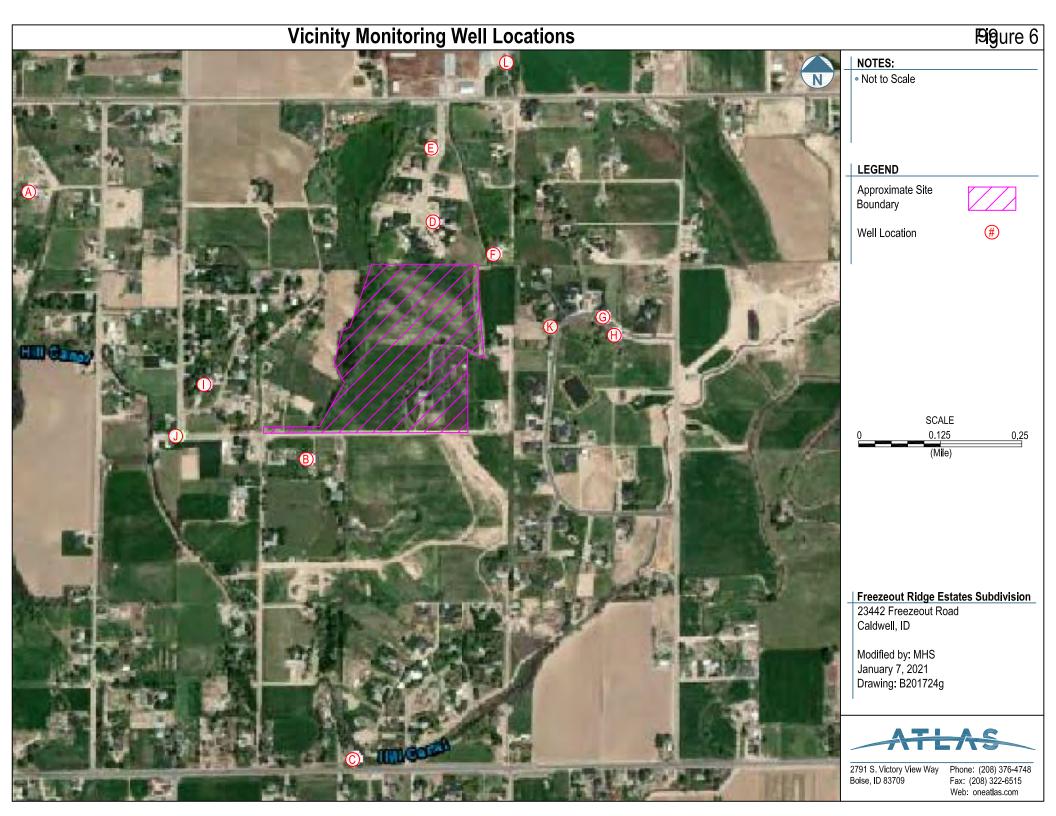
Monthly: 1981-2010 normals

#### Abbreviations

Ja (January): January, Fe (February): February, ...

	-34%	-30%	⊳×
Black Diamond Helio 105			
Alpine Touring Ski in Blue			
\$ <del>879.95</del>			
\$659.98			
Shop Now	Shop Now	Shop Now	

## Appendix VIII SITE LOCATION WITH VICINITY MONITORING WELLS MAP AND MONITORED WELL DATA



Well #	Agency	WellNumber	AgencyWellName	SampleDate	Туре	Name	Value	Units
А	IDEQ	25	04N03W03BACA1	19970821	Nutr	Nitrate	2.94	mg/l
В	IDEQ	26	04N03W03CABA1	19970820	Nutr	Nitrate	0.184	mg/l
С	IDEQ	27	04N03W03DDCC	19970821	Nutr	Nitrate	0.312	mg/l
D	IDEQ	2122	04N03W03AAD	20130521	Nutr	Nitrate	2.68	mg/l
D	IDEQ	2122	04N03W03AAD	20130521	Nutr	Nitrate	2.3	mg/l
E	IDEQ	2126	04N03W03AAA	20130521	Nutr	Nitrate	4.2	mg/l
L	IDEQ	2126	04N03W03AAA	20130521	Nutr	Nitrate	3.99	mg/l
	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.28	mg/l
Е	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	2.8	mg/l
I	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.41	mg/l
	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.4	mg/l
G	IDEQ	2151	04N03W02BCA	20130521	Nutr	Nitrate	3.4	mg/l
U	IDEQ	2151	04N03W02BCA	20130521	Nutr	Nitrate	4.07	mg/l
Н	IDEQ	2180	04N03W02BCA	20130528	Nutr	Nitrate	6.3	mg/l
11	IDEQ	2180	04N03W02BCA	20130528	Nutr	Nitrate	6.12	mg/l
I	DEQ	587		20071025		Nitrate	0.32	mg/l
J	ISDA	6601001		19960306		Nitrate	0.01	mg/l
К	DEQ	4371591166714		20060706		Nitrate	5.05	mg/l
L	ISDA	DY16270851		20060222		Nitrate	4.9	mg/l

Appendix IX NITRATE MASS-BALANCE SPREADSHEETS FOR INDIVIDUAL LOTS

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGI</b>	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.10E+04	95.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.86E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	228.41	Site-specific		Total Water Volume	1.15E+04	
Parcel Area (acres)	1	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific		i ont of compliance with the concentration coal (mg/)	0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.6	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.54E+07	70.9
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	29.1
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.76E+04	0.0
		-				
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.41E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.00 Acre Lots - Standard Septic System	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	O DEPARTING
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty 🥻	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting 🛛 🍕	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	reatment Shortc	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.10E+04	95.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.86E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	228.41	Site-specific		Total Water Volume	1.15E+04	
Parcel Area (acres)	1	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific			0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · · ·	, j				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.54E+07	80.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	19.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.76E+04	0.0
		, , , , , , , , , , , , , , , , , , ,	Doluun			0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.66E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.00 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONTRACTOR CONTRACTOR

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	reatment Shortc	ourse, September	10-11, 1985. Universit	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.09E+04	95.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.7
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.92E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	226.05	Site-specific		Total Water Volume	1.13E+04	
Parcel Area (acres)	1.01	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.6	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · ·	, j				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.46E+07	70.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	29.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.78E+04	0.0
			Bolduit		1.752104	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.33E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.01 Acre Lots - Standard Septic System	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	ODEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty 🛛 🌠	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting 🛛 🕵	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	VQ	ALLENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortco	ourse, Septembe	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	70	Site-specific		Ground Water	1.17E+04	96.1
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	3.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.92E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	226.05	Site-specific		Total Water Volume	1.22E+04	
Parcel Area (acres)	1.01	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.80E+07	81.1
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	18.9
			D. G. K		4 705 - 04	
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.78E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.92E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.01 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONTRACTOR CONTRACTOR

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	8.62E+03	94.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	4.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.09E+01	0.7
Aquifer Width Perpendicular to Flow (ft)	179.2	Site-specific		Total Water Volume	9.10E+03	
Parcel Area (acres)	1.04	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	3.53E+07	65.4
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	34.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.83E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.40E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
	0		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.04 Acre Lots - Standard Septic System	Parcel Identification	
(feet/day)		estimated from total annual precipitation (TAP) using the equation: NRR	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	is software.	
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dan	nages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	Change C	

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	<b>GEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, Septembe	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT	·	•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	8.62E+03	94.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	4.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.09E+01	0.7
Aquifer Width Perpendicular to Flow (ft)	179.2	Site-specific		Total Water Volume	9.10E+03	
Parcel Area (acres)	1.04	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	3.53E+07	75.9
	07.0	45.0	Base the second sectors		4.405.07	01.0
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	24.0
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.83E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	4.66E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.04 Acre Lots - 40% Nitrate Reducing System	Parcel Identification	
		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	OPEPARTITO
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	AST A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CINGINIAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002	
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.	
In Proceedings of 5th Northwest On-Site Wastewater	Freatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.		
INPUT				OUTPUT			
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total	
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.40E+04	96.7	
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.9	
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.68E+01	0.5	
Aquifer Width Perpendicular to Flow (ft)	290.89	Site-specific		Total Water Volume	1.45E+04		
Parcel Area (acres)	1.14	Site-specific					
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1		
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific					
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.3		
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.1		
Nitrogen Budget (all concentrations represent nitrate nitrogen)				Yearly Nitrogen Budget			
· · · ·	j j				Mass (mg)	% of Total	
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.74E+07	75.4	
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	24.5	
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.00E+04	0.0	
·······,		-					
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.60E+07		

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development projects not completely oriented perpendicular to ground water flow, the site specific aquifer width value is determined using the average property width that is perpendicular to flow.			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.14 Acre Lots - Standard Septic System	Parcel Identification	
		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing thi	s software.	PARTAION
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mak	es no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	AUE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTE:	ENTAL COST

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	<b>DGEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.40E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.68E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	290.89	Site-specific		Total Water Volume	1.45E+04	
Parcel Area (acres)	1.14	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.1	
Nitrogen Budget (all concentrations represent nitrate )	nitrogen)			Yearly Nitrogen Budget		
	T ,				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.74E+07	83.7
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	16.3
	]	40.0	Trovide oustineation		1.122.07	10.0
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.00E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.86E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.14 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation (TAP) using the equation: NRR	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	ODEPARTITION
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	A STA
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COLUMNIN COM

IEVALUA	TION NITROG	EN MASS-B/	ALANCE SPREADSHEET	V. 1.3	5/2/2002
h documented	in: 1985.Bauman, B.	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
atment Shortco	ourse, September 10	-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
	· · · · ·		Ουτρυτ	· · · ·	
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	1.57E+04	97.0
0.00477	Site-specific		Efluent	4.14E+02	2.6
15	15	Default	Recharge	7.03E+01	0.4
326.11	Site-specific		Total Water Volume	1.62E+04	
1.2	Site-specific			I	
5			Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
1.0	Site-specific				
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
trogen)			Yearly Nitrogen Budget		
0 /				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	6.43E+07	77.5
45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	22.5
0	0	Default	Recharge Nitrate Mass	2.11E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	8.30E+07	
	h documented atment Shortco 65 0.00477 15 326.11 1.2 5 1.0 300 0.6 trogen) 4.1 45.0 0	h documented in: 1985.Bauman, B.         iatment Shortcourse, September 10         Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         326.11       Site-specific         1.2       Site-specific         300       300         0.6       Site-specific         4.1       Site-specific         45.0       45.0         0       0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         15       Site-specific         12       Site-specific         1.2       Site-specific         300       300         Default       Default         4.1       Site-specific         45.0       45.0         0       0         0       0	h documented in: 1985.Bauman, B.J. and W.M. Schaefer. Estimating Ground-Water Quality Impacts From On-Site Sewa atternet Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for OUTPUT Input Value Default Value Yearly Water Budget 65 Site-specific Ground Water 0.00477 Site-specific Efluent 15 15 Default Recharge 326.11 Site-specific Total Water Volume 1.2 Site-specific Point of Compliance Nitrate Concentration Goal (mg/l) 1.0 Site-specific Avg. Downgradient Nitrate Concentration in GW (mg/l) 0.6 Site-specific CUrrent/Acceptable Lot Size (Acres) 4.1 Site-specific Background GW Nitrate Mass 0 0 0 Default Septic Tank Effluent Nitrate Mass 0 0 0 Default Recharge Nitrate Mass	h documented in: 1985.Bauman, B.J. and W.M. Schaefer. Estimating Ground-Water Quality Impacts From On-Site Sewage Treatment Sy hatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for Use below. OUTPUT Input Value Default Value Yearly Water Budget Volume (m <sup>3</sup> ) 65 Site-specific Ground Water 1.57E+04 0.00477 Site-specific Elluent 4.14E+02 15 15 Default Recharge 7.03E+01 326.11 Site-specific Point of Compliance Nitrate Concentration Goal (mg/l) 5.1 1.0 Site-specific Point of Compliance Nitrate Concentration in GW (mg/l) 5.1 1.0 Site-specific CUrrent/Acceptable Lot Size (Acres) 1.2 trogen Yearly Nitrogen Budget Mass 6.43E+07 4.1 Site-specific Settle Sett

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.20 Acre Lots - Standard Septic System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A CARLE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COLONIDE CO

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
				fer.Estimating Ground-Water Quality Impacts From On-Site Sewa		stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	10-11, 1985. Universi	ty of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		· · ·		OUTPUT	· · · ·	
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.26E+04	96.3
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.2
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.27E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	262.5	Site-specific		Total Water Volume	1.31E+04	
Parcel Area (acres)	1.24	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	l
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific			0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.4	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
Nitrogen Budget (all concentrations represent nitrate n	itrogen)			Yearly Nitrogen Budget	/ 	
	, j				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.18E+07	73.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	26.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.18E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.04E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation			1.24 Acre Lots - Standard Septic System	Parcel Identifica	ation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	OPERATION
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty 🥻	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	A COL
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CINENTAL CO

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortco	ourse, September	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.26E+04	96.3
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.2
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.27E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	262.5	Site-specific		Total Water Volume	1.31E+04	
Parcel Area (acres)	1.24	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.8	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.18E+07	82.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	17.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.18E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.24 Acre Lots - 40% Nitrate Reducing System	Parcel Identific	ation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	OPERARTITION
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMENTAL CO.

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
				fer.Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	10-11, 1985. Universit	ty of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.46E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.62E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	302.7	Site-specific		Total Water Volume	1.51E+04	
Parcel Area (acres)	1.3	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate n	itrogen)			Yearly Nitrogen Budget		
· · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.97E+07	76.2
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.29E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.84E+07	
	0.5	0.3	Delault		1.04E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.30 Acre Lots - Standard Septic System	Parcel Identification	n
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing thi	s software.	PARTAIRA
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mak	es no warranty 🏼 🌠	and the second s
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTE:	CENTAL CO

N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
ch documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
eatment Shortco	ourse, September	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions fe	or Use below.	
			OUTPUT		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	1.46E+04	96.7
0.00477	Site-specific		Eflluent	4.14E+02	2.8
15	15	Default	Recharge	7.62E+01	0.5
302.7	Site-specific		Total Water Volume	1.51E+04	
1.3	Site-specific				
5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
1.0	Site-specific				
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
itrogen)			Yearly Nitrogen Budget		
				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	5.97E+07	84.2
27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.8
0	0	Default	Recharge Nitrate Mass	2.29E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	7.09E+07	
	Input Value         65         0.00477         15         302.7         1.3         5         1.0         300         0.6         0.6         0.1         0.1         27.0         0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         302.7       Site-specific         1.3       Site-specific         5       Site-specific         1.0       Site-specific         300       300         0.6       Site-specific         itrogen)       Itrogen         4.1       Site-specific         0       0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         0.00477       Site-specific         302.7       Site-specific         1.3       Site-specific         300       300         Default       Default         0.6       Site-specific         0       0         0       0         0       0	Detault Value       OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         302.7       Site-specific       Total Water Volume         1.3       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Avg. Downgradient Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget         27.0       45.0       Provide Justification         0       0       Default       Recharge Nitrate Mass	Default Value       OUTPUT         Input Value       Default Value       Yearly Water Budget       Volume (m³)         65       Site-specific       Ground Water       1.40E+04         0.00477       Site-specific       Ground Water       4.14E+02         15       Default       Total Water Volume       7.62E+01         302.7       Site-specific       Total Water Volume       1.51E+04         1.3       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)       5.1         1.0       Site-specific       Current/Acceptable Lot Size (Acres)       1.3         300       300       Default       Avg. Downgradient Nitrate Concentration in GW (mg/l)       4.7         0.6       Site-specific       Current/Acceptable Lot Size (Acres)       1.3         itrogen)       Yearly Nitrogen Budget       Mass (mg)         4.1       Site-specific       Background GW Nitrate Mass       5.97E+07         27.0       45.0       Provide Justification       Septic Tank Effluent Nitrate Mass       1.12E+07         0       0       Default       Recharge Nitrate Mass       2.29E+04

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.30 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONTRACTOR CONTRACTOR

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman,	B.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		· ·		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.85E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	300.99	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.34	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate r	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.94E+07	76.1
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.9
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.36E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.80E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation			1.34 Acre Lots - Standard Septic System	Parcel Identifi	ication
(feet/day) estimated from total annual precipitation			1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	nis software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		Change Con

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITRO	<b>DGEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Freatment Shortc	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions fe	or Use below.	
INPUT	•	•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.85E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	300.99	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.34	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · · · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.94E+07	84.1
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.9
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.36E+04	0.0
				<u>n                                     </u>		
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.06E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.34 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	is software.	O DEPARTANT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dan	ages resulting	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		Chowner Co

INPUT				OUTPUT			
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total	
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.51E+04	96.8	
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.7	
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.20E+01	0.5	
Aquifer Width Perpendicular to Flow (ft)	313.27	Site-specific		Total Water Volume	1.56E+04		
Parcel Area (acres)	1.4	Site-specific					
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1		
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific					
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2		
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4		
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget			
					Mass (mg)	% of Total	
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.18E+07	76.8	
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.2	
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.46E+04	0.0	
	1	<b>v</b>	Belduit		2.402104	0.0	
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.05E+07		

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.40 Acre Lots - Standard Septic System	Parcel Identification	
est/day) estimated from total annual precipitation (TAP) using the equation: NRR			1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	is software.	ARTINO
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dan	nages resulting	AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTICE T	NTAL CO.

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	<b>GEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	reatment Shortc	ourse, Septembe	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.51E+04	96.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.7
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.20E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	313.27	Site-specific		Total Water Volume	1.56E+04	
Parcel Area (acres)	1.4	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific		· · · · · · · · · · · · · · · · · · ·		
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
<u>Nitrogen Budget</u> (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.18E+07	84.6
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.3
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.46E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		3	1.40 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	ODEPARTARA
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dan	ages resulting	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		Chantes Co

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				Ουτρυτ		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.32E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	302.05	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.42	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.96E+07	76.1
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.50E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.82E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION			
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name		
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.42 Acre Lots - Standard Septic System	Parcel Identifica	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date		
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By		
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	ODEPARTIN	
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty 🥻		
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting		
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMPANIAL CON	

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
	reatment Shortc	ourse, September	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.32E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	302.05	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.42	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
,					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.96E+07	84.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.50E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.08E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.42 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEVARTANT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONCENTRAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman,	B.J. and W.M. Schaet	fer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	10-11, 1985. Universit	y of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.57E+04	96.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.55E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	326.11	Site-specific		Total Water Volume	1.62E+04	
Parcel Area (acres)	1.46	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
Nitrogen Budget (all concentrations represent nitrate n	itrogen)			Yearly Nitrogen Budget		
· · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.43E+07	77.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	22.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.57E+04	0.0
Nitrato in Natural Pochargo (mg/l)	0.3	0.3	Default	Total Nitrate Mass	9.205.07	
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	I OTAL NITRATE MASS	8.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.46 Acre Lots - Standard Septic System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/8/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	his software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality m	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	A AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONCENTRAL COM

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	reatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.02E+04	95.3
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.79E+01	0.8
Aquifer Width Perpendicular to Flow (ft)	211.51	Site-specific		Total Water Volume	1.07E+04	
Parcel Area (acres)	1.5	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.17E+07	69.1
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	30.9
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.64E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.04E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.50 Acre Lots - Standard Septic System	Parcel Identifica	ation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	O DEPARTITO
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty 🥻	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	<b>GEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approx	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	.Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater 1	reatment Shortc	ourse, Septembe	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.02E+04	95.3
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.79E+01	0.8
Aquifer Width Perpendicular to Flow (ft)	211.51	Site-specific		Total Water Volume	1.07E+04	
Parcel Area (acres)	1.5	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.0	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
<u>Nitrogen Budget</u> (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · · · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.17E+07	78.8
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	21.1
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.64E+04	0.0
				<u>m ~ ~ </u>		
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.29E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.50 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A AND
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONTRACTOR CONTRACTOR

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
In Proceedings of 5th Northwest On-Site Wastewater 1	reatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.66E+04	97.0
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	9.90E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	345.17	Site-specific		Total Water Volume	1.71E+04	
Parcel Area (acres)	1.69	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.7	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.81E+07	78.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	21.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.97E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.68E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.69 Acre Lots - Standard Septic System	Parcel Identificati	tion
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing thi	s software.	ODEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mak	kes no warranty 🏼 🜠	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting 🛛 🕵	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	Y	OMAENTAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.66E+04	96.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	1.10E+02	0.6
Aquifer Width Perpendicular to Flow (ft)	344.61	Site-specific		Total Water Volume	1.71E+04	
Parcel Area (acres)	1.87	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.80E+07	78.4
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	21.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	3.29E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.67E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0 1 1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.87 Acre Lots - Standard Septic System	Parcel Identification	a
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing thi	s software.	PARTAL
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mak	es no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	- Charles	ENTAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.14E+04	95.6
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.5
Mixing Zone Thickness (ft)	15	15	Default	Recharge	1.11E+02	0.9
Aquifer Width Perpendicular to Flow (ft)	236.19	Site-specific		Total Water Volume	1.19E+04	
Parcel Area (acres)	1.89	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific			0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.5	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · ·	,				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.66E+07	71.4
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	28.6
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	3.32E+04	0.1
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.53E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION		
		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation	ated Sediments	1.89 Acre Lots - Standard Septic System	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.
Well-sorted sands and glacial outwash	3 to 300	······································	However, the Idaho Department of Environmental Quality ma	kes no warranty
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	COLUMN C

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		vstems.
	reatment Shortco	ourse, September	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.14E+04	95.6
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.5
Mixing Zone Thickness (ft)	15	15	Default	Recharge	1.11E+02	0.9
Aquifer Width Perpendicular to Flow (ft)	236.19	Site-specific		Total Water Volume	1.19E+04	
Parcel Area (acres)	1.89	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · ·	, j				Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.66E+07	80.6
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	19.4
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	3.32E+04	0.1
· · ····· (····,		-				
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.78E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development projects not completely oriented perpendicular to ground water flow, the site specific aquifer width value is determined using the average property width that is perpendicular to flow.		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		5 ( )	1.89 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	ODEPARTARIA
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	AND A
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CONTRACTOR CONTRACTOR

Exhibit A5.2 128

# PHASE I ENVIRONMENTAL SITE ASSESSMENT

OF THE



# RURAL HOMESITE & UNDEVELOPED PASTURE

LOCATED AT

23442 FREEZEOUT ROAD

IN

CALDWELL, IDAHO



# PREPARED FOR:

**PIONEER HOMES** ATTN: BRIAN FALCK 719 1ST STREET SOUTH, STE. B NAMPA, IDAHO 83651

# **EFFECTIVE DATE:**

April 21, 2021

# SAGE FILE NO. 21-03640

PREPARED BY

Bunda Magnesson

AND

Kendra Syndera

KENDRA M. SZUDERA ASSOCIATE

BRENDA L. MAGNUSON CAL/EPA REA#06973



18123 N. HIGHFIELD WAY NAMPA, IDAHO 83653 208-867-8876



April 21, 2021

Pioneer Homes ATTN: Brian Falck 719 1st Street South, Ste. B Nampa, Idaho 83651

Re: Phase I Environmental Site Assessment for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho.

Dear Mr. Falck:

The following Executive Summary provides a synopsis of our findings and conclusions for this Phase I Environmental Site Assessment Report of the above-referenced property. More detail is presented in the text of this report.

#### EXECUTIVE SUMMARY

SAGE ENVIRONMENTAL SERVICES, LLC (SAGE ENVIRONMENTAL or SAGE) has performed a Phase I Environmental Site Assessment in conformance with the ASTM Practice E 1527-13 for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho. Any exception to or deletion from this practice is described in Section 2.3 "Scope of Services" and Section 2.5 "Limitations and Restrictions" of this report.

#### Findings

The findings listed below identify any possible concerns that could be recognized environmental conditions, historical recognized environmental conditions, and are de minimis conditions.

Type of Information Evaluated	Finding
User-Provided Information	No environmental concerns
Environmental Database Records	See below
Nitrate Priority Area	The Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling on nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast) and are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.
HISTORICAL USE INFORMATION	No environmental concerns
Site Reconnaissance	See below
Potable Water Supply/ Wells	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was installed during 1974 and was constructed to a depth of 67 feet below ground surface (bgs). During construction, water was first encountered at a depth of 40 feet bgs.
Sewage Disposal System/ Septic Systens	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the exact location of this system.



Hazardous Substances and Petroleum Products	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked. Of the nearly fifty (50) 55-gallon drums we identified on the site, two to three (2-3) of the drums and three (3) 5-gallon containers contain an unknown liquid; a small amount of staining around two (2) of the containers indicate that they may contain waste oil. During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no significant stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).
Drums/Unidentified Substance Containers	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, two (2) to three (3) drums located in the field to the northeast of the dwelling contain unknown liquids. The two (2) to three (3) drums containing liquids have tight-fitting lids. One (1) drum has limited staining on the ground that appears to be waste oil. This drum is located within "Area #2" on the Site Plan. Note: The number of drums is an approximate number because some of the empty drums are located within piles of material and debris that are difficult or impossible to see.
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During inspection of the site, we observed the area on the site were the creek temporarily ponds or pools along the western boundary.
STAINED SOIL OR PAVEMENT	Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment. We observed staining on the ground beneath one of the drums and a 5- gallon container within "Area #2" (shown on the Site Plan). This staining is limited and appears to be caused by waste oil.
VAPOR ENCROACHMENT CONCERNS	No environmental concerns

## OPINIONS

Listed below are our professional opinions of the impact (if any) on the Property of the conditions identified in the Findings:

Type of Information Evaluated	Opinion
Environmental Database Records	See below
Nitrate Priority Area	Although it is possible that the groundwater beneath the Property may contain elevated levels of nitrates, our review of area well sampling data indicates that nitrate levels would likely be well below the EPA and Idaho drinking water standard of 10.0 mg/L. This is not a "recognized environmental condition" or "REC".
SITE RECONNAISSANCE	See below



POTABLE WATER SUPPLY/ WELLS	The presence of a private well on the Property is not a cause for concern; however, if the future use of the Property does not include the use of the well, it should be properly abandoned in accordance with the Idaho Department of Water Resources (IDWR) rules. Due to the relatively shallow depth of the well (less than 100 feet bgs), we recommend sampling of the well prior to it's continued use as a potable water source. The analyses should include bacteria (Total Coliform and E. Coli) and Nitrates.
Sewage Disposal System/ Septic Systens	The presence of an on site septic tank and drainfield system is not a cause for concern; however, if the future use of the Property doe not include the use of the septic system, it should be closed in accordance with Idaho Health Department Rules.
Hazardous Substances and Petroleum Products	In their current state, the use and storage of oils, lubes, household maintenance products, and cans of gasoline on the site are not a cause for concern and are not considered a "REC"; however, any of these materials that are no longer in use should be disposed of in accordance with Federal, State, and local rules and regulations.
Drums/Unidentified Substance Containers	Of the fifty (50) ± drums located on the site, two (2) to three (3) drums located in the field to the northeast of the dwelling (area #2 on Site Plan) contain an unknown liquid. All of these drums/containers have been on the Property for an extended period of time; it is unclear if the staining around the drum/container in area #2 was caused by spills or if the container has leaked; however, it is our opinion that these drums and the soil staining is not considered a "REC" because the staining on the ground around one (1) drum and one (1) 5-gallon container appears limited to the top 6-inches of soil, a "de minimus" condition. Although not considered a "REC" the contents of the drums should be determined and properly disposed of in accordance with Federal, State, and local rules and regulations.
Pits, Ponds, or Lagoons	The seasonal pond/pool formed by Sand Hollow Creek is not a cause for concern with respect to the environmental integrity of the Property.
Stained Soil or Pavement	One of the drums and/or 5-gallon containers (area #2 on Site Plan) appears to have leaked waste oil onto to the ground. This staining appears to be waste oil and to the extent observable, the leakage appears to be have been present for some time. Currently, this staining appears to be minor (limited to the top six-inches of soil or less). This type of surface stain is considered "de minimus" and is not a "REC". It is possible that the removal of drums, containers, or piles of debris could reveal additional staining that was not observable during the site visit. Any staining extending beyond the top 6-inches of soil may require further evaluation.

Based on our review of available information, SAGE ENVIRONMENTAL has identified no "recognized environmental conditions" or "RECs" in connection with the Property. We do recommend that the contents of the drums and containers of liquids stored outside the shop should be determined and disposed of in accordance with Federal, State, and local rules/regulations.

The Client should be aware that the removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.

This report is limited to the information made available to or known to SAGE ENVIRONMENTAL at the time this report was issued. If any additional information becomes available, it will be forwarded to you for your evaluation. We appreciate having the opportunity to assist you with this project. Please feel free to contact me if you have any questions concerning this report.



Sincerely,

Bundar а resse

Brenda Magnuson Principal/Registered Environmental Assessor Cert. #06973

Reviewed By:

Spidera

Kendra Szudera, Associate

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## DEFINITION OF ACRONYMS USED

ASTM:	American Standards for Testing and Materials
AST:	Aboveground Storage Tank
AULs:	Activity and Use Limitations
CERCLA:	Comprehensive Environmental Restoration, Compensation, and Liability Act
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System-
	No Further Remedial Action Planned
CFR:	Code of Federal Regulations
CESQG:	Conditionally Exempt Small Quantity Generator
CORRACTS:	Corrective Action Sites
CREC:	Controlled Recognized Environmental Condition
DEQ:	Division of Environmental Quality
EPA:	Environmental Protection Agency
EPCRA:	Emergency Planning and Community Right to Know Act ((also known as SARA Title III)
ERNS:	Emergency Response Notification System
ESA:	Environmental Site Assessment
FOIA:	U.S. Freedom of Information Act
FR:	Federal Register
HREC:	Historic Recognized Environmental Condition
IC:	Institutional Controls
LLP:	Landowner Liability Protections under the Brownfields Amendments
LQG:	Large Quantity Generator
LUST:	Leaking Underground Storage Tank
MSDS:	Material Safety Data Sheet
NCP:	National Contingency Plan
NPL:	National Priority List
NFRAP:	former CERCLIS sites where no further remedial action is planned under CERCLA.
NPDES:	National Pollutant Discharge Elimination System
PCBs:	Polychlorinated Biphenyls
PRP:	Potentially Responsible Party (pursuant to CERCLA
RCRA:	Resource Conservation and Recovery Act
RCRIS:	RCRA Information Systems
RECs:	Recognized Environmental Conditions
SARA:	Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA)
SQG:	Small Quantity Generator
TSCA:	Toxic Substances Control Act
TSD:	Treatment Storage and Disposal
TSDF:	Hazardous Waste Treatment, Storage or Disposal Facility
USC:	United States Code
USG:	United States Geological Survey
UST:	Underground Storage Tank
VEC:	Vapor Encroachment Condition
VES:	Vapor Encroachment Screening

PAGE 3



## **1.0 PROPERTY SUMMARY**

PROPERTY TYPE:	Rural Homesite and Pasture
Address:	23442 Freezeout Road Caldwell, Idaho
LOCATION:	The Property is located along the north side of a gravel access lane for Freezeout Road, east of Freezeout Road between Willis Road (north) and State Highway 44 (south), northeast of Caldwell and west of Middleton, in Caldwell, Canyon County, Idaho.
LEGAL DESCRIPTION:	"Tax 19480 in the South ½ of the Northeast ¼ , Less Tax #97652, and situated in the Southwest ¼ of the Northeast ¼ and the Southeast ¼ of the Northwest ¼ of Section 3, Township 4 North, Range 3 West of the Boise-Meridian in Canyon County, Idaho."
OWNER OF RECORD:	Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653
SITE SIZE/CONFIGURATION:	31.40± acres; irregular, in shape (Figure 2)
DESCRIPTION OF IMPROVEMENTS:	Site improvements are limited to the homesite (southeast quadrant of the Property) and consist of the following: One (1), 1,404 SF, single-level dwelling constructed during 1976; One (1), three-bay shop building located northwest of dwelling. This is a steel framed structure with a metal roof and exterior. In this building, the west $\frac{2}{3}$ of the floor is dirt; the east $\frac{1}{3}$ of the floor is a concrete slab.
DATE OF SITE RECONNAISSANCE:	April 12, 2021 & April 20, 2021 (follow-up)
DATE OF REPORT:	April 21, 2021
CONCLUSIONS:	SAGE ENVIRONMENTAL SERVICES, LLC has performed a Phase I Environmental Site Assessment in substantial conformance with the ASTM Practice E 1527-13 for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho. Based on our review of reasonably ascertainable information, SAGE ENVIRONMENTAL SERVICES has no "recognized environmental conditions" or "RECs" in connection with the Property.
	The removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.

<sup>1</sup> "recognized environmental condition": The presence or likely presence of any hazardous substances or petroleum products on a Property under conditions that indicate an existing release, a past release, or a material threat of release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include "de minimis" conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of governmental agencies. Conditions determined to be de "minimis" are not recognized environmental conditions.



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## 2.0 INTRODUCTION

## 2.1 GENERAL

SAGE ENVIRONMENTAL SERVICES, LLC (SAGE ENVIRONMENTAL) was contracted by Mr. Brian Falck of Pioneer Homes (the Client) to perform a Phase One Environmental Site Assessment (ESA) of the Property located at 23442 Freezeout Road (hereinafter referred to as "Property" or "site") in Caldwell, Idaho (Figure 1).

## 2.2 LOCATION & LEGAL DESCRIPTION

Location:	The Property is located along the north side of a gravel access lane for Freezeout Road, east of Freezeout Road, between Willis Road (north) and State Highway 44 (south), in Canyon County, Idaho.
Legal Description:	"Tax 19480 in the South $\frac{1}{2}$ of the Northeast $\frac{1}{4}$ , Less Tax #97652, and situated in the Southwest $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ and the Southeast $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 3, Township 4 North, Range 3 West of the Boise-Meridian in Canyon County, Idaho."
Address:	23442 Freezeout Road in Caldwell, Idaho.

## 2.3 DETAILED SCOPE OF SERVICES

This Environmental Site Assessment followed the methodology set forth in ASTM Standard Practice E-1527-13 and is based on site observations and the use of readily available information. The Scope of Work for this assessment includes the following:

- Reviewing the Federal, State, and local regulatory agency lists and databases of facilities that use, store, and/or generate hazardous substances or petroleum products, and to determine the impacts of such sites on the Property with respect to "recognized environmental conditions";
- Reviewing site information for geologic and hydrogeologic characteristics for vulnerability and other possible areas of concern;
- Reviewing available city directories (i.e. Polk's City Directories), historical maps, geological maps, available historic aerial photographs, and other records to evaluate past property uses and occupancy;
- Reviewing available information regarding the historical use of the property and the adjacent properties;
- Reviewing 50-year chain-of-title information for historical background, as requested by the client;
- Conducting an on-site inspection of the property to observe and evaluate evidence of contamination from hazardous petroleum substances or wastes (stained soil, stressed vegetation, etc.), and other potential sources of contamination, including transformers or other electrical equipment possibly containing polychlorinated biphenyls (PCBs);
- Contacting electric utilities to determine PCB content of utility-owned transformers or other electrical equipment, if necessary;
- · Interviewing available people familiar with past use of the property and adjacent properties;
- Visually inspecting adjacent properties and classifying their possible effects on the subject property; and
- Documenting findings and site conditions with photographs.

## 2.4 SIGNIFICANT ASSUMPTIONS

In preparing this report, SAGE has relied upon certain verbal information and representations provided by State and local government employees, as well as others familiar with the Property history. SAGE ENVIRONMENTAL did not attempt to independently verify the accuracy or the completeness of that information, but we did not detect any inconsistency or omission of a nature



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that would affect the conclusions in this report; the conclusions are based in whole or in part on the validity of such information.

#### 2.5 LIMITATIONS & RESTRICTIONS

This Phase I Environmental Site Assessment is restricted to the Scope of Services outlined in Section 2.3 of this report and is restricted to observations made by SAGE during the inspection of the Property and research of standard environmental record sources. With the exception of recorded violations discovered upon routine review of environmental regulatory records, the Scope of Services did not address compliance with Federal, State or local laws, regulations, ordinances, or codes. This report also expressly excludes the collection or analysis of any samples for asbestoscontaining materials, radon gas, or lead-based paint. In addition, radon screening, lead in drinking water, endangered species, indoor air quality, cultural resources, industrial hygiene, health and safety, and high voltage power lines were not included in this report. No samples of soil, air, water, asbestos or lead-based paint were collected as part of this investigation, and SAGE makes no representations or warranty regarding the presence of asbestos or lead-based paint and the quality of the air, water, or soil on the Property. This Scope of Services did not include sampling of drums, tanks, and other containers for laboratory analysis.

Phase I Environmental Site Assessments are non-comprehensive in nature and are subject to a variety of limitations, including those limitations presented below. This report is not intended to identify all potential concerns or to eliminate all risk associated with the operational responsibilities or transferring property title. SAGE did not consider other factors or site information other than that presented in this report. The agencies and individuals contacted by SAGE had only limited information concerning the Property. When necessary, SAGE made efforts to interview agency personnel and individuals with knowledge of the site, but information collected in this manner can be subject to errors, including personal interpretation and memory. Judgments that lead to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and historical conditions applicable to the site. More extensive studies, including sampling and/or chemical analysis, may reduce the uncertainties associated with this assessment. SAGE should be notified for additional consultation if the client would like to reduce uncertainties beyond the level associated with this assessment.

#### 2.6 USER RELIANCE

Authorization to perform this assessment was given in the form of an email request from Mr. Brian Falck, Project Manager for Pioneer Homes (hereinafter, "Client" and also the "User" of this report), on March 29, 2021. As agreed, the scope of this assessment report is limited to the matters expressly covered herein. This report is prepared for the sole benefit of the Client and persons doing business with the Client. Any other person or entity, without the express written authorization of the Client may not rely upon the information contained in this report.



## **3.0 SITE DESCRIPTION**

#### **3.1 PURPOSE**

The purpose of this Phase I Environmental Site Assessment is to qualify for the innocent landowner defense and the Bona Fide Prospective Purchaser (BFPP) defense under 2002 Brownfields amendment to the Comprehensive Environmental Restoration, Compensation, and Liability Act (CERCLA). In addition to CERCLA liability, the purpose of this Phase I Environmental Site Assessment is to identify and understand potential environmental conditions that could materially impact the operation of the business associated with the property. The purpose of the ASTM E1527 standard is to define good commercial and customary practice for conducting a Phase I Environmental Site Assessment, with the goal of identifying "recognized environmental conditions" (RECs) at the subject property.

RECOGNIZED ENVIRONMENTAL CONDITION (REC): A REC is defined in E1527-13 as "the presence or likely presence of any hazardous substances or petroleum products in, on or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment". The term includes hazardous substances or petroleum products even under conditions in compliance with existing laws. The term is not intended to include "de minimis" conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be "de minimis" are not "recognized environmental conditions."

## 3.1.2 Additional Environmental Terms

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECS): A Historical Recognized Environmental Condition (HREC) refers to a past release that has been remediated to below "residential" standards and given regulatory closure with no use restrictions. HREC is defined by ASTM E1527-13 as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

The HREC category is distinct from the Controlled Recognized Environmental Condition (CREC), which applies to sites that have received regulatory closure but are still subject to controls.

CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECS): The term CREC is intended to clarify the level of risk these sites represent. The environmental professional is required to list any CRECs (as well as RECs) identified in the findings and conclusions section of the Phase I Environmental Site Assessment report.



The ASTM definition of CREC in the E1527-13 standard is as follows: "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

BUSINESS ENVIRONMENTAL RISK: Business Environmental Risk is defined by ASTM as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations."

The common non-scope environmental business risk items referred to include:

- Asbestos
- Lead Paint
- Lead in Drinking Water
- Radon
- Wetlands
- Ecological Resources
- Endangered Species

- Cultural and Historic Resources
- Regulatory Compliance
- Industrial Hygiene
- Health and Safety
- Indoor Air Quality
- Biological Agents
- Mold

Any non-scope environmental business risk items addressed by SAGE (if required by the Lender and/or Client) is discussed in Section 9.0 "Non-ASTM-Scope Items and Additional Services".

## 3.2 SITE VICINITY & GENERAL CHARACTERISTICS

The Property is comprised of a single parcel of land, 31.40± acres in size and is located in Canyon County, outside the city limits of Caldwell, Idaho. The Property is located within an area of Caldwell characterized by rural residential uses and irrigated farmland/pasture, many of which are being developed as residential subdivisions (Figure 2).

## 3.3 PHYSICAL SETTING

According to the USGS Quadrangle map for the site and vicinity, the Property is located on the foothill bench northeast of Caldwell. The site is generally level and lies at an elevation of approximately 2,520 feet above mean sea level. The north end of the site, just north of the C.L.E. Lateral lies 7-10 feet below the bank of the lateral. The C.L.E. Lateral irrigation ditch is the closest surface water to the site; it borders a portion of the eastern Property boundary from the north before traversing westward along the homesite, angling southward along the west side of the homesite, then finally, traversing eastward along the south end of the homesite before exiting the Property along the southern boundary. Sand Hollow Creek borders the Property along the west (Figure 3a).



#### 3.4 GEOLOGY & HYDROLOGY

#### 3.4.1 Geology

We compiled information regarding generalized local hydrogeologic and geologic conditions from published technical literature. In the vicinity of the Property, groundwater data for both the shallow water table aquifer and for the deeper water supply aquifer systems were modified from Dion (1972), Squires et al (1992), and from previous investigations conducted by other consultants. Information about the surface and subsurface materials located under the Property was retrieved from Malde and Powers (1962), and Othberg and Stanford (1992), and from previous investigations conducted by other consultants.

The Property is situated within the western portion of the Snake River Plain subdivision of the Columbia Plateau Physiographic Province. Landforms consist of six terrace levels of alluvial gravel deposits. The Property is located on the foothill bench above the flood plain of the current channel of the Boise River. The shallow subsurface contains 100 to 500 feet of Quaternary-age alluvium that consists of interfingered and interlayered sand, silt, clay, and gravel; all primarily deposited by the Boise River. These fluvial and lacustrine (river and lake) sediments unconformably overlay the Quaternary-Tertiary-age Idaho Group deposits, which consist of several thousand feet of poorly consolidated clastic sediments and basaltic volcanic rock. The sediments consist of sand, silt, and clay of variable thickness and lateral extent.

## 3.4.2 Hydrology

In the area, two aquifers are known to exist. Throughout much of the valley, an unconfined water table aquifer is found within the shallow alluvium, normally at a depth of less than 50 feet. According to a Well Construction Log for the Property, groundwater for this shallow, unconfined aquifer is probably at a depth of 40 to 45 feet below ground surface. Many domestic wells draw water from the shallow aquifers. The general groundwater flow direction in the area is to the west/ southwest towards the Boise River, although seasonal changes and localized impacts from canals and irrigation ditches can create varying flow directions. The delineated source water assessment area for the Property can best be described as an eastward trending corridor approximately four miles long and one-quarter mile wide (IDEQ, 2003).

At a depth of approximately 300 to 500 feet below ground surface, the region's principal water supply aquifer is contained within the Upper Idaho Group strata. In the vicinity of the Property, several hundred feet of silt and clay separate the water supply and water table aquifers, thereby reducing the potential for flow between the two aquifers; however, recently compiled subsurface data suggests that the boundaries between aquifer units and hydrogeologic settings are gradational and may result in hydraulic communication across the system. This appears to be most evident through pump test data obtained from the east Boise area. To date, due to an incomplete database, an adequate hydrogeologic model describing the nature and extent of the hydraulic continuity between the shallow and deep aquifers has not been fully developed. Until such a study is completed, the potential for migration between the two aquifers will remain poorly understood.



## 3.5 CURRENT USE OF SURROUNDING AREA

The Property lies within a rural area of northeast of Caldwell where development is characterized by a mixture of rural residential uses and irrigated farm land, some of which are being converted to residential subdivision developments.



## 4.0 USER-PROVIDED INFORMATION

## 4.1 TITLE RECORDS

A Chain of Title was not requested by the Client.

## 4.2 Environmental Liens or Activity & Use Limitations

We use the following resources, when available, to determine the presence of activity use limitations (AULs) or engineering controls (ECs) that may be recorded or connected to the Property title:

- Title Commitment (when provided by the Client)
- Environmental Database Records
- Environmental Questionnaire and Disclosure Statement
- Title Commitment: For this report, a Title Commitment was not provided by the Client.

ENVIRONMENTAL DATABASE RECORDS: We used information obtained from the Environmental Database Records to identify those sites that were assigned a "no further action" status from the Idaho DEQ using activity use limitations (AULs) or engineering controls (ECs). We did not find deed restrictions limiting the use of the Property (AULs), nor did we find any institutional or engineering controls (ECs) listed for the site.

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENTS: We used the Environmental Questionnaire and Disclosure Statement to determine the Owner's knowledge of activity use limitations (AULs) or engineering controls (ECs) for the Property. According to the Environmental Questionnaire and Disclosure Statement, completed by Brian Falck of Pioneer Homes (the Client/ User and also a representative of the Property Owner), the Property Owner has no knowledge of Environmental Liens or Activity and Use Limitations for the Property that may exist on the Property.

## 4.3 SPECIALIZED KNOWLEDGE

We have no knowledge of previous Environmental Site Assessments for the Property, nor do we have any knowledge of "recognized environmental conditions" that may have existed on the Property prior to the completion of this report. The Client/User, also the Property Owner, has no knowledge of previous Environmental Site Assessments for the Property, nor do they have any knowledge of "recognized environmental conditions" that may have existed on the Property.

## 4.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Under the standards as outlined in ASTM E 1527-13 "Standard Practice for Environmental Site Assessments", the User of this report has certain responsibilities regarding notification to the preparer of this report. Specifically, the User must notify the preparer of the report of any environmental liens encumbering the Property or any specialized knowledge or information about previous ownership or uses of the Property that may be material to identifying "recognized environmental conditions". Brian Falck of Pioneer Homes is not aware of any environmental issues in connection with the Property.



#### 4.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The client has no reason to believe that the value of the Property has been reduced for any environmental issues and asserts that the purchase price reasonably reflects the fair market value of the Property.

#### 4.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The owner/manager of the Property is:

Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653

The site is currently unoccupied.

## 4.7 REASON FOR PERFORMING THE PHASE I ESA

It is the understanding of SAGE ENVIRONMENTAL that the Property is under development by the Client. This development requires relocating and/or retiling a portion of the C.L.E. Lateral. The Bureau of Reclamation, the agency responsible for maintaining and modifying irrigation systems within the State, requires permit for such activities and this Phase I Environmental Site Assessment (ESA) report is a part of the permit requirements. This Phase I ESA also fulfills one of the requirements for the innocent landowner defense and a "Bona Fide Prospective Purchaser" (BFPP) defense subject to CERCLA liability



# 5.0 HISTORICAL RECORDS & ENVIRONMENTAL DATABASE REVIEW

#### 5.1 STANDARD ENVIRONMENTAL RECORDS

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the property. A description of the environmental databases is described in the following paragraphs:

<u>NATIONAL PRIORITIES LIST (NPL), LISTED AND DELISTED SITES:</u> A list of hazardous waste sites in the United States eligible for long-term remedial action (cleanup) financed under the federal Superfund program. Environmental Protection Agency (EPA) regulations outline a formal process for assessing hazardous waste sites and placing them on the NPL. The NPL is intended primarily to guide EPA in determining which sites warrant further investigation.

The inclusion of a facility in the National Priorities List does not reflect a judgment of its owner or operator or make the owner or operator take any action. It also does not assign any liability to any person or company. It serves as a source of information by identifying facilities or other hazardous substance releases that appear to warrant remedial actions.

<u>SUPERFUND (CERCLIS)</u>: Superfund is a program administered by the EPA to locate, investigate, and clean up uncontrolled hazardous waste sites throughout the United States. We reviewed the Idaho DEQ's "Waste Remediation Site Locator", DEQ's equivalent of the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list, a registry which lists those sites which are suspected of having received, generated, transported, or disposed of hazardous wastes prior to December 1380; or areas where hazardous wastes were suspected of having been released into the environment. The inclusion on this list is not in itself a judgment about the activities of a Property's owners or operators, but is used to identify those sites which may require further investigation because they may cause environmental or public health problems. The CERCLIS list is used by the Idaho DEQ to track potentially uncontrolled hazardous materials or hazardous waste sites. The Idaho DEQ also maintains a registry of those sites where clean up or remediation activities have taken place but no further action is planned.

<u>RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION RCRA INFO:</u> Hazardous waste generators, transporters, treaters, storers and disposers of hazardous waste are required to provide information on their activities to state environmental agencies. These agencies then provide the information to regional and national US Environmental Protection Agency (EPA) offices through the Resource Conservation and Recovery Act Information (RCRA Info) System. Information on cleaning up after accidents or other activities that result in a release of hazardous materials to the water, air or land must also be reported through RCRA Info.

INSTITUTIONAL CONTROL/ENGINEERING CONTROL REGISTRIES: Institutional controls are nonengineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. For instance, zoning restrictions prevent site land uses, like residential uses, that are not consistent with the level of cleanup.

ICs are used when contamination is first discovered, when remedies are ongoing and when residual contamination remains onsite at a level that does not allow for unrestricted use and unlimited exposure after cleanup. The National Contingency Plan (NCP) emphasizes that ICs are meant to supplement engineering controls and that ICs will rarely be the sole remedy at a site.

<u>VOLUNTARY CLEANUP SITES:</u> In Idaho, DEQ's Voluntary Cleanup Program (VCP) was created in 1996 by the Idaho Land Remediation Act to encourage innovation and cooperation between the state, local communities and private parties to revitalize properties with hazardous substance or petroleum contamination. The Idaho Land Remediation Rules, adopted in 1997, detail implementation procedures for the program. The Idaho Land Remediation Act was modified in 2005 to incorporate the Community Reinvestment Pilot Initiative, a state-funded program to assist with cleanup costs of up to 10 properties whose development is complicated by contamination issues. Currently, all 10 slots in the pilot program are filled.



<u>EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) LIST</u>: The Emergency Response Notification System (ERNS) is a computer database containing information on reports of oil and hazardous substance releases that have occurred throughout the United States and have been reported to the National Response Center (NRC), the ten EPA Regions, or the U.S. Coast Guard. The initial notification data may be updated with information from various Federal, State, and local response authorities as appropriate. ERNS data can be used to analyze reports of releases, support emergency planning efforts, and assist decision makers in developing spill prevention programs.

STATE AND TRIBAL LANDFILL OR SOLID WASTE DISPOSAL SITES: A listing of solid waste landfills (active and closed sites) is maintained by various agencies, including the Idaho DEQ. The list of closed solid waste landfills and dumps is not necessarily complete because older landfills or dumping areas may not be known.

STATE AND TRIBAL VOLUNTARY CLEANUP SITES: During 1996, the Idaho Legislature created the Idaho Land Remediation Act, DEQ's Voluntary Cleanup Program (VCP), to encourage innovation and cooperation between the state, local communities, and private parties working to revitalize properties with hazardous substance or petroleum contamination. During 1997, DEQ developed the Idaho Land Remediation Rules that detail the implementation of the Voluntary Cleanup Program. Sites that have entered in to the Voluntary Cleanup Program are identified on the Idaho Waste Division Inventory database.

<u>BROWNFIELDS (BMS):</u> The EPA Brownfields Management System (BMS) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding. The Idaho DEQ's Brownfields Assessment Program funds and conducts environmental assessments of Brownfield sites when a lack of environmental information has complicated site redevelopment or reuse. For each site, DEQ will produce a final report that reveals whether a site is clean, lightly contaminated, or heavily contaminated, determines the nature and extent of the contamination, identifies potential cleanup options, and estimates cleanup costs (if any). Brownfields are abandoned or underutilized properties where the reuse is complicated by actual or perceived environmental contamination. With the help of Idaho Counties, Cities, Economic Development Districts, Urban Renewal Entities, developers and brokers, DEQ is developing a comprehensive, statewide inventory of Brownfields. Sites that qualify for and are being remediated under the Brownfields program are identified on the Idaho Waste Division Inventory database and on EPA's EnviroMapper for Brownfields site. DEQ's Brownfields Assessment Program funds and conducts environmental assessments of Brownfields sites when a lack of environmental information has complicated site redevelopment or reuse. For each site, DEQ will produce a final report that:

- · Reveals whether a site is clean, lightly contaminated, or heavily contaminated
- · Determines the nature and extent of the contamination
- · Identifies potential cleanup options estimates cleanup costs (if any).

<u>TOXICS RELEASE INVENTORY (TRI)</u>: The Toxics Release Inventory (TRI) contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment. Manufacturers of these chemicals are required to report the locations and quantities of chemicals stored on-site to State and local governments. The reports are submitted to the EPA and state governments. EPA compiles this data in an on-line, publicly accessible national computerized database.

<u>ADDITIONAL ENVIRONMENTAL DATABASE SOURCES</u>: For our Federal database information, we used a database operated by Nationwide Environmental Title Research Company (NETROnline) and crosschecked by SAGE, using a database (Idaho Waste Remediation Facility Mapper) maintained by the Idaho DEQ, for properties or incidents reported within the area defined by the ASTM E 1527-13 Minimum Search Distances. The NETROnline database report is presented in the addenda of this report.



A summary of those sites identified in the Environmental Database that are located within the ASTM search radii is provided in Table 1, below:

TABLE 1: SUMMAR	Y OF	ENVIRONMENTAL	DATABASE SITES
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Standard Environmental Record Source	ASTM Search Dist. (Miles)	Number of Sites Identified	Identification of Sites Found: Distance and Direction From Property
Federal NPL site list	1.0	0	
Federal Delisted NPL site list	0.5	0	
Federal CERCLIS list	0.5	0	
Federal CERCLIS NFRAP (no further remedial action planned)	0.5	0	
Federal CORRACTS facilities list	0.5	0	
Federal RCRA non-CORRACTS TSD facilities list	1.0	0	
Federal RCRA generators list	Subject & adj. sites	0	RCRA generators appear in the database; however, none are located within the ASTM-defined search radius.
Federal institutional control/ engineering control registries	Subject & adj. sites	0	
Federal ERNS list	Subject property	0	
State and tribal equivalent NPL	1.0	0	
State and tribal equivalent CERCLIS	0.5	0	
State and tribal landfill or Solid Waste Disposal site list	0.5	0	
State and tribal underground storage tank (UST) lists	Subject & adj. sites	0	
State and tribal leaking underground storage tank (LUST) lists	0.5	0	
State and tribal institutional/ engineering control registries	Subject property	0	
State and tribal voluntary cleanup sites	0.5	0	
State and tribal Brownfield sites	0.5	0	

# 5.1.1 Additional Environmental Record Sources

We routinely cross-check our database information provided by outside sources with the Idaho DEQ's "Waste Remediation Facility Mapper" program available on the DEQ website. Our crosscheck did not identify any additional sites.

We used the Idaho DEQ's "Nitrate Priority Area Mapping Tool" available on the IDEQ website for information regarding known elevated nitrate levels present within regional groundwater.



A major source of the elevated nitrates is from historic agricultural uses in the area. Our review of this map indicates that most of the Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling from nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast). These nitrate level are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.

### 5.2 PHYSICAL SETTING SOURCES

According to the current (2017) United States Geological Survey (USGS) "Sand Hollow, Idaho" 7.5-Minute Series Quadrangle map, the elevation of the site is approximately 2,520 feet above mean sea level. The site is generally level and lies at an elevation of approximately 2,520 feet above mean sea level. The north end of the site, just north of the C.L.E. Lateral lies 7-10 feet below the bank of the lateral. The C.L.E. Lateral irrigation ditch is the closest surface water to the site; it borders a portion of the eastern Property boundary from the north before traversing westward along the homesite, angling southward along the west side of the homesite, then finally, traversing eastward along the south end of the homesite before exiting the Property along the southern boundary. Sand Hollow Creek borders the Property along the west (Figure 3a).

#### **5.3 HISTORICAL USE INFORMATION**

We established the site history utilizing several sources of information including:

- Historic USGS Quad Maps
- Aerial Photography
- Sanborn Fire Insurance Maps
- Historical Plat Maps
- Canyon County Assessor's Office
- Recorded Land Title Records
- Polk's City Directories for Caldwell, Idaho
- Interviews and/or questionnaires completed by persons having knowledge of the Property and/or its history

The information obtained from these sources regarding past and current uses of the Property and adjoining properties may be incomplete but typically provides a general synopsis of site history.

# 5.3.1 Aerial Photograph Review

Aerial photography can reveal historical activities or uses of the Property not otherwise documented or observable during the reconnaissance of the site. Aerial photography can also be used to confirm information obtained from other historical sources. The effectiveness of this review technique depends on the quality of the photographs, the available coverage, and the scale of photographs printed.

We obtained aerial photos, including the earliest available and the most recent historical aerial photos displaying the Property and vicinity taken during 1954, 1969, and 1981 from NETROnline Historic Aerials. We also reviewed current and historical satellite imagery for the Property taken during 1992, 2002, 2010, and 2020 from Google Earth<sup>™</sup>. We reviewed these aerial



photos for historic information on the use of the site and adjacent properties. Photocopies of these aerial photos are presented in the Addenda of this report.

Aerial photographs only provide information on visual indications of land use. No conclusions can be drawn from the photographs alone; however, our review of the aerial photographs did not reveal any obvious signs of dumping, significant spillage, leaks, storage, disposal of hazardous substances, or land use that would necessitate further investigation. A summary of the aerial photography review is presented in Table 2, below:

Site Features	1954	1969	1981	1992	2002	2010	2020	Comments
Crop Patterns	Y	Y	Y	Y	Y	Y	Y	Crop patterns and/or pasture is visible on the Property in all photos.
Streets	N	Y	Y	Y	Y	Y	Y	The gravel Freezeout Road access lane is visible along the southern Property boundary from 1969 through 2020.
Buildings	N	N	N	Y	Y	Y	Y	The dwelling is visible on the southeast quadrant fo the site in the 1981 and subsequent photos; the shop building is visible on the site in the 1992 and subsequent photos.
Paved Parking Areas	N	N	N	N	N	N	Ν	
Drainage	Y	Y	Y	Y	Y	Y	Y	The C.L.E Lateral irrigation canal is visible traversing and bordering the Property in all photos. Sand Hollow Creek is visible along the western boundary in all photos.
CIRCULAR OBJECTS (ABOVE GROUND STORAGE TANKS OR WATER TANKS)	N	N	N	N	N	N	N	
Lagoon or Impoundment	Y	Y	Y	Y	Y	Y	Y	Visible ponding of Sand Hollow Creek, along the western boundary, is visible in all photos.
GROUND SCARS	N	N	N	N	N	N	N	
Standing Liquid	N	N	N	N	N	N	N	
Stacked Materials/ Objects	N	N	N	N	N	N	Ν	
Scattered Materials/ Objects	N	N	N	Y	Y	Y	Y	Scattered materials begin to appear north and east of the homesite starting with the 1992 photo, with more materials appearing in subsequent photos.
Piles	N	N	N	Y	Y	Y	Y	Piles of material and debris begin to appear north and east of the homesite starting with the 1992 photo, with more materials appearing in subsequent photos.

### TABLE 2: AERIAL PHOTOGRAPH REVIEW SUMMARY

(Key: Y=Yes; N=Not Observed; P=Possible, but not clearly resolved; U=Undetermined, not resolvable)



# 5.3.2 Historical USGS Quadrangle Map(s)

We consulted the 1970 United States Geological Survey (USGS) "Sand Hollow, Idaho" 7.5-Minute Series Quadrangle map for any buildings located on the Property. This map did not indicate the presence of buildings or other developments o the site (Figure 3b).

# 5.3.3 Sanborn Fire Insurance Maps

Sanborn Maps, constructed by the Sanborn Fire Insurance Company for fire insurance underwriting purposes dating as far back as the late 1800s, can show details of buildings, improvements, and land uses; however, the coverage of these maps is usually limited to older or outdated districts in established towns and cities. During our research of available Sanborn Fire Insurance maps, we found no coverage for the Property and vicinity.

### 5.3.4 Property Assessor Files

According to the Canyon County Assessor's Office, the current ownership of the Property is as follows:

Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653

# 5.3.5 Recorded Land Title Records

A Chain of Title was not requested by the Client. The prior use of the subject Property was determined by SAGE ENVIRONMENTAL, with the aid of historical records and interviews with persons having knowledge of the site and its history. We also use the following resources, when available, to determine the presence of activity use limitations (AULs) or engineering controls (ECs) that may be recorded or connected to the Property title:

- Title Commitment (when provided by the Client) or Chain-of-Title report; For this report, a Chain-of-Title report dating back to 1982 was provided by the Client.
- Environmental Database Records
- Environmental Questionnaire and Disclosure Statement

CHAIN OF TITLE REPORT: The Chain of Title report indicated that the Property was sold or conveyed three times since 1982:

1982: Arthur & Bonnie Ashcraft sold/conveyed the Property to Robert & Virginia Figueredo

2018: Virginia Figueredo sold the Property to Dorothy & Melvin Bonham, and Melvin Bonham, Jr.

ENVIRONMENTAL DATABASE RECORDS: We used information obtained from the Environmental Database Records to identify those sites that were assigned a "no further action" status from the Idaho DEQ using activity use limitations (AULs) or engineering controls (ECs). We did not find deed restrictions limiting the use of the Property (AULs), nor did we find any institution or engineering controls (ECs) listed for the site.

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT: We used the Environmental Questionnaire and Disclosure Statement to determine the Owner's knowledge of activity use limitations (AULs) or engineering controls (ECs) for the Property. According to the Environmental



Questionnaire and Disclosure Statements, Brian Falck (a representative of the Property owner and developer) has no knowledge of Environmental Liens or Activity and Use Limitations for the Property that may exist on the Property.

# 5.3.6 Polk's City Directories

Polk's City Directories, published by the R.L. Polk Company as a telephone/address/ business locating publication, can be useful when researching the historical occupants of the Property (by address). SAGE ENVIRONMENTAL reviewed the available Polk's City Directories at the Idaho Historical Library in Boise, Idaho; we found Polk directory coverage for Caldwell that included the Property's immediate vicinity, beginning in 2000 (earliest available) through 2020. As expected, the Property does not appear in the Polk Directory listings (the site has never been developed). The Polk Directory listings indicate that the area surrounding the Property has been used for rural residential purposes.

# 5.3.7 Zoning/Land Use Records

We reviewed the current and land use designations for the Property from the Canyon County Assessor. Our review of this map indicated that currently, the Property is located outside of the city limits of Caldwell, Idaho and within a Canyon County zoning area designated as "Agricultural" zoning district. According to the Canyon County Zoning Ordinance, "The purposes of the A (Agricultural) Zone are to:

A. Promote the public health, safety, and welfare of the people of the County by encouraging the protection of viable farmland and farming operations;

B. Limit urban density development to Areas of City Impact in accordance with the comprehensive plan;

C. Protect fish, wildlife, and recreation resources, consistent with the purposes of the "Local Land Use Planning Act", Idaho Code title 67, chapter 65;

D. Protect agricultural land uses, and rangeland uses, and wildlife management areas from unreasonable adverse impacts from development; and

E. Provide for the development of schools, churches, and other public and quasi-public uses consistent with the comprehensive plan." (Canyon County Code 7-10-25)

# 5.3.8 Historical Plat Maps

We researched historical plat maps and/or Atlases, potential resources for identifying past owners of the Property from Historic MapWorks Residential Geneaology™. The earliest map, The Standard Atlas of Canyon County, published in 1915 by George A. Ogle and Co., indicated that the Property was part of an 80-acre parcel of land owned by George Struthers. A second map, Metsker's Atlas of Canyon County, Idaho, published in 1939, indicated that the Property was part of two larger parcels owned by W.W. Waterman (west end) and Daniel W. Kennedy (east end). Neither plat map indicated the presence of buildings or other developments on the site.



#### 5.4 PRIOR USE ASSESSMENT OF THE PROPERTY

We compiled a history of the past Property uses through our review of available maps, aerial photographs, and interviews with individuals associated with the Property. A summary of the past Property uses is presented in the following table:

#### TABLE 3: PRIOR USE SUMMARY OF PROPERTY

1939-1975	1976 - 2021
Irrigated Farm Land and/or pasture	Rural Homesite and Pasture

#### 5.5 PRIOR USES OF ADJOINING PROPERTIES

We also compiled a history of the past uses of the adjoining properties through our review of available maps, aerial photographs, and interviews with individuals associated with the Property. Listed below is a summary of the past uses of the adjoining sites:

#### TABLE 4: PRIOR USE SUMMARY OF ADJACENT PROPERTIES

	1939	1954	1969	1981	1992	2002	2010	2020
North:	Undeveloped or Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land
South:	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential
East:	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land
West:	Undeveloped or Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Pasture	Rural Residential & Pasture	Rural Residential & Pasture



## 6.0 SITE RECONNAISSANCE

Brenda Magnuson of SAGE ENVIRONMENTAL conducted a site reconnaissance of the Property on April 12, 2021 and again on April 2021. At the time of the site reconnaissance, the weather conditions were mostly sunny and cool; the ambient air temperature was 43±°F (April 12th), and 60±°F (April 20th).

### 6.1 METHODOLOGY & LIMITING CONDITIONS

A visual reconnaissance was conducted on the Property in general accordance with SAGE ENVIRONMENTAL's standard environmental assessment procedures. This reconnaissance consisted of systematically walking the Property to provide an overlapping field of view and noting any "recognized environmental conditions" as encountered. Photographic documentation of pertinent "recognized environmental conditions" and site improvements and also adjacent property uses was made; some of which have been included in the Addenda of this report. In the case of multi-tenant commercial Properties, and the Property has five or fewer current occupants, we make a reasonable attempt to inspect and interview a representative of each tenant space. If there are more than five current occupants, we make a reasonable attempt to inspect and interview the major occupants and those other occupants whose operations are likely to indicate recognized environmental conditions in connection with the Property. For this assessment, the entire site was accessible.

The reconnaissance of the adjacent properties was performed by walking the perimeter of the subject site and observing and photographing the readily accessible and visible areas bordering or adjacent to the subject property and noting potential environmental conditions. During and after the site reconnaissance, we also evaluated adjacent parcels for their potential environmental impact to the Property. Photographs documenting the current condition of the Property are presented in the Addenda. The site reconnaissance focused on the following:

- Evaluating the presence of surface waters on the Property
- An evaluation of the materials used and stored on the Property
- Evidence of contamination by hazardous substances (stains, odors, etc.)
- The presence of aboveground storage tanks (ASTs) or visual indication of underground storage tanks (USTs)
- Evidence of buried solid waste
- Identification of transformers and other electrical equipment potentially containing Polychlorinated Biphenyls (PCBs)
- An evaluation of current land use



# 6.2 GENERAL SITE VISIT OBSERVATIONS

#### TABLE 5: SUMMARY OF SITE VISIT OBSERVATIONS

General Site Observations	DESCRIPTION
Current Use(s) of the Property	Rural Homesite and Pasture
Current Uses of Adjoining Properties	North: Rural Residential & Pasture South: Developing Residential Subdivision West: Rural Residential & Pasture East: Rural Residential & Pasture
Description of Structures & Other Improvements (Figure 4)	One, 1,404 SF, single-level dwelling constructed during 1976, located on the southeast portion of site. Three-bay shop building located northwest of dwelling. This is a steel framed structure with a metal roof and exterior. In this building, the west $\frac{2}{3}$ of the floor is dirt; the east $\frac{1}{3}$ of the floor is a concrete slab.
Description of Roads	Access to the Property is from a access gravel roadway/lane located along the southern boundary. This unimproved, private road extends to Freezeout Road (west), a paved, two-lane rural roadway with no curbs, gutter, or sidewalks.
Geologic, Hydrogeologic & Topographical Conditions	Most of the site is generally level and at-grade with nearby streets; the north end of the site, just north of the E.L.C. Lateral, lies approximately 7 to 10 feet below the lateral; the west end of the site, near Sand Hollow Creek, slopes slightly downward toward the creek. None of the information we obtained during the course of this assessment indicates that hazardous substances or petroleum products are likely to migrate onto the Property from nearby sites.
Potable Water Supply	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was constructed during 1974 to a depth of 67 feet below ground surface (bgs). Water was first encountered at a depth of 40 feet bgs. A copy of the well log is included in the Addenda.
Sewage Disposal System	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the size and exact location of this system.
Hazardous Substances and Petroleum Products	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked. Of the nearly fifty (50) 55-gallon drums we identified on the site, two (2) to three (3) of the drums and three (3) 5-gallon containers contain an unknown liquid; stains around two of the containers indicate that they may contain waste oil. During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no significant stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).
USTS OR ASTS	None were identified on the Property.
Odors	None were identified on the Property.
Pools of Liquid	None were identified on the Property.



Drums	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, there are three (3) drums located in the field to the northeast of the dwelling that contain unknown liquids. The drums are located northeast of the dwelling (within "Area #2" on the Site Plan). The drums have tight-fitting lids and most did not show evidence of leaks; however, we did see limited staining on the ground next to the one drum (along with a 5-gallon container next to the drum) located in "Area #2" with limited staining on the ground. This staining appears to be caused by waste oil. Note #1: During our April 12, 2021 inspection, SAGE noted that three (3) drums were located at the northeast corner of the Property, next to the E.L.C. Lateral. Two (2) of the drums contained unknown liquids. Due to the proximity of the drums to the irrigation lateral and the presence of unknown contents, Sage notified the Client of this concern. The Client subsequently removed the three (3) drums. On April 20, 2021, Sage returned to the site to verify the removal of the drums and inspect the ground for evidence of spills or leaks and verified that none were present. A photo of this location is included in the Addenda. Note #2: The number of drums is an approximate number because some of the empty drums are located within piles of debris and are difficult or impossible to see.
Unidentified Substance Containers	See "Hazardous Substance and Petroleum Products" and "Drums" (above).
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During our inspection of the site, we observed the area on the site where the creek temporarily ponds or pools along the western boundary. A pile of discarded water heaters, pressure tanks, and miscellaneous equipment is located on the southeastern edge of the pond area. Evidence of contamination was not observed in this area.
STORM DRAINS	None were identified on the Property but may be part of the underground utilities/infrastructure.
Stained Soil or Pavement	Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment. Surface staining was observed on the ground beneath one (1) drum and one (1) 5-gallon container within "Area #2" on the Site Plan. This staining is limited and appears to be caused by waste oil. This stain also appears to be a surface stain limited to the top 6-inches of soil.
Stressed Vegetation	During our inspection of the Property, we did not see any unnaturally stressed vegetation on the Property.
Solid Waste	Evidence of buried solid waste disposal was not observed on the Property during our site reconnaissance; however, several piles of wood/lumber waste; concrete waste; miscellaneous equipment; 50+ tires; and other miscellaneous items are located on the home site north and east of the dwelling.
WASTE WATER	Wastewater generated on the Property has been limited to domestic-type sewage from the dwelling.
WELLS	As discussed previously, a private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was constructed during 1974 to a depth of 67 feet below ground surface (bgs). Water was first encountered at a depth of 40 feet bgs. A copy of the Well Construction Log is included in the Addenda of this report.



SEPTIC SYSTEMS	As discussed previously, an on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the exact location of this system.
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# 7.0 INTERVIEWS

Owner(s):	In lieu of an interview, we submitted an "Environmental Questionnaire and Disclosure Statements" to Brian Falck, a representative of the Property owner and developer; a copy of the questionnaire is included in the Addenda of this report.
Key Site Manager:	See above.
OCCUPANTS:	Currently, no occupants.
Past Owners and/ or Operators:	We did not interview any past owners and/or occupants of the site.
Local Government Officials:	For this report, we did not interview any local government officials with to the Property or nearby sites.

# 8.0 VAPOR ENCROACHMENT

In accordance with ASTM Standard 1527-13, SAGE conducted a vapor encroachment evaluation for the Property utilizing the environmental database and evaluating the contaminated properties within the ASTM-defined "area of concern" (AOC) of <sup>1</sup>/<sub>3</sub>-mile from the Property.

Our review of the environmental databases indicated that there are no contaminated sites situated within the <sup>1</sup>/<sub>3</sub>-mile AOC.



### 9.0 EVALUATION

#### 9.1 FINDINGS

The findings listed below summarize the information we identified during the course of our inspection of the Property and our research into its history and appropriate database sources. These findings may or may not lead to the identification of any known or suspected recognized environmental conditions, historical recognized environmental conditions, and de minimis conditions:

Type of Information Evaluated	Finding
User-Provided Information	No environmental concerns
Environmental Database Records	See below
NITRATE PRIORITY AREA	The Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling on nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast) and are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.
HISTORICAL USE INFORMATION	No environmental concerns
Site Reconnaissance	See below
Potable Water Supply/ Wells	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was installed during 1974 and was constructed to a depth of 67 feet below ground surface (bgs). During construction, water was first encountered at a depth of 40 feet bgs.
Sewage Disposal System/ Septic Systens	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the exact location of this system.
Hazardous Substances and Petroleum Products	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked. Of the nearly fifty (50) 55-gallon drums we identified on the site, two to three (2-3) of the drums and three (3) 5-gallon containers contain an unknown liquid; a small amount of staining around two (2) of the containers indicate that they may contain waste oil. During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no significant stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).



Drums/Unidentified Substance Containers	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, two (2) to three (3) drums located in the field to the northeast of the dwelling contain unknown liquids. The two (2) to three (3) drums containing liquids have tight-fitting lids. One (1) drum has limited staining on the ground that appears to be waste oil. This drum is located within "Area #2" on the Site Plan. Note: The number of drums is an approximate number because some of the empty drums are located within piles of material and debris that are difficult or impossible to see.
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During inspection of the site, we observed the area on the site were the creek temporarily ponds or pools along the western boundary.
Stained Soil or Pavement	Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment. We observed staining on the ground beneath one of the drums and a 5-gallon container within "Area #2" (shown on the Site Plan). This staining is limited and appears to be caused by waste oil.
Vapor Encroachment Concerns	No environmental concerns

# 9.2 OPINIONS

Listed below are our professional opinions of the impact (if any) on the Property of the conditions identified in the Findings listed in Section 9.1:

Type of Information Evaluated	Opinion
Environmental Database Records	See below
NITRATE PRIORITY AREA	Although it is possible that the groundwater beneath the Property may contain elevated levels of nitrates, our review of area well sampling data indicates that nitrate levels would likely be well below the EPA and Idaho drinking water standard of 10.0 mg/L. This is not a "recognized environmental condition" or "REC".
SITE RECONNAISSANCE	See below
Potable Water Supply/ Wells	The presence of a private well on the Property is not a cause for concern; however, if the future use of the Property does not include the use of the well, it should be properly abandoned in accordance with the Idaho Department of Water Resources (IDWR) rules. Due to the relatively shallow depth of the well (less than 100 feet bgs), we recommend sampling of the well prior to it's continued use as a potable water source. The analyses should include bacteria (Total Coliform and E. Coli) and Nitrates.
Sewage Disposal System/ Septic Systens	The presence of an on site septic tank and drainfield system is not a cause for concern; however, if the future use of the Property doe not include the use of the septic system, it should be closed in accordance with Idaho Health Department Rules.
	18123 N. HIGHFIELD WAY



Hazardous Substances and Petroleum Products	In their current state, the use and storage of oils, lubes, household maintenance products, and cans of gasoline on the site are not a cause for concern and are not considered a "REC"; however, any of these materials that are no longer in use should be disposed of in accordance with Federal, State, and local rules and regulations.	
Drums/Unidentified Substance Containers	Of the fifty (50)± drums located on the site, two (2) to three (3) drums located in the field to the northeast of the dwelling (area #2 on Site Plan) contain an unknown liquid. All of these drums/containers have been on the Property for an extended period of time; it is unclear if the staining around the drum/container in area #2 was caused by spills or if the container has leaked; however, it is our opinion that these drums and the soil staining is not considered a "REC" because the staining on the ground around one (1) drum and one (1) 5-gallon container appears limited to the top 6-inches of soil, a "de minimus" condition. Although not considered a "REC" the contents of the drums should be determined and properly disposed of in accordance with Federal, State, and local rules and regulations.	
Pits, Ponds, or Lagoons	The seasonal pond/pool formed by Sand Hollow Creek is not a cause for concern with respect to the environmental integrity of the Property.	
Stained Soil or Pavement	One of the drums and/or 5-gallon containers (area #2 on Site Plan) appears to have leaked waste oil onto to the ground. This staining appears to be waste oil and to the extent observable, the leakage appears to be have been present for some time. Currently, this staining appears to be minor (limited to the top six-inches of soil or less). This type of surface stain is considered "de minimus" and is not a "REC". It is possible that the removal of drums, containers, or piles of debris could reveal additional staining that was not observable during the site visit. Any staining extending beyond the top 6- inches of soil may require further evaluation.	

#### 9.3 CONCLUSIONS

SAGE ENVIRONMENTAL SERVICES, LLC has performed a Phase I Environmental Site Assessment in conformance with the ASTM Practice E 1527-13 for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho. Any exception to or deletion from this practice is described in Section 2.3 "Scope of Services" and Section 2.5 "Limitations and Restrictions" of this report.

Based on our review of available information, Sage Environmental has identified no "recognized environmental conditions" or "RECs" in connection with t the Property. Although not considered a "REC", the contents of any drums and containers of liquids stored outside the shop should be determined and disposed of in accordance with Federal, State, and local rules/ regulations.

The removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.



#### 9.4 DATA GAPS & FAILURES

We identified four data gaps that were greater than 10 years; 1915-1939 (24 years); 1939-1954 (15 years); 1954-1969 (15 years); and 1981-1992 (11 years). Based upon the known history of the Property, these data gaps are considered insignificant with respect to the historic use(s) of the Property and any resulting environmental impacts.

The lack of Sanborn Map and Polk Directory coverage for the Property is considered a data failures. Based upon the known history of the Property, these data failures are considered insignificant with respect to the historic use(s) of the Property and any resulting environmental impacts.

#### 9.5 DEVIATIONS FROM ASTM 1527-13

We did not deviate from ASTM 1527-13 "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".

#### 9.6 NON-SCOPE ISSUES

There may be environmental issues or conditions at the Property that parties may wish to assess in connection with commercial real estate that are outside the scope of ASTM E 1527-13. There may be other issues related to the Property or adjacent properties that are not included in CERCLA's definition of hazardous substances (42 USC§ 9601(14)) or do not otherwise present potential CERCLA liability. Such non-scope considerations include, but are not limited to the following: radon screening, asbestos-containing material survey, lead-based paint survey, lead in drinking water, wetland assessment, interior PCB sampling, regulatory compliance, ecological resources, endangered species, indoor air quality, cultural resources, industrial hygiene, health and safety, and high voltage power lines. Addressing such non-scope issues was not requested by the client.

#### 9.7 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL & SIGNATURES

As required by 40 CFR 312.21(d), SAGE is providing the following statements as to the qualifications of the environmental professional(s) responsible for conducting this Phase I Environmental Site Assessment and the preparation of this report:

- 1. I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR312, and
- 2. I have the specific qualifications, based on education, training, and experience, to assess a property of the nature, history, and setting to the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

SAGE ENVIRONMENTAL SERVICES, LLC

Bunda Magnesson

BRENDA L. MAGNUSON, REA REGISTERED ENVIRONMENTAL ASSESSOR, CERT. #06973



## **10.0 REFERENCES SITED**

CANYON COUNTY ASSESSOR'S OFFICE, PUBLIC FILES FOR 23443 FREEZEOUT ROAD IN CALDWELL, IDAHO.

- BIG SKY MAPS, 2005. ADA AND CANYON COUNTY STREET ATLAS. SKY MAPS/GM JOHNSON & ASSOCIATED, LTD, 2005.
- DION, N.P., 1972, "SOME EFFECTS OF LAND USE CHANGES ON THE SHALLOW GROUNDWATER SYSTEM IN THE BOISE-MERIDIAN AREA, IDAHO"; IDAHO DEPARTMENT OF WATER ADMINISTRATION, WATER INFORMATION BULLETIN NO. 26, 47P.

GOOGLE EARTH, 1992, 2002, 2010, AND 2020 AERIAL PHOTOGRAPHS. HTTP://WWW. EARTH.GOOGLE.COM.

- IDAHO DEPARTMENT OF WATER RESOURCES, WELL CONSTRUCTION SEARCH APPLICATION. HTTPS:// IDWR.IDAHO.GOV/APPS/APPSWELL/WCINFOSEARCHEXTERNAL/.
- MALDE, H.E. AND POWERS, H.A. 1962, "UPPER CENOZOIC STRATIGRAPHY OF WESTERN SNAKE RIVER PLAIN, IDAHO"; GEOLOGICAL SOCIETY OF AMERICA BULLETIN, V. 73, P1197-1220.

METSKER, C.F. METSKER'S ATLAS OF CANYON COUNTY, IDAHO. NOVEMBER 1939.

NETRONLINE: NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC. 1954, 1969, AND 1981 HISTORIC AERIAL PHOTOS.

OTHBERG, K.L. AND STANFORD, L.R., 1992. "GEOLOGIC MAPS OF THE BOISE VALLEY AND ADJOINING AREAS; WESTERN SNAKE RIVER PLAIN, IDAHO"; IDAHO GEOLOGIC SURVEY MAP SERIES. SCALE 1:100,000.

R.L. POLK COMPANY. POLK'S CITY DIRECTORIES FOR CALDWELL, IDAHO.

UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, 1979 AND 2017. "SAND HOLLOW, IDAHO QUADRANGLE, 7.5-MINUTE SERIES TOPOGRAPHIC MAPS".

# ENVIRONMENTAL DATABASE SOURCES:

ENVIRONMENTAL RESPONSE NOTIFICATION SYSTEM (ERNS) DATABASE INFORMATION: HTTP://WWW.NRC.USCG.MIL/WBDCGI.EXE

- IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY WASTE DIVISION INVENTORY (WDI) HTTP://WWW.DEQ.IDAHO.GOV/APPLICATIONS/WDI/
- NETRONLINE: NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC. TEMPE, ARIZONA; ENVIRONMENTAL DATABASE REPORT; HTTP://WWW.NETRONLINE.COM
- RTK.NET: RIGHT-TO-KNOW ENVIRONMENTAL DATABASES; HTTP://WWW.RTKNET.ORG/RTKDATA.PHP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY (USEPA) ENVIRONMENTAL DATABASE SOURCES:

NPL, CERCLIS AND RCRA GENERATORS FROM THE USEPA "ENVIROMAPPER STOREFRONT": HTTP://WWW.EPA.GOV/ENVIRO/HTML/EM/INDEX.HTML HTTP://WWW.EPA.GOV/SUPERFUND/SITES/PHONEFAX/PRODUCTS/.HTML HTTP://WWW.EPA.GOV/ENVIRO/HTML/RCRIS/ HTTP://WWW.EPA-ECHO.GOV/ECHO/INDEX.HTML

CORRACTS DATA FROM USEPA WEBSITE: HTTP://YOSEMITE.EPA.GOV/RIO/OWCM.NSF/WEBPAGE

BROWNFIELDS INFORMATION FROM USEPA WEBSITE: HTTP://YOSEMITE.EPA.GOV/RIO/CLEANUP.NSF/SITES/BF

# 11.0 PERSONS CONTACTED/INTERVIEWED

Ναμε	Address	TELEPHONE	Relationship to Site Use
Brian Falck	Pioneer Homes 719 1st Street South, Ste. B Boise, Idaho 83709	208.941.2686	Representative of Client (Pioneer Homes) Completed User Questionnaire

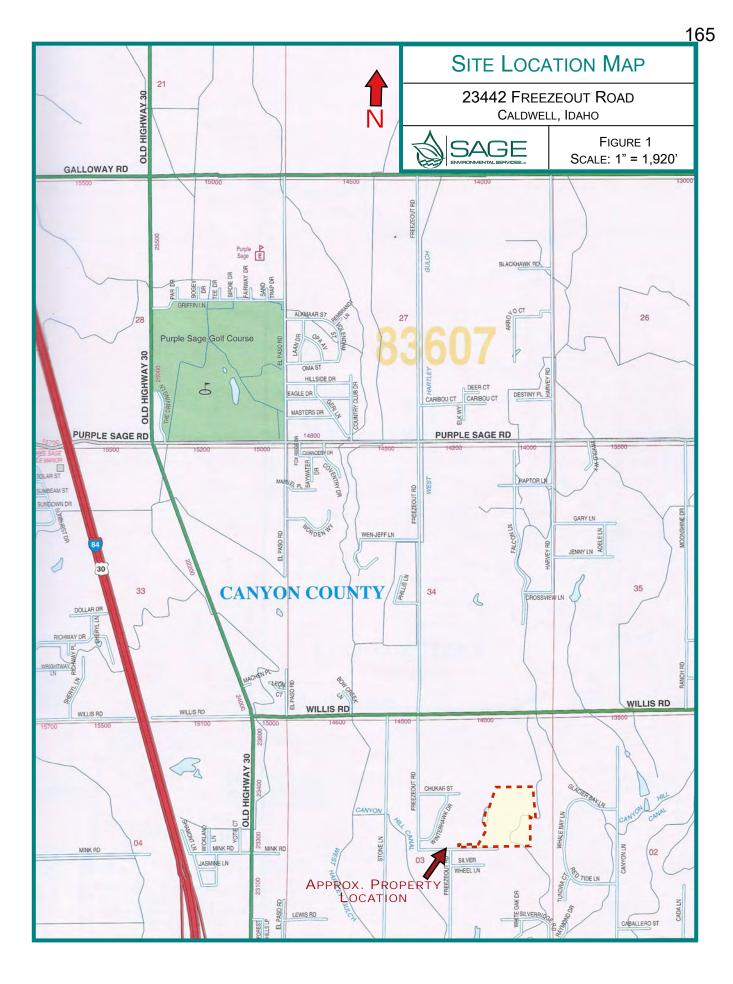


ADDENDA

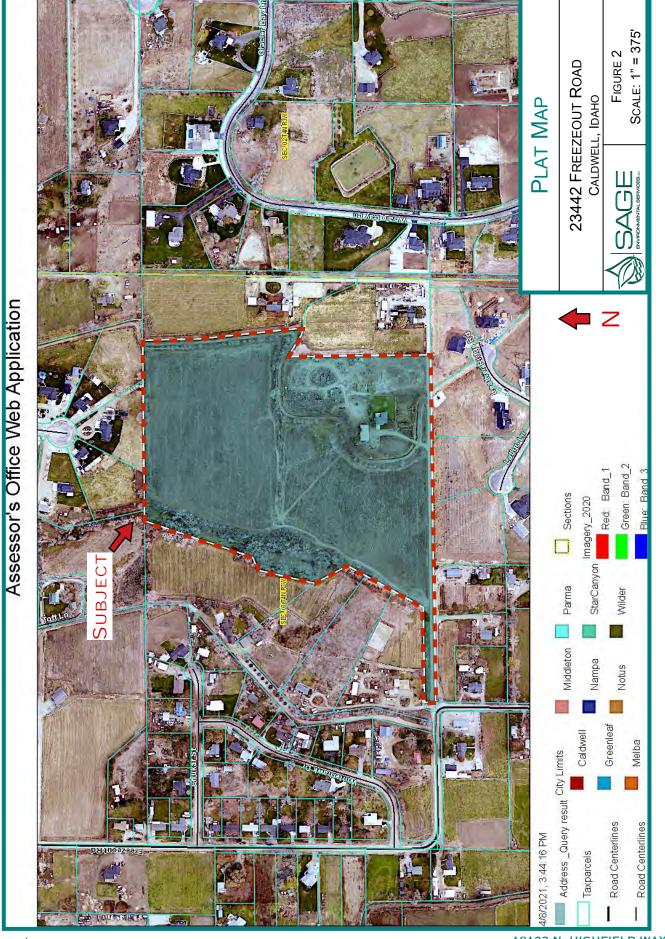


MAPS & FIGURES



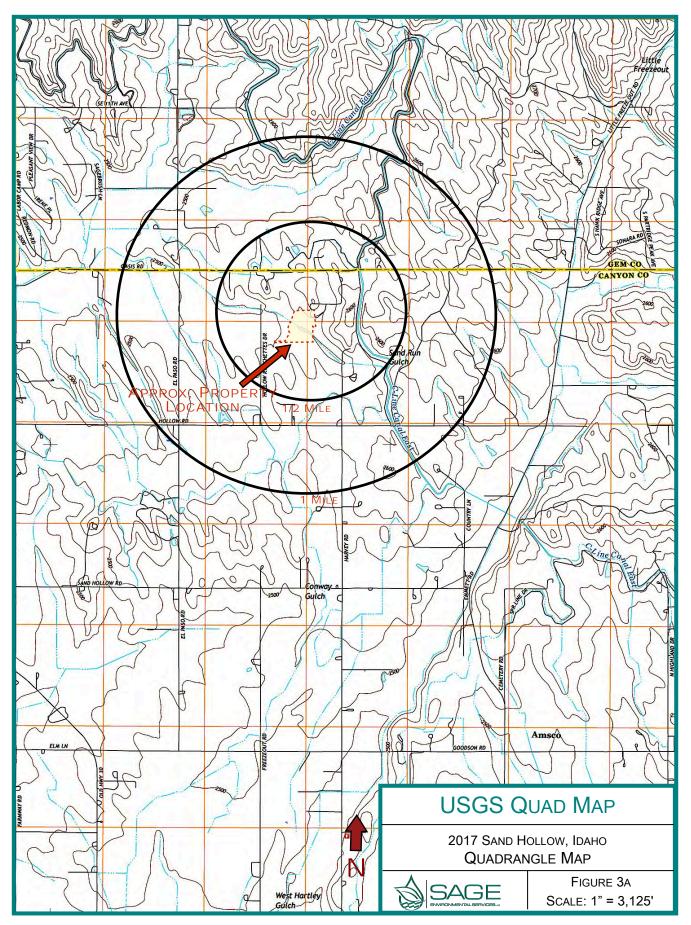




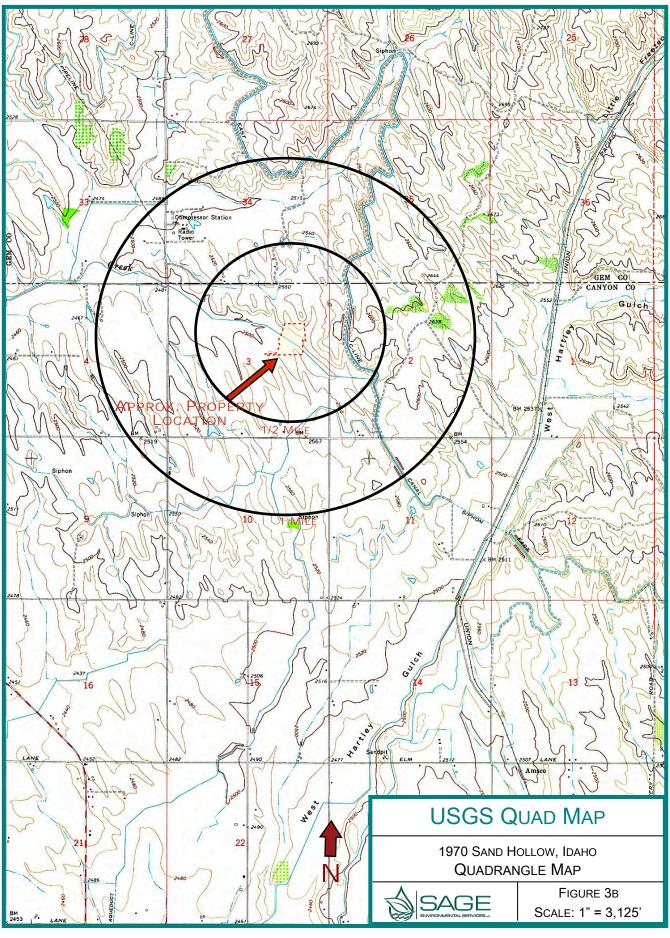


18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208-867-8876



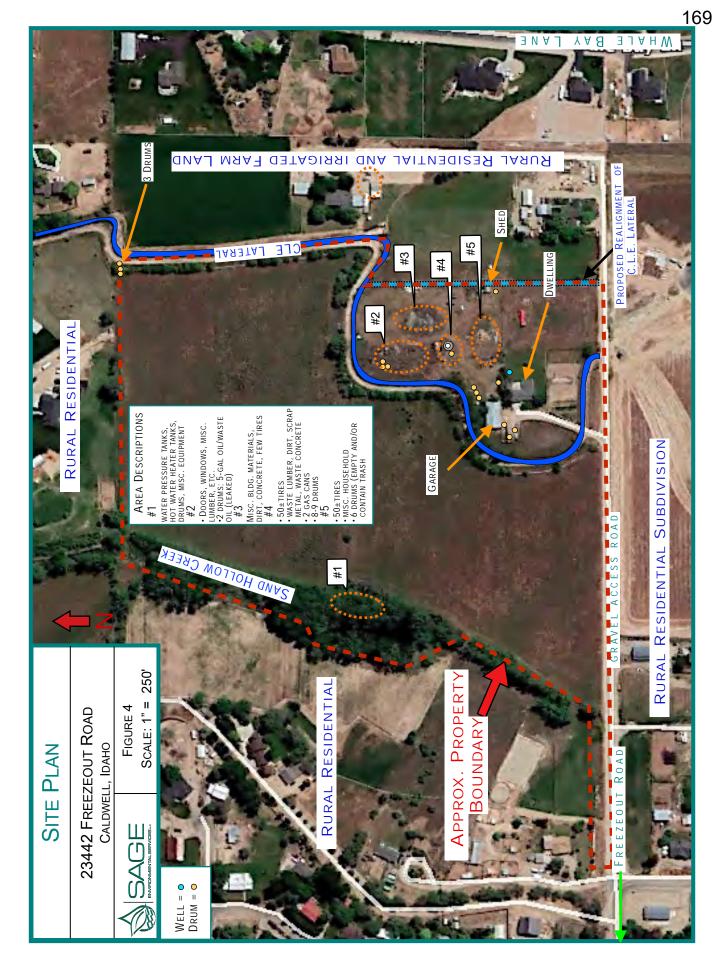




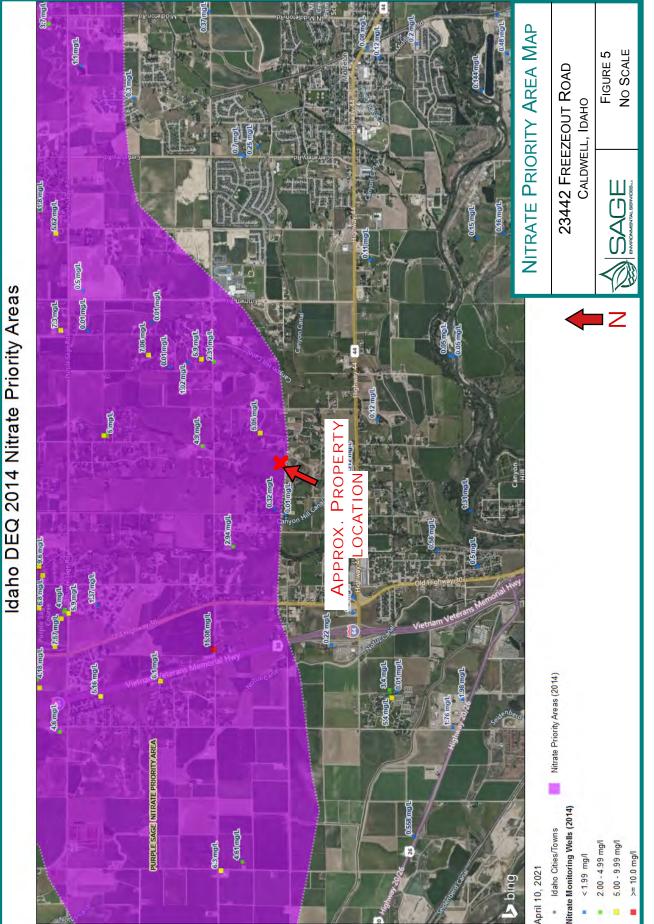




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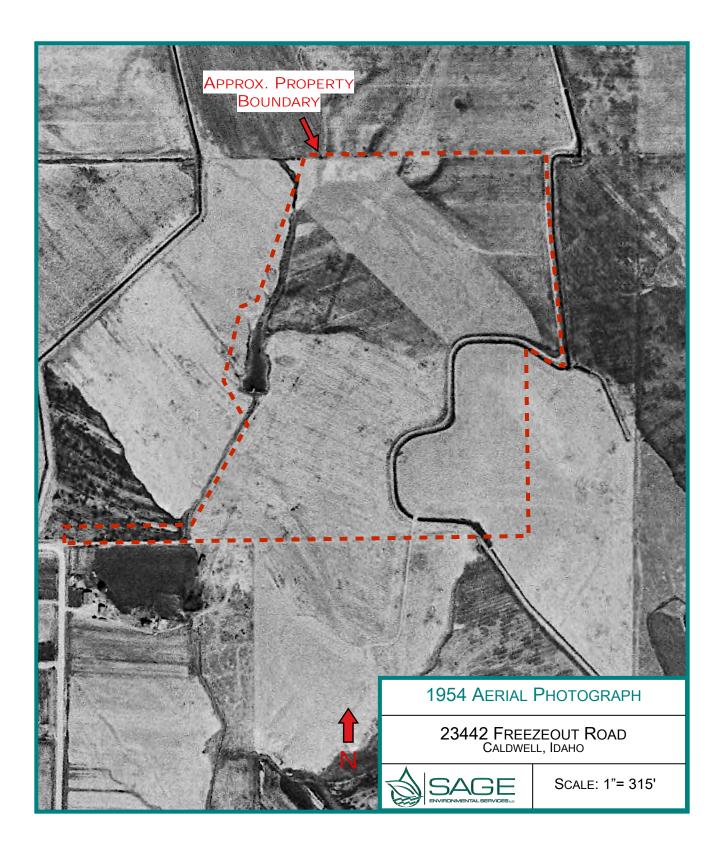




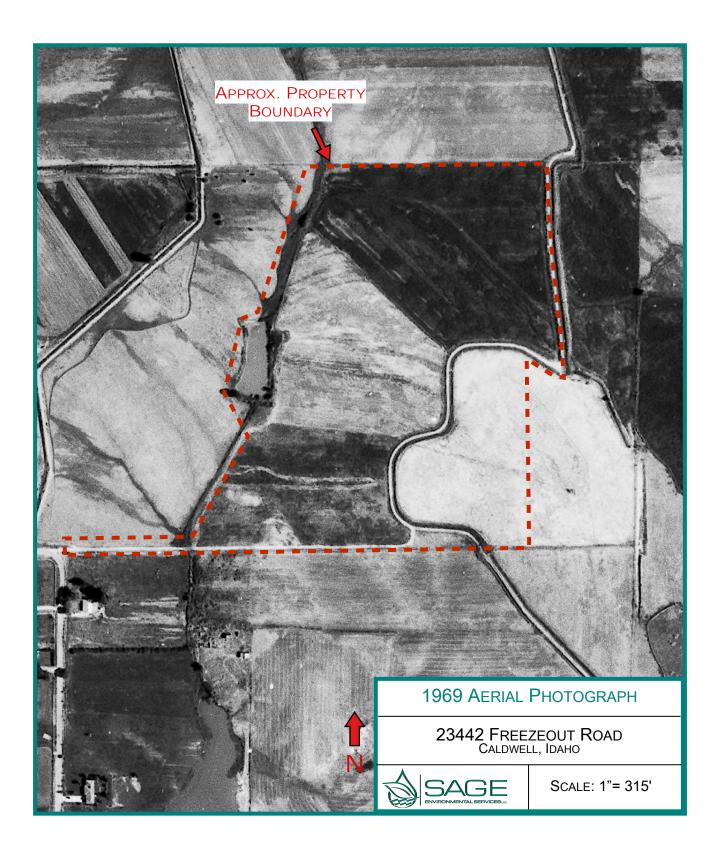


**AERIAL PHOTOS** 

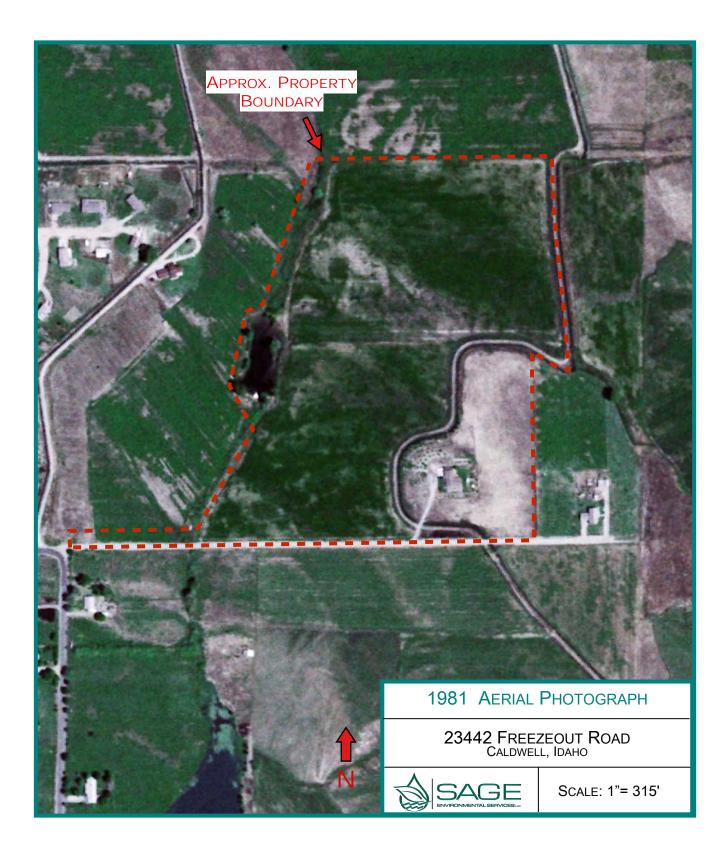




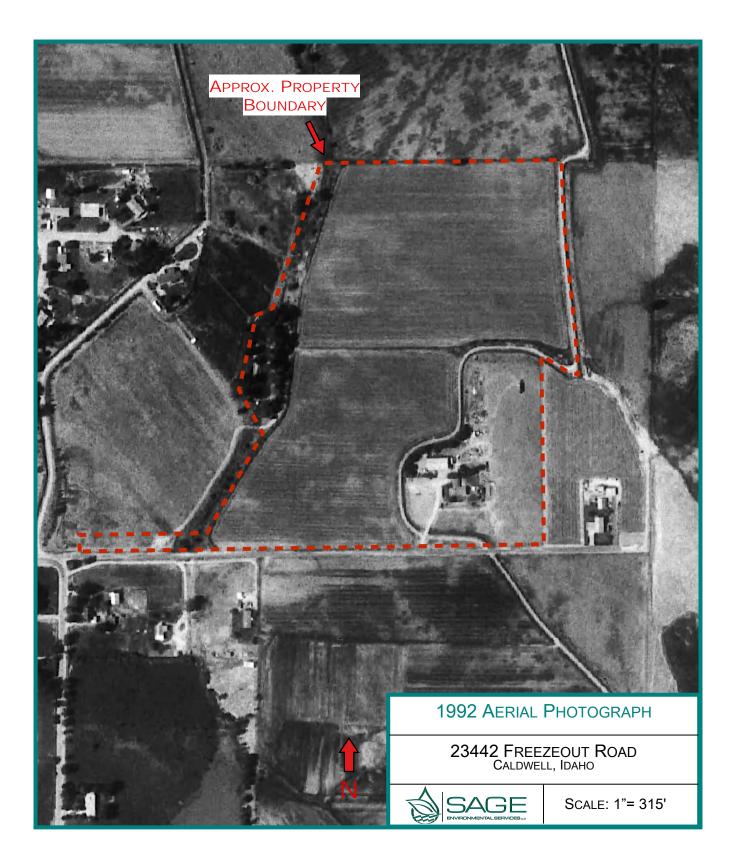






















18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208-867-8876



18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208-867-8876

SITE PHOTOS





PHOTOGRAPH #1: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTH ALONG THE DRIVEWAY SHOWING THE SHOP BUILDING (LEFT) AND DWELLING (RIGHT).

PHOTOGRAPH #2: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTHWEST FROM NEAR THE SOUTHEASTERN CORNER.



PHOTOGRAPH #3: LOOKING NORTH ALONG THE EASTERN BOUNDARY, AS SEEN FROM NEAR THE SOUTHEASTERN CORNER.





PHOTOGRAPH #4: LOOKING WEST ALONG THE SOUTHERN PROPERTY BOUNDARY. THE DIRT/GRAVEL ACCESS ROAD FROM FREEZEOUT ROAD IS VISIBLE ON THE LEFT SIDE OF THE PHOTO.

# PHOTOGRAPH #5: LOOKING EAST ALONG THE SOUTHERN PROPERTY BOUNDARY. THE DIRT/GRAVEL ACCESS ROAD FROM FREEZEOUT ROAD IS VISIBLE ON THE RIGHT SIDE OF THE PHOTO.





PHOTOGRAPH #6: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTHEAST FROM NEAR THE SOUTHWESTERN CORNER.





PHOTOGRAPH #7: LOOKING NORTH ALONG THE WESTERN PROPERTY BOUNDARY, AS SEEN FROM NEAR THE SOUTHWESTERN CORNER.

PHOTOGRAPH #8: This photo SHOWS THE SOUTH (FRONT) SIDE OF THE SHOP, AS SEEN LOOKING NORTH FROM THE DRIVEWAY.





PHOTOGRAPH #9: THIS PHOTO SHOWS THE WEST (FRONT) SIDE OF THE HOUSE, AS SEEN LOOKING NORTHEAST FROM THE DRIVEWAY.





PHOTOGRAPH #10: A VIEW OF THE SITE AS SEEN LOOKING WEST ACROSS THE BACK YARD, TOWARD THE EAST SIDE OF THE HOUSE.

PHOTOGRAPH #11: THIS PHOTO SHOWS THE DISCARDED HOT WATER HEATERS, PRESSURE TANKS, AND MISCELLANEOUS METAL ITEMS LOCATED AT THE SEASONAL POND AREA (WEST END OF SITE).





PHOTOGRAPH #12: This PHOTO SHOWS THE SEASONAL POND AREA LOCATED ON THE WEST END OF THE SITE. THIS VIEW IS LOOKING NORTH.





PHOTOGRAPH #13: LOOKING SOUTH ALONG THE WESTERN BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.

PHOTOGRAPH #14: LOOKING EAST ALONG THE NORTHERN BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.





PHOTOGRAPH #15: A VIEW OF THE PROPERTY AS SEEN LOOKING SOUTHEAST FROM NEAR THE NORTHWESTERN.



PHOTOGRAPH #16: LOOKING WEST ALONG THE NORTHERN PROPERTY BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.

PHOTOGRAPH #17: LOOKING SOUTH ALONG THE EASTERN BOUNDARY, AS SEEN FROM NEAR THE NORTHEASTERN CORNER.





PHOTOGRAPH #18: A VIEW OF THE PROPERTY AS SEEN LOOKING SOUTHWEST FROM NEAR THE NORTHEASTERN CORNER.





PHOTOGRAPH #19: LOOKING WEST ALONG THE C.L.E. LATERAL AND ACCESS ROAD.



PHOTOGRAPH #20: This photo SHOWS THREE OF THE DRUMS LOCATED ON THE PROPERTY, NORTHEAST OF THE DWELLING IN AREA #2.



PHOTOGRAPH #21: LOOKING SOUTH ACROSS THE PASTURE, TOWARD THE HOMESITE.





PHOTOGRAPH #22: This photo SHOWS A PILE OF APPROXIMATELY 50 TIRES (SOME WITH WHEELS ATTACHED), DRUMS, AND MISCELLANEOUS LOCATED ON THE SOUTHEAST QUADRANT (NORTHEAST OF HOME SITE).

PHOTOGRAPH #23: This photo SHOWS ANOTHER AREA OF DISCARDED MATERIALS; HOUSEHOLD GOODS, TIRES, MISCELLANEOUS, AND SEVEN (7) DRUMS IN THE BACKGROUND.





PHOTOGRAPH #24: This photo shows two (2) trailers full of discarded materials and LUMBER.

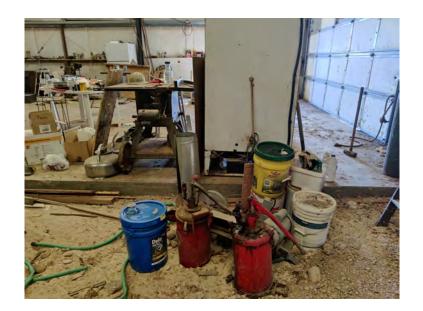




PHOTOGRAPH #25: This photo shows a pile of dirt, scrap concrete, and other building materials.



PHOTOGRAPH #26: AN INTERIOR VIEW OF THE SHOP AS SEEN LOOKING EAST.



PHOTOGRAPH #27: ANOTHER INTERIOR VIEW OF THE SHOP; THIS PHOTO SHOWING CONTAINERS OF OILS, LUBES, PAINTS AND OTHER MISCELLANEOUS STORED INSIDE.





PHOTOGRAPH #28: AN INTERIOR VIEW OF THE DWELLING AS SEEN LOOKING NORTHWEST TOWARD THE KITCHEN/DINING AREA.



PHOTOGRAPH #29: THIS PHOTO SHOWS THE WATER PRESSURE TANK INSIDE THE GARAGE.

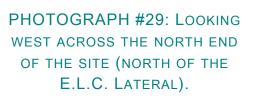


PHOTOGRAPH #30: THIS PHOTO SHOWS TWO (2) MORE DRUMS LOCATED ON THE SOUTHEAST QUADRANT OF THE SITE.





PHOTOGRAPH #21: THIS PHOTO SHOWS THE SOIL STATING NEXT TO A DRUM AND CONTAINER, AS DESCRIBED IN THE REPORT (AREA #2).







PHOTOGRAPH #30: THIS PHOTO SHOWS THE GROUND WHERE THREE (3) DRUMS WERE PREVIOUSLY LOCATED (DURING OUR ARIL 12, 2021 INSPECTION). THIS AREA IS NEAR THE NORTHWEST CORNER OF THE PROPERTY, NEXT TO THE E.L.C. LATERAL. SAGE RETURNED TO THE SITE ON APRIL 20, 2021 AND FOUND NO EVIDENCE OF SPILLS OR LEAKS ON THE GROUND WHERE THE DRUMS WERE

PRESENT.





ENVIRONMENTAL DATABASE



ENVIRONMENTAL QUESTIONNAIRE & DISCLOSURE STATEMENT





### ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT FOR PROPERTY OWNER

As per ASTM Standard 1527-13, in order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the User must provide the following information (if available) to the Environmental Professional. Failure to provide this information could result in a determination the "all appropriate inquiry" is not complete.

NOT COMPLETE. PROJECT NUMBER/NAME: 21-03 PROPERTY TYPE: Commerce				
QUESTIONNAIRE COMPLETED BY Name: <u>BRTAN</u> FALC Address: 719 14	r:			
	9 ID 83651			
Telephone: 208-9	41-2686			_
Email Address: <u>brian</u>	@ pioner homes i daho.com			
1 Are there any buildings/struct If yes, type of construction:	tures on the property? 1404 sq # house built in 1976 2428 sq # shop built in 1987	YES	NO	UNK
	vironmental problems at the property?	YES	NO	UNK
lf yes, explain:				1
3 Has a gas station or dry clea If yes, explain:	ner operated anywhere on the property? Net likely	YES	NO	UNK
4 Do any tenants use hazardou If yes, explain:	us chemicals in relatively large quantities on the property? <i>Dot Litedy</i>	YES	NO	UNK
5 Have any tenants ever comp problems that may have been If yes, explain:	lained about odors in the building or experienced health-related n associated with the building?	YES	NO	UNK
6 Are there any underground s	storage tanks (USTs) or above ground storage tanks (ASTs)?	YES	NO	UNK
If yes, describe # of USTs/AS	STs; size; contents; date(s) Installed:			V
7 Have there been any USTS of	or ASTs located on the Property in the past?	YES	NO	UNK
If yes, describe # of USTs/A	STs; size; contents; date(s) Installed/removed or closed:			V

8 Are there or have there been any on site sewage disposal systems (septic, drainfields, drywells, etc.) on the Property? If yes, explain: services house YES NO UNK



Page 1 of 3

PAGE 76



Are there any wells located on the Property?

18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208.867.8876 SAGE.BOISE@GMAIL.COM

YES

YES	NO	UNK
1		16

NO

UNK

10 Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

somestic well behad home.

If yes, explain:

If yes, explain:

If yes, explain:

9

11 Do you have any specialized knowledge or experience related to the property or nearby properties? For example, Are you involved in the same line of business as the current or former

knowledge of the chemical s and processes used by this type of business?

occupants of the property or an adjoining property so that you should have specialized

YES NO UNK

12	Does the purchase price being paid for this Property reasonably reflect the fair market value	YES NO		UNK
	of the property?	/		
13	If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	YES	NO	UNK

YES	NO	UNK

YES	NO	UNK
	1	

YES	NO	UNK
	V	

YES	NO	UNK
	/	

YES	NO	UNK
	~	

YES	NO	UNK

If yes, explain: Required part of Bureau of Reclamation request to retignealign a drainage slitch. Page 2 of 3



PAGE 77

- 13 If you conclude that there is a difference, have you considered whether the lower purchase
  - If yes, explain:
- 14 Do you know the past use(s) of the property?

If yes, describe:

15 Do you know of specific chemicals that are present or once were present at the property? 14.1 If yes, explain:

16 Do you know of spills or other chemical release that have taken place at the property?

If yes, explain:

17 Do you know of any environmental cleanups that have taken place at the property?

- 18 Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property? If yes, explain:
- 19 What is the reason for conducting the Phase I Environmental Site Assessment?

If yes, explain:



18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208.867.8876 SAGE.BOISE@GMAIL.COM

- 20 Have any previous Environmental Assessment Reports been prepared for the Property? YES NO UNK If yes, provide date when prepared and include copy or report: PLEASE ATTACH THE FOLLOWING INFORMATION OR DOCUMENTS, IF AVAILABLE: Names/phone numbers of key individuals with knowledge of the property use/history; Map showing the boundaries of the property: Copies of past environmental site assessments or other environmental reports: Copies of Environmental permits: Registrations for Underground or Aboveground storage tanks (if any): Material Safety Data Sheets (MSDS) for hazardous substances used or store on site (if any): Community Right-toKnow Plans pertaining to the Property. Notices of other correspondence from any governmental agency relating to any inspections or violations of environmental rules retarding the property or environmental liens encumbering the Property. \* Recorded Activity Use Limitations (AULs) (if any).
- Chain of Title or other Title Report documents.

THE

\*

\*



PAGE 78

CHAIN-OF-TITLE RECORD



610 S. Kimball Avenue Caldwell, ID 83605

ELECTRONICALLY RECORDED-DO NOT REMOVE THE COUNTY STAMPED FIRST PAGE AS IT IS NOW INCORPORATED AS PART OF THE ORIGINAL DOCUMENT

File No. 688622 TK/

### WARRANTY DEED

For Value Received Virginia Figuredo, Trustee of the Virginia Figueredo Trust dated October

25, 2018

hereinafter referred to as Grantor, does hereby grant, bargain, sell, warrant and convey unto

### Dorothy Ann Bonham and Melvin Edward Bonham, Trustees of The Dorothy Ann Honham and Melvin Edward Bonham 2004 Revocable Trust and Melvin Bonham Jr., an unmarried man, each as to an undivided 50% interest

hereinafter referred to as Grantee, whose current address is 3905 Curran Road, Ione, CA 95640

The following described premises, to-wit:

See Exhibit A attached hereto and made a part hereof.

To HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee(s), and Grantees(s) heirs and assigns forever. And the said Grantor(s) does (do) hereby covenant to and with the said Grantee(s), the Grantor(s) is/are the owner(s) in fee simple of said premises; that said premises are free from all encumbrances EXCEPT those to which this conveyance is expressly made subject and those made, suffered or done by the Grantee(s); and subject to U.S. Patent reservations, restrictions, dedications, easements, rights of way and agreements, (if any) of record, and current years taxes, levies, and assessments, includes irrigation and utility assessments, (if any) which are not yet due and payable, and that Grantor(s) will warrant and defend the same from all lawful claims whatsoever.

Dated: July 17, 2019

The Virginia Figueredo Trust

By: <u>Virginia</u> Figuerado, Trustee Virginia Figueredo, Trustee

State of California, County of

This record was acknowledged before me on \_\_\_\_\_ by Virginia Figueredo, as trustee of the Virginia Figueredo Trust.

Signature of notary public Commission Expires:

Page 1 of 3 06/19/2020 3:34 PM



2019-033320 RECORDED

07/24/2019 12:38 PM CHRIS YAMAMOTO CANYON COUNTY RECORDER

PIONEER TITLE CANYON - CALDWELL ELECTRONICALLY RECORDED

\$15,00

Pgs=3 MBROWN

TYPE: DEED

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California County of Nevada On July 23, 2019 , before me, Christy Mane Summer , Notary Public, personally appeared Mirginia D. Figueredo who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of State of California that the foregoing paragraph is true and correct. CHRISTY MARIE SUMMER Notary Public - California Nevada County WITNESS my hand and official seal. Commission # 2251067 ly Comm, Expires Jul 26, 2022 SIGNATUR PLACE NOTARY SEAL ABOVE Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document. **Description of attached document** Title or type of document: 11/2 man +1/ Deed Document Date: July 23, 2019 Number of Pages: 5 Signer(s) Other than Named Above:\_\_\_\_

Page 2 of 3 06/19/2020 3:34 PM

#### EXHIBIT A

A part of the SE1/4 of the NE1/4 and the SW1/4 of the NE1/4, Section 3, Township 4 North, Range 3 West, Boise Meridian, more particularly described as follows:

BEGINNING at the southeast corner of said SW1/4 of the NE1/4; thence

south 89°08'36" West along the south boundary of said SW1/4 of the NE1/4 a distance of 681.58 feet to a point on the westerly boundary of the parcel described in the quit claim deed recorded as Instrument No. 945974, Records of Canyon County, Idaho; thence traversing said westerly boundary as follows: North 14°39'26" East a distnce of 51.96 feet; North 89°08'36" East a distance of 468.46 feet; North 28°55'40" East a distance of 397.26 feet; North 28°44'21" West a distance of 169.92 feet: North 13°10'27" East a distance of 268.10 feet; North 66°40'49" East a distance of 65.01 feet; North 18°34'52" East a distance of 523.27 feet to a point on the north boundary of said SE1/4 of the NE1/4; thence North 89°24'56" East along said north boundary a distance of 832.99 feet; thence South 1°27'37" East a distance of 258.22 feet along the centerline of an existing irrigation lateral; thence South 6°00'26" East continuing along said centerline a distance of 479.39 feet to a point on the northerly boundary of the parcel described in the warranty deed recorded as Instrument No. 729194, records of Canyon County, Idaho; thence traversing the boundary of said parcel as follows: North 81°39'12" West a distance of 28.29 feet; North 58°24'52" West a distance of 122.26 feet: South 0°49'14" East a distance of 654.97 feet to a point on the south boundary of said SE1/4 of the NE1/4; thence

South 89°12'20" West along said south boundary a distance of 965.08 feet to the POINT OF BEGINNING.

EXCEPT THEREFROM the following described property hereinafter referred to as Parcel B, described as follows:

Parcel B:

Commencing at the southwest corner of said SW1/4 of the NE1/4; thence

North 89°08'36" East along the south boundary of said SW1/4 of the NE1/4 a distance of 633.76 feet to the TRUE POINT OF BEGINNING; thence

North 14°30'08" East a distance of 51.91 feet; thence

North 89°08'30" East a distance of 30.00 feet; thence

South 0°51'24" East a distance of 50.05 feet to a point on the said south boundary; thence

South 89°08'36" West along said south boundary a distance of 43.79 feet to the True Point of Beginning.

TOGETHER WITH an easement for ingress and egress over and across said Parcel B





RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO: Intermountain Legal Group 132 SW 5<sup>th</sup> Avenue, Suite 150 Meridian ID 83642

SEND TAX STATEMENTS TO: Virginia Figueredo 305 W Main St. Apt 210 Grass Valley, CA 95945



CHRIS YAMAMOTO CANYON COUNTY RECORDER Pgs=4 EHOWELL \$15.00 DEED INTERMOUNTAIN LEGAL GROUP



CHRIS YAMAMOTO CANYON COUNTY RECORDER Pgs=4 EHOWELL \$15.00 DEED JOSEPH L MORTON III PC

#### (SPACE ABOVE LINE FOR RECORDER'S USE) QUITCLAIM DEED BEING RE-RECORDED TO CORRECT INSTRUMENT NUMBER 2018-055754 Trustee name

For value received, VIRGINIA FIGUEREDO, TRUSTEE OF THE FIGUEREDO FAMILY TRUST, WHOSE CURRENT ADDRESS IS 305 W MAIN ST., APT 210, GRASS VALLEY, CA 95945, Grantor, hereby quitclaims to:

Figueredo Virginia VIRGINIA INSTEE OF THE XRONAXFIGUEREDO TRUST DATED OCTOBER 25, 2018, AND ANY AMENDMENTS THERETO, Grantee, whose current address is 305 W Main St. Apt 210, Grass Valley, CA 95945, all of its interest in that real property situated in Canyon County, State of Idaho, described as follows:

See Legal Description on Exhibit "A", attached hereto and incorporated herein by this reference.

The true consideration for this conveyance is to transfer property to the same party.

Witness the hand of said Grantor this	day of February	2019
---------------------------------------	-----------------	------

Seemached

STATE OF ) SS. COUNTY OF

On this day of

20 , before me

personally appeared Virginia Figueredo, personally known to me (or proved to me on the basis of satisfactory evidence) to be the individual whose name is subscribed to the foregoing instrument, and acknowledged that she executed the same as her voluntary act and deed for the purposes therein contained.

WITNESS MY HAND AND OFFICIAL SEAL.

Notary Public My commission expires on \_\_\_\_\_ QUITCLAIM DEED - 1

EOFID State of Idaho SS. County of Canyon J I hereby certify that the foregoing instrument is a true and correct copy of the original as the the same appears in this office. DATED A WAY OF CHRIS AMAMOTO, Clerk of the District Court d Ex Officia Becorder Page 1 of 4 06/19/2020 3:34 PM



### Exhibit "A"

A part of the Southwest Quarter of the Northeast Quarter and the Southeast Quarter of the Northeast Quarter, Section 3, Township 4 North, Range 3 West, Boise Meridian, more particularly described as follows:

BEGINNING at the Southwest corner of said Southeast Quarter of the Northeast Quarter (CE 1/16 cor.), monumented with a Government Land Office brass cap monument; thence South 89°12'20" West, 681.58 feet; along the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 14°34'50" East 51.86 feet; thence North 89°12'20" East 468.46 feet parallel with the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 14°34'50" East 51.86 feet; thence North 89°12'20" East 468.46 feet parallel with the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 28°55'55" East 397.51 feet; thence North 28°40'15" West 170.55 feet; thence North 13°12'35" East 267.66 feet; thence North 66°50'45" East 65.05 feet; thence North 18°36'25" East 523.48 feet (of record as 523.43 feet); thence North 89°25'22" East 1138.29 feet along the North boundary of said Southeast Quarter of the Northeast Quarter; thence North boundary of said Southeast Quarter of the Northeast Quarter; thence North 89°02"40" West 26.93 feet (of record as 27.00 feet); thence North 23°28'40" West 255.33 feet; thence North 81°34'25" West 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 0°47'40" East, 655.00 feet; thence South 89°12'20" West 965.09 feet along the South boundary of said Southeast Quarter of the Northeast Quarter to the POINT OF BEGINNING.

This parcel is subject to road easement along the South 30 feet and is subject to an easement for an irrigation lateral.

Subject to the following Exceptions:

Exception 1:

That portion of the Southeast quarter of the Northeast quarter of Section 3, Township 4 North, Range 3 West of the Boise Meridian, Canyon County, Idaho and is more particularly described as follows: Beginning at the Northeast corner of said Southeast quarter of the Northeast quarter; thence South 0°56'21" West along the East boundary of said Southeast quarter of the Northeast quarter a distance of 988.14 feet to a point on the Northerly boundary of the parcel described in the Warranty Deed recorded as Instrument No. 729194, records of Canyon County, Idaho; thence traversing said boundary as follows: North 89°03'23" West a distance of 27.08 feet; North 23°29'23" West a distance of 255.33 feet; North 81°34'03" West a distance of 104.87 feet; thence leaving said boundary and bearing North 6°00'26" West along the centerline of an existing irrigation lateral a distance of 479.39 Feet; thence North 1427'37" West continuing along said centerline a distance of 258.22 feet to a point on the North boundary of said Southeast quarter of the Northeast quarter; thence North 89"24'56" East along said North boundary a distance of 305.55 feet to the POINT OF BEGINNING.

**QUITCLAIM DEED - 2** 

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**Exception 2:** 

This parcel is a portion of the SW1/4 NE1/4 of Section 3. Township 4 North, Range 3 West of the Boise Meridian and is more particularly described as follows:

CONCRENCING at the southwest corner of said SW1/4 NE1/4;

thence North 89° 06' 36" East along the south boundary of said SW1/4 NE1/4 a distance of 633.75 feet to the TRUE POINT OF EXGINNING;

thence North 14° 30' 08" East a distance of 51.91 feet;

thence North 89° 08' 30" Bast a distance of 30.00 feet;

2

thence South  $0^{\circ}$  S1' 24" East a distance of 50.05 feet to a point on said south boundary;

thence South B9° 08' 36" West along said south boundary a distance of 43.75 feet to the TRUE POINT OF BEGINNING.

#### **QUITCLAIM DEED - 3**

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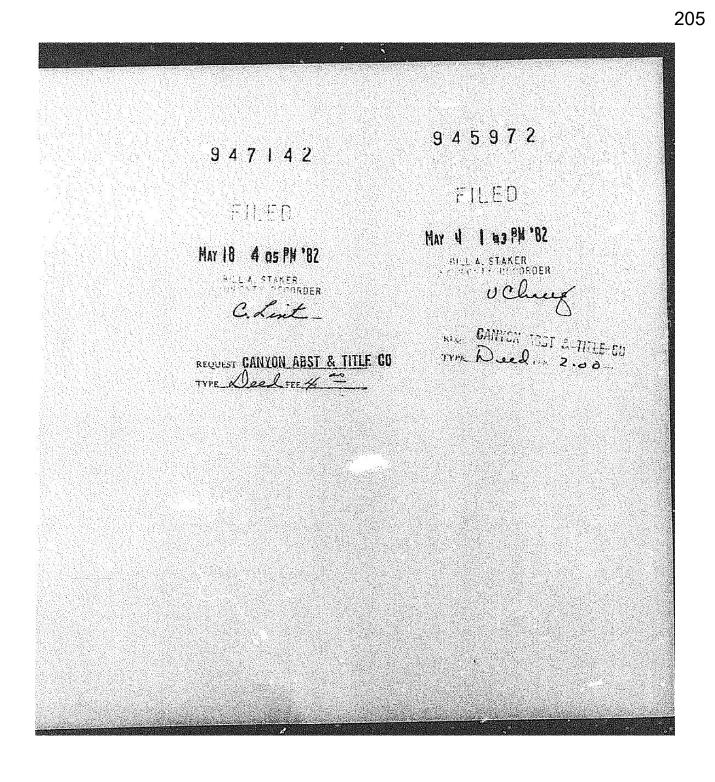
A notary public or other officer completing this certificate verifies only the identit the individual who signed the document to which this certificate is attached, and the truthfulness, accuracy, or validity of that document.	y of not
State of California )	
County of Nerada )	
County of <u>Nevada</u> ) On <u>2.1.2019</u> before me, <u>Susan</u> personally appeared <u>Virginia</u> Figueredo	C. Williams, Notary Public there insert name and title of the officer)
<u> </u>	,
who proved to me on the basis of satisfactory evidence to be the pe the within instrument and acknowledged to me that he/she/ authorized capacity(ies), and that by his/her/their signature(s) on upon behalf of which the person(s) acted, executed the instrument.	they executed the same in his/her/their the instrument the person(s), or the entity
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.	SUSAN C. WILLIAMS
WITNESS my hand and official seal.	Notary Public - California Nevada County My Comm. Expires May 21, 2019
Signature Susan C. Williams	
Signature Julian C. Williama	
	(Seal)
Although the information in this section is not required by law, it could prevent fraudulent remo unauthorized document and may prove useful to persons relying on the attached document. Description of Attached Document The preceding Certificate of Acknowledgment is attached to a document	val and reattachment of this acknowledgment to an Additional information
unauthorized document and may prove useful to persons relying on the attached document.	val and reattachment of this acknowledgment to an
Unauthorized document and may prove useful to persons relying on the attached document.  Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence:
Unauthorized document and may prove useful to persons relying on the attached document.  Description of Attached Document The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence: () form(s) of Identification () credible witness(es) Notarial event is detailed in notary journal on:
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Unauthorized document and may prove useful to persons relying on the attached document.  Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence: () Torm(s) of Identification () credible witness(es) Notarial event is detailed in notary journal on: Page # 47 Entry # 47 Notary contact: 530.273.7365
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HSIBINENI NE WARRAP	NTY DEED
	FT and BONNIE L. ASHCRAFT, husband
the grantors, do hereby grant, bargain, sell and VIRGINIA D. FIGUEREDO, husband and w	l convey unto ROBERT V. FIGUEREDO and ife,
the grantees, the following described premises, situat County, State of Idaho, to-wit: A part of the Southwest Quarter of the Quarter of the Northeast Ouarter. Sec West, Boise Meridian, more particular BEGINNING at the Southwest corner of Quarter (CE 1/16 cor.), monumented wi monument; thence South 89°12'20" West of said Southwest Quarter of the Nort East 51.86 feet; thence North 89°12'2 South boundary of said Southwest Quar North 28°55'55" East 397.51 feet; then thence North 13°12'35" East 267.66 fe feet; thence North 18°36'25" East 523 thence North 89°25'22" East 1138.29 f Southeast Quarter of the Northeast Qu 988.51 feet along the East boundary o east Quarter; thence North 89°02'40"	e Northeast Quarter and the Southeast tion 3. Township 4 North, Pange 3 ly described as follows: said Southeast Quarter of the Northeast th a Government Land Office brass cap , 681.58 feet; along the South boundary heast Quarter; thence North 14°34'50" 0" East 468.46 feet parallel with the ter of the Northeast Quarter; thence nce North 28°40'15" West 170.55 feet; et; thence North 66°50'45" East 65.05 .48 feet (of record as 523.43 feet); eet along the North boundary of said arter; thence South 0°56'31" West f said Southeast Quarter of the North-
133.16 feet; thence North 58°24'15" W.         West 965.09 feet along the South boun.         Northeast Quarter to the POINT OF BEG         This parcel is subject to a road ease         subject to an easement for an irrigat.         SUBJECT TO That certain mortgage, dat.         Federal Savings & Loan Association of         mortgage was recorded on July 14, 197         records of Canyon County, Idaho, and         in assume and agree to pay according         Together with all of the Grantors' oi         and mineral rights appurtenant to the         TO HAVE AND TO HOLD the said premis         their	est 122.26 feet; thence South 89°12'20" dary of said Southeast Quarter of the INNING. ment along the South 30 feet and is ion lateral. ed July 14, 1976, in favor of Home Boise, a corporation, which said 6, as Document No. 778725, in the which said mortgage, the Grantees here- to the terms and tenor thereof.
*	om all lawful claims whatsoever. <u>GHur E. Gherrytt</u> Donnie B. Oshorrytt
STATE OF IDAHO, COUNTY OF CANYON) SS. On this day of April . 19 82. Defore me, a notary public in and for said State, personally appeared ARTHUR E. ASHCRAFT and BONNIE L. ASHCRAFT, inusband and wife, 11, 11, 11, 11, 11, 12, 12, 12, 12, 12,	STATE OF IDAHO, COUNTY OF 1 hereby certify that this instrument was filed for record at the request of at minutes past o'clock m, this day of 19, in my office, and duly recorded in Book of Deeds at page
they? recuted the same.	Ex Officio Recorder. By Fees \$







WELL CONSTRUCTION LOG



#### State of Idaho Department of Water Administration

### WELL DRILLER'S REPORT

207

State law requires that this report be filed with the Director, Department of Water Administration within 30

days after the completion of	abano	onment	of the w	rell.	9 · P	1	
1. WELL OWNER	7. V	ATER	LEVEL		/		
Name_ASH_CRAFT	s	tatic wa	ater level	40 feet below land s	urface		
		Static water level 40feet below land surface Flowing? 🗆 Yes 🖄 No G.P.M. flow Temperature° F. Quality					
Address RT I. CALDWELL		empera	closed-in	pressure p.s.i.			
Owner's Permit No		ontrol	ed by	Valve Cap	C Plug		
2. NATURE OF WORK	8. V	ELL T	EST DA	ТА			
l New well 🔹 Deepened 🗆 Replacement		Pump		Bailer @Other		,	
Abandoned (describe method of abandoning)		ischarge	G.P.M.	Draw Down	Hours Pu 2	imped	
	20			a	2		
3. PROPOSED USE						_	
Domestic 🔲 Irrigation 🔲 Test 🔲 Other (specify type)	9.1	. ІТНОІ	OGIC L	OG			
Municipal [] Industrial [] Stock [] Waste Disposal or	Hole		pth	Material		_	ter
injection	Diam. 8	From		topsoil		Yes	No
4. METHOD DRILLED	8	10	20 t	soil into gracel		-	x
쯔 Cable	6	20 30		gravel and sand gravel and sar	d		x
······································	6	40	50	gravel into cla	y	-	x
5. WELL CONSTRUCTION	6	50 60	60 67	clay into gravel gravel cour	an. San	XX	
Diameter of hole 6 inches Total depth 67feet		60	<u> </u>	graver cour	.50	1×A	
Casing schedule:  Steel  Concrete Thickness Diameter From To							F
Thickness Diameter From To 250 Inches 6 inches +1 feet 66 feet							1
inches feet							-
inches inches feet feet	<u> </u>					$\vdash$	
inches inches feet feet						<u> </u>	
Was a packer or seal used? 🗀 Yes 🖙 No	<u> </u>						$\vdash$
Perforated?   Yes X No How perforated?  Factory  Knife  Torch			-				
Size of perforation inches by Inches			<u>.</u>				-
Number From To				·····			
perforations feet feet feet feet	<u> </u>						-
perforations feet feet							
Well screen installed? 🗅 Yes 🏝 No				CC115	50		-
Manufacturer's name Model No.					<b>13</b>	<u></u>	
Type Model No Diameter Slot size Set from feet to feet	—					-	┝
Diameter Slot size Set from feet to feet			· · ·				
Gravel packed?  Yes B No Size of gravel	-						-
Placed from feet to feet					-		
Surface seal depth_20 Material used in seal 🔲 Coment grout							-
🗆 Puddling clay 🞽 Well cuttings							
Sealing procedure used for Sharry pit I Temporary surface cosing						L	L
Overbore to seel depth			6	-	e 10 -		
6. LOCATION OF WELL Sketch map location must agree with written location.		Work started - 15-74 finished - 19- 24					
		II. DRILLERS CERTIFICATION					
W Subdivision Name Block No.		Firm Nome_D_D_WELL_DRILLING_Firm No. 254					
CAN YON		and					
SWALE 3 LIA 3 D			(Ope	retor)		_	_
<u>SW 1/1 Ky Sec. 3, T. A (NS, R. 3 B)</u>							
USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT							



8123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208-867-8876 QUALIFICATIONS OF ENVIRONMENTAL ASSESSOR



# DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERETO, PURSUANT TO 40 CFR312.10

### 1) Environmental Professional

- a) Environmental Professional means:
  - A person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (se §312.1(c) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).
  - ii) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.
  - iii) An environmental professional should remain current in his or her field through participation in continuing education or other activities.
  - iv) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b).
  - v) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

## 2) Relevant Experience

vi) *Relevant Experience*, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1(c)) to the subject property.



# Sage Environmental Services, LLC 2112 N. 33RD STREET, BOISE, IDAHO 83703

(208) 867-8876

**BRENDA L. MAGNUSON, REA** 

#### PROFESSIONAL EXPERIENCE

# Sage Environmental Services, LLC 2000-Present Owner

Complete property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. I also conduct subsurface investigations including soil sampling, groundwater sampling, and provide project oversight in the installation of groundwater monitoring wells.

# Langston-Williams, Inc. 1997 - 2000 Environmental Scientist

Complete property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. I also conduct subsurface investigations including soil sampling, groundwater sampling, and provide project oversight in the installation of groundwater monitoring wells.

# <u>EnviroSearch International</u> 1995 - 1997 Environmental Scientist

Assessed commercial properties for environmental conditions prior to property transfer, prepared asbestos management plans, conducted asbestos and lead paint surveys, and collected samples for radon analyses. I also provided technical field support to the Boise office

#### Osprey Environmental, Inc. 1991 - 1995

#### Environmental Specialist

Completed property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. Conducted subsurface investigations including soil sampling, groundwater sampling, and provided project oversight in the installation of groundwater monitoring wells.

#### Power Environmental Services, Inc. 1992 - 1993

Environmental Specialist

IDAHO STATE UNIVERSITY

Completed property transfer site assessments and Spill Containment and Countermeasures Plans for a number of Idaho Power's hydroelectric power plants.

Boise City Public Works Department - Environmental Div: 1987 - 1992	Boise, ID
City of Blackfoot - Water Pollution Control 1984 - 1987	Blackfoot, ID

#### EDUCATION

Bachelor of Science: Biology- 1983	
Certifications	
Idaho Wastewater Operator Certificate, Class I	1986
Idaho Water/Wastewater Laboratory Operator Certificate; Class II	1986
Hazardous Materials and Hazardous Waste Seminar, Boise State University	1988
Solvent Management for Idaho Businesses, Boise State University	1989
Treatment of Metal Wastestreams - California State University, Sacramento	1990
Pretreatment Facility Inspection - California State University, Sacramento	1990
Basic Understanding and Complying with the Hazardous Waste Management Regulations	5 1991
OSHA Hazardous Waste Operation and Emergency Response Training Course August	1992
Idaho Groundwater Resources Course, University of Idaho Extension Office, Boise, Idaho	1993
Practices and Procedures for Asbestos Inspectors and Management Planner	1993
NESHAPS Asbestos Inspector/Management Planner Certification	1993
OSHA Hazardous Waste Operation and Emergency Response Training Course	1993
AHERA Asbestos Inspector/Management Planner Certification (updated annually)	1994



Boise, ID

Boise, ID

Boise, ID

Pocatello, ID

Boise, ID

Boise, ID

#### MEMBERSHIPS & APPOINTMENTS Cal/EPA Registered Environmental Assessor (REA) Certificate #06973

### EXPERTISE

- Phase One and Two Site Assessments
- Pollution Prevention
- Waste Minimization
- Water/Groundwater Sampling
- Underground Storage Tank Management

#### **REPRESENTATIVE CLIENTS**

First Security Bank of Idaho, N.A. Bank of America U.S. BANCORP Seafirst Bank Environmental Consulting Group Washington Trust Bank DK Commercial Real Estate Idaho Independent Bank Construction Lending Corporation of America Washington Mutual Bank Western Bank Wells Fargo Bank Key Bank National Association Farmers and Merchants Bank Washington Federal Savings & Loan DL Evans Bank The Clawson Group, Inc. D.B. Fitzpatrick & Company

Asbestos Inspections

Asbestos Management Plans

Soil Sampling/Characterization

Asbestos Sampling

As well as a number of local attorneys, insurance companies, out-of-state financial institutions, developers, real estate agencies, developers, and private parties.

### REFERENCES

DK Commercial Real Estate 1880 S. Cobalt Point Way Boise, Idaho 83714 Ms. Brenda Clay (208) 371-5804

RA Schultz & Company 1524 W. Franklin Street Boise, Idaho 83702 Mr. Richard A. Schultz (208) 343-7070

Idaho Independent Bank 8351 W. Overland Road Boise, Idaho 83709 Contact: Mr. Charlie Kouba (208) 345-2960 Sterling Savings Bank 420 W. Main Street, Suite 205 Boise, Idaho 83702 Mr. Jeffrey Jones (208) 424-2000

Thornton-Oliver-Keller Commercial Real Estate 250 S. 5th Street Boise, Idaho 83702 Contact: Mr. Jerry VanEngen (208) 378-4600

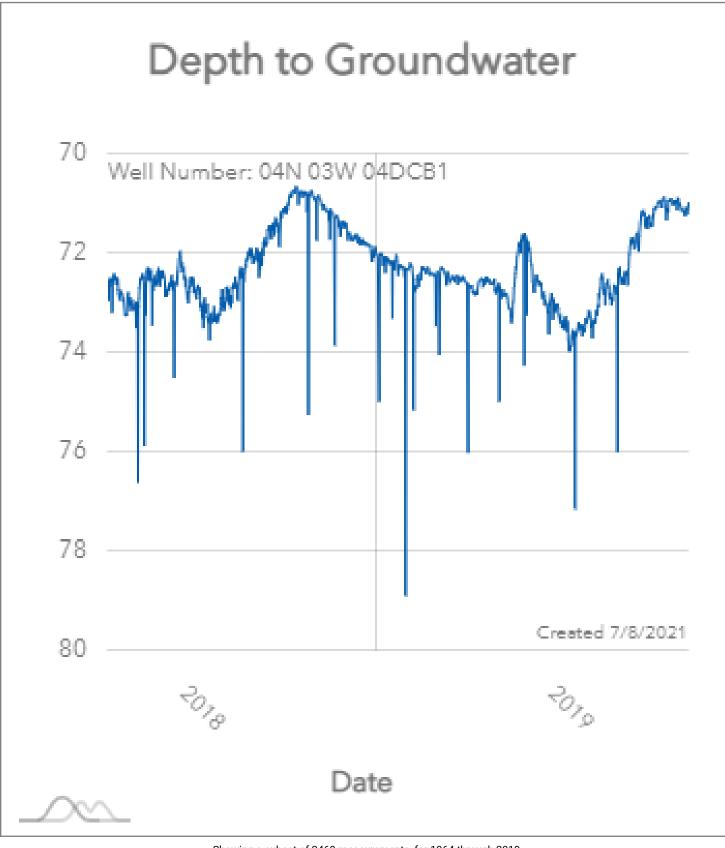
Capital Matrix, Inc. 1471 Shoreline Dr., Suite 123 Boise, ID 83702 Contact: Ms. Deborah Brown (208) 383-3473 Ms. Ann Munroe



# **Groundwater Levels**



Well Number: 04N 03W 04DCB1



Showing a subset of 2469 measurements, for 1964 through 2019.

Water Use Well Number County Domestic 04N 03W 04DCB1 CANYON

Well ID Basin Number

Year Drilled	5/31/1964	# of Measurements	2469	
Min Well Opening	259	Last Year Measured	2019	213
Max Well Opening	293	First Year Measured	1964	
Total Depth	293	LSD Elevation (feet)	2430	

### Disclaimer

The Idaho Department of Water Resources is making this data available as a public service. The Idaho Department of Water Resources strives to ensure that all technical data and other information made available to the public is accurate, complete and in conformance with the Idaho Public Records Act.

Neither the Department of Water Resources nor the State of Idaho, however, assumes any legal responsibility for the accuracy or completeness of the information contained on this site. Persons using information from this site for official purposes, or other purposes, for which accuracy and completeness are required, are hereby notified that they should first verify the information with the public records or other primary sources from which the information was obtained.

If you have questions please send an e-mail message to <u>HydroInfo@idwr.idaho.gov</u>. This page was created by the *Idaho Department of Water Resources on 7/8/2021*.





# Exhibit A5.4

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Hill Canal

100

### $\square \times$

Hill Cana/

### Groundwater Levels for 04N 03W 04DCB1

33.00

WellNumber	04N 03W 04DCB1
WellID	363470
Driller's Report	More info
# of WL Records	2,469
Min WL Year	1964
Max WL Year	2019
WaterUse	Domestic
CompletionDate	5/31/1964
MinOpening	259
MaxOpening	293
TotalDepth	293
Elevation	2,430
County	CANYON
Zoom to	10

Mollo Cale

...

IPaC

U.S. Fish & Wildlife Service

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# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

NSUL

# **Project information**

NAME

Freezeout Ridge Estates

LOCATION



DESCRIPTION None

Chukar S

# Local office

Idaho Fish And Wildlife Office

(208) 378-5243
(208) 378-5262

https://ecos.fws.gov/ipac/project/XYDI4W2MQVD3HBMZ2FGUTK6NF4/resources

ale Bay Un

2445 R

# Endangered species

# This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Log in to IPaC.
- 2. Go to your My Projects list.
- 3. Click PROJECT HOME for this project.
- 4. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Insects

NAME

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Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. http://ecos.fws.gov/ecp/species/9743

# **Flowering Plants**

NAME

Slickspot Peppergrass Lepidium papilliferum There is proposed critical habitat for this species. The location of the critical habitat is not available. http://ecos.fws.gov/ecp/species/4027

# Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves. NSUL

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

# Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>http://www.fws.gov/birds/management/managed-species/</u> birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/ conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

THERE ARE NO MIGRATORY BIRDS OF CONSERVATION CONCERN EXPECTED TO OCCUR AT THIS LOCATION.

STATUS

Candidate

Threatened

#### IPaC: Explore Location resources

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

## What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

# What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen</u> <u>science datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

## How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds</u> guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

### What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from

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#### IPaC: Explore Location resources

certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS</u> Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam</u> Loring.

#### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

### Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

# Facilities

### Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

# Wetlands in the National Wetlands Inventory

Impacts to <u>NWI wetlands</u> and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local <u>U.S. Army Corps of</u> <u>Engineers District</u>.

### WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the <u>NWI map</u> to view wetlands at this location.

### **Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.



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### **Michelle Barron**

From: Sent: To: Cc: Subject: Attachments: Cameron Shippy <cshippy@masonandassociates.us> Tuesday, September 24, 2024 5:34 PM Michelle Barron Angie Cuellar [External] RE: RZ2021-0053 Thornton Gallup LLC Freezout Ridge Estates NP approval Letter 6.15.2021.pdf

Michelle,

SWDH wrote a letter stating secondary dwellings are not allowed unless resubmitting or amending the NP study. There will be verbiage per SWDH requirements on the final plat stating no secondary dwelling allowed unless they meet said requirements.

There should be no need for Conditional Rezone or Development Agreement.

Thank you,

**Cameron Shippy** 

Mason & ssociates Inc.

Professional Engineers, Land Surveyors and Planners 924 3rd St. So., Suite B, Nampa, ID 83651 Phone: (208) 454-0256 e-mail: <u>cshippy@masonandassociates.us</u>

From: Michelle Barron <Michelle.Barron@canyoncounty.id.gov>
Sent: Tuesday, September 24, 2024 3:34 PM
To: Cameron Shippy <cshippy@masonandassociates.us>
Subject: FW: RZ2021-0053 Thornton Gallup LLC

Also,

Has anyone spoken to you or your client about making this a Conditional Rezone? In looking at the NP1 study, it says that the study wasn't completed for secondary residences. I would need to add that to a Development Agreement to limit Secondary Dwellings. That would make it a Conditional Rezone. It is a normal condition to specify how many residential lots and an average lot size in accordance with the concept plan (the Preliminary Plat). That would also need to be a condition of a Development Agreement.

Let me know what you think,

Michelle Barron Principal Planner Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605 Direct Line: 208-455-6033 DSD Office Phone: 208-454-7458 Email: Michelle.Barron@canyoncounty.id.gov Website: www.canyoncounty.id.gov

From: Michelle Barron
Sent: Tuesday, September 24, 2024 3:02 PM
To: 'Cameron Shippy' <<u>cshippy@masonandassociates.us</u>>
Subject: RZ2021-0053 Thornton Gallup LLC

Good afternoon Cameron,

I have been working through this application and noticed that we do not have record of the applicant holding a neighborhood meeting. I can't imagine that the application would have been accepted with out proof, but I cannot locate it in the file. Do you happen to have a copy of the meeting details? There is a sign in sheet that has a spot for all of that information. I would like to add that to the file.

Thanks,

Michelle Barron Principal Planner Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605 Direct Line: 208-455-6033 DSD Office Phone: 208-454-7458 Email: <u>Michelle.Barron@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

Exhibit A5.7.a

# FREEZEOUT

REZONE

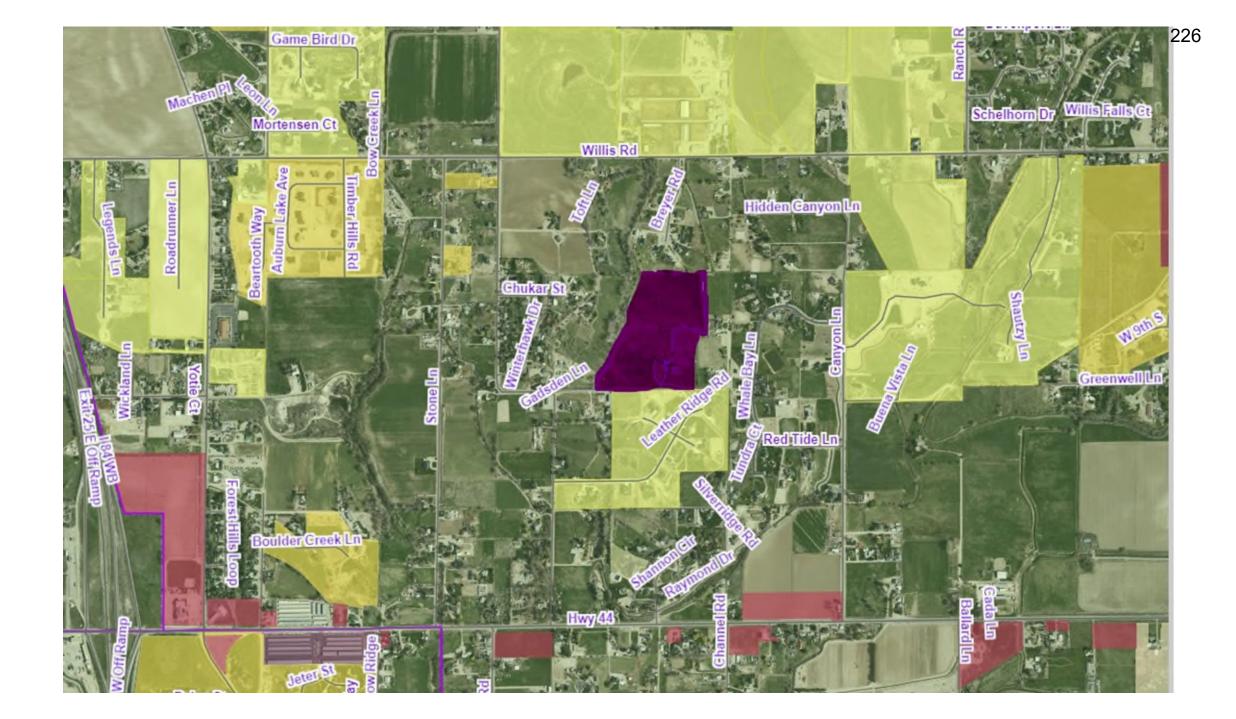
**R1 RESIDENTIAL** 

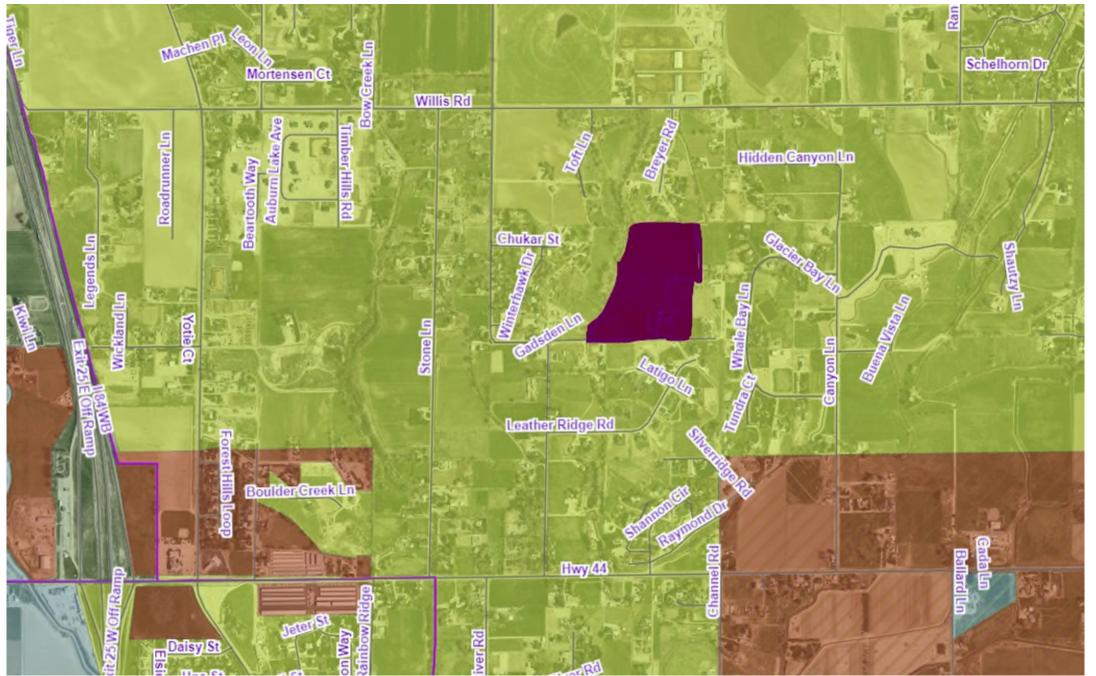
## HISTORY-

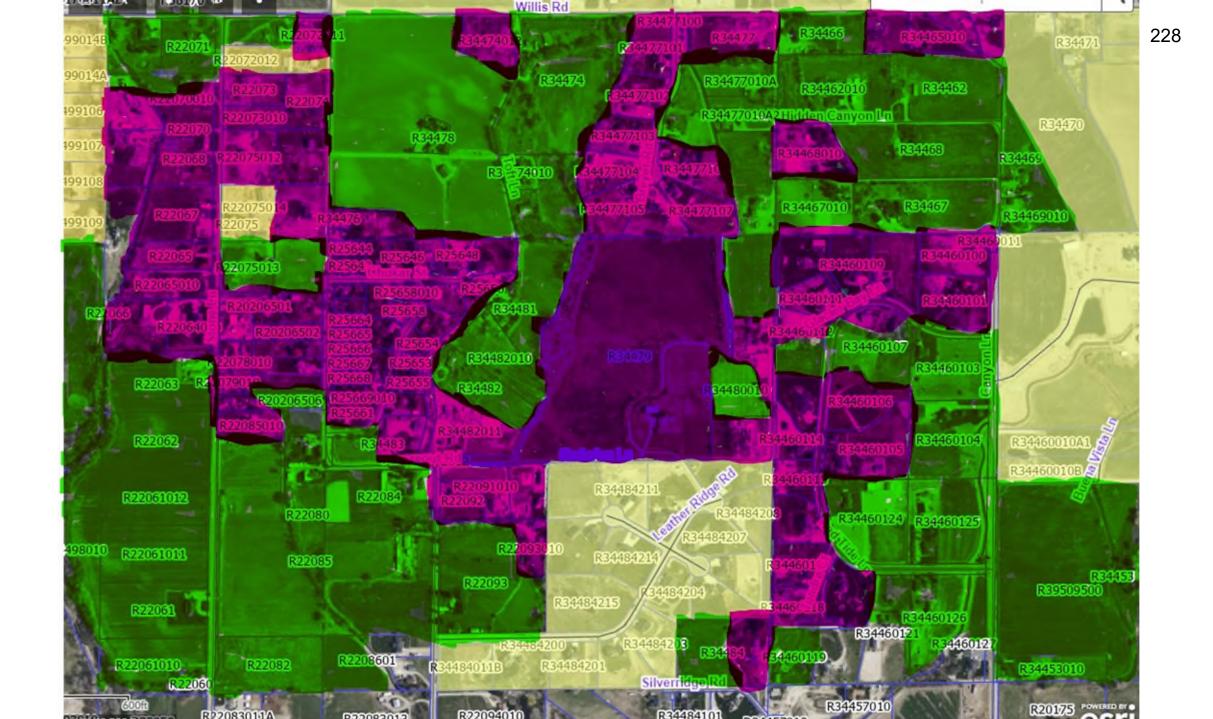
10/14/2021- Application for rezone and preliminary plat were submitted.

12/23/2022- County Engineer gave approval.

7/01/2024- Informed Application would be split. Rezone would be heard separately from the preliminary plat.







#### 07-06-05: ZONING AMENDMENT CRITERIA:

(1) The commission shall review the particular facts and circumstances of each proposed zoning amendment and make a recommendation regarding the same to the board. The presiding party shall make its review in terms of the following standards and shall find adequate evidence regarding the following criteria when evaluating the proposed zoning district boundary amendment:

Is the proposed zone change generally consistent with the comprehensive plan;

YES- THE ZONE AMENDMENT IS HARMONIOUS WITH THE 2030 FUTURE LAND USE MAP AS APPROVED BY THE COUNTY BOARD OF COMMISIONERS.

B. When considering the surrounding land uses, is the proposed zone change more appropriate than the current zoning designation;

YES, THIS REZONE AMENDMENT IS CONTIGIOUS TO THE SOUTH RESIDENTIAL SUBDIVISION AND ADJOINING RESIDENTIAL LAND USES THAT SURROUND THE PROPERTY.

C. Is the proposed zoning map amendment compatible with surrounding land uses;

YES.

D. Will the proposed zoning map amendment negatively affect the character of the area? What measures will be implemented to mitigate impacts?

NO- THE PROPOSED ZONE AMENDMENT WILL NOT NEGATIVELY IMPACT THE AREA. AN ENVIROMENTAL ASSESSMENT WAS COMPLETED AS WELL AS A NUTRIENT PATHOGEN STUDY. IN ADDITION THE COUNTY BOARD OF COMMISIONERS APPROVED RESIDENTIAL USES IN THIS AREA.

E. Will adequate facilities and services including sewer, water, drainage, irrigation and utilities be provided to accommodate the proposed zoning map amendment;

YES- THE PROPETY HAS IRRIGATION. SEWER, WATER, DRAINAGE & UTILITIES ARE AT THE EXISTING HOME.

F. Does legal access to the subject property for the zoning map amendment exist or will it exist at the time of development;

YES- ACCESS TO THE PROPERTY EXISTS. THE REZONE HAS BEEN REVIEWED AND APPROVED BY HD4.

G. Does the proposed zoning map amendment require public street improvements in order to provide adequate access to and from the subject property to minimize undue interference with existing or future traffic patterns created by the proposed development? What measures have been taken to mitigate road improvements or traffic impacts; and

ZONING ITSELF WILL NOT REQUIRE IMPROVEMENTS. IMPROVEMENTS WILL TAKE PLACE DURING THE FINAL PLAT AND DESIGN PHASE OF THE PROJECT. SUGGESTED REQUIREMENTS FOR THE IMPROVEMENTS CAN BE MADE WHEN THE PRELIMINARY PLAT IS ON THE AGENDA.

H. Will the proposed zoning map amendment impact essential public services and facilities, such as schools, police, fire and emergency medical services? What measures will be implemented to mitigate impacts? (Ord. 16-007, 6-20-2016)

ZONING ITSELF DOES NOT IMPACT PUBLIC SERVICES.

A FUTURE PRELIMIMARY PLAT WILL PROVIDE HOUSING.

ESSENTIAL SERVICES LIKE MIDDLETON FIRE AND EMERGENCY HAS ALREADY COMMENTED.

THE HIGHWAY DISTRICT HAS COMMENTED.

THE IRRIGATION COMPANY HAS COMMENTED.

SOUTHWEST DISTRICT HEALTH HAS COMMENTED.

THE CITY OF MIDDLETION HAS COMMENTED.

MIDDLETON RURAL FIRE DISTRICT



STAR FIRE PROTECTION DISTRICT

#### FIRE DEPARTMENT PRELIMINARY PLAT APPLICATION

Applicant Name: Pionage Ho		Primary Contact:	Applic	ant Owner Represen	6/15/2023 tative
rioneer no	mes				
	S. Suit		Nan		33651
1200/ 100 -1			epi	isneer homes id	aho.com
	allup		A /	7: 0	21.52
Address: P.O. Box 1495		City:	Man	npa Zip: Z	3653
Phone/Mobile:		nail Address:			
Representative: Mason and			Will		
	0256 EI	nail Address: WMC	son @	emasonandas	isociates, us
Billing: Name and Email:	DDO	IFCT INFORMATIO			
Subdivision Name: Freezeou-		ae Estate			
Site Location: 23442 Free:				10	
Approved Zoning Designation of Site: A	•			, ID Section 3 T	Hal Ray
Total Acreage of Site: 31,41 AC	- neques			Gross Acre:	4N R3W
		Minimum Lot		125° min	
Minimum Lot Size: 1.00 AC Total Number of Lots: 27	Residentia				^
Industrial: N/A	Common:	4		Commercial: N/A	4
Total Number of Units: N/A	Single-fam			Duplex: $N/A$	
Multi-family N/A	Other:				
Streets: Public Private	# Entrance			Water Services: //d, Gated: □Yes	No
Streets: Fublic Private		DDE OFFICAL USE	ONLY		INO
<b>REVIEW NOTES:</b>				1: (Date/By) 6 21/23	Dropoff-N.Sincl
		Permit Fee: \$200.00	(Paid)	Cash Credit Card	Check #14190
		Fire Authority Havin	g Jurisdi	ction: Middleton	1.4
		Fire District Permit #		MS-135	
				iddleton /	C
		County/City Permit #		nadleion	Largon
				OT ADDI ICATION OT	
				CT APPLICATION ST	
		Approved	□App	proved with Conditions	Denied
		Fire Code Official:		Date	e:

(208) 286-7772 11665 W. STATE ST., SUITE B STAR, IDAHO 83669 MIDDLETON RURAL FIRE DISTRICT

DATE:	August 28, 2023	
TO:	Pioneer Homes Mason and Associates	
FROM:	Victor Islas, Deputy Chief	
SUBJECT:	Fire District Review (23MS-135)	
PROJECT NAME:	Freezeout Ridge Estates 23442 Freezeout Rd., Caldwell, Idaho	

#### Fire District Summary Report:

#### 1. Overview

a. This development can be serviced by the Middleton Rural Fire District. This development shall comply with the 2018 International Fire Code (IFC), Authority Having Jurisdiction (AHJ) and any codes set forth by the Canyon County, Idaho

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- b. Scope: New Development
- c. Construction Type VB
- d. Purposed Lots = 27 (Residential =23, Common =4)
- e. Zoning R1 Rural Residential
- f. Any overlooked hazardous condition and/or violation of the International Building and/or Fire Code does not imply approval of such condition or violation.
- 2. Fire Response Time:
  - a. This development will be served by the Middleton Rural Fire District Station 53, located at 302 E. Main St., ., Middleton, Idaho 83644. Station 53 is 3.7 mile with a travel time of 7 minutes under ideal driving conditions to the purposed entrance off Freezeout Rd.
- 3. Accessibility: Roadway Access, Traffic, Radio Coverage
  - Access roads shall be provided and maintained following Appendix D and Section 503 of the IFC. Access shall
    include adequate roadway widths, signage, turnarounds, and turning radius for fire apparatus.
  - b. Access road design shall be designed and constructed to allow for evacuation simultaneously with emergency response operations.
  - c. All access roads in this development shall remain clear and unobstructed during construction of the development. Additional parking restrictions may be required as to maintain access for emergency vehicles at all times.
  - d. Purposed access roads meet the intent of the fire code for subdivision under 30 lots.
  - e. If the home sites more than 150 ft off the road way additional turnaround will be required.
  - f. No parking signs will be required in all cul de sac.

Project: Freezeout Ridge Estates Preliminary Plat Review (23MS-135)

MIDDLETON RURAL FIRE DISTRICT

- a. Addressing/building identification sign shall be placed in a position that is plainly legible and visible from the street or road fronting the property.
  - Approved residential address numbers a minimum of six inches (6") in height and in a contrasting color shall be placed on all new buildings in such a position as to be clearly visible and legible from the street or road fronting the property.
- b. Upon commencement of initial construction of a new structure, a clear visible freestanding sign or post shall be erected and maintained in place until the permanent address numerals are attached or otherwise displaced upon the premises at completion.
- 5. <u>Water Supply:</u> Water supply requirements will be followed as described in Appendix B of the 2018 International Fire Code unless agreed upon by the Fire District.

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- a. Fire Flow: The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building.
- b. Fire Flow: One and two family dwellings not exceeding 3,600 square feet require a fire-flow of 1,000 gallons per minute for a duration of 1 hour to service the entire project. One and two family dwellings in excess of 3,600 square feet require a minimum fire flow as specified in Appendix B of the International Fire Code.
- c. Water Supply: Water Supply Options
  - i. Municipal Water System
  - ii. Private or Community well capable of supplying required fire flow.
- iii. Elevated and pressure tanks
- iv. NFPA 13D Residential Fire Sprinkler System
- 6. Additional Comments:
  - Final inspection by the Fire District of the above listed must be completed before building permits are issued by Canyon County.

TELEPHONE 208.454.8135 FAX 208.454.2008

#### December 3, 2024

Canyon County Board of Commissioners and Planning & Zoning Commission 111 N. 11<sup>th</sup> Street Caldwell, Idaho 83605 Attention: Michelle Barron Mason & Associates 924 3<sup>rd</sup> Street South Nampa, ID 83651 Attention: William Mason, P.E.

#### RE: RZ2021-005 Freezeout Ridge Estates Preliminary Plat Canyon County Parcel R34479000 0

Dear Commissioners:

Highway District No. 4 (HD4) has received the notice of application for rezone of approximately 31.4 acres from agricultural to R-1 residential for purposes of developing a 23-lot subdivision. HD4 has previously provided comments on a preliminary plat dated March 28, 2024. (Freezeout Ridge Estates) for this parcel. The comments dated April 15, 2024 are repeated below for reference.

#### General

The subject property has frontage available to one public highway, Freezeout Rd, at the west end of the 50-foot wide flag lot portion of the parcel. Freezeout Rd is identified as a major collector on the functional classification maps adopted by Canyon Co and HD4. The development is proposed to be served by extension of a public road (Faithful Road) east from Freezeout Rd, and public local roads within the development.

HD4 provides the following comments on the preliminary plat dated March 28, 2024:

#### Right-of-Way

- The preliminary plat is the final work product and is intended to be relied upon to make policy decisions, <u>Add notation on any 1 of the 3 Preliminary Plat sheets</u> for items previously specified to be removed/relocated, below;
  - a. Relocate all encroachments (utility, irrigation or otherwise) to be out of rightof-way of Faithful Road.
  - b. Relocate mailboxes out of right-of -way on the east side of Freezeout Road.

#### Preliminary Plat

- CL radius C4 needs to be 200 feet. Re-submitted changing radius to 100', adding a knuckle, without a variance, staff will present as re-submitted to HD4 Board of commissioners for approval.
- 2. Revise to move irrigation box #4 east to provide 90° crossing of Faithful Road to the irrigation lateral on the south side of the road.

3. Revise to provide a cul-de-sac/turnaround at the east end of Faithful Rd meeting ACCHD HS & DP (3120.020) that transitions to existing lane at east boundary, or if the portion of Faithful, east of Prismatic Drive is private, the cul-de-sac is not required. An ingress/egress easement for lots inside the subdivision or adjoining parcels that use the private lot, will be required.

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#### Internal Street Improvements

 HD4 would require a 56-foot stub street 310 feet north of <del>Yellowstone</del> Faithful Road west of <del>Big sky</del> Prismatic Drive for parcels R34482 and R34482010 preventing any land lock **unless** Canyon County can confirm there is a recorded document or recorded easement providing the access, as it is today.

Please provide HD4 with a single hard copy and electronic copy of the plans, including supplementary materials requested above, for additional review. Also, submit a review comment sheet, which explains the changes made versus the review comments.

All other platting and improvement requirements to be in accordance with the current edition of the Highway Standards and Development Procedures Manual in effect at the time of preliminary plat consideration by the HD4 Board.

HD4 is charging additional review fees for any submittal after the 3<sup>rd</sup> review. We recommend you perform complete in-house quality control reviews of plans and plats and supporting reports or documents, prior to submittal to avoid additional delays or additional fees for review of this and any other project submitted.

Please feel free to contact me with any questions on these comments.

-End April 15, 2024 Comments-

HD4 has no objection to the proposed rezone. Transportation impacts will be mitigated by dedication of public right-of-way, construction of public improvements, transportation impact fees, or a combination of these means.

Page 2 of 2

Respectfully,

Chris Hopper, P.E. District Engineer

File: Subdivision Freezeout Rd- Freezeout Ridge Estates Subdivision



June 15, 2021

Brian Falck Pioneer Homes 719 1<sup>st</sup> Street South, Suite B Nampa, Idaho 836

#### RE: Freezeout Ridge Estates, Level 1 Nutrient Pathogen (NP) Study Approval

Dear Mr. Falck:

Southwest District Health (SWDH) and the Idaho Department of Environmental Quality (DEQ) received your Level 1 Nutrient-Pathogen study for review on April 19, 2021 for the proposed <u>Freezeout Ridge</u> <u>Estates</u>, located north of Caldwell, Canyon County, Idaho in SE1/4NE1/4 and SW1/4NE1/4, Section 3, Township 4N, Range 3W, Boise Meridian. The NP study was prepared by Atlas Technical Consultants, LLC, for Pioneer Homes of Nampa, Idaho.

The Property is reported to be an approximate 31-acre area of land. The proposed development includes 20 residential lots, with lot sizes ranging from approximately one (1) acre to 1.9 acres. Individual wastewater disposal systems and individual water wells for single family residences are planned.

Based on the data presented in the NP Study, Freezeout Ridge Estates will likely not significantly impact ground water quality downgradient of the proposed subdivision. The NP Study is approved, and the following conditions apply:

- <u>DEQ's review of the MB Spreadsheets indicate all lots, apart from lots 4,7,8 and 10, will need</u> extended treatment systems to reduce nitrate concentrations in wastewater to 27 mg/L or less.
- Maximum house size permitted is a four (4) bedroom house (300 gallons per day). 300 gallons
  per day is the value used in the NP study as the amount of effluent discharged from each
  individual subsurface disposal system.
- If lots are added the study must be resubmitted and/or amended before additional lots are approved.
- Secondary dwellings are not approved for this proposed subdivision, without resubmitting
  and/or amending the NP study to include additional dwellings. Approval of secondary dwellings
  is based on the resubmittal/amended NP study findings.

Based upon the review and results provided by DEQ, Freezeout Ridge Estates can now move forward with the next stage in the process by meeting the requirements of SWHD's Subdivision Engineering Report (SER). The SER and subsurface sewage disposal design must incorporate the findings of the Nutrient-Pathogen study. For lot design care should be taken to locate septic systems so potential

#### Healthier Together 13307 Miami Lane • Caldwell, ID 83607 • (208) 455-5400 • FAX (208) 455-5405

impacts to downgradient wells are minimized. Once an SER is submitted to our office, SWDH can review it. A pre-development meeting is required to being the SER process. During this meeting an on-site evaluation, including test holes can be scheduled.

If you have questions, please call our office at 208-899-3907 or <a href="mailto:brigita.gruenberg@phd3.idaho.gov">brigita.gruenberg@phd3.idaho.gov</a>.

Sincerely,

Brigitta Gruenberg, RAS

Brigitta Gruenberg, REHS/RS Land Development Senior

c Monica Saculles, Atlas Technical Consultants, LLC Angie Cuellar, Mason & Associates Inc. File copy



November 4, 2021

Black Canyon Irrigation District Attention: Carl Hayes, Superintendent 474 Elgin Avenue Hwy 20/26 Notus, ID 83656

RE: Freezeout Ridge Estates - C.L.E. 10.2 Lateral Reroute

Dear Carl,

We have reviewed the improvement plans and easements for the Re-Routing of the C.L.E. 10.2 Lateral for the Freezeout Ridge Estates Subdivision in Caldwell, Idaho. The project is located on the north side of a private roadway approximately 1,000 feet east Freezeout Road one-half mile north of Highway 44. HECO Engineers believes the design engineer has addressed the comments in previous correspondence. If the Black Canyon Irrigation District (BCID) has no additional concerns, HECO Engineers recommends acceptance of the following improvement plans signed by William Mason, P.E., dated 7-22-21:

- 1. Sheet 1 of 7: Cover Sheet
- 2. Sheet 2 of 7: Details Sheet
- 3. Sheet 3 of 7: Plan and Profile Station 10+00 to 12+25
- 4. Sheet 4 of 7: Plan and Profile Station 12+25 to 16+00
- 5. Sheet 5 of 7: Plan and Profile Station 16+00 to 18+00
- 6. Sheet 6 of 7: Plan and Profile Station 18+00 to 23+00
- 7. Sheet 7 of 7: Plan and Profile station 23+00 to 28+00

A 50-foot wide easement for the C.L.E. 10.2 Lateral is proposed through the subdivision and includes a split easement with the adjacent property from Station 10+00 approximately 725 feet south. The 50-foot wide proposed easements are shown on the construction plans and are described and shown on the attached two Legal Descriptions. Also attached is the existing easement for the C.L.E. 10.2 Lateral for vacation purposes once the new easement is recorded and the rerouted facility is constructed and in operation. We have reviewed the three (3) attached legal descriptions and exhibits for the and find them to be acceptable and match the construction plans.

A 12 ft wide gravel access road on one side of the pipeline is shown along the C.L.E. 10.2 Lateral reroute and one gravel pull out has been provided for access to irrigation box 7 and the weir to the pump station. There is an existing BCID siphon running west north of the north property line that appears will not be affected by this reroute. In addition, there are three existing deliveries and weir structures that will be maintained and reconnected to the new piped facility.

Freezeout Ridge Estates – C.L.E. 10.2 Lateral Reroute November 4, 2021 Page 2 of 2

A summary of the items to be constructed with the C.L.E. 10.2 Lateral Reroute includes:

- Construct approximately 270 lineal feet of new 24-inch PVC C905, Class 235 Pipe.
- Construct approximately 1,330 lineal feet of new 24-inch Class 125 PVC (SDR 32.5)
- Construct seven (7) cast in place concrete irrigation boxes with lids.
- Install a new cast in place inlet headwall with trash rack.
- Install two (2)-12" headgates and one weir structure.
- Construct approximately 1,400 lineal feet of 12-ft wide gravel access road and one gravel pullout.

This letter does not authorize any construction to commence until the license agreement and permits with Black Canyon Irrigation District and/or the US Bureau of Reclamation (USBOR) have been executed and returned. Plans are subject to change until a license agreement is in place.

Our review does not guarantee a problem free system. Said review is only for general conformance with Black Canyon Irrigation District standards in force at the time of the review. The project developer and engineer are responsible for providing a fully functional system that follows the intent of the BCID and the USBOR.

If you have any questions or need additional information, please contact me at (208) 642-3304.

Sincerely, HECO Engineers

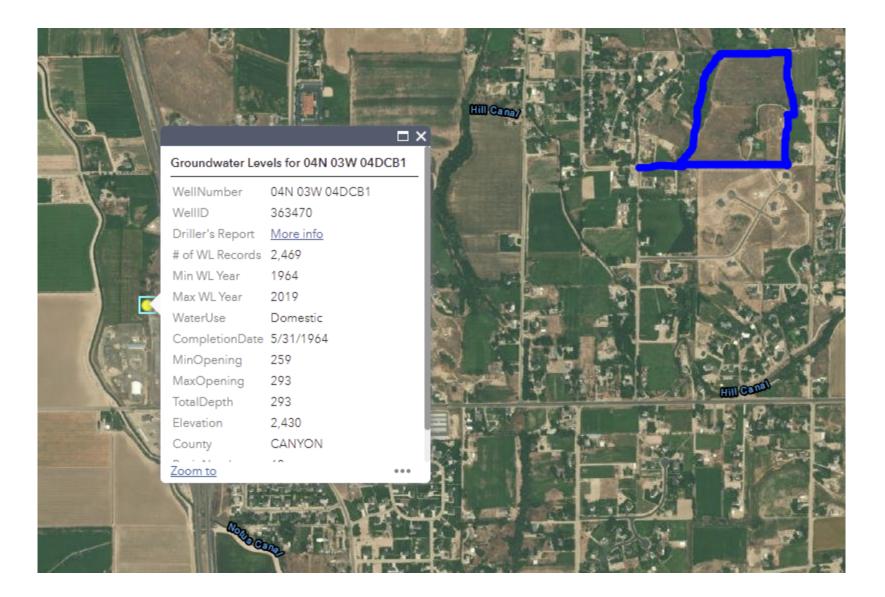
Bv: Kent Gingrich, PE

Enclosures:

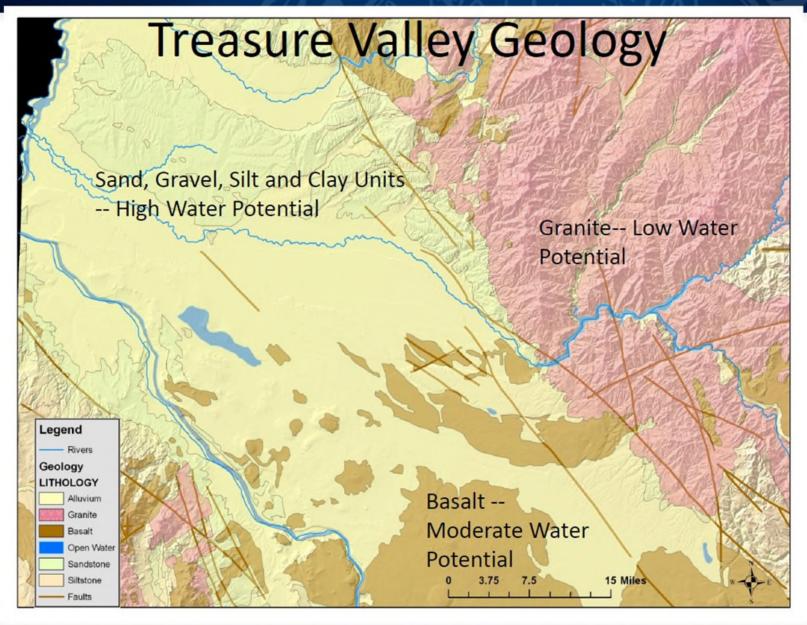
- 1. Copy of the CLE 10.2 Lateral Reroute Improvement Plans (7 Sheets).
- 2. Legal Description and Exhibit for Existing C.L.E. 10.2 Lateral Easement (3 pages)
- 3. Legal Description and Exhibit for Proposed C.L.E. 10. 2 Lateral Easement (3 pages)
- 4. Legal Description and Exhibit for Offsite Proposed C.L.E. Lateral Easement (3 pages)
- 5. Copy of Hydraulic Calculations for Pipe Sizing (3 pages)

Cc: Tyler Chamberlain/Black Canyon Irrigation District

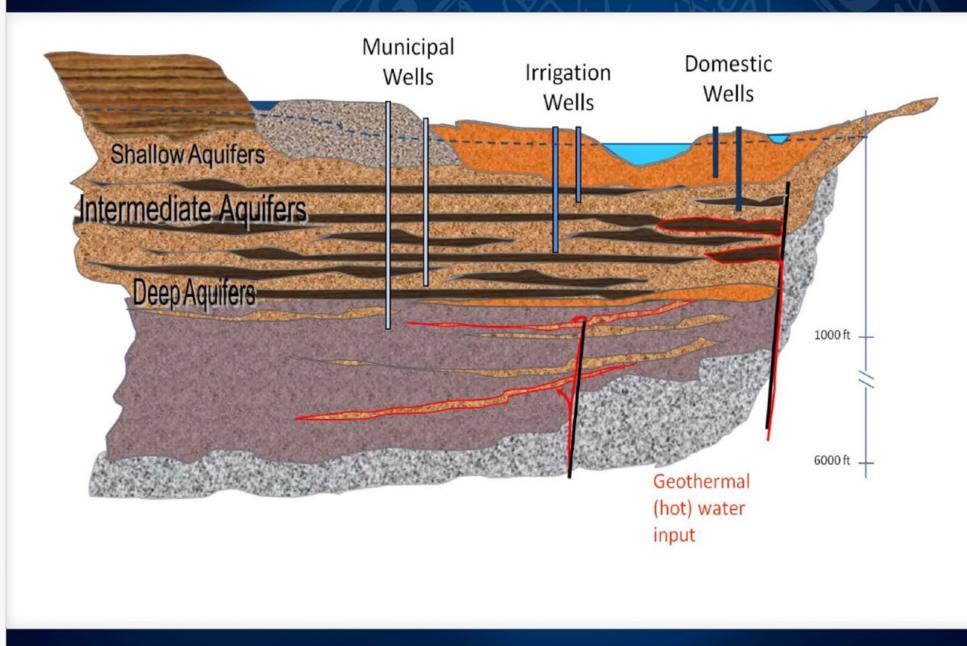




# DAHO Department of Water Resources

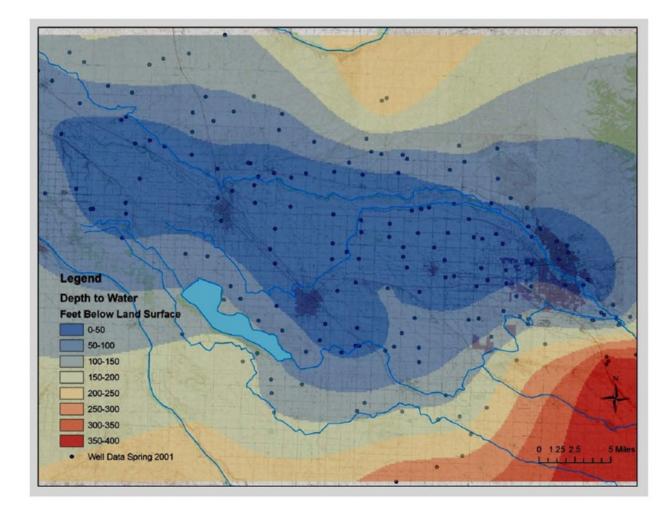


# DAHO Department of Water Resources



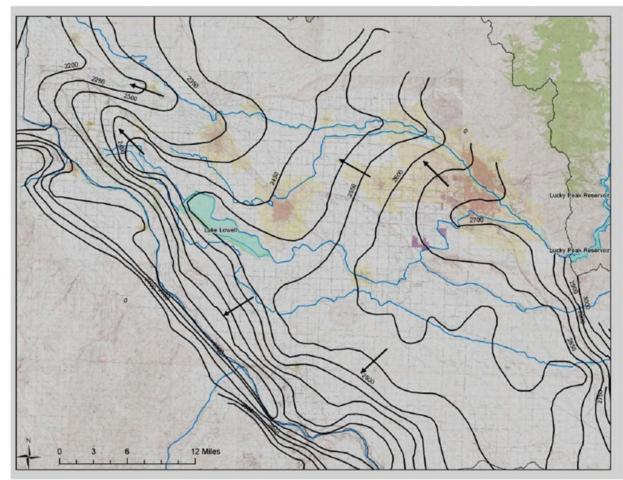


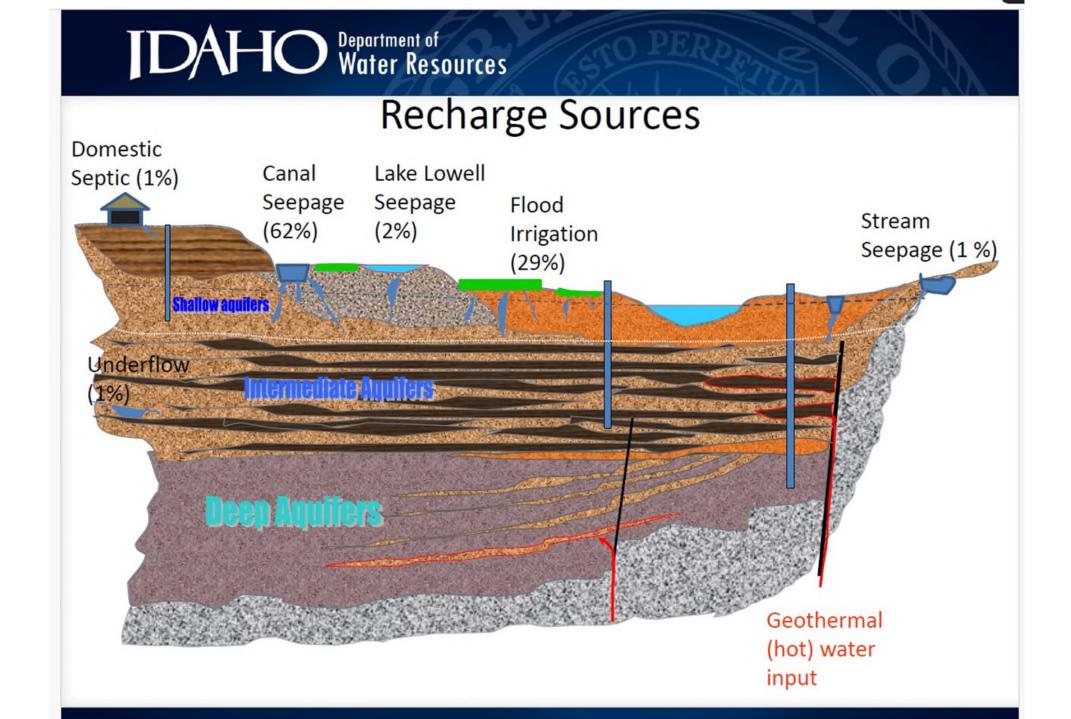
# Depth to Water

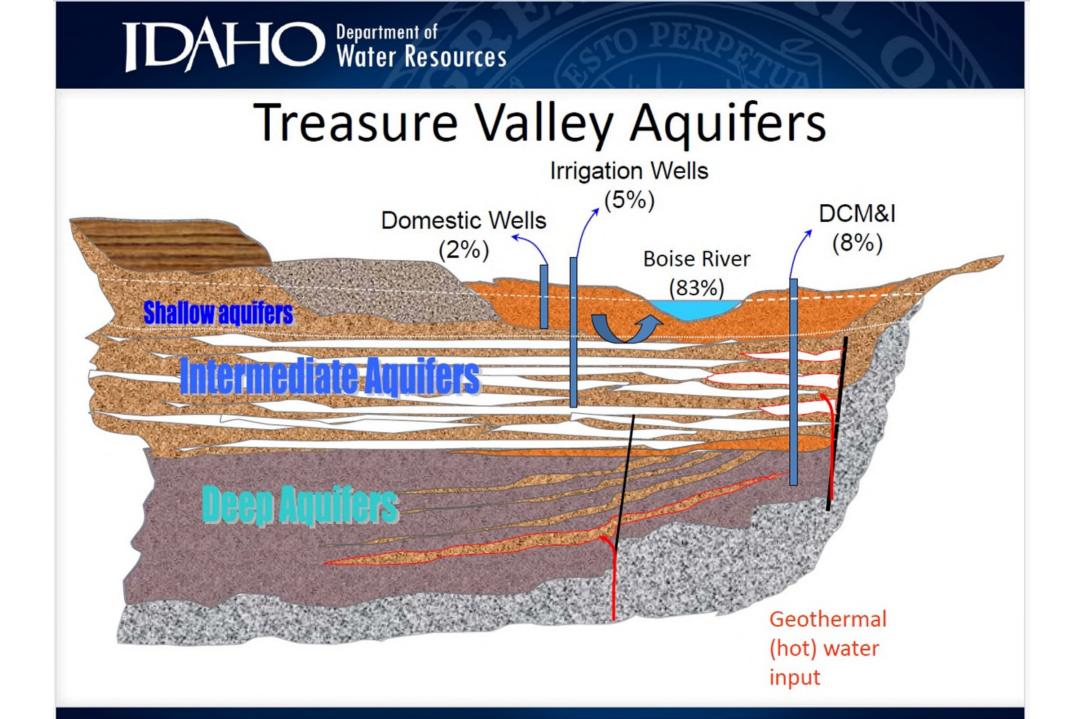




# **Ground Water Flow Direction**

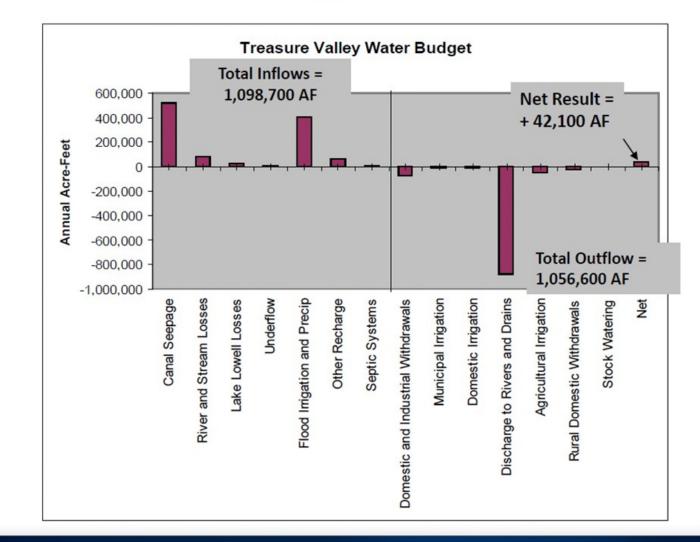






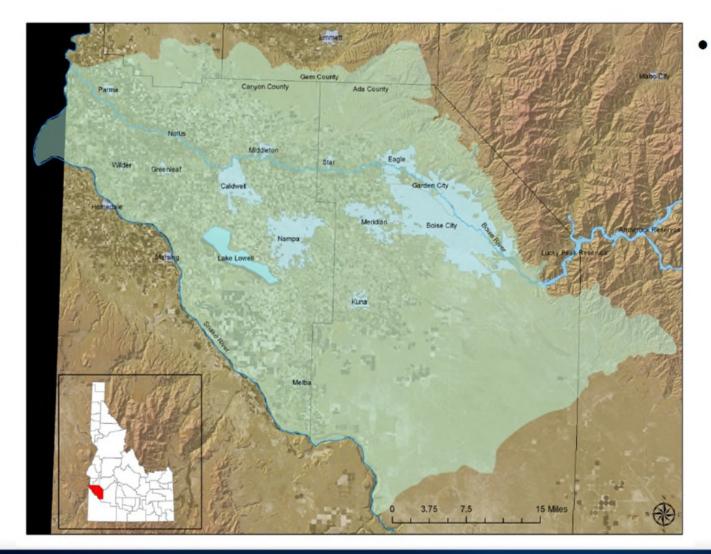
# DAHO Department of Water Resources

# **Ground Water Budget**



# DAHO Department of Water Resources

# Treasure Valley Aquifer Boundary



Boundary extends from Mountain Home Plateau, Oregon Idaho state line, the Snake River, and the Payette River Basin.

# Exhibit A5.7b 24 PHASE I ENVIRONMENTAL SITE ASSESSMENT (UPDATE)

### OF THE



## RURAL HOMESITE & UNDEVELOPED PASTURE

LOCATED AT

# 23442 FREEZEOUT ROAD

IN

CALDWELL, IDAHO

### **PREPARED FOR:**

**PIONEER HOMES** ATTN: BRIAN FALCK 719 1ST STREET SOUTH, STE. B NAMPA, IDAHO 83651

EFFECTIVE DATE:

May 18, 2022

## SAGE FILE:

**#**22-05740

### PREPARED BY

Bunda Magnesson

BRENDA L. MAGNUSON CAL/EPA REA#06973



18123 N. HIGHFIELD WAY BOISE, IDAHO 83653 208-867-8876

250



May 18, 2022

Pioneer Homes ATTN: Brian Falck 719 1st Street South, Ste. B Nampa, Idaho 83651

Re: Phase I Environmental Site Assessment (update) for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho.

Dear Mr. Falck:

The following Executive Summary provides a synopsis of our findings and conclusions for this Phase I Environmental Site Assessment Report of the above-referenced property. More detail is presented in the text of this report.

#### EXECUTIVE SUMMARY

SAGE ENVIRONMENTAL SERVICES, LLC (SAGE ENVIRONMENTAL or SAGE) has performed a Phase I Environmental Site Assessment (update) in conformance with the ASTM Practice E1527-21 for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho. Any exception to or deletion from this practice is described in Section 2.3 "Scope of Services" and Section 2.5 "Limitations and Restrictions" of this report.

#### FINDINGS

The findings listed below identify any possible concerns that could be recognized environmental conditions, historical recognized environmental conditions, and "de minimus" conditions.

TYPE OF INFORMATION EVALUATED	Finding	
USER-PROVIDED INFORMATION	No environmental concerns	
ENVIRONMENTAL DATABASE Records	See below	
NITRATE PRIORITY AREA	The Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling on nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast) and are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.	
HISTORICAL USE INFORMATION	No environmental concerns	
SITE RECONNAISSANCE	See below	
Potable Water Supply/ Wells	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was installed during 1974 and was constructed to a depth of 67 feet below ground surface (bgs). During construction, water was first encountered at a depth of 40 feet bgs.	



Sewage Disposal System/ Septic Systens	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the exact location of this system.
	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked.
Hazardous Substances and Petroleum Products	Of the nearly fifty (50) 55-gallon drums we identified on the site, two to three (2-3) of the drums and three (3) 5-gallon containers contain an unknown liquid; a small amount of staining around two (2) of the containers indicate that they may contain waste oil.
	During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no significant stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).
Drums/Unidentified Substance Containers	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, two (2) to three (3) drums located in the field to the northeast of the dwelling contain unknown liquids. The drums containing liquids have tight-fitting lids. One (1) drum has limited staining on the ground that appears to be waste oil. <i>This drum is located within "Area #2" on the Site Plan.</i> <i>Note: The number of drums is an approximate number because some of</i>
	the empty drums are located within piles of material and debris that are difficult or impossible to see.
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During inspection of the site, we observed the area on the site were the creek temporarily ponds or pools along the western boundary. <b>Update:</b> The seasonal pond was present at the time of our site visit on
	May 16, 2022. Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment.
Stained Soil or Pavement	We observed staining on the ground beneath one of the drums and a 5- gallon container within "Area #2" (shown on the Site Plan). This staining is limited and appears to be caused by waste oil.
VAPOR ENCROACHMENT Concerns	No environmental concerns

### OPINIONS

Listed below are our professional opinions of the impact (if any) on the Property of the conditions identified in the Findings:



TYPE OF INFORMATION EVALUATED	OPINION
Environmental Database Records	See below
NITRATE PRIORITY AREA	Although it is possible that the groundwater beneath the Property may contain elevated levels of nitrates, our review of area well sampling data indicates that nitrate levels would likely be well below the EPA and Idaho drinking water standard of 10.0 mg/L. This is not a "recognized environmental condition" or "REC".
SITE RECONNAISSANCE	See below
Potable Water Supply/ Wells	The presence of a private well on the Property is not a cause for concern; however, if the future use of the Property does not include the use of the well, it should be properly abandoned in accordance with the Idaho Department of Water Resources (IDWR) rules. Due to the relatively shallow depth of the well (less than 100 feet bgs), we recommend sampling of the well prior to it's continued use as a potable water source. The analyses should include bacteria (Total Coliform and E. Coli) and Nitrates.
Sewage Disposal System/ Septic Systens	The presence of an on site septic tank and drainfield system is not a cause for concern; however, if the future use of the Property doe not include the use of the septic system, it should be closed in accordance with Idaho Health Department Rules.
Hazardous Substances and Petroleum Products	In their current state, the use and storage of oils, lubes, household maintenance products, and cans of gasoline on the site <i>are not a cause</i> for concern and are not considered a "REC"; however, any of these materials that are no longer in use should be disposed of in accordance with Federal, State, and local rules and regulations.
Drums/Unidentified Substance Containers	Of the fifty $(50) \pm$ drums located on the site, two (2) to three (3) drums located in the field to the northeast of the dwelling (area #2 on Site Plan) contain an unknown liquid. All of these drums/containers have been on the Property for an extended period of time; it is unclear if the staining around the drum/container in area #2 was caused by spills or if the container has leaked; however, it is our opinion that these drums and the soil staining is not considered a "REC" because the staining on the ground around one (1) drum and one (1) 5-gallon container appears limited to the top 6-inches of soil, a "de minimus" condition. Although not considered a "REC" the contents of the drums should be determined and properly disposed of in accordance with Federal, State, and local rules and regulations.
Pits, Ponds, or Lagoons	The seasonal pond/pool formed by Sand Hollow Creek is not a cause for concern with respect to the environmental integrity of the Property.
STAINED SOIL OR PAVEMENT	One of the drums and/or 5-gallon containers (area #2 on Site Plan) appears to have leaked waste oil onto to the ground. This staining appears to be waste oil and to the extent observable, the leakage appears to be have been present for some time. Currently, this staining appears to be minor (limited to the top six-inches of soil or less). This type of surface stain is considered "de minimus" and is not a "REC". continued below



STAINED SOIL OR PAVEMENT	It is possible that the removal of drums, containers, or piles of debris could reveal additional staining that was not observable during the site
CONTINUED FROM PREVIOUS	visit. Any staining extending beyond the top 6-inches of soil may require further evaluation.

Based on our review of available information, SAGE ENVIRONMENTAL has identified no "recognized environmental conditions" or "RECs" in connection with the Property. We do recommend that the contents of the drums and containers of liquids stored outside the shop should be determined and disposed of in accordance with Federal, State, and local rules/regulations.

The Client should be aware that the removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.

This report is limited to the information made available to or known to SAGE ENVIRONMENTAL at the time this report was issued. If any additional information becomes available, it will be forwarded to you for your evaluation. We appreciate having the opportunity to assist you with this project. Please feel free to contact me if you have any questions concerning this report.

Sincerely,

Bunda Magnessoi

Brenda Magnuson Principal/Registered Environmental Assessor Cert. #06973

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# DEFINITION OF ACRONYMS USED

ASTM:	American Standards for Testing and Materials
AST:	Aboveground Storage Tank
AULs:	Activity and Use Limitations
CERCLA:	Comprehensive Environmental Restoration, Compensation, and Liability Act
CERCLIS:	Comprehensive Environmental Response, Compensation, and Liability Information System
CERCLIS-NFRAP:	Comprehensive Environmental Response, Compensation, and Liability Information System-
	No Further Remedial Action Planned
CFR:	Code of Federal Regulations
CESQG:	Conditionally Exempt Small Quantity Generator
CORRACTS:	Corrective Action Sites
CREC:	Controlled Recognized Environmental Condition
DEQ:	Division of Environmental Quality
EPA:	Environmental Protection Agency
EPCRA:	Emergency Planning and Community Right to Know Act ((also known as SARA Title III)
ERNS:	Emergency Response Notification System
ESA:	Environmental Site Assessment
FOIA:	U.S. Freedom of Information Act
FR:	Federal Register
HREC:	Historic Recognized Environmental Condition
IC:	Institutional Controls
LLP:	Landowner Liability Protections under the Brownfields Amendments
LQG:	Large Quantity Generator
LUST:	Leaking Underground Storage Tank
MSDS:	Material Safety Data Sheet
NCP:	National Contingency Plan
NPL:	National Priority List
NFRAP:	former CERCLIS sites where no further remedial action is planned under CERCLA.
NPDES:	National Pollutant Discharge Elimination System
PCBs:	Polychlorinated Biphenyls
PRP:	Potentially Responsible Party (pursuant to CERCLA
RCRA:	Resource Conservation and Recovery Act
RCRIS:	RCRA Information Systems
RECs:	Recognized Environmental Conditions
SARA:	Superfund Amendments and Reauthorization Act of 1986 (amendment to CERCLA)
SQG:	Small Quantity Generator
TSCA:	Toxic Substances Control Act
TSD:	Treatment Storage and Disposal
TSDF:	Hazardous Waste Treatment, Storage or Disposal Facility
USC:	United States Code
USG:	United States Geological Survey
UST:	Underground Storage Tank
VEC:	Vapor Encroachment Condition
VES:	Vapor Encroachment Screening



### **1.0 PROPERTY SUMMARY**

Property Type:	Rural Homesite and Pasture
Address:	23442 Freezeout Road Caldwell, Idaho
LOCATION:	The Property is located along the north side of a gravel access lane for Freezeout Road, east of Freezeout Road between Willis Road (north) and State Highway 44 (south), northeast of Caldwell and west of Middleton, in Caldwell, Canyon County, Idaho.
LEGAL DESCRIPTION:	"Tax 19480 in the South $\frac{1}{2}$ of the Northeast $\frac{1}{4}$ , Less Tax #97652, and situated in the Southwest $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ and the Southeast $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 3, Township 4 North, Range 3 West of the Boise-Meridian in Canyon County, Idaho."
Owner of Record:	Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653
SITE SIZE/CONFIGURATION:	31.40± acres; irregular, in shape (Figure 2)
Description of Improvements:	Site improvements are limited to the homesite (southeast quadrant of the Property) and consist of the following:
	One (1), 1,404 SF, single-level dwelling constructed during 1976;
	One (1), shop building located northwest of dwelling. This is a steel framed structure with a metal roof and exterior, and three (3) roll-up doors. In this building, the west $\frac{2}{3}$ of the floor is dirt; the east $\frac{1}{3}$ of the floor is a concrete slab.
Date of Site Reconnaissance:	April 12, 2021 & April 20, 2021 (follow-up) May 16, 2022 (for the update of this report)
DATE OF REPORT:	May 18, 2022
Conclusions:	SAGE ENVIRONMENTAL SERVICES, LLC has performed a Phase I Environmental Site Assessment (update) in substantial conformance with the ASTM Practice E1527-21 for the Rural Homesite & Undeveloped Pasture Property located at 23442 Freezeout Road in Caldwell, Idaho. Based on our review of reasonably ascertainable information, SAGE ENVIRONMENTAL SERVICES has no "recognized environmental conditions" or "RECs" in connection with the Property. The removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.

<sup>1</sup> "recognized environmental condition": "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject at the subject property under conditions that pose a material threat of a future release to the environment."



# 2.0 INTRODUCTION

#### 2.1 GENERAL

SAGE ENVIRONMENTAL SERVICES, LLC (SAGE ENVIRONMENTAL) was contracted by Mr. Brian Falck of Pioneer Homes (the Client) to perform an updated Phase One Environmental Site Assessment (ESA) for the Property located at 23442 Freezeout Road (hereinafter referred to as "Property" or "site") in Caldwell, Idaho (Figure 1).

### 2.2 LOCATION & LEGAL DESCRIPTION

LOCATION:	The Property is located along the north side of a gravel access lane for Freezeout Road, east of Freezeout Road, between Willis Road (north) and State Highway 44 (south), in Canyon County, Idaho.
LEGAL DESCRIPTION:	"Tax 19480 in the South $\frac{1}{2}$ of the Northeast $\frac{1}{4}$ , Less Tax #97652, and situated in the Southwest $\frac{1}{4}$ of the Northeast $\frac{1}{4}$ and the Southeast $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 3, Township 4 North, Range 3 West of the Boise-Meridian in Canyon County, Idaho."
ADDRESS:	23442 Freezeout Road in Caldwell, Idaho.

### 2.3 DETAILED SCOPE OF SERVICES

This Environmental Site Assessment followed the methodology set forth in ASTM Standard Practice E1527-21and is based on site observations and the use of readily available information. The Scope of Work for this assessment includes the following:

- Reviewing the Federal, State, and local regulatory agency lists and databases of facilities that use, store, and/or generate hazardous substances or petroleum products, and to determine the impacts of such sites on the Property with respect to "recognized environmental conditions";
- Reviewing site information for geologic and hydrogeologic characteristics for vulnerability and other possible areas of concern;
- Reviewing available city directories (i.e. Polk's City Directories), historical maps, geological maps, available historic aerial photographs, and other records to evaluate past property uses and occupancy;
- Reviewing available information regarding the historical use of the property and the adjacent properties;
- Reviewing 50-year chain-of-title information for historical background, as requested by the client;
- Conducting an on-site inspection of the property to observe and evaluate evidence of contamination from hazardous petroleum substances or wastes (stained soil, stressed vegetation, etc.), and other potential sources of contamination, including transformers or other electrical equipment possibly containing polychlorinated biphenyls (PCBs);
- Contacting electric utilities to determine PCB content of utility-owned transformers or other electrical equipment, if necessary;
- · Interviewing available people familiar with past use of the property and adjacent properties;
- Visually inspecting adjacent properties and classifying their possible effects on the subject property; and
- Documenting findings and site conditions with photographs.

#### 2.4 SIGNIFICANT ASSUMPTIONS

In preparing this report, SAGE has relied upon certain verbal information and representations provided by State and local government employees, as well as others familiar with the Property history. SAGE ENVIRONMENTAL did not attempt to independently verify the accuracy or the completeness of that information, but we did not detect any inconsistency or omission of a nature



that would affect the conclusions in this report; the conclusions are based in whole or in part on the validity of such information.

#### 2.5 LIMITATIONS & RESTRICTIONS

This Phase I Environmental Site Assessment is restricted to the Scope of Services outlined in Section 2.3 of this report and is restricted to observations made by SAGE during the inspection of the Property and research of standard environmental record sources. With the exception of recorded violations discovered upon routine review of environmental regulatory records, the Scope of Services did not address compliance with Federal, State or local laws, regulations, ordinances, or codes. This report also expressly excludes the collection or analysis of any samples for asbestoscontaining materials, radon gas, or lead-based paint. In addition, radon screening, lead in drinking water, endangered species, indoor air quality, cultural resources, industrial hygiene, health and safety, and high voltage power lines were not included in this report. No samples of soil, air, water, asbestos or lead-based paint were collected as part of this investigation, and SAGE makes no representations or warranty regarding the presence of asbestos or lead-based paint and the quality of the air, water, or soil on the Property. This Scope of Services did not include sampling of drums, tanks, and other containers for laboratory analysis.

Phase I Environmental Site Assessments are non-comprehensive in nature and are subject to a variety of limitations, including those limitations presented below. This report is not intended to identify all potential concerns or to eliminate all risk associated with the operational responsibilities or transferring property title. SAGE did not consider other factors or site information other than that presented in this report. The agencies and individuals contacted by SAGE had only limited information concerning the Property. When necessary, SAGE made efforts to interview agency personnel and individuals with knowledge of the site, but information collected in this manner can be subject to errors, including personal interpretation and memory. Judgments that lead to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and historical conditions applicable to the site. More extensive studies, including sampling and/or chemical analysis, may reduce the uncertainties associated with this assessment. SAGE should be notified for additional consultation if the client would like to reduce uncertainties beyond the level associated with this assessment.

#### 2.6 USER RELIANCE

Authorization to perform this assessment update was given in the form of an email request from Mr. Brian Falck, Project Manager for Pioneer Homes (hereinafter, "Client" and also the "User" of this report), on May 4, 2022. As agreed, the scope of this assessment report is limited to the matters expressly covered herein. This report is prepared for the sole benefit of the Client and persons doing business with the Client. Any other person or entity, without the express written authorization of the Client may not rely upon the information contained in this report.



### **3.0 SITE DESCRIPTION**

#### 3.1 PURPOSE

The purpose of this Phase I Environmental Site Assessment is to qualify for the innocent landowner defense and the Bona Fide Prospective Purchaser (BFPP) defense under 2002 Brownfields amendment to the Comprehensive Environmental Restoration, Compensation, and Liability Act (CERCLA). In addition to CERCLA liability, the purpose of this Phase I Environmental Site Assessment is to identify and understand potential environmental conditions that could materially impact the operation of the business associated with the property. The purpose of the ASTM E1527 standard is to define good commercial and customary practice for conducting a Phase I Environmental Site Assessment, with the goal of identifying "recognized environmental conditions" (RECs) at the subject property.

**RECOGNIZED ENVIRONMENTAL CONDITION (REC):** The term "Recognized Environmental Condition" defined in E1527-21 means "(1) the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; (2) the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or (3) the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment." The term includes hazardous substances or petroleum products even under conditions in compliance with existing laws. The term is not intended to include "de minimus" conditions that generally do not present a material risk of harm to public health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be "de minimus" are not "recognized environmental conditions."

**"LIKELY":** The ASTM defined "likely" as a condition "which is neither certain nor proved, but can be expected or believed by a reasonable observer based on the logic and/or experience of the environmental professional, and/or available evidence, as stated in the report to support the opinions given."

#### 3.1.1 ADDITIONAL ENVIRONMENTAL TERMS

HISTORICAL RECOGNIZED ENVIRONMENTAL CONDITIONS (HRECS): A Historical Recognized Environmental Condition (HREC) refers to a past release that has been remediated to below "residential" standards and given regulatory closure with no use restrictions. HREC is defined by ASTM E1527-21as "a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."



The HREC category is distinct from the Controlled Recognized Environmental Condition (CREC), which applies to sites that have received regulatory closure but are still subject to controls.

**CONTROLLED RECOGNIZED ENVIRONMENTAL CONDITIONS (CRECS)**: The term CREC is intended to clarify the level of risk these sites represent. The environmental professional is required to list any CRECs (as well as RECs) identified in the findings and conclusions section of the Phase I Environmental Site Assessment report.

The ASTM definition of CREC in the E1527-21standard is as follows: "a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls)."

BUSINESS ENVIRONMENTAL RISK: Business Environmental Risk is defined by ASTM as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations."

The common non-scope environmental business risk items referred to include:

- Asbestos
- Lead Paint
- Lead in Drinking Water
- Radon
- Wetlands
- Ecological Resources
- Endangered Species

- Cultural and Historic Resources
- Regulatory Compliance
- Industrial Hygiene
- Health and Safety
- Indoor Air Quality
- Biological Agents
- Mold

Any non-scope environmental business risk items addressed by SAGE (if required by the Lender and/or Client) is discussed in Section 8.0 "Non-ASTM-Scope Items and Additional Services".

### 3.2 SITE VICINITY & GENERAL CHARACTERISTICS

The Property is comprised of a single parcel of land, 31.40± acres in size and is located in Canyon County, outside the city limits of Caldwell, Idaho. The Property is located within an area of Caldwell characterized by rural residential uses and irrigated farmland/pasture, many of which are becoming residential developments (Figure 2).

### 3.3 PHYSICAL SETTING

According to the USGS Quadrangle map for the site and vicinity, the Property is located on the foothill bench northeast of Caldwell. The site is generally level and lies at an elevation of approximately 2,520 feet above mean sea level. The north end of the site, just north of the C.L.E.



Lateral, lies 7 to 10 feet below the bank of the lateral. The C.L.E. Lateral irrigation canal is the closest surface water to the site; it borders a portion of the eastern Property boundary from the north before traversing westward along the homesite, angling southward along the west side of the homesite, then finally, traversing eastward along the south end of the homesite before exiting the Property along the southern boundary. Sand Hollow Creek borders the Property along the west (Figure 3a).

### 3.4 GEOLOGY & HYDROLOGY

### 3.4.1 GEOLOGY

We compiled information regarding generalized local hydrogeologic and geologic conditions from published technical literature. In the vicinity of the Property, groundwater data for both the shallow water table aquifer and for the deeper water supply aquifer systems were modified from Dion (1972), Squires et al (1992), and from previous investigations conducted by other consultants. Information about the surface and subsurface materials located under the Property was retrieved from Malde and Powers (1962), and Othberg and Stanford (1992), and from previous investigations conducted by other consultants.

The Property is situated within the western portion of the Snake River Plain subdivision of the Columbia Plateau Physiographic Province. Landforms consist of six terrace levels of alluvial gravel deposits. The Property is located on the foothill bench above the flood plain of the current channel of the Boise River. The shallow subsurface contains 100 to 500 feet of Quaternary-age alluvium that consists of interfingered and interlayered sand, silt, clay, and gravel; all primarily deposited by the Boise River. These fluvial and lacustrine (river and lake) sediments unconformably overlay the Quaternary-Tertiary-age Idaho Group deposits, which consist of several thousand feet of poorly consolidated clastic sediments and basaltic volcanic rock. The sediments consist of sand, silt, and clay of variable thickness and lateral extent.

#### 3.4.2 HYDROLOGY

In the area, two aquifers are known to exist. Throughout much of the valley, an unconfined water table aquifer is found within the shallow alluvium, normally at a depth of less than 50 feet. According to a Well Construction Log for the Property, groundwater for this shallow, unconfined aquifer is probably at a depth of 40 to 45 feet below ground surface. Many domestic wells draw water from the shallow aquifers. The general groundwater flow direction in the area is to the west/ southwest towards the Boise River, although seasonal changes and localized impacts from canals and irrigation ditches can create varying flow directions. The delineated source water assessment area for the Property can best be described as an eastward trending corridor approximately four miles long and one-quarter mile wide (IDEQ, 2003).

At a depth of approximately 300 to 500 feet below ground surface, the region's principal water supply aquifer is contained within the Upper Idaho Group strata. In the vicinity of the Property, several hundred feet of silt and clay separate the water supply and water table aquifers, thereby



reducing the potential for flow between the two aquifers; however, recently compiled subsurface data suggests that the boundaries between aquifer units and hydrogeologic settings are gradational and may result in hydraulic communication across the system. This appears to be most evident through pump test data obtained from the east Boise area. To date, due to an incomplete database, an adequate hydrogeologic model describing the nature and extent of the hydraulic continuity between the shallow and deep aquifers has not been fully developed. Until such a study is completed, the potential for migration between the two aquifers will remain poorly understood.

### 3.5 CURRENT USE OF SURROUNDING AREA

The area near the Property is characterized by a mixture of rural residential uses and irrigated farm land and pasture; some of which are being converted to residential developments.



### 4.0 USER-PROVIDED INFORMATION

### 4.1 TITLE RECORDS

A Chain of Title was not requested by the Client.

### 4.2 Environmental Liens or Activity & Use Limitations

We use the following resources, when available, to determine the presence of activity use limitations (AULs) or engineering controls (ECs) that may be recorded or connected to the Property title:

- Title Commitment (when provided by the Client) or Chain-of-Title report; For this report, a Chain-of-Title report dating back to 1982 was provided by the Client.
- Environmental Database Records
- Environmental Questionnaire and Disclosure Statement

TITLE COMMITMENT REPORT: During our review of the Title Commitment Report, recorded AULs or ECs were not found.

**ENVIRONMENTAL DATABASE RECORDS:** We used information obtained from the Environmental Database Records to identify those sites that were assigned a "no further action" status from the Idaho DEQ using activity use limitations (AULs) or engineering controls (ECs). We did not find deed restrictions limiting the use of the Property (AULs), nor did we find any institutional or engineering controls (ECs) listed for the site.

ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENTS: We used the Environmental Questionnaire and Disclosure Statement to determine the Owner's knowledge of activity use limitations (AULs) or engineering controls (ECs) for the Property. According to the Environmental Questionnaire and Disclosure Statement, completed by Brian Falck of Pioneer Homes (the Client/ User and also a representative of the Property Owner), the Property Owner has no knowledge of Environmental Liens or Activity and Use Limitations for the Property that may exist on the Property.

#### 4.3 SPECIALIZED KNOWLEDGE

We have no knowledge of previous Environmental Site Assessments for the Property, nor do we have any knowledge of "recognized environmental conditions" or "RECs" that may have existed on the Property prior to the completion of this report. The Client/User, also the Property Owner, has no knowledge of previous Environmental Site Assessments for the Property, nor do they have any knowledge of RECs that may have existed on the Property.

#### 4.4 COMMONLY KNOWN OR REASONABLY ASCERTAINABLE INFORMATION

Under the standards as outlined in E1527-21 "Standard Practice for Environmental Site Assessments", the User of this report has certain responsibilities regarding notification to the preparer of this report. Specifically, the User must notify the preparer of the report of any environmental liens encumbering the Property or any specialized knowledge or information about previous ownership or uses of the Property that may be material to identifying "recognized



environmental conditions". Brian Falck of Pioneer Homes is not aware of any environmental issues in connection with the Property.

### 4.5 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

The client has no reason to believe that the value of the Property has been reduced for any environmental issues and asserts that the purchase price reasonably reflects the fair market value of the Property.

### 4.6 OWNER, PROPERTY MANAGER, AND OCCUPANT INFORMATION

The owner/manager of the Property is:

Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653

The site is currently unoccupied.

#### 4.7 REASON FOR PERFORMING THE PHASE I ESA

It is the understanding of SAGE ENVIRONMENTAL that the Property is under development by the Client. This development requires relocating and/or retiling a portion of the C.L.E. Lateral. The Bureau of Reclamation, the agency responsible for maintaining and modifying irrigation systems within the State, requires permit for such activities and this Phase I Environmental Site Assessment (ESA) report is a part of the permit requirements. This Phase I ESA also fulfills one of the requirements for the innocent landowner defense and a "Bona Fide Prospective Purchaser" (BFPP) defense subject to CERCLA liability



# 5.0 HISTORICAL RECORDS & ENVIRONMENTAL DATABASE REVIEW

### 5.1 STANDARD ENVIRONMENTAL RECORDS

For our Environmental database information, we used a database operated by Nationwide Environmental Title Research Company (NETROnline). A copy of the database is included in the Addenda of this report. The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions in connection with the property. A description of the environmental databases is described in the following paragraphs:

<u>NATIONAL PRIORITIES LIST (NPL), LISTED AND DELISTED SITES</u>: A list of hazardous waste sites in the United States eligible for long-term remedial action (cleanup) financed under the federal Superfund program. Environmental Protection Agency (EPA) regulations outline a formal process for assessing hazardous waste sites and placing them on the NPL. The NPL is intended primarily to guide EPA in determining which sites warrant further investigation.

The inclusion of a facility in the National Priorities List does not reflect a judgment of its owner or operator or make the owner or operator take any action. It also does not assign any liability to any person or company. It serves as a source of information by identifying facilities or other hazardous substance releases that appear to warrant remedial actions.

<u>SUPERFUND (CERCLIS)</u>: Superfund is a program administered by the EPA to locate, investigate, and clean up uncontrolled hazardous waste sites throughout the United States. We reviewed the Idaho DEQ's "Waste Remediation Site Locator", DEQ's equivalent of the EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) list, a registry which lists those sites which are suspected of having received, generated, transported, or disposed of hazardous wastes prior to December 1980; or areas where hazardous wastes were suspected of having been released into the environment. The inclusion on this list is not in itself a judgment about the activities of a Property's owners or operators, but is used to identify those sites which may require further investigation because they may cause environmental or public health problems. The CERCLIS list is used by the Idaho DEQ to track potentially uncontrolled hazardous materials or hazardous waste sites. The Idaho DEQ also maintains a registry of those sites where clean up or remediation activities have taken place but no further action is planned.

<u>RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION RCRA INFO:</u> Hazardous waste generators, transporters, treaters, storers and disposers of hazardous waste are required to provide information on their activities to state environmental agencies. These agencies then provide the information to regional and national US Environmental Protection Agency (EPA) offices through the Resource Conservation and Recovery Act Information (RCRA Info) System. Information on cleaning up after accidents or other activities that result in a release of hazardous materials to the water, air or land must also be reported through RCRA Info.

<u>INSTITUTIONAL CONTROL/ENGINEERING CONTROL REGISTRIES:</u> Institutional controls are nonengineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. For instance, zoning restrictions prevent site land uses, like residential uses, that are not consistent with the level of cleanup.

ICs are used when contamination is first discovered, when remedies are ongoing and when residual contamination remains onsite at a level that does not allow for unrestricted use and unlimited exposure after cleanup. The National Contingency Plan (NCP) emphasizes that ICs are meant to supplement engineering controls and that ICs will rarely be the sole remedy at a site.

<u>VOLUNTARY CLEANUP SITES:</u> In Idaho, DEQ's Voluntary Cleanup Program (VCP) was created in 1996 by the Idaho Land Remediation Act to encourage innovation and cooperation between the state, local communities and private parties to revitalize properties with hazardous substance or petroleum contamination. The Idaho Land Remediation Rules, adopted in 1997, detail implementation procedures for the program. The Idaho Land Remediation Act was modified in 2002



to incorporate the Community Reinvestment Pilot Initiative, a state-funded program to assist with cleanup costs of up to 10 properties whose development is complicated by contamination issues. Currently, all 10 slots in the pilot program are filled.

<u>EMERGENCY RESPONSE NOTIFICATION SYSTEM (ERNS) LIST</u>: The Emergency Response Notification System (ERNS) is a computer database containing information on reports of oil and hazardous substance releases that have occurred throughout the United States and have been reported to the National Response Center (NRC), the ten EPA Regions, or the U.S. Coast Guard. The initial notification data may be updated with information from various Federal, State, and local response authorities as appropriate. ERNS data can be used to analyze reports of releases, support emergency planning efforts, and assist decision makers in developing spill prevention programs.

<u>STATE AND TRIBAL LANDFILL OR SOLID WASTE DISPOSAL SITES:</u> A listing of solid waste landfills (active and closed sites) is maintained by various agencies, including the Idaho DEQ. The list of closed solid waste landfills and dumps is not necessarily complete because older landfills or dumping areas may not be known.

STATE AND TRIBAL VOLUNTARY CLEANUP SITES: During 1996, the Idaho Legislature created the Idaho Land Remediation Act, DEQ's Voluntary Cleanup Program (VCP), to encourage innovation and cooperation between the state, local communities, and private parties working to revitalize properties with hazardous substance or petroleum contamination. During 1997, DEQ developed the Idaho Land Remediation Rules that detail the implementation of the Voluntary Cleanup Program. Sites that have entered in to the Voluntary Cleanup Program are identified on the Idaho Waste Division Inventory database.

<u>BROWNFIELDS (BMS):</u> The EPA Brownfields Management System (BMS) stores information reported by EPA Brownfields grant recipients on Brownfields properties assessed or cleaned up with grant funding. The Idaho DEQ's Brownfields Assessment Program funds and conducts environmental assessments of Brownfield sites when a lack of environmental information has complicated site redevelopment or reuse. For each site, DEQ will produce a final report that reveals whether a site is clean, lightly contaminated, or heavily contaminated, determines the nature and extent of the contamination, identifies potential cleanup options, and estimates cleanup costs (if any). Brownfields are abandoned or underutilized properties where the reuse is complicated by actual or perceived environmental contamination. With the help of Idaho Counties, Cities, Economic Development Districts, Urban Renewal Entities, developers and brokers, DEQ is developing a comprehensive, statewide inventory of Brownfields. Sites that qualify for and are being remediated under the Brownfields program are identified on the Idaho Waste Division Inventory database and on EPA's EnviroMapper for Brownfields site. DEQ's Brownfields Assessment Program funds and conducts environmental assessments of Brownfields sites when a lack of environmental information has complicated site redevelopment or reuse. For each site, DEQ will produce a final report that:

- · Reveals whether a site is clean, lightly contaminated, or heavily contaminated
- · Determines the nature and extent of the contamination
- Identifies potential cleanup options estimates cleanup costs (if any).

<u>TOXICS RELEASE INVENTORY (TRI)</u>: The Toxics Release Inventory (TRI) contains information about more than 650 toxic chemicals that are being used, manufactured, treated, transported, or released into the environment. Manufacturers of these chemicals are required to report the locations and quantities of chemicals stored on-site to State and local governments. The reports are submitted to the EPA and state governments. EPA compiles this data in an on-line, publicly accessible national computerized database.

<u>ADDITIONAL ENVIRONMENTAL DATABASE SOURCES:</u> For our Federal database information, we used a database operated by Nationwide Environmental Title Research Company (NETROnline) and crosschecked by SAGE, using the "Idaho Waste Remediation Facility Mapper", a database maintained by the Idaho DEQ, for properties or incidents reported within the area defined by the ASTM E1527-21 Minimum Search Distances. According to the DEQ, this data is updated approximately twice per month. We used the "Advanced 'Radius Search'" on the application to identify any additional environmental notification or remediation sites within a ½-mile to 1-mile radius of the Property. The NETROnline database report is presented in the addenda of this report.



The sites identified using the environmental database and other search tools are summarized in Table 1, below:

TABLE 1: SUMM	MARY OF ENVIR	RONMENTAL DA	TABASE SITES
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Standard Environmental Record Source	ASTM Search Dist. (Miles)	Number of Sites Identified	Identification of Sites Found: Distance and Direction From Property
Federal NPL site list	1.0	0	
Federal Delisted NPL site list	0.5	0	
Federal CERCLIS list	0.5	0	
Federal CERCLIS NFRAP (no further remedial action planned)	0.5	0	
Federal CORRACTS facilities list	0.5	0	
Federal RCRA non-CORRACTS TSD facilities list	1.0	0	
Federal RCRA generators list/State Hazardous Waste sites	Subject & adj. sites	0	
Federal institutional control/engineering control registries	Subject & adj. sites	0	
Federal ERNS list	Subject property	0	
State and tribal equivalent NPL	1.0	0	
State and tribal equivalent CERCLIS	0.5	0	
State and tribal landfill or Solid Waste Disposal site list	0.5	2	
Federal, State and tribal underground storage tank (UST) lists	Subject & adj. sites	0	
Federal, State and tribal leaking underground storage tank (LUST) lists	0.5	0	
State and tribal institutional/engineering control registries	Subject property	0	
State and tribal voluntary cleanup sites	0.5	0	
Federal, State and tribal Brownfield sites	0.5	0	
State General Remediation	0.5	0	

#### 5.1.1 Additional Environmental Record Sources

Our cross-check of database information with the Idaho DEQ's "Waste Remediation Facility Mapper" (Terradex) program did not identify additional database sites.

We used the Idaho DEQ's "Nitrate Priority Area Mapping Tool" available on the IDEQ website for information regarding known elevated nitrate levels present within regional groundwater. A major source of the elevated nitrates is from historic agricultural uses in the area. Our review of this map indicates that most of the Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling from nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast). These nitrate level are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.



#### 5.1.2 VAPOR ENCROACHMENT

In accordance with ASTM Standard E1527-21, SAGE conducted a vapor encroachment evaluation for the Property utilizing the environmental database and evaluating the contaminated properties within the ASTM-defined "area of concern" (AOC) of ½-mile from the Property. There are no environmental database sites located within the AOC; therefore, there are no vapor encroachment concern for the Property.

#### 5.2 PHYSICAL SETTING SOURCES

According to the current (2017) United States Geological Survey (USGS) "Sand Hollow, Idaho" 7.5-Minute Series Quadrangle map, the elevation of the site is approximately 2,520 feet above mean sea level. The site is generally level and lies at an elevation of approximately 2,520 feet above mean sea level. The north end of the site, just north of the C.L.E. Lateral lies 7 to 10 feet below the bank of the lateral. The C.L.E. Lateral irrigation canal is the closest surface water to the site; it borders a portion of the eastern Property boundary from the north before traversing westward along the homesite, angling southward along the west side of the homesite, then finally, traversing eastward along the south end of the homesite before exiting the Property along the southern boundary. Sand Hollow Creek borders the Property along the west (Figure 3a).

#### 5.3 HISTORICAL USE INFORMATION

We established the site history utilizing several sources of information including:

- Historic USGS Quad Maps
- Aerial Photography
- Sanborn Fire Insurance Maps
- Historical Plat Maps
- Canyon County Assessor's Office
- Recorded Land Title Records
- Polk's City Directories for Caldwell, Idaho
- Interviews and/or questionnaires completed by persons having knowledge of the Property and/or its history

The information obtained from these sources regarding past and current uses of the Property and adjoining properties may be incomplete but typically provides a general synopsis of site history.

#### 5.3.1 AERIAL PHOTOGRAPH REVIEW

Aerial photography can reveal historical activities or uses of the Property not otherwise documented or observable during the reconnaissance of the site. Aerial photography can also be used to confirm information obtained from other historical sources. The effectiveness of this review technique depends on the quality of the photographs, the available coverage, and the scale of photographs printed.

We obtained aerial photos, including the earliest available and the most recent historical aerial photos displaying the Property and vicinity taken during 1954, 1969, and 1981 from NETROnline Historic Aerials. We also reviewed current and historical satellite imagery for the



Property taken during 1992, 2002, 2010, and 2020 from Google Earth<sup>™</sup>. We reviewed these aerial photos for historic information on the use of the site and adjacent properties. Photocopies of these aerial photos are presented in the Addenda of this report.

Aerial photographs only provide information on visual indications of land use. No conclusions can be drawn from the photographs alone; however, our review of the aerial photographs did not reveal any obvious signs of dumping, significant spillage, leaks, storage, disposal of hazardous substances, or land use that would necessitate further investigation. A summary of the aerial photography review is presented in Table 2, below:

SITE FEATURES	1954	1969	1981	1992	2002	2010	2020	2021	COMMENTS
CROP PATTERNS	Y	Y	Y	Y	Y	Y	Y	Y	Crop patterns and/or pasture is visible on the Property on all photos.
STREETS	N	Y	Y	Y	Y	Y	Y	Y	The unpaved gravel and dirt Freezeout Road access lane is visible along the southern Property boundary from 1969 through 2021.
Buildings	N	N	N	Y	Y	Y	Y	Y	The dwelling is visible on the southeast quadrant of the site on the 1981 and subsequent photos; the shop building is visible on the site on the 1992 and subsequent photos.
PAVED PARKING AREAS	N	N	N	N	N	N	N	N	
DRAINAGE	Y	Y	Y	Y	Y	Y	Y	Y	The C.L.E. Lateral irrigation canal is visible traversing and bordering the Property on all photos. Sand Hollow Creek is visible along the western boundary on all photos.
CIRCULAR OBJECTS (ABOVE GROUND STORAGE TANKS OR WATER TANKS)	N	N	N	N	N	N	N	N	
Lagoon or Impoundment	Y	Y	Y	Y	Y	Y	Y	Y	Visible ponding of Sand Hollow Creek, along the western boundary, is visible on all photos.
GROUND SCARS	N	N	N	N	N	N	N	N	
Standing Liquid	N	N	N	N	N	N	N	N	
STACKED MATERIALS/ Objects	N	N	N	N	N	N	N	N	
Scattered Materials/ Objects	N	N	N	Y	Y	Y	Y	Y	Scattered materials begin to appear north and east of the homesite starting with the 1992 photo, with more materials appearing in subsequent photos through 2020.
Piles	N	N	N	Y	Y	Y	Y	Y	Piles of material and debris begin to appear north and east of the homesite starting with the 1992 photo, with more materials appearing in subsequent photos through 2020.

### TABLE 2: AERIAL PHOTOGRAPH REVIEW SUMMARY

(Key: Y=Yes; N=Not Observed; P=Possible, but not clearly resolved; U=Undetermined, not resolvable)



### 5.3.2 HISTORICAL USGS QUADRANGLE MAP(S)

We consulted the 1970 United States Geological Survey (USGS) "Sand Hollow, Idaho" 7.5-Minute Series Quadrangle map for any buildings located on the Property. This map did not indicate the presence of buildings or other developments on the site (Figure 3b).

# 5.3.3 SANBORN FIRE INSURANCE MAPS

Sanborn Maps, constructed by the Sanborn Fire Insurance Company for fire insurance underwriting purposes dating as far back as the late 1800s, can show details of buildings, improvements, and land uses; however, the coverage of these maps is usually limited to older or outdated districts in established towns and cities. During our research of available Sanborn Fire Insurance maps, we found no coverage for the Property and vicinity.

### 5.3.4 PROPERTY ASSESSOR FILES

According to the Canyon County Assessor's Office, the current ownership of the Property is as follows:

Thornton Gallup, LLC PO Box 1495 Nampa, Idaho 83653

# 5.3.5 RECORDED LAND TITLE RECORDS

A Chain of Title was not requested by the Client. The prior use of the subject Property was determined by SAGE ENVIRONMENTAL, with the aid of historical records and interviews with persons having knowledge of the site and its history. We also use the following resources, when available, to determine the presence of activity use limitations (AULs) or engineering controls (ECs) that may be recorded or connected to the Property title:

- Title Commitment (when provided by the Client) or Chain-of-Title report; For this report, a Chain-of-Title report dating back to 1982 was provided by the Client.
- Environmental Database Records
- Environmental Questionnaire and Disclosure Statement

CHAIN OF TITLE REPORT: The Chain of Title report indicated that the Property was sold or conveyed three times since 1982:

1982: Arthur & Bonnie Ashcraft sold/conveyed the Property to Robert & Virginia Figueredo

2018: Virginia Figueredo sold/conveyed the Property to Dorothy & Melvin Bonham, and Melvin Bonham, Jr.

**ENVIRONMENTAL DATABASE RECORDS:** We used information obtained from the Environmental Database Records to identify those sites that were assigned a "no further action" status from the Idaho DEQ using activity use limitations (AULs) or engineering controls (ECs). We did not find deed restrictions limiting the use of the Property (AULs), nor did we find any institution or engineering controls (ECs) listed for the site.

**ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT:** We used the Environmental Questionnaire and Disclosure Statement to determine the Owner's knowledge of activity use



limitations (AULs) or engineering controls (ECs) for the Property. According to the Environmental Questionnaire and Disclosure Statements, Brian Falck (a representative of the Property owner and developer) has no knowledge of Environmental Liens or Activity and Use Limitations for the Property that may exist on the Property.

### 5.3.6 POLK'S CITY DIRECTORIES

Polk's City Directories, published by the R.L. Polk Company as a telephone/address/ business locating publication, can be useful when researching the historical occupants of the Property (by address). SAGE ENVIRONMENTAL reviewed the available Polk's City Directories at the Idaho Historical Library in Boise, Idaho; we found Polk directory coverage for Caldwell that included the Property's immediate vicinity, beginning in 2000 (earliest available) through 2020. As expected, the Property does not appear in the Polk Directory listings (the site has never been developed). The Polk Directory listings indicate that the area surrounding the Property has been used for rural residential purposes.

# 5.3.7 ZONING/LAND USE RECORDS

We reviewed the current and land use designations for the Property from the Canyon County Assessor. Our review of this map indicated that currently, the Property is located outside of the city limits of Caldwell, Idaho and within a Canyon County zoning area designated as "Agricultural" zoning district. According to the Canyon County Zoning Ordinance, "The purposes of the A (Agricultural) Zone are to:

A. Promote the public health, safety, and welfare of the people of the County by encouraging the protection of viable farmland and farming operations;

B. Limit urban density development to Areas of City Impact in accordance with the comprehensive plan;

C. Protect fish, wildlife, and recreation resources, consistent with the purposes of the "Local Land Use Planning Act", Idaho Code title 67, chapter 65;

D. Protect agricultural land uses, and rangeland uses, and wildlife management areas from unreasonable adverse impacts from development; and

E. Provide for the development of schools, churches, and other public and quasi-public uses consistent with the comprehensive plan." (Canyon County Code 7 to 10-25)

### 5.3.8 HISTORICAL PLAT MAPS

We researched historical plat maps and/or Atlases, potential resources for identifying past owners of the Property from Historic MapWorks Residential Geneaology™. The earliest map, The Standard Atlas of Canyon County, published in 1915 by George A. Ogle and Co., indicated that the Property was part of an 80-acre parcel of land owned by George Struthers. A second map, Metsker's Atlas of Canyon County, Idaho, published in 1939, indicated that the Property was part of two larger parcels owned by W.W. Waterman (west end) and Daniel W. Kennedy (east end). Neither plat map indicated the presence of buildings or other developments on the site.



#### 5.4 PRIOR USE ASSESSMENT OF THE PROPERTY

We compiled a history of the past Property uses through our review of available maps, aerial photographs, and interviews with individuals associated with the Property. A summary of the past Property uses is presented in the following table:

#### TABLE 3: PRIOR USE SUMMARY OF PROPERTY

1939-1975	1976 - 2022
Irrigated Farm Land and/or pasture	Rural Homesite and Pasture

#### 5.5 PRIOR USES OF ADJOINING PROPERTIES

We also compiled a history of the past uses of the adjoining properties through our review of available maps, aerial photographs, and interviews with individuals associated with the Property. Listed below is a summary of the past uses of the adjoining sites:

#### TABLE 4: PRIOR USE SUMMARY OF ADJACENT PROPERTIES

	1939	1954	1969	1981	1992	2002	2010	2022
North:	Undeveloped or Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Irrigated Farm Land Land		Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Vacant Rural Residential & Irrigated Farm Land
<b>S</b> OUTH:	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Farm Site & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Residential
EAST:	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land	Rural Residential & Irrigated Farm Land
WEST:	Undeveloped or Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Irrigated Farm Land	Rural Residential & Pasture	Rural Residential & Pasture	Rural Residential & Pasture



### 6.0 SITE RECONNAISSANCE

For this Phase I ESA Update, Brenda Magnuson of SAGE ENVIRONMENTAL conducted a site reconnaissance of the Property on May 16, 2022. At the time of the site reconnaissance, the weather conditions were mostly sunny and warm; the ambient air temperature was 71±°F.

### 6.1 METHODOLOGY & LIMITING CONDITIONS

A visual reconnaissance was conducted on the Property in general accordance with SAGE ENVIRONMENTAL's standard environmental assessment procedures. This reconnaissance consisted of systematically walking the Property to provide an overlapping field of view and noting any "recognized environmental conditions" as encountered. Photographic documentation of pertinent "recognized environmental conditions" and site improvements and also adjacent property uses was made; some of which have been included in the Addenda of this report. In the case of multi-tenant commercial Properties, and the Property has five or fewer current occupants, we make a reasonable attempt to inspect and interview a representative of each tenant space. If there are more than five current occupants, we make a reasonable attempt to inspect and interview the major occupants and those other occupants whose operations are likely to indicate recognized environmental conditions in connection with the Property. For this assessment, the entire site was accessible.

The reconnaissance of the adjacent properties was performed by walking the perimeter of the subject site and observing and photographing the readily accessible and visible areas bordering or adjacent to the subject property and noting potential environmental conditions. During and after the site reconnaissance, we also evaluated adjacent parcels for their potential environmental impact to the Property. Photographs documenting the current condition of the Property are presented in the Addenda. The site reconnaissance focused on the following:

- Evaluating the presence of surface waters on the Property
- An evaluation of the materials used and stored on the Property
- Evidence of contamination by hazardous substances (stains, odors, etc.)
- The presence of aboveground storage tanks (ASTs) or visual indication of underground storage tanks (USTs)
- Evidence of buried solid waste
- Identification of transformers and other electrical equipment potentially containing Polychlorinated Biphenyls (PCBs)
- An evaluation of current land use



# 6.2 GENERAL SITE VISIT OBSERVATIONS

# TABLE 5: SUMMARY OF SITE VISIT OBSERVATIONS

GENERAL SITE OBSERVATIONS	NS DESCRIPTION		
Current Use(s) of the Property	Rural Homesite and Pasture		
Current Uses of Adjoining Properties	<ul> <li>North: Rural Residential &amp; Pasture</li> <li>South: Developing Residential Subdivision</li> <li>West: Rural Residential &amp; Pasture</li> <li>East: Rural Residential &amp; Pasture</li> </ul>		
<b>Description of Structures</b> & Other Improvements (Figure 4)	One, 1,404 SF, single-level dwelling constructed during 1976, located on the southeast portion of site. Three-bay shop building located northwest of dwelling. This is a steel framed structure with a metal roof and exterior. In this building, the west $\frac{2}{3}$ of the floor is dirt; the east $\frac{1}{3}$ of the floor is a concrete slab.		
DESCRIPTION OF ROADS	Access to the Property is from a access gravel roadway/lane located along the southern boundary. This unimproved, private road extends to Freezeout Road (west), a paved, two-lane rural roadway with no curbs, gutter, or sidewalks.		
GEOLOGIC, HYDROGEOLOGIC & TOPOGRAPHICAL CONDITIONS	Most of the site is generally level and at-grade with nearby streets; the north end of the site, just north of the E.L.C. Lateral, lies approximately 7 to 10 feet below the lateral; the west end of the site, near Sand Hollow Creek, slopes slightly downward toward the creek. None of the information we obtained during the course of this assessment indicates that hazardous substances or petroleum products are likely to migrate onto the Property from nearby sites.		
POTABLE WATER SUPPLY	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was constructed during 1974 to a depth of 67 feet below ground surface (bgs). Water was first encountered at a depth of 40 feet bgs. A copy of the well log is included in the Addenda.		
SEWAGE DISPOSAL SYSTEM	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the size and exact location of this system.		
Hazardous Substances and Petroleum Products	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked. Of the nearly fifty (50) 55-gallon drums we identified on the site, two (2) to three (3) of the drums and three (3) 5-gallon containers contain an unknown liquid; stains around two of the containers indicate that they may contain waste oil. During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no <i>significant</i> stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).		
USTS OR ASTS	None were identified on the Property.		
Odors	None were identified on the Property.		
Pools of Liquid	None were identified on the Property.		



Drums	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, there are three (3) drums located in the field to the northeast of the dwelling that contain unknown liquids. The drums are located northeast of the dwelling (within "Area #2" on the Site Plan). The drums have tight-fitting lids and most did not show evidence of leaks; however, we did see limited staining on the ground next to the one drum (along with a 5-gallon container next to the drum) located in "Area #2" with limited staining on the ground. This staining appears to be caused by waste oil. <b>Note #1:</b> During our April 12, 2021 inspection, SAGE noted that three (3) drums were located at the northeast corner of the Property, next to the E.L.C. Lateral. Two (2) of the drums contained unknown liquids. Due to the proximity of the drums to the irrigation lateral and the presence of unknown contents, Sage notified the Client of this concern. The Client subsequently removed the three (3) drums. On April 20, 2021, Sage returned to the site to verify the removal of the drums and inspect the ground for evidence of spills or leaks and verified that none were present. A photo of this location is included in the Addenda. <b>Note #2:</b> The number of drums is an approximate number because some of the empty drums are located within piles of debris and are difficult or impossible to see.	
Unidentified Substance Containers	See "Hazardous Substance and Petroleum Products" and "Drums" (above).	
Polychlorinated Biphenyls (PCBs)	None were identified on the Property.	
Heating and/or Cooling Sources	A natural gas-fired HVAC system provides heat and cooling for the dwelling.	
STAINS OR CORROSION	None were identified on the Property.	
DRAINS OR SUMPS	None were identified on the Property.	
ELEVATORS	None were identified on the Property.	
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During our inspection of the site, we observed the area on the site where the creek temporarily ponds or pools along the western boundary. <i>This seasonal pond was present on our May 16, 2022 site visit.</i> A pile of discarded water heaters, pressure tanks, and miscellaneous equipment is located on the southeastern edge of the pond area. Evidence of contamination was not observed in this area.	
STORM DRAINS	None were identified on the Property.	
STAINED SOIL OR PAVEMENT	Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment. Surface staining was observed on the ground beneath one (1) drum and one (1) 5-gallon container within "Area #2" on the Site Plan. This staining is limited and appears to be caused by a minor spill of waste oil. This stain also appears to be a surface stain; limited to the top 6-inches of soil.	
STRESSED VEGETATION	During our inspection of the Property, we did not see any unnaturally stressed vegetation on the Property.	
Solid Waste	Evidence of buried solid waste disposal was not observed on the Property during our site reconnaissance; however, several piles of wood/lumber waste; concrete waste; miscellaneous equipment; 50+ tires; and other miscellaneous items are located on the home site north and east of the dwelling.	



WASTE WATER	Wastewater generated on the Property has been limited to domestic-type sewage from the dwelling.	
WELLSAs discussed previously, a private well, located northeast of the dw provides potable water to the home site on the Property. According Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was constructed during 1974 to a dep feet below ground surface (bgs). Water was first encountered at a 40 feet bgs. A copy of the Well Construction Log is included in the Addenda of t report.		
<b>EPTIC SYSTEMS</b> As discussed previously, an on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely tha this septic system is located in the back yard (east) of the dwelling; however, we have no information about the exact location of this system.		



### 7.0 INTERVIEWS

Owner(s):	In lieu of an interview, we submitted an "Environmental Questionnaire and Disclosure Statements" to Brian Falck, a representative of the Property owner and developer; a copy of the questionnaire is included in the Addenda of this report. For this Phase I ESA Update, Mr. Falck reported that the use of the Property has not changed since the previous Phase I ESA report was prepared and the site has remained vacant.	
Key Site Manager:	See above.	
OCCUPANTS:	Currently, no occupants.	
Past Owners and/ or Operators:	We did not interview any past owners and/or occupants of the site.	
LOCAL GOVERNMENT Officials:	For this report, we did not interview any local government officials with to the Property or nearby sites.	

# 8.0 NON-SCOPE ITEMS AND ADDITIONAL SERVICES

There may be environmental issues or conditions at the Property that parties may wish to assess in connection with commercial real estate that are outside the scope of ASTM E 1527-12. There may be other issues related to the Property or adjacent properties that are not included in CERCLA's definition of hazardous substances (42 USC§ 9601(14)) or do not otherwise present potential CERCLA liability. Such non-scope considerations may pose a Business Environmental Risk include, but are not limited to the following: radon screening, asbestos-containing material survey, lead-based paint survey, lead in drinking water, wetland assessment, interior PCB sampling, regulatory compliance, ecological resources, endangered species, indoor air quality, cultural resources, industrial hygiene, health and safety, and high voltage power lines. Addressing such non-scope issues was not requested by the client.

For this report, the Client has not requested additional Non-ASTM Scope of Work items.



### 9.0 EVALUATION

#### 9.1 FINDINGS

The findings listed below summarize the information we identified during the course of our inspection of the Property and our research into its history and appropriate database sources. These findings may or may not lead to the identification of any known or suspected recognized environmental conditions, historical recognized environmental conditions, and "de minimus" conditions:

TYPE OF INFORMATION EVALUATED	Finding
USER-PROVIDED INFORMATION	No environmental concerns
ENVIRONMENTAL DATABASE RECORDS	See below
Nitrate Priority Area	The Property is located just inside the Ada/Canyon County; Purple Sage Nitrate priority area. Well sampling on nearby sites have revealed nitrate levels ranging from 0.01 mg/l (west) and 0.32 mg/L (northwest), to 5.05 mg/L (northeast) and are considered elevated, but are well below the EPA and State drinking water standard of 10.0 mg/L.
HISTORICAL USE INFORMATION	No environmental concerns
SITE RECONNAISSANCE	See below
Potable Water Supply/Wells	A private well, located northeast of the dwelling, provides potable water to the home site on the Property. According the Well Construction Log we obtained from the Idaho Department of Water Resources, the domestic well was installed during 1974 and was constructed to a depth of 67 feet below ground surface (bgs). During construction, water was first encountered at a depth of 40 feet bgs.
Sewage Disposal System/Septic Systens	An on site septic tank and drainfield system provides sewage disposal for the dwelling on the Property. It is likely that this septic system is located near the dwelling; however, we have no information about the exact location of this system.
Hazardous Substances and Petroleum Products	Several containers of oils, lubes, household maintenance products, and a few cans of gasoline are stored inside the shop building; these materials are stored in containers of 5-gallons in size or smaller. None of these containers appeared to be leaking or have leaked. Of the nearly fifty (50) 55-gallon drums we identified on the site, two to three (2-3) of the drums and three (3) 5-gallon containers contain an unknown liquid; a small amount of staining around two (2) of the containers indicate that they may contain waste oil. During our inspection of the Property, we saw no visual indications that the site has been, or is being contaminated by hazardous waste or other hazardous substances. We did not observe any visual evidence of the historic use of hazardous materials and we observed no significant stains, odors, or unnaturally stressed vegetation (indicators that the improper use of these material has occurred).
Drums/Unidentified Substance Containers	Approximately fifty (50) 55-gallon drums are located on the Property. Most of these drums are empty or contain trash; however, two (2) to three (3) drums located in the field to the northeast of the dwelling contain unknown liquids(continued below)



Drums/Unidentified Substance Containers (continued from previous page)	The two (2) to three (3) drums containing liquids have tight-fitting lids. One (1) drum has limited staining on the ground that appears to be waste oil. This drum is located within "Area #2" on the Site Plan. <b>Note:</b> The number of drums is an approximate number because some of the empty drums are located within piles of material and debris that are difficult or impossible to see.
Pits, Ponds, or Lagoons	Although not currently present, aerial photos indicate that Sand Hollow Creek, forms a seasonal pond or shallow pool of water near the mid-point of the western Property boundary. During inspection of the site, we observed the area on the site were the creek temporarily ponds or pools along the western boundary. <b>Update:</b> The seasonal pond was present at the time of our May 16, 2022 site visit.
Stained Soil or Pavement	Minor surface stains are visible on the gravel drive in front of the shop building (south side). These surface stains appear to have been caused by fluid drips from parked vehicles or equipment. We observed staining on the ground beneath one of the drums and a 5- gallon container within "Area #2" (shown on the Site Plan). This staining is limited and appears to be caused by waste oil.
VAPOR ENCROACHMENT Concerns	No environmental concerns

### 9.2 OPINIONS

Listed below are our professional opinions of the impact (if any) on the Property of the conditions identified in the Findings listed in Section 9.1:

TYPE OF INFORMATION EVALUATED	OPINION	
ENVIRONMENTAL DATABASE Records	See below	
NITRATE PRIORITY AREA	Although it is possible that the groundwater beneath the Property may contain elevated levels of nitrates, our review of area well sampling data indicates that nitrate levels would likely be well below the EPA and Idaho drinking water standard of 10.0 mg/L. <i>This is not a "recognized environmental condition" or "REC"</i> .	
SITE RECONNAISSANCE	See below	
Potable Water Supply/ Wells	The presence of a private well on the Property is not a cause for concern; however, if the future use of the Property does not include the use of the well, it should be properly abandoned in accordance with the Idaho Department of Water Resources (IDWR) rules. <i>Although not considered a "REC",</i> due to the relatively shallow depth of the well (less than 100 feet bgs), we recommend sampling of the well prior to it's continued use as a potable water source. The analyses should include at least, bacteria (Total Coliform and E. Coli) and Nitrates.	
Sewage Disposal System/ Septic Systens	The presence of an on site septic tank and drainfield system <i>is not a cause for concern</i> ; however, if the future use of the Property doe not include the use of the septic system, it should be closed in accordance with Idaho Health Department Rules.	



Hazardous Substances and Petroleum Products	In their current state, the use and storage of oils, lubes, household maintenance products, and cans of gasoline on the site are not a cause for concern and are not considered a "REC"; however, any of these materials that are no longer in use should be disposed of in accordance with Federal, State, and local rules and regulations.
Drums/Unidentified Substance Containers	Of the fifty (50)± drums located on the site, two (2) to three (3) drums located in the field to the northeast of the dwelling (area #2 on Site Plan) contain an unknown liquid. All of these drums/containers have been on the Property for an extended period of time; it is unclear if the staining around the drum/container in area #2 was caused by spills or if the container has leaked; however, it is our opinion that these drums and the soil staining is not considered a "REC" because the staining on the ground around one (1) drum and one (1) 5-gallon container appears limited to the top 6-inches of soil, a "de minimus" condition. Although not considered a "REC" the contents of the drums should be determined and properly disposed of in accordance with Federal, State, and local rules and regulations.
Pits, Ponds, or Lagoons	The seasonal pond/pool formed by Sand Hollow Creek is not a cause for concern with respect to the environmental integrity of the Property.
Stained Soil or Pavement	One of the drums and/or 5-gallon containers (area #2 on Site Plan) appears to have leaked waste oil onto to the ground. This staining appears to be waste oil and to the extent observable, the leakage appears to be have been present for some time. Currently, this staining appears to be minor (limited to the top six-inches of soil or less). This type of surface stain is considered "de minimus" and is not a "REC". It is possible that the removal of drums, containers, or piles of debris could reveal additional staining that was not observable during the site visit. Any staining extending beyond the top 6- inches of soil may require further evaluation.

### **10.0 CONCLUSIONS**

SAGE ENVIRONMENTAL SERVICES, LLC has performed a Phase I Environmental Site Assessment (update) in conformance with the ASTM Practice E1527-21 for the Property located at 23442 Freezeout Road in Caldwell, Idaho. Any exception to or deletion from this practice is described in Section 2.3 "Scope of Services" and Section 2.5 "Limitations and Restrictions" of this report.

Based on our review of available information, Sage Environmental has identified no "recognized environmental conditions" or "RECs" in connection with t the Property. Although not considered a "REC", the contents of any drums and containers of liquids stored outside the shop should be determined and disposed of in accordance with Federal, State, and local rules/ regulations.

The removal of the piles of equipment, miscellaneous materials, and debris, may reveal additional drums, containers, and/or soil staining that require further evaluation.



#### 10.1 DATA GAPS & FAILURES

We identified four data gaps that were greater than 10 years; 1915-1939 (24 years); 1939-1954 (15 years); 1954-1969 (15 years); and 1981-1992 (11 years). Based upon the known history of the Property, these data gaps are considered insignificant with respect to the historic use(s) of the Property and any resulting environmental impacts.

The lack of Sanborn Map and Polk Directory coverage for the Property is considered a data failures. Based upon the known history of the Property, these data failures are considered insignificant with respect to the historic use(s) of the Property and any resulting environmental impacts.

#### 10.2 DEVIATIONS FROM ASTM E1527-21

We did not deviate from ASTM E1527-21"Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process".

### 11.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONAL & SIGNATURES

As required by 40 CFR 312.21(d), SAGE is providing the following statements as to the qualifications of the environmental professional(s) responsible for conducting this Phase I Environmental Site Assessment and the preparation of this report:

- 1. I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR312, and
- 2. I have the specific qualifications, based on education, training, and experience, to assess a property of the nature, history, and setting to the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared By:

SAGE ENVIRONMENTAL SERVICES, LLC

Bunda Magneesoi

BRENDA L. MAGNUSON, REA REGISTERED ENVIRONMENTAL ASSESSOR, CERT. #06973



### 12.0 REFERENCES SITED

CANYON COUNTY ASSESSOR'S OFFICE, PUBLIC FILES FOR 23443 FREEZEOUT ROAD IN CALDWELL, IDAHO.

- BIG SKY MAPS, 2005. ADA AND CANYON COUNTY STREET ATLAS. SKY MAPS/GM JOHNSON & ASSOCIATED, LTD, 2005.
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- IDAHO DEPARTMENT OF WATER RESOURCES, WELL CONSTRUCTION SEARCH APPLICATION. HTTPS:// IDWR.IDAHO.GOV/APPS/APPSWELL/WCINFOSEARCHEXTERNAL/.
- MALDE, H.E. AND POWERS, H.A. 1962, "UPPER CENOZOIC STRATIGRAPHY OF WESTERN SNAKE RIVER PLAIN, IDAHO"; GEOLOGICAL SOCIETY OF AMERICA BULLETIN, V. 73, P1197-1220.

METSKER, C.F. METSKER'S ATLAS OF CANYON COUNTY, IDAHO. NOVEMBER 1939.

- NETRONLINE: NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC. 1954, 1969, AND 1981 HISTORIC AERIAL PHOTOS.
- OTHBERG, K.L. AND STANFORD, L.R., 1992. "GEOLOGIC MAPS OF THE BOISE VALLEY AND ADJOINING AREAS; WESTERN SNAKE RIVER PLAIN, IDAHO"; IDAHO GEOLOGIC SURVEY MAP SERIES. SCALE 1:100,000.

R.L. POLK COMPANY. POLK'S CITY DIRECTORIES FOR CALDWELL, IDAHO.

UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY, 1979 AND 2017. "SAND HOLLOW, IDAHO QUADRANGLE, 7.5-MINUTE SERIES TOPOGRAPHIC MAPS".

### ENVIRONMENTAL DATABASE SOURCES:

- IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY WASTE DIVISION INVENTORY (WDI) http://www.deq.idaho.gov/Applications/WDI/
- NETRONLINE: NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC. TEMPE, ARIZONA; ENVIRONMENTAL DATABASE REPORT; http://www.NETROnline.com

# 13.0 PERSONS CONTACTED/INTERVIEWED

NAME	Address	TELEPHONE	RELATIONSHIP TO SITE USE
Brian Falck	Pioneer Homes 719 1st Street South, Ste. B Boise, Idaho 83709	208.941.2686	Representative of Client (Pioneer Homes) Completed User Questionnaire

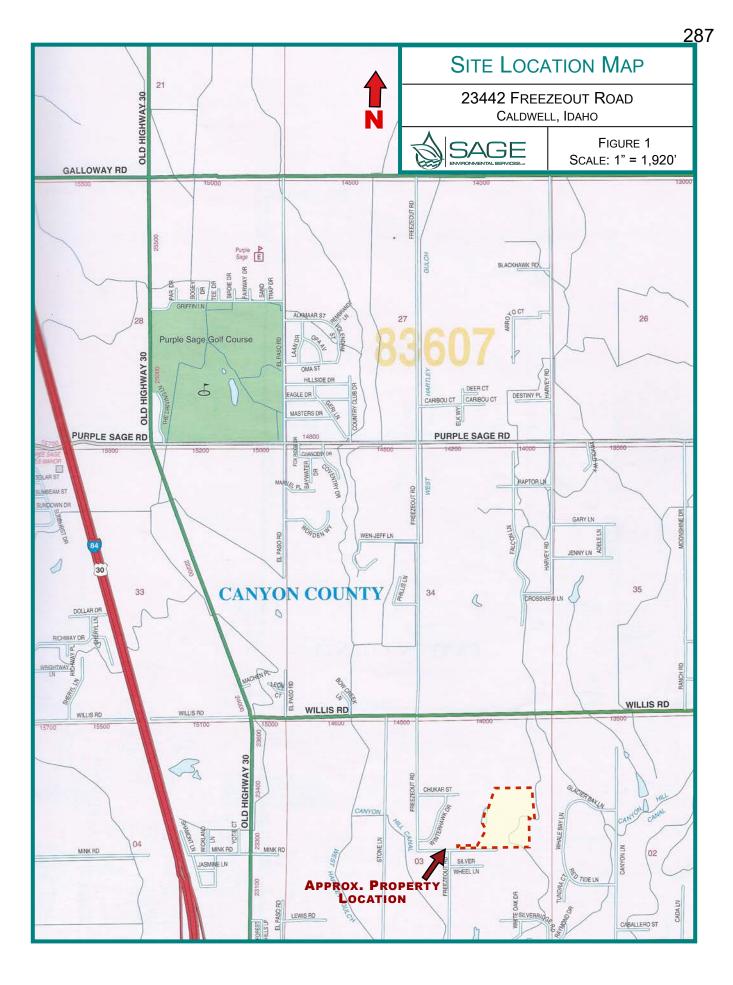


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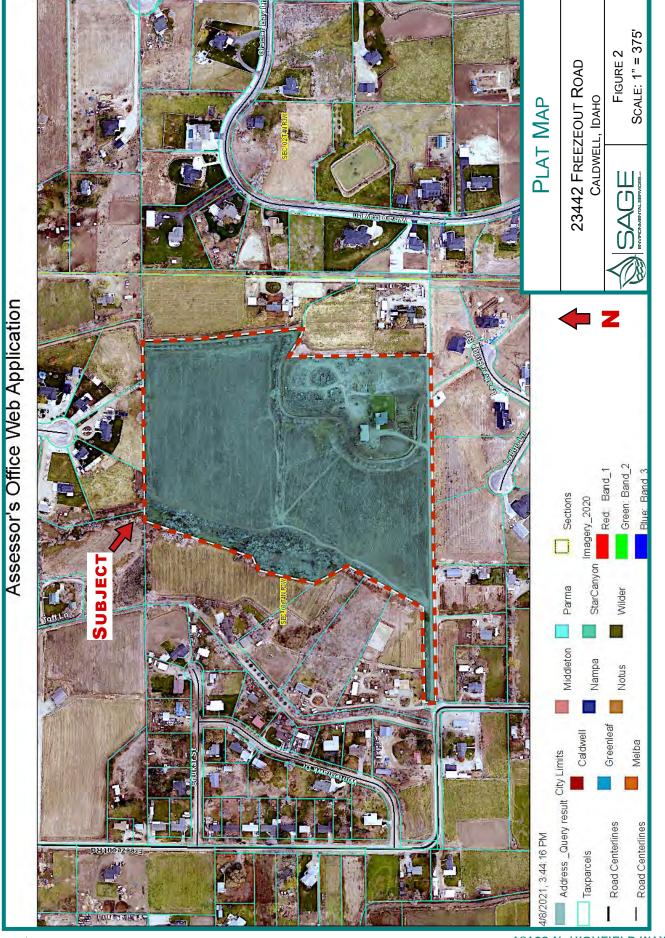


MAPS & FIGURES



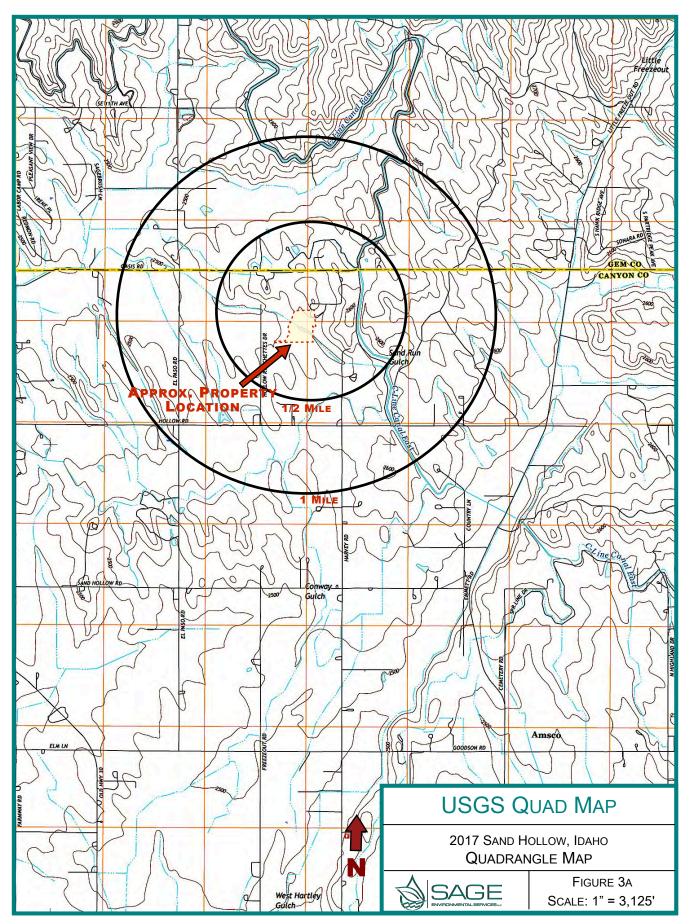




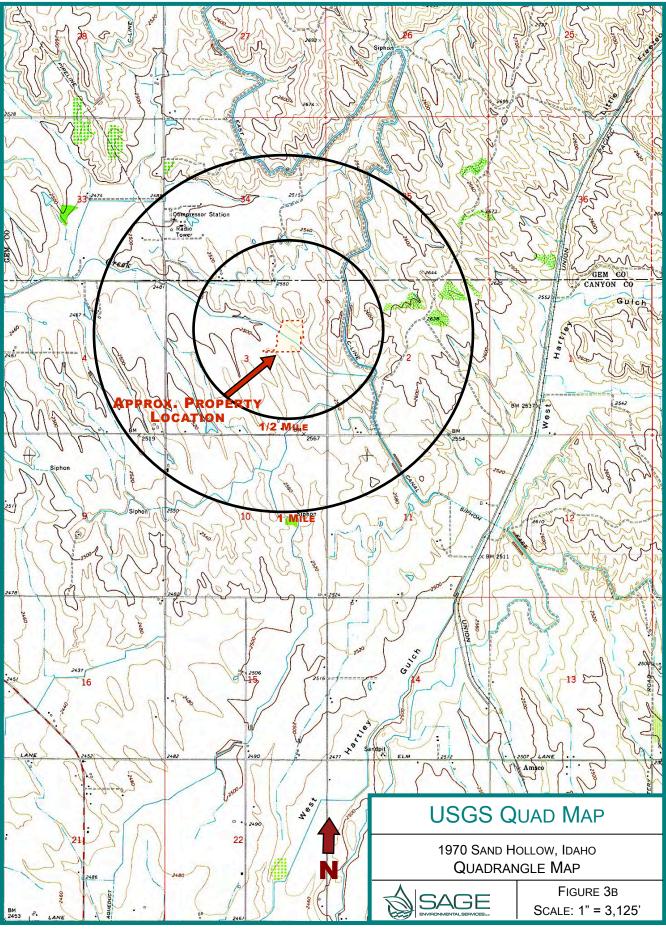


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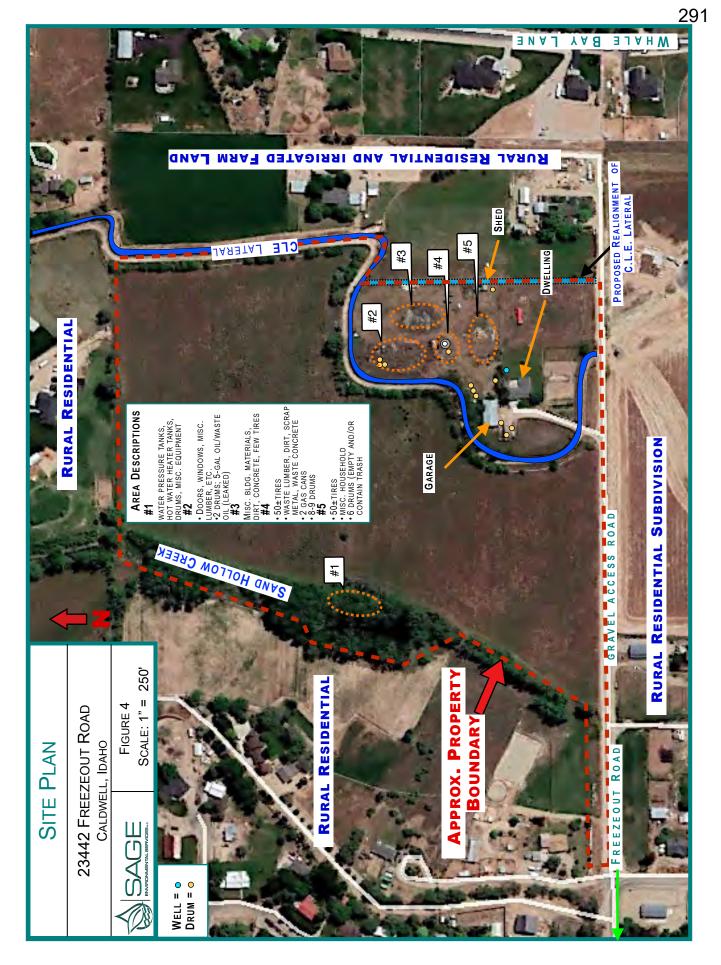




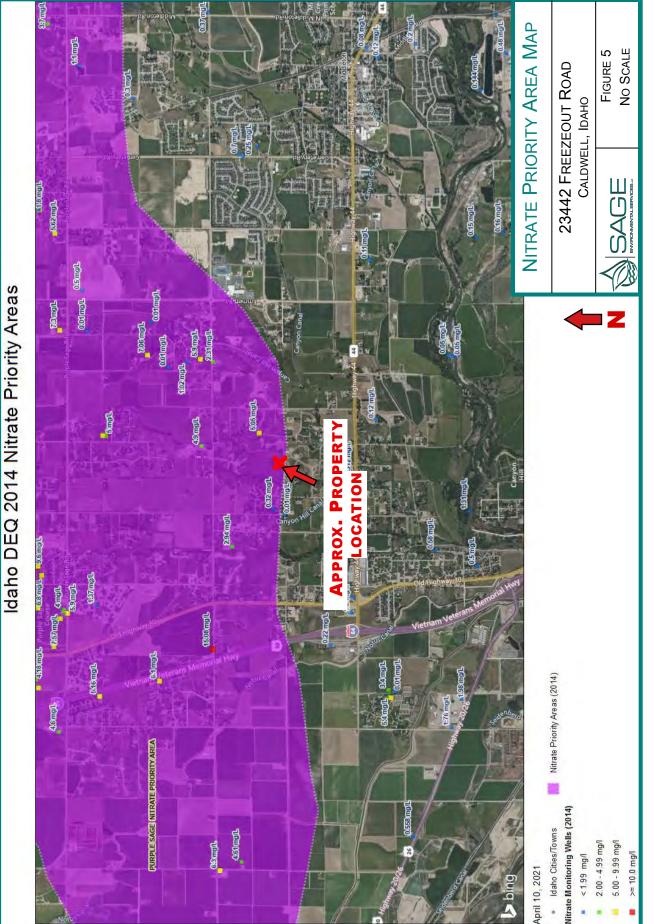


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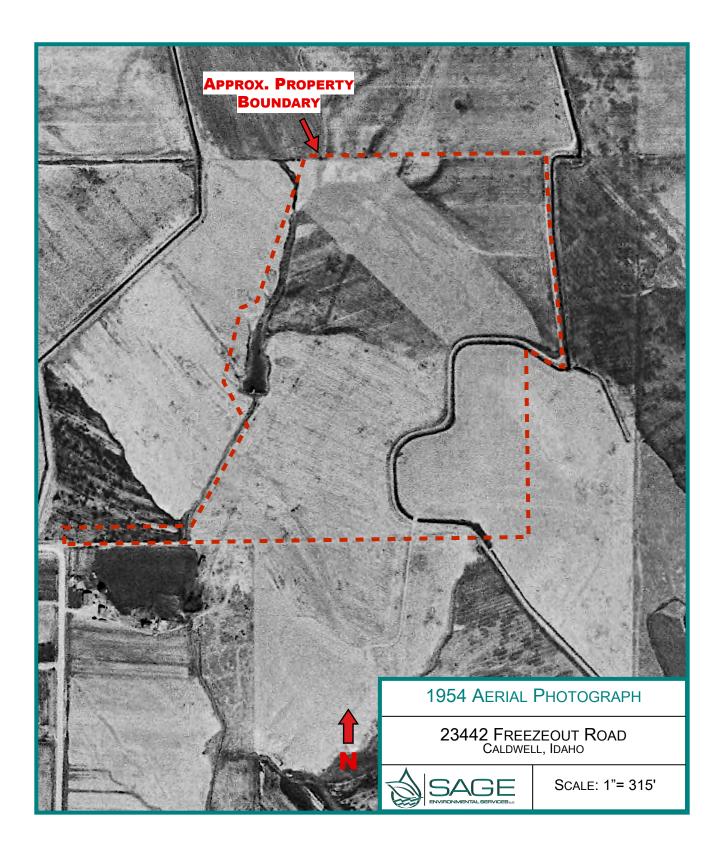


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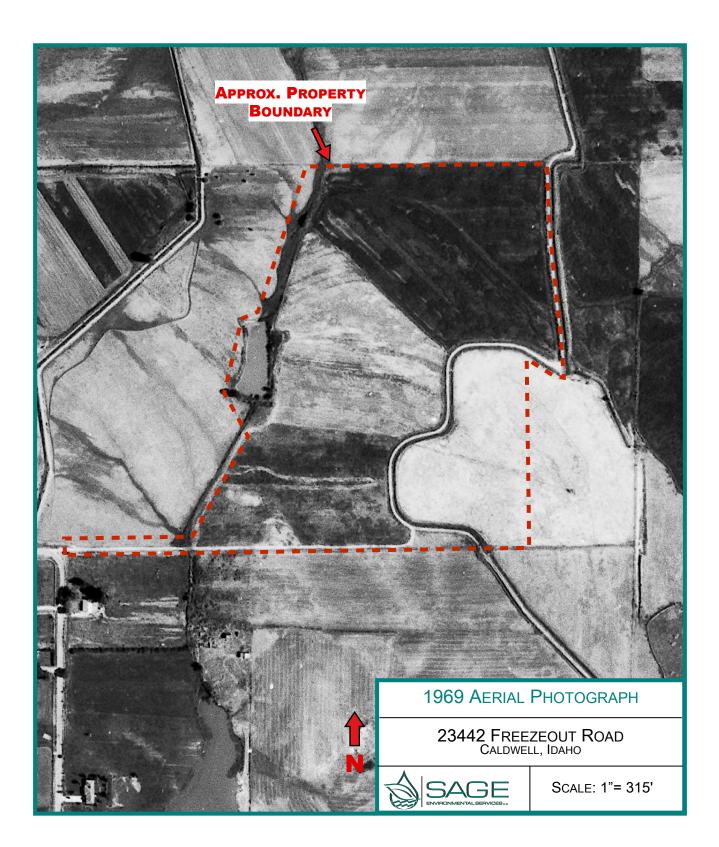
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**AERIAL PHOTOS** 

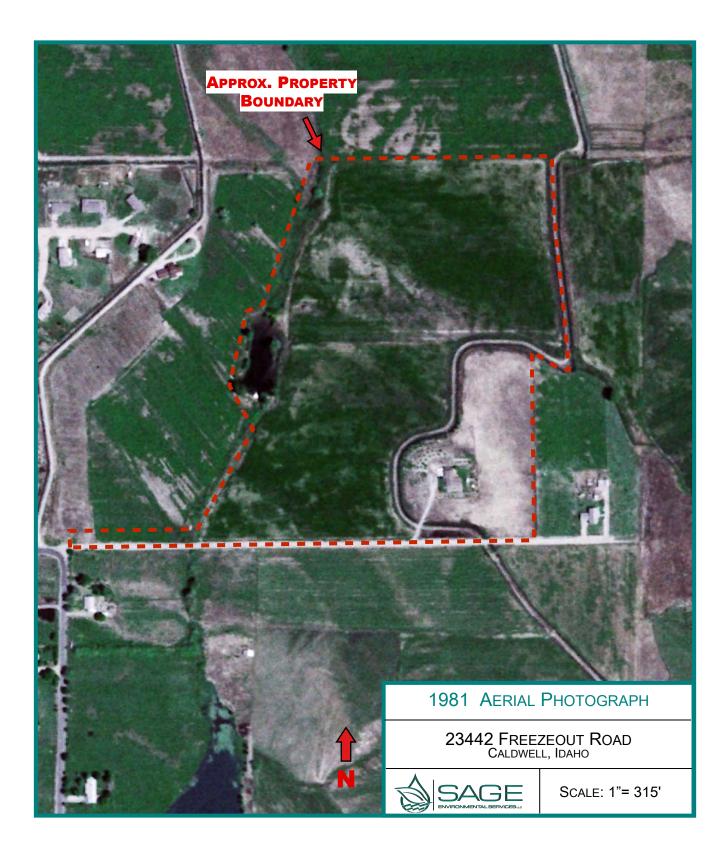




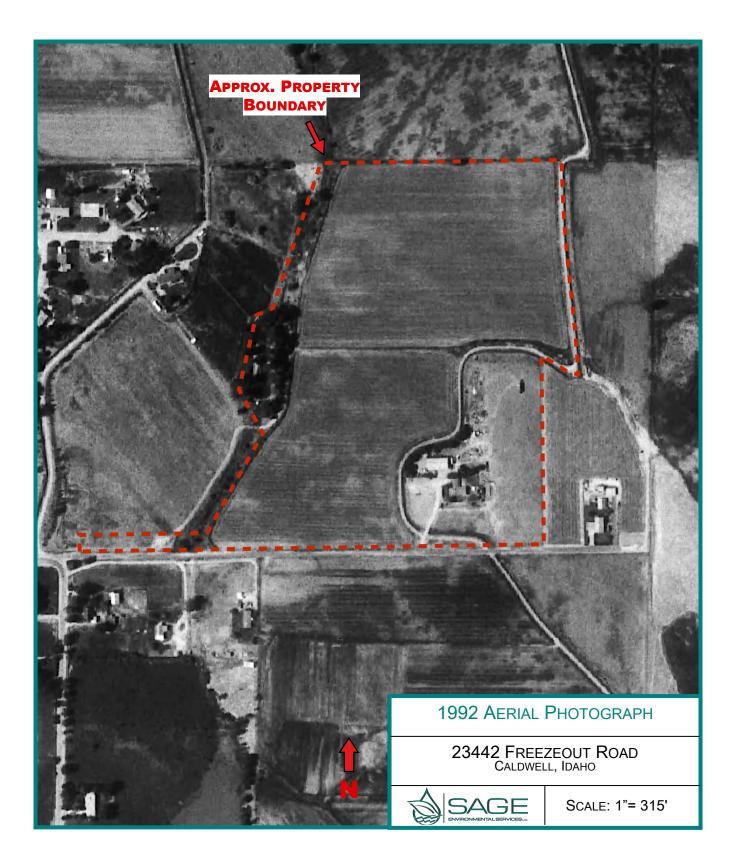








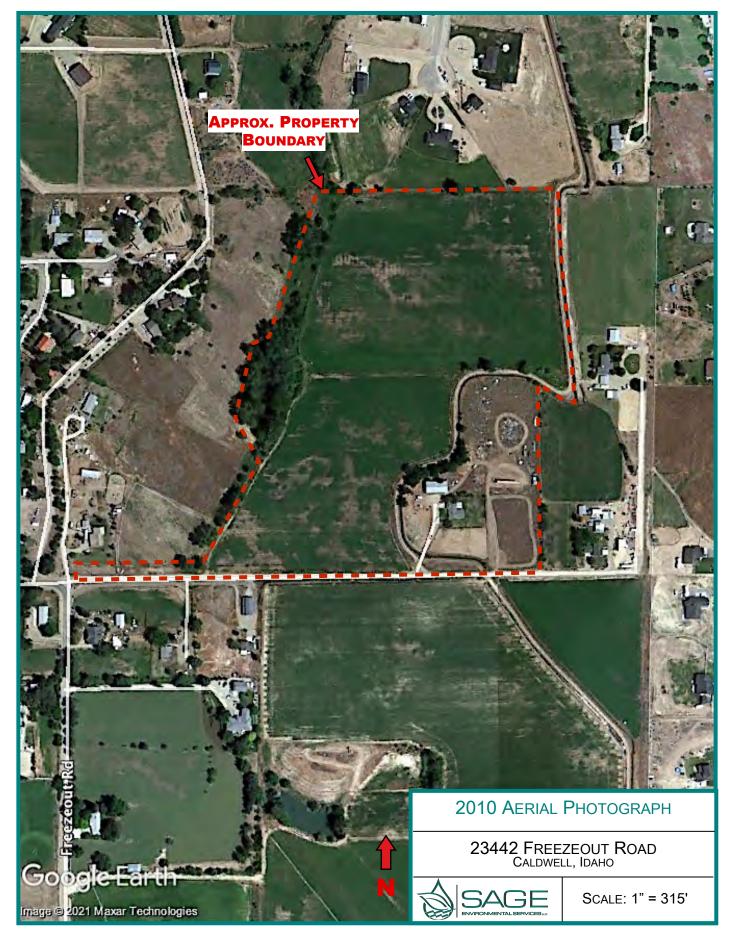














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SITE PHOTOS



PHOTOGRAPH #1: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTH ALONG THE DRIVEWAY SHOWING THE SHOP BUILDING (LEFT) AND DWELLING (RIGHT).

PHOTOGRAPH #2: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTHWEST FROM NEAR THE SOUTHEASTERN CORNER.





PHOTOGRAPH #3: LOOKING NORTH ALONG THE EASTERN BOUNDARY, AS SEEN FROM NEAR THE SOUTHEASTERN CORNER.





PHOTOGRAPH #4: LOOKING WEST ALONG THE SOUTHERN PROPERTY BOUNDARY. THE DIRT/GRAVEL ACCESS ROAD FROM FREEZEOUT ROAD IS VISIBLE ON THE LEFT SIDE OF THE PHOTO.

### PHOTOGRAPH #5: LOOKING EAST ALONG THE SOUTHERN PROPERTY BOUNDARY. THE DIRT/GRAVEL ACCESS ROAD FROM FREEZEOUT ROAD IS VISIBLE ON THE RIGHT SIDE OF THE PHOTO.





PHOTOGRAPH #6: A VIEW OF THE PROPERTY AS SEEN LOOKING NORTHEAST FROM NEAR THE SOUTHWESTERN CORNER.



PHOTOGRAPH #7: LOOKING NORTH ALONG THE WESTERN PROPERTY BOUNDARY, AS SEEN FROM NEAR THE SOUTHWESTERN CORNER.

PHOTOGRAPH #8: This PHOTO SHOWS THE SOUTH (FRONT) SIDE OF THE SHOP, AS SEEN LOOKING NORTH FROM THE DRIVEWAY.





PHOTOGRAPH #9: THIS PHOTO SHOWS THE WEST (FRONT) SIDE OF THE HOUSE, AS SEEN LOOKING NORTHEAST FROM THE DRIVEWAY.



PHOTOGRAPH #10: A VIEW OF THE SITE AS SEEN LOOKING WEST ACROSS THE BACK YARD, TOWARD THE EAST SIDE OF THE HOUSE.

PHOTOGRAPH #11: This photo SHOWS THE DISCARDED HOT WATER HEATERS, PRESSURE TANKS, AND MISCELLANEOUS METAL ITEMS LOCATED AT THE SEASONAL POND AREA (WEST END OF SITE).





PHOTOGRAPH #12: This PHOTO SHOWS THE SEASONAL POND AREA LOCATED ON THE WEST END OF THE SITE. THIS VIEW IS LOOKING NORTH.



PHOTOGRAPH #13: LOOKING SOUTH ALONG THE WESTERN BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.

PHOTOGRAPH #14: LOOKING EAST ALONG THE NORTHERN BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.





PHOTOGRAPH #15: A VIEW OF THE PROPERTY AS SEEN LOOKING SOUTHEAST FROM NEAR THE NORTHWESTERN.





PHOTOGRAPH #16: LOOKING WEST ALONG THE NORTHERN PROPERTY BOUNDARY, AS SEEN FROM NEAR THE NORTHWESTERN CORNER.

PHOTOGRAPH #17: LOOKING SOUTH ALONG THE EASTERN BOUNDARY, AS SEEN FROM NEAR THE NORTHEASTERN CORNER.





PHOTOGRAPH #18: A VIEW OF THE PROPERTY AS SEEN LOOKING SOUTHWEST FROM NEAR THE NORTHEASTERN CORNER.





PHOTOGRAPH #19: LOOKING EAST ALONG THE C.L.E. LATERAL AND ACCESS ROAD.

PHOTO JMS TY, NG IN

PHOTOGRAPH #20: This photo SHOWS THREE OF THE DRUMS LOCATED ON THE PROPERTY, NORTHEAST OF THE DWELLING IN AREA #2.



PHOTOGRAPH #21: LOOKING SOUTH ACROSS THE EAST END OF THE SITE.





PHOTOGRAPH #22: This photo SHOWS A PILE OF APPROXIMATELY 50 TIRES (SOME WITH WHEELS ATTACHED), DRUMS, AND MISCELLANEOUS LOCATED ON THE SOUTHEAST QUADRANT (NORTHEAST OF HOME SITE).

PHOTOGRAPH #23: This photo SHOWS ANOTHER AREA OF DISCARDED MATERIALS; HOUSEHOLD GOODS, TIRES, MISCELLANEOUS, AND SEVEN (7) DRUMS IN THE BACKGROUND.



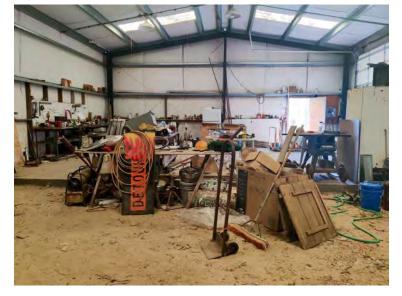


PHOTOGRAPH #24: This photo shows two (2) trailers full of discarded materials and lumber.





PHOTOGRAPH #25: This photo shows a pile of dirt, scrap concrete, and other building materials.



PHOTOGRAPH #26: AN INTERIOR VIEW OF THE SHOP AS SEEN LOOKING EAST.



PHOTOGRAPH #27: ANOTHER INTERIOR VIEW OF THE SHOP; THIS PHOTO SHOWING CONTAINERS OF OILS, LUBES, PAINTS AND OTHER MISCELLANEOUS STORED INSIDE.





PHOTOGRAPH #28: AN INTERIOR VIEW OF THE DWELLING AS SEEN LOOKING NORTHWEST TOWARD THE KITCHEN/DINING AREA.



PHOTOGRAPH #29: This photo SHOWS THE WATER PRESSURE TANK INSIDE THE GARAGE.



PHOTOGRAPH #30: THIS PHOTO SHOWS TWO (2) MORE DRUMS LOCATED ON THE SOUTHEAST QUADRANT OF THE SITE.





PHOTOGRAPH #31: THIS PHOTO SHOWS THE SOIL STATING NEXT TO A DRUM AND CONTAINER, AS DESCRIBED IN THE REPORT (AREA #2).

PHOTOGRAPH #32: LOOKING WEST ACROSS THE NORTH END OF THE SITE (NORTH OF THE E.L.C. LATERAL).





PHOTOGRAPH #33: LOOKING WEST ACROSS THE NORTH END OF THE SITE AS SEEN FROM ALONG THE C.L.E. CANAL ROAD, ADJACENT TO THE WESTERN PROPERTY BOUNDARY.



ENVIRONMENTAL DATABASE



#### **Pioneer Homes**

23442 Freezeout Rd, Caldwell, ID 83607 prepared for: Sage Environmental Services, LLC Ref: 22-05740

2022-05-17

### **Environmental Radius Report**



2055 E. Rio Salado Pkwy Tempe, AZ 85381 480-967-6752

### Summary

Federal

	< 1/4	1/4 - 1/2	1/2 - 1
Lists of Federal NPL (Superfund) sites	0	0	0
Lists of Federal Delisted NPL sites	0	0	-
Lists of Federal sites subject to CERCLA removals and CERCLA orders	0	0	-
Lists of Federal CERCLA sites with NFRAP	0	0	-
Lists of Federal RCRA facilities undergoing Corrective Action	0	0	-
Lists of Federal RCRA TSD facilities	0	0	-
Lists of Federal RCRA generators	0	-	-
Federal institutional control/engineering control registries	0	-	-
Federal ERNS list	0	-	-
State		·	
	< 1/4	1/4 - 1/2	1/2 - 1
Lists of state and tribal Superfund equivalent sites	0	0	0
Lists of state and tribal hazardous waste facilities	0	0	-
Lists of state and tribal landfills and solid waste disposal facilities	0	0	-
Lists of state and tribal leaking storage tanks	0	0	-
Lists of state and tribal registered storage tanks	0	-	-
State and tribal institutional control/engineering control registries	0	-	-
Lists of state and tribal voluntary cleanup sites	0	0	-
Lists of state and tribal brownfields sites	0	0	-
Dther			
	< 1/4	1/4 - 1/2	1/2 - 1
Resource Conservation and Recovery Act Information (RCRAInfo)	0	0	-
U.S. EPA Underground Storage Tanks (UST)	0	-	-

### Lists of Federal NPL (Superfund) sites

No Federal NPL sites found within a one-mile radius of the target property.

### Lists of Federal Delisted NPL sites

No Federal Delisted NPL sites found within a half-mile radius of the target property.

# Lists of Federal sites subject to CERCLA removals and CERCLA orders

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No Federal sites subject to CERCLA removals and/or orders found within a half-mile radius of the target property.

### Lists of Federal CERCLA sites with NFRAP

No Federal CERCLA sites with No Further Remedial Action Planned (NFRAP) decisions found within a half-mile radius of the target property.

## Lists of Federal RCRA facilities undergoing Corrective Action

No Federal RCRA facilities undergoing corrective action(s) found within a half-mile radius of the target property.

### Lists of Federal RCRA TSD facilities

No Federal RCRA treatment, storage and disposal facilities (TSDFs) found within a half-mile radius of target property.

### Lists of Federal RCRA generators

No Federal RCRA generators found at the target property and/or adjoining properties.

### Federal institutional control/engineering control registries

No Federal institutional or engineering controls found at the target property.

### **Federal ERNS list**

No Federally recorded releases of oil and/or hazardous substances at the target property.

## Lists of state and tribal Superfund equivalent sites

No State and/or tribal Superfund equivalent sites found within a one-mile radius of target property.

## Lists of state and tribal hazardous waste facilities

No State and/or tribal hazardous waste facilities found within a half-mile radius of the target property.

## Lists of state and tribal landfills and solid waste disposal facilities

No State and/or tribal landfills or solid waste disposal facilities found within a half-mile radius of the target property.

## Lists of state and tribal leaking storage tanks

No State and/or tribal leaking storage tanks found within a half-mile radius of the target property.

## Lists of state and tribal registered storage tanks

No State and/or tribal registered storage tanks found at subject and adjoining properties.

## State and tribal institutional control/engineering control registries

No State and/or tribal institutional and/or engineering controls found filed against the target property.

## Lists of state and tribal voluntary cleanup sites

No State and/or tribal voluntary cleanup sites found within a half-mile radius of the target property.

## Lists of state and tribal brownfields sites

No State and/or tribal brownfields sites found within a half-mile radius of the target property.

### **Resource Conservation and Recovery Act Information** (RCRAInfo)

No records found

## U.S. EPA Underground Storage Tanks (UST)

No records found

This report contains certain information obtained from a variety of public and other sources reasonably available to Nationwide Environmental Title Research, LLC (NETR). It cannot be concluded from this Report that coverage information for the target and surrounding properties does not exist from other sources. NO WARRANTY EXPRESSED OR IMPLIED, IS MADE WHATSOEVER IN CONNECTION WITH THIS REPORT. NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC SPECIFICALLY DISCLAIMS THE MAKING OF ANY SUCH WARRANTIES, INCLUDING WITHOUT LIMITATION, MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE. ALL RISK IS ASSUMED BY THE USER. IN NO EVENT SHALL NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC, BE LIABLE TO ANYONE, WHETHER ARISING OUT OF ERRORS OR OMISSIONS, NEGLIGENCE, ACCIDENT OR ANY OTHER CAUSE, FOR ANY LOSS OF DAMAGE, INCLUDING, WITHOUT LIMITATION, SPECIAL, INCIDENTAL, CONDEQUENTIAL, OR EXEMPLARY DAMAGES. ANY LIABILITY ON THE PART OF NATIONWIDE ENVIRONMENTAL TITLE RESEARCH, LLC, IS STRICTLY LIMITED TO A REFUND OF THE AMOUNT PAID FOR THIS REPORT. Purchaser accepts this report "AS-IS". Any analyses, estimates, ratings, environmental risk levels or risk codes provided in this report are provided for illustrative purposes only, and are not intended to provide, nor should they be interpreted as providing any facts regarding, or prediction or forecast of, any environmental risk for any property. Only a Phase I Environmental Site Assessment performed by an environmental professional can provide information regarding the environmental risk for any property. Additionally, the information provided in this Report is not to be construed as legal advice.

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ENVIRONMENTAL QUESTIONNAIRE & DISCLOSURE STATEMENT



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#### ENVIRONMENTAL QUESTIONNAIRE AND DISCLOSURE STATEMENT FOR PROPERTY OWNER

As per ASTM Standard 1527-13, in order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the "Brownfields Amendments"), the User must provide the following information (if available) to the Environmental Professional. Failure to provide this information could result in a determination the "all appropriate inquiry" is not complete.

	r NUMBER/NAME: <u>21-03640</u> PROPERTY ADDRESS: <u>23442 Freezeout Road in</u> RTY TYPE: Commercial Industrial Multi-Tenant Residential Farm Land			
	IONNAIRE COMPLETED BY: <u>BRTAN FALCK</u> Signature: In falce Title:			
City/St	ate/Zip: Jampa ID 85651			
Teleph	one: <u>208-941-2686</u>			
Email A	ddress: brian@ pionernhomes idaho.com			
1 Are If y	there any buildings/structures on the property? es, type of construction: 1404 39 ft house built in 1976 2428 59 ft 5hop built in 1987	YES	NO	UNK
2 Ha	ve there ever been any environmental problems at the property?	YES	NO	UNK
lf y	es, explain:			V
	s a gas station or dry cleaner operated anywhere on the property? Net likely	YES	NO	UNK
	any tenants use hazardous chemicals in relatively large quantities on the property? res, explain:	YES	NO	UNK
5 Ha	ve any tenants ever complained about odors in the building or experienced health-related oblems that may have been associated with the building?	YES	NO	UNF
lf y	ves, explain:			V
	e there any underground storage tanks (USTs) or above ground storage tanks (ASTs)?	YES	NO	UNF
lf y	ves, describe # of USTs/ASTs; size; contents; date(s) Installed:			1
7 Ha	we there been any USTS or ASTs located on the Property in the past?	YES	NO	UNH
lf	ves, describe # of USTs/ASTs; size; contents; date(s) Installed/removed or closed:			V

8 Are there or have there been any on site sewage disposal systems (septic, drainfields, drywells, etc.) on the Property? If yes, explain: services house





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18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208.867.8876 SAGE.BOISE@GMAIL.COM

YES

YES	NO	UNK
1		16

NO

UNK

10 Did a search of recorded land title records (or judicial records where appropriate) identify any environmental liens filed or recorded against the property under federal, tribal, state or local law?

If yes, explain:

If yes, explain:

If yes, explain:

If yes, describe:

If yes, explain:

If yes, explain:

If yes, explain:

If yes, explain:

14 Do you know the past use(s) of the property?

9

11 Do you have any specialized knowledge or experience related to the property or nearby properties? For example, Are you involved in the same line of business as the current or former

knowledge of the chemical s and processes used by this type of business?

occupants of the property or an adjoining property so that you should have specialized

15 Do you know of specific chemicals that are present or once were present at the property?

16 Do you know of spills or other chemical release that have taken place at the property?

17 Do you know of any environmental cleanups that have taken place at the property?

18 Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?

19 What is the reason for conducting the Phase I Environmental Site Assessment?

14.1

YES NO UNK

12	2 Does the purchase price being paid for this Property reasonably reflect the fair market va		NO	UNK
	of the property?	/		
13	If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the property?	YES	NO	UNK

YES	NO	UNK

YES	NO	UNK
	1	

YES	NO	UNK
	V	

YES	NO	UNK
	1	

YES	NO	UNK
	~	

YES	NO	UNK

If yes, explain: Required part of Bureau of Reclamation request to retignealign a drainage slitch. Page 2 of 3





Are there any wells located on the Property?

somestic well behad home. If yes, explain:



18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208.867.8876 SAGE.BOISE@GMAIL.COM

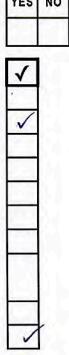
- 20 Have any previous Environmental Assessment Reports been prepared for the Property? YES NO UNK If yes, provide date when prepared and include copy or report: PLEASE ATTACH THE FOLLOWING INFORMATION OR DOCUMENTS, IF AVAILABLE: Names/phone numbers of key individuals with knowledge of the property use/history; Map showing the boundaries of the property: Copies of past environmental site assessments or other environmental reports: Copies of Environmental permits: Registrations for Underground or Aboveground storage tanks (if any): Material Safety Data Sheets (MSDS) for hazardous substances used or store on site (if any): Community Right-toKnow Plans pertaining to the Property. Notices of other correspondence from any governmental agency relating to any inspections or violations of environmental rules retarding the property or environmental liens encumbering the Property.
- \* Recorded Activity Use Limitations (AULs) (if any).
- Chain of Title or other Title Report documents.
  - THE

\*

\*



340



CHAIN-OF-TITLE RECORD



610 S. Kimball Avenue Caldwell, ID 83605

ELECTRONICALLY RECORDED-DO NOT REMOVE THE COUNTY STAMPED FIRST PAGE AS IT IS NOW INCORPORATED AS PART OF THE ORIGINAL DOCUMENT

File No. 688622 TK/

#### WARRANTY DEED

For Value Received Virginia Figuredo, Trustee of the Virginia Figueredo Trust dated October

25, 2018

hereinafter referred to as Grantor, does hereby grant, bargain, sell, warrant and convey unto

#### Dorothy Ann Bonham and Melvin Edward Bonham, Trustees of The Dorothy Ann Honham and Melvin Edward Bonham 2004 Revocable Trust and Melvin Bonham Jr., an unmarried man, each as to an undivided 50% interest

hereinafter referred to as Grantee, whose current address is 3905 Curran Road, Ione, CA 95640

The following described premises, to-wit:

See Exhibit A attached hereto and made a part hereof.

To HAVE AND TO HOLD the said premises, with their appurtenances unto the said Grantee(s), and Grantees(s) heirs and assigns forever. And the said Grantor(s) does (do) hereby covenant to and with the said Grantee(s), the Grantor(s) is/are the owner(s) in fee simple of said premises; that said premises are free from all encumbrances EXCEPT those to which this conveyance is expressly made subject and those made, suffered or done by the Grantee(s); and subject to U.S. Patent reservations, restrictions, dedications, easements, rights of way and agreements, (if any) of record, and current years taxes, levies, and assessments, includes irrigation and utility assessments, (if any) which are not yet due and payable, and that Grantor(s) will warrant and defend the same from all lawful claims whatsoever.

Dated: July 17, 2019

The Virginia Figueredo Trust

By: <u>Virginia Eiguerado</u>, Trustee Virginia Figueredo, Trustee State of California Communication

State of California, County of

This record was acknowledged before me on \_\_\_\_\_ by Virginia Figueredo, as trustee of the Virginia Figueredo Trust.

Signature of notary public Commission Expires:

Page 1 of 3 06/19/2020 3:34 PM



2019-033320 RECORDED

07/24/2019 12:38 PM CHRIS YAMAMOTO CANYON COUNTY RECORDER

PIONEER TITLE CANYON - CALDWELL ELECTRONICALLY RECORDED

\$15,00

Pgs=3 MBROWN

TYPE: DEED

A Notary Public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California County of Nevada On July 23, 2019 , before me, Christy Mane Summer , Notary Public, personally appeared Mirginia D. Figueredo who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument. I certify under PENALTY OF PERJURY under the laws of State of California that the foregoing paragraph is true and correct. CHRISTY MARIE SUMMER Notary Public - California Nevada County WITNESS my hand and official seal. Commission # 2251067 ly Comm, Expires Jul 26, 2022 SIGNATUR PLACE NOTARY SEAL ABOVE Though the information below is not required by law, it may prove valuable to persons relying on the document and could prevent fraudulent removal and reattachment of this form to another document. **Description of attached document** Title or type of document: 11/2 man +1/ Deed Document Date: July 23, 2019 Number of Pages: 5 Signer(s) Other than Named Above:\_\_\_\_

Page 2 of 3 06/19/2020 3:34 PM



#### EXHIBIT A

A part of the SE1/4 of the NE1/4 and the SW1/4 of the NE1/4, Section 3, Township 4 North, Range 3 West, Boise Meridian, more particularly described as follows:

BEGINNING at the southeast corner of said SW1/4 of the NE1/4; thence

south 89°08'36" West along the south boundary of said SW1/4 of the NE1/4 a distance of 681.58 feet to a point on the westerly boundary of the parcel described in the quit claim deed recorded as Instrument No. 945974, Records of Canyon County, Idaho; thence traversing said westerly boundary as follows: North 14°39'26" East a distnce of 51.96 feet; North 89°08'36" East a distance of 468.46 feet; North 28°55'40" East a distance of 397.26 feet; North 28°44'21" West a distance of 169.92 feet: North 13°10'27" East a distance of 268.10 feet; North 66°40'49" East a distance of 65.01 feet; North 18°34'52" East a distance of 523.27 feet to a point on the north boundary of said SE1/4 of the NE1/4; thence North 89°24'56" East along said north boundary a distance of 832.99 feet; thence South 1°27'37" East a distance of 258.22 feet along the centerline of an existing irrigation lateral; thence South 6°00'26" East continuing along said centerline a distance of 479.39 feet to a point on the northerly boundary of the parcel described in the warranty deed recorded as Instrument No. 729194, records of Canyon County, Idaho; thence traversing the boundary of said parcel as follows: North 81°39'12" West a distance of 28.29 feet; North 58°24'52" West a distance of 122.26 feet: South 0°49'14" East a distance of 654.97 feet to a point on the south boundary of said SE1/4 of the NE1/4; thence

South 89°12'20" West along said south boundary a distance of 965.08 feet to the POINT OF BEGINNING.

EXCEPT THEREFROM the following described property hereinafter referred to as Parcel B, described as follows:

Parcel B:

Commencing at the southwest corner of said SW1/4 of the NE1/4; thence

North 89°08'36" East along the south boundary of said SW1/4 of the NE1/4 a distance of 633.76 feet to the TRUE POINT OF BEGINNING; thence

North 14°30'08" East a distance of 51.91 feet; thence

North 89°08'30" East a distance of 30.00 feet; thence

South 0°51'24" East a distance of 50.05 feet to a point on the said south boundary; thence

South 89°08'36" West along said south boundary a distance of 43.79 feet to the True Point of Beginning.

TOGETHER WITH an easement for ingress and egress over and across said Parcel B





RECORDING REQUESTED BY AND WHEN RECORDED MAIL TO: Intermountain Legal Group 132 SW 5<sup>th</sup> Avenue, Suite 150 Meridian ID 83642

SEND TAX STATEMENTS TO: Virginia Figueredo 305 W Main St. Apt 210 Grass Valley, CA 95945



CHRIS YAMAMOTO CANYON COUNTY RECORDER Pgs=4 EHOWELL \$15.00 DEED INTERMOUNTAIN LEGAL GROUP



CHRIS YAMAMOTO CANYON COUNTY RECORDER Pgs=4 EHOWELL \$15.00 DEED JOSEPH L MORTON III PC

#### (SPACE ABOVE LINE FOR RECORDER'S USE) QUITCLAIM DEED BEING RE-RECORDED TO CORRECT INSTRUMENT NUMBER 2018-055754 Trustee name

For value received, VIRGINIA FIGUEREDO, TRUSTEE OF THE FIGUEREDO FAMILY TRUST, WHOSE CURRENT ADDRESS IS 305 W MAIN ST., APT 210, GRASS VALLEY, CA 95945, Grantor, hereby quitclaims to:

Figueredo Virginia VIRGINIA INSTEE OF THE XRONAXFIGUEREDO TRUST DATED OCTOBER 25, 2018, AND ANY AMENDMENTS THERETO, Grantee, whose current address is 305 W Main St. Apt 210, Grass Valley, CA 95945, all of its interest in that real property situated in Canyon County, State of Idaho, described as follows:

See Legal Description on Exhibit "A", attached hereto and incorporated herein by this reference.

The true consideration for this conveyance is to transfer property to the same party.

Witness the hand of said Grantor this	day of February	2019
---------------------------------------	-----------------	------

Gueredo Granter

Seemached

STATE OF ) SS. COUNTY OF

On this day of

20 , before me

personally appeared Virginia Figueredo, personally known to me (or proved to me on the basis of satisfactory evidence) to be the individual whose name is subscribed to the foregoing instrument, and acknowledged that she executed the same as her voluntary act and deed for the purposes therein contained.

WITNESS MY HAND AND OFFICIAL SEAL.

Notary Public My commission expires on \_\_\_\_\_ QUITCLAIM DEED - 1

KEOFID State of Idaho County of Canyon } ss. I hereby certify that the foregoing instrument is a true and correct copy of the original as the the same appears in this office. DATED A WAY OF AMAMOTO, Clerk of the District Court CHRIS d Ex Officia Becorder Page 1 of 4 06/19/2020 3:34 PM



#### Exhibit "A"

A part of the Southwest Quarter of the Northeast Quarter and the Southeast Quarter of the Northeast Quarter, Section 3, Township 4 North, Range 3 West, Boise Meridian, more particularly described as follows:

BEGINNING at the Southwest corner of said Southeast Quarter of the Northeast Quarter (CE 1/16 cor.), monumented with a Government Land Office brass cap monument; thence South 89°12'20" West, 681.58 feet; along the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 14°34'50" East 51.86 feet; thence North 89°12'20" East 468.46 feet parallel with the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 14°34'50" East 51.86 feet; thence North 89°12'20" East 468.46 feet parallel with the South boundary of said Southwest Quarter of the Northeast Quarter; thence North 28°55'55" East 397.51 feet; thence North 28°40'15" West 170.55 feet; thence North 13°12'35" East 267.66 feet; thence North 66°50'45" East 65.05 feet; thence North 18°36'25" East 523.48 feet (of record as 523.43 feet); thence North 89°25'22" East 1138.29 feet along the North boundary of said Southeast Quarter of the Northeast Quarter; thence North boundary of said Southeast Quarter of the Northeast Quarter; thence North boundary of said Southeast Quarter of the Northeast Quarter; thence North 89°02"40" West 26.93 feet (of record as 27.00 feet); thence North 23°28'40" West 255.33 feet; thence North 81°34'25" West 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 0°47'40" East, 655.00 feet; thence South 89°12'20" West 965.09 feet along the South boundary of said Southeast Quarter of the Northeast Quarter to the POINT OF BEGINNING.

This parcel is subject to road easement along the South 30 feet and is subject to an easement for an irrigation lateral.

Subject to the following Exceptions:

Exception 1:

That portion of the Southeast quarter of the Northeast quarter of Section 3, Township 4 North, Range 3 West of the Boise Meridian, Canyon County, Idaho and is more particularly described as follows: Beginning at the Northeast corner of said Southeast quarter of the Northeast quarter; thence South 0°56'21" West along the East boundary of said Southeast quarter of the Northeast quarter a distance of 988.14 feet to a point on the Northerly boundary of the parcel described in the Warranty Deed recorded as Instrument No. 729194, records of Canyon County, Idaho; thence traversing said boundary as follows: North 89°03'23" West a distance of 27.08 feet; North 23°29'23" West a distance of 255.33 feet; North 81°34'03" West a distance of 104.87 feet; thence leaving said boundary and bearing North 6°00'26" West along the centerline of an existing irrigation lateral a distance of 479.39 Feet; thence North 1427'37" West continuing along said centerline a distance of 258.22 feet to a point on the North boundary of said Southeast quarter of the Northeast quarter; thence North 89"24'56" East along said North boundary a distance of 305.55 feet to the POINT OF BEGINNING.

**QUITCLAIM DEED - 2** 

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**Exception 2:** 

This parcel is a portion of the SW1/4 N£1/4 of Section 3. Township 4 North, Range 3 West of the Boise Meridian and is more particularly described as follows:

CONCRENCING at the southwest corner of said SW1/4 NE1/4;

thence North 89° 06' 36" East along the south boundary of said SW1/4 NE1/4 a distance of 633.75 feet to the TRUE POINT OF EXGINNING;

thence North 14° 30' 08" East a distance of 51.91 feet;

thence North 89° 08' 30" Bast a distance of 30.00 feet;

2

thence South  $0^{\circ}$  S1' 24" East a distance of 50.05 feet to a point on said south boundary;

thence South B9° 08' 36" West along said south boundary a distance of 43.75 feet to the TRUE POINT OF BEGINNING.

#### **QUITCLAIM DEED - 3**

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A notary public or other officer completing this certificate verifies only the identit the individual who signed the document to which this certificate is attached, and the truthfulness, accuracy, or validity of that document.	y of not
State of California )	
Country of Nerada )	
On <u>2.1.2019</u> before me, <u>Susan</u> personally appeared <u>Virginia</u> Figueredo	C. Williams, Notury Public here insert nerve and title of the officer)
who proved to me on the basis of satisfactory evidence to be the per the within instrument and acknowledged to me that he/she/ authorized capacity(ies), and that by his/her/their signature(s) on upon behalf of which the person(s) acted, executed the instrument.	erson(s) whose name(s) is/are subscribed to they executed the same in his/her/their the instrument the person(s), or the entity
I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.	SUSAN C. WILLIAMS
WITNESS my hand and official seal.	Notary Public - California Nevada County My Comm. Expires May 21, 2019
Signature Susan C. Williams	
Signature your C' wasterna	
	(Seal)
unauthorized document and may prove useful to persons relying on the attached document. Description of Attached Document	
Although the information in this section is not required by law, it could prevent fraudulent remo- unauthorized document and may prove useful to persons relying on the attached document.  Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information
Unauthorized document and may prove useful to persons relying on the attached document.  Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	al and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence:
Description of Attached Document Description of Attached Document The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional Information Method of Signer Identification Proved to me on the basis of satisfactory evidence: () form(s) of Identification () credible witness(es) Notarial event is detailed in notary journal on:
Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence: Oform(s) of Identification O credible witness(es) Notarial event is detailed in notary journal on: Page # 47 Entry # 47 Notary contact: 530.273.7365 Other
Description of Attached Document Description of Attached Document The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence: (Form(s) of Identification (O) credible witness(es) Notarial event is detailed in notary journal on: Page # 47 Entry # 4 Notary contact: 530 · 2.73 · 7365
Description of Attached Document  The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of	val and reattachment of this acknowledgment to an Additional information Method of Signer Identification Proved to me on the basis of satisfactory evidence: Oform(s) of Identification O credible witness(es) Notarial event is detailed in notary journal on: Page # 47 Entry # 47 Notary contact: 530.273.7365 Other

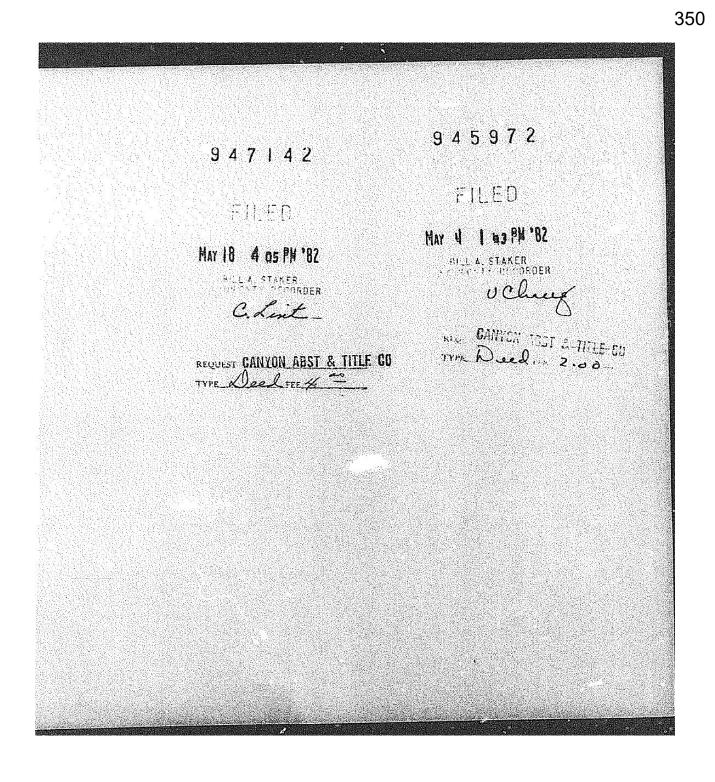
Page 4 of 4 06/19/2020 3:34 PM



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(	D TU CURRECT LEGAL		
945972			
	ANTY DEED		
For Value Received ARTHUR E, ASH and wife,	ICRAFT and BONNIE L. ASHCRAFT, husband		
the grantors , do hereby grant, bargain, se VIRGINIA D. FIGUEREDO, husband an	ll and convey unto ROBERT V. FIGUEREDO and ad wife,		
of: 1604 W. 218th, Torrance, CA. the grantees, the following described premises, County, State of Idaho, to-wit:			
Quarter of the Northeast Ouarter. West, Boise Meridian, more particu	alarly described as follows:		
<pre>A parter of the Southwest Quarter of the wornship 4 North, 2ande West, Boise Meridian, more particularly described as follows: BEGINNING at the Southwest corner of said Southeast Quarter of the No Quarter (CE 1/16 cor.), monumented with a Government Land Office bras monument; thence South 89°12'20" West, 681.58 faet; along the South b of said Southwest Quarter of the Northeast Quarter; thence North 14°3 East 51.36 faet; thence North 89°12'20" East 468.46 faet parallel wit South boundary of said Southwest Quarter of the Northeast Quarter; th North 28°55'55" East 397.51 feet; thence North 28°40'15" West 170.55 thence North 12°12'35" East 267.66 feet; thence North 66°50'45" East feet; thence North 12°16'25" East 523.48 feet (of record as 523.43 fe thence North 18°12'35" East boundary of said Southeast Quarter of the east Quarter; thence North 89°02'40" West 26.93 feet; (of record as 27 feet); thence North 58°24'15" West 122.26 feet; thence North 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet; thence North 58°24'15" West 122.26 feet; thence South 81°34'25 133.16 feet</pre>			
* and that they will warrant and defend the sau Dated: April <u>30</u> , 1982	me from all lawful claims whatsoever. <u>'</u> <u><u><u><u></u></u><u><u></u><u><u></u><u></u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u></u></u>		
STATE OF IDAHO, COUNTY OF CANYON) SS. On this 30 <sup>-7-4</sup> day of April	ared request of		
subscribed to the within instrument, and acknowledged to me t they? executed the same.	Ex Officio Recorder.  By  Fees \$		







WELL CONSTRUCTION LOG



#### State of Idaho Department of Water Administration

#### WELL DRILLER'S REPORT

•	,S'	
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Y.	10	
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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.

days after the completion of	abarro	Junion	or the w	ien.	1 1	·		
1. WELL OWNER	7. 1	ATER	LEVEL		/			
490 (Dame				40				
Name_ASH_CRAPT	Static water level 40 feet below land surface							
Address RT L CALDWELL		Flowing? 🗆 Yes 🖄 No G.P.M. flow Temperature° F. Quality						
	Artesian closed-in pressurep.s.i.							
Owner's Permit No	Controlled by Valve Cap Plug							
2. NATURE OF WORK			EST DA	T A				
2. NATURE OF WORK	0. 1	ELL I	ESTUA					
land the second land the secon	□ Pump Bailer @Cother							
	Discharge G.P.M. Draw Down Hours Pumped							
Abandoned (describe method of abandoning)	20			a 2				
					<u> </u>			
	-					-		
3. PROPOSED USE								
Domestic Dirrigation Test Other (specify type)	9.1	ITHOL	OGIC L	OG				
	Hole		oth			Wa	ter	
Municipal [] Industrial [] Stock [] Waste Disposal or Injection		From		Material		Yes	No	
	8	1					x	
4. METHOD DRILLED	8	10		o soil into gracel			x.	
2013 Cable 日 Rotory 日 Dug 日 Other	6	20		bravel and sand	4	-	x	
	6	30 40	40 50	gravel and san		-	x	
5. WELL CONSTRUCTION	6	50		clay into gravel	an. san			
	6	60	67	gravel cour		xx	<u> </u>	
Diameter of hole 6 inches Total depth 67feet								
Casing schedule:								
Thickness Diameter From To 250 inches 6 inches +1 feet 66 feet								
inches inches feet feet						L		
inches inches feet feet	<u> </u>						-	
inches feet feet	<u> </u>							
inches feet feet								
		-						
Was a packer or seal used?   Yes								
Perforated?			- 1				-	
How perforated?  G Factory G Knife G Torch			5 - C					
Size of perforation inches by Inches								
perforations feet feet							<u> </u>	
perforations feet feet	<u> </u>							
perforations feet feet								
				00-				
Well screen installed? 🗅 Yes 🏝 No				CC115	8			
Manufacturer's name Model No.								
Diameter Slot size Set from feet to feet								
DiameterSlot sizeSet from feet to feet								
		·						
Gravel packed?	-				10.0.0.1			
Placed from feet to feet								
Surface seal depth Material used in seal Cement arout								
							_	
🗆 Puddling clay 🎽 Well cuttings							_	
Sesting procedure used 😡 Sherry pit 🗆 Temporary surface casing								
Overbore to seel depth								
6. LOCATION OF WELL	10. Work started - 15-74 finished 8-19- 24							
						<u> </u>		
Sketch map location must agree with written location.								
631-1-1			II. DRILLERS CERTIFICATION					
Subdivision Name			Firm Name_ D_ D_ WELL DRILLING Firm No. 254					
Lot No Block No	Address 310 s 11 street 0 9/17/74							
Lot No Block No			Nau String					
	Signed by (Firm Official)							
County	and							
CAD NE 2 LIA			(Ope	rator)		-	_	
<u>SW KNEKsec. 3, T. H (Ns, R. 3 60)</u>								
USE ADDITIONAL SHEETS IF NECESSARY FORWARD	THE W	HITE C	OPY TO	THE DEPARTMENT				



18123 N. HIGHFIELD WAY BOISE, IDAHO 83714 208-867-8876 QUALIFICATIONS OF ENVIRONMENTAL ASSESSOR



### DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERETO, PURSUANT TO 40 CFR312.10

#### 1) Environmental Professional

- a) Environmental Professional means:
  - A person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (se §312.1(c) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).
  - ii) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time relevant experience; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.
  - iii) An environmental professional should remain current in his or her field through participation in continuing education or other activities.
  - iv) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b).
  - v) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

#### 2) Relevant Experience

vi) Relevant Experience, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1(c)) to the subject property.



### **BRENDA L. MAGNUSON, REA** Sage Environmental Services, LLC

#### 2112 N. 33RD STREET, BOISE, IDAHO 83703 (208) 867-8876

#### PROFESSIONAL EXPERIENCE

## Sage Environmental Services, LLC 2000-Present Owner

Complete property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. I also conduct subsurface investigations including soil sampling, groundwater sampling, and provide project oversight in the installation of groundwater monitoring wells.

## Langston-Williams, Inc. 1997 - 2000 Environmental Scientist

Complete property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. I also conduct subsurface investigations including soil sampling, groundwater sampling, and provide project oversight in the installation of groundwater monitoring wells.

## <u>EnviroSearch International</u> 1995 - 1997 Environmental Scientist

Assessed commercial properties for environmental conditions prior to property transfer, prepared asbestos management plans, conducted asbestos and lead paint surveys, and collected samples for radon analyses. I also provided technical field support to the Boise office

#### Osprey Environmental, Inc. 1991 - 1995

Environmental Specialist

IDAHO STATE UNIVERSITY

Completed property transfer site assessments, asbestos management plans, asbestos and lead paint surveys and radon testing. Conducted subsurface investigations including soil sampling, groundwater sampling, and provided project oversight in the installation of groundwater monitoring wells.

#### Power Environmental Services, Inc. 1992 - 1993

Environmental Specialist

Completed property transfer site assessments and Spill Containment and Countermeasures Plans for a number of Idaho Power's hydroelectric power plants.

Boise City Public Works Department – Environmental Div: 1987 - 1992	Boise, ID
City of Blackfoot - Water Pollution Control 1984 - 1987	Blackfoot, ID

#### EDUCATION

Bachelor of Science: Biology- 1983	
Certifications	
Idaho Wastewater Operator Certificate, Class I	1986
Idaho Water/Wastewater Laboratory Operator Certificate; Class II	1986
Hazardous Materials and Hazardous Waste Seminar, Boise State University	1988
Solvent Management for Idaho Businesses, Boise State University	1989
Treatment of Metal Wastestreams - California State University, Sacramento	1990
Pretreatment Facility Inspection - California State University, Sacramento	1990
Basic Understanding and Complying with the Hazardous Waste Management Regulation	ns 1991
OSHA Hazardous Waste Operation and Emergency Response Training Course August	1992
Idaho Groundwater Resources Course, University of Idaho Extension Office, Boise, Idah	1993
Practices and Procedures for Asbestos Inspectors and Management Planner	1993
NESHAPS Asbestos Inspector/Management Planner Certification	1993
OSHA Hazardous Waste Operation and Emergency Response Training Course	1993
AHERA Asbestos Inspector/Management Planner Certification (updated annually)	1994



Boise, ID

Boise, ID

Boise, ID

Boise, ID

Boise, ID

Pocatello, ID

#### MEMBERSHIPS & APPOINTMENTS Cal/EPA Registered Environmental Assessor (REA) Certificate #06973

#### EXPERTISE

- Phase One and Two Site Assessments
- Pollution Prevention
- Waste Minimization
- Water/Groundwater Sampling
- Underground Storage Tank Management

#### **REPRESENTATIVE CLIENTS**

First Security Bank of Idaho, N.A. Bank of America U.S. BANCORP Seafirst Bank Environmental Consulting Group Washington Trust Bank DK Commercial Real Estate Idaho Independent Bank Construction Lending Corporation of America Washington Mutual Bank Western Bank Wells Fargo Bank Key Bank National Association Farmers and Merchants Bank Washington Federal Savings & Loan DL Evans Bank The Clawson Group, Inc. D.B. Fitzpatrick & Company

Asbestos Inspections

Asbestos Management Plans

Soil Sampling/Characterization

Asbestos Sampling

As well as a number of local attorneys, insurance companies, out-of-state financial institutions, developers, real estate agencies, developers, and private parties.

#### REFERENCES

DK Commercial Real Estate 1880 S. Cobalt Point Way Boise, Idaho 83714 Ms. Brenda Clay (208) 371-5804

RA Schultz & Company 1524 W. Franklin Street Boise, Idaho 83702 Mr. Richard A. Schultz (208) 343-7070

Idaho Independent Bank 8351 W. Overland Road Boise, Idaho 83709 Contact: Mr. Charlie Kouba (208) 345-2960 Sterling Savings Bank 420 W. Main Street, Suite 205 Boise, Idaho 83702 Mr. Jeffrey Jones (208) 424-2000

Thornton-Oliver-Keller Commercial Real Estate 250 S. 5th Street Boise, Idaho 83702 Contact: Mr. Jerry VanEngen (208) 378-4600

Capital Matrix, Inc. 1471 Shoreline Dr., Suite 123 Boise, ID 83702 Contact: Ms. Deborah Brown (208) 383-3473 Ms. Ann Munroe



**Treasure Valley Aquifer System** 

OSHER Course Dennis Owsley, P.G., Technical Hydrogeologist Idaho Department of Water Resources September 3, 2014



Exhibit A5.7c

357

## Overview

- Introduction
- Geologic framework
- Aquifer classification/characteristics
- Data collection
  - BREAK --
- Ground water budget
- Current status of aquifers
- Local investigations
- Overview of other Idaho aquifers

# Importance of Ground Water

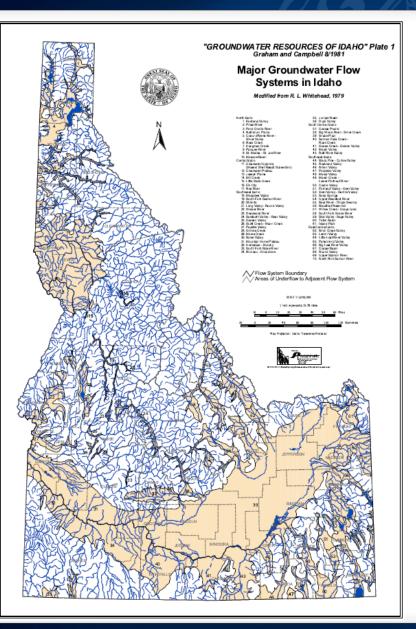
- Over 95% of the drinking water in the valley comes from ground water.
  - (United Water operates two small scale surface water facilities).
- Generally higher water quality
- More reliable supplies

## Importance of Ground Water

- Approximately 100,000 AF used for irrigation annually.
- Over 30,000 well records exist throughout the Treasure Valley (primarily domestic wells)
  - Common units to describe water:
    - AF (acre-feet) = amount of water to cover 1 acre of land with 1 foot of water.
    - GPM (gallons per minute)
    - CFS (cubic feet per second)

# Occurrence of Ground Water

- Ground water exists throughout the state at various depths below land surface. Areas in which ground water is abundant, aquifers are defined.
- Ground water flow characteristics and trends differ for different aquifers across the state.

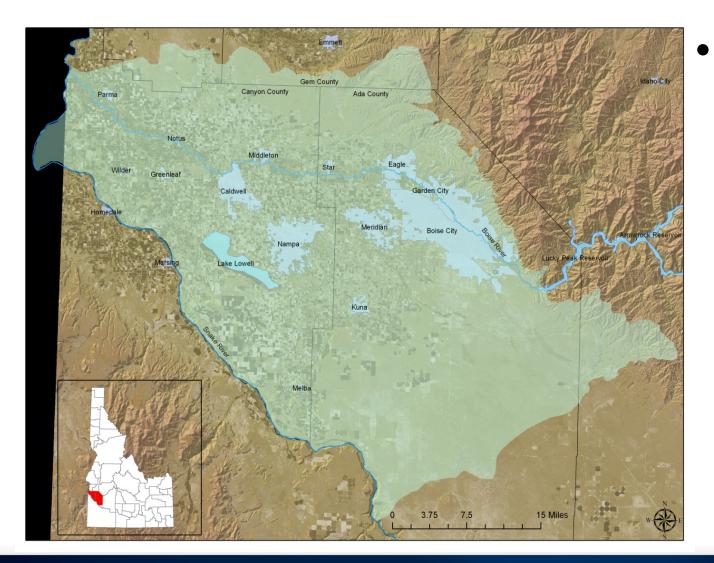


# Idaho Aquifers

Definition of an aquifer:

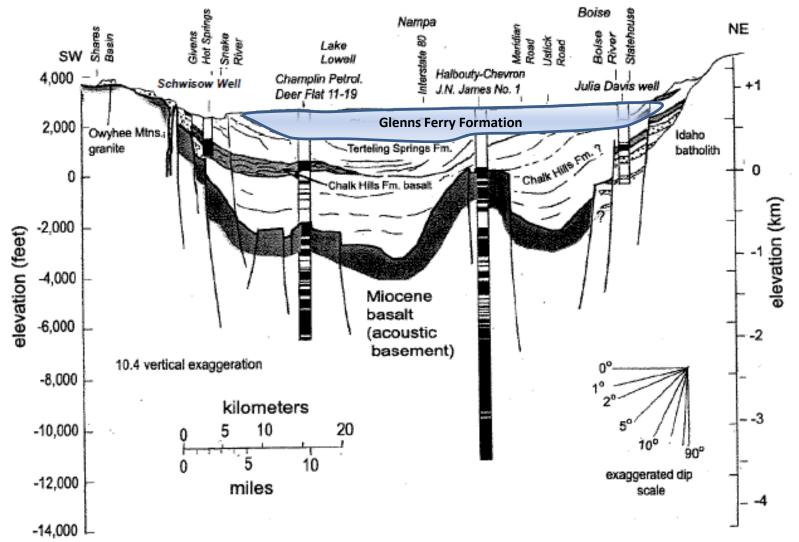
"Rock or sediment in a formation, group of formations, or part of a formation that is saturated and sufficiently permeable to transmit **economic** quantities of water to wells and springs."

# Treasure Valley Aquifer Boundary



Boundary extends from Mountain Home Plateau, Oregon Idaho state line, the Snake River, and the Payette River Basin.

### Treasure Valley Geology -- Cross Section



### **Treasure Valley Geology**

Sand, Gravel, Silt and Clay Units -- High Water Potential

Granite-- Low Water Potential

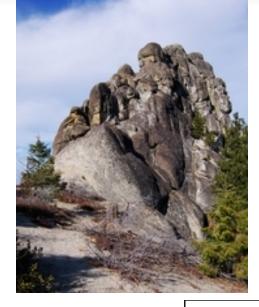
Legend Rivers Geology LITHOLOGY Alluvium Granite Basalt Open Wate Sandstone Siltstone Faults

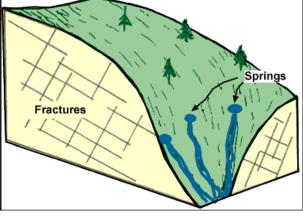
Basalt --Moderate Water Potential 0 3.75 7.5

15 Miles



## **Bedrock Units**







Low water potential. Generally forms a "no-flow" barrier. Wells constructed in granite have low yields and low sustainability.





## **Volcanic Units**





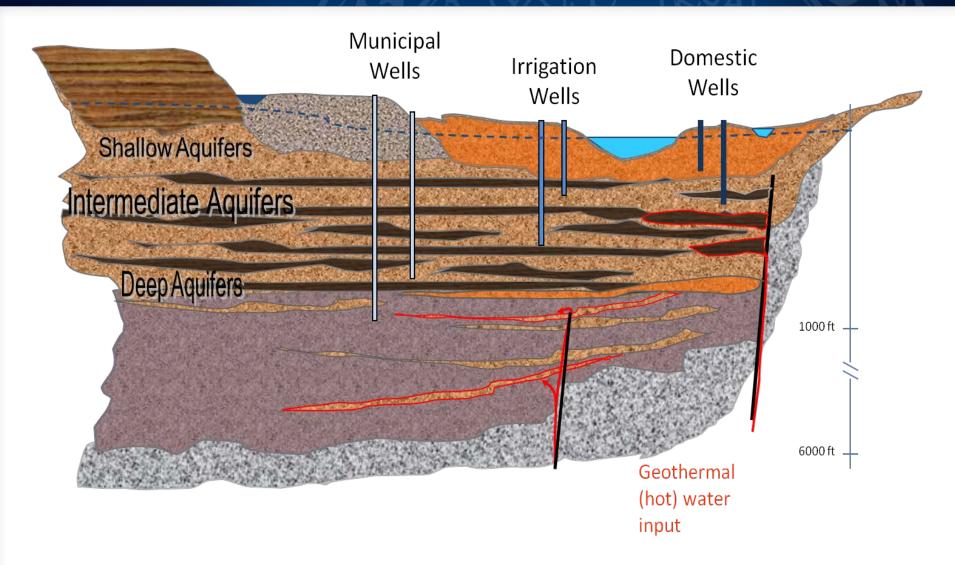
Can yield high amounts of water. Low storage abilities.

# **Sedimentary Units**



Productive aquifer material of the Treasure Valley. Wells completed into the coarse sands are very productive, and have high storage capabilities.





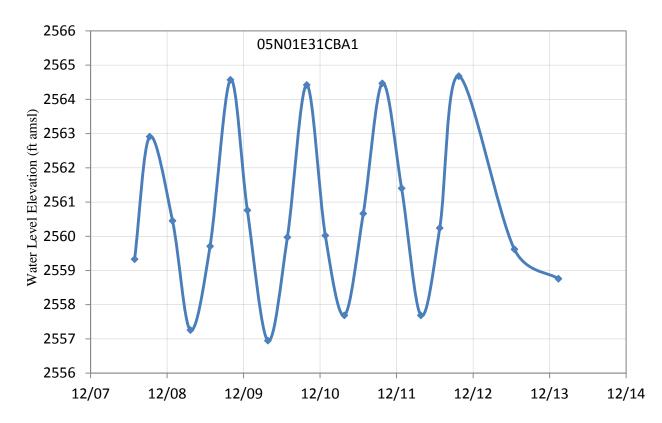


# Aquifer delineation

- Shallow, intermediate, or deep classification is based on well depth and location within the valley.
- Seasonal (and long term) fluctuations are significantly different, based on what portion of the aquifer a well is completed.

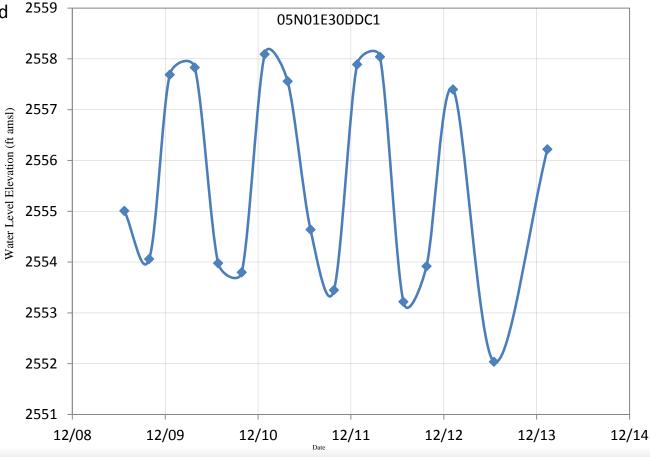
# Shallow

- Generally encounter gravel and sand sequences.
- Typically domestic wells
- Good communication with surface water features (recharge).
- Unconfined



# **Intermediate Aquifers**

- Sands, silts, and clays intermixed. Some gravels present.
- Productive aquifers.
- Domestic, irrigation, municipal wells.
- Minor communication with surface water features (? Recharge)
- Unconfined semiconfined

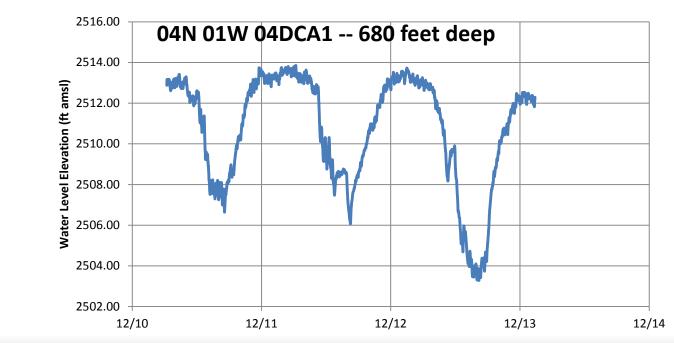


# **Deep Aquifer**

- Sands intermixed within "blue" clay
- Geothermal potential at depth

Confined

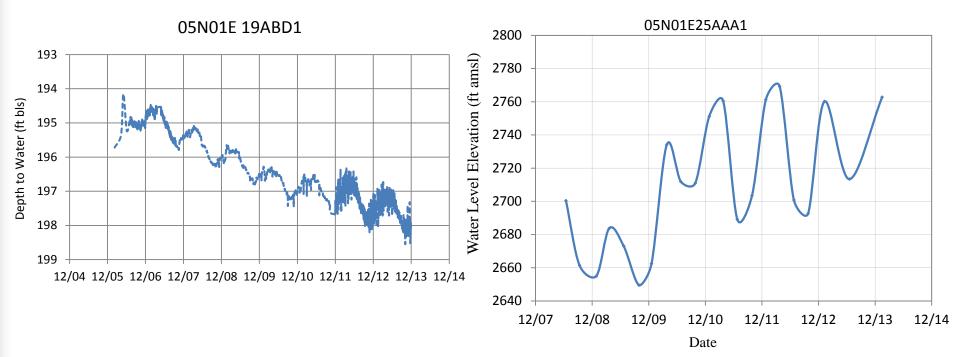
- Irrigation, municipal, and heat wells
- Little or no communication with surface water features (?? Recharge)

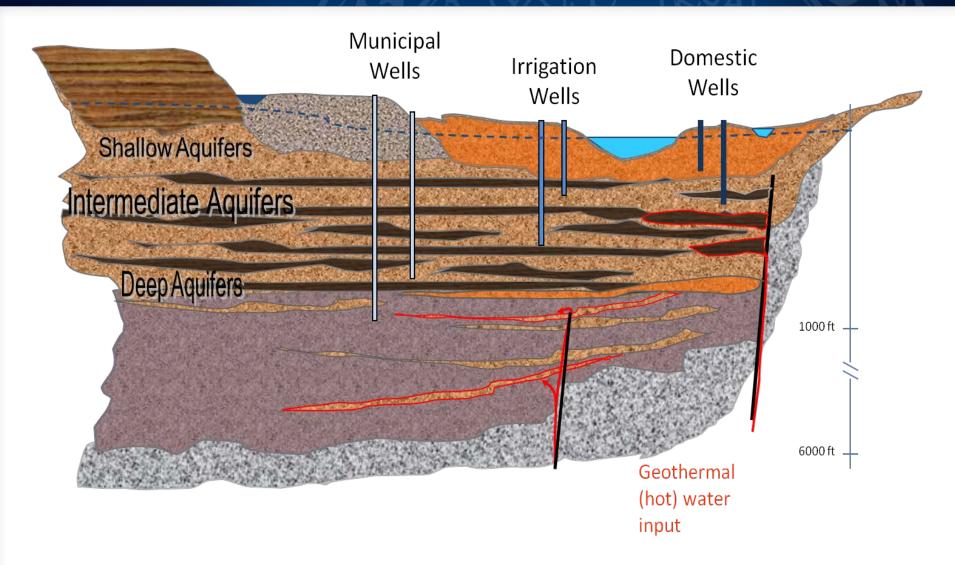




# Margin Aquifers

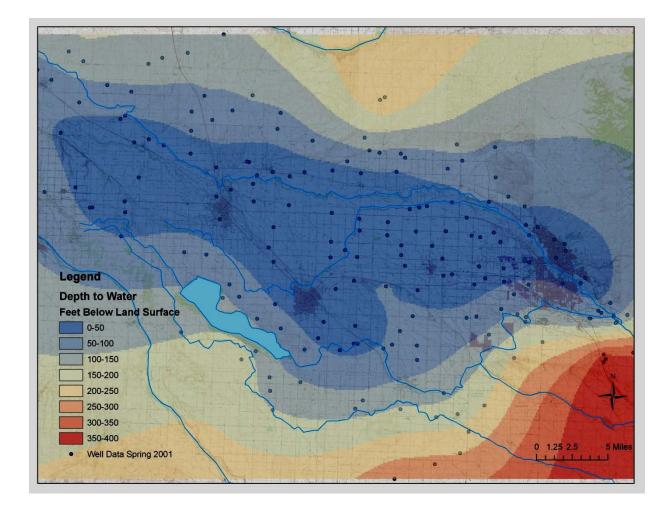
- Foothills areas (sediments)
- Foothills area (bedrock)



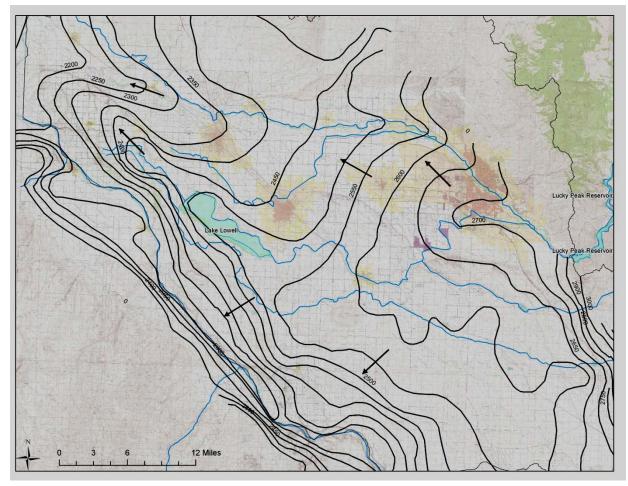




### Depth to Water



## **Ground Water Flow Direction**





# **Data Collection**

- Driller's Reports
- Ground Water Level Monitoring
- Ground Water Modeling
- Drain Discharge Monitoring

#### **Driller's Reports** REVISED

Form	238-7
6/07	

#### IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Drills Parent No.         Description           Water right or injection will #		ים ה	1060212			12. STATIC	WAT		EL and WELI	L TESTS				
Water (apt or lighted) well #						Depth first wat	ier encou	untered (ft)	15 8	Static wate	r level (ft)	183		
2. OWNER       Desche access pot         Name [IDWR       Address 322 East Front Street       Well tast:       Test method:         City Boilse       State [D] Zip 83720       Well tast:       Test method:         Sec. 23       North [X] or South [] Rips 4       East: [X] or West []       South [] Rips 4       East: [X] or West []         South [] Tep, 1       North [X] or South [] Rips 4       East: [X] or West []       South [] Rips 4       East: [X] or West []         Gov/Lot       County Elimone       West Could test or comments:       West Could test or comments:         Count [] Rips 4       East: [X] or West []       Test method:       Yes and or method test or comments:         Count [] Rips 4       East: [X] or West []       Test method:       Yes and or method test or comments:         Count [] Rips 4       East: [X] or West []       Test method:       Yes and or method test or comments:         Count [] Rips 4       East: [X] or West []       Test method:       Yes and or method test or comments:         Count [] Rips 4       State Cr. Rd.       Test method:       Yes and or method test or comments:         Count [] Rips 4       State Cr. Rd.       Test method:       Yes and or method test or comments:         Count [] Rips 4       State Cr. Rd.       Test method:       Yes and or state state or comments: <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td colspan="6"></td>														
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Address 322 East Front Street       State ID       Zip 83720         Chy Boilse       State ID       Zip 83720       State ID       Pame       Fame       Fa										Test ma	thod:			
City       Boilse       State       D       Zip       B3720         3. WELL LOCATION:       Two:       Nom [2]       State       D       State       State       D       State       State <td< td=""><td></td><td>ast Fron</td><td>t Street</td><td></td><td></td><td></td><td>Disc</td><td>harge or</td><td>Test duration</td><td>Test me</td><td>uloc:</td><td></td><td>Fla</td><td>wing</td></td<>		ast Fron	t Street				Disc	harge or	Test duration	Test me	uloc:		Fla	wing
3. WELL LOCATION:       Trap. 1       North ⊠ or South □ Rge. 4       East ⊠ or West □         Trap. 1       North ⊠ or South □ Rge. 4       East ⊠ or West □         Gov1 Lot       County Ellmore       Wate Quality test or comments::         Lot       13 × 24.498       [Deg. and Deciral minutes)         Long. 115 * 55.334       [Deg. and Deciral minutes)         Farm field approx. 1/4mi NE of Indian Cr. Rd. 8         Address of Well Site Stater Cr. Rd.         Terretinaterse: Handback and test of the state of the s				te ID 7in	83720		yie	d (gpm)	(minutes)			Air		esian
Typ: 1       North S or South I & See: 1/4       NE: 1/4       NE: 1/4         Sec: 23       SW: 1/4       SEe: 1/4       NE: 1/4       NE: 1/4         Gov/Lot       County Elmore       130 cmt / 4 Size: 1/4       NE: 1/4       NE: 1/4         Gov/Lot       County Elmore       13. LITH/LOGIC LOG and/Logic repairs or abandonment; water temp.       Net abando		TION		10 <u>10</u> 20		5		17	480	$\times$			Ē	
Sec         23         SW 11 0         SE 14 WE         NE         14           GeV1L0         County Elmore         County Elmore         Water Quality test or comments:           Log	1	North X		A Fast	X or West									
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Address of Well Site       Stater Cr. Rd.       12 <td>q.</td> <td>115 °</td> <td>56.334</td> <td>(Deg. and D</td> <td>ecimal minutes)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>sor</td> <td></td> <td>ater</td>	q.	115 °	56.334	(Deg. and D	ecimal minutes)							sor		ater
Address of Well Site       Site State Cr. Rd.       12" <td></td> <td>Farm fi</td> <td>eld approx. 1/4</td> <td>mi NE of Indi</td> <td>an Cr. Rd. &amp;</td> <td>(in) (it) 12" 0'</td> <td>(ft)</td> <td>brown</td> <td>abandonmer</td> <td>it, water te</td> <td>mp.</td> <td></td> <td></td> <td>NX</td>		Farm fi	eld approx. 1/4	mi NE of Indi	an Cr. Rd. &	(in) (it) 12" 0'	(ft)	brown	abandonmer	it, water te	mp.			NX
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Lot	ican' name of mail + Distance	e in Road er Landma	4			12" 43"								X
4. USE:	105.	BIK	Sub. Na	une			52'	tan clay	1					X
□ Oner       0 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>58'</td> <td>grey sa</td> <td>nd</td> <td></td> <td></td> <td></td> <td></td> <td>Х</td>							58'	grey sa	nd					Х
S. TYPE OF WORK check all that apply         (Replacement etc.)         8"         35         138		Municipal		gauon 🛄 Thèn	nai 🛄 injection					ps				Х
Model         Modify existing well         8" 138 222' forown sand & clay strips           B* 222 235' white/grays sand         X           Complexed         0 mer           B* 223 235' white/grays sand         X           S* 235 246' flight brown sand & clay strips         8" 235 245' flight brown clay           B* 246 225' 235' white/grays sand         X           S* 235 245' flight brown clay         8" 235 235' flight brown clay           S* 235 245' flight brown clay         8" 310' 340' brown sand & clay strips           B* 246 235' flight brown clay         8" 310' 340' brown clay           B* 245 357' gray class         8" 357' 375' gray class           B* 1.5' 52 250 steel         8' 8' 440' 460' gray sand x clay strips           B* 440' 440' gray sand x clay strips         8' 440' 460' gray sand x clay strips           B* 440' 440' gray sand x clay strips         8' 440' 460' gray sand x clay strips           B* 440' 440' gray sand x clay strips         8' 440' 460' gray sand x clay strips           B* 440' 440' gray sand x clay strips         8' 440' 460' gray sand x clay strips           B* 440' 440' gray sand x clay strips         8' 440' 460' gray clay           B* 429' 440' 420' stot ste         N hend           Mandeduct dorstallation set in         N type PVC factory slotted           Mandeduct dorstallation set in         N type PVC f		DIV .											X	
□ Ananoonment         ○ Other         8"         222         235 'White/grays and         X           6. DRILL METHOD:         □         235         246' Dirown sand & clay strips         8"         235         246' Dirown sand & clay strips         8"         242         245' light brown clay         X           Searmating in From (1)         To (1)					eplacement etc.)						ips			X
□ Ar Reary SM tod from [] Cable □ Other       8°       246 285 []]ght brown clay         7. SEALING PROCEDURES       8°       328 ansisting from (t) [] oft) 0. Carefy (tis or #)       Placement method possion         3/8 bentchps       0'       16%       0. arefly (tis or #)       Placement method possion         8°       3400       3400       3400       5320       500         DFort/Cmn1       0'       115%       0. arefly (tis or #)       Placement method possion       8°       3400       3521       3571       draw (tay)       9         8°       352       3571       draw (tay)       8°       357       draw (tay)       9       8°       357       draw (tay)       8°       draw (tay)       draw (tay)						8" 138	222	brown s	sand & clay	strips				X
□ Ar Reary SM tod from [] Cable □ Other       8°       246 285 []]ght brown clay         7. SEALING PROCEDURES       8°       328 ansisting from (t) [] oft) 0. Carefy (tis or #)       Placement method possion         3/8 bentchps       0'       16%       0. arefly (tis or #)       Placement method possion         8°       3400       3400       3400       5320       500         DFort/Cmn1       0'       115%       0. arefly (tis or #)       Placement method possion       8°       3400       3521       3571       draw (tay)       9         8°       352       3571       draw (tay)       8°       357       draw (tay)       9       8°       357       draw (tay)       8°       draw (tay)       draw (tay)						0 222	235	white/g	rey sand	etrine			^	X
In Informative Control (1)       Call						8" 246'	285	light hr	own clay	atripa				ŵ
3/8bentchps         0'         50'         1850 lbs         poured & tagged           3/8bentchps         0'         415'         120 cu.ft.         tremie           6. CASINGLINER:         8'         340'         352'         357'         175'         10 rev clay         8'         340'         10 rev clay         8'         352'         357'         10 rev clay         8'         352'         10 rev clay         8'         352'         357'         10 rev clay         8'         352'         357'         10 rev clay         8''         420'         40''         10'''''         10 rev clay         8''         420''         440''         450'''''         10 rev clay         8''''         42''''         440'''''         450'''''         10 rev clay         8'''''         440''''''''''         460''''''''''''''''''''''''''''''''''''				Other		8" 285	310	drev sa	nd				X	
3/8bentchps         0'         50'         1850 lbs         poured & tagged           3/8bentchps         0'         415'         120 cu.ft.         tremie           6. CASINGLINER:         8'         340'         352'         357'         175'         10 rev clay         8'         340'         10 rev clay         8'         352'         357'         10 rev clay         8'         352'         10 rev clay         8'         352'         357'         10 rev clay         8'         352'         357'         10 rev clay         8''         420'         40''         10'''''         10 rev clay         8''         420''         440''         450'''''         10 rev clay         8''''         42''''         440'''''         450'''''         10 rev clay         8'''''         440''''''''''         460''''''''''''''''''''''''''''''''''''				67 Olement	I mathe diamond in 1	8" 310'	340'	brown s	and & clay	strips			-	X
DFGr0Cmnt         30'         415'         120 cu.ft.         tremie         8'         332'         337'         grey sand & clay strips           8. CASING/LINER:         Casing Liner Timaced Welded         8''         337'         35''         grey sand & clay strips           8''         41.5'         522         Sol grey Sand & clay strips         8''         460'         470'         47''         10'''         Set 200''         8'''         460''         470''         47''         10'''         Set 460''         8'''         460''         470''         47''         10'''         10'''         8'''         460''         470'''         47'''         10''''         10''''         8''''         460'''         470'''         47'''         10''''         10'''''         10'''''         10'''''         10'''''         10''''''         10''''''         10''''''''         10''''''''''''''''''''''''''''''''''''						8" 340'	352	brown o	clav					Х
8. CASING/LINER:       6. CASING/LINER:         Itemate/       To       Sauge/         Itemate/       To       Sauge/       X         Itemate/       Sauge/       X       Sauge/       X         Itemate/       Itemate/       X       Sauge/       Sauge/       X         Itemate/       Itemate/       Itemate/       Sauge/       Sauge/       Sauge/       X         Itemate/       Itemate/       Itemate/       Itemate/       Sauge/       Saug						8" 352"	357	grey cla	iy .					Х
Diameter         From To         Stauge/ (1)         Stauge/ (1) <th< td=""><td></td><td></td><td>13 120 00</td><td></td><td>trenne</td><td>8" 357"</td><td>375'</td><td>grey sa</td><td>nd &amp; clay st</td><td>rips</td><td></td><td></td><td></td><td>Х</td></th<>			13 120 00		trenne	8" 357"	375'	grey sa	nd & clay st	rips				Х
8"         +1.5"         52         52         6*         440         470         173         273         273           4"         440 <sup>1</sup> 450         account         8"         477         480         470 <sup>1</sup> gray clay           4"         440 <sup>1</sup> 450 <sup>1</sup> stots         8"         477 <sup>1</sup> dtot         475 <sup>1</sup> dtot         477 <sup>1</sup> gray stady clay           8"         477 <sup>1</sup> dtot         475 <sup>1</sup> dtot         477 <sup>1</sup> gray stady clay         8"         477 <sup>1</sup> gray stady clay           8"         477 <sup>1</sup> dtot         170 <sup>1</sup> gray stady clay         8"         477 <sup>1</sup> gray stady clay         8"         477 <sup>1</sup> gray stady clay           9.         PERFORATIONS/SCREENS:         Perofections         9"         8"         477 <sup>1</sup> dtot         435 <sup>1</sup> gray stady clay         8"         44 <sup>2</sup> dtot         470 <sup>1</sup> gray stady clay           Method         1         N         Type PVC factory slotted         8"         477 <sup>1</sup> dtot         8"         477 <sup>1</sup> dtot         9"         9"         9"         9"         9"         9"         9"         4"         9"         9"         4"         9"         4"         4"         4"         4"         4"         4"         4"         4"         4"         4"         4"							420'	grey &	brown sand	& clay s	trips			Х
0         +1.3         3d_2.300         isteen         Site	inal) (ft)	(it) Scher	dule Material	Casing Liner	Threaded Welded	8" 420'	440	grey sa	nd				X	X
4"       40'       47'       48''       476'       475' Itan & grey sandy clay         4"       460'       450'       sc60       PVC       ⊠       ⊠       ⊠         9. PERFORATIONS/SCREENS:       Perforations       ⊴       3''       477'       475'       scady clay       ≅''         Manu/source doveren       ⊠Y       N       N protocol       B''       477'       478'       grey sandy clay         8''       477'       478'       177'       grey sandy clay       B''       B''       477'       478'       grey sandy clay       B''       B''       A''       B''       A'''       B''       A'''       B''       A'''       B''       A'''       A'''       B''       A'''       B''       A'''       B''       A'''       B''       A'''       B'''       A'''       B'''       B'''       B'''       B'''       B'''       B'''       B'''       B'''       B'''       B''''       B'''       B'''       B'''       B''''       B'''       B'''       B'''       B'''       B'''       B'''       B'''       B'''       B''''       B'''       B''''       B'''       B''''       B''''       B''''       B'''''       B'''' <t< td=""><td>+1.5'</td><td>52 .250</td><td>) steel</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td><math>\vdash</math></td><td>Â</td></t<>	+1.5'	52 .250	) steel										$\vdash$	Â
4"         440"         450"         650"         650"           9. PERFORATIONS/SCREENS:         8"         477"         483" grey sandy clay           9. PERFORATIONS/SCREENS:         8"         477"         483" grey sandy clay           8"         478"         483" grey sandy clay         8"           9. PERFORATIONS/SCREENS:         8"         477"         483" grey sandy clay           8"         478"         483" grey sandy clay         8"           9. PERFORATIONS/SCREENS:         8"         483" 500" grey clay         8"           9. Manufactured sorters         24"         N type PVC factory slotted         8"         48"           Mathéaid         Gauge or Schedule         SEP         2-6"         2012           420"         440"         0.20         4"         PVC         Sche80           Conversestingtem/modelestation         11-10-2011         Completed         11-15-2011           Length of Headpipe         Length of Talipipe         10         Packer         10           10. FILTER PACK:         Deadeth of Talipipe         10         Deadeth of the origina water to complete	+1'	420 sc8	0 PVC				470	tan & or	iy rev sandy cl	21/				Ŷ
Was drive shoe used?       X       N       Shoe Depth(s)       52         9. PERFORATIONS/SCREENS:       X       X       X       X         Manufactured screen       X       N       N       N         Manufactured screen       X       N       N       Type PVC factory slotted         Manufactured screen       X       N       N       Type PVC factory slotted         Manufactured screen       X       N       Type PVC factory slotted         Material       Cauge or Schedule       Image: Cauge of Schedule       Image: Cauge of Schedule         From (%)       To (%)       Skt size       Numeeritic       Image: Cauge of Schedule         Langth of Headpipe       Length of Tailpipe       10'       Image: Cauge of Schedule       Image: Cauge of Schedule         10. FILTER PACK:       Image: Cauge of Schedule       Image: Cauge of Schedule       Image: Cauge of Schedule         10. FILTER PACK:       Image: Cauge of Schedule       Image: Cauge of Schedule       Image: Cauge of Schedule         10. FILTER PACK:       Image: Cauge of Schedule       Image: Cauge of Schedule       Image: Cauge of Schedule         10. FILTER PACK:       Image: Cauge of Schedule       Image: Cauge of Schedule       Image: Cauge of Schedule         10. FILTER PACK: <td< td=""><td>440'</td><td>450' sc8</td><td>0 PVC</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>Ŷ</td></td<>	440'	450' sc8	0 PVC											Ŷ
9. PERFORATIONS/SCREENS:           Performations         □ N Method           Manufactured screen         □ N Method           Method of installation         ■ N Method           From f(t)         10 (the lasting)           From f(t)         10 (t	drive shoe used	1? 🛛 Y	N Shoe De	pth(s) 52										X
Manufactured screen     Y     N     Type PVC factory slotted       Matudd (I retulation set in     Set in       From (tr)     To (tr)     Sixt size     Numberit     Diameter       420'     440'     .020     4"     PVC       School     4"     PVC     Scholl       Length of Haskpipe     Length of Tailpipe     10'       Descir     Y     N     Type       10. FILTER PACK:     Torm (th)     Torm (th)     Torm (th)       Compared memory     Torm (th)     Torm (th)     Compared memory	ERFORATIO	DNS/SCR	EENS:			8" 483'	500'	grey cla	ly l					X
Immonstration         Set In         Type         Control         Set In         S	arations 🔲 ۱	Y 🗆 N	Method											
Method of installation         set in           From (#)         10 (%)         Set size         Numberitit         Diameter         Gauge or Schedule           420°         440°         .020         4"         PVC         ScheBol           Length of Headpipe	ufactured screen	n 🖾 Y	N Type P	/C factory slo	tted	REC	EL	Megt ch	ips 0'-30' 50	00 lbs. 1	otwn 8"	& 4"		
From (b)     To (b)     Set take     Number/life     Matarial     Gauge or Schedule       420'     440'     .020     4"     PVC     Schedule       420'     440'     .020     4"     PVC     Schedule       10     10     10     10     10     10       Length of Tailpipe     10'     10'     14. DRILLER'S CERTIFICATION       VWc certify the all minimum well construction standards were compiled with the time ther fig was removed.     11-15-2011       10: FILTER PACK:     Company Name_Down, Bight Drilling & Pump, Inco. No. 637													_	
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Length of Headpipe         Length of Tailpipe         10'         14: DRILLER'S CERTIFICATION           Ubst:         Stantos         11-10-2011         Completed         11-15-2011           Packer         Y         N         Type         We certify that all minimum well construction standards were completed with the time the fig was removed.         10'           10. FILTER PACK:         Company Name         Company Name         Company Name         0: No. 637							- iai	MAP					+	
Length of Headpipe         Length of Tellpipe         10'         14. DRILLER'S CERTIFICATION         11-15-2011         14. DRILLER'S CERTIFICATION           Peaker   - Y ⊠ N Type         Length of Tellpipe         10'         14. DRILLER'S CERTIFICATION         10. FULTER PACK:           10. FULTER PACK:         Event with 10 tell term with 10. Fult Certify that all initiations well construction standards were completed with the time the fig was removed.         Compared terms with 10. Fult Certify that all initiations well construction standards were completed with the time the fig was removed.	J 440'	.020	4"	PVC	Sch80	WATER	RES	URCE	<u>.</u>					450
Length of Headppe         Length of Tailpipe         10           Packer □ Y ⊠ N Type         Will certify that all minimum well censtruction standards were compiled with the firme the fig was removed.           10. FILTER PACK:         Emm.Mill To Mill Constitution of Mill	_									0 lar	44.4	5 204		+30
Langs of Transport     Langs of Transpor					l					completed	11•1	3-201	<u> </u>	
Packer T N = Typethe time the rig was removed.  10. FILTER PACK:  Company Name Down Right Drilling & Pump.Inc Co. No. 637  Eliter Marcine Term, mil To dri Covering days of the Placement method	th of Headpipe			of Tailpipe 10'						tandarda		nniad	dith of	
10. Flue Marking Error milling & Pump, Inc. Co. No. 637			e						i vonsu uoudi s	unualus	HOLD UOI	ihiion M	101 61	
	FILTER PAC	K:							Drilling & P	ump.lo	Co N	637	1	
	iter Material	From (ft) T	o (ft) Quantity (bs	y ft <sup>a</sup> ) Place										2
8-12 sand 415 454 1250 lbs. poured & tagged medbentchin 454 500 850 lbs. poured & tagged "Principal Driller & Camp Karryun Date 3-9-7						*Principal Drille	r	am	1 Juny	un	Date	5-7	1	2
Dellar Dellar				os. pour	ed-backfill	"Driller			معتني	/	Date			
11. FLOWING ARTESIAN:							-							
Flowing Arteslan? Y X Arteslan Pressure (PSIG) *Operator II Date			N Artesian Presi	ure (PSIG)		-Operator II					Date			
Describe control device Date Date	ribe control devi	ce				Operator I								
* Signature of Principal Driller and rig operator are required.							* Sign	ature of Pri	ncipal Driller and	i rig opera	tor are re	quired.		

Form provided by Forms On-A-Disk - (214) 340-9429 - www.FormsOnADisk.com

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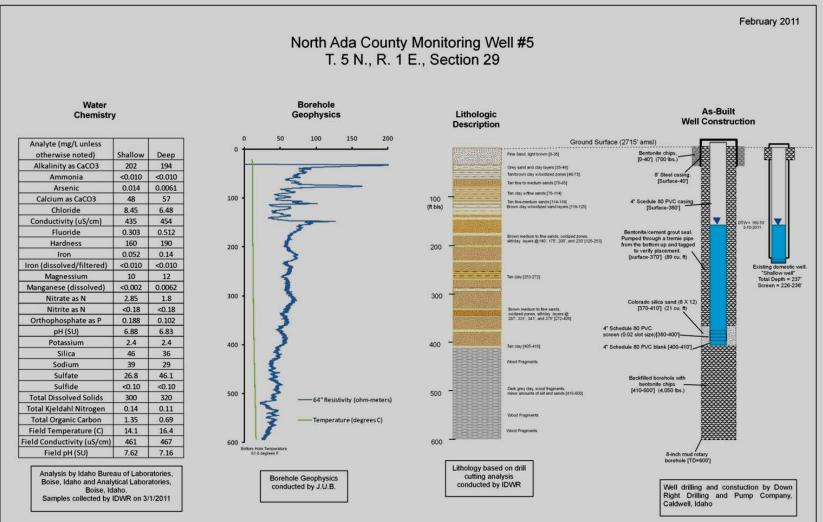


WELL DRILLER'S REPORT State law requires that this report be filled with the Director, Department of Water Administration within 30									
days after the completion of	r abande	onment	of the v	vell.		Y			
1. WELL OWNER	7. N	ATER	LEVEL						
Name otto Dertel	s	latic wi	iter heve	150 tees below land sur	rface				
Address Cagle									
Address Linger		umpera Intesian	ture	F. Quality p.s.k		·····	~		
Owner's Permit No.	c	ontroll	ki hy	⊖ Valve D Cap I	3 Plug				
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🕅 New well 🔲 Deeptined 🖾 Replacement		ի թունն		🗆 Sailer 🛛 🖾 Öther					
[] Abandoned (describe method of abandoning)	P	isoji inga	G.P.M.	Draw Down	Hauts Pu	nquad			
	L	^							
	┟								
3. PROPOSED USE	<b> </b>				0000				
💱 Domestic 🗋 Irrigation 📋 Test 🔲 Other Specify type)	9. 1		OGICI	.06	12963				
🗂 Municipal 🔲 Jedustrial 🔲 Stock 🔂 Wante Disposal or	Note Diam.	From	pih .	Materiai		Yet.			
Injection	6	0	5	Class		1 44	4		
4. METHOD DRILLED	_	5	100	Samery clary			-		
🛱 Cable 🗆 Rotory 🗆 Dug 🗂 Other		100	<u>J</u> ]2,	Sand and the	÷	4			
5. WELL CONSTRUCTION	<u></u>								
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Diameter of hole inches Total depth									
Thickness Diamater From To					.,				
	<u> </u>			· · · · · · · · · · · · · · · · · · ·					
inches feet feet	F								
inches feet feet	<u> </u>					1-1			
inches feet feet									
Was a packer or seal used? 🛛 Yes 🕞 No	}								
Perforsted? 🛛 Yes 🖳 No How perforsted? 🛛 Factory 🗂 Knife 🗔 Tarch		-							
Size of perforation inches by inches									
Number From Yo									
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Wefi screen installist? A Yes D No Matsulocturer's nameModel No. TypeModel No. Diamotes 4_ Slot size 10 Set from 325 fees to 331 feer	ļ					-			
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Gravel packed? 🖸 Yes 🕃 No Size of graval	<u> </u>		···			$\vdash$			
Placed from feet to feet									
Serface seal depth_ <u>10.0</u> Material used in seal 🖾 Cement grout	$\vdash$								
D Paddling cloy - Well cuttings Seeling procedure used - C Slarry all C Temporery serioss cosing				······		ļ			
23 Overbore to seal death			i			k			
6. LOCATION OF WELL	1			8. 1. 90	1 - 1 - 1				
Sketch map location must agree with written location.	W	ork sta	190	<u>R-1-73</u> finished_	1-10-1	<u>.</u>	~		
2 N					~	1			
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	s	igned by	(Firm (	Micial N.C. Mus	cholio	<u>n</u>	_		

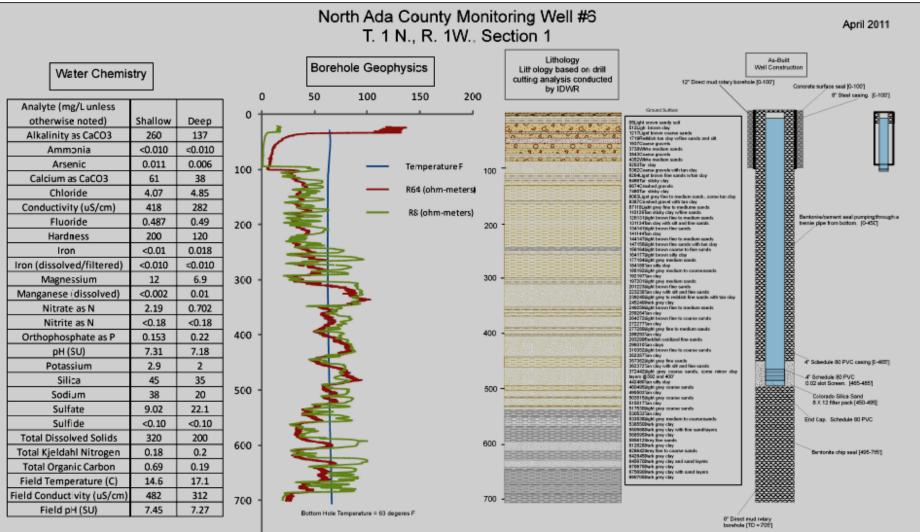
USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE COPY TO THE DEPARTMENT

Don MCREELAND

### Example of Hydrogeologic Data

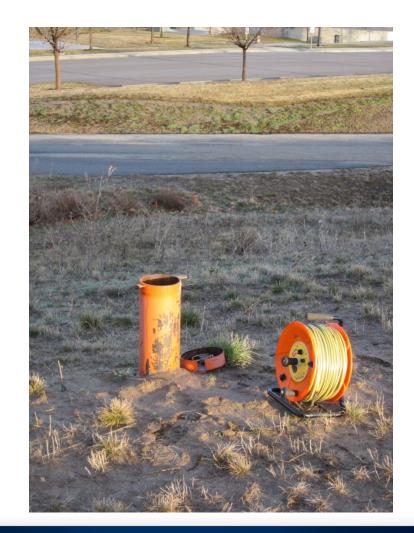


### Example of Hydrogeologic Data

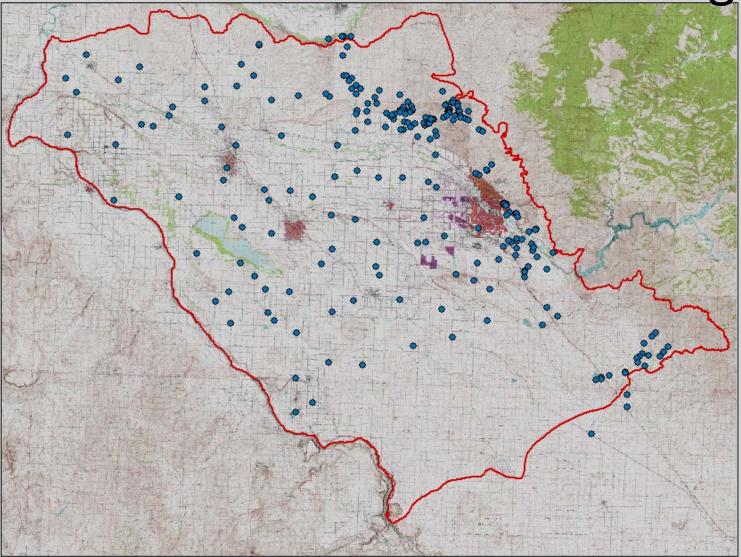




### **Ground Water Monitoring**



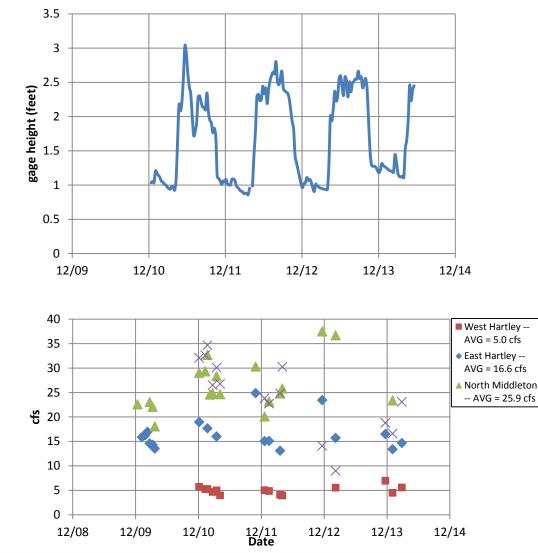
### Water Level Monitoring



### **Drain** and Stream Gaging



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• Questions so far?

• Break for coffee and restrooms.....







# Ground Water Budget

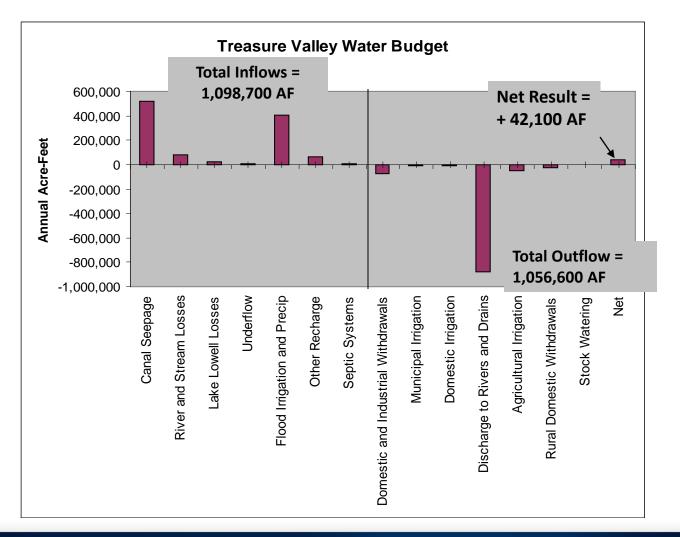
• Simple accounting:

Inflow – Outflow = Change in storage

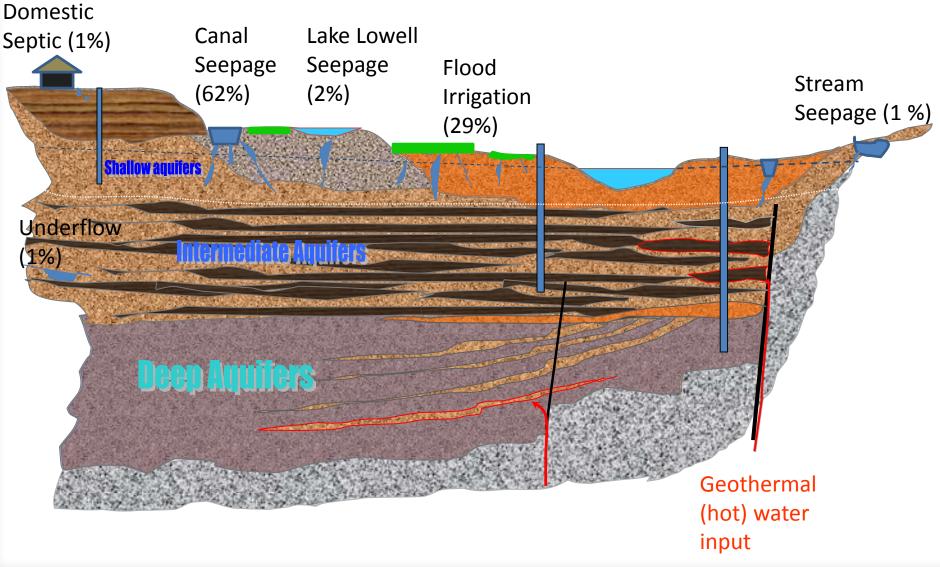
Inflows: Irrigation seepage, canal seepage, stream loses, precipitation

Outflows: Discharge to river, wells

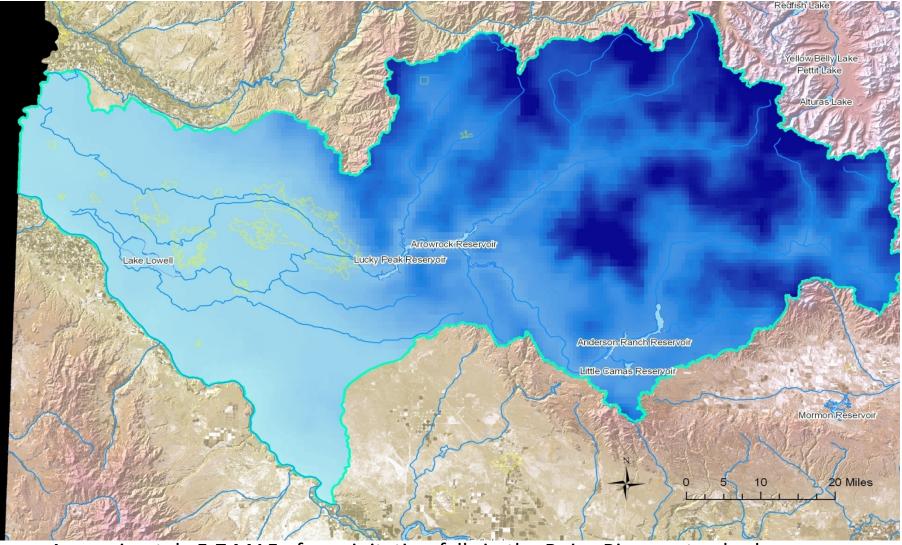
### **Ground Water Budget**



### **Recharge Sources**



### Source of Water.....

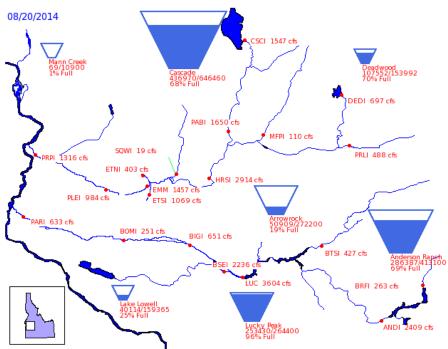


Approximately 5.7 MAF of precipitation falls in the Boise River watershed.



### **Reservoir System**

Bureau of Reclamation, Pacific Northwest Region Major Storage Reservoirs in the Boise & Payette River Basins



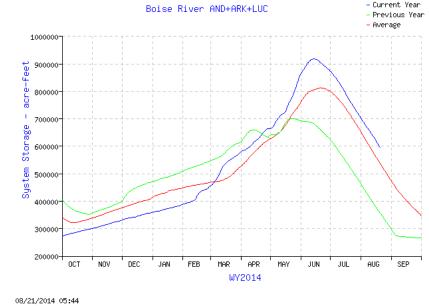
PROVISIONAL DATA - SUBJECT TO CHANGE!

#### Boise River system (Anderson Ranch, Arrowrock, Lucky Peak) is at 62 % of capacity.

Total space available:	358974 AF
Total storage capacity:	949700 AF
Natural Flow:	749 CFS

Payette River system (Cascade, Deadwood) is at 68 % of capacity.

Total space available:	255930 AF
Total storage capacity:	800452 AF
Natural Flow:	1182 CFS

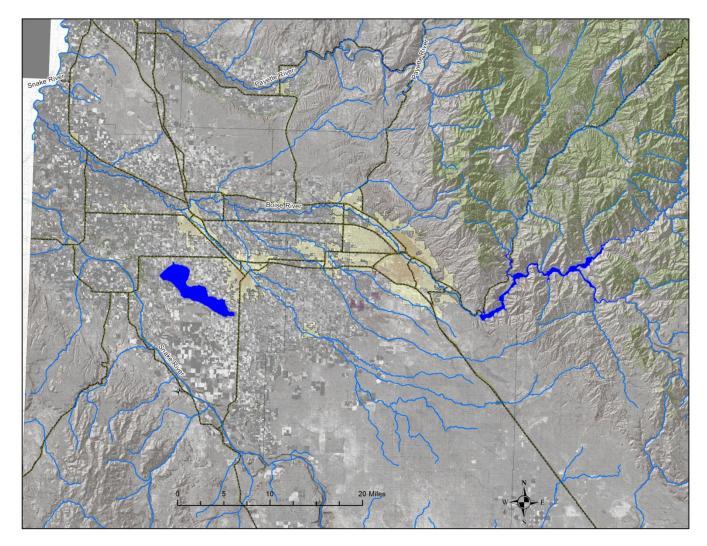


PROVISIONAL DATA - SUBJECT TO CHANGE! Accessibility



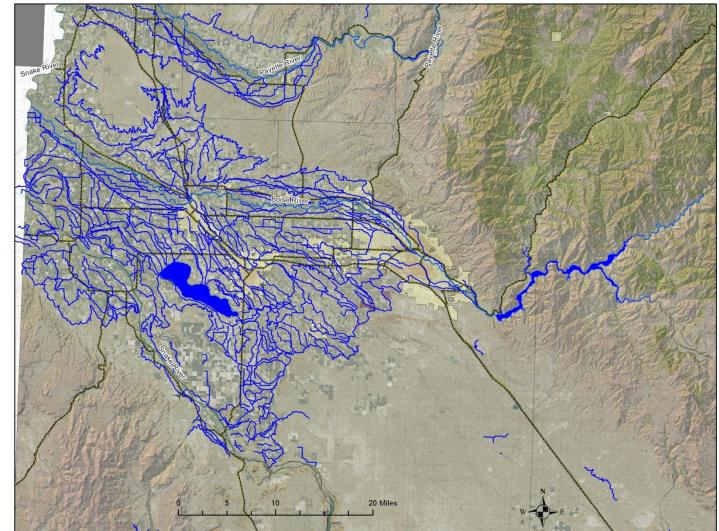
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### **Treasure Valley Surface Water Features**



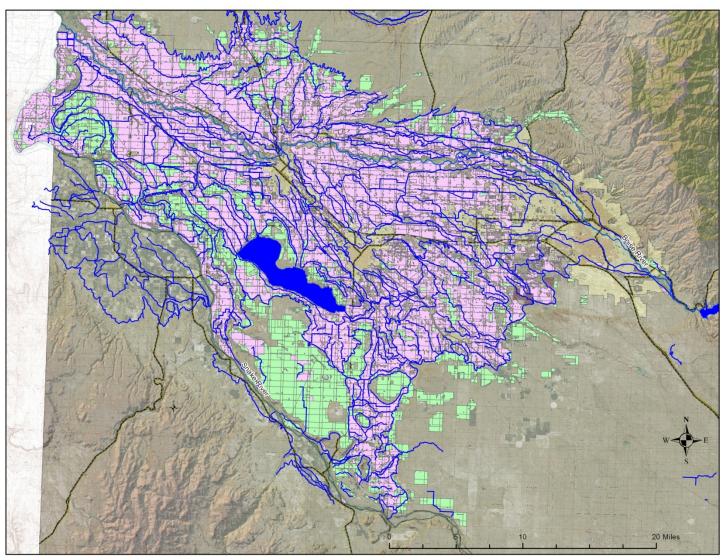
# Irrigation Distribution

Approximately 1,170 miles of major irrigation canals Major source of recharge to the aquifer system (loss of 0.75 cfs/mile) 1.7 MAF Diverted Annually

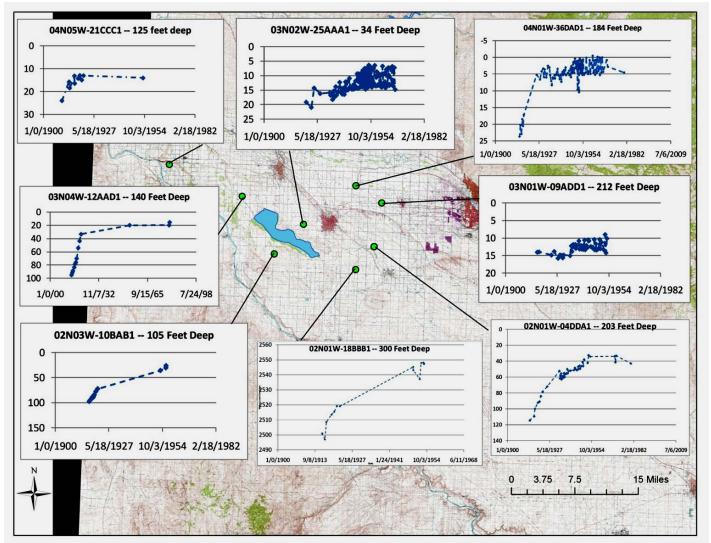




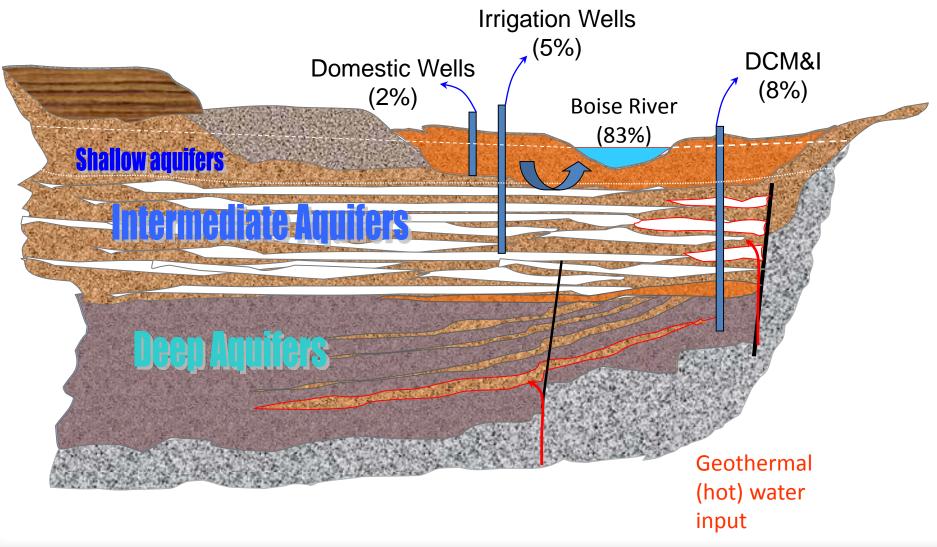
### Irrigation Coverage



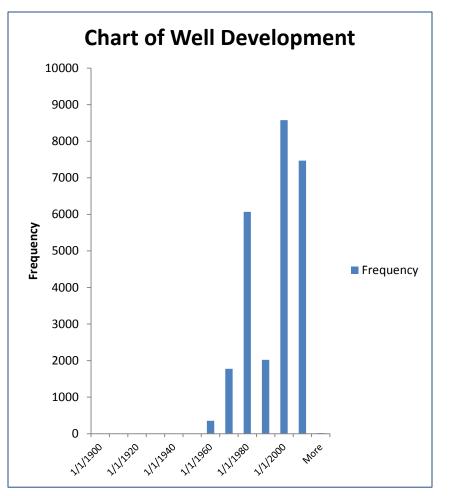
### **Response to irrigation**



# **Treasure Valley Aquifers**



# Well Development

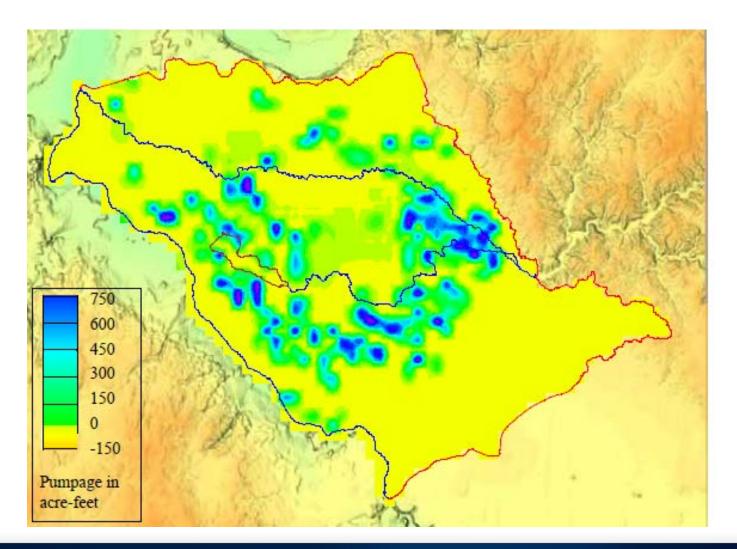


- There are 30,000 wells in the Treasure Valley.
- Unfortunately, well drillers have not always been required to file drilling reports so all of the wells in existence are not on file.
- Well construction standards have changed and improved over the years.

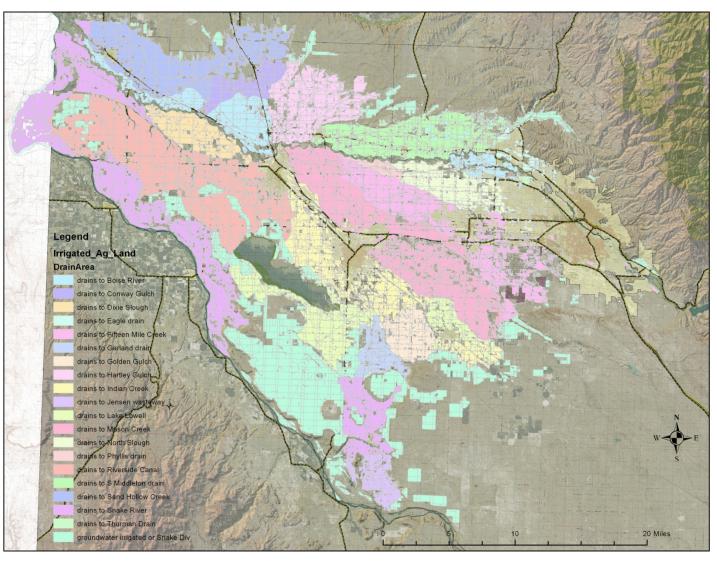
# **Ground Water Discharge -- Wells**



# **Treasure Valley Pumping Diversions**



# Ground Water Discharge – Drainage areas



# IDAHO Bepartment of Water Resources Ground Water Discharge -- Drains

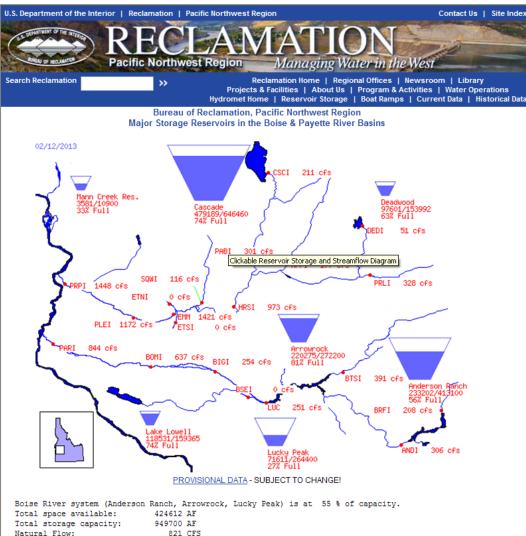




# Discharge to the Boise River

- "Teacup" diagram from BOR.
- Notice the river flows increase as you move down-river.
- Winter conditions (no significant precipitation or diversions)
- Data source:

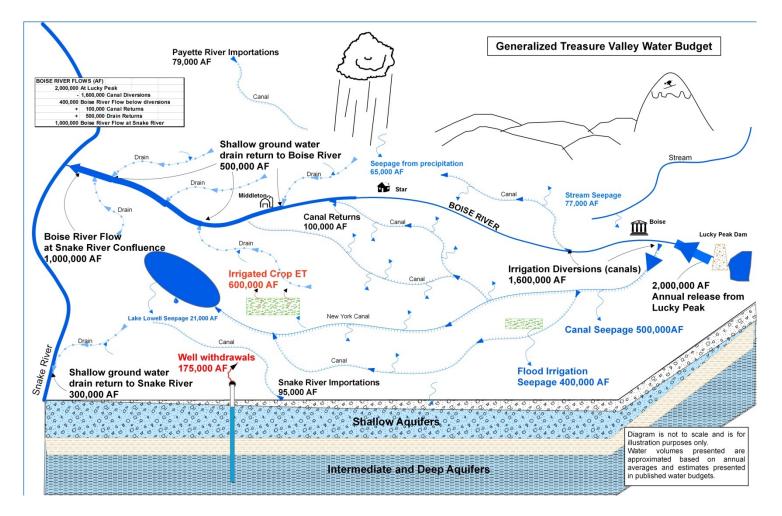
http://www.usbr.gov/pn/hydromet/boipaytea.html



# **Ground Water Budget Details**

Recharge Sources		TVHP 1996	TVHP 2000	BOR 2008	Averages
Canal Seepage		626,000	521,500	492,284	
Seepage from Rivers and Streams		16,000	77,000	NA	
Seepage from Lake Lowell		19,000	21,200	NA	
Underflow		4,300	4,300	NA	
Flood Irrigation and Precipitation		302,000	404,400	453,868	
Other Uses		48,000	65,700	NA	
Rural Domestic Septic Systems		5,000	4,600	NA	
	<b>Total Inflows</b>	1,020,300	1,098,700	997,657	1,038,886
Discharge Sources					
Domestic and Industrial Pumping		66,000	76,800	NA	
Municipal Irrigation		10,000	10,000	NA	
Self-Supplied Industrial		21,000	8,200	NA	
Agricultural Irrigation		72,000	53,000	128,962	
Rural Domestic Pumping		27,000	24,000	NA	
Stock Water Pumping		3,000	3,000	NA	
	Total Pumping	199,000	175,000	128,962	167,654
Discharge to Snake River		276,800	352,600	362,023	
Discharge to Boise River		523,200	529,000	489,105	
Total Discharge to Rivers		800,000	881,600	851,128	844,243
	<b>Total Outflows</b>	999,000	1,056,600	980,090	1,011,897
	Net Difference	21,300	42,100	17,567	26,989

# **Ground Water Budget Summary**

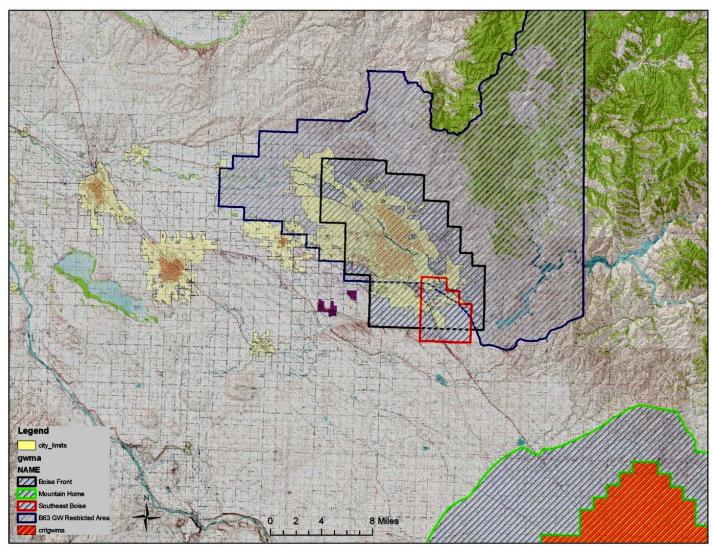


# **Current Status of Aquifer System**

- Management Areas
- Residential Development
  - Changes in land use
  - Planned changes in land use

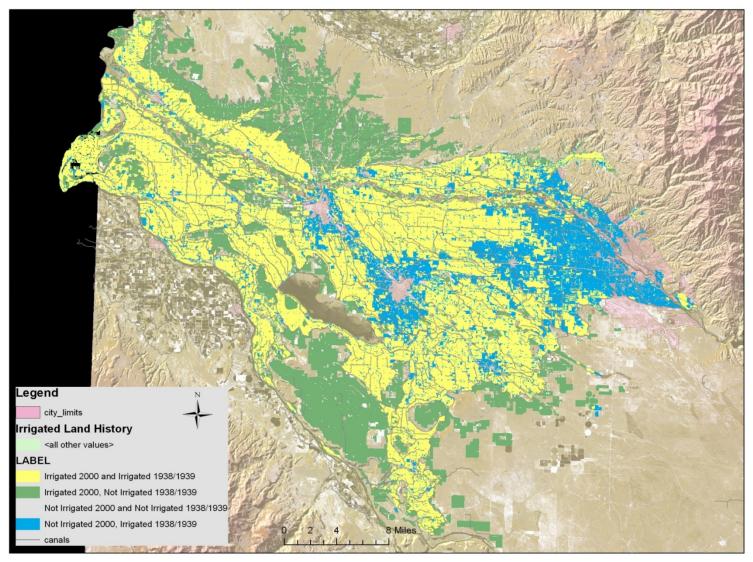


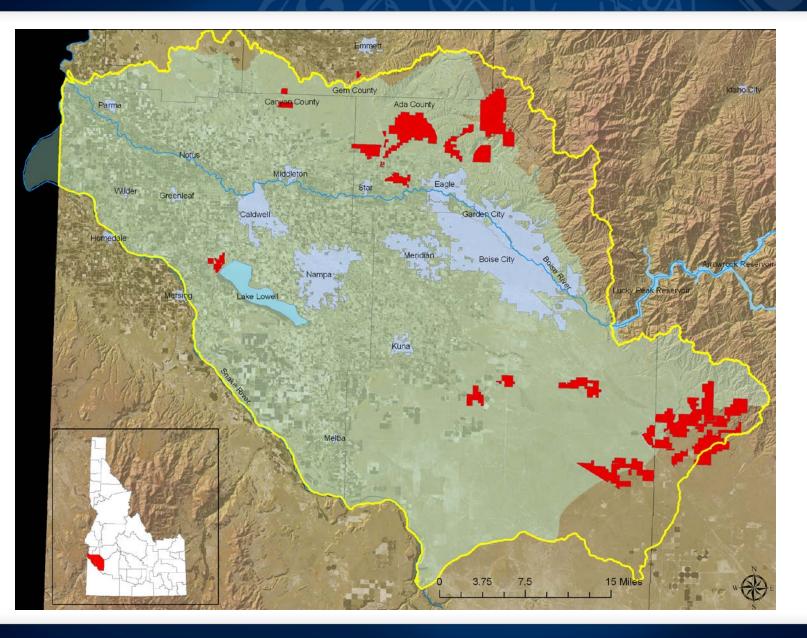
# Management Areas





# Changes in Irrigation.....

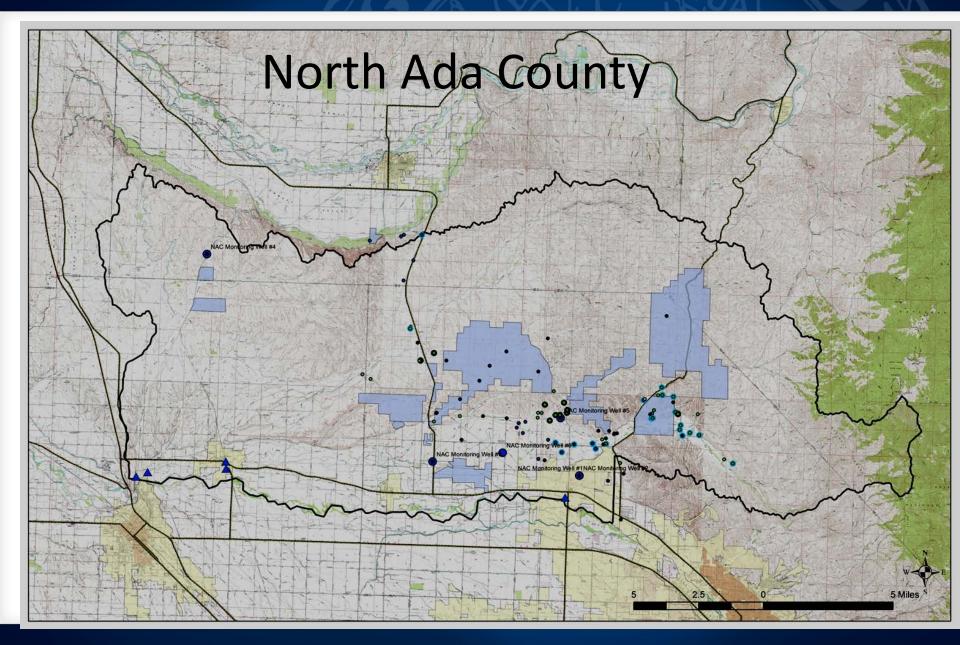






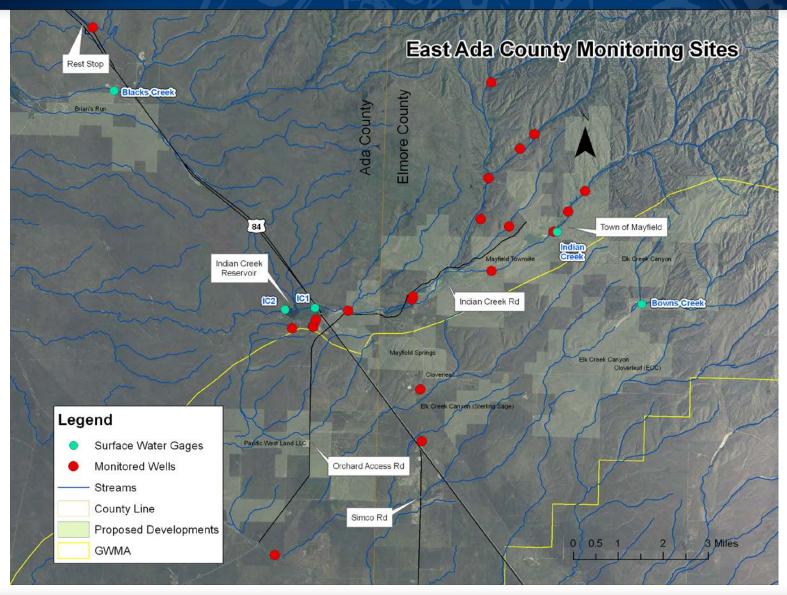
# **Current Investigations**

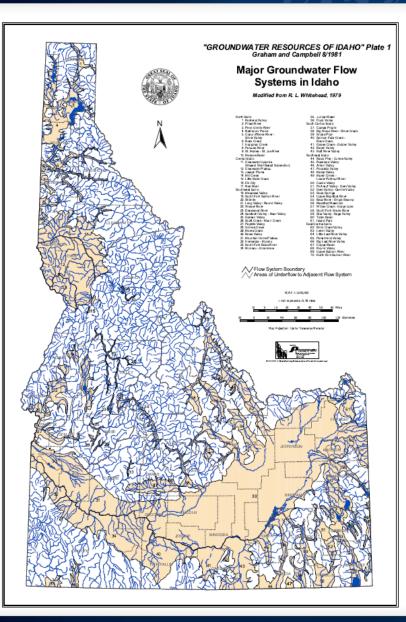
- North Ada County
- East Ada County
- Revised Treasure Valley Ground Water Model



# **JDAHO** Water Resource Board







# Idaho Aquifers

#### •ESPA

- •Rathdrum Prairie
- Moscow
- Tributary Basins
- Management Areas

# Eastern Snake Plain Aquifer:

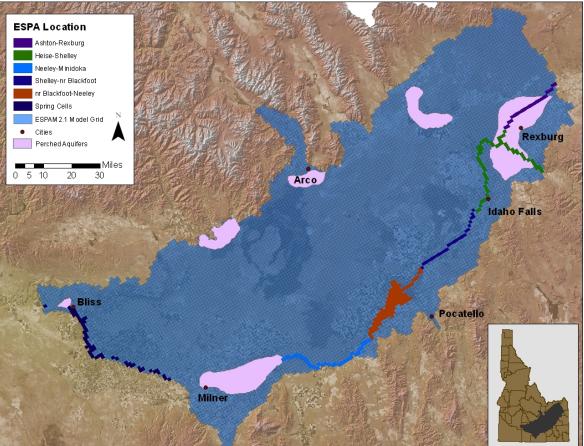
•Aquifer composed primarily of basalt.

- •Aquifer is generally unconfined with local confined conditions.
- •Some locally perched areas.
- •Depth to water ranges from a few feet in places near the river to over 900 feet in the

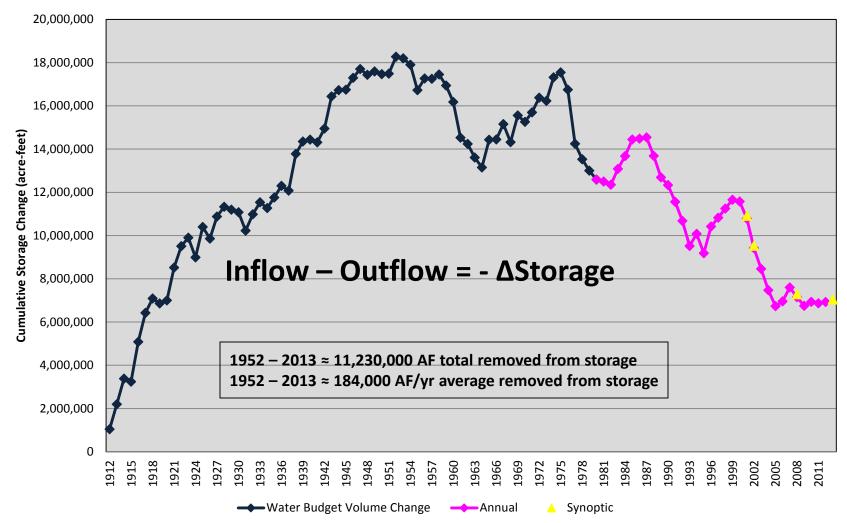
center of the plain.

•Recharge due primarily to irrigation and stream seepage, tributary underflow, and precipitation.

Water moves very easily (fast) through this aquifer
Largest aquifer in Idaho.
Very important to Idaho.

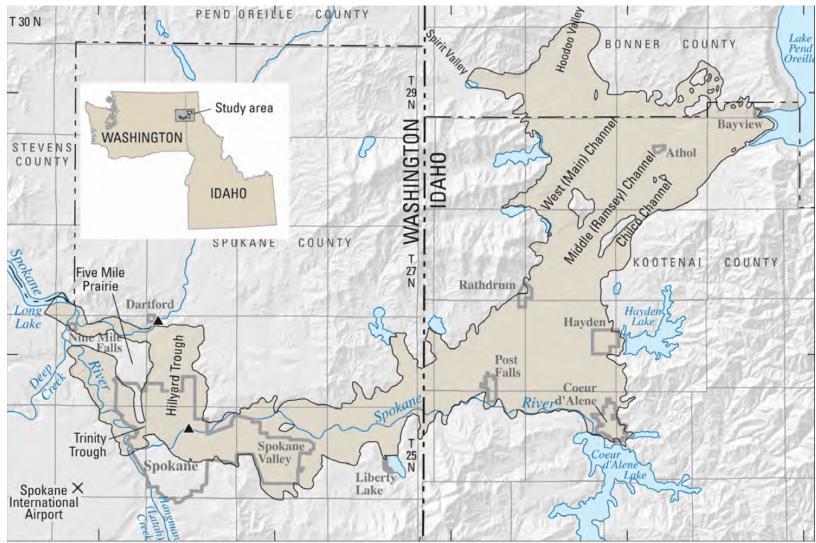


# Cumulative Volume Change of Water Stored Within ESPA – ESPAM2.1



# Rathdrum Prairie Aquifer:

•Aquifer extends across Idaho and Washington.

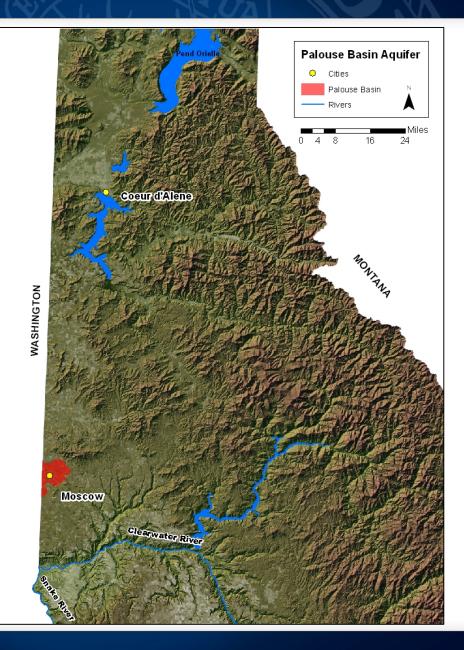


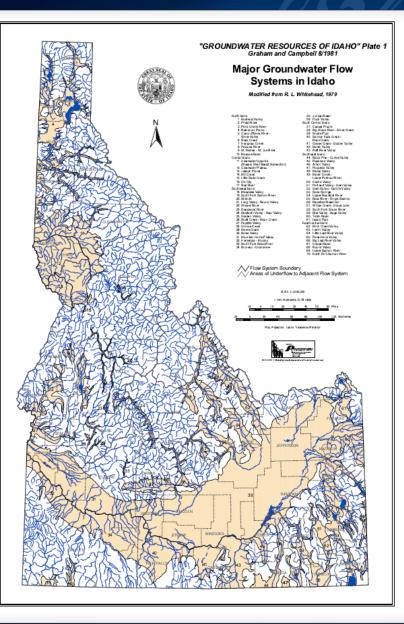
### Palouse Basin Aquifer: •Generally made up of two aquifers:

•<u>Upper unconfined</u>: located in surface sediments (limited extent, only minor stock water uses), and in shallow basalts (Wanapum) and interbeds to approx. 500 feet. Some domestic and municipal development.

• <u>Lower confined</u>: located in deeper basalts (Grande Ronde) to approx 1,000 ft. Accounts for 95% of municipal and university supply.

•Limited recharge from precipitation and stream leakage.





# Idaho Aquifers

•Tributary Basins

# Thank you. Any Questions?



dennis.owsley@idwr.idaho.gov

http://www.idwr.idaho.gov/

### Exhibit A5.7d

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### LEVEL 1 NUTRIENT PATHOGEN STUDY FREEZEOUT RIDGE ESTATES SUBDIVISION

23442 Freezeout Road Caldwell, ID

ar

#### **PREPARED FOR:**

Mr. Brian Falck Pioneer Homes 719 1st Street South, Suite B Nampa, ID 83651

#### **PREPARED BY:**

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January 14, 2021 B201724g



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January 14, 2021

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Mr. Brian Falck Pioneer Homes 719 1st Street South, Suite B Nampa, ID 83651

Subject: Level 1 Nutrient Pathogen Study Freezeout Ridge Estates Subdivision 23442 Freezeout Road Caldwell, ID

Dear Mr. Falck:

In compliance with your instructions, Atlas has conducted a Level 1 Nutrient Pathogen Study for the above referenced development. Atlas researched and analyzed pertinent geologic conditions in the vicinity of the project site, and the data was used to estimate the downgradient nitrate concentration from the proposed development. Our scope of services is provided in the following report, and the components of this report are listed in the **Table of Contents**. We have provided a PDF copy for your review and distribution.

Atlas would be pleased to continue our role as geotechnical engineers during project implementation. Additionally, Atlas has great interest in providing materials testing and special inspection services during construction of this project. If you will advise us of the appropriate time to discuss these services, we will meet with you at your convenience.

If you have any questions, please call us at (208) 376-4748.

Respectfully submitted,

Ethan Salove, PE Geotechnical Engineer

Monica Saculles, PE Senior Geotechnical Engineer

Distribution: Fritz Durham, Idaho Department of Environmental Quality (PDF Copy); Brigitta Gruenberg, Southwest District Health (PDF Copy); William Mason, Mason & Associates, Inc. (PDF Copy).



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#### 1. INTRODUCTION

This report presents results of a Level 1 Nutrient Pathogen (NP) Study conducted for the proposed Freezeout Ridge Estates Subdivision in Caldwell, ID. This study has been conducted to determine whether the proposed number of residential lots for the site will exhibit a negligible impact on groundwater conditions and whether a comprehensive Level 2 NP Study, as outlined by Southwest District Health (SWDH), will be required.

#### 1.1 Authorization

Authorization to perform this analysis was given in the form of written authorization to proceed from Mr. Brian Falck of Pioneer Homes to Monica Saculles of Atlas Technical Consultants (Atlas), on October 14, 2020. Said authorization is subject to terms, conditions, and limitations described in the Professional Services Contract entered into between Pioneer Homes and Atlas. Our scope of services for the proposed development has been provided below.

#### 1.2 Purpose

The purpose of this study is to determine the various site parameters present, which in turn will determine whether the proposed number of residential lots for the site will exhibit a negligible impact on groundwater conditions. Specifically, this study complies with requirements established by Canyon County and the SWDH for area developments in accordance with the Idaho Department of Environmental Quality (IDEQ) guidelines dated 6 May 2002.

#### **1.3 Scope of Investigation**

The scope of this study included reviewing geologic literature, assembling an inventory of available reports of wells (domestic, irrigation, or other) in the immediate area, reviewing available water resource reports, and performing a site reconnaissance of the project site. At an additional fee, Atlas will perform on-site evaluation of soils within the proposed septic system drainfield locations following approval of the preliminary plat; however, at that time, a SWDH or IDEQ representative must be present to observe and approve this work.

#### **1.4 Warranty and Limiting Conditions**

The field observations and research reported herein are considered sufficient in detail and scope to form a reasonable basis for the purposes cited above. Atlas warrants that the findings and conclusions contained herein have been promulgated in accordance with generally accepted professional engineering practice in the fields of site civil engineering, soil mechanics, and engineering geology, only for the site described in this report. No other warranties are implied or expressed.



These engineering methods have been developed to provide the client with information regarding apparent or potential engineering conditions relating to the subject property within the scope cited above and are necessarily limited to the conditions observed at the time of the site visit and research. The report is also limited to the information available at the time it was prepared. In the event additional information is provided to Atlas following the report, it will be forwarded to the client in the form received for evaluation by the client. There is a distinct possibility that conditions may exist which could not be identified within the scope of the investigation or which were not apparent during the site investigation.

This report was prepared for the use of Pioneer Homes, and their retained design consultants ("Client"). Conclusions and recommendations presented in this report are based on the agreed upon scope of work outlined in the report and the Contract for Professional Services between Client and Atlas Technical Consultants ("Consultant"). Use or misuse of this report, or reliance upon the findings hereof by any parties other than the Client, is at their own risk. Neither Client nor Consultant make any representation of warranty to such other parties as to the accuracy or completeness of this report or the suitability of its use by such other parties for any purpose whatever, known or unknown to Client or Consultant. Neither Client non Consultant shall have any liability to, or indemnifies or holds harmless third parties for any losses incurred by the actual or purported use or misuse of this report. No other warranties are implied or expressed.

#### 2. PROJECT DESCRIPTION AND EXISTING SITE CONDITIONS

#### 2.1 **Project and Vicinity Description Including Site Topography and Drainage**

The proposed development is located north of the City of Caldwell, Canyon County, ID, and occupies a portion of the SE¼NE¼ and SW¼NE¼ of Section 3, Township 4 North, Range 3 West, Boise Meridian. The site address is 23442 Freezeout Road in Caldwell, Idaho.

Currently, the proposed development consists of 31.4 acres of agricultural land with a residence located in the southeastern portion of the parcel. A general westerly slope is present across the site. The project site is bordered on the south by a private driveway, bordered by a small drainage swale to the west, and bordered on the north and east by existing rural residential/agricultural properties. The proposed development will consist of 20 single-family residential lots with individual wells and septic systems.

No stormwater drainage facilities are located in the vicinity of the site, and the project site does not receive off-site drainage. Stormwater drainage for the project site is achieved by percolation through surficial soils. Regional drainage is north and west towards the Boise River. A topographic map and general site map are located in **Appendix I**.



#### 2.2 Regional Geology

The project site is located within the western Snake River Plain of southwestern Idaho and eastern Oregon. The plain is a northwest trending rift basin, about 45 miles wide and 200 miles long, that developed about 14 million years ago (Ma) and has since been occupied sporadically by large inland lakes. Geologic materials found within and along the plain's margins reflect volcanic and fluvial/lacustrine sedimentary processes that have led to an accumulation of approximately 1 to 2 km of interbedded volcanic and sedimentary deposits within the plain. Along the margins of the plain, streams that drained the highlands to the north and south provided coarse to fine-grained sediments eroded from granitic and volcanic rocks, respectively. About 2 million years ago the last of the lakes was drained and since that time fluvial erosion and deposition has dominated the evolution of the landscape.

The project site is underlain by "Gravel of Deer Flat Terrace" as mapped by Othberg and Stanford (1993). Gravel of Deer Flat Terrace extends from Lake Lowell northeast to the area just south of Wilder. The surface of this terrace may have been offset by several northwest trending faults. Deposits include sandy pebble gravel grading at depth to coarse pebbly sand. Deposited on the fourth terrace above the floodplain in the western Boise Valley. North of Caldwell and Middleton Tertiary sediments are exposed between terrace remnants. Terrace sediments are typically greater than 30 feet thick and mantled with loess 1-4 meters (3-13 feet) thick, contain 45% pedogenic clay and very well developed duripans. A geologic map showing the approximate site boundary is included in **Appendix II**.

#### 2.3 Localized Geology and Hydrogeology

Based on review of Well Driller's Reports (well logs) maintained at the IDWR website for portions of three immediately adjacent sections, Atlas assessed the localized geology and hydrogeology for the site and surrounding areas. Further description of the well log research can be found in the **Well Driller's Report Review** section of this report. In general, well logs in the area show that near surface soils consist primarily of topsoil and hardpan/cemented soils that are underlain by sands and gravels with intermittent clay layers.

The well logs also showed static groundwater levels generally ranging from around 6 to 75 feet below ground surface. First encountered water was not always listed on the well logs, but based on available data and assessing depths of the first water bearing zones that were documented, first encountered water appears to range from roughly 8 to 95 feet below ground surface. In some limited instances, first encountered water wasn't noted until depths of up to 134 feet. The water depths appear to vary with location and topography.



#### 2.4 Soil Survey Review

Atlas reviewed the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Service website for soil survey information on Canyon County. Research indicated that the project site is characterized by Elijah-Chilcott silt loams and Elijah-Vickery silt loams. Specific soils characteristics, as defined by the USDA NRCS, have been listed below for each of these soils and soil survey data from the NRCS website has been included in **Appendix III** of this report:

- Elijah-Chilcott silt loam Elijah-Chilcott soils occur on terraces. These soils are classified as well drained and the most limiting soil layer has a very low to moderately low capacity to transmit water. Typical soil profiles of the Elijah-Chilcott silt loams include silt loam and silty clay loam at the surface, followed by cemented material underlain by very gravelly sand. Slopes of Elijah-Chilcott soils are typically 1 to 3 percent.
- Elijah-Vickery silt loam Elijah-Vickery soils occur on terraces. These soils are classified as well drained and the most limiting soil layer has a very low to moderately low capacity to transmit water. Typical soil profiles of the Elijah-Vickery silt loams include silt loam, loam, and silty clay loam at the surface, followed by cemented material underlain by very gravelly sand or coarse sand. Slopes of Elijah-Vickery soils are typically 3 to 7 percent.

#### 2.5 Review of Nutrient Pathogen Studies in the Vicinity of the Project Site

Atlas has filed a request for information with IDEQ and the SWDH to view nutrient pathogen studies completed near the referenced site. Atlas was provided copies of 6 such studies (outlined below). Information gathered from review of these documents is referenced within the **Hydraulic Conductivity** section of this report.

- Addendum to Level I Nutrient Pathogen Study, Proposed Sagebrush Estates Subdivision, Canyon County, Idaho, prepared by Terracon and dated September 18, 2007
- Addendum for Level 1 Nutrient-Pathogen Evaluation, Purple Sage Estates Subdivision No. 2, SW of Purple Sage Road and El Paso Road, Portion of Canyon County parcel No. R38128010 Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated December 22, 2017
- Level 1 Nutrient-Pathogen Evaluation, Sunset Ridge Subdivision, SEC of Willis Road and El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated July 13, 2017
- Level 1 Nutrient-Pathogen Evaluation, Willis Road Subdivision, NEC of Willis Road and El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated March 1, 2017
- Revised Level 1 Nutrient-Pathogen Evaluation, Purple Sage Subdivision No. 3, South of Purple Sage and West of El Paso Road, Canyon County, Idaho, prepared by Allwest Testing and Engineering and dated September 11, 2019
- Level One Nutrient Pathogen Study, Saddleback Ridge Estates, Middleton, Idaho, prepared by Applied Intellect and dated April 30, 2019



#### 3. SITE PARAMETERS FOR LEVEL 1 NITRATE MASS-BALANCE ANALYSIS

#### 3.1 Water Budge Parameters

#### 3.1.1 Well Driller's Report Review

Prior to 1967 in the State of Idaho, driller's logs for wells were submitted to Idaho Department of Water Resources (IDWR) on a voluntary basis. After 1967, it became and Idaho requirement to submit logs for all wells drilled. However, the state was unable to track or enforce completion of this requirement until 1987 when well permits were also required by the state. Therefore, available records maintained by the IDWR may be incomplete for the area researched.

Atlas conducted a review of Well Driller's Reports (well logs) maintained at the IDWR website for portions of three immediately adjacent sections. A total of 31 Well Driller's Reports on file for this area were copied and are included in **Appendix IV** of this report, along with a map showing approximate well locations. Although numerous well logs are available for the site vicinity, only 17 wells provided complete pump test data. A spreadsheet showing tabulated data from these 17 well logs can be found in **Appendix IV**.

Of these wells, several did not have aquifer bottom recorded and were excluded from analysis. Well number 4 was drilled greater than 100 feet past first encountered water and was likewise eliminated from analysis. Atlas was left with 12 well logs that were used for hydraulic conductivity analysis.

From the 17 wells with complete pump test data, discharge rates ranging from 12 to 60 gallons per minute were reported. Drawdown data generally ranged from 5 to 80 feet, though some well logs reported drawdown as high as 150 feet. Soils commonly encountered included sand and gravel sediments with intermittent clay layers.

#### 3.1.2 Hydraulic Conductivity

Atlas calculated the transmissivity of each of the wells using the following relationship provided by Razack and Huntley (C.W. Fetter, 2001):

$$T = 33.6 \left(\frac{Q}{h_0 - h}\right)^{0.67}$$

Where:

T = Transmissivity (feet²/day) Q = Pumping Rate (feet³/day) h<sub>0</sub>-h = Drawdown (feet)

The hydraulic conductivity values for each of the wells were then obtained by the following relationship (C.W.Fetter, 2001):

 $K = \frac{T}{h}$ 

Where:

K = Hydraulic Conductivity (feet/day)
 T = Transmissivity (feet<sup>2</sup>/day)
 b = Aquifer Thickness (feet)

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Using the previously stated equations with the stated input data, Atlas obtained calculated hydraulic conductivity values that ranged from 7 to 181 feet/day. Atlas calculated the average hydraulic conductivity value as 65 feet/day. Additionally, based on six previous NP Studies that have been conducted within the vicinity of the project site, hydraulic conductivity values of 70 feet per day were used and approved during the IDEQ/SWDH review process. Based on this evidence, hydraulic conductivity values reflective of fine sand to coarse sand with some gravel are considered to be most reflective of the shallow groundwater flow regime across the site, and typical hydraulic conductivity rates for these sediments vary approximately from 3 to 300 feet/day (C.W. Fetter, 2001). For the mass-balance spreadsheets, Atlas used a hydraulic conductivity of 65 feet/day, which is the calculated average of the well logs and more conservative than the values used in previous NP studies.

#### 3.1.3 Groundwater Gradient and Direction

For groundwater gradient information within the vicinity of the site, a review of the available literature developed for the region was conducted. Specifically, Atlas reviewed the map provided to Atlas by the IDEQ during the public records request. This map showed the groundwater contour elevations in the vicinity of the site. Based on these groundwater contour elevations, Atlas found that a 50 foot drop in elevation occurs in the area over a distance of roughly 10,475 linear feet. This drop in groundwater elevation yields a hydraulic gradient of 0.00477 feet/feet. A southwestern groundwater flow direction (roughly 220° Azimuth) was also determined based on this map. For this report, Atlas used a hydraulic gradient of 0.00477 feet/feet for the mass-balance spreadsheet. Atlas has presented a map of the IDEQ groundwater flow contours in **Appendix V** of this report.

#### 3.1.4 Mixing Zone Thickness

In the mass-balance spreadsheets, the mixing zone thickness refers to the induction zone anticipated for the septic tank effluent or contaminate source. IDEQ guidance states that the value of the mixing zone thickness varies with distance from the proposed location of the septic system to the property boundary as follows:

- If distance is less than 500 feet to the property boundary, use a mixing zone thickness of 15 feet.
- If distance is between 500 and 1,000 feet to the property boundary, use a mixing zone thickness of 30 feet.
- If distance is greater than 1,000 feet to the property boundary, use a mixing zone thickness of 60 feet.

Since the distance between the closest individual septic system location to the property boundary will be less than 500 feet, Atlas used a value of 15 feet as the mixing zone thickness for the massbalance spreadsheets.

#### 3.1.5 Aquifer Widths Perpendicular to Flow

Atlas used a southwest groundwater flow direction (approximately 220° Azimuth) and the property site plan to determine the aquifer widths for the mass-balance spreadsheets. For the individual lots on the project site, Atlas determined that 179.20 to 362.88 feet are the aquifer widths that are perpendicular to the southwesterly flow direction. A site map with the perpendicular widths identified is located in **Appendix VI** of the report.

#### 3.1.6 Area of Parcel, Percent of Lot Impervious, and Number of Proposed Lots

The Client described the project as 31.4 acres with 20 proposed lots that are approximately 1.00 to 1.89 acres in size. For the mass-balance spreadsheets, Atlas analyzed each of the 20 lots on 1.00 to 1.89 acres and estimated that less than five percent of the parcel would be impervious to percolation as a result of the proposed development.

#### 3.1.7 Gallons of Septic Tank Effluent

The Client described the project as having individual septic tank systems for each proposed single-family residential lot. For the mass-balance spreadsheets, Atlas used the default value of 300 gallons per day for the septic system as the amount of effluent discharge.

#### 3.1.8 Regional Climatology and Natural Recharge Rate

For the region, the annual average temperature ranges from 20°F to 91°F with extremes from roughly -4°F to 102°F. The region has average wind speeds of up to 11 miles per hour in spring with a prevailing direction from the southeast. The pH of surface water, groundwater, and soil in the region typically range from 7 to 9. Average precipitation for the region is on the order of 10 to 12 inches per year.

The natural recharge rate (NRR) has been estimated using the following relationship provided by IDEQ:

NRR = 0.0046(Annual Precipitation in inches)<sup>2</sup>

Using the above relationship, an annual precipitation rate of 11.45 inches yields an estimated natural recharge rate of 0.6 inches per year, and this value was used in the mass-balance spreadsheets. A copy of the research data showing the annual precipitation for the project area is included in **Appendix VII**.



#### 3.2 Nitrogen Budget Parameters

#### 3.2.1 Vicinity Water Quality and Background Groundwater Nitrate Concentration

Atlas reviewed well monitoring data from the IDEQ and IDWR websites for 12 wells in the project site vicinity. Of these 12 wells, only 5 of them had been monitored within the past 10 years. The most recent monitoring event for these 5 wells occurred in 2013 and nitrate concentration ranged from 2.3 to 6.3 mg/L. Atlas averaged the highest nitrate value obtained from each of the 5 assessed wells, which resulted in a nitrate concentration of 4.1 mg/L. Therefore, Atlas used a value of 4.1 mg/L as the background nitrate level for the mass-balance spreadsheets in this report. A spreadsheet showing tabulated data from these 12 well logs, as well as a map showing the well locations, can be found in **Appendix VIII**.

#### 3.2.2 Septic Tank Effluent Concentrations

In the mass-balance spreadsheets, the value for septic tank effluent concentrations refers to the amount of nitrate (nitrate concentration) that is anticipated to be released into the groundwater system from effluent or a contaminate source. Currently, there are three types of septic tank systems: a regular septic tank system and two nitrate reducing systems:

- A regular septic tank releases a nitrate concentration of 45 mg/L in the effluent discharge.
- A 40 percent nitrate reducing system releases a nitrate concentration of 27 mg/L in the effluent discharge.
- A 65 percent nitrate reducing system releases a nitrate concentration of 16 mg/L in the effluent discharge.

#### 3.2.3 Denitrification Rate and Nitrate in Natural Recharge Rate

In the mass-balance spreadsheets, the values for the denitrification rate and nitrate in natural recharge are preset default values set by IDEQ. Atlas used the default value of 0 for the Denitrification Rate and 0.3 mg/L for the Nitrate in Natural Recharge for the mass-balance spreadsheets.

#### 4. LEVEL 1 NITRATE MASS-BALANCE ANALYSIS

Nitrate is the most mobile constituent of concern in domestic wastewater and has an impact on public health when the maximum contaminant level (MCL) is exceeded (nitrate-N >10.0 mg/L). For this reason, nitrate is usually the limiting factor in determining appropriate lot sizes and onsite wastewater treatment system design and placement. According to the <u>Nutrient-Pathogen</u> <u>Evaluation Program for On-Site Wastewater Treatment Systems May 2002</u>, IDEQ considers an increase of 1.0 mg/L nitrate, or less, predicted to occur at the down-gradient boundary of each individual lot as demonstrating a negligible impact. To evaluate the impact of nitrate on the groundwater system in the vicinity of the proposed project, a mass-balance approach, recommended by SWDH and IDEQ, has been performed. Note that calculations for this approach do not take into consideration actual alignment of individual wastewater treatment systems.



The mass-balance spreadsheets for down-gradient nitrate concentration of the individual lots with the smallest aquifer width perpendicular to groundwater flow for each size of lot are present in **Appendix IX**. A summary of values used in the analysis are presented in **Table 1** and results of the analyses are presented in **Table 2**.

Water Budget	Value Used
Hydraulic Conductivity (ft/day)	65
Hydraulic Gradient	0.00477
Mixing Zone Thickness (ft)	15
Percent of Parcel that is Impervious (%)	5
Septic Tank Effluent (gpd/home)	300*
Natural Recharge Rate (in/yr)	0.6
Nitrogen Budget	Value Used
Upgradient Groundwater Concentration (mg/L)	4.1
Denitrification Rate (decimal fraction)	0*
Nitrate in Natural Recharge (mg/L)	0.3*
Point of Compliance Nitrate Concentration Goal (mg/L)**	5.1

Table 1 – Parameters Used in the Level 1 Nitrate Mass-Balance Analysis
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\*Numbers represent the default values recommended by IDEQ and SWDH.

\*\*Upgradient groundwater concentration (mg/L) plus 1 mg/L equates to point of compliance nitrate concentration goal.

Results of the mass-balance analysis for the individual lots with the smallest aquifer widths perpendicular to groundwater flow for each size of lot are outlined below. Mass-balance spreadsheets for 40% nitrate reducing septic systems were only prepared for the lots that were incapable of supporting a standard septic system.

#### Table 2 – Individual Lot Mass-Balance Analysis for Various Septic Tank Systems

	Smallest Aquifer Width	Downgradient Nitrate Concentration (mg/L)		
Lot Area (acres)	Perpendicular to Groundwater Flow Direction (feet)	Standard Septic Systems	40% Nitrate Reducing Systems	
1.00	228.41	5.6*	4.9	
1.01	226.05	5.6*	4.9	
1.04	179.20	5.9*	5.1	
1.14	290.89	5.3*	4.7	
1.20	326.11	5.1	N/A	
1.24	262.50	5.4*	4.8	
1.30	302.70	5.2*	4.7	
1.34	300.99	5.2*	4.7	

\*Value exceeds the point of compliance nitrate concentration goal of 5.1 mg/L.



	Smallest Aquifer Width	Downgradient Nitrate Concentration (mg/L)		
Lot Area (acres)	Perpendicular to Groundwater Flow Direction (feet)	Standard Septic Systems	40% Nitrate Reducing Systems	
1.40	313.27	5.2*	4.7	
1.42	302.05	5.2*	4.7	
1.46	326.11	5.1	N/A	
1.50	211.51	5.7*	5.0	
1.69	345.17	5.1	N/A	
1.87	344.61	5.1	N/A	
1.89	236.19	5.5*	4.9	

#### Table 2 (cont'd) – Individual Lot Mass-Balance Analysis for Various Septic Tank Systems

\*Value exceeds the point of compliance nitrate concentration goal of 5.1 mg/L.

#### 5. CONCLUSIONS AND RECOMMENDATIONS

Mass-balance spreadsheets for down-gradient nitrate concentration have been prepared for the individual lots with the smallest aquifer widths perpendicular to groundwater flow for each lot size. All spreadsheets are presented in the **Appendices** of this report. The results indicated that all lots were below the Point of Compliance Nitrate Concentration of 5.1 mg/L when using the 40 percent nitrate reduction septic system; however, lots 4, 7, 8, and 10 were below using a standard septic system. Therefore, the proposed development does not exceed the down-gradient Point of Compliance Nitrate Concentration of 5.1 mg/L when using a 40 percent nitrate reduction septic system for above mentioned lots. As a result, the development meets the criteria of a negligible impact as defined by the IDEQ.

Note that IDEQ and SWDH must review and approve the parameter values developed for this Level 1 NP Study and the mass-balance spreadsheets prior to subdivision approval. Also, note the following:

- If changes in the number of lots are desired, a revised lot layout must be provided to Atlas, and this study must be resubmitted or amended.
- This report must be submitted to the SWDH with a preliminary plat as well as the Subdivision Engineering Report (SER). Also, SWDH requires a preliminary development meeting to begin the SER process.
- To verify soil profile components at actual drainfield locations, soil exploration by test pits or borings, with approval by SWDH personnel, will be required following development of the preliminary plat.

Again, these results, as of the completion of this report, have not been reviewed by IDEQ or SWDH. Therefore, a revision in assumed hydraulic conductivity value, or other parameters used in the mass-balance spreadsheet, may be required subsequent to the SWDH and IDEQ review, and consequently, the allowable number of lots may change significantly. If so, the SWDH and IDEQ will request that this report be resubmitted or amended with revised values.



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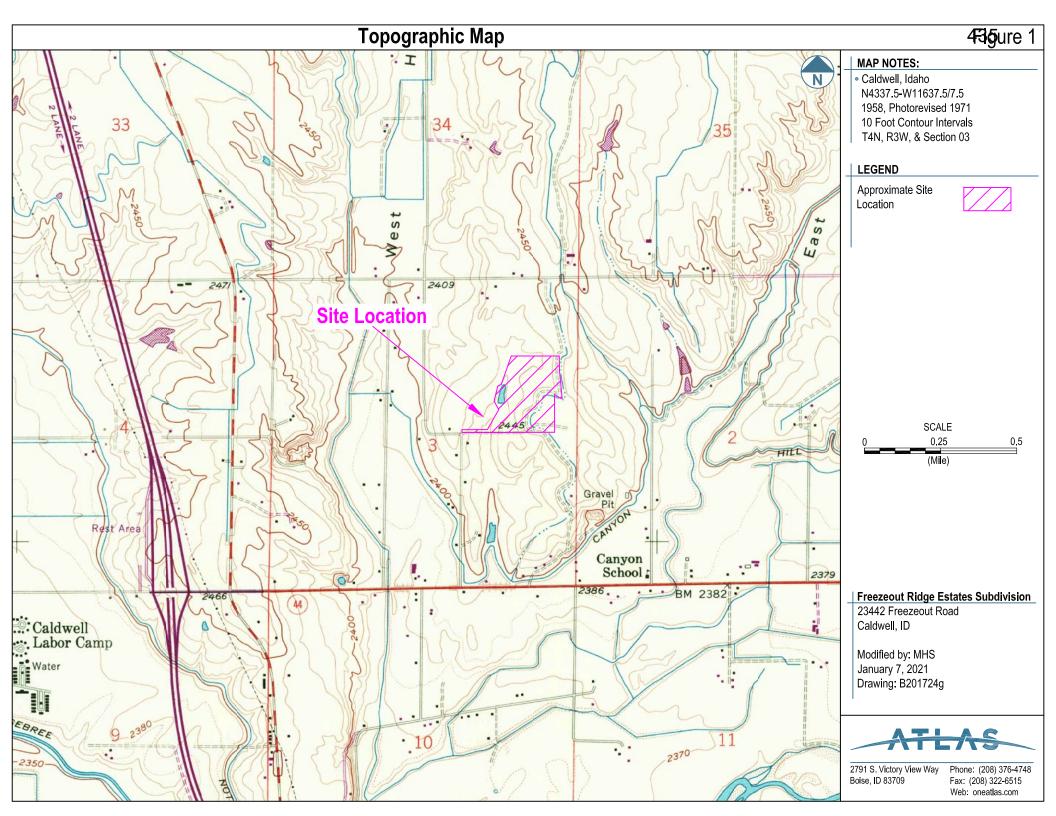
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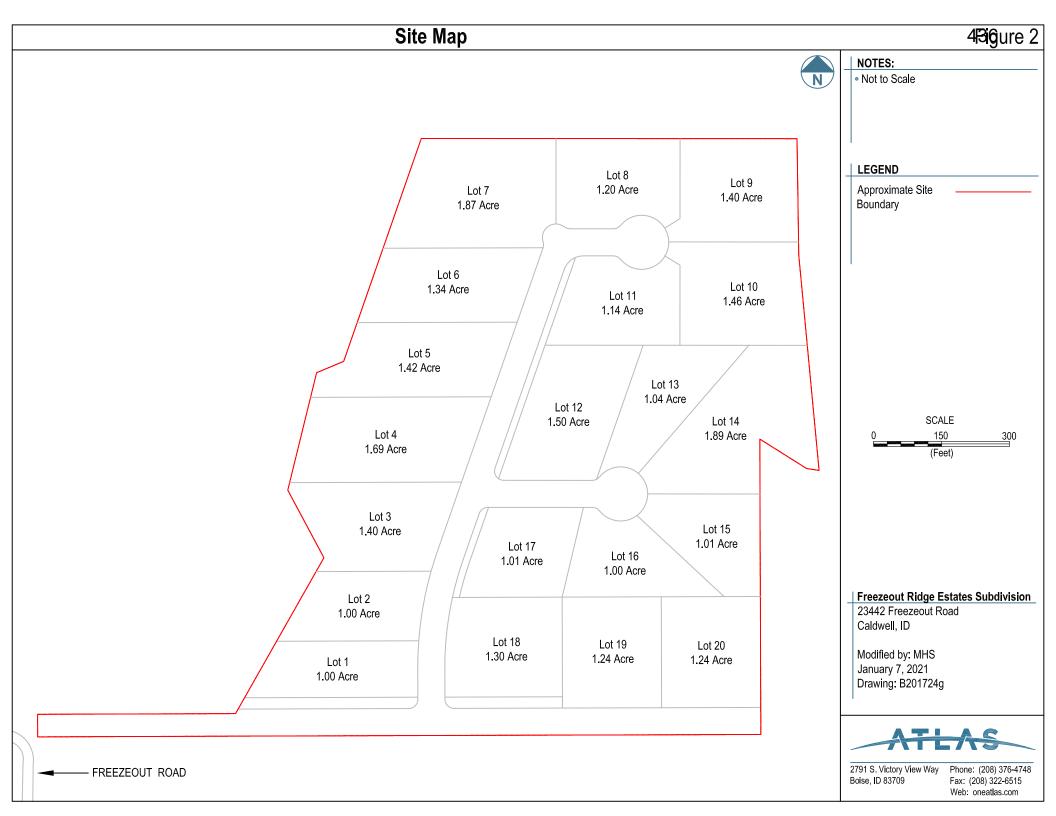


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Appendix IX	Nitrate Mass-Balance Spreadsheets for Individual Lots

Appendix I TOPOGRAPHIC MAP AND GENERAL SITE MAP







## GEOLOGIC MAP OF THE BOISE VALLEY AND ADJOINING AREA, WESTERN SNAKE RIVER PLAIN, IDAHO BY KURT L. OTHBERG AND LOUDON R. STANFORD 1992

## MAP UNITS SEDIMENTARY

## OUATERNARY SEDIMENTS Alluvium and Colluvium

- Deposits of floodplains, alluvial fans, side-stream terraces, and landslides. Qa ALLUVIUM OF BOISE AND SNAKE RIVER – Sandy cobble gravel upstream grading to sandy pebble gravel downstream. Mostly channel alluvium of the Boise and Snake rivers. Thickness 6-14 meters (20-46 feet). No pedo
  - genic clay. LANDSLIDE DEPOSITS - Highly variable rock and soil masses varying from transported coherent blocks to unsorted, unstratified colluvium. Includes scar area at the head of the landslide. Derived from slumps, slides, and debris flows. Most slides represent slope failures within basaltic tuff (Tbt) and surface soils of granitic rocks.
  - ALLUVIAL FAN GRAVEL Sandy pebble and cobble gravel where formed from reworked Tenmile Gravel (QTtg) and sand and granule gravel where formed from weathered granite (g). Primarily formed by Pleistocene debris flows and local high-energy streams during times of greater runoff (Pierce and Scott, 1982). Loess 1-2 meters thick discontinuously covers surface of gravel. Patterned ground present. Amount of pedogenic clay and presence of duripans varies.
- SANDY ALLUVIUM OF SIDE-STREAM VALLEYS AND GULCHES Medium to coarse sand interbedded with silty fine sand and silt. Sediment mostly derived from weathered granite and reworked Tertiary sediments. Thickness variable. Minor pedogenic clay and calcium carbonate. Qfs SAND OF INCISED ALLUVIAL FANS – Medium to coarse sand interbedded with silty fine sand and silt. Mostly reworked Tertiary sediments deposited
- in local alluvial fans. Thickness 1-15 meters (3-50 feet). Pedogenic clay 10-20%; duripans locally present. SAND OF DRY CREEK TERRACE - Medium to coarse sand interbedded with silty fine sand and silt. Remnant of ancestral Dry Creek valley. Pedogenic
- clay 10-20%; duripans locally present. GRAVEL OF ALLUVIAL-FAN REMNANTS - Dark gray, poorly sorted, sandy bebble and cobble gravel. Gravel clasts subangular and subrounded. Thickness 3-6 meters (10-20 feet). Mapped only where channel deposits of ancestral Squaw Creek cap remnants of a large alluvial fan in southwest

corner of map.

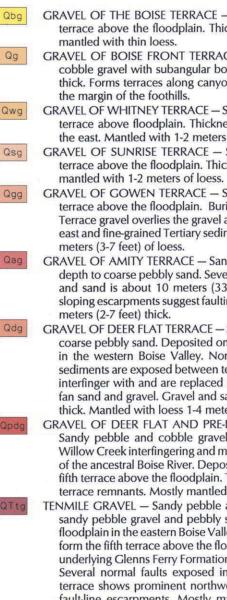
117°00′

Bonneville Flood Deposits Consists primarily of fine-grained sediments of the Bonneville Flood slack waters that inundated the Snake River Valley and the lower Boise Valley. Includes gravels deposited in high-energy flood channels. The surface of sediments deposited by the Bonneville Flood show minor accumulations of pedogenic clay and calcium carbonate. Slack-water sediments bury loess and soils of older surfaces.

- CLAY OF BONNEVILLE FLOOD SLACK WATER Light tan silty clay 1-2 meters (3-7 feet) thick. Deposited by slack water of Bonneville Flood upstream from Parma. Buries gravel of Boise terrace.
- SANDY SILT OF BONNEVILLE FLOOD SLACK WATER OVERLYING TERTI-ARY SEDIMENTS – Thin-bedded tan silt, silty sand, and fine sand 3-6 meters (10-20 feet) thick. Deposited by Bonneville Flood slack water that flooded the valleys to 747 meters (2,450 feet) elevation (O'Connor, 1990). Buries erosion surface of fine-grained Tertiary sediments.
- GRAVEL OF THE BONNEVILLE FLOOD-SCOURED BOISE TERRACE AND BOISE FLOODPLAIN COMPLEX - Sandy pebble gravel remnants of Boise terrace mostly scoured by late stages of Bonneville Flood. Includes areas of floodplain gravel indistinguishable from scoured Boise terrace.
- SANDY SILT OF BONNEVILLE FLOOD SLACK WATER Thin-bedded tan silt, silty sand, and fine sand 3-6 meters (10-20 feet) thick. Deposited by Bonneville Flood slack water that flooded valleys to 747 meters (2,450 feet) elevation (O'Connor, 1990). Buries gravel of Whitney terrace (Qwg).
- GRAVEL OF THE BONNEVILLE FLOOD-SCOURED WHITNEY TERRACE -Sandy pebble gravel remnants of Whitney terrace scoured by late stages of Bonneville Flood. Includes abandoned flood channels. Loess mostly removed. Local remnants of duripans similar to those on Qwg.
- SANDY SILT OF BONNEVILLE FLOOD SLACK WATER Thin-bedded tan silt, silty sand, and fine sand 3-6 meters (10-20 feet) thick. Deposited by Bonneville Flood slack water that flooded valleys to 747 meters (2,450 feet) elevation (O'Connor, 1990). Extent of slack-water sediment not everwhere concordant with interpreted extent of flood waters. Buries thin loess, duripan, and sandy pebble gravel of Wilder terrace, the third terrace above the floodplain in the western Boise Valley. Gravel thickness 3-8 meters (10-25 feet).

## TERRACE GRAVELS

These gravels compose a sequence of terraces of the ancestral Boise River. The characteristic coarse channel gravels were primarily deposited on finegrained Tertiary sediments cut during valley deepening. The light gray gravel is composed mostly of granitic and felsitic clasts derived from the upper Boise River basin in the central Idaho mountains. Qgg and younger gravels have about a 10% component of Pleistocene basalt clasts mostly derived from the Boise River canyon. Boise Valley units are also used for terrace gravels of the Snake River, but Snake River gravels have a darker color due to a component of gravel clasts derived from the Owyhee Mountains and sources to the southeast. All gravel deposits have imbricated well-rounded clasts, poor



Project Site

sorting, and crude stratification of beds of gravel and lenses of cross-bedded sand. These features suggest deposition in braided channels.

- GRAVEL OF THE BOISE TERRACE Sandy pebble and cobble gravel. First terrace above the floodplain. Thickness 3-14 meters (10-45 feet). Mostly GRAVEL OF BOISE FRONT TERRACES, UNDIVIDED - Sandy pebble and
- cobble gravel with subangular boulders. Thickness 1-6 meters (3-20 feet) thick. Forms terraces along canyons and gulches and on flat divides near GRAVEL OF WHITNEY TERRACE - Sandy pebble and cobble gravel. Second
- terrace above floodplain. Thickness 5-24 meters (16-80 feet); thickest to the east. Mantled with 1-2 meters of loess. GRAVEL OF SUNRISE TERRACE – Sandy pebble and cobble gravel. Third terrace above the floodplain. Thickness about 13 meters (44 feet). Mostly
- GRAVEL OF GOWEN TERRACE Sandy pebble and cobble gravel. Fourth terrace above the floodplain. Buried by basalt (Qgb) east of Interstate 84. Terrace gravel overlies the gravel and sand of Bonneville Point (Tbg) to the east and fine-grained Tertiary sediments to the west. Mostly mantled by 1-2
- GRAVEL OF AMITY TERRACE Sandy pebble and cobble gravel grading at depth to coarse pebbly sand. Seventh terrace above the floodplain. Gravel and sand is about 10 meters (33 feet) thick. Northwest-trending, gently sloping escarpments suggest faulting of the gravel. Mantled with loess 0.5-2
- GRAVEL OF DEER FLAT TERRACE Sandy pebble gravel grading at depth to coarse pebbly sand. Deposited on the fourth terrace above the floodplain in the western Boise Valley. North of Caldwell and Middleton Tertiary sediments are exposed between terrace remnants. Boise River gravels also interfinger with and are replaced northeastward by Willow Creek alluvial fan sand and gravel. Gravel and sand deposit is about 10 meters (33 feet) thick. Mantled with loess 1-4 meters (3-13 feet) thick.
- GRAVEL OF DEER FLAT AND PRE-DEER FLAT TERRACES, UNDIVIDED -Sandy pebble and cobble gravel. Alluvial fan deposits of the ancestral Willow Creek interfingering and mixing downstream with channel alluvium of the ancestral Boise River. Deposited on stream-cut surface of fourth and fifth terrace above the floodplain. Tertiary sediments are exposed between terrace remnants. Mostly mantled with loess 0.5-1 meter (2-3 feet) thick. TENMILE GRAVEL – Sandy pebble and cobble gravel grading westward to sandy pebble gravel and pebbly sand at depth. Eighth terrace above the floodplain in the eastern Boise Valley. Remnants in the western Boise Valley form the fifth terrace above the floodplain. Side slopes of remnants expose underlying Glenns Ferry Formation. Thickness is about 15 meters (50 feet). Several normal faults exposed in gravel pits and road cuts. Surface of terrace shows prominent northwest-trending gulches and gently sloping fault-line escarpments. Mostly mantled with loess 1-2 meters (3-7 feet) thick. Patterned ground prominent. Named by Savage (1958); restricted by Wood and Anderson (1981); further restricted herein to exclude the

gravel and sand of Bonneville Point formation (Tbg).

## TERTIARY SEDIMENTS

- SAND OF THE PIERCE GULCH FORMATION Pale yellow-gray arkosic sand overlain by pebble to cobble gravel. Sand includes cross-bedded and foreset-bedded sequences. Named by W.L. Burnham and S.H. Wood (written communication-unpublished manuscript, 1989).
- GLENNS FERRY FORMATION Greenish gray poorly consolidated siltstone and fine sandstone. Distinct thick beds; indistinct thin bedding. Includes tan sandstone in Dead Horse Canyon. GRAVEL OF BONNEVILLE POINT – Interbedded pebble and cobble gravel, pebbly sand, sand and buried soils. Mostly oxidized to yellow-orange
- grading to red-brown near surface. Half of the clasts weathered. Mostly channel alluvium of ancestral Boise River deposited in former valley at mountain front. Thickness about 152 meters (500 feet). Soils have B horizons with 50% clay. The upper part of the gravel contains a highly oxidized, partly cemented zone. Several normal faults exposed in gravel pits and road cuts. Patterned ground present with mound relief of 1-2 meters.
- ALLUVIAL FAN DEPOSIT Composed of poorly sorted, silty and sandy gravels with subangular cobbles and boulders in crudely stratified layers and lenses; mostly oxidized to a red-brown near the surface. Alluvial fan remnants deposited by debris flows and ephemeral streams from foothills. Up to 61 meters (200 feet) thick.
- SAND AND MUDSTONE OF STREAM AND LAKE SEDIMENTS Mediumto coarse-grained arkosic sand, sandstone, and claystone. Includes interbeds of fine gravel, locally cemented, and sandy siltstone. Structures vary from large foreset beds of sand to thin-bedded claystone. Undifferentiated unit reflects a variety of stream and lake depositional environments along the northeastern and southwestern margin of the ancestral western Snake River Plain. Includes parts of the Payette, Poison Creek, and Succor Creek Formations, the tuffaceous sediments of Ferns (1989), and the Terteling Springs Formation of W.L. Burnham and S.H. Wood (written communication-unpublished manuscript).

#### IGNEOUS ROCKS **OUATERNARY BASALTS**

Basalt lava flows primarily erupted from three sources during the Pleistocene: the northwest-southeast axis of the western Snake River Plain; Smith Prairie (Howard and others, 1982); and along the edge of the plain southeast of Boise. The basalts inundated ancestral valleys and plains. Their resistance to erosion helped preserve the terrace remnants they cap. The early Pleistocene basalt flows diverted the Boise River northward and the Snake River westward.

- BASALT OF MORES CREEK Single flow of dark gray olivine basalt about 6 meters (20 feet) thick. Fine-grained with abundant microphenocrysts of plagioclase and common microphenocrysts of olivine. Canyon-filling lava erupted from unknown vent in Mores Creek valley (Howard and others, 1982). Identified in ledges, normally submerged in reservoirs near Lucky Peak Dam.
  - LOCATION MAP

Qkb

about 61 meters (200 feet) near Lucky Peak Dam. Mostly mantled with loess 1-2 meters (3-7 feet) thick. Pedogenic clay 35%; duripan (caliche) 0.5-1 meter thick. BASALT OF LUCKY PEAK – Single flow of dark gray to black aphyric very fine-grained basalt. Canyon-filling lava probably erupted in Smith Prairie (Howard and others, 1982). Basalt buries gravel composing fifth terrace above the floodplain. Thickness of basalt about 37 meters (121 feet). Upper surface mostly buried by alluvial fan deposits (Qfg).

BASALT OF GOWEN TERRACE – Four flows of medium gray olivine basalt.

Hand samples and thin sections show sparse phenocrysts of olivine up 1-3

millimeters in diameter. Canyon-filling lava probably erupted in Smith

surface capped with about 3 meters (10 feet) of terrace gravel at distal end.

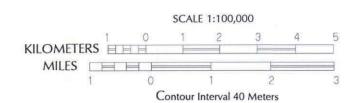
Thickness of basalt ranges from about 3 meters (10 feet) near Boise to

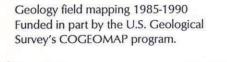
Prairie (Howard and others, 1982). Buries gravel of Gowen terrace; basalt

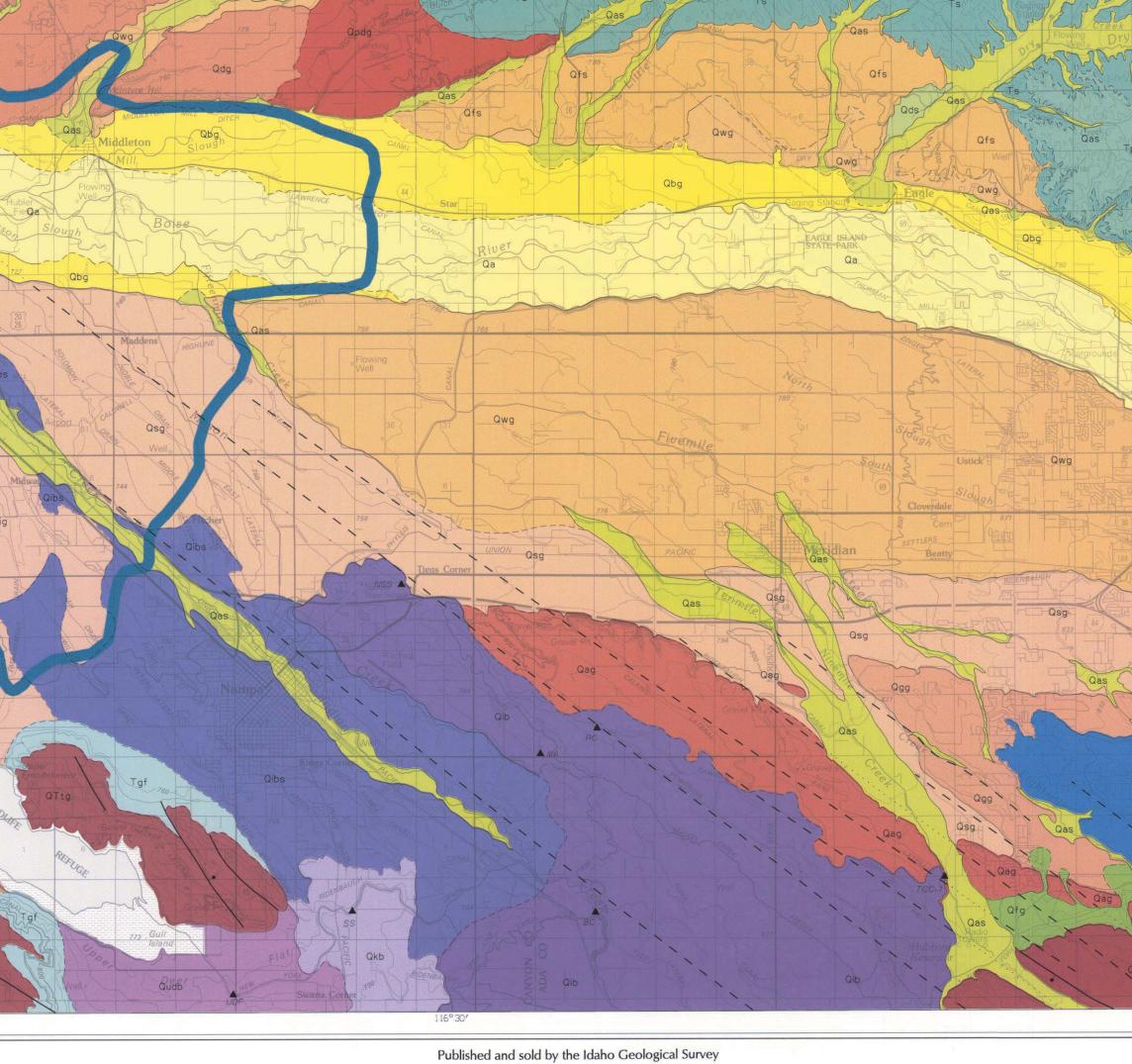
- BASALT OF KUNA BUTTE Dark gray olivine basalt flow forming irregular topography southeast of Nampa. Common phenocrysts of olivine 1-5 millimeters in diameter. Thickness unknown. Erupted from northwest end of Kuna Butte. Pedogenic clay 10-20%; duripans locally present. BASALT OF FIVEMILE CREEK - One to three flows of medium gray olivine
- basalt. Thin sections show a cumulophyric texture of a few percent small interlocking olivine grains. Erupted from small vent near headwaters of Fivemile Creek. Basalt buries gravel composing sixth terrace above the floodplain. Thickness ranges from about 3 meters at the west edge of the flow to about 55 meters (180 feet) at the east. Mostly mantled with loess 1-2 meters thick. Pedogenic clay 35%; duripan (caliche) 0.5-1 meter thick. Patterned ground present.
- BASALT FLOWS OF INDIAN CREEK, UNDIVIDED Multiple flows of medium to dark gray olivine basalt. Undivided basalts generally aphyric but include flows with small olivine and plagioclase phenocrysts. Erupted from vents south and southeast of the map. Both normal and reversed magnetic polarities. Lavas flowed into and down ancestral Indian Creek and Boise River valleys. Northwest-trending, gently sloping escarpments suggest faulting of the basalt. Mantled with loess 0.5-4 meters thick. Pedogenic clay 35%; duripan (caliche) 1 meter thick.
- BASALT FLOWS OF INDIAN CREEK BURIED BY LOESS AND STREAM SEDIMENTS - Tan massive silt, light brown stratified clay, silt, and sand, and basalt 6-15 meters (20-50 feet) deep. Location of basalt based on water well logs and subcrop mapping by Wood and Anderson (1981). Pedogenic clay 10-20%; duripans locally present.
- BASALT FLOWS OF UPPER DEER FLAT, UNDIVIDED Multiple flows of dark gray aphyric olivine basalt. Reversed magnetic polarities. Probably erupted from one or more vents south of the map. Mantled with loess 1-4 meters (3-13 feet) thick. Pedogenic clay in loess 10-20%; calcium carbonate in B horizon. Loess buries duripan (caliche) 1 meter thick formed in the top of the basalt. BASALTIC VENTS, UNDIVIDED – Olivine basalt and basaltic tephra forming dissected cones and volcanic necks near the Snake River.

## TERTIARY BASALTS

- BASALT OF PICKET PIN CANYON Dark gray basalt flow with a cumulophyric texture of distinctive rosettes of white plagioclase. Position suggests nverted topography of a canyon-filling lava. Maximum thickness is 9 meters (30 feet).
- TUFF AND VOLCANICLASTIC SEDIMENTS Brown basaltic tuff and volcaniclastic sediments. Minor beds of arkosic sand, pumice, and rhyolitic ash. Up to 107 meters (350 feet) thick. BASALT VOLCANIC ASSEMBLAGE - Contains several undivided lithologies:
- 1) thin subaerial lava flows, (2) thin subaqueous and other water-affected subaerial lava flows, and (3) tuff and volcaniclastic sediments. Lava up to 73 meters (240 feet) thick; overlying tuff and volcaniclastic sediments up to 61 meters (200 feet) thick.
- BASALT AND ANDESITE OF GRAVEYARD POINT AREA Olivine basalt near Graveyard Point and pyroxene andesite breccia south of Graveyard Point Ferns, 1989)

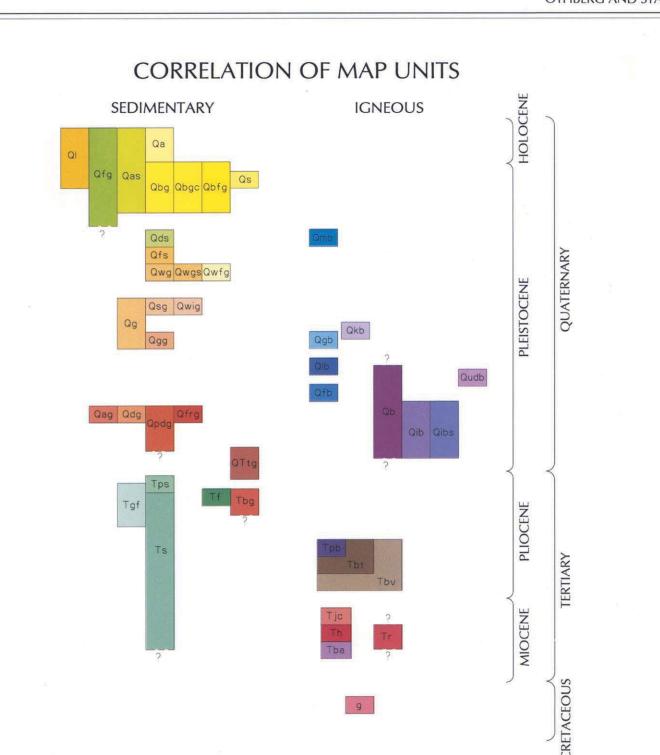






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#### Field Polarity Latitude Longitude Age (Ma) Dock Unit

Magnetic Polarities, K/Ar Ages, and <sup>40</sup>Ar/<sup>39</sup>Ar Ages of Basalts

TERTIARY RHYOLITES

RHYOLITE OF THE BOISE FRONT - Pinkish gray porphyritic rhyolite, dark

JUMP CREEK RHYOLITE - Mostly gray porphyritic rhyolite and quartz latite.

HORNBLENDE-BIOTITE RHYOLITE - Black glassy rhyolite; light gray where

CRETACEOUS GRANITIC ROCKS

GRANITIC ROCKS OF THE IDAHO BATHOLITH -- Light gray biotite granite

ritic. Includes pegmatite zones and dikes of rhyolite and basalt.

Strike and dip of bedding

Sand dune fields

Basalt sampling site

and granodiorite. Medium to coarse grained and equigranular to porphy-

MAP SYMBOLS

Fault: approximately located; dashed where inferred; dotted

Contact: approximately located; dashed where inferred

where concealed; ball and bar on downthrown side

Approximate upper limit of Bonneville Flood slack water

Plagioclase phenocrysts up to 15 millimeters. Lava flow or remobilized

gray vitrophyre, and gray perlite.

welded tuff

devitrified.

Rock Unit	Field Number	Polarity	Latitude	Longitude	Age (Ma) <sup>1</sup> potassium-argon <sup>2</sup> argon-argon
Basalt of Mores Creek	MC-1	N	43°31.52′	116°3.76'	0.107 0.012 1
Basalt of Gowen terrace	GT-4	N	43°31.33'	116°4.24'	0.572 0.210 1
Basalt of Kuna Butte (South Side)	SS	N	43°31.51'	116°32.03′	0.387 0.031 2
Basalt of Lucky Peak	LP-4	N	43°31.85′	116°3.66'	1.364 0.210 1*
Caldwell lava flow	CBR	R	43°41.31'	116°41.06′	0.799 0.095 2
Upper Deer Flat lava flow	UDF	R	43°30.29′	116°34.38′	0.922 0.184 2
Basalt of Fivemile Creek	30-3	N	43°32.67'	116°9.38′	0.974 0.098 1
Basalt of Fivemile Creek	FM1	N	43°30.27′	116°6.91′	
Basalt of Fivemile Creek	FM2	N	43°31.52′	116°4.45'	
Basalt of Hubbard surface	TCC-1	N	43°31.92′	116°20.20'	1.001 0.098 1
Mason Creek lava flow	MA	N?	43°33.72'	116°28.23'	1.231 0.123 <sup>2</sup>
Black Cat Road lava flow	BC	R	43°31.43'	116°27.15′	
East Nampa lava flow	NSS	R	43°36.23′	116°31.12′	1.165 0.125 2
Rawson Canal lava flow	RC	R	43°34.09′	116°27.12'	

Potassium-argon and argon-argon analyses provided by the Berkeley Geochronology Center, Institute of Human Origins, University of California, Berkeley, California. Magnetic polarity results from field fluxgate magnetometer using five samples per site.

\* Stratigraphic relationships indicate the K-Ar age of the basalt of Lucky Peak is too old (Othberg and Burnham, 1990).

## Pedogenic<sup>1</sup> clay and duripans<sup>2</sup> on terraces.

	Map Unit										
	Qbg Qbgc Qwig <sup>3</sup>	Qwg Qds	Qsg	Qgg	Qag Qdg <sup>4</sup> Qpdg	QTtg					
CLAY (percent) 50 25 0											
DURIPAN (meters) 2 1 0											

Soil data adapted from Collett (1980), Priest and others (1972), and the University of Idaho Soil Characterization Laboratory. Collett, R. A., 1980, Soil survey of Ada County area, Idaho: U.S. Department of Agriculture, Soil Conservation Service, 327 p., 72

sheets, scale 1:20,000. Priest, T. W., C. W. Case, J. E. Witty, R. K. Preece, Jr., G. A. Monroe, H. W. Biggerstaff, G. H. Logan, L. M. Rasmussen, and D. H. Webb, 1972,

Soil survey of Canyon area, Idaho: U.S. Department of Agriculture, Soil Conservation Service, 118 p., 59 sheets, scale 1:20,000. <sup>1</sup> Pedogenic refers to the physical and chemical soil-forming processes that act upon earth materials at the land surface. <sup>2</sup> Duripans are white silica- and calcium carbonate-cemented hardpans

commonly called caliche. <sup>3</sup> The Bonneville Flood slack-water sediments that form the surface of Qwig (gravel of Wilder terrace) bury a duripan about 0.5 meter thick that formed in the top of the gravel.

<sup>4</sup> The surface of Qdg (gravel of Deer Flat terrace) is buried by loess from near Lake Lowell to near Wilder. The thick duripan lies at depths of 1-4 meters (3-13 feet).

> U.S.G.S. 1:100,000 topographic base Projection and 10,000 meter grid, zone 11, Universal Transverse Mercator

> > 1927 North American Datum

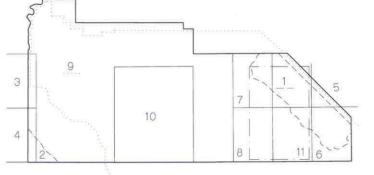
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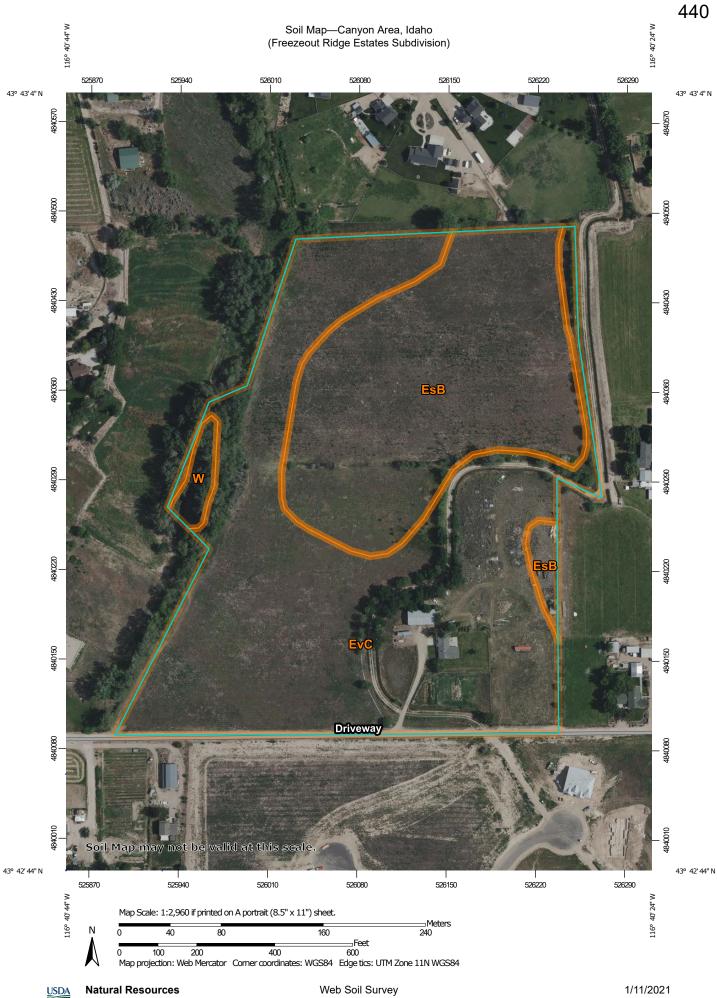
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- Cartography by Loudon R. Stanford on a computer-aided cartographic system at the Idaho Geological Survey Typography by Ann G. Killen
- Map reviewed by Roy M. Breckenridge, Willis L. Burnham, and Monte D. Wilson
- Digital four-color separations by Optronics Specialty, Inc., Chatsworth, California Printed by Joslyn & Morris, Inc., Boise

Appendix III SOIL SURVEY INFORMATION



Web Soil Survey National Cooperative Soil Survey

Г	AP LEGEND	MAP INFORMATION			
Area of Interest (AOI)         ▲ Area of Interest         Soils         Soil Map Unit F         Special Point Featurest         Image: Special Point Po	AOI) AOI) a Spoil Area Stony Spot a Stony Spot Very Stony Spot Wet Spot a Other Special Line Features Water Features Water Features Streams and Canals Transportation FFF Rails A Rails A Streams and Canals D Streams and Canals Can	MAP INFORMATION         The soil surveys that comprise your AOI were mapped at 1:20,000.         Warning: Soil Map may not be valid at this scale.         Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.         Please rely on the bar scale on each map sheet for map measurements.         Source of Map: Natural Resources Conservation Service Web Soil Survey URL:         Coordinate System: Web Mercator (EPSG:3857)         Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.         This product is generated from the USDA-NRCS certified data at of the version date(s) listed below.         Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020         Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.         Date(s) aerial images were photographed: Jun 10, 2020—Jur 26, 2020         The orthophoto or other base map on which the soil lines were more ind dividing probabily differe from the packground			
1	Spot	,			

## Map Unit Legend

Map Unit Symbol Map Unit Name		Acres in AOI	Percent of AOI
EsB	Elijah-Chilcott silt loams, 1 to 3 percent slopes	10.1	36.3%
EvC	Elijah-Vickery silt loams, 3 to 7 percent slopes	17.3	62.1%
W	Water	0.4	1.6%
Totals for Area of Interest		27.9	100.0%



## Canyon Area, Idaho

### EsB—Elijah-Chilcott silt loams, 1 to 3 percent slopes

#### Map Unit Setting

National map unit symbol: 2q0v Elevation: 2,300 to 5,300 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 90 to 170 days Farmland classification: Prime farmland if irrigated

#### **Map Unit Composition**

Elijah and similar soils: 55 percent Chilcott and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### **Description of Elijah**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Lacustrine deposits and/or loess and/or alluvium

#### **Typical profile**

Ap - 0 to 9 inches: silt loam Bt - 9 to 19 inches: silty clay loam Bk - 19 to 22 inches: silt loam Bkqm - 22 to 40 inches: cemented material C - 40 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

USDA

#### **Description of Chilcott**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Volcanic ash and/or mixed alluvium and/or loess

#### **Typical profile**

A - 0 to 10 inches: silt loam Bt - 10 to 26 inches: silty clay Bk - 26 to 31 inches: loam Bkqm - 31 to 46 inches: cemented material 2C - 46 to 60 inches: very gravelly sand

#### **Properties and qualities**

Slope: 1 to 3 percent
Depth to restrictive feature: 3 to 19 inches to abrupt textural change; 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Very low (about 2.0 inches)

#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: D Ecological site: R011XY001ID - LOAMY 8-12 - Provisional Hydric soil rating: No

## **Data Source Information**

Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020



## Canyon Area, Idaho

### EvC—Elijah-Vickery silt loams, 3 to 7 percent slopes

#### Map Unit Setting

National map unit symbol: 2q0w Elevation: 2,000 to 5,200 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 54 degrees F Frost-free period: 100 to 160 days Farmland classification: Farmland of statewide importance, if irrigated

#### Map Unit Composition

Elijah and similar soils: 60 percent Vickery and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

#### Description of Elijah

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Lacustrine deposits and/or loess and/or alluvium

#### **Typical profile**

Ap - 0 to 9 inches: silt loam Bt - 9 to 19 inches: silty clay loam Bk - 19 to 22 inches: silt loam Bkqm - 22 to 40 inches: cemented material C - 40 to 65 inches: very gravelly sand

#### **Properties and qualities**

Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Low (about 4.4 inches)

#### Interpretive groups

Land capability classification (irrigated): 4e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

USDA

#### **Description of Vickery**

#### Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess and/or volcanic ash and/or alluvium derived from igneous rock

#### **Typical profile**

A - 0 to 4 inches: silt loam Bw - 4 to 17 inches: silt loam Bk - 17 to 34 inches: loam Bkqm - 34 to 47 inches: cemented material 2C - 47 to 60 inches: coarse sand

#### **Properties and qualities**

Slope: 3 to 7 percent
Depth to restrictive feature: 20 to 40 inches to duripan
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 15 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water capacity: Moderate (about 6.1 inches)

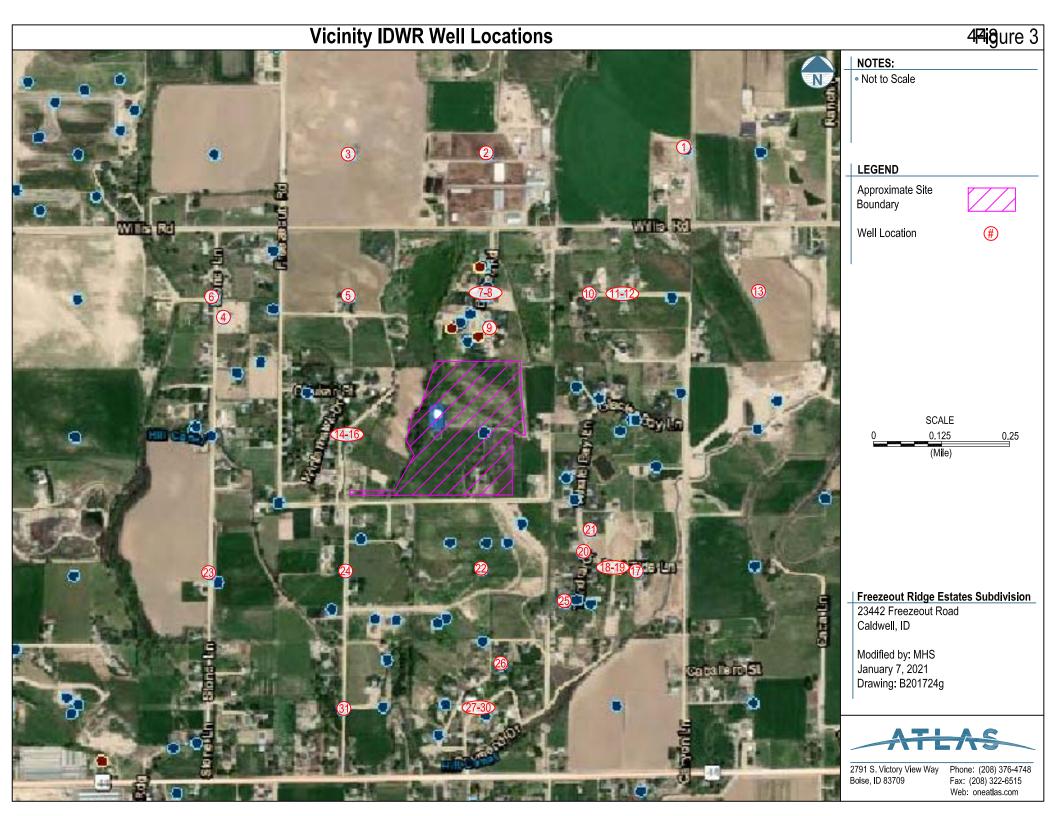
#### Interpretive groups

Land capability classification (irrigated): 3e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

## Data Source Information

Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020

# Appendix IV SITE LOCATION WITH VICINITY WELLS MAP AND IDWR DRILLER'S WELL LOGS



## IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL T	AG NO	<u>оо</u> <u>а</u>	6628	30							te bill to an order and all
Drilling Pe	mit No.	9654	83-8	71	542						······
Water right	or inject	ion well	# 63	-33	545						
2. OWNER											
Name Da				los	h Sy	/lve	ster				
Address 1	3758	Willis	Hd								
<sub>City</sub> Cald	well	******			s	state		Zi	p <u>83</u>	607	
3.WELL LO											
Twp. <u>5</u> Sec. <u>35</u>	_North	X or	So	uth		R	ge. <u>3</u>	Ea	ist 🗖	or V	/est 🔀
Sec. 35			10 acres	1/	$4 \frac{S}{4}$		1/4	S/W	1/4		
Gov't Lot		Co		Car	ivon				-		
	43	3 0 4	uniy _ 3.36	14				(D			
Long.	116	<sub>0</sub> 40	.074	0		·····		(Deg	and D	ecimai mi	nutes)
ddress of		1375	58 W	/illi:	 S			(Deg.	and D	ecimai mir	iutes)
	wen on				C	vity (	Caldw	rell			
Give al least name	af mad + De	ilancesto P		an i	3	The second	w.m. # # %	et the second	. N		e,
Lot	_ Bik.	مىسىمەر بەرى	Sub.	Na	me						
4. USE:		lunicina		Mo	nitor	হ	Irrioatio	n n	Thor	nai <b>П</b>	Injection
Other			·	MO	ntor	1221		··· • •••••			
5. TYPE O											
New wel											
6. DRILL N Air Rota	(and can)		otary	C	] Cat	ole	🗖 Ot	her			
7. SEALIN				(64)	0.00	414.7 (1)		Diana	monte	nethod/pro	andura 1
5&3/4bei				7						drypo	
		1									
8. CASING			<b>i</b> ,,		L						
Diameter (nominal)	om (ft) T	o (ft)	Gauge Schedu		N	Aateri	al	Casing	Liner	Threaded	Weilded
	1.5		.250		teel	••••••		X			
				Ē							
				+				n			
										П	Ē
									L	L1	1
Was drive s					Shoe	e De	pth(s)_	137		••••••	
9. PERFO											
Perforation	s 🗖 Y	X N	Meth	od -		10				*****	
Manufactur	ed scre	en 🛛	ΥŪ	ΝT	ype	18:	SIOT JO	onnso	on		
Method of i	nstallati	on <u>wa</u>	sn ir	πο	san	a					
From (ft)	To (ft) S	Slot size	Numb	er/ft	Diam (nom		Ma	terial	G	auge or Se	chedule
140	150	18			5		stainl	ess	.25	0	
									1		
									1		
Length of H	leadpip	∍ 7'			L	enat	h of Ta	ilpipe V	alve	6"	
Packer 🗵	Y DI	V Type	3 lip	) ru	bbe	r K					
10.FILTEF											
Filter M		From	n (ft)	То	(ft)	Qui	antity (Ibs	or ft <sup>3</sup> )	PI	acement n	nethod
		-						· · · ·			
	unitiotannete totanette en										
44 51 014		1				I		l			]
11. FLOW											
Flowing Ar	cesian?	ЦY	LN	Arte	esian	Pre	ssure (I	PSIG)			

Describe control device \_\_\_\_\_

#### 12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered (ft) $\frac{75}{2}$	Static water level (ft) 75
Water temp. ( <sup>0</sup> F) <u>Cold</u>	Bottom hole temp. ( <sup>0</sup> F)

## Describe access port removable well cap

	Test m				
Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
45 gpm	1/2 HR			X	
	yield (gpm)	yield (gpm) (minutes)	Discharge or Test duration yield (gpm) (minutes) Pump	yield (gpm) (minutes) Pump Baller	Discharge or Test duration yield (gpm) (minutes) Pump Bailer Air

#### 13. LITHOLOGIC LOG and/or repairs or abandonment:

	10100	IC LOG	and/or repairs or abandonment:	·····	
Bore Dia.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Wa	
(in) 12	0	4	fill dirt	Y	N X
12	4	12	clay and cleachy	<u> </u>	 X
12	12	30	sand	<u> </u>	 
10	30	47	sandy clay		 X
6	47	57	sandy clay		X
6	57	75	sand with small gravels		X
6	75	112	gravel	X	
6	112	141	sand with clay layers	X	
6	141	150	sand	X	
******					
*****					
			RECEIVED		
			HEUEIVED		
			APR 2 1 2014		
			WATER RESOURCES WESTERN REGION		
			VEOLENN REGION		
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	ļ	ļ			
	ļ	ļ		ļ	
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	<u> </u>	<u> </u>			
Compl	eted Dep	th (Meas	surable): 150		
Date S	started: A	pr 8, 2	014 Date Completed: Apr 10, 20	14	
			Sato completion.		

#### 14. DRILLER'S CERTIFICATION:

I/We certify that	t all m	inimum	well	cons	truction	standards	were d	complied	with at
the time the rig	was r	emoved	l.						

Company Name Nu Acre Drilling LLC	<sub>Co. No.</sub> 701
*Principal Driller	Date Apr 17, 2014
*Driller	Date
*Operator II	Date
Operator I	Date

\* Signature of Principal Driller and rig operator are required.

JSE 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 Dir						í M	1
days after the completion o	r aband	onment	of the v	vell.	1 m l	3/	
1. WELLOWNER NameA. A. Jackson Address / 223 N. Michigan	S F	itatic wa lowing empera	? 🗆 Y iture	feet below land s res X No G.P.M. flov	N		
Owner's Permit No				n pressurep.s.i. □ Valve □ Cap	🗆 Plug		
2. NATURE OF WORK	8. V	VELLT	EST DA	TA			
V New well Deepened Replacement		] Pump		Bailer 🗆 Othe			
Abandoned (describe method of abandoning)		ischarge 2-0		Draw Down	Hours P	umpea 	
3. PROPOSED USE	<b> </b>						
🖉 Domestic 🛛 Irrigation 🗆 Test	9. 1	LITHOL	OGIC I	-0G	041560	)	
🗆 Municipal 🗆 Industrial 🗖 Stock	Hole Diam,	From	ro To	Material	<i>ñ</i>	Wa Yes	No
4. METHOD DRILLED	10	6	6	Try Agra &	ng	+	<b>X</b>
🗶 Cable 🗆 Rotory 🗆 Dug 🗆 Other	88	18 58	58 68 70	Sandy clash	<u>ex</u>	+	贫
5. WELL CONSTRUCTION	Š	70	95	Sand " cloy Fin	ter tin		Ŕ
Diameter of hole inches Total depthfeet Casing schedule: 🙀 Steel 🗆 Concrete		73		Mart Charge			
Thickness     Diameter     From       -2.50     inches     inches     +1.5       inches     inches     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 feet					·····		
Well screen installed? 🛛 Yes 💢 No Manufacturer's name					······	<u></u>	
Type       Model No.         Diameter       Slot size       Set from       feet to       feet         Diameter       Slot size       Set from       feet to       feet						+	 
Diameter Slot size Set from feet to feet Gravel packed?							
Placed from feet to feet							
Surface seal? X Yes INO To what depth A feet Material used in seal I Cement grout X Puddling clay	···-		···				
6. LOCATION OF WELL							
Sketch map location must agree with written location.	10. W	ork sta	rted	<u> 1 - 27 - 72</u> finished	12-4-	18	、 —
W			11. DRILLER'S CERTIFICATION This well was drilled under my supervision and this report is true to the best of my knowledge.				
County Campan	¢ıl] R	riller's or L-	Girm's 1	Varme Dulling & Devel	laho	ber	-
S 1 <u>4</u> SE <u>4</u> Sec. <u>34</u> , T. <u>5</u> N/8, R. <u>3</u> <u>8</u> /W	D	ddress gned By	l	Doty 1	2-19-7 Date	2	-
USE ADDITIONAL SHEETS IF NECESSARY FORWARD		<u></u>					

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT and the second s 

### 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.

	· · · · · · · · · · · · · · · · · · ·	
1. WELL OWNER	7. WATER LEVEL	
$\rho = \rho h c$		
Name Jumin Radford Address RS Ealdurell I'da	Static water level 5 feet below land surface.	
R5P Where Vide	Flowing? 🗆 Yes 🕱 No 🛛 G.P.M. flow	
Address	Artesian closed in pressure p.s.i.	
Ourse of a Data of the	Controlled by: 🗆 Valve 🗆 Cap 🛄 Plug	
Owner's Permit No	Temperature ºF. Quality <u>Jord</u>	
2. NATURE OF WORK	8. WELL TEST DATA	
🛱 New well 🛛 Deepened 🖓 Replacement	Pump 🗆 Bailer 🗯 🗆 Other	
Abandoned (describe method of abandoning)		
	Discharge G.P.M. Pumping Level Hours Pu	Imped
·····	110 65 24	
		<b>-</b> 7
3. PROPOSED USE		
M Domostia D Invigation D Test D Musicipal	9. LITHOLOGIC LOG 106447	
🔊 Domestic 🖾 Irrigation 🗆 Test 🗆 Municipal	9. LITHOLOGIC LOG	
□ Other (specify type)	Hole Depth	Water
	Diam. From To Material	Yes No
4. METHOD DRILLED	6 0 16 Top tort Hardben	+K
	6 76 39 Lander Clarp 6 39 53 Fine Lossi Joint	
Rotary     Air     Hydraulic     Reverse rotary	/ The Control of the	
🕱 Cable 🗆 Dug 🖾 Other	1 LIT 19 Put as to LY and	
······································	6" 61 79 Correstor X ground X ground	
5. WELL CONSTRUCTION	Cost and open sations	┦╼╶┥┈┈
Casing schedule: 🔎 Steel 🗀 Concrete 🗆 Other	An consideration of the	
Thickness Diameter From To		
$O_{250}^{\text{Thickness}}$ inches $G_{250}^{\text{Piameter}}$ inches + $I_{\text{To}}^{\text{From}}$ feet $\underline{79}^{\text{To}}$ feet		
inches inches feet feet		<u> </u>
inches feet feet		
inches inches feet feet		
Was casing drive shoe used? 💢 Yes 🛛 No		<u> -</u>
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		<u>↓</u>
Manufacturer's name		···
Type Model No	1014.6500 4111	╉┈┟──
Diameter Slot size Set from feet to feet		
DiameterSlot sizeSet fromfeet tofeet Gravel packed?  D Yes 🍂 No D Size of gravel	DECEVEDAUG 1980	
Placed from feet to feet	DECIEUVE AUG 5 1300	
Surface seal depth 20 Material used in seal:	Department of Water Resources	
	AUG 6 1980 Department of Water Negional Office Western Regional Office	
Sealing procedure used: 🛛 Slurry pit 🖾 Temp. surface casing	KOB O Meston	
X Overbore to seal depth	D	
Method of joining casing: 🗆 Threaded 🛛 🗶 Welded 🗆 Solvent	Proprint of Marca Advances	
Weld		
Cemented between strata     Describe access port	10. 1 a de 1	
	Work started 201 25/8 Finished Zeb //	50
		<u> </u>
6. LOCATION OF WELL	11. DRILLERS CERTIFICATION	
Sketch map location must agree with written location.	I/We certify that all minimum well construction standard	de wora
N		
Subdivision Name	Firm Name David Knee Chelling Firm No. 20 Address Culdwell Add Date From 5	
	Firm Name David Knew Chelley Firm No. 201	8
	323 mali cit lille or F	Kn
	Address Calque Add Date	/
Lot No Block No	Signed by (Firm Official) Caual Withour	
	Signed by (Firm Official) A Run UVI \$ 331.1	
County Coufort	and L	
	(Operator) fam. 1	
<u>SLO % AE % Sec. 34 , T5N N/S, RSW E/W.</u>	0	

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

		1. WELL TAG NO. D 0064373 Drilling Permit No. <u>91075710-868675</u>				2	1021	-2			
	Water right or injection well #										
			=11 #								
	2. OWNER:										
		Box 4									
	siddletc	n					D			644	
3.WELL					50	ate	a <u></u>	Z	.ip <u></u>		
			- 0		-	-	. 3	_	. —		
Sec. 3	Twp.       4       North I or South I Rge.       3       East I or West I         Sec.       3       1/4       NE       1/4       NW         10 acres       1/4       40 acres       1/4       NW       1/4										
Gov't Lo	t	с	ountv	Са	nyon						
Lat. 43	Lat.         43         0         43.094         (Deg. and Decimal minutes)           Long.         116         041.092         (Deg. and Decimal minutes)           Address of Well Site         23854 Stone Lane         (Deg. and Decimal minutes)										
Long. 1	16	<u>04</u>	1.09	2						ecimal mir	
Address	of Well	Site 238	354 8	Sto	ne La	ne	9				
(Give at least)	ano of road				Cit	ty .	Middl	eton			
Lot.	Bl	+ Distance to	Sub	anoma N:	ame						
4. USE:			_ 00.								
Dome	estic 🗌	Municip	al [	] Mo	onitor		Irrigatio	on 🗖	Thern	nal 🔲	Injection
5. TYPE											
X New V	vell [	Replac	ement	well		Ло	dify exi	sting we	911		
6. DRIL			iiei								
X Air R	otary	Mud I			Cable	e		ther			
7. SEAL Seal	.ING PF material	From	JRES (ft) T	: c (ft)	Quantity	1 (1	bs or ft <sup>3</sup> )	Place	mentm	ethod/pro	cedure
	Bent.	0'		14'				Overl		et lou/pro	cedure
8. CASI	NG/LIN	ER:									I
Diameter (nominal)	From (ft)	To (ft)	Gaug Sched		Mat	leri	ial	Casing	Liner -	Threaded	Welded
6"	+2	116	.25		Steel			$\mathbf{X}$			X
									П	П	П
									n		Π
							·····				
L								-	L]		
Was driv	e shoe ı	ised? 🛛	8 Y [	J N	Shoe [	De	pth(s)_	116'			
9. PERF											
Perforati											
Manufac	tured sci	reen 🗙	ΥĽ	רא [	<sub>Гуре</sub> <u>Jo</u>	h	nson				
Method o	of installa	ation <u>Wa</u>	ash [	Dov	vn						
From (ft)	To (ft)	Slot size	Numt	er/ft	Diamete		Mat	erial	Ga	uge or Sc	hedule
124'	119'	18			(nomina 5		SS		N/A		
						-	00				
						-					
Length o	f Hoodei	no 10'	1		l						
					Len	gu	h of Tai	ipipe			
Packer [								·			
10.FILTI		1									
	Material	Fror	n (ft)	To	o (ft) C	lua	intity (lbs	or ft")	Plac	cement me	ethod
N	one										
L											
11. FLO	WING A	RTESI	AN:								

Flowing Artesian?	X N Artesian Pressure (PSIG)
Describe control device	

12. STATIC WATER LEVEL and WELL TESTS:

Depth first water encountered	(ft) 15'	Static water level (ft)	10'
Water temp. (°F) <u>56</u>	Bottom	hole temp. ( <sup>0</sup> F)	

Describe access port Well Cap

		Test m	ethod:		
Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing artesian
50 GPM	30 min.			$\mathbf{X}$	
The rest of the local division of the local	yield (gpm) 50 GPM	yield (gpm) (minutes) 50 GPM 30 min.	Discharge or yield (gpm)     Test duration (minutes)     Pump       50 GPM     30 min.     III	yield (gpm) (minutes) Pump Bailer	Discharge or yield (gpm)     Test duration (minutes)     Pump     Bailer     Air       50 GPM     30 min.     I     I     I

#### 13. LITHOLOGIC LOG and/or repairs or abandonment:

	HULUG	IC LUG	and/or repairs or abandonment:		
Bore Dia.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Wa	
(in) 10"	0'	3'	•	Y	<u>N</u>
10"	3'		Topsoil		<u>X</u>
( · -	3 5'	5'	Tan Clay		Х
10"		32'	Gravel	Х	
10"	32'	35'	Brown Clay		X
10"	35'	40'	Tan Clay		Х
10"	40'	44'	Tan Clay		Х
6"	44'	57'	Sand	X	
6"	57'	64'	Tan Clay		Х
6"	64'	73'	Sand	Х	
6"	73'	77'	Tan Clay		Х
6"	77'	80'	Sandy Clay	Х	
6"	80'	90'	Sand	Х	
6"	90'	112'	Sandy Clay	Х	
6"	112'	116'	Tan Clay		Х
6"	116'	124'	Sand	Х	
					••••••
					•
			DECEIVE	ED	
			RECEIVE		******
			JUN 1 2 2013		
			JUN 1 2 201	*	
			WATER RESOURC	ΞS	
			WATEH MEOIC WESTERN REGIC	N	
			6 4 mm		· · · · · · · · · · · · · · · · · · ·
Comple	eted Dept	h (Meas			
Date St	<sub>larted:</sub> Ju	in 3, 20	Date Completed: Jun 5, 2013		

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 Adamson Pump & Drilling	Co. No. <u>457</u>
	Date Jun 10, 2013
*Driller the Subr	<sub>Date</sub> Jun 10, 2013
*Operator II	Date Jun 10, 2013
Operator I_Sam Navarro	Date

\* Signature of Principal Driller and rig operator are required.

USE TYPEWRITER OR
BALL POINT PEN

### State of Idaho Department of Water Administration

	• 	453
	N2	<u>)</u>
(H	2,	N.
78	N.	10

· . --

WELL DRILLER'S REPORT ....

	State law requires that this report be within 30 days after complete	filed v tion or	vith the abande	e State onment	Reclamation Engineer V	8 20	<u>_</u>		
1.	WELLOWNER	7. V	VATER	LEVEL					
	Name_RON BALE	Static water level feet below land surface							
	Address ROUTE # 7 CALDWELL, IDAHO	F   T	Flowing?  Yes  You G.P.M. flow Temperature° F. Quality						
	Owner's Permit No	A	rtesian	closed-i	in pressurep.s.i.				
		┟┯───			· · · · · · · · · · · · · · · · · · ·	🗆 Plug			
2.				EST DA	<b>ATA</b>				
	🛛 New well 🛛 Deepened 🗆 Replacement		Framp ischarge		🗆 Bailer 🔍 Other				
	Abandoned (describe method of abandoning)		/ O		Draw Down	Hours P	-		
3.	PROPOSED USE			·······					
	🖬 Domestic 🛛 Irrigation 🗍 Test	9.1	ITHOL	.ÓGIC L	_OG				
	·	Hole	De	pth	 Material		Wa	iter	
-	Municipal Industrial Stock	Diam.	From	 5	TOPSOFF		Yes	N₀ X	
4.	METHOD DRILLED	g" 8"	5	10	HARD PAN + SAINI		<u>+</u>	$\mathbf{X}$	
	🕅 Cable 🗔 Rotory 🗆 Dug 🗆 Other	811	_10 _15	15	SAND BRAUZL		<u> </u>	X X	
5.	WELL CONSTRUCTION	6"	19	20	GRAVEL SANDY CLAY		+	X X	
	Diameter of hole <u><math>6^{\prime\prime}</math></u> inches Total depth <u>10.5</u> feet	6"	40	50	GAND		X		
	Casing schedule: 🕽 Steel 🗆 Concrete	6"			SANDYCLAY LAYEN SAND	<u> </u>	X	X	
	Thickness Diameter From To	6"	60	1.4 70	SANDY CLAY SAND		×	X	
		611	20	85	SANDY CLAY LAY	ERS		X	
	inches feet feet feet	6" 6"	85 97	105	CIAY SAND		¥	×	
		_6″	<b>Ю</b> 5	?	SAND		X		
	Was a packer or seal used?  Perforated? Ves Ves Ves				<u>, , , , , , , , , , , , , , , , , , , </u>				
	How perforated?  Factory  Knife Torch Size of perforation inches by inches						i i		
	Number From To				· · · · · · · · · · · · · · · · · · · ·	<u> </u>	$\dot{+}$		
	perforations feet feet feet		-						
	perforations feet feet								
	Well screen installed?						┥──┤		
	Type Model No.		,		001163				
	Diameter Slot size Set from feet to fe								
	Gravel packed?  Yes  Ko Size of gravel					<u> </u>			
	Placed from feet to feet							_	
	Surface seal? EX Yes D No To what depth 19 feet								
	Material used in seal  Cement grout Material used in seal								
6.	LOCATION OF WELL		<u> </u>	I			ł		
	Sketch map location must agree with written location.	10. w.	ork star	ted 🖑		Augli	167.		
		•				414-130 <sub>1</sub> -1			
					RTIFICATION		_		
	63 W				lled under my supervision and of my knowledge.	i this report i	is 		
			7-	∕n –	11. A		~		
		Dr	5 <u> </u>	Firm's N	ame	Numb	<u>2</u> ier	-	
	County CONYON	BFIL DOTY WELL DRTLLING 42 Driller's or Firm's Name ROUTE #7 CALDWELL, TOAHD Address							
	N/ 1/ NE 1/4 Sec. 3, T. 4/ N/9, R. 3 @/W	Z	ned By	De	For. 8-23	- 7/ Date		-	
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2					

Signed By Date
FORWARD THE WHITE, BLUE, AND PINK COPIES TO THE DEPARTMENT

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Form 238-7						
4/92						

RECEI	
ACD 0 3	454
STATE OF IDAHO SEP U S	1993 USE TYPEWRITER OR
DEPARTMENT OF WATER RESOURCES Department of Wa	eter Resource ALLPOINT PEN
WELL DRILLER'S REPORT	
State law requires that this report be filed with the Director, Department of Water Re-	sources
within 30 days after the completion or abandonment of the well.	

1. WELL OWNER       Name GOLBY EUNICE OR CLARENCE FRIEND         Address 23553 STORE LAVE       COLORDITIES         Dating Permit No.63-92-9-9380       Static valid interial         Water Right Permit No.       Plug         2. NATURE OF WORK       Static valid interial         XXI New welt       Despend         Beneficial       Pump         Baller       XX Air         Ontide Static       Intrigation         Water Right Permit No.       Beneficial intrigation         XXI New welt       Despend         Beneficial intrigation       Monitor         Billing Permit No.       Well Classes         2. NATURE OF WORK       8. WELL TEST DATA         XXI New well       Despend         Billing Permit No.       Pump         Billing Permit No.       Pump         Billing Permit No.       Beneficial in proceedures         Subaction 2       Monitor         Industrial       Stock (	LL OWNER	7 1							
Name <u>60LDY</u> <u>EUNICE</u> OR <u>CLARENCE</u> FRIEND         Adress <u>23555</u> STONE LANE <u>CACUUCI</u> <u>SUGCE</u> Driling Permit No. <u>63-93-09-0480</u> Anesian closed in pressure       _pai.         Water Right Permit No.			WAIER	LEVE	L				
Address 23833_STONE_LANE       C0 (du/cll_\$3605         Dilling Permit No.63=93-02-0280       Ancesian closed-in pressure	CALAN FUNTEE AD ALADENAE EDTENA	1				feet below lan	d eurface	]	
Address 2335 STOWE LAWE       CQLCULLING       SUECA         Duiling Permit No. 632-93-01-0430       Controlled by:   Vales       Data         Water Right Permit No.       Controlled by:   Vales       Controlled by:   Vales       Data         2. NATURE OF WORK       Baseline inters interease         3. PROPOSED USE       XX Iomestic       Integration   Monitor       Interease       Baseline inters interease       Baseline inters interease       Vale Grant Interease         A METHOD DRILLED       Industrial       Stock       Water Reverse rotary       Stock I and an anterial interease       Vale Grant Interease       Vale Grant Interease       Vale Grant Interease         A METHOD DRILLED       Industrial       Reverse rotary       6       14 TOP SOIL       Stock Interease       XX         5. WELL CONSTRUCTION       Gasing schedule: KX Stole   Concret   Other		· · ·						,	
Dritling Permit No. 43-93-92-02-0480       Controlled by:       Value Plug         Water Right Permit No.	dress <u>23853 STONE LANE CALUELT \$360</u>								
Water Right Permit No	lling Permit No $63 - 93 - 10 - 0480$								
Weiler Right Permit No	•					°F. Quality	-		
XSI New well       □ Deceneed       □ Replacement         □ Mandhoed (describe abandomment or multication procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)       □ Pump       □ Bailer       XQ Air       □ Other         2.5       40       □ ZdaffAS         XB Domestic       □ Irigation       Monitor         □ Industrial       □ Stock       □ Waste Disposal or Injection         ○ Other       (specify type)         4. METHOD DRILLED       ■ LITHOLOGIC LOG       TOG551         □ Rolay       □ Alir       □ Auger       □ Reverse rotary         X3 Ceble       □ Mud       □ Other       0 1/4 TOP_SOTIL         6       0.1/4 TOP_SOTIL       6       0.1/4 VERS       X         5. WELL CONSTRUCTION       (5 25/53) SAND & CLAV       X       X         Casing schedule:       KX Steel       Concrete       Other       0         □ Inchees       □ Inches       □ teet. 62       feet       0       1/4 VERS         0 Wast apacker or seal used?       □ Yes       X No       0       2/5 S3       SAND       X         0 Wast apacker or seal used?       □ Yes       X No       0       0       0       0       0       0       0       0	ter Right Permit No				Describe	e artesian or temperature zone	es below.		
XSI New well       □ Deceneed       □ Replacement         □ Mandhoed (describe abandomment or multication procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)       □ Pump       □ Bailer       XQ Air       □ Other         2.5       40       □ ZdaffAS         XB Domestic       □ Irigation       Monitor         □ Industrial       □ Stock       □ Waste Disposal or Injection         ○ Other       (specify type)         4. METHOD DRILLED       ■ LITHOLOGIC LOG       TOG551         □ Rolay       □ Alir       □ Auger       □ Reverse rotary         X3 Ceble       □ Mud       □ Other       0 1/4 TOP_SOTIL         6       0.1/4 TOP_SOTIL       6       0.1/4 VERS       X         5. WELL CONSTRUCTION       (5 25/53) SAND & CLAV       X       X         Casing schedule:       KX Steel       Concrete       Other       0         □ Inchees       □ Inches       □ teet. 62       feet       0       1/4 VERS         0 Wast apacker or seal used?       □ Yes       X No       0       2/5 S3       SAND       X         0 Wast apacker or seal used?       □ Yes       X No       0       0       0       0       0       0       0       0									
□ Weld diameter increase       □ Modification procedures         □ Abandone dideorche standomment or molfication procedures       Discharge 0.F.M.       Pumpeing Lavel       Hourn Pumpeing         □ Abandone dideorche standomment or molfication procedures       3. PROPOSED USE       25       4.0       1/sitRS.         3. PROPOSED USE	TURE OF WORK	8. 1	NELL 1	'EST D	ATA			1	
□ Weld diameter increase       □ Modification procedures         □ Abandone dideorche standomment or molfication procedures       Discharge 0.F.M.       Pumpeing Lavel       Hourn Pumpeing         □ Abandone dideorche standomment or molfication procedures       3. PROPOSED USE       25       4.0       1/sitRS.         3. PROPOSED USE	New well	1 1	🗆 Pum	D	🗆 Ba	iler XXX Air 🗆	Other		
such as liners, screen, materials, plug depths, etc. In lithologic log, section 3)     25     40     1/4t/RS.       3. PROPOSED USE     XX Domestic     Irrigation     Monitor       Industrial     Stock     Waste Oleposal or Injection       Other     (specify type)       4. METHOD DRILLED     Stock     Waste Oleposal or Injection       XX Cable     Mud     Other     Bore     Depth       Material     Ves       4. METHOD DRILLED     Cackhoe, hydraulic, etc.)     6     1/4     1/2 60 (RAUFEL       5. WELL CONSTRUCTION     Casing schedule:     XX No     5/3     5/9     6/2     CLAV     XX       5. WELL CONSTRUCTION     Casing schedule:     KX No     Fore feet     5/3     5/9     6/2     CLAV     XX       6     6/2     SAMD     CLAV     XX     X     X     X       7     Waste as packer or seal used?     Yes     No     X     X     X       6     6/2     SAMD     CLAV     X     X       6     6/2     SAMD     CLAV     X     X       6     6/2     SAMD     CLAV     X     X       7     Yes     KX No     Fore feet     Fore feet     Fore feet       8	, ,								
such as liners; screen, materials, plug depths, etc. in lithologic log, section 9.)  3. PROPOSED USE XX Domestic    Irrigation    Monifor    Irrigation    Irrigation    Monifor    Irrigation    Monifor    Irrigation    Monifor    Irrigation    Monifor    Irrigation    Irrigation    Monifor    Irrigation    Irrigation    Monifor    Irrigation    Irrigation	Abandoned (describe abandonment or modification procedures			G.P.M.		Pumping Level		ed	
3. PROPOSED USE         XX Domestic       Irrigation       Monitor         Industrial       Stock       Waste Disposal or Injection         Other       (specify type)       Stock       Stock         4. METHOD DRILLED       Stock       Genetic Stock       Stock         A RETHOD DRILLED       Genetic Stock       Genetic Stock       Stock         A RETHOD DRILLED       Genetic Stock       Genetic Stock       Stock       Stock         XX Cable       Mud       Other       Genetic Stock       Genetic Stock       Stock       XX         S. WELL CONSTRUCTION       Casing schedule:       KX Steel       Concrete       Other       Genetic Stock       XX         Casing schedule:       KX Steel       Concrete       Other       Genetic Stock       K       Steck       Genetic Stock       XX         Casing schedule:       KX Steel       Concrete       Tele tele       Genetic Stock       XX         Casing schedule:       KX Steel       Concrete       Tele tele       Genetic Stock       XX         Casing schedule:       KX Steel       Concrete       Tele tele       Genetic Stock       XX         Casing schedule:       KX Steel       Telet       Tele tele       Genetic Stock	such as liners, screen, materials, plug depths, etc. in lithologic	25				40	15HRS.		
XX Domestic       Irrigation       Monitor         Industrial       Stock       Waste Disposal or Injection         Bore       Depth       Material       Waste         A. METHOD DRILLED       Service       Depth       Material       Waste         A. METHOD DRILLED       Galaxy       Air       Auger       Reverse rotary       6       0       14       26       34       45       SAND & CLAV       X         XX Cable       Mud       Other       (backhoe, hydraulic, etc.)       6       45       53       SAND & CLAV       X       X         S. WELL CONSTRUCTION       Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Yes       No       Steel       feet	log, section 9.)								
XX Domestic       Irrigation       Monitor         Industrial       Stock       Waste Disposal or Injection         Bore       Depth       Material       Waste         A. METHOD DRILLED       Service       Depth       Material       Waste         A. METHOD DRILLED       Galaxy       Air       Auger       Reverse rotary       6       0       14       26       34       45       SAND & CLAV       X         XX Cable       Mud       Other       (backhoe, hydraulic, etc.)       6       45       53       SAND & CLAV       X       X         S. WELL CONSTRUCTION       Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       59       62       CLAV       X       X         Casing schedule:       XX Yes       No       Steel       feet									
A Domestic       Impation       Industrial       State Disposal or Injection         Other       (specify type)       Bits       From       To       Material       Wes         4. METHOD DRILLED       6       0       14       10       State       Method       Kes         A METHOD DRILLED       6       0       14       10P SOTL       Kes       Kes         A METHOD DRILLED       6       0       14       10P SOTL       Kes         A Katerial       Wes       6       26       34       45       SAMD       X.V       X.V         5. WELL CONSTRUCTION       6       59       62       CLAV       X.V       <	OPOSED USE	·					DOFA		
Industrial       Stock       Waste Disposal or Injection       Bore       Depth       Material       Wester         A. METHOD DRILLED       6       0       14       TOP       SOTL       6       0       14       TOP       SOTL         A. METHOD DRILLED       6       14       26       GRAUEL       6       6       0       14       TOP       SOTL         Start       Mud       Other       6       26       34       CLAV       X       X         S. WELL CONSTRUCTION       6       53       SAMD       CLAV       X       X         S. WELL CONSTRUCTION       6       6       6       2       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       6       6       2       SAMD       X       X         Trackes       Inches       10       From       To       6       6       2       SAMD       X       X         Was a packer or seal inches       feet       feet       feet       1       1       X       X         Was a packer or seal used?       Yes       XX No       Perforated?       Yes       XX No       Perforated?       Yes </td <td>Domestic 🗆 Irrigation 🗆 Monitor</td> <td>9. 1</td> <td>ITHOL</td> <td>OGIC</td> <td>LOG</td> <td>· · · · · · · · · · · · · · · · · · ·</td> <td>1690</td> <td></td>	Domestic 🗆 Irrigation 🗆 Monitor	9. 1	ITHOL	OGIC	LOG	· · · · · · · · · · · · · · · · · · ·	1690		
□ Other       (specify type)       □ Optime       Optim       Optim       Opt									
A. METHOD DRILLED       0       14       TOP. SOIL         A. METHOD DRILLED       6       0       14       TOP. SOIL         A. Method Drive       6       26       34       CLAV       X         XX Cable       Mud       Other       6       24       34       CLAV       X         S. WELL CONSTRUCTION       6       45       53       SAND & CLAV       X       X         6       6       44       59       62       CLAV       X       X         Casing schedule:       XX Steel       Concrete       Other       6       63       44       SAND       X         Thickness       Dumeter       From       76       59       62       CLAV       X         Thickness       inches       -       feet       feet       -       -       -         -       inches       -       inches       No       -       <			h			Material			
4.       METHOD DRILLED       6       14       26       26       34       CLAV         All       Cable       Mud       Other       6       26       34       CLAV       XX         XX       Cable       Mud       Other       6       35       SAND & CLAV       X         5.       WELL CONSTRUCTION       6       53       59       SAND       45       SAND & CLAV       X         6       53       59       SAND & CLAV       LAVERS       X         6       53       59       SAND & CLAV       X       5         6       53       59       SAND & CLAV       X       5         6       52       SAND & CLAV       X       5       59       SAND & CLAV       X         6       52       SAND & CLAV       X       5       59       SAND & CLAV       X         7       Trackness       Inches inches       feet       feet       6       62       SAND       X         7       Trackness       Inches inches       inches inches       No       State       State       State       State       State       State       State       State       State <td< td=""><td></td><td></td><td></td><td></td><td>TUD</td><td>0071</td><td></td><td></td></td<>					TUD	0071			
□       Rotary       Air       □       Auger       □       Reverse rotary       0       5       34       CLAV       X         XX       Cable       □       Mud       □       Other       6       34       45       SAND & CLAV       X         6       45       S       SAND & CLAV       X       6       53       SAND & CLAV       X         6       53       SAND & CLAV       LAVERS       X       6       53       SAND & CLAV       X         6       53       59       SAND       S       CLAV       LAVERS       X         6       53       59       SAND       S       CLAV       LAVERS       X         6       59       62       CLAV       X       S	THOD DRILLED							X X	
XZ Cable Mud Other   (backhoe, hydraulic, etc.) 6   34 45   5. WELL CONSTRUCTION 6   Casing schedule: XX Steel   Casing schedule: XX Steel   Concrete Other   6 59   7 6   7 6   7 6   7 7   7 6   7 7   7 7    8 7   8 7   8 7   8 7   8 7   9 7   8 7   8 7   8 8   9 8   9 8   9 8   9 8   9 8   9 8				<u> </u>	CIAV	,		<u>X</u>	
(backhoe, hydraulic, etc.)       6       45       53       SAND & CLAV LAVERS       X         5.       WELL CONSTRUCTION       6       59       62       CLAV       X         Casing schedule:       £X Steel       Concrete       Other       6       62       SAND       X         Thickness       Diameter       From       To       6       62       SAND       X         - 250       inches       inches       feet       feet       6       53       59       62       CLAV       X         - 250       inches       inches       feet       feet       6       62       SAND       X         - 250       inches       inches       feet       feet       6       62       SAND       X         - 400       was a packer or seal used?       XX Yes       No       No <td< td=""><td>• • •</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	• • •								
6       53       59       SAND       X         6       59       62       CLAY       X         Casing schedule:       & X Steel       Concrete       Other	(backhoe. hvdraulic. etc.)							+	
5. WELL CONSTRUCTION       6       59       62       CLAV         Thickness       Diameter       From       To         -250       inches 4       feet       feet         -250       inches 4       feet       feet         -250       inches       inches       feet         -250       inches       inches       feet         -250       inches       feet       feet         -250       inches       inches       feet         -250       inches       fiches       feet         -250       inches       fiches       feet         -250       feet       feet       feet         -250       perforations       feet       feet         -250       perforations       feet       feet         -250       perforations       feet       feet         -250       perforations       feet feet       feet         -250       State       State of gravel       feet         -250       Perforations       feet to       feet         -250       State       State of gravel       feet         -250       State       gravel       feet       feet									
Casing schedule:       XX Steel       Concrete       OtherTo         _250       inches       Diameter       From       To         _250       inchesinches       feetfeet       feet       feet        inches      inches       feetfeet       feet       feet        inches      inches       feetfeet       feet       feet        inches      inches       feetfeet	LL CONSTRUCTION						^	X	
Thickness       Diameter       From       To         .250       inches							X		
250       inches       inches       feet       62       feet	-								
inches       inches       feet       feet         inches       inches       feet       feet         was casing drive shoe used?       VX Yes       No         Was a packer or seal used?       Ves       £X No         Perforated?       Ves       £X No         How perforation?       inches by       inches         Number       From       footh         getforations       feet       feet         perforations       feet to       feet         perforations       feet to       feet         perforations       feet to       feet         Diameter       Slot size       Set from       feet to         Diameter       Slot size       Set from       feet to         Placed from       feet to       feet       feet         Sealing procedure used:       Stirve pit       Stirve pit       Stirve pit         Sealing procedure used:       Stirve pit       Stirve pit       Stirve pit         Sealing procedure used:									
inches      feet      feet      feet         Was casing drive shoe used?       XX Yes       No         Was a packer or seal used?       Yes       XX No         Perforated?       Pactory       Knife       Torch       Gun         Size of perforation?      inches by      inches      inches         Number       From       To      inches        perforations       feet       feet      inches        perforations       feet to       feet      inches        not and failepipe								!	
Was casing drive shoe used?       XX Yes       No         Was a packer or seal used?       Yes       XX No         Perforated?       Yes       XX No         How perforated?       Factory       Knife       Torch         Gumber       inches by       inches by       inches         Number       From       To        perforation?       inches by       inches        perforations       feet       feet        perforations       feet       feet        perforations       feet       feet        perforations       feet       feet        perforations       feet to       feet        perforations       feet to       feet        perforations       feet to       feet									
Perforated?       Yes       XX No         How perforated?       Factory       Knife       Torch       Gun         Size of perforation?       inches by       inches       inches         Number       From       To         perforations       feet       feet         mufacturer       Type       test         Top Packer or Headpipe       Type       test         Bottom of Tailpipe       feet to       feet         Diameter       Slot size       Set from       feet to         placed from       feet to       feet       feet         Stardce seal depth20       Material used in seal:       Cement grout         XX       Stardfeet asing       Stardfeet asing       Stardfeet asing         Sealing procedure used:       Slurry pit						""	· · ·		
How perforated? Factory Knife Torch Gun   Size of perforation? inches by inches   Number From To   perforations feet feet   well screen installed? Yes ØXNo   Manufacturer Type   Top Packer or Headpipe feet to   Bottom of Tailpipe feet to   Diameter Slot size   Slot size Set from   feet to feet   placed from feet to   feet to feet   Placed from feet to   sealing procedure used: Slurry pit   Startace seal depth20. Material used in seal:   Cemented between strata 10.		- <b> </b>	+					<u></u>	
Size of perforation?       inches by       inches         Number       From       To        perforations       feet       feet         Wall screen installed?       Yes ØXNo       Manufacturer         Manufacturer       Type									
Number       From       To        perforations      feet      feet        perforations      feet						······································		┿╌┤	
perforations      feet       feet       feet         Well screen installed?       Yes       XXNo         Manufacturer      Type					<u> </u>				
perforations      feet      feet        perforations      feet      feet        merforations      feet      feet         Well screen installed?       Yes ØXNo         Manufacturer      Type         Top Packer or Headpipe						······································		+	
	• • • • • • •		{					+	
Well screen installed?       Yes XXNo         Manufacturer       Type         Top Packer or Headpipe	•							+ 1	
Manufacturer       Type         Top Packer or Headpipe         Bottom of Tailpipe         Diameter       Slot size         Slot size       Set from         feet to       feet         Diameter       Slot size         State       Set from         feet to       feet         Diameter       Slot size         State       Set from         feet to       feet         Placed from       feet to         feet to       feet         Surface seal depth20.       Material used in seal:         Cashing procedure used:       Slurry pit         Sealing procedure used:       Slurry pit         Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       Threaded       XX Welded         Solvent Weld       Cemented between strata       10.	• • • • • • • • • • • • • • • • • • • •	_							
Top Packer or Headpipe   Bottom of Tailpipe   Diarneter   Slot size   Size   Sel from   feet   Gravel packed?   Yes   Yes   Surface seal depth20   Material used in seal:   Cement grout   XX   Bentonite   Puddling clay   Sealing procedure used:   Sturry pit   Temp. surface casing   XX Overbore to seal depth   Method of joining casing:   Solvent Weld   Cemented between strata									
Bottom of Tailpipe         Diarneter       Slot size       Set from       feet to       feet         Diarneter       Slot size       Set from       feet to       feet         Diarneter       Slot size       Set from       feet to       feet         Gravel packed?       Yes       Yes       XX No       Size of gravel									
DiarneterSlot sizeSet fromfeet tofeet      feet tofeet         DiarneterSlot sizeSet fromfeet tofeet      SEE CELV/F         Gravel packed?Set fromfeet tofeet      SEE CELV/F         Placed fromfeet tofeet      SEE CELV/F         Surface seal depth20_ Material used in seal:feet      SEE O'8 1993         Sealing procedure used:Slurry pit      Surface casing XX Overbore to seal depth         Method of joining casing:Threaded XX Welded      Threaded XX Welded        Solvent Weld      Cemented between strata		]							
DiameterSlot sizeSet fromfeet tofeet      feet tofeet      SECSUPF         Gravel packed?       Yes XX NoSize of gravelfeet      Size of gravelfeet      SECSUPF         Placed fromfeet tofeet tofeet      SECSUPF      SECSUPF      SECSUPF         Surface seal depth20feet tofeet      SECSUPF      SECSUPF      SECSUPF         Sealing procedure used:      Slurry pit      Seal depth      Seal depth      Seal depth         Method of joining casing:      Threaded XX Welded			ļ						
Gravel packed?  Yes XX No  Size of gravel Placed fromfeet tofeet Surface seal depth20. Material used in seal:  Cement grout XX Bentonite  Puddling clay Sealing procedure used:  Slurry pit Temp. surface casing XX Overbore to seal depth Method of joining casing:  Threaded XX Welded Cemented between strata 10.	ameter Slot size Set from feet to feet		<u> </u>						
Placed from			+		-5			<u>_</u>	
Surface seal depth20_Material used in seal:       Cement grout         XX       Bentonite       Puddling clay         Sealing procedure used:       Slurry pit         Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       Threaded       XX Welded         Solvent Weld       Cemented between strata       10.					-14	H-GGUV !	<u>╕╎║╢</u> ──┼──	+	
XX Bentonite       Puddling clay         Sealing procedure used:       Slurry pit         Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       Threaded         Solvent Weld       Cemented between strata	cea rrom feet to feet		+				3/1/1	┼╍┥	
XX Bentonite       Puddling clay         Sealing procedure used:       Slurry pit         Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       Threaded         Solvent Weld       Cemented between strata	rface coal denth?/) Material used in coals 🖂 Compart				-85	CEL N'S TODA		+	
□ Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       □ Threaded       XX Welded         □ Solvent Weld       □ Cemented between strata       10.	🗱 Bentonite 🗇 Puddling clav				···		·····	+	
□ Temp. surface casing       XX Overbore to seal depth         Method of joining casing:       □ Threaded       XX Welded         □ Solvent Weld       □ Cemented between strata       10.	aling procedure used:			····· ·			Dori		
Method of joining casing:  Threaded XX Welded Solvent Weld Cemented between strata 10.	Temp. surface casing XX Overbore to seal depth					bene un di Aasten Abberseve	网络帕斯德尔布莱 使的过去式	7	
□ Solvent Weld □ Cemented between strata 10.	thod of joining casing:	L						1	
		10				$F \Sigma_{1}^{*}$	091001		
$W_{\text{ark stated}} = 7.17.02$									
Describe access port Work started <u>7-17-93</u> finished <u>8-7-93</u>	scribe access port		Work s	tarted	7-17	7 <u>-93</u> finished	<u>    8-7-93      </u>		
6. LOCATION OF WELL 11. DRILLER'S CERTIFICATION	CATION OF WELL	11.	DRILLE	ER'S C	ERTIF	CATION			
Sketch map location must agree with written location. I/We certify that all minimum well construction standards w	etch map location must agree with written location.	1	l/We c	ertify t	hat all		A	were	
complied with at the time the rig was removed.	Subdivision Name			ed with	at the	time the rig was remo			
BILL DOTY DRILLING			-	B	ILL 1	DOTY DRILLING			
w E Firm Name <u>CO., INC.</u> Firm No. <u>42</u>			⊢irm N				No. <u>4Z</u>		
Lot No Block No Address 106 CALLOWAY	i I į į	1	Addres	اs	VO CA	LLUWAY	8-24-93		
	County CANYON						At 1		
County <u>CANVON</u> Address <u>CALDWELL, ID 83605</u> Date <u>8-24-93</u>	S S								
Address of Well Site 23853 STONE LANE Signed by Drilling Supervisor	5		•	-				I	
Address of Well Site <u>23853 STONE LANE</u> (give at least name of road) Signed by Drilling Supervisor	dress of Well Site <u>23853 STONE LANE</u> (give at least name of road)	1	Ĵ.						
Address of Well Site 23853 STONE LANE Signed by Drilling Supervisor	dress of Well Site <u>23853 ST/NE LANE</u> (give at least name of road) T. <u>4N</u> N Ø or S □		Ū.	4	and				

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

USE TYPEWRITER OR BALL POINT PEN	Stat Department of	te of Ida Water A	-	tration		45	512	a,
L	WELL DRIL w requires that this report be filed with the	LER'	S RE		<b>RT</b> /ater Administration within 30	1 Wm	N; A	ĥ,
1. WELL OWNER	days after the completion	on or aband	donment	t of the v	vell.	<u> ////</u>	ア	
	n Konn.				1_ <u>H3_</u> feet below land su	Ì		
Name	n Kern Iwell Odaho		Flowing	? 🗆 Y	es 🕱 No G.P.M. flow	1		
			Artesian	closed-in	° F. Quality n pressurep.s.i.			
	· · · · · · · · · · · · · · · · · · ·					🗆 Plug		
2. NATURE OF WORK		8. \	WELLT	EST DA	ТА			
New well 🗆 De	eepened 🗇 Replacement		Discharge		Bailer 🛛 Other	Hours Pu		
Abandoned (describ	be method of abandoning)				/ Ø		1111999-	, 
3. PROPOSED USE	h			<u></u>				
🗶 Domestic 🛛 Iri	rigation 🗋 Test	9.			.0G			
🗆 Municipal 🛛 In	ndustrial 🗆 Stock	Hole Diam		pth To	Material			ater No
4. METHOD DRILLED			0	6 15	top soi			X
🕱 Cable 🛛 Roto	ory 🗆 Dug 🗆 Other	10	15	18	close and	land	<b>∳</b>	阂
5. WELL CONSTRUCTIO		R	38	68	Sanat the	agen.	<u> -</u>	\$
Diameter of hole _0		eet	68 70	7 0 80	Pond & Cloy	layers	×	
Casing schedule: 🛛 🗶	Steel 🗆 Concrete		<u> </u>		V	- <i>v</i>		$\vdash$
Thickness · <u>250</u> inches	Piameter From To feet 68 fe	eet					<u> </u>	<b>—</b>
inches	inches feet fe inches feet fe	eet	<del> </del>		·····		<b>†</b>	
inches	inches feet _	eet 📒	+				<u> </u>	
	eed? ⊡ Yes ⊠ No			,		<u> </u>		
Perforated?	□ Yes X No	<u> </u>					<u> </u>	
Size of perforation	inches by inches						-	
		eet	+					
		eet	<u>†</u>					
	□ Yes 🕅 No		<u> </u>			56		
Manufacturer's name								
Diameter Slot size _	Nodel No feet to	eet	<u>+</u>			<u> </u>		
	,	eet						
	es ≱ No Size of gravelfeet tofe	eet				· · · · · · · · · · · · ·		
Surface seal? 💢 Yes	DNO To what depth 18 fe	eet					 	
Material used in seal	Cement grout X Puddling clay		<u>+</u>					
6. LOCATION OF WELL			<u></u>	<u> </u>		<u></u>	<u> </u>	<b></b>
Sketch map location m	nust agree with written location.	10. V	Vork sta	rted	>-24-72 finished	7-28	<u>`-7</u>	2
	<b>•</b> • • • • • • • • • • • • • • • • • •					G	Ð	
63 100 w	E				RTIFICATION lled under my supervision an	nd this report	is	
1		t	true to ti	he best c	of my knowledge.			•
L		Bil	<u>]] J</u>	byn	ell Orling & New	Spament	4	2
County Carry	10n			1C	aldwell_		)er	
NE 1/ NE 1/2 Ser	∕ c. <u>3_, t4_</u> N/ <b>∂</b> , r. <u>3_</u> €/	W 1	ddress	<u>l</u>	Daty 12	2-14-1	72	_
		1 8	ligned By			Date		- I

USE ADDITIONAL SHEETS IF NECESSARY

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

		7	89151	45	56	
Form 238-7 IDAHO DEPARTMENT OF WATE				40	50	ר
WELL DRILLER'S R		Ing	Office Use Only pected by			
	LFUNI		posicerby p Rge;	Sec		
1. WELL TAG NO. D -0023835			1/41/4			
	11. WELL TEST			: :		
Other IDWR No			Air 🗆 Flowing /	· · ·		
2. OWNER: TEFF BELL	Yield gal./min. 30	Drawdown 25	Pumping Level	66	me 100	_
Address 1357 E. PITHIN					7 <u>C</u>	>
City MERIDIAN State 10 Zip 836/2						
	Water Temp. 58	o · ·	Bottom ho	le temp.		
3. LOCATION OF WELL by legal description:	Water Quality test or co	omments:				
Sketch map location must agree with written location.			_ Depth first Water	Encounter	9	0 -
N	12. LITHOLOGIC	LOG: (Descrit	e repairs or abando	inment)	Wa	ter
Twp. 4 North or South	Bore Dia, From To i	Remarks: Lithology,	Water Quality & Temp	erature	Y	N
Roe 3 Fast or West		TOP SOI				( <u> </u>
W E Rge. 3 East $\Box$ or West $A$ Sec. 3 $VE$ 1/4 $VE$ 1/4 $-$ 1/4 Gov't Lot County $A^{40}$ sees 1/4 $VE$ 1/4		HARD F	AN			$\overline{}$
Gov't Lot County And area	10 8 45		BROWN			
L Lat: : : Long: / : ;	6 45 68	SANDY_	CLAY BA	ROCON	_	1
Address of Well Site 14153 Willis KD		GRAVE 1.	PIF BUN	<u>}</u>	X	$\geq$
(Give at least name of road + Distance to Road or Landmark)	6 90 95	<u>SANDY</u>	GRAVEL		ĸ	
		/				-
LtBlkSub. Name		·				
4. USE:					_	
ZDomestic □ Municipal □ Monitor □ Irrigation						
□ Thermal □ Injection □ Other					-1	
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						
Material From To Sacks or Pounds		. <u> </u>				
BENTONITE O' 30 15 BAG OVERBORE						
		<u>KE</u>	CEIVED			
Was drive shoe used?						
Was drive shoe used?			<u> </u>			
8. CASING/LINER:			ER RESOURCES			
Diameter From To Gauge Material Casing Liner Welded Threaded		WE	STERN REGION			
6" 42" 95 1/4 STEEL X - X -	- -					
Length of Headpipe Length of Tailpipe 9. PERFORATIONS/SCREENS				<del> </del>	<u> </u>	
9. PERFORATIONS/SCREENS Perforations Method				- +		
Screens Screen Type	Completed Dep	th . 95		(Measu	urabl	۱۵
	Date: Starled 🃈		Completed //			
From To Slot Size Number Diameter Material Casing Liner	· · · · ·					
	13. DRILLER'S					
	I/We certify that all minin the time the rig was rem		standards were complied	l with at		
	° Cu	a)delell 1	Selline	ريادهم	,	
10 STATIC WATER LEVEL OR INTERIOUS	Company Name	Y 5 V2/1/1	<u>  ////</u> Firm N	0. <u>51/</u>		
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	- Al	1171.1-1				
<u>45</u> ft. below ground Artesian pressureIb. Depth flow encounteredft. Describe access port or	Firm Official	n. Wald	Date 12-	<u>10-0</u>	4	
control devices:	and Driller or Operator	RIJU	Date 12-2	0-07		
	child of operator	· · · ·	Date / C		-	

(Sign once if Firm Official & Operator)	
---	--

FORWARD WHITE COPY TO WATER RESOURCES

Form	238-7
6/07	

## IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

WELL TAG NO. D 2055974	12. ST	TATIC W	ATER	LEVEL and WELL TESTS:		
Drilling Permit No. 909744-858315	Depth	first wate	er encou	ntered (ft) 43_ Static water level (ft)	47	7
Water right or injection well #		temp. ( <sup>0</sup> I				1
OWNER, Chaney Stotts Construction				wellcap		
Name (hener Statts	Well t			Test method:		
Address P.O. Box 244		down (feet)		charge or Test duration Dump Beiles		Flowing
City NotalsState_DDZip_83656	5	·	∶∣ yne	ld (gpm) (minutes) Pullip Baller	R	artesian
WELL LOCATION:	2	0			R	
wpNorth 🗖 or South 🗆 Rge. 🌌 East 🗋 or West 🕅	Water	quality to	est or co	mments: <u>Non e</u>		-
	13. LIT	HOLOG		and/or repairs or abandonment:		
ec. $40 \text{ acres} = 1/4 \frac{1/4}{100 \text{ acres}} \frac{1}{100 $	Bore Dia.	From	То	Remarks, lithology or description of repairs or	W	/ater
Gov't Lot County <u>Canyon</u>	(in)	(ft)	(ft)	abandonment, water temp.	Y	N
at. 43 0 43.077 (Deg. and Decimal minutes)	10	0	2	TopSoil		
ong00 (Deg. and Decimal minutes)	5	2	14	Brown Clay		
ddress of Well Site 2382 4 Bruer RD	-5-	14	19	Sandy (lay	<u> </u>	
	4	20	58	Brown Clay	<del>-</del>	
ive at least name of road + Distance to Road or Landmark)	6	38	37	Clay Brown	r	
ot Blk Sub. Name////_S_E_SF		- 7.2		genera	- <u>r</u> -	1
. USE:		1		· · · · · · · · · · · · · · · · · · ·		1
Domestic Municipal Monitor Irrigation Thermal Anipection						
		ļ				
New well Replacement well Modify existing well						
] Abandonment [] Other						
DRILL METHOD:			┨────		_+_	
Air Rotary 🔲 Mud Rotary 🔲 Cable 🔲 Other				·		
SEALING PROCEDURES:						
Seal material From (ft) To (ft) Quantity (lbs or ft') Placement method/procedure						
Bentowie Chip D 38 1200/65 porchole hydrated			<u> </u>	· · · · · · · · · · · · · · · · · · ·		-+
						-
B. CASING/LINER: Diameter From To (ft) Gauge/ Material Casing Liner Threaded Welded						
(nominal) (ft) 10 (ft) Schedule (valena) Casing Line (interaction of the context						
		ļ		<b>↓</b>		
6 +2 85 250 Steel & 0 & 0		╉────		+		
						+
		RE	CEI	VED		
Vas drive shoe used? DXY IN Shoe Depth(s)				······································		
PERFORATIONS/SCREENS:		<mark>∣ JA</mark>	N 04	2010		
Perforations Y XN Method	1					-
		WEST	FRES	OURCES		
	· [					
	-					
From (ft) To (ft) Slot size Number/ft Diameter Material Gauge or Schedule	Comp	leted Dep	th (Meas	urable): 97		
97 577,20 N/A 4/2 PVC N/A		Started:	12-	17-09 Date Completed: 12-	18-1	79
			<u>' aC</u>	TIFICATION:	<u>/0 C</u>	
				imum well construction standards were com	plied with	n at
ength of Tailpipe		ne the rig			111	
Packer I Y X Type	Comp	any Nam		unsontound Inilling, No.	45	
O.FILTER PACK: MONCE		-	6V	Pelanini I	2 - 2	2-1
	*Princ	ipal Drille		ava (Gay/sor Date /	5-6	201
Filter Material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method	*Drille	er	Ohr	Date /	d-0	<u>~/</u> -
	*0	ator II	Д.	i litta le	7-7	
	Oper	ator II/	g n	Date Date		$t \sim c$
1. FLOWING ARTESIAN:	Opera	ator I 🧷		Date		
Flowing Artesian?	* Sigr	nature of	i Princip	al Driller and rig operator are required.		

Form 238-7 6/07

## IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Defining Premix No. 927/230-577257         Weiler right in follow and ##         2.000MER:         Name Allens Rachelle Boshaw         Name Allens Rachelle Boshaw         Name Allens Rachelle Boshaw         Name Allens Rachelle Boshaw         Status 25 S. Honey Dr.         City Nempo         Status 25 S. Honey Dr.         City Nempo         Status 25 S. Honey Dr.         City Nempo         Status 26 S. Joshaw         Weilt Location:         Twp 4         Nemp 416 N. 200 Status 200 St	1. WELL TAG NO. D. 0070229	40.00					
Vietar rept:       Status         Name_Allen & Rachelle Boshaw         Address 5 S. Honey Dr.         Convertient       Status         Address 5 S. Honey Dr.         Convertient       Status         Status       Test method:         Status       Prove Status         Status       Test method:         Total       Convoltar         Status       Test method:         Total       Convoltar         Status       Test method:         Total       Status         Total       Status         Total       Status         Total       Status         Total       Status         Total       Status <td>Drilling Permit No. 97/730-877787</td> <td></td> <td></td> <td></td> <td></td> <td>51'</td> <td></td>	Drilling Permit No. 97/730-877787					51'	
Name         City Andreas         State Normality         Test method:           City Nampa         State ID         zp 33687           JWELL LOCATION:         The state intervent interve		Depin	tirst wat	er encou rs 56°	Intered (II) Static water level (II) _		
Name         City Andreas         State Normality         Test method:           City Nampa         State ID         zp 33687           JWELL LOCATION:         The state intervent interve		Valei	temp. (	$r_{1} = \frac{r_{1}}{r_{2}}$	Vell Cap		
Address 5.S. Honey Dr.         Tel description         Tel description         Personal action of the second seco	Name Allen & Rachelle Boshaw			ss port_			
City, Mampa       State ID       2.p       33687         3WELL LOCATION:       TO       40 GPM       45 minutes       0	5 S Honey Dr				charge or Test duration Rums Bailer	Air J	Flowing
3.WELL LOCATION:       Twp. 4North El or SouthReg. 3EastOr West El or Comments. Hardness 9 PH 7 Group. 1	City Nampa State ID Zip 83687	[		·   yıc	sia (gpm) (minutes)	, e	-
Tup         Anoth Ell or         Soci         Or West         Water runshift yets or comments:         Hardness Netsore splits or abandoment:           Soci							
Govi Let         County Canyon         int		Water	quality t	est or co	mments: Hardness 9 PH 7.6 Iron .8		
Govi Let         County Canyon         int	Sec 2 1/4 NW 1/4 NW 1/4		HOLOG		and/or repairs or abandonment:		
Gov Ltd         Coverty Samptin           10°         0'         0'         14'         14'         13'         Sand         X           10°         0'         14'         13'         Sand         X           10°         0'         14'         13'         Sand         X           10°         14'         13'         Sand         X           10°         14'         13'         Sand         X           10°         3'         42'         Brown Sandy Clay         X           10°         3'         42'         Brown Sandy Clay         X           10°         3'         42'         Brown Sandy Clay         X           10°         14'         13'         Sand and Gravel         X           6''         9''         106''         14''         Sand and Gravel         X           6''         12''         13''         Sand and Gravel         X         C           116''         116''         Sand and Gravel         X         C         C           116''         14''         Sand and Gravel         X         C         C         C           116''         Contestonent method and and an					Remarks, lithology or description of repairs or		later
Lat. 4.3       0       4.3       0       0.00 <t< td=""><td>Gov't Lot County Canyon</td><td></td><td>l</td><td></td><td>1</td><td><u> </u></td><td></td></t<>	Gov't Lot County Canyon		l		1	<u> </u>	
Lot       Bitk       Sub. Name       A         4. USE:       Municipal	Lat. 43 0 43.132 (Deg. and Decimal minutes)	+	-			+	
Lot       Bitk       Sub. Name       A         4. USE:       Municipal	Long. 116 0 40.289 (Deg. and Decimal minutes)		-			+	
Lot       Bitk       Sub. Name       A         4. USE:       Municipal	Address of Well Site End of Canyon Lane - 1-1/4 mile north of	10"	33'	42'	Brown Sandy Clay	+	
Lot       Bitk       Sub. Name       A         4. USE:       Municipal	Hwy 44 City Caldwell					1	X
4. UBE:       Municipal       Monitor       Imgation       Thermal       Ingledion         0 Domestic       Municipal       Monitor       Imgation       Thermal       Ingledion         1 Abandonment       Other       Municipal       X       6"       119       128       142'       149'       Sand       X         6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       X       6"       142'       149'       Sand       Sand       Sand       Sand       Sand       Sand       Sand	Lot. Blk. Sub. Name	-				X	
B Denestic       Municipal       Impation       Thermal       Injection         C Other       S. TYPE OF WORK;       Strepson		-					<u>  X</u>
□ One	Domestic Municipal Monitor Irrigation Thermal Injection			1		<u>↓×</u>	+
5. IPE OF WORK:         Abandomment       Other		1				$+\mathbf{x}$	+
B additional real       Cite of the construction of the construction standards were complied with at the time the fig was recover.       6"       142'       149'       Sand       X         6. DRLL METHOD:       6"       142'       149'       Sand       X         6. DRLL METHOD:       6"       142'       149'       Sand       X         6. DRLL METHOD:       6"       142'       149'       Sand       X         Sand mathine if from (if)       16'       142'       149'       Sand       X         Sand mathine if from (if)       16'       142'       149'       Sand       X         Sand mathine if from (if)       16'       142'       149'       Sand       X         Sand mathine if from (if)       16'       142'       149'       Sand       X         Sand mathine if from (if)       142'       139'       250       Steel       Sand       NOV 1 2'       Sand         Mathod cutes store used?       X       1       Sand       NOV 1 2'       Sand       Sand<		-				+	X
6. DRILL METHOD:		6"	142'			X	+
7. SEALING PROCEDURES:         Sealinative         3/4 Bert       0'         1'       1'         8. CASING/LINER:         Diamater from (m)       To (m)         3/4 Bert       0'         6''       +2         1'       1'         8. CASING/LINER:       Casing Liner Threaded Wolded         6''       +2         6''       +2         1'       1'	6. DRILL METHOD:						-
Set material       Prime (ft)       To (ft)       Claumity (bis of ft)       Placement methodyropodure         3/4 Bent.       0'       42'       23 bags 10'' Overbore       R E C E I V E D         8. CASING/LINER:       Image: from (ft)       To (ft)       Casing Uner Threaded Welded       NOV 12 2UIS         6''       +2       139'       .250       Steel       Image: from (ft)       To (ft)       Steel       Image: from (ft)       Image: from (ft) <td></td> <td></td> <td></td> <td></td> <td></td> <td>1</td> <td>1</td>						1	1
a. CASING/LINER:         a. CASING/LINER:         immediating From (th) To (th) Schedule         6" +2 139' 250 Steel         B	Seal material From (tt) To (tt) Quantity (ibs or ft <sup>-1</sup> ) Placement method/procedure					1	
8. CASING/LINER:         (inominal)       Ta (th)       Casing Liner       Threaded       Weided         6"       +2       139'       .250       Steel       Image: Steel	3/4 Bent. 0' 42' 23 bags 10" Overbore						
8. CASING/LINER:         (inominal)       Ta (th)       Casing Liner       Threaded       Weided         6"       +2       139'       .250       Steel       Image: Steel					BECEIVED	-	
6"       +2       139'       .250       Steel       Image: Steel </td <td>8. CASING/LINER:</td> <td></td> <td></td> <td></td> <td></td> <td>+</td> <td></td>	8. CASING/LINER:					+	
6"       +2       139'       .250       Steel       Image: Steel </td <td>Diameter (nominal) From (ft) To (ft) Gauge/ Material Casing Liner Threaded Welded</td> <td></td> <td></td> <td></td> <td>NOV 1 2 2015</td> <td></td> <td><u> </u></td>	Diameter (nominal) From (ft) To (ft) Gauge/ Material Casing Liner Threaded Welded				NOV 1 2 2015		<u> </u>
Was drive shee used? If Y IN Shoe Depth(s)         9. PERFORATIONS/SCREENS:         Perforations I Y IN Method         Manufactured screen IX Y IN Type Alloy         Method of installation         From (ft) To (ft) Stot size Numberfit Information (maintain)         Matheway I 149'         144'       149'         144'       149'         144'       149'         144'       149'         144'       149'         144'       149'         144'       149'         144'       149'         144'       149'         149'       Date Started: Nov 2, 2015         Date Completed Depth (Measurable):       149'         Date Started: Nov 2, 2015       Date Completed: Nov 4, 2015         14. DRILLER'S CERTIFICATION:       IWe certify that all minimum well construction standards were complied with at the time the rig was removed.         Company Name Adamson Pump & Drilling       Co. No. 457         *Principal Driller       Date Nov 5, 2015         *Driller Starter:       D						+	+
Was drive shoe used? If Y I N Shoe Depth(s)         9. PERFORATIONS/SCREENS:         Perforations I Y IN Method         Manufactured screen IX Y IN Type Alloy         Method of installation         From (ft) To (ft) Stat size Numberm Diameter (nominal) Material Gauge or Schedule         I 144' 149' 0.018 5' 5'' SS         Length of Headpipe 11'       Length of Tailpipe         Packer IX Y IN Type K-packer         10.FILTER PACK:         Filter Material From (ft) To (ft) Quantity (bs or ft <sup>3</sup> )         Placement method         11. FLOWING ARTESIAN:         Flowing Artesian? Y X N Artesian Pressure (PSIG)					WATER RESOURCES	+	†
Was drive shoe used? X       N Shoe Depth(s)         9. PERFORATIONS/SCREENS:         PerforationsY X       N Method					WESTERN REGION		
Was drive shoe used? X       N Shoe Depth(s)         9. PERFORATIONS/SCREENS:         PerforationsY X       N Method							
9. PERFORATIONS/SCREENS:         PerforationsYN Method			*********				
Perforations       Y       N       Method         Manufactured screen       X       I       N Type         Method of installation       Wash Down         From (ft)       To (ft)       Stat size       Number       Diameter         144'       149'       .018       5'       5''       SS         144'       149'       .018       5'       5''       SS         Length of Headpipe       11'       Length of Tailpipe						+	+
Manufactured screen X       Y       N Type <u>Alloy</u> Method of installation       Wash Down       Completed Depth (Measurable):       149'         144'       149'       0.18       5'       5''       SS         144'       149'       0.18       5'       5''       SS         Length of Headpipe       11'       Length of Tailpipe       Date Completed: Nov 4, 2015         Packer X       Y       N Type K-packer       Nov 5, 2015         10.FILTER PACK:       Filter Material       From (ft)       To (ft)       Quantity (lbs or ft <sup>3</sup> )       Placement method         11. FLOWING ARTESIAN:       Flowing Artesian?       Y       N Artesian Pressure (PSIG)       Placement method       Date       Nov 5, 2015         * Signature of Principal Driller and rig operator are required.       Signature of Principal Driller and rig operator are required.       Signature of Principal Driller and rig operator are required.				*******			+
Method of installation       Wash Down         From (t)       To (tt)       Stot size       Number/tt       Diameter (nominal)       Material       Gauge or Schedule         144'       149'       .018       5'       5"       SS       Date Completed: Nov 4, 2015         144'       149'       .018       5'       5"       SS       Date Completed: Nov 4, 2015         Length of Headpipe       11'       Length of Tailpipe       Nov 5, 2015       Date Completed: Nov 4, 2015         Packer       Y       N Type       K-packer       Company Name       Adamson Pump & Drilling       Co. No. 457         10.FILTER PACK:       Filter Material       From (tt)       To (tt)       Quantity (lbs or ft <sup>3</sup> )       Placement method         11. FLOWING ARTESIAN:       Flowing Artesian Pressure (PSIG)       PSIG       Signature of Principal Driller and rig operator are required.			****	ninsisismissismeerissistittiin	**************************************		
From (ft)       To (ft)       Stat size       Number/ft       Diameter (nominal)       Material       Gauge or Schedule         144'       149'       .018       5'       5"       SS	Manufactured screen X Y L N Type 7009						
Inditional internation in the internation internation in the internation internatediffication internation internation interna						<u> </u>	<u> </u>
Date Started: NOV 2, 2013       Date Completed: NOV 4, 2013         Date Started: NOV 2, 2013       Date Completed: NOV 4, 2013         Date Started: NOV 2, 2013       Date Completed: NOV 4, 2013         Length of Headpipe 11'       Length of Tailpipe         Packer X Y IN Type K-packer       N Type K-packer         10.FILTER PACK:       Company Name Adamson Pump & Drilling       Co. No. 457         'Principal Driller       Date Nov 5, 2015         'Principal Driller       Date Nov 5, 2015         'Doperator II       Date Nov 5, 2015         'Operator I       Dos Young         Date Nov 5, 2015       Date Nov 5, 2015         'Operator I       Dos Young         Date Nov 5, 2015       Signature of Principal Driller and rig operator are required.		Comple	ted Dept	h (Meas	urable): 149'		
Length of Headpipe_11'       Length of Tailpipe         Packer X Y N Type K-packer       N. Type K-packer         10.FILTER PACK:       Company Name Adamson Pump & Drilling       Co. No. 457         Principal Driller       Date Nov 5, 2015         Pilter Material       From (ft)       To (ft)       Quantity (lbs or ft <sup>3</sup> )         Placement method       Date       Nov 5, 2015         Operator I       Dosh Young       Date         Nov 5, 2015       Signature of Principal Driller and rig operator are required.	144' 149' .018 5' 5" SS	Date St	arted No	ov 2, 20	D15 Date Completed Nov 4, 201	5	
Length of Headpipe       11'       Length of Tailpipe       I/We certify that all minimum well construction standards were complied with at the time the rig was removed.         Packer       Y       N       Type       K-packer         10.FILTER PACK:       Company Name       Adamson Pump & Drilling       Co. No. 457         Image: Principal Driller       To (ft)       Quantity (lbs or ft <sup>3</sup> )       Placement method       Placement method         Int. FLOWING ARTESIAN:       Flowing Artesian Pressure (PSIG)       Date       Nov 5, 2015         Signature of Principal Driller and rig operator are required.       Signature of Principal Driller and rig operator are required.						********	
Length of Headpipe       Image: Construction of Tailpipe         Packer       Y In Type K-packer         10.FILTER PACK:       Company Name         Filter Material       From (ft)         To (ft)       Quantity (lbs or ft <sup>3</sup> )         Placement method       Placement method         'Driller       Date         Nov 5, 2015         'Derator II         Operator I       Dots         Nov 5, 2015         'Driller       Date         Nov 5, 2015         'Operator I       Date         Nov 5, 2015       Date         Nov 5, 2015       Signature of Principal Driller and rig operator are required.		1/We ca	ertify that	t all mini	mum well construction standards were complie	d with	at
10.FILTER PACK:       *Principal Driller       Date       Nov 5, 2015         Filter Material       From (ft)       To (ft)       Quantity (fbs or ft <sup>3</sup> )       Placement method         *Driller       Date       Nov 5, 2015         *Operator II       Date       Nov 5, 2015         *Operator I       Doth       Date         Operator I       Doth       Date         *Signature of Principal Driller and rig operator are required.       *Signature of Principal Driller and rig operator are required.	Length of Headpipe 11' Length of Tailpipe						
10.FILTER PACK:         Filter Material       From (ft)       To (ft)       Quantity (lbs or ft <sup>3</sup> )       Placement method         'Driller       Sam       Naver co       Date       Nov 5, 2015         'Operator II       Date       Date       Nov 5, 2015         'Operator I       Josh Young       Date       Nov 5, 2015         'Signature of Principal Driller and rig operator are required.       Signature of Principal Driller and rig operator are required.	Packer 🗵 Y 🔲 N Type K-packer	Compa	ny Name	e Adar	nson Pump & Drilling Co. No. 45	7	
Filter Material       From (ft)       To (ft)       Quantity (lbs or ft <sup>3</sup> )       Placement method       *Driller       Sam       Naverce       Date       Nov 5, 2015         *Driller       Sam       Naverce       Date       Nov 5, 2015       *Operator II       Date       Nov 5, 2015         11. FLOWING ARTESIAN:       Operator I       Josh Young       Date       Nov 5, 2015         Flowing Artesian?       Y       X       N Artesian Pressure (PSIG)       *Signature of Principal Driller and rig operator are required.	10.FILTER PACK:	*Princir	val Drille	Ŋ,	101 CAAULER Date Nov!	5, 201	5
*Operator II       Date         11. FLOWING ARTESIAN:       Operator I         Flowing Artesian?       Y         X       N Artesian Pressure (PSIG)    *Signature of Principal Driller and rig operator are required.	Filter Material From (ft) To (ft) Quantity (lbs or ft <sup>3</sup> ) Placement method			Å			
11. FLOWING ARTESIAN:       Operator I Josh Young       Date Nov 5, 2015         Flowing Artesian? I Y X N Artesian Pressure (PSIG)       • Signature of Principal Driller and rig operator are required.		*Driller	<u></u>	im N	Date Nova	7, EUI	
Flowing Artesian? 🔲 Y 🗵 N Artesian Pressure (PSIG) * Signature of Principal Driller and rig operator are required.		*Opera	tor II		Date		<u></u>
Flowing Artesian? 🔲 Y 🗵 N Artesian Pressure (PSIG) * Signature of Principal Driller and rig operator are required.	11. FLOWING ARTESIAN:	Operat	or I Ja	osh	YOUNG Date Nov 5	5, 201	5
Signature of Philopai Dimer and hig operator are required.					$\bigcirc$	**************	
	Describe control device	- Signa	nure of	rincipa	ai uniler and rig operator are required.		

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 Di days after the completion o					0	/	n a
1. WELL OWNER	7. V	VATER	LEVEL	Department	of Water Alimini		
Name JOHN BISHOP	Static water level feet below land surface						
Name JOHN BISHOP RT. 7 Address CALDWELL FORHO	F	lowing	? 🗆 Y sture	′es □ No G.P.M. flow °F. Quality _ <b>6</b>	<u>م</u>	<u>_</u>	
	A	Artesian	closed-i	n pressure p.s.i.			
Owner's Permit No	<u>}</u>	iontroll	ed by	□ Valve □ Cap	Plug		
2. NATURE OF WORK	8. V	VELLT	EST DA	TA			
🗙 New well 🛛 Deepened 🖓 Replacement		] Pump		🕱 Bailer 🗆 Other		<del></del>	
Abandoned (describe method of abandoning)	<sup>D</sup>	ischarge 72	<u>G.P.M.</u>	Draw Down	Hours Pt	Jmped	
3. PROPOSED USE	1				· · · · · · · · · · · · · · · · · · ·		_
🕅 Domestic 🗔 Irrigation 🗆 Test	.	ітної	LOGICI	06			
•	Hole		pth	Material		Wat	ter
🗆 Municipal 🖾 Industrial 💢 Stock	Diam.	From	то 20	SANDY BROWN	CLAY	Yes	No /
4. METHOD DRILLED		20	52	BROWN SAND	<u> </u>		Z
💢 Cable 🗆 Rotory 🗆 Dug 🗆 Other		52	60 71	BROWNSAND GRAVEL		$\mathbb{Z}$	
5. WELL CONSTRUCTION		<u>├</u>	<u> </u>	· · · · · · · · · · · · · · · · · · ·		<u> </u>	
Diameter of hole inches Total depthfeet	ļ	<u> </u>	<u>↓</u>				
Casing schedule: 🔀 Steel 🛛 Concrete				· · · · · · · · · · · · · · · · · · ·			
Thickness Diameter From To	[	<u> </u>				┼╌┥	
inches inches feet feet		<u>†</u>	<u> </u>				
inches inches feet feet		<u> </u>		· · · · · · · · · · · · · · · · · · ·		+	
inches inches feet feet	F						
Was a packer or seal used? □ Yes 🕅 No Perforated? □ Yes 🕅 No			<u> </u>				
How perforated? 🖸 Factory 🛛 Knife 💭 Torch	<b> </b>					╉╌┤	
Size of perforation inches by inches Number From To							
perforations feet feet feet		 					
perforations feet feet	<b>1</b> .						
Well screen installed? 🛛 Yes 🕅 No						-	
Manufacturer's name Model No	<u> </u>	<u> </u>		001151		<b>†</b>	
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet		<u> </u>			·	┿╌┤	
					- <u></u>		
Gravel packed?							
Surface seal? 🕱 Yes 🖾 No To what depth feet	F			······································			
Material used in seal C Cement grout P Puddling clay			·	<u> </u>		┥┤	
6. LOCATION OF WELL	<b> </b>	ł					
Sketch map location must agree with written location.	10.						~_
	M	/ork sta	rted	7-25-72_finished	007-2	6-1	2
W	7   t	'his wel rue to t	l was dr he best	RTIFICATION illed under my supervision a of my knowledge.	a)*		
		Mei	Tz <i>el</i>	R WELL PR. LL Name	106 9	13	_
County_CANYON		<u>2x</u>		HUMEDNLC +	VH,		-
<u>NW % NW % Sec. 2., T. 4. NM, R. 3. M</u> /W		igned By	, itt	mto no		2	

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

7	
	Form 238-7 3/95-C96

Depth flow encountered 140 ft.

devices: WELL CAP

0

### **IDAHO DEPARTMENT OF WATER RESOURCES** WELL DRILLER'S REPORT

	8375	70460
	Office Us	
Inspecte	d by	
Inspecte Twp	Rge	Sec

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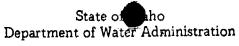
1. DRILLING PERMIT NO	11.	WELI	L TES	TS:	Lat: : Lo	ng:	:	
Other IDWR No. D0042258				Bailer	🛛 Air 🔲 Flowin	g Artesia	n	
2. OWNER:		gal/min	D	awdown	Pumping Level	Time		
Name BRIAN MC MILLAN/CHRIS BELL	50	. <del>.</del>	30		80 4 H	R		
Address 729 BANKSIDE								
City EAGLE State ID Zip 83616		- T			D-4 - 1 1 -			
3. LOCATION OF WELL by legal description:	Wat	er Temp	). ity togt	or comments:	Bottom hole temp			-
Sketch map location <u>must agree with written location</u>	wau	ei Quai	ity test		pth first Water Encount	anad 69		
N	12				Describe repairs or ab			—
	12.		JLUG	ac log: (i	Describe repairs or abo	andonmei	nt)	
$ Twp. \underline{4}  North \boxtimes \text{ or South } \square $	Wat	or						
W E Rge. 3 East or West $\times$ Sec. 2 1/4 $\frac{110 \text{ acres}}{10 \text{ acres}}$ $\frac{114}{10 \text{ acres}}$ $\frac{114}{10 \text{ acres}}$ $\frac{114}{10 \text{ acres}}$	Bore	From	To	Remarks: Lit	hology, Water Quality & '	Femp.	Y	N
Sec. 2 1/4 NW 1/4 NW 1/4	Dia	ļ			······································			
10 acres 40 acres 160 acres		0	2	TOP SOIL				Д
Gov't lot County CANYON	10"	2	18	BROWN C				Д
3	6"	18	22	BROWN C	LAY			$\boxtimes$
Lat: Long:	6"	22	53	GRAVEL				$\boxtimes$
Address of Well Site 13832 RED TIDE LN	6"	53	68	BROWN C				$\boxtimes$
City CALDWELL (Give at least name of road + Distance to Road or Landmark)	6*	68	127	SAND CLA			$\mathbf{X}$	
	6"	127	140	BROWN C				$\boxtimes$
Lt. <u>26</u> Blk. <u>1</u> Sub. Name NORTH SLOPE #2	6"	140	147	FINE SANI	)		X	
						ſ		$\square$
4. USE:	:							
🛛 Domestic 🔲 Municipal 🔲 Monitor 🔲 Irrigation							Ī	
Thermal Injection Other								П
5. TYPE OF WORK check all that apply (Replacement etc.)							Ţ	
New Well Modify Abandonment Other			[		· · · · · · · · · · · · · · · · · · ·		Í	
6. DRILL METHOD							Ī	П
Air Rotary 🗋 Cable 🗋 Mud Rotary 🗋 Other							٦İ	
7. SEALING PROCEDURES							""	
SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or				1			Ť	
Pounds		1					i	
BENTONITE 0 18 450 POUR			· · ·	1 <b>11 E</b>	ECEIVED		Ť	Η
						· · · · · · · · · · · · · · · · · · ·	ii	Η
				N N	IOV 2-5-2005		Ξi	
Was drive shoe used? 🛛 Y 🔲 N Shoe Depth(s) 138	<u> </u>	1	·	10/0	TER RESOURCES		-i	
Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air		<u> </u>		W	ESTERN REGION	·	-1	H
8. CASING/LINER:		<u>  · · · ·</u>		00	TCINIAL			$\square$
Diameter From To Gauge Material Casing Liner Welded Threaded				UK			-1	
6" +2 138 250 STEEL 🛛 🗂 🖾		+						
5" 131 142 250 STEEL 🛛 🗆 🖂								$\vdash$
	<b>—</b>	<u> </u>						
Langth of Handning 11? Langth of Tailping								
Length of Headpipe <u>11'</u> Length of Tailpipe 9. PERFORATIONS/SCREENS	Cor	nnleter	Denti	h; 147	Men	surable)	1	<b>—</b> ]
Perforations Method		: Starte			Completed		05	
Screens Screen Type sand stopper				CERTIFIC		11/21/20	Ų,	
E STORIN COLORI LYPO BARD SUPPORT					ATION ell construction standard	te moro		
From To Slot Size Number Diameter Material Casing Liner					y was removed.	TO WOLD		
142 147 <b>20</b> 5" SS 🗆	von							
	Firm	ı Name	GEOR	<u>GE PO</u> ST WI	ELL DRILLING	Firm No.	56	3
		-		1	1 ~			
	Firm	1 Officia	al 🦯	a p		Date 11/2	22/2	200:
10. STATIC WATER LEVEL OR ARTESIAN			Ð	7-1-				
PRESSURE:	Sup	ervisor	or Oper	ator		Date		
<u>50ft. below ground</u> Artesian Pressurelb	-		-		irm Official & Operator)			

Describe access port or control

(Sign once if Firm Official & Operator) Date: 11/22/2005 Time:9:04:35 AM

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USE TYPEWRITER	à 🗸
BALL POINT PER	





461

WELL DRILLER'S REPORT

days after the completion or							
. WELL OWNER			LEVEL			~	
Name DONCAWARD RT-7 Address CALDWELL IDAHO	Static water level 45 feet below land surface						
Address CALDWELL IDAHO	Т	empera	iture	° F. QualityOO	ρ		
Owner's Permit No				in pressurep.s.i. □ Valve □ Cap	🗅 Plug		
. NATURE OF WORK	8. V	VELLT	EST DA	ATA			_
🕅 New well 🗆 Deepened 🗆 Replacement		] Pump		St Bailer 🗆 Other			
Abandoned (describe method of abandoning)	0	15	G.P.M.	Draw Down	Hours P	umped	
3. PROPOSED USE							
🕅 Domestic 🔲 Irrigation 🔲 Test 🖾 Other (specify type)	9. (	ітноі	.OGIC I	LOG	0 <u>41</u>	70	2
Municipal Industrial X Stock Waste Disposal or     Injection	Hole Diam,	De	pth To	Material		W: Yes	ater N
METHOD DRILLED	6	0	21	SANDY BROWN	CLAY		2
	<u>, , , , , , , , , , , , , , , , , , , </u>	21 23	73	BROWNSANDE BROWNCLAY		4	
🕅 Cable 🔲 Rotory 🗆 Dug 🗔 Other		82	×	WHITCSAN	0		
. WELL CONSTRUCTION	• · <u> </u>				·	+	
		1	<u> </u>				$\frac{1}{1}$
Diameter of hole inches Total depthfeet Casing schedule: Total Concrete							ļ
						+	┼─
Thickness Diameter From To 250 inches 6 inches + feet 28 feet				· · · · · · · · · · · · · · · · · · ·		1	$\square$
inches inches feet feet feet							
inches inches feet feet		<u> </u>	· <u>·</u> ···	· · ·			┢
inches inches feet feet	<b></b>	<u> </u>		<u>}</u>		╉┈	<u> </u>
Was a packer or seal used? 🗆 Yes 🖉 No							
Perforated?		┝	 			<u> </u>	┝
How perforated?   Factory  Knife  Torch		<u></u>				-{	┢
Size of perforation inches by inches Number From To	·						
perforations feet feet						╁	ļ
perforations feet feet				· · · · · · · · · · · · · · · · · · ·	<b></b> _	┼──	-
perforations feet feet						1	
Well screen installed? 🗆 Yes 📕 No				· · · · · · · · · · · · · · · · · · ·	_ <del></del>	Į	
Manufacturer's name						+	├
Type Model No, Diameter Slot size Set from feet to feet							
Diameter Slot size Set from feet to feet				 			
Group peaked? [] May St N. C.						+	
Gravel packed?  Yes X No Size of gravel Placed from feet to feet							
						+	
Surface seal depth Material used in seal Cement grout				<u></u>	· · · · · · · · · · · · · · · · · · ·		
Puddling clay Mell cuttings     Sealing procedure used Sturry pit Temporery surface cosing							
Seaming processive uses	1						
	10.						
LOCATION OF WELL	_	ork star	ted <u>H/</u>	RC17-13-24 finished	MAKCH-	20-	$\underline{D}$
Sketch map location must agree with written location. (0 7			···	(			
	H. D	RILLER	S CERTI	FICATION		£	
Subdivision Name	F	irm Non	ng 4/ 50	TZER WELL DRid	L'Wa	. 9:	3
	A	ddress 🖉	SOX	SIL HOMEDAL C	_ Date <u>3</u> -	1-7	4
Lot No Block No				11 de	n t		
Lot No Block No	S	ioned hv	(Firm (	Official) KANAI TT	That The	<u> </u>	
	Si	igned by	ar	Official) Kannett		· <u>~~</u>	-
Lot No Block No CountyCANYON <u>NE%NW</u> % Sec2, TY_N/ <b>F</b> , R3 <b>@</b> /W	Si	igned by	ar	nd	1 'I	· <u> </u>	-

USE TYPEWRITER OR
BALL POINT PEN

### State of Idaho Department of Water Resources

USE TYPEWRITER OR Department of			ources	3	À.	62<	$\hat{\mathcal{O}}$
BALL POINT PEN WELL DRILL					( Lut	ן ך ג^גר	6
State law requires that this report be filed with th					, Di	′ <b>/∦</b>	<i>'</i> )
days after the completion o	or aband	onment	of the v	vell.	$\sqrt{n}$	<u>v /</u>	·1
1. WELLOWNER			LEVEL	- 1			
Name Janes Filmor Address OALJUELL	s	static wa	ater leve	feet below land su	rfac <del>e</del>		
Address QALJUELL	F	lowing empera	? [] Y ture	es No G.P.M. flow	<u>t</u>		-
	A	Artesian	closed-i	n pressurep.s.i.			-
Owner's Permit No		Controlle	ed by	□ Valve □ Cap	C Plug	<b></b>	
2. NATURE OF WORK	8. W	VELL T	EST DA				
New wei! 🖸 Deepened 🛛 Replacement		] Pump		🗆 Bailer 🛛 🕅 Other		<u> </u>	
Abandoned (describe method of abandoning)		ischarge	G.P.M.	Draw Down	Hours Pu	mped	-
	<b>_</b>						
3. PROPOSED USE	<u> </u>						
Domestic Irrigation Test Other (specify type)	<b></b>	<del></del>		.0G	<u></u>		
Municipal Industrial Stock Waste Disposal or     Injection	Hole Diam.		pth To	Material	· · · · · · · · · · · · · · · · · · ·	Wate Yes I	
4. METHOD DRILLED	5		10	TOSSOIL			X)
	6	20	<u>20</u> 30	HANY PAN	<u>.                                    </u>		X
Cable 🗆 Rotory 🖾 Dug 🗆 Other	Ģ	30	40	CrAURA			X
5. WELL CONSTRUCTION	7	50	<u>30</u> 60	SANLY CAA	AV		¥
Diameter of hole b inches Total depth 9/feet	6	60	20	CLAY	_7		
Diameter of hole inches Total depthfeet Casing schedule: Steel	6	20 80	80	CLAY with	toAnit !	X	-
25 inches inches + feet 72 feet	<u> </u>			VAINS OFU			
inches inches + feet feet	·			IN OPROL	Hohe_	$\vdash$	{
inches inches feet feet	:						
inches inches feet feet feet							
Was casing drive shoe used? 🕅 Yes 🛛 No						$\vdash$	
Was a packer or seal used?				· · · · · · · · · · · · · · · · · · ·			
How perforated? 🛛 Factory 🛛 Knife 🛛 Torch		· · · ·		 	i	+	
Size of perforation inches by inches Number From To					· · · · · · · · · · · ·	<b></b>	
perforations feet feet		+			····	<u> </u> · <u> </u> ·-	
perforations feet feet feet	1	· · · ·					
	<u>}</u>			00		$\vdash$	-
Well screen installed?   Yes X No Manufacturer's name		1		001160			
Type Model No	.				<u> </u>		
Diameter Slot size Set from feet to fe		Ţ				<u> </u>	
- -		<u> </u>				┝╴┅╾┾╸	$\neg$
Gravel packed?  Yes X No Size of gravel		<u> </u>		· · · · · · · · · · · · · · · · · · ·			
	<b></b>	<u></u> <u> </u>				$\vdash$	-
Surface seal depth <u>32</u> Material used in seal Cement grout		<u> </u>				<b>┌──</b> ╋╹	
Secting procedure used X Starry pit C Temporary surface casing		<u> </u>			·	┝╼╼┟┈	
Overbore to seel dept						<b>-</b>	
6. LOCATION OF WELL	10. W	lork eta		1-15finished	11-29-70	5	
Sketch map location must agree with written location.		in ald	· · · · · · · · · · · · · · · · · · ·				
	1 11. 0	RILLER	S CERT		,		
			me D			<u>15</u>	1
W E Subdivisión Name			<u> </u>	- 11	1 1.00	2.74 2.74	
Lot No Block No	'	Address's	3/0	<u> </u>	Dote /-24	<u>,                                    </u>	:
		Signed by	(Firm )	Official)	/		.
County CANYON					han		
SW XNE % Sec. 3, TAN N/S, R. 30 E/W			(Ope	orator)	· · · · · · · · · · · · · · · · · · ·	·,	•
, I, <u>F</u> N/S, K. <u>J</u> E/W	1						j

USE ADDITIONAL SHEETS IF NECESSARY

FORWARD THE WHITE COPY TO THE DEPARTMENT

USE TYPEWRITER
BALL POINT PEN
BREET ONTITIEN

# State State State Department of Water Administration

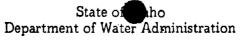
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≻ <i>ਮੇ</i> ₩.,	Č.	ц.		<u>;</u> ;	

## 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 7. WATER LEVEL Name LARRY LENHASTER Static water level 35 feet below land surface Flowing? D Yes D No G.P.M. flow\_ Temperature\_\_\_\_\_ F. Quality 600 Address CALOWELL JPRITO Artesian closed-in pressure \_\_\_\_p.s.i. Owner's Permit No. Controlled by UValve 🖸 Cap 👘 🗍 Plug 2. NATURE OF WORK 8. WELL TEST DATA S New well Deepened Replacement A. R. Hours Pumped 🗆 Pump 🗆 Bailer Y Other Draw Down Discharge G.P.M, □ Abandoned (describe method of abandoning) 50 15 3. PROPOSED USE 033069 **Domestic** 🔲 Irrigation 🔲 Test Other (specify type) 9. LITHOLOGIC LOG Hole Diam. Depth 🛄 Municipal Water Industrial 🗋 Waste Disposal or Stock Material To Injection From Yes No 6 0 TOPSOL 4. METHOD DRILLED 11 2 HARD PAN 28 11 <u> BROWN SAND</u> 🕱 Cable B Rotory 🗆 Dug Other 28 42 GRAVEL BROWN SAND BROWN CLAY WHITESAND 42 96 5. WELL CONSTRUCTION 92 105 105 Diameter of hole \_\_\_\_\_ inches Total depth 105 feet Casing schedule: 😽 Steel Concrete Thickness Diameter From 9 9 feet <u>6</u> inches + .<u>250</u> inches \_ 🛴 feet \_\_\_\_\_ inches \_\_\_\_\_ inches feet feet inches \_\_\_\_\_ \_ inches feet feet \_\_\_\_ inches \_\_\_ \_\_\_\_\_ inches \_\_ \_\_\_\_ feet feet \_ inches \_ \_\_\_\_ inches \_\_\_ \_ feet feet Was a packer or seal used? X No Perforated? 🗆 Yes X No How perforated? 
Gractory 
Knife
Torch Size of perforation \_\_\_\_\_ inches by \_\_\_\_ \_\_\_\_ inches Number From То \_\_\_\_ 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 . Material used in seal 🛛 🗔 Cement grout 🗖 Puddling clay 🔰 😼 Well cuttings Seating procedure used 🛛 🖸 Starry pit 🗖 Temporery surface cosing TA Overbore to seal depth 10. 6. LOCATION OF WELL Work started 7-30-74 finished 8-2-74 Sketch map location must agree with written location. 63 II. DRILLERS CERTIFICATION Firm Name HETZER WELL DRL. Firm No. 93 Subdivision Name E Address BOX 511 HOHEDAL C Date 8-6-14 Lot No.\_\_\_\_ Block No. Signed by (Firm Official) Regular M. Lu County CANYON and (Operator)\_ SW 1/ NE 1/ Sec. 3, T. 4 N/ R. 3 (W

USE ADDITIONAL SHEETS IF NECESSARY

USE TYPEWRITER C
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BALL POINT PEN





## WELL DRILLER'S REPORT

State law requires that this report be filed with the Di days after the completion o	rector, l or aband	Departr Jonmen	nent of <sup>y</sup>	Water Administration within 3	30 00		1
State law requires that this report be filed with the Di days after the completion of 1. WELL OWNER	7. 1	WATEF	LEVE	L	tor viole: Le.		<u> </u>
Name GARY LASHER		urface		ίω <sub>μ</sub>			
Address CALOWELL IORHO		Flowing	i? 🗋 '	Yes □ No G.P.M. flov °F. Quality <u>G∂o (</u>	N/		•
,		Artesiar	n closed	-in pressurep.s.i,		• <u> </u>	<u></u>
Owner's Permit No.		Control	led by	🗆 Valve 🗆 Cap	🗆 Plug	·	
2. NATURE OF WORK	8. 1	VELLI	EST D.	ΑΤΑ			
🕅 New well 🛛 Deepened 🗆 Replacement	L	🗆 Pumi		🗆 Bailer 🛛 🛱 Other	R	iR	
Abandoned (describe method of abandoning)		ischarge	G.P.M.	Draw Down イン	Hours P	'umpe	d
3. PROPOSED USE	<b> </b>						
🔀 Domestic 🔲 Irrigation 🔲 Test 🔲 Other (specify type)	9. 1	LITHO	LOGIC	LOG	0417	03	I
Municipal Industrial 🛛 Stock 🗋 Waste Disposal or Injection	Hole Diam.	De	pth To	Material			ster
4. METHOD DRILLED	8	0	12	BROWN CLAY	·····		
	<u> </u>	12	21	GRADEL + SAN BROWN SAND	0	+	$\vdash$
🕅 Cable 🗆 Rotory 🗆 Dug 🗆 Other		26	38	SANDY BROWN	CLAY	+	É
5. WELL CONSTRUCTION		83	83	BROWN CLAV	<u> Row N</u>	+	K
Diameter of hole inches Total depth feet		105		BROWN SAND	)	$\mathbf{Z}$	-
Casing schedule: X Steel Concrete Thickness Diameter From To					,	+	
Thickness     Diameter     From     To       250     inches    inches     +feet     8.5     feet      inches    inches    feet     6.5     feet						┿—	┢
inches inches feet feet						+-	ļ
inches inches feet feet feet feet						<u> </u>	
Was a packer or seal used? □ Yes							
How perforated?  Factory  Knife Torch Size of perforation inches by inches				 		<u> </u>	
Number From To							
perforations feet feet feet					<b></b>		
perforations feet feet							
Well screen installed? 🗆 Yes 🛋 No							
Manufacturer's name Model No					<u> </u>	┝┈╾┥	
Diameter Slot size Set from feet to feet to							
Diameter Slot size Set from feet to feet	+					<u> </u>	
Gravel packed?  Yes X No Size of gravel feet to feet to feet							
				14			
Surface seal depth Material used in seal							
Seeling procedure used Starry pit Componery surface casing			+				
🗵 Overbore to each depth			<u> </u>	***************************************	<u> </u>		
. LOCATION OF WELL	10. Wo	rk start	od MA	RcH-27-74 finished @		74	
Sketch map location must agree with written location.						<u> </u>	-
	H. DR	ILLERS	CERTI	FICATION			-
WE	Fir	m Nam	<u>Her</u>	ZER WELL DRILL	1. HGFirm No.	<u>.93</u>	?
Lot No Block No	Ad	dress <u>B</u>	<u>a x. s</u>	I HOHEDALE	. Date <u>4-9</u>	<u>-74</u>	:
County CONYON	Sig	ned by	(Firm Q an	fficial)Kinnet m	200 p		.
			(Opera		L		
SW WE Sec. 3, T. 4 NER. 3 MW				1	LINUTH	谻	

USE ADDITIONAL SHEETS IF NECESSARY

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Form 238-7
3/95-C96

63

### **IDAHO DEPARTMENT OF WATER RESOURCES** WELL DRILLER'S REPORT

83	3328	he	4	65					
Office Use Only									
Inspec	ted by			. <u>.</u>					
Twp_	ted by Rg	e	_Sec_						
	_1/4	1/4		1/4					
Lat-	· · ·	Long.							

				Lat: : Long: :		
1. DRILLING PERMIT NO. <u>0</u> -0-3-9156-	11.	WELI		TS:	- ···	
Other IDWR No.	Viald		Pump	Bailer Air Flowing Artes		1
2. OWNER:	60GP			135ft 2hours	<u> </u>	
Name Larry Meridith	0001					
Address 26190 Moonglow Dr.						
City Middleton State ID Zip 83644	Wate	r Tem	57De	gFBottom hole temp.		
3. LOCATION OF WELL by legal description:				or comments:		
Sketch map location <u>must</u> agree with written location				Depth first Water Encountered 42	ft	_
N	12.	LITH	DLOG	IC LOG: (Describe repairs or abandonn	nent)	
Twp. 4 North 🛛 or South 🗌						
Page 3 Fast ar West	Wat		<b>.</b>	• <u>- · · · · · · · · · · · · · · · · · · </u>		
W E Rgc. $\underline{3}$ Edst $\Box$ or west $\Delta$	Bore Dia	From	То	Remarks: Lithology, Water Quality & Temp.	Y	Ν
Sec. 3 $\frac{1/4}{10 \text{ acres}}$ $\frac{\text{NE}}{40 \text{ acres}}$ $\frac{1/4}{160 \text{ acres}}$	10"	0	2	Sandy Top Soil	┸┝╾┩	
	*	2	8	Brown Clay		
s Gov't lot County Canyon	Ħ	8 -	-18-	Tan Sandy Clay		ίΩ.
Lat: : : Long: : :	"	18	20	Gravel and Sand	╼┦─┤	Ø
Address of Well Site South Side of Red Tide .25mile	6"	20	50	Gravel and Sand		i A
West of Canyon         City Middleton           (Give at least name of road + Distance to Road or Landmark)         (Give at least name of road + Distance to Road or Landmark)	· <del>.</del> · · ·	50	57	Tan Clay	-8	M
(Give at least name of road + Distance to Road or Landmark)	11	57	97	Sand	-14	P
Lt. 27 Blk. 1 Sub. Name	"	97	108	Tan Clay	- (~	H
		108	123	Sand	-12	
4. USE:	- <del>11</del>	123	133	Tan Clay	- 4	$\mathbf{H}$
Domestic 🔲 Municipal 📋 Monitor 🛄 Irrigation	17	133	140	Fine Sand		P
Thermal Injection Other		155	140		- ~	{
5. TYPE OF WORK check all that apply (Replacement etc.)				· · · · · · · · · · · · · · · · · · ·	╼╂╾┤	<b>ii</b>
New Well I Modify Abandonment Other	<u> </u>		<u> </u>	·	╾┝─┤	╢─┨
6. DRILL METHOD					—¦—	╣—┨
🖾 Air Rotary 🔲 Cable 📋 Mud Rotary 🛄 Other				· · · · ·	╺╉╌╴	╢─┨
7. SEALING PROCEDURES	┣──		·		╼┟╌┤	╬┨
SEAL/FILTER PACK AMOUNT METHOD	<u> </u>		· · · ·	· · · · · · · · · · · · · · · · · · ·	_ <b> </b> _	╬—╏
Material From To Sacks or	<b> </b>	·			— —'	╣—┫
Bentonite 0 20 750Lbs Dry Pour				· · · · · · · · · · · · · · · · · · ·	- <u> </u> _	╬─┨
Bencinie 0 20 750Los Div Pour					-	╬
			<u> </u>			╬⊸┫
				· · · · · · · · · · · · · · · · · · ·		╬—┨
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>133ft</u>				RECEIVED	- <u> </u>	╬₽
Was drive shoe seal tested?  Y X N How?				neuelved		╬
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded	· · · ·		<b> </b>	MAY 2 5 2005		╬─┨
$6'' +2 133 250$ Steel $\square$ $\square$				MAY 2 5 2005		╢—
5" 130 135 .258 Steel 🖾 🗆 🖾				WATER HESOURCES		╟──╏
			<u> </u>	WESTERN REGION	_ <b> </b>	╟┻┫
Length of Headpipe <u>5ft</u> Length of Tailpipe <u></u>	-		<u> </u>   D4	L 140 04		╨┦
9. PERFORATIONS/SCREENS				h: 140 (Measurable	-	1
Perforations Method	- Annormality of the second	: Starte	_		15	<u> </u>
Screen Screen Type johnson				CERTIFICATION		
From To Slot Size Number Diameter Material Casing Liner				l minimum well construction standards were to time the rig was removed.	1	
135 140 .010 — 5" SS 🗆 🛛	comj	jilea w	iui ai u	ie time the rig was removed.		
	Firm	Name	COON	SE WELL DRILLING Firm M	No Ar	10
	1 111				10. <u>-10</u>	<u></u>
	Firm	Officia		Augo pane Date 5	5-23-0	15
10. STATIC WATER LEVEL OR ARTESIAN				Jan		<u> </u>
PRESSURE:	Supe	rvisor	or Oper	rator Date 5	j-23-0	5
<u>44ft. below ground</u> Artesian Pressure <u>1b</u>	F			(Sign once if Firm Official & Operator)	<u> </u>	<u> </u>
Depth flow encountered ft. Describe access port or control				$\mathbf{X}$		

<u>44ft. b</u> elow ground		Artesian Pressure	1b
Depth flow encountered	ft,	Describe access port	or control
devices:			

103	837844	2-
Form 238-7 IDAHO DEPARTMENT OF WATER RESC	Office Use Only 46 DURCES Well ID No. <u>40 홍교 77</u>	j6
6/02 WELL DRILLER'S REPORT		-
	Twp Rge Sec	-
1. WELL TAG NO. D 0042283	1/4 1/41/4	
Water Right or Injection Well No	12. WELL TESTS:	
CONV	Pump Bailer Air Flowing Artesian     Yield gal/min. Drawdowg Pumping Level Tige	
2. OWNER: C+S Interiors BEHRENN	Yield gal./min.         Drawdown         Pumping Level         Tigge           40         N/H         40         15 Min	
Address 5520 N/ WILDGODSE		
City MERIDIAN State ID Zip 83642		
3. LOCATION OF WELL by legal description:	Water Temp Bottom hole temp.	<u> </u>
You must provide address or Lot, Bik, Sub or Directions to well.	Water Quality test or comments: <u>C/EAV</u>	<b>.</b>
Twp North 🖄 or South 🖸	Depth first Water Encounter	20
Rge East East West X		ater
Sec $\underline{Z}$ NW 1/4, 1/4 $\underline{S}$ 1/4 Gov't Lot $\underline{C}$ County $\underline{C}$ Average 1/4 $\underline{S}$ County $\underline{C}$ County $\underline{C}$ Average 1/4 $\underline{S}$ County $\underline{C}$	Bore Dia. From To Remarks: LithoJogy Water Quality & Temperature Y	
Lat: : : Long:	10 0 15 Brn Clay	X
Address of Well Site 23281 Cauymun	10 15 18 Gravel / Clay Layers	K
(Give at pass, name of mad + Distance to Read or Landmark) City <u>CaldWe///</u>	6 18 33 Gravel / Thin Clay Layers X 6 33 45 Gravel X	+
t 28 Bik Sub Name N Slope Estates	$\begin{array}{c c} 6 & 33 & 73 & Grever \\ \hline 6 & 45 & 60 & Clay \end{array}$	×
	6 45 60 Clay 6 60 86 time Sand K	
USE:	6 86 90 Clay	X
🔆 🗘 Municipal 🛛 Monitor 🗆 Irrigation	6 90 100 Corse Sand X	
Thermal Injection Other		
TYPE OF WORK check all that apply (Replacement etc.)		
New Well		-
a, DRILL METHOD: Air Rotary □ Cable □ Mud Rotary □ Other		L
		<u> </u>
SEALING PROCEDURES		$\vdash$
Seal Material From To Weight / Volume Seal Placement Method		
bentime + ver cuttings		1
Vas drive shoe used? X IN Shoe Depth(s) 92		
Vas drive shoe seal tested?		–
. CASING/LINER:		<u> </u>
Diameter From To Gapge Material Casing Liner Welded Threaded		-
6 +2 92 1/4 Steel × 0 × 0		
	RECEIVED	L
ength of Headpipe Length of Tailpipe		
acker KY $\Box$ N Type <u>Liquic</u> k	JAN 1 2 2006	
J	WATER RESOURCES	<u> </u>
PERFORATIONS/SCREENS PACKER TYPE	WESTERN REGION	
creen Type & Method of Installation SS Wire / Yull back		L
From To Slot Size Number Diameter Material Casing Liner	100	
95 100 14 5 55 Screen	Completed Depth // Measurat	ue)
	Date: Started & Completed	<u>)</u>
	14. DRILLER'S CERTIFICATION	۵
Filter Material From To Weight / Volume Placement Method	I/We certify that all minimum well construction standards were complied with at the time the rig was removed SYLUATIV ADAMSON	~
	Company Name DOMAESTIC PUMP + DRAMANS 42	2
	TVIAI ILT	<u>.</u>
	Principal Driller And Advancen Date 15/2	10
	and Driller or Operator II Date	
epth flow encounteredft Describe access port or control devices:	Operator I Date	

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63 INJECTION WEL						840115 Office Use 0	<sup>nly</sup> 10146	57
Form 238-7 6/02 IDAHO DEPARTMENT OF WATER RESC WELL DRILLER'S REPORT	- · · ·	JES			Well ID N Inspected		Sec.	
1. WELL TAG NO. D $0046577$ DRILLING PERMIT NO. $894729 - 840115$ Water Right or Injection Well No. $63 - W - 217 - 001$	12. V		ESTS:	🗆 Bailer		1/4 1/4 Elowing Ar	1/4 : :	
2. OWNER: Name C+S Interiors, Abram Antonucci Address 55, ZON Wildgoose City Meridian State ID Zip 83642	· •	rield gal. 		Drawdov <b>30 G</b>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	pumping Level	Tim	e
3. LOCATION OF WELL by legal description:		r Temp. r Quality		59°	Alone		n hole temp	
You must provide address or Lot, Blk, Sub. or Directions to well. Twp North I or South					•	_ Depth first Wa		er <b>18</b> Water
Rge.     3     East     or     West     X       Sec.     2	Bore Dia.	From	То	-	-	er Quality & Temp	T	Y N
Lat: : : Long: : Canym Lane Address of Well Site Z3281 Canym Lane	10000	031518	3 15 18 42	Brn C	lay lay +G	Pravel		K K
Lt. 28 Blk Sub. Name North Slope ESDES		/4		0,470	u			
USE:     Domestic Municipal Monitor Irrigation     Thermal Injection								
5. TYPE OF WORK check all that apply       (Replacement etc.)         New Well       Modify       Abandonment       Other								
6. DRILL METHOD:								
7. SEALING PROCEDURES								
Gran Kent 0 18 40046 Ouerbore								
Was drive shoe used?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?       Image: Was drive shoe seal tested?								
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded Casing Liner Welded Threaded Casing Liner Welded Threaded				i	RECE	IVED		
41/3 22 12 PUC . K					JUN 2	6-2006		
Length of Headpipe Length of Tailpipe Packer Y X Type					WATER RE WESTER	SOURCES NREGION		
9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method Screen Type & Method of Installation Factory								
Screen Type & Method of Installation From To Slot Size Number Diameter Material Casing Liner 42 22 20 45 PUC Screen	Cor	npleted	Depth		42		 	gurable)
		e: Sta		0/9/04	1	Completed	6/9/	26
10. FILTER PACK						Misore v	mplied with	at the
Filter Material         From         To         Weight / Volume         Placement Method		bany Na	Ň	OMES		ump	_ Firm No.	483
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:        ft. below ground         Artesian pressurelb.	and	ipal Dril	-	side on	buint	Date	6/10	106
Depth flow encounteredft. Describe access port or control devices:	Drille Opera	r or Ope ator I		jn 1	+ U	Date		106
FORWARD WHITE COPY			Ope	rator I must h		erator <i>Required.</i> of Driller/Operate	or II.	
	10 W	AICH	nc300					

					ė	83632	1		
62						Office Use C D No. 401	Dnly A	<b>6</b> 8	
Form 238-7 IDAHO DEPARTMENT OF WATER RE	SOUR	CES					<u>079</u>	<u>70</u>	
WELL DRILLER'S REPO	RT					cted by			
1 WELL TAO NO D 00 14/979						Rge			
1. WELL TAG NO. D <u>004/972</u>						1/4 1/4			
DRILLING PERMIT NO	12. V	VELLT	ESTS:		Lat:	: : Long		:	
Water Right or Injection Well No.		🗆 P	ump	Bailer	Air Air	-	Artesian		
2. OWNER: ( )		/ield gal./		Drawdov	wn	Pumping Level		Time	
Name Sett Shelmun		35				136	31	hrs.	
Name Seff Shelman Address 16380 Franklin Rd. Apt. E-9				<u></u>					
City Namba State Id Zip 8368	2								
	Wate	r Temp.				Botto	om hole ter	np	
3. LOCATION OF WELL by legal description:	Wate	r Quality	/ test or	comments:	900	d clear	010	¥	
You must provide address or Lot, Blk, Sub. or Directions to well.				-		Depth first W			
Twp North & or South 🗆	13. L	ITHOL	OGIC	LOG: (Descr	ibe repai	rs or abandonmer	it)	Wa	iter
Rge East □ or West ₽ Sec. 3	Bore	<b>F</b>		Demodes	Lithology	Mater Quality & Tor		Y	N
Sec. 3 $N = 1/4$ $S = 1/4$ $1/4$ Gov't Lot County Carry on 160 acres	Dia.	From	To	Remarks:	Lithology,	Water Quality & Ter	nperature		
	10	Ø,	4	TOPS	Q. 1	· · · · · · · · · · · · · · · · · · ·			X
Lat: : : Long: Address of Well Site 23363 Tundra Ct.		7	20	Sand				⊢	1
city Caldwell	_ 6	ao	47	Sand	÷ 91	avel			r
(Give at least name of road + Distance to Read or Landmark) Lt. 18 Blk Sub. Name North Slope E	54 斗	49	67	Ismclu	<u>y</u>				h
LI. 10 BIK SUD. Name <u>NORM STOPE PS</u>		67	73	meds	san c			11	.
	$- \square$	73	94_	ISPA C.	lay,			┿╼──	1
4. USE:		94	105	Sandy	'Ç/a,	¥			
Z Domestic I Municipal I Monitor I Irrigation		105	118	KSMC	ay			+_	r
Thermal Injection Other	_ \4	118	al	FILS				×	1
			133	Brack				+	1
5. TYPE OF WORK check all that apply (Replacement etc.		33	138	med S	and			P	
🗶 New Well 🛛 Modify 🛛 Abandonment 🗌 Other	—								. <u> </u>
6. DRILL METHOD:			ļ					+	
Air Rotary Cable Mud Rotary Other								<u> </u>	
								+	
7. SEALING PROCEDURES			<u> </u>						+
Seal Material From To Weight-Volume Seal Placement Method									
Dermi plag 0 18 550/65 10"ourban	<b>e</b>					•••·		+	
dry pour,								+	
Was drive shoe used? BY DN Shoe Depth(s) 733-8								+	
Was drive shoe seal tested?  Y XN How?									
								+	
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Three									
			ł —						
			1		-	ECEIVE	ם י		
Length of Headpipe 5 Length of Tailpipe 6					H	EVENNE		-	
Packer RY DN Type 3-Rib			1	·	_	OCT 2 5 200	15		
								-	
9. PERFORATIONS/SCREENS PACKER TYPE						NATER RESOUR	CES		-
Perforation Method						NATER RESOUR	ION		
Screen Type & Method of Installation John Son Wash DU. Va	an c							1	
From To Slot Size Number Diameter Material Casing Liner	Co	mpleted	Depth		13	817	(N	leasura	able)
TOO TOO NO TOTO DES.				9/26	lor	-	c/	17/	6
	Da	te: Sta	rted	7149	100	Completed	41	$\underline{\mathcal{L}}$	$\overline{\mathcal{N}}$
				ERTIFICATIO		مادىدامەرمە	- ا- ا- محمد م	iela - 4 - 1	
10. FILTER PACK			ihat all n was rem		constructio	on standards were o	omplied w	un at tr	ie
Filter Material From To Weight / Volume Placement Method		Ŭ	_			11.1-	<b>T</b> 24 -		
	Com	pany Na	ame <u>//</u>	<u> 26.5.0</u>	n Lee	<u>1/dr\$1159</u>	<u> <u> </u></u>	<u>بح</u> ، ۱۵	d L
				DNC	2	<u>v/drst/ing</u>	ata //0	bi	Jo.
11 STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Princ and	npal Dri		y l	au	D.		'al f	Ne
ft. below ground Artesian pressurelb.		r or On	erator II			D	ate		
Depth flow encounteredft. Describe access port or control devices:									
_ Sani Seal Well Cap	— Oper	ator I _		Data da di Di 1	las de LP		ate		
/			Ωn			g Operator <i>Require</i> ature of Driller/Oper			
FORWARD WHITE C									



# IDAHO DEPARTMENT OF WATER RESOURCES

835629	469
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WELL TAG NO. D 0041755         I've JAL Roy 30: See 2           I'll Sid I've JAL         I've JAL           OWNER:         I've JAL           I've JAL         East           OWNER:         I've JAL           I've JAL         East           I've JAL         East           OWNER:         I've JAL           I've JAL         East           I've JAL         Ea					Office Use Only inspected by	
. WELL TAG NO. D0041785		WELL DRILLER'S	REPORT			Sec 7
RILLING PERMIT NO.       I. WELL TESTS:       Lat:       Logit	WELL TAG NO. D 0041755				1/4 Stal 1/4 × 1	
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Intel         AutoLURE - BLUE CANYON HOMES         Intel                MIDDLETON             State ID 2/P 83644               40               110             2 H                 MIDDLETON          State ID 2/P 83644               Water Tamp.               Bolton hole lamp.                 MidDLETON          State ID 2/P 83644               Water Tamp.               Bolton hole lamp.                 Water Tamp.               Bolton hole lamp.               Bolton hole lamp.                 Water Tamp.               Bolton hole lamp.               Water Tamp.               Bolton hole lamp.                 March Rater of Work Site Same               Same 2               Water Tamp.               Bolton hole lamp.                 Bolton hole lamp.               Same 2	OWNED			Bailer D	Air Flowing Art	
Bits         State ID         Zp         S3644         Write Could with the indexident in the boottom must agree with writen location.         Boottom location must agree with writ		UEO	Tield gai.min.	Uravidown	· • · · · · · · · · · · · · · · · · · ·	
MIDDLETON         State ID Zip 83644           LOCATION OF WELL by legal description:         Wether Tormo.         Bottom hole terms.           Interp loadion must agree with writen loadion.         Weth Tormo.         Doth first Water Encounter           Interp loadion must agree with writen loadion.         Tryp. 4         North Zi or South         Dupth first Water Encounter           Interp loadion must agree with writen loadion.         Tryp. 4         North Zi or South         Dupth first Water Encounter           Interp loadion must agree with writen loadion.         Tryp. 4         North Zi or South         Dupth first Water Encounter           Interp loadion must agree with writen loadion.         Torp Boult HARD PAN         South III         South IIII           Interp loadion must agree with must base for an interman         County CANY DNI         South IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	dress 23444 WHALE BAY	ME9	40		110	<u>2 H</u>
LOCATION OF WELL by legal description:         Water Tamp.         Bottom hole tamp.           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         Depth first Wester Encounter           with map boation must agree with written location.         N         N         Depth first Wester Encounter           with map boation must agree with written location.         N         N         N         N           with map boation must agree with written location.         N         N         N         N           with map boation must agree with written location.         N         N         N         N           with map boation must agree with written location.         N         N         N         N           With map boation must agree with written location.         N         N         N         N <tr< td=""><td></td><td>State ID Zio 92644</td><td></td><td></td><td>+</td><td></td></tr<>		State ID Zio 92644			+	
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Normality         Depth first Water Encounter           Image: Section 2         Two:         Image: Section 2         Image: Secti		escription:	Water Quality test or o	comments:	boutonn note temp,	
N         12. LITHOLOGIC LOG:         (Describe repairs or standomment)           Image: Pape 3         Eest 1         or South 1           E Pape 3         Eest 1         or Week 10           Sec. 2         114         SW1 14           Govi Lot         County CANYON         100 0           Soc. 4         Sw1 14         SW1 14           Govi Lot         County CANYON         100 0           Address of Wel Site SAME         20 30 SAND/ SOME CLAY           Soc. 1         County CANYON           Address of Wel Site SAME         70 85 SAND SOME CLAY           Image: Address of Wel Site SAME         20 30 SAND/ SOME CLAY           Soc. 1         Sub. Name           USE:         Sub. Name           IDOmestic         Municipal           Implection         Other           Statistical Method         Other           IDOMORY Clave at this apply         (Reptacement etc.)           IDINO Well         Municipal           INNOW Well         Modify           Statistical Method         Other           Statistical Method         Method           Intermined frame         Address of Well Site Same           Statistical Method         Other           Statin	etch map location must agree with written location.			C	epth first Water Encounter	
Twp.         4         North X         or         South C           FRom.         2         Est C         or         West X           South C         0         5         COP SOIL/ HAED PAN           South C         0         5         20         SANDY CLAY           South C         0         5         20         SANDY CLAY           South Lat:         Convy CANYON         10         0         5         20         SANDY SOME CLAY           South Lat:         Convy CANYON         20         70         SANDY SOME CLAY         20           South C         Conv         Conv         20         70         SANDY SOME CLAY         20           South C         Conv         Conv         20         70         SANDY CLAY         20           South C         Markier Lateronny         Conv         20         70         SANDY CLAY         20           USE:         Ston Name         Conv         SANDY CLAY         20         21         24         34         SANDY CLAY         20           USE:         Ston Name         Convert         Convert         24         34         SANDY CLAY         20         24         34         SANDY CLAY	<u> </u>		12. LITHOLOG			
Lat.         Converted         Con						<u> </u>
Image: No. 3         East         Image: No. 7         Weet KU         10         0         S COP SOIL / HARD PAN           Sac. 2         Totage: No. 7         Sec. 1		—	Dia. From	To Remarks: Liti	ology, Water Quality & Temper	ature Y
30       70       SADU/ GRAVEL       X         Address of Well Site SAME       Cfty       SS       SS       SS       SAND/       SS       SAND       X         Bit       Sub. Name       Cfty       109       SS       SAND/       CAY       X         USE:       Sub. Name       109       116       Lat FRS SAND/ CLAY       X         USE:       Municipal       Monitor       Irrigaton       116       124       134       SAND/ JOINT CLAY       X         USE:       Municipal       Monitor       Irrigaton       124       134       SAND/ JOINT CLAY       X         USE:       Municipal       Monitor       Irrigaton       124       134       SAND/ JOINT CLAY       X         Self-Bar Pack       Modify       Abandonmert       Other       124       134       SAND/ JOINT CLAY       X         Self-Bar Pack       Mud Rotary       Other       Self-Bar Pack       MoUINT       METHOD       Self-Bar Pack       MOUINT       METHOD         Self-Bar Pack       MAOUNT       METHOD       Self-Bar Pack       MAOUNT       METHOD       Self-Bar Pack       MOUNT       METHOD       Self-Bar Pack       Self-Bar Pack       Self-Bar Pack       Self-Bar	East	Chalum Alast	10 0	5 TOP SOIL	/ HARD PAN	
30         700 SAND/ GRAVEL         X           Address of Well Site SAND         Chy         St SAND         X           Bit         Sub Name         Chy         St SAND         X           Bit         Sub Name         109 SAND/ CLAY         X           USE:         Sub Name         116 LAYERS SAND/ CLAY         X           USE:         Sub Name         119 116 LAYERS SAND/ CLAY         X           USE:         Municipal         Monitor         Impetor         124 134 SAND / JOINT CLAY         X           USE:         Municipal         Monitor         Impetor         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Monitor         Impetor         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Mud Rotary         Other         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Mud Rotary         Other         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Mud Rotary         Other         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Mud Rotary         Other         124 134 SAND / JOINT CLAY         X           Self Bar Pack         Mud Rotary         Other         134 134 134 134 134 134 134 134 134 134	Sec2 10 acm	1/4 <u>JW 1/4</u> IW 1/4		20 SANDY CI	AY	
S         Address of Weil Site SAME         70         85         SAND         X           (0) will start care of rold = Distance to Rold of Linkings         City         65         109         SAND         X           (0) will start care of rold = Distance to Rold of Linkings         Mannitor         Tringeton         116         Larget SaND/ CLAY         X           (1) SEE:         (1) Son Rold of Linkings         Mannitor         Tringeton         116         Larget SaND/ CLAY         X           (2) Difference         (1) See SaND/         CLAY         X         116         Larget SaND/ CLAY         X           (2) Differe         (1) See SaND/         (1) See SaND/         CLAY         X           (2) Differe         (1) See SaND/         (1) See SaND/         (1) See SaND/         X           (2) Differe         (2) See SaND/         (2)	Gov't Lot County	CANYON	6 20	30 SAND/ SC	MECLAY	
City       00       SANUT CLAY         Bit       Sub. Name       116       124 HARD CLAY         Bit       Sub. Name       116       124 HARD CLAY         JSE:       Municipal       Monitor       Irrigation         Thermal       Injaction       Other       124       134 SAND / JOINT CLAY         VPE OF WORK: check all that apply       (Replacement etc.)       124       134 SAND / JOINT CLAY       X         Well Modify       Abandonment       Other       124       134 SAND / JOINT CLAY       X         Well Modify       Abandonment       Other       124       134 SAND / JOINT CLAY       X         Sealeritar       Injacton       Other       124       134 SAND / JOINT CLAY       X         Well Modify       Abandonment       Other       124       134 SAND / JOINT CLAY       X         Sealeritar       Injacton       Injacton       Injacton       Injacton       Injacton       Injacton         Sealeritar       From To Secle of Bunde       Material       Caling Liner       Injacton       <	5			70 SAND/ GH	AVEL	X
(Diver Beak instruct of fold of Defaulties Fload of Lamena's Sub. Name           109         116         [LAYERS SAND/ CLAY             [Bit	SAM	······		109 SANDY C	AV	X
Bit.         Sub. Name           JSE:	(Give at least name of road + Distance to Road or Landmark)	City		116 J AYERS S		- +
JSE:       Municipal       Monitor       Irrigation         INDERSIC       Municipal       Monitor       Irrigation         Thermal       Injection       Other       Internal       Injection         YPE OF WORK: check all that apply       (Replacement etc.)       Injection       Injection       Injection         Will Modify       Abandomment       Other       Injection       Injection       Injection         Will Modify       Abandomment       Other       Injection       Injection       Injection         RILL METHOD:       Injection       Injection       Injection       Injection       Injection         Statistic Prom       To       Sects or Sect	Blk Sub. Name			124 HARD CL		
Image: Second State Sta			124	134 SAND / JC	INT CLAY	X
Image: Seal Fiber Screen Type       Cealing Liner         Material       Processors         Material       Cealing Liner		1 minutian				
YPE OF WORK: check all that apply       (Replacement etc.)         Image: New Well       Modify       Abandonment         Image: New Well       Modify       Abandonment       Other         Image: New Well       Modify       Abandonment       Other         Image: New Well       Mult Rotary       Other       Image: New York         Image: New Well       Mult Rotary       Other       Image: New York         Image: New York       Mult Rotary       Other       Image: New York         Image: New York       Mult Rotary       Other       Image: New York         Image: New York       Image: New York       METHOD       Image: New York         Image: New York       Image: New York       METHOD       Image: New York         Image: New York       Image: New York       Image: New York       Image: New York         Image: New York       Image: New York       Image: New York       Image: New York         Image: New York       Image: New York       Image: New York       Image: New York       Image: New York         Image: New York       Image: New York       Image: New York       Image: New York       Image: New York       Image: New York         Image: New York       Image: New York       Image: New York       Image: New York       I						
Image: New Weil       Modify       Abandonment       Other         DRILL METHOD:       Image: Nucl Rotary       Other         SEALING PROCEDURES:       Seal/Filter Pack       AMOUNT         SEALING PROCEDURES:       Seal/Filter Pack       AMOUNT         Material       From       To       Sector         VTONITE       0       18       400#         vitre shoe used?       Image: Natural       Casing       Image: Natural         drive shoe used?       Image: Natural       Image: Natural       Image: Natural         drive shoe used?       Image: Natural       Image: Natural       Image: Natural         drive shoe used?       Image: Natural       Image: Natural       Image: Natural       Image: Natural         drive shoe used?       Image: Natural       Image: Natural       Image: Natural       Ima	L Definer L Decos				·····	
Seal/Filter Pack         AMOUNT         METHOD           Material         From         To         Sectes or Pounde           NTONITE         0         18         400#         POUR           drive shoe used?         Image: Sectes or Pounde         Image: Sectes or Pounde         Image: Sectes or Pounde           drive shoe used?         Image: Shoe Depth(s)         118         Image: Shoe Depth(s)         118           drive shoe seal tested?         Image: Shoe Depth(s)         118         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(s)         118         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(s)         118         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(s)         118         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(s)         Image: Shoe Depth(s)         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(s)         Image: Shoe Depth(s)         Image: Shoe Depth(s)         Image: Shoe Depth(s)           Ative shoe seal tested?         Image: Shoe Depth(shoe Depth(shoe Depth(s))         Image: Shoe Depth(sho	TYPE OF WORK; check all that apply	(Replacement etc.)				
Seat/Filter Pack         AMOUNT         METHOD           Material         From         To         Sector Pounda           NTONITE         0         18         400#         POUR	TYPE OF WORK: check all that apply INew Well Modify Abandonment	(Replacement etc.)				
Instrum         Instrum <t< th=""><th>TYPE OF WORK: check all that apply         Image: Second state of the /th><th>(Replacement etc.)</th><th></th><th></th><th></th><th></th></t<>	TYPE OF WORK: check all that apply         Image: Second state of the	(Replacement etc.)				
NTONITE       0       18       400#       POUR         drive shoe used?       X       N       Shoe Depth(s)       118         drive shoe seal tested?       X       N       How? AIR         CASING/LINER:       Attriat       Casing Liner       Welded Threeded         6       +2       118       250 STEEL       X       Image: Completed Depth of Tailpipe         th of Headpipe       Length of Tailpipe       WATER RESOURCES       Water REGION         Perforations       Method       Completed Depth       134       (Measurabit 134         114       134       20       4.5       PVC       X       Image: Started 8/29/2005       Completed 8/30/2005         13.       DRILLER'S CERTIFICATION:       We certify that a minimum will completion estimation and indicate wate centric using and indited wate indicate wate centric using and indited wate indited wat	TYPE OF WORK: check all that apply         Image: Second state in the	(Replacement etc.) ] Other				
drive shoe used? XY N Shoe Depth(s) 118   drive shoe seal tasted? XY N How? AIR     CASING/LINER:   eter From To Guage Material   Casing Liner Welded Threaded   6 +2 118 250STEEL X   A.5 114 134 PVC     A To Store Screen   A To Store Screen <t< td=""><td>TYPE OF WORK: check all that apply         Image: Second /td><td>(Replacement etc.) Other Other Other</td><td></td><td></td><td></td><td></td></t<>	TYPE OF WORK: check all that apply         Image: Second	(Replacement etc.) Other Other Other				
drive shoe seal tested?       Image: Normal Casing Liner Welded Threaded         Ster       From       To       Guage       Material       Casing Liner Welded Threaded         6       +2       118       250 STEEL       Image: Casing Liner Welded Threaded       RECEIVED         4.5       114       134       PVC       Image: Casing Liner Welded Threaded       Watter RESOURCES         h of Headpipe       Length of Tailpipe       Image: Western REGION       Western REGION         ERFORATIONS/SCREENS:       Perforations       Method       Image: Casing Liner         Image: Tool Side Size Number Diameter Material       Casing Liner       Image: Started 8/29/2005       Completed B/30/2005         114       134       20       4.5       PVC       Image: Started 8/29/2005       Completed 8/30/2005         13.       DRILLER'S CERTIFICATION:       Image: Started 8/29/2005       Method 8/30/2005       Image: Started 8/29/2005	TYPE OF WORK: check all that apply         Image: Second State Second State State Second State Stat	(Replacement etc.) ] Other ] Other ] Other 1TMETHOD				
drive shoe seal tested? If Y N How? AIR         CASING/LINER:         ster       From To Guage Material Casing Liner Welded Threaded         6       +2       118       250 STEEL       X         1.5       114       134       PVC       X       Image: Step 0 6 2005         h of Headpipe       Length of Tailpipe       WATER RESOURCES         Perforations       Method       Method         A Screens       Screen Type       Casing Liner         1       To       Sid Size       Number Diameter Material       Casing Liner         14       134       20       4.5       PVC       X         1       To       Sid Size       Number Diameter Material       Casing Liner       X         14       134       20       4.5       PVC       X         13       DRILLER'S CERTIFICATION:       We certify that all minimum well construction standards upper appendix due to the standards uppendix due to the stan	YPE OF WORK: check all that apply         Image: Second S	(Replacement etc.) ] Other ] Other ] Other 1TMETHOD				
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CASING/LINER:       Received         abor       From       To       Guage       Material       Casing       Liner       Welded       Threaded         6       +2       118       250STEEL       X	YPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable         Mud Rotary       DESCRIPTION         SEALING PROCEDURES:       Sacks or Pounde         Material       From       To         Material       From       To         NTONITE       0       18       400#	(Replacement etc.) ] Other ] Other ] Other METHOD POUR				
Iter       To       Guage       Material       Cealing       Liner       Welded       Threaded         6       +2       118       250 STEEL       X	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To       Sacks or Pounda         NTONITE       0       18       400#         drive shoe used?       X Y       N       Shoe Depth(s)	(Replacement etc.) ] Other ] Other ] Other [] T METHOD [] POUR ] 118				
Instruction       County of material       Casing three welded       Three ded         6       +2       118       250 STEEL       IX	TYPE OF WORK: check all that apply         Image: Second Structure         Image: Second Structure         Second Structure         Second Structure         Second Structure         Material         From         To         Pounda         NTONITE         O         drive shoe used?         Image: Structure         Material         From         To         Pounda         NTONITE         O         Material         From         Shoe Depth(s)         drive shoe seal tested?         Image: Shoe Structure         Image: Shoe Str	(Replacement etc.) ] Other ] Other ] Other [] T METHOD [] POUR ] 118				
4.5       114       134       PVC       IX	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To       Pounda         NTONITE       0       18       400#         drive shoe used?       X Y       N       Shoe Depth(s)         drive shoe seal tested?       X Y       N       How?	(Replacement etc.) ] Other ] Other ] Other [] METHOD [] POUR [] [] 118 [] AIR		RECE		
the of Headpipe Length of Tailpipe       ERFORATIONS/SCREENS:      Perforations Method      Screens Screen Type      To. Skit Size Number Diameter Material Casing Liner      14 134 20 4.5 PVC     X     X     X     X     Completed Depth 134 (Measurable Date: Started 8/29/2005 Completed 8/30/2005      13. DRILLER'S CERTIFICATION:      We certify that all minimum well construction standards up a construction standard	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable         Mud Rotary       Beal/Filter Pack         Seal/Filter Pack       AMOUN         Material       From         To       Sacks or         Pounda       Pounda         NTONITE       0       18       400#         drive shoe used?       X Y       N       Shoe Depth(s)         drive shoe seal tested?       X Y       N       How?         CASING/LINER:       eter       From       To       Guage       Material       14	(Replacement etc.)  Other Other  T METHOD  POUR  118 AIR Casing Liner Welded Threaded				
th of HeadpipeLength of Tailpipe PERFORATIONS/SCREENS: Perforations Method Screen S Screen Type n To: Slot Size Number Diameter Material Casing Liner 14 134 20 4.5 PVC XI 13. DRILLER'S CERTIFICATION: We certify that all minimum well construction standards upon approximation standard	TYPE OF WORK: check all that apply         Image: Second Structure       Modify       Abandonment         DRILL METHOD:       Mud Rotary       Image: Second Structure         SEALING PROCEDURES:       Mud Rotary       Image: Second Structure         Seat/Filter Pack       AMOUN         Material       From       To         NTONITE       0       18       400#         drive shoe used?       Image: Shoe Depth(s)       How?         CASING/LINER:       Image: Material       6       +2       118       250 STEEL	(Replacement etc.) Other Other T METHOD POUR 118 AIR Casing Liner Welded Threeded XX				
Perforations       Method         Perforations       Method         Screen S       Screen Type         1       To       Slot Size       Number       Diameter       Meterial       Casing       Liner         14       134       20       4.5       PVC       IX       IX       IX       Date:       Started       8/29/2005       Completed & 8/30/2005         13.       DRILLER'S CERTIFICATION:       We certify that all minimum well construction standards up to an analysis       We certify that all minimum well construction standards up to an analysis	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To         NTONITE       0       18       400#         drive shoe used?       X Y       N       Shoe Depth(s)         drive shoe seal tested?       X Y       N       How?         CASING/LINER:       eter       From       To       Guage         eter       From       To       Guage       Material       for	(Replacement etc.)  Other  Other  POUR  II8  AIR  Casing Liner Welded Threeded  X  X  X  X  X  X  X  X  X  X  X  X  X		SEP 0	6 2005	
Perforations       Method         Screens       Screen Type         1       To.       Slot Size         14       134       20         4.5       PVC       IX         IX       IX       IX <td>TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment         ORILL METHOD:         X Air Rotary       Cable         Mud Rotary         SEALING PROCEDURES:         Seal/Filter Pack         Material         From       To         Material         NTONITE       0         18       400#         drive shoe used?       X Y         N       Shoe Depth(s)         drive shoe seal tested?       X Y         CASING/LINER:       400#         4.5       114         134       PVC</td> <td>(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]</td> <td></td> <td>SEP 0</td> <td>6 2005</td> <td></td>	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment         ORILL METHOD:         X Air Rotary       Cable         Mud Rotary         SEALING PROCEDURES:         Seal/Filter Pack         Material         From       To         Material         NTONITE       0         18       400#         drive shoe used?       X Y         N       Shoe Depth(s)         drive shoe seal tested?       X Y         CASING/LINER:       400#         4.5       114         134       PVC	(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]		SEP 0	6 2005	
Screen S       Screen Type         1       To.       Stot Size       Number       Diameter       Material       Casing       Liner         14       134       20       4.5       PVC       IX       IX       Date:       Started       8/29/2005       Completed       8/30/2005         13.       DRILLER'S CERTIFICATION:       IX       IX </td <td>TYPE OF WORK: check all that apply         X         New Well       Modify         Abandonment         ORILL METHOD:         X       Air Rotary         Cable       Mud Rotary         SEALING PROCEDURES:         Seal/Filter Pack       AMOUN         Material       From       To         Sectors or       Pounda         NTONITE       0       18         drive shoe used?       X       N         shoe Depth(s)       drive shoe seal tested?       X         drive shoe seal tested?       X       N         How?       CASING/LINER:       118         ator       To       Guage       Material         6       +2       118       250       STEEL         ator       114       134       PVC       1</td> <td>(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]</td> <td></td> <td>SEP 0</td> <td>6 2005</td> <td></td>	TYPE OF WORK: check all that apply         X         New Well       Modify         Abandonment         ORILL METHOD:         X       Air Rotary         Cable       Mud Rotary         SEALING PROCEDURES:         Seal/Filter Pack       AMOUN         Material       From       To         Sectors or       Pounda         NTONITE       0       18         drive shoe used?       X       N         shoe Depth(s)       drive shoe seal tested?       X         drive shoe seal tested?       X       N         How?       CASING/LINER:       118         ator       To       Guage       Material         6       +2       118       250       STEEL         ator       114       134       PVC       1	(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]		SEP 0	6 2005	
To.       Stot Size       Number       Diameter       Material       Casing       Liner         14       134       20       4.5       PVC       IX       IX       Completed B/29/2005       Completed B/29/2005       Completed B/30/2005         14       134       20       4.5       PVC       IX       IX <td< td=""><td>TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To         Modify       N       Shoe Depth(s)         drive shoe used?       XY       N       How?         CASING/LINER:       Baterial       G       +2         4.5       114       134       PVC         h of Headpipe       Length of T         ERFORATIONS/SCREENS:       Length of T</td><td>(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]</td><td></td><td>SEP 0</td><td>6 2005</td><td></td></td<>	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment       DRILL METHOD:         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To         Modify       N       Shoe Depth(s)         drive shoe used?       XY       N       How?         CASING/LINER:       Baterial       G       +2         4.5       114       134       PVC         h of Headpipe       Length of T         ERFORATIONS/SCREENS:       Length of T	(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]		SEP 0	6 2005	
To.     Stot Size     Number     Diameter     Material     Casing     Liner       14     134     20     4.5     PVC     IX       Image: Started B/29/2005     Image: Started B/29/2005     Completed B/30/2005       13.     DRILLER'S CERTIFICATION:       Image: Web certify that all minimum web construction standards units at the started biology of the started started biology of the started s	TYPE OF WORK: check all that apply         X         Image: Analytic interval inte	(Replacement etc.) ] Other ] Other ] Other ] Other [ 118 118 AIR [ 2asing Liner Welded Threeded [ X   X   ] ] [ X   ] ]		SEP 0	6 2005	
14 134 20 4.5 PVC IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	TYPE OF WORK: check all that apply         X New Well       Modify       Abandonment         ORILL METHOD:       Mud Rotary       Description         X Air Rotary       Cable       Mud Rotary         BEALING PROCEDURES:       Seal/Filter Pack       AMOUN         Material       From       To         Material       From       To       Seaces or Pounda         NTONITE       0       18       400#         drive shoe used?       X Y       N       Shoe Depth(s)         drive shoe seal tested?       X Y       N       How?         CASING/LINER:       State of the	(Replacement etc.) ] Other ] Other ] Other [ IIB		SEP 0 WATER RE WESTERN	6 2005 SOURCES I REGION	
//We certify that all minimum well construction standards were complied with at	TYPE OF WORK: check all that apply         X         New Well       Modify         Abandonment         ORILL METHOD:         X       Air Rotary         Cable       Mud Rotary         Seal/Filter Pack       AMOUN         Material       From         To       Sacks or         Pounda       Pounda         NTONITE       0       18       400#         drive shoe used?       X       N       Shoe Depth(s)         drive shoe used?       X       N       How?         CASING/LINER:	(Replacement etc.)         Other         Other         Other         Other         Image: Contract of the second s	Completed Depth 13 Date: Started 8/29/	SEP 0 WATER RE WESTERN	6 2005 SOURCES I REGION	
the time the rink are removed	TYPE OF WORK: check all that apply         Image: Seal Seal Seal Seal Seal Seal Seal Seal	(Replacement etc.)         Other         Other         Other         Other         Image: Contract of the second s	Date: Started 8/29/	SEP 0 WATER RE WESTERN	6 2005 SOURCES I REGION Completed 8/30/200	
	TYPE OF WORK: check all that apply         X New Well       Modify         Abandonment         ORILL METHOD:         X Air Rotary       Cable         Mud Rotary         Seal/Filter Pack         Seal/Filter Pack         Material         From         To         Sacks or         Pounda         NTONITE       0         0       18         drive shoe used?       X Y         N       Shoe Depth(s)         drive shoe seal tested?       X Y         N       How?         CASING/LINER:       Length of To         eter       From       To         G       +2       118       250 STEEL         4.5       114       134       PVC         th of Headpipe       Length of To         Perforations       Method       Ascreens         Ascreens       Screen Type       Material	(Replacement etc.)         Other         Other         Other         Image: Control of the contr	Date: Started 8/29/ 13. DRILLER'S ( We certify that all minin	SEP 0 WATER RE WESTERN 4 2005 CERTIFICATIO	6 2005 SOURCES I REGION Completed 8/30/200	5

57	ft. below ground		ian pressure	ib
Depth flow en	countered	ft.	Describe access por	t or control
devices:			•	

Firm Official	the	Date	9/2/2005	
and	01:04			-
Driller or Operator	(Sign once if Firm Official & Operator)	Date	9/2/2005	
	(Sign once # Firm Official & Operator)			

2			835570		
02		_	Office Use Only 4	70	1
Form 238-7 IDAHO DEPARTMENT OF WATER RES		5	Well ID No. 40606	<u> </u>	
WELL DRILLER'S REPOR	Т		Inspected by Twp RgeSec		,
1. WELL TAG NO. D <u>0041771</u>			1/4 1/4 1/4	 1	
DRILLING PERMIT NO.	12. WEL	TESTS		:	
Water Right or Injection Well No.		2 Pump	Bailer Air Elowing Artesian		_
2. OWNER:		gal./min.	Drawdown Pumping Level T	ime	
Name_Blackherse Construction	100	2	123 2hi	rs	
Name_ <u>Blackherse</u> <u>Construct</u> ar Address <u>3910 H:11</u> Rd. City <u>Boise</u> State d Zip <u>83703</u>					
City <u>130,5c</u> State <u>C</u> Zip <u>83703</u>					
3. LOCATION OF WELL by legal description:	Water Terr		comments: <u>Good Clear Color</u>		
You must provide address or Lot, Blk, Sub. or Directions to well.	_				70
Twp North 🖉 or South 🗆	13 UTH	•	LOG: (Describe repairs or abandonment)		
Rge. $3$ East $\Box$ or West $\lambda$ Sec. $3$ . $N \not = 1/4$ $S \not = 1/4$ $1/4$	Born	. r		T	ater
Sec. 3, NEF 1/4 SE 1/4 1/4 Gov't Lot County County 150 acres 1/4	Dia. Froi	m To	Remarks: Lithology, Water Quality & Temperature	Y	N
Lat: : : Long: : :	00	<u>4</u>	Top Soil	ļ	H
Address of Well Site City Caldwell	44	17	Clay & Sand		$\boldsymbol{\times}$
(Give at least name of road + Distance to Road or Landmark)		10	Hid Pan		Κ.
(Give at least name of road + Distance to Road or Landmank) Lt. 23 Blk Sub. Name <u>North Slope ESH</u>	h/1	221	Care Sand	<u> </u>	X
	621		Clay E sare		Ê
4. USE:	14	153	Sandy Clax		$\overrightarrow{\mathcal{A}}$
Construction	J'S	371	Broclar		H
□ Thermal □ Injection □ Other		1 78	Sancyclay		+
	72	7 81	Sand	<u> </u>	+
5. TYPE OF WORK check all that apply (Replacement etc.)	8	196	Bracky,	<b> </b>	K
XNew Well 🗌 Modify 🗍 Abandonment 🗌 Other	74	2 104	SandyClay		Ł
6. DRILL METHOD:		7 11 6	Race Sance	<u>n</u>	X
🗶 Air Rotary 🗌 Cable 🗌 Mud Rotary 🗌 Other		5 125	med sand	X	<u>   ` `</u>
7. SEALING PROCEDURES	110	100		<u> </u>	+
Seal Material From To Weight Volume Seal Placement Method					
Derma Dlug 0 19 550/6 10'overbore				L	
				<u> </u>	<u> </u>
Was drive shoe used?					
Was drive shoe seal tested? CY XN How?		_		<b> </b>	+
8. CASING/LINER:	· · · · · · · · · · · · · · · · · · ·	_ <u> </u>			
Diameter From To Gauge Material Casing Liner Welded Threaded	d b		······································	!	
6 +2-4" 115 250 Steel 1 1 X 1					
				ļ 	<u> </u>
Length of Headpipe <u>5</u> Length of Tailpipe <u>8</u> Packer $\aleph$ Y $\Box$ N Type <u>3</u> $R'_{16}$		_	RECEIVED	+	
				<u> </u>	<u> </u>
9. PERFORATIONS/SCREENS PACKER TYPE			RECEIVED OCT 25 2005	$\vdash$	+
Perforation Method			WATER RESOURCES WESTERN REGION		+
Screen Type & Method of Installation <u>Sol/ISON</u> Set pullbuck From To Slot Size Number Diameter Material Casing Liner			WESTERN REGION		<u> </u>
$\frac{115}{15} \frac{1}{125} 1$	Complete	ed Depth		easura	able)
	Date: S	tarted	8/35/05 Completed 8/36	5/0	as
			ERTIFICATION	<u> </u>	
10. FILTER PACK			ninimum well construction standards were complied with	h at th	ıe
Filter Material From To Weight / Volume Placement Method	time the rig				
	Company	Name <b>X</b>	erision well doilling Itte No	5	22
		/	CC'SION Well drilling Film No PP Causen Date 91	1/	1-
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Principal D and	)riller _	<u>YFUALCEN</u> Date <u>7</u>	6/	02
3.3 ft. below ground Artesian pressurelb.	and Driller or C	perator II	Date	¢	
Depth flow encounteredft. Describe access port or control devices: San' Sea / well Cap					
_ own sup a con sup	Operator I		Date		
·		Op	Principal Driller and Rig Operator Required. erator I must have signature of Driller/Operator II.		

FORWARD WHITE COPY TO WATER RESOURCES

WELL DRILLER'S I Use Typewriter or Ballpo	
1. DRILLING PERMIT NO. <u>63 - 97 - W- 0406 - 000</u> Other IDWR No	11. WELL TESTS:
2. OWNER: Hector Villarreal NameAddress 3404 S. Conference	Yield gal./min.     Drawdown     Pumping Level     Time       30     5'     10'     16'
City Caldwell State J. Zip 836 05	Weter Temp
3. LOCATION OF WELL by legal description: Sketch map location must agree with written location.	Water Temp Bottom hole temp Water Quality test or comments: Depth first Water Encountered &
N	12. LITHOLOGIC LOG: (Describe repairs or abandonment)
Twp North 🗹 or South 🗆 Rge East 🗅 or West 🚱	Bore Dia. From To Remarks: Lithology, Water Quality & Temperature Y 8 0 4 Junt
<b>x</b> E Sec. <u>3</u> , <u>1/4</u> <u>NE</u> 1/4 <u>SU</u> 1/4	1 4 9 Sandy dist
Gov't Lot Could acres to acres to acres Lat: : : Long: : :	11 8 9 gravel L 6 9 22 Sanda elan
S Address of Well Site 23547 Stone Lu	Z2 30 5:14
(Give at least name of road + Dislance to Road or Landmark)	30 38 fine sand
.tBlkSub. Name	38 41 white clay 41 58 silly clay
	58 66 clay
4. USE:	66 75 5:14
左Domestic □ Municipal □ Monitor □ Irrigation □ Thermal □ Injection □ Other	75 76 gred sand to
5. <b>TYPE OF WOP</b> <sup>V</sup> check all that apply (Replacement etc.)	76 96 SH w thin layers clag 96 lot good sand
New Well Modify	104105 clay
S. DRILL METHOD	104/105 clay
Air Rotary Cable 🗀 Mud Rotary 🗆 Other	104/105 clay
S. DRILL METHOD         Image: Air Rotary	104/105 clay
S. DRILL METHOD         Air Rotary         Air Rotary         Cable         Mud Rotary         Other         7. SEALING PROCEDURES         SEAL/FILTER PACK         Material         From         To         Sacks or	104/105 clag
S. DRILL METHOD         Air Rotary         Air Rotary         Cable         Mud Rotary         Other         7. SEALING PROCEDURES         SEAL/FILTER PACK         AMOUNT         METHOD	RECEIVED RECEIVED
S. DRILL METHOD         Air Rotary         Air Rotary         Cable         Mud Rotary         Other         7. SEALING PROCEDURES         SEAL/FILTER PACK         Material         From         To         Sacks or         Pounds         Baterial         From         To         Sacks or         Pounds	RECEIVED
S. DRILL METHOD         Air Rotary         Air Rotary         Grable         Mud Rotary         Other         7. SEALING PROCEDURES         SEAL/FILTER PACK         Material         From         To         Sacks or         Pounds         Baterial         From         To         Sacks or         Pounds         Description         Baterial         From         To         Pounds         Description         Description         Baterial         From         Sackson         Baterial         Pounds         Description         Baterial         Baterial	IOT ICS     Clay       RECEIVED       RECEIVED       MAR     0 4 1933       FEB 1 3 1998       WATER RESOURCES
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other         Air Rotary       Cable       Mud Rotary       Other         SEAL/FILTER PACK       AMOUNT       METHOD         Material       From       To       Sacks or         Pounds       3       25       150       Pour_in         Was drive shoe used?       Y       N       Shoe Depth(s)       Note State of the state of t	RECEIVED RECEIVED MAR 0 4 1933 FEB 1 3 1998 WATER RESOURCES Department o Water Resources WESTERN REGION
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other	IOT ICS     Clay       RECEIVED       RECEIVED       MAR     0 4 1933       FEB 1 3 1998       WATER RESOURCES
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other         7. SEALING PROCEDURES         SEAL/FILTER PACK       AMOUNT       METHOD         Material       From       To       Sacks or         Pounds       7       25       150       Pour         Waterial       From       To       Sacks or       Pounds         Waterial       From       7       25       150       Pour       id         Was drive shoe used?       Y       N       Shoe Depth(s)	IOT ICS       Clay         RECEIVED         RECEIVED         MAR       0.4 1993         FEB 1.3 1998         WATER RESOURCES         Department o         Water Resources         WESTERN REGION         RECEIVED         RECEIVED
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other         7. SEALING PROCEDURES         SEAL/FILTER PACK       AMOUNT       METHOD         Material       From       To       Sacks or         Pounds       7       25       150       Pour         Material       From       To       Sacks or         Baterial       From       To       Sacks or         Naterial       From       To       Sacks or         Nas drive shoe used?       Y       N       Shoe Depth(s)         Mas drive shoe seal tested?       Y       TeN       How?         Barrieter       From       To       Gauge       Material         Casing       Liner       Welded       Threaded         Casing       Liner       Welded       Threaded         Casing       Liner       Microsoffill       Image: Casing         Sength of Headpipe       6       Length of Tailpipe       Image: Casing	$R = C = I \vee E D \qquad RECEIVED$ $R = C = I \vee E D \qquad RECEIVED$ $MAR = 0.4 1993 \qquad FEB = 1.3 1998$ $WATER RESOURCES$ $R = C = I \vee E D \qquad RECEIVED$ $DEC = I \vee E D \qquad RECEIVED$ $DEC = 1.2 1997 \qquad DEC = 0.5 1997$ $WATER RESOURCES$
6. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other	IOP ICS       Clay         RECEIVED         RECEIVED         MAR       0 4 1993         FEB 1 3 1998         WATER RESOURCES         Department o         Water Resources         WESTERN REGION         RECEIVED         DEC 1 2 1997         DEC 0 5 1997
6. DRILL METHOD   Air Rotary   Cable   Mud Rotary   Other     7. SEALING PROCEDURES     SEAL/FILTER PACK   Material   From   To   Sacks or   Pounds     Bendrin Le     3   25   150     Pounds     Bendrin Le     3   25   150   Pounds     Bendrin Le     3   25   150   Perforations     Mud Rotary   Other     Mud Rotary   Other     Mud Rotary   Other     SEAL/FILTER PACK   AMOUNT   Material   From   To   Sacks or   Perform   To   Gauge   Material   Casing   Liner   Welded   To   Gauge   Material   Casing   Liner   Welded   Threaded   Diameter   From   To   Gauge   Material   Casing   Liner   Welded   Threaded   Casing   Liner   Welded   Threaded   Diameter   From   To   Ga	Image:
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other	$R = C = I \vee E D \qquad RECEIVED$ $R = C = I \vee E D \qquad RECEIVED$ $MAR = 0.4 1993 \qquad FEB = 1.3 1998$ $WATER RESOURCES$ $R = C = I \vee E D \qquad RECEIVED$ $DEC = I \vee E D \qquad RECEIVED$ $DEC = 1.2 1997 \qquad DEC = 0.5 1997$ $WATER RESOURCES$
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other         7. SEALING PROCEDURES         Material       From       To       Sacks or         Material       From       To       Sacks or         Baterial       From       To       Sacks or         Baterial       From       To       Sacks or         Waterial       From       To       Sacks or         Waterial       From       To       Sacks or         Was drive shoe used?       Y       N       Shoe Depth(s)         Mas drive shoe seal tested?       Y       PM       How?         B. CASING/LINER:       Casing       Liner       Welded       Threaded         Casing       From       To       Gauge       Material       Casing       Liner       Welded       Threaded         Casing       From       To       Gauge       Material       Casing       Liner       Welded       Threaded         Casing       From       To       Gauge       Material       Casing       Liner       Welded       Threaded         Casing       From       To       Gauge       Material       Casing       Liner       Line	Image:
6. DRILL METHOD Air Rotary Cable Mud Rotary Other 7. SEALING PROCEDURES SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or Pounds Dentro 125 150 Pour in Material From To Pounds Was drive shoe used? EY = N Shoe Depth(s) Was drive shoe used? EY = N Shoe Depth(s) Was drive shoe seal tested? Y DEN How? 8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded Giff F2 98 255 Sfeel A Material Casing Liner Welded Threaded Bength of Headpipe 6 Length of Tailpipe Perforations Method <u>Jin 2 1936</u> Perforations Method <u>Screens</u> Perforations Method <u>Screen Type 304 Stainless</u> From To Stot Size Number Diameter Material Casing Liner	Image:
6. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other         7. SEALING PROCEDURES         Material       From       To       Sacks or         Material       From       To       Sacks or         Baterial       From       To       Sacks or         Baterial       From       To       Sacks or         Baterial       From       To       Sacks or         Was drive shoe used?       Y       N       Shoe Depth(s)         Was drive shoe seal tested?       Y       The How?         Baterial       Casing       Liner       Welded         CASING/LINER:       Casing       Liner       Welded       Threaded         Casing       Liner       Welded       Threaded       Casing	Image:
6. DRILL METHOD Air Rotary Cable Mud Rotary Other 7. SEALING PROCEDURES SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or Pounds Density of Pounds Density of Pounds Density of Pounds Density of Pounds Was drive shoe used? FY = N Shoe Depth(s) Was drive shoe used? FY = N Shoe Depth(s) B. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded Casing Liner Welded Threaded Diameter From To Gauge Material Casing Liner Welded Threaded Diameter From To Gauge Material Casing Liner Gauge Material Screen Type 304 Statutess From To Stot Size Number Diameter Material Gauge Liner 99 104 .016 Casing Liner Gauge Liner Casing Liner Casing Liner	Image:
6. DRILL METHOD   Air Rotary Coable Mud Rotary Other 7. SEALING PROCEDURES   SEAL/FILTER PACK     SEAL/FILTER PACK     Material     From     To   Sacks or   Pounds     Backs or   Backs or   Pounds     Waterial     From   To   Sacks or   Pounds     Backs or   Pounds     Waterial     From   To   Gauge   Material     Casing   Liner   Welded   Threaded   Casing   Liner   Welded   To   Gauge   Material   Casing   Liner   Welded   Threaded   Casing   Liner   Welded   To   Socreen   Screen   To   Socreen   Screen   To   Socreen   Static WATER LEVEL OR ARTESIAN PRESSURE:	Image:
S. DRILL METHOD         Air Rotary       Cable       Mud Rotary       Other	Image:

USE TYPEWRITER	QR
BALL POINT PEN	1

State of Idaho Department of Water Resources

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BALL POINT PEN WELL DRILLE	ER'S	S RE	POR	RT Ind Have Sog Ker	<u> </u>	
State law requires that this report be filed with the days after the completion or	Direct	or, Dep	artment (	of Water Resources within 30	÷	r.
1. WELLOWNER	7. V	VATER	LEVEL	706 7, QAR', ( )	· · ·	
Name LARRY LEMMASTER				$\mathbf{\mathcal{CO}}$ feet below land surface es $\Box$ No G.P.M. flow		
Address CALDWELL DOAMO	Г Т	empera	ture	° F. Quality <u>6000 46845</u>	,	
Owner's Permit No				n pressurep.s.i. □ Valve □ Cap □ Plug		
	┢┈───			·····		
2. NATURE OF WORK	8. V	VELL T	EST DA	ТА		
🕅 New well 🗌 Deepened 🔲 Replacement	L	] Pump		Bailer      Coher      A      i	<u>R</u>	
		15		20 3		
		·				
3. PROPOSED USE		· · · -				
🖾 Domestic 🗋 Irrigation 🗌 Test 🗌 Other (specify type)	9. 1	LITHOL	.OGIC L	.OG		
🗋 Municipal 🔲 Industrial 🗹 Stock 🗖 Waste Disposal or	Hole Diam.	·	pth	Material		ter No
Injection	6	From	To V	TOPSOIL	103	Ž
4. METHOD DRILLED		4	5	HAROPAN BROWNSAND		$\triangleleft$
🕱 Cable 🛛 Rotory 🖓 Dug 🗖 Other		5	32 74	FRAUEL	_	Z
5. WELL CONSTRUCTION		24		BROWN SAND		$ \mid $
		80	110	BROWN SAND		6
Diameter of hole inches Total depth feet		130		BROWN CLAY		$\mathbb{Z}$
Casing schedule: 🖾 Steel 🔲 Concrete Thickness Diameter From To	<u> </u>	134		WHITE SAND		
1250 inches _6 inches +_/ feet _133 feet						
inches inches feet feet feet	ļ			-		ļ
inches inches feet feet					-+	
inches inches feet feet	L					+
Was casing drive shoe used ? Ø Yes □ No Was a packer or seal used? □ Yes Ø No						
Perforated? 🛛 Yes 📈 No			<u> </u>		-	
How perforated?		1				
Number From To						+
perforations feet feet feet						ļ
perforations feet feet		-		<u> </u>	<u>-</u>	
Well screen installed? 🖾 Yes 📓 No		· · ·				1
Manufacturer's name	<u> </u>			001157		+
Type Model No		<u> </u>				<u> </u>
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet						
		1				
Gravel packed?  Yes X No Size of gravel feet to _	┝					+
<b>,</b>	<b> </b>	+				
Surface seal depth // Material used in seal Coment grout						+
Secting procedure used 🛄 Starry sit 🛄 Temporary surface casing				· · · · · · · · · · · · · · · · · · ·		
😡 Overbore to sosi daptiv		-				
6. LOCATION OF WELL	1 10. V	Nork sta	rted <u>3</u>	-15-75 finished 3-24-	15	
Sketch map location must agree with written location.	<b></b>			, - ,		~
63 <u> </u>	1			TIFICATION	[	-
Subdivision Name	1			etzek well <u>Prl</u> firm		
W E	ł	Address	<u>RT.  </u>	HOMEDALE JOA Date	-4-	<u>.75</u>
Lot No Block No		Signed t	y (Firm	Official) Kinnet M.	· · · · · · · · · · · · · · · · · · ·	
County CANYON			(	and		
NW 1/5 E 1/2 Sec. 3, T. 4 N/4, R. 3 MW	ł					
	4		COPY T	O THE DEPARTMENT		

00	1	11	~	
<u>83</u>	0		$\Sigma \Sigma$	'2
$\overline{\mathbf{v}}$	~ .		$\nabla \mathbf{A}$	<b>U</b>

Depth flow encountered 120 ft.

devices: WELL CAP

### **IDAHO DEPARTMENT OF WATER RESOURCES** WELL DRILLER'S REPORT

Office Use Only									
Inspec	Inspected by								
Twp_		_Rge		Sec					
I	_1/4		1/4		1/4				
Lat:	:	:	Long:	:	:				

Firm No. <u>563</u>

Date 09/23/2005

N Y

1. DRILLING PERMIT NO	11.	WELI	L TES	TS:	Lat:	Long: :	:
Other IDWR No.				🔲 Bailer			sian
2. OWNER:		gal/min.	D	awdown	Pumping Level		
Name CORY HAMRICK	50		-		115	1 HR	
Address 9935 GANTERBURY						+	
City BOISE State ID Zip 83704	Wate	er Temr			Bottom hole ter	<u> </u>	
3. LOCATION OF WELL by legal description:	Wat	er Quali	ty test	or comments	Bottom hole ter		· · ·
Sketch map location must agree with written location		-		De	epth first Water End	ountered 75	
N	12.	LITH	DLOG	IC LOG: (	Describe repairs o	r abandonn	nent)
Twp. 4 North 🛛 or South 🗌					· •		Í
	Wat			<del></del>			
W E Rge. <u>3</u> East i or west $\boxtimes$	Bore Dia	From	To	Remarks:Li	ithology, Water Quali	ty & Temp.	Y
Sec. 2 1/4 SW 1/4 SW 1/4 10 acres 40 acres 160 acres	10"	0	4	TOP SOIL		-	
	10"	4	18	BROWN C	LAY		
s Gov't lot County <u>CANYON</u>	6"	18	35	BROWN C	LAY		
Lat: <u>:</u> Long: <u>:</u>	6"	35	75	GRAVEL			
Address of Well Site TUNDRA CT.	6"	75	114		AY STRIPS		
City MIDDLETON (Give at least name of road + Distance to Road or Landmark)	6"	114	120	TAN CLAY	Y		Ţ
	6"	120	128	SAND			
Lt. 20 Blk. 1 Sub. Name <u>NORTHSLOPE ESTA</u> TE	5						
						_	
4. USE:		L					
Domestic I Municipal I Monitor I Irrigation Thermal Injection I Other		<b> </b>		RE	CEIVED		
5. TYPE OF WORK check all that apply (Replacement etc.)		ļ					
New Well  Modify  Abandonment  Other				SI	<u>EP 2 7 2005</u>		_
6. DRILL METHOD				1475			
Air Rotary Cable Mud Rotary Other			-		TER RESOURCES		_
7. SEALING PROCEDURES							
SEAL/FILTER PACK AMOUNT METHOD	<u> </u>			<u> </u>			
Material From To Sacks or		<b></b>		<b>├[</b>		A .	
Pounds           BENTONITE         0         18         450         POUR	<u> </u>			<b>L</b>	<b>WIGHN</b>	AL	
	<u> </u>						-
	┣──	ļ			<u> </u>		
		[			·		
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) Was drive shoe seal tested? $\boxtimes$ Y $\square$ N How? air							
8. CASING/LINER:						· · · ·	
Diameter From To Gauge Material Casing Liner Welded Threaded	<u> </u>						_
6" +2 118 250 STEEL 🖾 🗆 🖂 🗆					·	<u> </u>	
					· · · · <b>-</b>		
Length of Headpipe 8' Length of Tailpipe	<u> </u>						
9. PERFORATIONS/SCREENS	Cor	npleted	Dept	n <u>: 128</u>	(	Measurable	.)
Perforations Method	Date	: Starte	d <u> 09/2</u>	2/2005	Comp	leted <u>09/22/</u>	<u> 2005 </u>
Screen Screen Type huston	13.	DRILI	.er's	CERTIFIC	CATION		
From The Clast Size Muscher Director Methods Contract Line					vell construction sta	ndards were	:
From         To         Slot Size         Number         Diameter         Material         Casing         Liner           123         128         250         5"         SS         Image: Casing         Imag	comj	plied wi	ith at th	e time the rig	g was removed.		
	<b>E</b> !	NT	anon			<b>7</b> 7' 3	T
	r im	i iname	GEUR	<u>ur post w</u>	<u>ELL DRILLING</u>	Firm N	NO. <u>50</u>
· · · · · · · · · · · · · · · · · · ·	Firm	) Officia	1	1	1	Date 0	0/22
10. STATIC WATER LEVEL OR ARTESIAN	r. 11 (13		-2	<del>57</del> 7			71431
PRESSURE;	Supe	ervisor o	or One	ator		Date	
<u>63ft. below ground</u> Artesian Pressurelb	2 apr		~ ~Po		Firm Official & Operate		

Describe access port or control

Date: 9/23/2005 Time:2:19:52 PM

Attn: Rob Amended well Loy O.K. Mr 5/1/414

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Form 238-7 3/95-C96

devices: WELL CAP

/-					4/4
_	(	Office	Use () 8 <i>3()</i>	nly	
Inspec	sted b	<u>у_</u>	<u>536</u>	$\underline{\mathbf{U}}$	<u> </u>
Twp_		_Rge		Sec	
	1/4		1/4		1/4
Lat:		:	Long:		- : I

·Np

1. DRILLING PERMIT NO419 -55	11.	WEL		STS:		· ·	<u></u>	·	
Other IDWR No. REVISED 04/28/2006			Pump	Bailer	🛛 Air	Flo			
2. OWNER:		d gal/mir	1. D	rawdown	Pumping Le		Time		
Name BOB WRIGHT	90		_		100		<u>1 HR</u>		-
Address 318						<u> </u>			
City PETRA WAY State ID Zip 83607	Wat	or Tom	<u> </u>		Dottom h				
3. LOCATION OF WELL by legal description:	Wat	er Oual	ity test	or comments:		he temp	)		
Sketch map location must agree with written location	mat	or Quan	.1cy 1051		oth first Wate	er Encor	intered 75		—
Ν	12	LITH	01.00	HC LOG: (I					·
Twp. 4 North 🖂 or South 🗌	1.449		onor		rescribe rep	ans 01 3	avangoum	em)	
	Wat	er							
W E Rge <u>3</u> East or West 🖾	Bore	From	To	Remarks:Litl	nology, Water	Quality	& Temp	Y	N
$\frac{1}{10 \text{ acres}} = \frac{1/4}{10 \text{ acres}} = \frac{1/4}{40 \text{ acres}} = \frac{1/4}{160 \text{ acres}} = \frac{1/4}{10 \text{ acres}} = \frac{1/4}{10 \text{ acres}} = \frac{1/4}{10 \text{ acres}} = \frac{1}{100  ac$	<u>Dia</u> 10"	0	4	TOP SOIL				1	
10 acres 40 acres 160 acres	10"	4	18		437				$\sum_{i=1}^{n}$
s Gov't lot County CANYON	6"	18		BROWN CI					$\mathbb{D}$
Lat: Long:	6"	37	37 56	BROWN CL	<u>.AY</u>			┥┥	[
Address of Well Site 14085 SILVER RIDGE RD.	6"	56	<u>.</u>	GRAVEL	4 37		<del></del>	-	$\sum$
	6"	75	75	BROWN CL			· · · · · · · · · · · · · · · · · · ·		P
City CALDWELL (Give at least name of road + Distance to Road or I andmark)	6"	109	109	SAND AND		<u> </u>		<u>– M</u>	
Lt 2 Blk 1 Sub_Name SLEEPY HOLBIN	1		114	TAN CLAY					$\geq$
LI <u>2</u> DIK <u>1</u> Sub Name SLEEP I HOLDIN	6"	114	120	SAND				<u> </u>	
4. USE:					······				
4. USE: Domestic I Municipal I Monitor I Irrigation			<u> </u>	<u> </u>					
Thermal Injection Other									
5. TYPE OF WORK check all that apply (Replacement etc.)	<u> </u>			WELL MAD				┶	
New Well [] Modify [] Abandonment [] Other				4" SCREEN		<u> IN TO</u>	STOP		
6. DRILL METHOD				FINE SAND					
Air Rotary Cable Mud Rotary Other							CEIV		_
7. SEALING PROCEDURES			<u>- C1</u>	IVED		81 ( <sub>700</sub> )	VEIV		6
SEAL/FILTER PACK AMOUNT METHOD		3 5					<u></u>		
Material From To Sacks or			YAB	0 5 2006		MA	YUIZ	10	
Pounds			IAI ST.			MANE	RECON		
BENTONITIE 0 18 450 POUR			NATER	RESOURCES		WES	TERN PEG		ſ
	Ļ		MESI						
					<u>licia</u>		<u> </u>		[
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>113</u>					<u>IUI</u>	<u>vm</u>			<u> </u>
Was drive shoe seal tested?				2			<u>=D</u>		;
8. CASING/LINER:							$\frac{1}{2}$		
Diameter     From     To     Gauge     Material     Casing Liner     Welded     Threaded       6"     +2     113     250     STEEL     Image: Comparison of the second sec									
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	ļļ								
4" 15 115 PVC 🗆 🛛 🗆									
						/×			
Length of Headpipe 8' Length of Tailpipe									
9. PERFORATIONS/SCREENS		pleted					easurable)		
Perforations Method	the second s		· · · · · · · · ·	12005 - 4 - 2		complete			_
Screen Screen Type huston/sand stopper				CERTIFICA			4-2-	<b>7-</b> ε	Xe
From To Slot Size Number Diameter Material Casing Liner				minimum wel			irds were		•
115 120 020 5" S.S	comp	uea wit	n at the	e time the rig v	vas removed				
115 119 4" SS 🗆	Firm	Nama (	TEUDA	<u>E POSI WEI</u>	יאוזיחסרן ז	G	Time NI-	EZA	3
	1.1111		JEORU	JE FUST WEL	T DRIFTIN	ā.	Firm No	. <u></u>	<u>)                                    </u>
	Firm	Official	·	1 -			Date <del>09/</del>	<u>120</u> 17	ഹ
10. STATIC WATER LEVEL OR ARTESIAN		Junoidi		~			- Date 077	<del></del>	
PRESSURE:	Super	visor or	r Opera	tor			Date 4-	27	/
58ft below ground Artesian Pressurelb	~ apor			Sign once if Firn	n Official & Or	perator)	17400		
Depth flow encountered 114 ft Describe access port or control				-	. 1				

Date: 4/28/2006 Time:8:14:21 AM

27	
٢	Form 238-7
	3/95-C96

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### IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

		82	$b^{0}$	415	•						
	Office Use Only										
	Inspec	ted b	У								
ĺ	Twp_		_Rge		Sec						
		_1/4		1/4		1/4					
	Lat:	:	:	Long:	:	:					

1. DRILLING PERMIT NO 419 -55	11	WEL	г. тр	TS.	Lat: : :	Long: :	:	
Other IDWR No			Pump		🛛 Air 🔲 Fl	owing Artes	ion	
2. OWNER:	Yiel	d gal/min		rawdown	Pumping Level	Time	ian	
Name BOB WRIGHT	90				100	1 HR		
Address 318	ļ							
City PETRA WAY State ID Zip 83607	Wet					L		
3. LOCATION OF WELL by legal description:	Wat. Wat	er Temj er Onal	p	or comments:	_Bottom hole tem	φ		_
Sketch map location must agree with written location	*• au	ci Quat	ity test		oth first Water Enco	untered 75		
N	12	ІТН	01.00		Describe repairs of	wahandonn		
Twp 4 North C or South				ыс 100. (л	coeffice repairs of	avanuonm	ещj	
	Wat	er						
	Bore	From	То	Remarks:Lith	iology, Water Qualit	y & Temp.	Y	N
$\frac{1}{10 \text{ acres}} = \frac{1}{10 \text{ acres}}$	Dia 10"	0	4	TOP SOIL			╘	$\mathbb{N}$
	10"	4	18	BROWN CL	AY		•	ĸ
s Gov't lot County CANYON	6"	18	37	BROWN CL			┥	Ŕ
Lat::Long:::	6"	37	56	GRAVEL	<del>.</del>	·····	┢	K
Address of Well Site 14085 SILVER RIDGE RD.	6"	56	75	BROWN CL	AY		┥┤	Ŕ
City CALDWELL (Give at least name of road + Distance to Road or Landmark)	6"	75	109	SAND AND	CLAY STRIPS			ŕ
	6"	109	114	TAN CLAY			Ħ	
Lt <u>2</u> Blk <u>1</u> Sub. Name SLEEPY HOLBIN	6"	114	120	SAND	·····		M	ŕ
							Ť٦	F
4. USE:						<del></del>	İΠ	Ē
Domestic I Municipal I Monitor I Irrigation								
5. TYPE OF WORK check all that apply (Replacement etc.)							$\Box$	
New Well [] Modify [] Abandonment [] Other								
6. DRILL METHOD							$\square$	
Air Rotary Cable Mud Rotary Other							$\square$	
7. SEALING PROCEDURES							$\square$	
SEAL/FILTER PACK AMOUNT METHOD								
Material From To Sacks or								_
Pounds		1					m	-
BENTONTITE 0 18 450 POUR								
							$\square$	
					•			
Was drive shoe used? $\boxtimes$ Y $\square$ N Shoe Depth(s) <u>113</u>					CINIAI			
Was drive shoe seal tested? X I N How? air					INNAL			
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded				- RÉCE				
$\frac{6''}{42} + \frac{113}{250} = \frac{250}{57EEI} \boxtimes \square \boxtimes \square$								
					4 2005			
				WATER R	ESOURCES			
Length of Headpipe <u>8'</u> Length of Tailpipe					N REGION			
9. PERFORATIONS/SCREENS		oleted ]				easurable)		
☑ Screens Screen Type huston		Started	_			ted 09/30/20	05	]
	15. D.	KILL	UK'S (	CERTIFICA	TION	-		
From To Slot Size Number Diameter Material Casing Liner	uwe c	eruty th	1at all 1	nmmum well time the rig w	construction stands	ards were		
195 200 020 5" S.S.	compr		i at the	une ne ng w	as removed.			
	Firm N	Jame G	EORG	E POSI WELI	L DRILLING	Firm No.	562	
				1 -	20-	1 HIII 140.	202	
10. STATIC WATER LEVEL OR ARTESIAN	Firm (	Official		\~//	10-	Date 09/3	30/2(	)05
PRESSURE:			allana a	11				
<u>58ft. below ground</u> Artesian Pressure 1b	Superv	visor or	Operat	or		Date		
Depth flow encountered 114 ft Describe access port or control			(1	Sign once if Firm	Official & Operator)			
devices: WELL CAP	Date: 10	)/3/2005	Time-7	-51-25 AM				

Date: 10/3/2005 Time: 7:51:25 AM

SCANNED

FEB 1 9 2006



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Inspected by         Twp Rg         1. WELL TAG NO. D 0047730       1/4         DRILLING PERMIT NO.       11. WELL TESTS:         Other IDWR No.       3. W - 228.001         2. OWNER:       Yield gal/min.       Drawdown	Use Only ge Sec 1/4 1/4 Long: : Flowing Artesian
Inspected by Twp Rg         1. WELL TAG NO. D 0047730       1/4         DRILLING PERMIT NO.       11. WELL TESTS:         Other IDWR No.       (23.W 228.OO)         2. OWNER:       Pump Bailer X Air         Name Sidney Roberts       40 gpm 80'         Address 23117 White Oak Dr.       State ID Zip 83605         City Caldwell       State ID Zip 83605	ge Sec 1/4 1/4 Long: Flowing Artesian evel Time
1. WELL TAG NO. D 0047730       1/4         DRILLING PERMIT NO.       11. WELL TESTS:         Other IDWR No.       (3.W228.00)         2. OWNER:       Pump         Name       Sidney Roberts         Address       23117 White Oak Dr.         City       Caldwell         State ID Zip 83605       Water Temp. 56	1/4     1/4       Long:     :       Flowing Artesian       evel     Time
DRILLING PERMIT NO.       Lat:         Other IDWR No.       (3.W. 228.00)         2. OWNER:       Pump         Name       Sidney Roberts         Address       23117 White Oak Dr.         City       Caldwell         State ID Zip 83605         Water Temp       56         Bottom hole	Long: : Flowing Artesian evel Time
Other IDWR No.     (3.W. 228.00)     11. WELL TESTS:       2. OWNER:     Pump     Bailer     X Air       Name     Sidney Roberts     Pump     Bailer     X Air       Address 23117 White Oak Dr.     City     Caldwell     State ID Zip 83605     80'     80'	Flowing Artesian evel Time
2. OWNER:       Yield gal./min.       Drawdown       Pumping Le         Name       Sidney Roberts       40 gpm       80'       80'         Address       23117 White Oak Dr.       City       Caldwell       State ID Zip 83605       Water Temp. 56       Bottom hole	evel Time
Name         Sidney Roberts         40 gpm         80'         80'           Address         23117 White Oak Dr.	
Address 23117 White Oak Dr. City Caldwell State ID Zip 83605 Water Temp 56 Bottom hole	
City Caldwell State ID Zip 83605	
Water Temp 56 Bottom hole	
	e temp. 56
	r Encounter 65'
N 12. LITHOLOGIC LOG: (Describe repairs or a	
Twp. 4 North X or South Dia. From To Remarks: Lithology, Water Qua	ality & Temperature
E Rge. 3 East or West X 10" 0 4' Top Soil	
Sec. <u>3</u> 1/4 <u>SE</u> 1/4 <u>SE</u> 1/4 <u>10''' <u>4'</u> <u>18' Brown Clay</u> Gov't lot <u>Coupty Convergence</u> 6'' <u>18' 30' Brown Clay</u></u>	
• Lat: 42 42 494' Long: 146 40 506' 6'' 30' 48' Gravel	
S Address of Well Site 23117 White Oak Dr. 6" 48' 63' Sand	
Gity Caldwall 6° 63 /6 Heaving Sand	
(Give at least name of road + Distance to Road or Landmark)         Caldweij         6''         76'         83'         Sand           Lt.         5         Blk.         1         Sub. Name         Sleepy Hollow         6''         83'         88'         Brown Clay	
6'' 88' 98' Sand	
4. USE: Domestic Municipal Monitor Irrigation	
Thermal X Injection Other	
5. TYPE OF WORK: check all that apply (Replacement etc.)	
6. DRILL METHOD:	
X Air Rotary Cable Mud Rotary Other	
7. SEALING PROCEDURES:	اا
Seal/Filter Pack AMOUNT METHOD	
Material From To Sacks or Pounds	
Bentonite 0 18' 10 Sacks Overbore	
Was drive shoe used? XY N Shoe Depth(s) 86'	
Was drive shoe seal tested? XY N How? Air	····· ································
8. CASING/LINER: Diameter From To Guage Material Casing Liner Weided Threaded	······
6" +2' 86' .250 Steel X X SCANNED	
6" +2' 86' .250 Steel X X 5" 80' 88' .250 Steel X X X	ED
AUG 1.5-2007	nn <b>7</b>
Length of Headpipe 8' Length of Tailpipe 0	UU1
9. PERFORATIONS/SCREENS: WATER RESOU	IRCES
Perforations Method Washdown WESTERN RE	
Completed Depth 98'	(Measu
	d <u>1/8/2007</u>
88' 98' .020 5" SS X 13. DRILLER'S CERTIFICATION:	
I/We certify that all minimum well construction standards w the time the rig was removed.	ere complied with at
Company Name Treasure Valley Drilling	Firm No. 560

### **10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:**

55	ft. below ground	Artesia	an pressure	lb
Depth flow encount	ered 65	ft.	Describe access	
devices: Cap				

476

cted by				
	Rge		Sec	
1/4		1/4	1	/4

Pump	Bailer	X Air Flowing	Artesian
Yield gal./min.	Drawdown	Pumping Level	Time
40 apm	80'	80'	1 Hr.

65'

#### nt)

				Wa	ater
Bore Dia	From	То	Remarks: Lithology, Water Quality & Temperature	Y	N
10"	0	4'	Top Soil		1
10"	4'	18'	Brown Clay		
6''	18'	30'	Brown Clay		
6''	30'	48'	Gravel		
6''	48'	63'	Sand		
6''	63'	76'	Heaving Sand	X	
6''	76'	83'	Sand		<u>.</u>
6"	83'	88'	Brown Clay		
6"	88'	98'	Sand	X	
	· · · · · · · · · · · · · · · · · · ·				· · · · · ·
· · · · · · · · · · · · · · · · · · ·	SCA	\NN	ED RECEIVED		· · · · · · · · · · · · · · · · · · ·
					·
	AUG	152	U07 JAN 17 2007 WATER RESOURCES WESTERN REGION		
	ted Depth				<u></u>
	Started <u>1/</u>				

Company Name Treasure Valley Drilling

Firm Official Date 1/9/2007 2 and (Sign once if Firm after Driller or Operator Date 1/9/2007 L, ial & Operator)

Form 238-7 9/82

## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRI

# 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	7.	WATI	ERLEV	ΈL				
Name Darrel + Sherri Anglen		Static	Water L	evel	186 feet below la	nd surface		
		Flowi	ing? □	] Yes	🛛 🖾 Nó 🛛 G.P.M. flo	w	- <b>v</b>	
Address 8212 Bine Ruge Ln. Brise, Id. 83705		Artesian closed in pressure p.s.i. Controlled by: 🔲 Valve 🔲 Cap 🛄 Plug				1 Plua		
Owner's Permit No. <u>63-90-Z-036</u>	TemperatureOF. Quality Describe artesian or temperature zones below.							
	+					below.		
2. NATURE OF WORK	8.	WELI	L TEST	DAT	Α			
Prew well Deepened Replacement		🗆 Pu	Imp	□₿	ailer 🗗 Áir 🗆	Other		_ <b>.</b> _
Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		Discharg	e G.P.M.		Pumping Level	Hours Pu	mped	
		10			30'	/		
3. PROPOSED USE	╏							
	-					<del>08010</del>	9_	
🔁 Domestic 🛛 Irrigation 🗔 Test 🗆 Municipal	9,	LITH	OLOGI	с го	G			
□ Other (specify type)	Bore	De From	pth		Material		Wa	ter No
	6		8		talsail		163	4
4. METHOD DRILLED		8	21		silf + sind			2
G Rotary G Air □ Hydraulic □ Reverse rotary		21	22 25		chay chart sand			4
□ Cable □ Dug □ Other			30		alay			~
5. WELL CONSTRUCTION		30 32	32.		gravel about sond	<u></u>		<b> </b>
Casing schedule: 🖉 Steel 🖾 Concrete 🗆 Other		40	45		sand		2-	
Thickness Diameter From To		45	54 55		ckry School		-	
inches inches feet feet		505	RA	R				
inches inches feet feet Was casing drive shoe used? If Yes I No		121						
Was a packer or seal used?  Ves  No		HAL						
Perforated?			APR	<u> </u>	1990			
How perforated?		Den	artment	of W	later Resources		  · ·	
Number From To		_ pop						
perforations feet								
perforations feet feet	L	···.	<u>}</u>	· · · · · · · · · · · · · · · · · · ·	······			
Well screen installed?  Ves  No Manufacturer's name								
Type Model No.								
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet			ļ					
Gravel packed? 🗆 Yes 🗳 🔨 🖾 Size of gravel			+					
Placed from feet to feet Surface seal depth <u>30</u> Material used in seal:					······			
🖾 Bentonite 🛛 Puddling clay 🛛			╞╴┥					
Sealing procedure used: ErSlurry pit Er Temp, surface casing Deverbore to seal depth					······································			
Method of joining casing: 🗆 Threaded 🛛 😫 Welded 🗖 Solvent			┟┉──┤					
Weld				·				
Describe access port	10.				<u>3/4/40</u> finished	-lela	~	
			ork starte	ed	<b>77777</b>		<i>.</i>	_
6. LOCATION OF WELL	11.	DRIL	LERS C	CERT	IFICATION			
Sketch map location must agree with written working			-		all minimum well constr		ds we	əre
Subdivision Name	in i				ne time the rig was remov			
W Subdivision Name		∕Firm I	Name_ <b>(</b>	3em	State Drilling F	irm No. <u>27</u>	Ζ	_ {
	/				Eayle Rd. Eagle D			
Lot Ne Block No					fficial) Lipon E			-
	Ĭ	Signed			1	4		-
County Canyon	1		10	anc Opera	tor) Drivet h	2 J -N.		
<u>SE 1/2 SE 1/2 Sec. 3, T. 4 OVS, R. 3 ED.</u>	Ē		, c		- imit h		••	-
USE ADDITIONAL SHEETS IF NECESSARY - F	ORWA	RD TH		TE C	OPY TO THE DEPART	1ENT		
and the second second second second second second second second second second second second second second second	<i>i</i> ·			- 石伊明 聖	Man Leon an Anna Anna Anna Anna Anna Anna Anna			

## 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

State law requires that this report be filed wi within 30 days after the compl					(M)
1. WELL OWNER	7.	WATE	ER LEV	VEL	
Name <u>Phillip Villarreal c/o Rick Sweaney</u>				level <u>6         f</u> eet below land su ⊐ Yes ⊊ No       G.P.M. flow _	
Address <u>Caldwell</u> , Idaho <u>R</u> 83605		Artesi	ian clos	sed-in pressure p.s.i.	-
Owner's Permit No			erature	y: □ Valve □ Cap □ Plug e9F. Quality	•
2. NATURE OF WORK			Desc	cribe artesian or temperature zones below	<u>v</u> ,
Z. NATORE OF WORK	о. 				
Abandoned (describe abandonment procedures such as			mp		er
materials, plug depths, etc. in lithologic log)		Discharge		. Pumping Level	Hours Pumped
	[				
3. PROPOSED USE					
🖾 Domestic 🗔 Irrigation 🗔 Test 🗔 Municipal	L				
□ Other (specify type)	Bore Diam.	Dep From		Material	Water Yes No
4. METHOD DRILLED	8	, Ö	20	. sand & clay layers	x
	6	20	. 55	sand & clay layers	x
⊠ Rotary ⊠ Air □ Hydraulic □ Reverse rotary □ Cable □ Dug □ Other	6	62		sand	X
5. WELL CONSTRUCTION	<u> </u>				
	$\vdash$				
Casing schedule: x Steel Concrete Other Thickness Diameter From To			 		
<u>.250</u> inches <u>6</u> inches + <u>2'6''</u> feet <u>58</u> feet inches inches feet feet					·
inches inches feet feet					
inches inches feetfeetfeetfeet					
was casing drive shoe used? Lat Yes Li No Was a packer or seal used? □ Yes Dat No		[			
Perforated?  ☐ Yes 🖾 No					
How perforated?					
Number From To					
perforations feet feet feet feet	[				
perforations feet feet feet				DECRIVI	
	[-]				
Manufacturer's name Type Model No Diameter Slot sizeSet fromfeet tofeet					
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet					
Gravel packed?  Yes I Yes Size of gravel					
Surface seal depth <u>20'</u> Material used in seal: 🛛 Cement grout				Western Regional -	
□ Bentonite   ⊠ Puddling clay   □ Sealing procedure used: □ Slurry pit □ Temp, surface casing					
3 Overbore to seal depth				002592	
Method of joining casing: 🗆 Threaded 🛛 Welded 🖵 Solvent Weld				MILK	
Cemented between strata		I	<u> </u>		
Describe access port	10.	Wor	k starte	ed <u>10-05-84</u> finished <u>10-</u>	-05-84
6. LOCATION OF WELL	11				
Sketch map location must agree with written location.	11,			that all minimum well construction	n standards were
N			•	n at the time the rig was removed.	) Stanuarus wyry
Subdivision Name		Firm N	ame R 1	<u>II.I. DOTY WEI.I</u> Firm N	- <u>(</u> )
w E			DR	RILLING	
Lot No Block No		Addres		<u>F. 7 BX. 311</u> Date Date aldwell, Idaho . 83605	
		Signed	by (Fir	rm Official)	2/4
S County <u>Canyon</u>				and R DAT	V
<u>SW</u> 1/4 <u>SE</u> 1/4 Sec. <u>3</u> , T. <u>4</u> N/ <b>2</b> , R. <u>3</u> <b>4</b> /W.			(L	Operator) <u>Scol. Klig</u>	

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

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J X	( N'	1

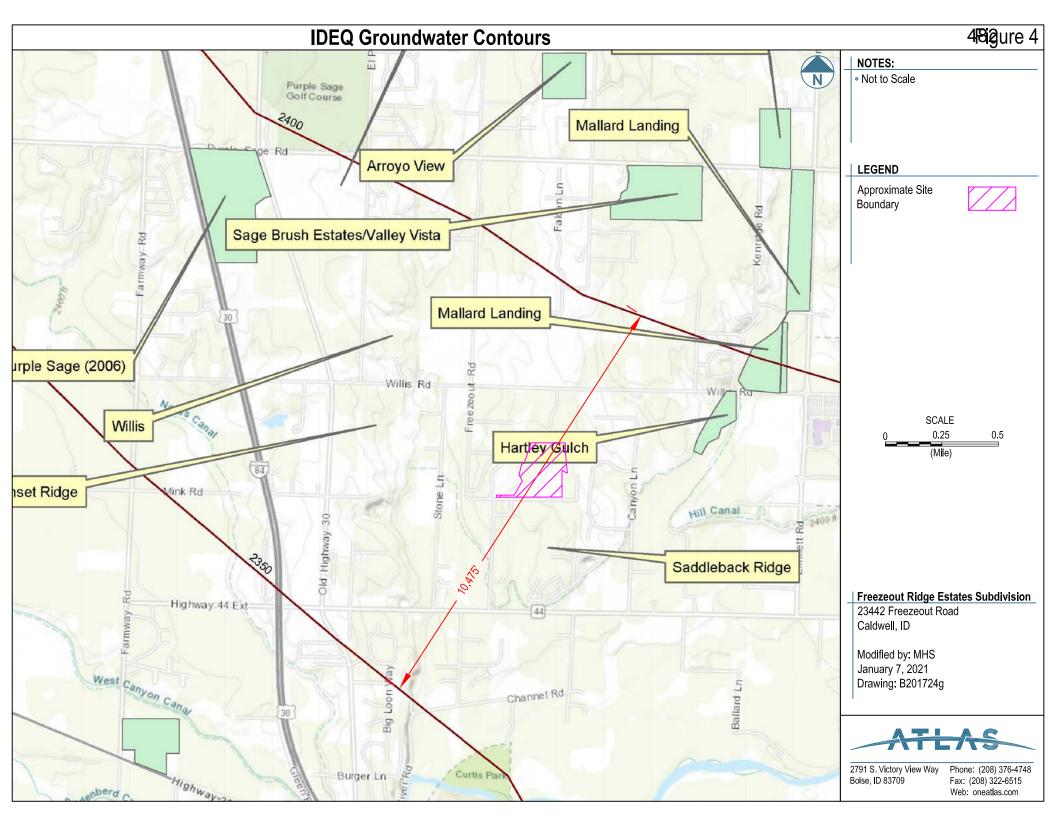
State law requires that this report be filed with the Director, Department of Water Administration within 30 days after the completion or abandonment of the well.

1. WELL OWNER	7. WATER LEVEL						
Name	Static water level <u>71</u> feet below land surface						
Address MIDELTON ID.	Flowing? 🗆 Yes 🛛 No G.P.M. flow Temperature F. Quality					_ <b>-</b> -	
	Artesian closed-in pressurep.s.i.						
Owner's Permit No		ontrolle	ed by	□ Valve □ Cap	C Plug		
2. NATURE OF WORK	8. V	ELL TI	EST DA	ТА			
Y New well 🗆 Deepened 🗆 Replacement				🗆 Bailer 🏾 🏝 Other			
Abandoned (describe method of abandoning)		ischarge O	<u>G.P.M.</u>	Draw Down LO	Hours Pi 2	imped	
· ·					+	· .	
3. PROPOSED USE		· · · ·					
🗴 Domestic 🔲 Irrigation 🗌 Test 🗌 Other (specify type)	9. 1	.ITHOL	OGIC L	.0G			
🗋 Municipal 📋 Industrial 🔲 Stock 🔲 Waste Disposal or	Hole Diam.	De	pth To	Material		Wa Yes	
Injection	8	-I	D	top soil & haed	pan	103	X
4. METHOD DRILLED	8	10	18	cley			X
∑ ☐ Cable	6	18	30			X	
	6	30 40	40 	gravel into clay clay into light gr		<u>xx</u> -	X
5. WELL CONSTRUCTION	<u> </u>	40	40				
6 10							
Diameter of hole inches Total depthfeet					<u> </u>	<u> </u>	
Casing schedule: 🖾 Steel 🛛 Concrete			-				
250 <sup>Thickness</sup> Diameter From 47 <sup>To</sup> feet							
inches inches feet feet feet						┢─┤	
inches inches feet feet		<u> </u>	·		<u> </u>		
inches inches feet feet						╉┅╴┥	
				<u> </u>		<u>}                                    </u>	
Was a packer or seal used? 🛛 Yes 👗 No					·	$\left\{ \right\}$	
Perforated?						1	
How perforated?   Factory  Knife  Torch						1 1	
Size of perforation inches by inches				· · · · · · · · · · · · · · · · · · ·			
Number From To							
perforations feet feet					····	<b> </b>	
perforations feet feet		·		· · · · · · · · · · · · · · · · · · ·			
				001150	<b></b>	╀╌╴┨	
Well screen installed? 🗆 Yes 🗗 No					<b>/</b>	<b>†</b>	
Manufacturer's name Model No							
Diameter Slot size Set from feet to feet						ļ	
Diameter Slot size Set from feet to feet		╞──┤		· · · ·		╞──┤	
				<u></u>		╆╌╴┨	
Gravel packed?   Yes  No Size of gravel	·····			·			
Placed from feet to feet							
Surface seal depth Material used in seat 🛛 🗖 Cement grout							
Puddling clay     Well cuttings					·	┝─┤	
Sealing procedure used 🛛 Starry pit 🗖 Temporary surface casing				······································		┝━╌┤	
Overbore to seal depth		I	I	·····		+	
	10.						
6. LOCATION OF WELL	W	ork star	ted <u>5</u> /	/10/74 finished _	517/71		_
Sketch map location must agree with written location.							
N						~~	
63				FICATION			
Subdivision Name	F	irm Nor	neD&:	D WELL DRILLING	Firm N	<u>a 25</u> 2	Ł
	-1					/7/	
Lot No Block Ne	Address 310 s, llstreet Date 9/17/7					/14	-
	•	lianed by	(Firm (	Official)	Hr.		_
CANYON	•			nd Nor	Sm		-
County				vrator)	· · ·		
SE 15 E 1/ Sec. 3, T. 4 (D/S, R. 3_E)	,		(ohe				-
USE ADDITIONAL SHEETS IF NECESSARY FORWARD	i he W	HITE C	OPY TO	O THE DEPARTMENT			

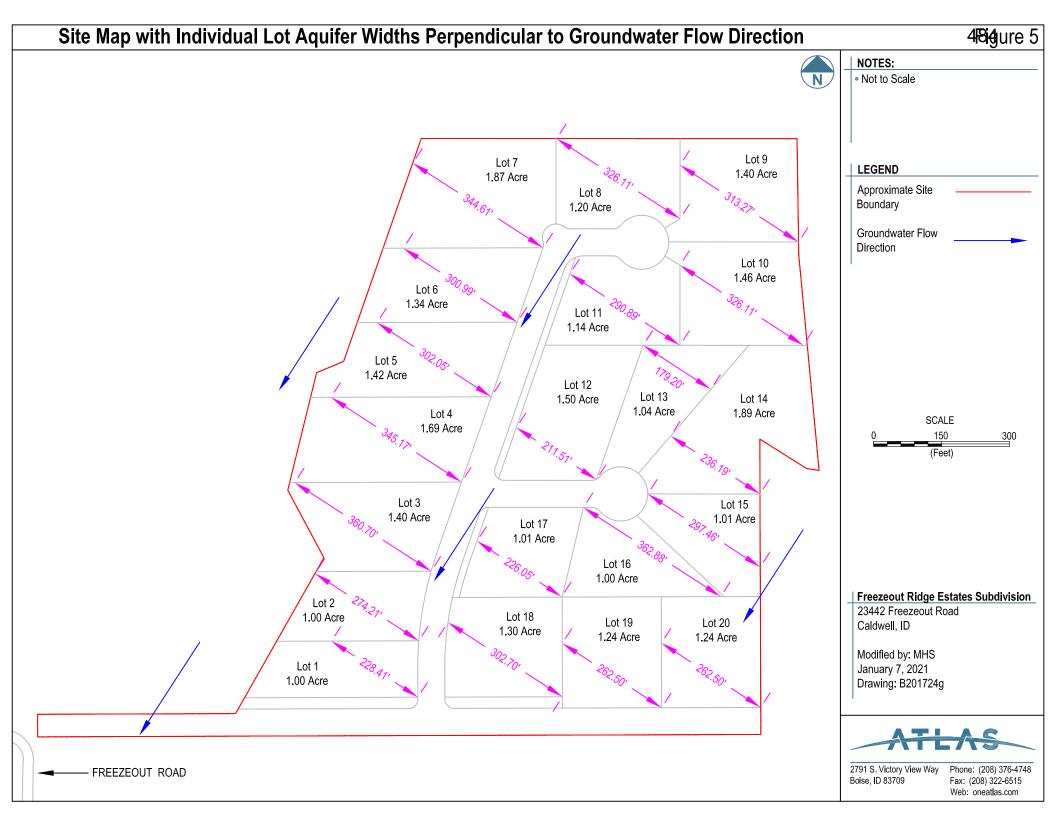
Form 238-7 1/78 STATE O DEPARTMENT OF V WELL DRILLE State law requires that this report be filed with within 30 days after the completion	VATE R':	R RE <b>S R</b> Director	EP , Depa	ORT rtment of	Water Re	sources	USE TYPENS BALLPOIN		
1. WELL OWNER Name <u>Ray</u> Johnson Address <u>Box 123 Middleton</u> Owner's Permit No.	7.	Static Flowi Artesi Contr	ng? [] an clos olled b	level ] Yes ed-in pres y: ] V	KNo ssure ∕alve □	G.P.M. fl p.s Cap			
2. NATURE OF WORK  X New well  Deepened  Replacement  Abandoned (describe method of abandoning)		🗇 Pu			er 🗆 Pumping		Other Hours Pu		
3. PROPOSED USE		3	$\mathcal{O}$		10	9	12		
· · · · · · · · · · · · · · · · · · ·			0.00		<u> </u>	<u></u>	8529	6-	
Domestic 🗆 Irrigation 🗆 Test 🗆 Municipal 🗆 Industrial 🖾 Stock 🖾 Waste Disposal or Injection	9. Hole	<del></del>						Wa	ater
Other (specify type)		From	То			Material			s No
4. METHOD DRILLED	8	Top	5		Tops 475			+	Ł
🔲 Rotary 🔲 Air 🔲 Hydraulic 🔲 Reverse rotary	6	5	10	Hai	A I P	HN			4
Cable Dug Other	6	10 18	28	CLO Z	PAT	SAN	d		1
5. WELL CONSTRUCTION	6	28	40	CLA	4 45+1 A N.A	reaks	g SANd	<u></u>	
Casing schedule: 🙀 Steel 🛛 Concrete 🖾 Other		55	80	Hea	HING	SAN	12	-	=
Thickness Diameter From 🥂 Te	-6	80	EA I	CLA	<u>49578</u>	eans (	YSANd		Ē
inches inches feet feet				· · · · ·					
inches inches feet feet			<u> </u>						-
inches     inches     feet     feet       Was casing drive shoe used?     X Yes     □ No								+	<u> </u>
Was a packer or seal used? 🔲 Yes 🖄 No							· · · · ·		+
Perforated?		<u> </u>			<b></b>			+	+
Size of perforation inches by inches									<u> </u>
Number From To									
perforations feet feet									
perforations feet feet feet feet							energi i marti di "2-1		+
Manufacturer's name Model No						FC			
Diameter Slot sizeSet fromfeet tofeet	-fi		ज ज	Πησε			and a fair of	14	ļ
Diameter Slot size Set from feet to feet		<u>}                                     </u>	98		<u>;  ]1</u>	441	<b>29</b> 1027	4000	
Gravel packed? □ Yes 🙀 No □ Size of gravel Placed from feet to feet					<u>Ľ</u> )			nes	
Surface seal depthMaterial used in seal:	<b>n</b>		6 1:			Departmen	nt of Water Resour In Regional Office		-
Sealing procedure used: 🕱 Slurry pit 🛛 Temp. surface casing		artmen	t of Wa	iter Resu	د ب ان			+	+
Method of joining casing:			İ				······································		+
Weld									+
Cemented between strata Describe access port <u>SANITALY WEILSEA</u>	10.	Wa	ork star	ted <b>[2</b> -	- 1- 8/	finish	ed 12 23	-8	L
6. LOCATION OF WELL	11.	DRIL	LERS	CERTIFI	ICATION	D	?		
Sketch map location must agree with written location.			•				struction standa	rds w	/ere
Subdivision Name					time the ri			_	
		Firm I	Name	buyle	tys 4	num	Firm No. 33	33	
W E		Addre	ss R	12 11)	ilder	IdAH	Firm No. <u>3</u> 0 Date <u>12-9</u>	81	/
Lot No Block No							0-	<u> </u>	7
		Signed	з by (F	irm Offic	in the second	gal	Faugh	ut	7
County Canyon		ACE		and (Operator	(+), n	7~	Dayla	6	
FRUITDALD FARMS SEC 3-4- BLK	ر ریپ	( <del>.</del>			1 m		~ mynur	-9	

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

Appendix V IDEQ GROUNDWATER CONTOUR MAP



Appendix VI SITE PLAN WITH AQUIFER WIDTH MAP FOR INDIVIDUAL LOTS



## Appendix VII HISTORIC PRECIPITATION/CLIMATE DATA FOR PROJECT LOCATION

## 💉 U.S. Climate Data

Monthly Geo

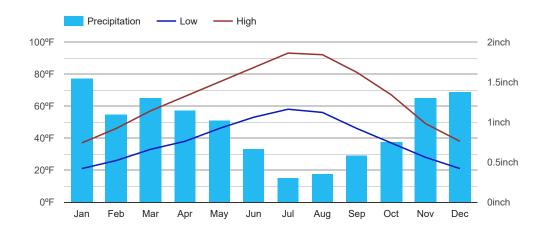
#### Climate Caldwell - Idaho

### 

	Ja (January)	Fe (February)	Ma (March)	Ap (April)	Ma (May)	Ju (June)
Hi	37	46	57	66	75	84
Lo	21	26	33	38	46	53
Pre.	1.54	1.10	1.30	1.14	1.02	0.67

	Ju (July)	Au (August)	Se (September)	Oc (October)	No (November)	De (December)
Hi	93	92	81	67	49	38
Lo	58	56	46	37	28	21
Pre.	0.31	0.35	0.59	0.75	1.30	1.38

Hi : Average high in °F - Lo : Average low in °F - Pre. : Average precipitation in inch - DP : Days with precipitation - Sun : Hours of sunshine



#### Caldwell Climate Graph - Idaho Climate Chart

#### **Tensar International**

Tensar Geogrids, The Advanced Geosynthetic Stabilization Solutio

Annual high temperature	65°F
Annual low temperature	39°F
Average annual precip.	11.45 inch

#### Share

#### Station Data

Monthly averages Caldwell Longitude: -116.636, Latitude: 43.6419 Average weather Caldwell, ID - 83605

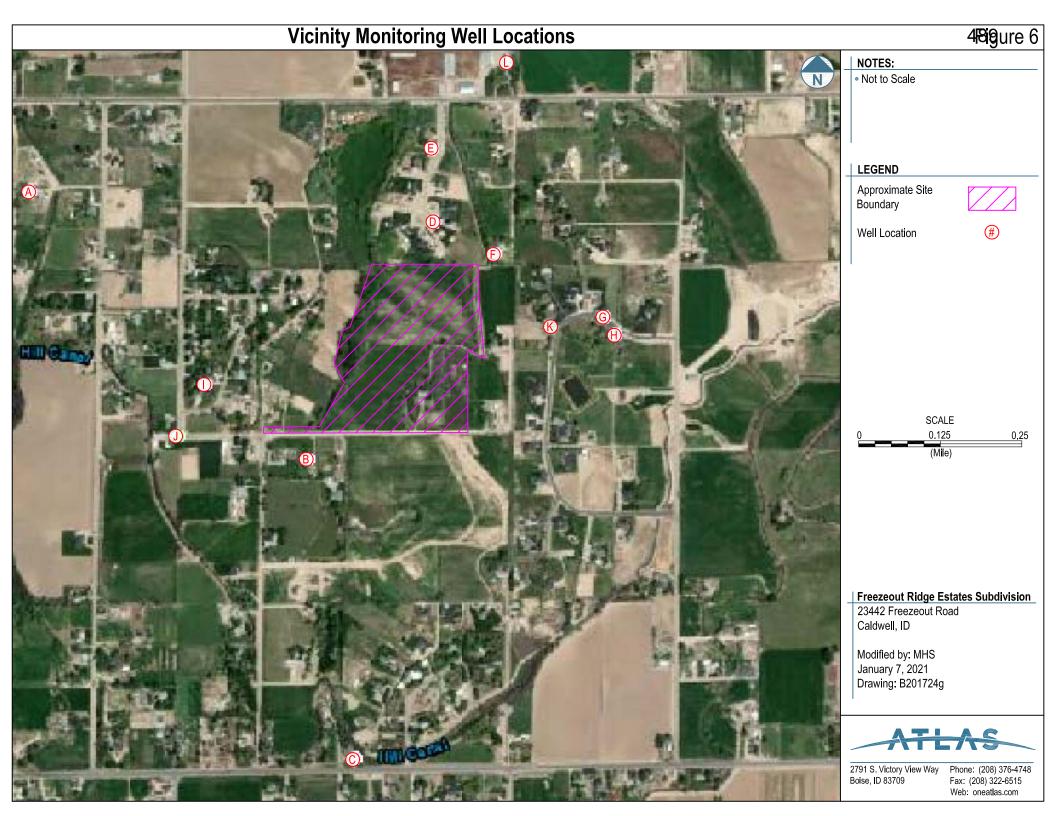
Monthly: 1981-2010 normals

#### Abbreviations

Ja (January): January, Fe (February): February, ...

	-34%	-30%	⊳×
Black Diamond Helio 105 Alpine Touring Ski in Blue			
<del>\$879.95</del>			
\$659.98			
Shop Now	Shop Now	Shop Now	

### Appendix VIII SITE LOCATION WITH VICINITY MONITORING WELLS MAP AND MONITORED WELL DATA



Well #	Agency	WellNumber	AgencyWellName	SampleDate	Туре	Name	Value	Units
А	IDEQ	25	04N03W03BACA1	19970821	Nutr	Nitrate	2.94	mg/l
В	IDEQ	26	04N03W03CABA1	19970820	Nutr	Nitrate	0.184	mg/l
С	IDEQ	27	04N03W03DDCC	19970821	Nutr	Nitrate	0.312	mg/l
D	IDEQ	2122	04N03W03AAD	20130521	Nutr	Nitrate	2.68	mg/l
D	IDEQ	2122	04N03W03AAD	20130521	Nutr	Nitrate	2.3	mg/l
F	IDEQ	2126	04N03W03AAA	20130521	Nutr	Nitrate	4.2	mg/l
L	IDEQ	2126	04N03W03AAA	20130521	Nutr	Nitrate	3.99	mg/l
	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.28	mg/l
F	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	2.8	mg/l
I	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.41	mg/l
	IDEQ	2134	04N03W03AAA	20130521	Nutr	Nitrate	3.4	mg/l
G	IDEQ	2151	04N03W02BCA	20130521	Nutr	Nitrate	3.4	mg/l
U	IDEQ	2151	04N03W02BCA	20130521	Nutr	Nitrate	4.07	mg/l
Н	IDEQ	2180	04N03W02BCA	20130528	Nutr	Nitrate	6.3	mg/l
11	IDEQ	2180	04N03W02BCA	20130528	Nutr	Nitrate	6.12	mg/l
I	DEQ	587		20071025		Nitrate	0.32	mg/l
J	ISDA	6601001		19960306		Nitrate	0.01	mg/l
К	DEQ	4371591166714		20060706		Nitrate	5.05	mg/l
L	ISDA	DY16270851		20060222		Nitrate	4.9	mg/l

Appendix IX NITRATE MASS-BALANCE SPREADSHEETS FOR INDIVIDUAL LOTS

IDEQ LEVEL 1 NUTRIENT-PATHOGI	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman, B	.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT	·			Ουτρυτ	· · ·	
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.10E+04	95.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.86E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	228.41	Site-specific		Total Water Volume	1.15E+04	
Parcel Area (acres)	1	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.6	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.54E+07	70.9
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	29.1
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.76E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.41E+07	
	0.0	0.0	Deradit		0.412407	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.00 Acre Lots - Standard Septic System	Parcel Identifica	ition
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty 🥻	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	E DI
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		WORMENTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGI</b>	EN EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.10E+04	95.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.86E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	228.41	Site-specific		Total Water Volume	1.15E+04	
Parcel Area (acres)	1	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific			0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.54E+07	80.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	19.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.76E+04	0.0
		5	Deidult		1.702+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.66E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation			1.00 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day) estimated from total annual precipitation			1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	ages resulting	LITE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMENTAL COM

N EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
ch documented	in: 1985.Bauman, B.	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	stems.
eatment Shortco	ourse, September 10	-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
	· · ·		OUTPUT		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	1.09E+04	95.8
0.00477	Site-specific		Eflluent	4.14E+02	3.7
15	15	Default	Recharge	5.92E+01	0.5
226.05	Site-specific		Total Water Volume	1.13E+04	
1.01	Sito coocific				
			Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
			rom of compliance what are concentration soar (mg/)	5.1	
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.6	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
itrogen)			Yearly Nitrogen Budget		
0 /				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	4.46E+07	70.5
45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	29.5
0	0	Default	Recharge Nitrate Mass	1.78E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	6.33E+07	
	h documented eatment Shortc 65 0.00477 15 226.05 1.01 5 1.0 300 0.6 itrogen) 4.1 45.0 0	Input Value     Default Value       65     Site-specific       0.00477     Site-specific       15     15       226.05     Site-specific       1.01     Site-specific       5     Site-specific       1.01     Site-specific       300     300       0.6     Site-specific       itrogen)     Imput Value       4.1     Site-specific       0     0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       Default Value         15       Default         15       Site-specific         1.01       Site-specific         300       300         300       300         Default       Default         4.1       Site-specific         45.0       45.0         0       0         0       0	Default Value       OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         226.05       Site-specific       Total Water Volume         1.01       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.01       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         1.00       Site-specific       Current/Acceptable Lot Size (Acres)         1       Site-specific       Background GW Nitrate Mass         45.0       45.0       Default       Recharge Nitrate Mass         0       0       Default       Recharge Nitrate Mass	ch documented in: 1985.Bauman, B.J. and W.M. Schaefer. Estimating Ground-Water Quality Impacts From On-Site Sewage Treatment Sy eatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for Use below. OUTPUT Input Value Default Value Yearly Water Budget Volume (m <sup>3</sup> ) 65 Site-specific Ground Water 1.09E+04 0.00477 Site-specific Effluent Recharge 5.92E+01 226.05 Site-specific Total Water Volume 1.13E+04 1.01 Site-specific Point of Compliance Nitrate Concentration Goal (mg/l) 5.1 1.0 Site-specific Ground Water Volume 1.13E+04 5 Site-specific Cround Vater Volume 1.13E+04 6 Site-specific Cround Vater Volume 1.13E+04 1.01 Site-specific Cround Vater Volume 1.13E+04 5 Site-specific Cround Vater Volume 1.13E+04 6 Site-specific Cround Vater Volume 1.13E+04 1.0 Site-specific Cround Vater Volume 1.13E+04 6 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Volume 1.13E+04 7 Site-specific Cround Vater Vater Volume 1.13E+04 7 Site-specific Cround Vater Va

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.01 Acre Lots - Standard Septic System	Parcel Identification	l
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	ARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	es no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LI
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTION AND A DESCRIPTION	NTAL COST

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	70	Site-specific		Ground Water	1.17E+04	96.1
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	5.92E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	226.05	Site-specific		Total Water Volume	1.22E+04	
Parcel Area (acres)	1.01	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
Nitrogen Budget (all concentrations represent nitrate n	itrogen)			Yearly Nitrogen Budget		
· · · · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.80E+07	81.1
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	18.9
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	1.78E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.92E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.01 Acre Lots - 40% Nitrate Reducing System	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	TALES .
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	DE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	STATES IN STATES	LOU

<b>VEVALUA</b>	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
ch documented	in: 1985.Bauman, B.	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	vstems.
eatment Shortco	ourse, September 10	-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
	· · ·		OUTPUT		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	8.62E+03	94.8
0.00477	Site-specific		Eflluent	4.14E+02	4.6
15	15	Default	Recharge	6.09E+01	0.7
179.2	Site-specific		Total Water Volume	9.10E+03	
1.04	Site-specific				
			Point of Compliance Nitrate Concentration Goal (mg/l)	51	
				0.1	
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.9	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
itrogen)			Yearly Nitrogen Budget		
0 /				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	3.53E+07	65.4
45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	34.5
0	0	Default	Recharge Nitrate Mass	1.83E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	5.40E+07	
	th documented eatment Shortc 65 0.00477 15 179.2 1.04 5 1.0 300 0.6 itrogen) 4.1 45.0 0	Input Value         Default Value           65         Site-specific           0.00477         Site-specific           15         15           179.2         Site-specific           1.04         Site-specific           5         Site-specific           1.04         Site-specific           300         300           0.6         Site-specific           itrogen)         Ite-specific           4.1         Site-specific           45.0         45.0           0         0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         179.2       Site-specific         1.04       Site-specific         5       Site-specific         300       300       Default         0.6       Site-specific         170.2       Site-specific         1.04       Site-specific         1.04       Site-specific         1.0       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1       Site-specific <tr< td=""><td>Detault Value       OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         179.2       Site-specific       Total Water Volume         1.04       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget         45.0       45.0       Default         0       0       Default</td><td>Default Value       OUTPUT         Input Value       Default Value       Yearly Water Budget       Volume (m³)         65       Site-specific       Ground Water       8.62E+03         0.00477       Site-specific       Ground Water Volume       9.10E+03         179.2       Site-specific       Total Water Volume       9.10E+03         1       15       Default       Recharge       1         1.04       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)       5.1         3.00       300       Default       Avg. Downgradient Nitrate Concentration in GW (mg/l)       5.9         0.66       Site-specific       Current/Acceptable Lot Size (Acres)       1.0       1.0         itrogen)       Yearly Nitrogen Budget       Mass (mg)         4.1       Site-specific       Septic Tank Effluent Nitrate Mass       3.53E+07         45.0       45.0       Default       Septic Tank Effluent Nitrate Mass       1.87E+07         0       0       Default       Recharge Nitrate Mass       1.83E+04</td></tr<>	Detault Value       OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         179.2       Site-specific       Total Water Volume         1.04       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget         45.0       45.0       Default         0       0       Default	Default Value       OUTPUT         Input Value       Default Value       Yearly Water Budget       Volume (m³)         65       Site-specific       Ground Water       8.62E+03         0.00477       Site-specific       Ground Water Volume       9.10E+03         179.2       Site-specific       Total Water Volume       9.10E+03         1       15       Default       Recharge       1         1.04       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)       5.1         3.00       300       Default       Avg. Downgradient Nitrate Concentration in GW (mg/l)       5.9         0.66       Site-specific       Current/Acceptable Lot Size (Acres)       1.0       1.0         itrogen)       Yearly Nitrogen Budget       Mass (mg)         4.1       Site-specific       Septic Tank Effluent Nitrate Mass       3.53E+07         45.0       45.0       Default       Septic Tank Effluent Nitrate Mass       1.87E+07         0       0       Default       Recharge Nitrate Mass       1.83E+04

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.04 Acre Lots - Standard Septic System	Parcel Identification	1
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	PARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	es no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LUE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTION OF	NTAL CUS

	a 1005 Dauman		ANCE SPREADSHEET	V. 1.3	5/2/2002
	n: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	stems.
tment Shortco			of Washington, Seattle, WA. Pages 23-41. See Instructions for		
			OUTPUT		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	8.62E+03	94.8
0.00477	Site-specific		Eflluent	4.14E+02	4.6
15	15	Default	Recharge	6.09E+01	0.7
179.2	Site-specific		Total Water Volume	9.10E+03	
1.04	Site-specific				
5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
1.0	Site-specific				
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.0	
ogen)			Yearly Nitrogen Budget		
				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	3.53E+07	75.9
27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	24.0
0	0	Default	Recharge Nitrate Mass	1.83E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	4.66E+07	
	nput Value 65 0.00477 15 179.2 1.04 5 1.0 300 0.6 0.6 0.6 0.6 0.6	nput Value         Default Value           65         Site-specific           0.00477         Site-specific           15         15           179.2         Site-specific           1.04         Site-specific           5         Site-specific           1.04         Site-specific           300         300           0.6         Site-specific           0         0	Default Value       65     Site-specific       0.00477     Site-specific       15     15     Default       179.2     Site-specific       1.04     Site-specific       5     Site-specific       1.0     Site-specific       300     300       0.6     Site-specific       0     0       0     0	Dut Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         179.2       Site-specific       Total Water Volume         1.04       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.04       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         1.00       Site-specific       Current/Acceptable Lot Size (Acres)         0       0       Default       Background GW Nitrate Mass         0       0       Default       Recharge Nitrate Mass	Dut Value         Default Value         Vearly Water Budget         Volume (m³)           65         Site-specific         Ground Water         8.62E+03           0.00477         Site-specific         Efiluent         4.14E+02           15         15         Default         Recharge         6.09E+01           179.2         Site-specific         Total Water Volume         9.10E+03           1.04         Site-specific         Point of Compliance Nitrate Concentration Goal (mg/l)         5.1           1.04         Site-specific         Point of Compliance Nitrate Concentration in GW (mg/l)         5.1           1.0         Site-specific         Current/Acceptable Lot Size (Acres)         1.0           0.6         Site-specific         Mass (mg)           0.7         45.0         Provide Justification         Septic Tank Effl

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation	ated Sediments		1.04 Acre Lots - 40% Nitrate Reducing System	Parcel Identifica	ition
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	E DI
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		WORMENTAL COM

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman, B	.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Freatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT	•	· · · · ·		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.40E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.68E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	290.89	Site-specific		Total Water Volume	1.45E+04	
Parcel Area (acres)	1.14	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.3	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.1	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.74E+07	75.4
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	24.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.00E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.60E+07	
	0.3	0.3	Delault		1.000+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.14 Acre Lots - Standard Septic System	Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	ARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LIE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTION IN	VIAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGI</b>	EN EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT	•	•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.40E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	6.68E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	290.89	Site-specific		Total Water Volume	1.45E+04	
Parcel Area (acres)	1.14	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific			0.1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.1	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.74E+07	83.7
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	16.3
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.00E+04	0.0
		<u> </u>	Deraunt		2.002.04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.86E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.14 Acre Lots - 40% Nitrate Reducing System	Parcel Identifie	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	DEPARTNESS
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		VOIMENTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman, I	B.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater Ti	eatment Shortc	ourse, September 1	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.57E+04	97.0
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.03E+01	0.4
Aquifer Width Perpendicular to Flow (ft)	326.11	Site-specific		Total Water Volume	1.62E+04	
Parcel Area (acres)	1.2	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
Nitrogen Budget (all concentrations represent nitrate r	nitrogen)			Yearly Nitrogen Budget		
· · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.43E+07	77.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	22.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.11E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.30E+07	
	]					

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.20 Acre Lots - Standard Septic System	Parcel Identifie	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	(TAP) = (TAP) = 0.0046 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	nis software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dat	mages resulting	271
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		NOTALINTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman, B	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September 10	)-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.26E+04	96.3
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	3.2
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.27E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	262.5	Site-specific		Total Water Volume	1.31E+04	
Parcel Area (acres)	1.24	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.4	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.18E+07	73.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	26.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.18E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.04E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION		
	0		Freezeout Ridge Estates Subdivision	Site Name
Ranges of Hydraulic Conductivity (K) for Unconsolid			1.24 Acre Lots - Standard Septic System	Parcel Identification
(feet/day)		estimated from total annual precipitation	1/11/2021	Date
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By
Silty sands and fine sands	0.03 to 3	(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NORTHENDAL CONT

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.26E+04	96.3
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	3.2
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.27E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	262.5	Site-specific		Total Water Volume	1.31E+04	
Parcel Area (acres)	1.24	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5			Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific Site-specific		Form of Compliance Nitrate Concentration Goal (mg/)	<b>J.</b> 1	
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.8	
Septic Fairk Enruent (gallons/d/home)	300	300	Delault	Avg. Downgradient Nitrate Concentration in Gw (ing/i)	4.0	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.2	
Nitrogen Budget (all concentrations represent nitrate r	l nitrogen)			Yearly Nitrogen Budget		
· · · · · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.18E+07	82.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	17.8
	]					
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.18E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	6.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.24 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	is software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dan	ages resulting	271
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CALENTAL CON

Shortco			efer.Estimating Ground-Water Quality Impacts From On-Site Sewa ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	• •	stems.
	ourse, September 1	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
Value					
Value			OUTPUT		
Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
5	Site-specific		Ground Water	1.46E+04	96.7
)477	Site-specific		Eflluent	4.14E+02	2.8
5	15	Default	Recharge	7.62E+01	0.5
2.7	Site-specific		Total Water Volume	1.51E+04	
3	Site-specific				
			Point of Compliance Nitrate Concentration Goal (mg/l)	51	
-					
-	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
			Yearly Nitrogen Budget		
				Mass (mg)	% of Total
.1	Site-specific		Background GW Nitrate Mass	5.97E+07	76.2
5.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.8
)	0	Default	Recharge Nitrate Mass	2.29E+04	0.0
.3	0.3	Default	Total Nitrate Mass	7.84E+07	
	55 04777 5 2.7 .3 5 .0 00 .6 .6 .1 5.0 00 .3	0477         Site-specific           5         15           2.7         Site-specific           3         Site-specific           5         Site-specific           0         300           .6         Site-specific           5.0         45.0           0         0	D477     Site-specific       5     15     Default       2.7     Site-specific       3     Site-specific       5     Site-specific       5     Site-specific       0     300       Default       .6     Site-specific       .1     Site-specific       5.0     45.0       0     0       Default	0477       Site-specific       Effluent         5       15       Default       Recharge         2.7       Site-specific       Total Water Volume         .3       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         .6       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         .6       Site-specific       Current/Acceptable Lot Size (Acres)         .6       Site-specific       Background GW Nitrate Mass         .1       Site-specific       Background GW Nitrate Mass         .0       0       Default       Septic Tank Effluent Nitrate Mass	0477       Site-specific       Eflluent       4.14E+02         5       15       Default       Recharge       7.62E+01         2.7       Site-specific       Total Water Volume       1.51E+04         3.3       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)       5.1         5       Site-specific       Avg. Downgradient Nitrate Concentration in GW (mg/l)       5.2         00       300       Default       Avg. Downgradient Nitrate Concentration in GW (mg/l)       5.2         .6       Site-specific       Current/Acceptable Lot Size (Acres)       1.3         .6       Site-specific       Background GW Nitrate Mass       5.97E+07         .0       0       Default       Septic Tank Effluent Nitrate Mass       1.87E+07         .0       0       Default       Recharge Nitrate Mass       2.29E+04

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.30 Acre Lots - Standard Septic System	Parcel Identification	i
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	PARTARON
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	es no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LIE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOTION OF	NTAL CUS

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
				Estimating Ground-Water Quality Impacts From On-Site Sewa		stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.46E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.62E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	302.7	Site-specific		Total Water Volume	1.51E+04	
	<u> </u>					
Parcel Area (acres)	1.3	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate n	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.97E+07	84.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.8
	]					
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.29E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.09E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development projects not completely oriented perpendicular to ground water flow, the site specific aquifer width value is determined using the average property width that is perpendicular to flow.			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.30 Acre Lots - 40% Nitrate Reducing System	Parcel Identification	
		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	nsiderable care was exercised in developing this software.	
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality makes no warranty		
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any damages resulting		271
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		NOTALENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	GEN MASS-BA	LANCE SPREADSHEET	V. 1.3	5/2/2002
				fer.Estimating Ground-Water Quality Impacts From On-Site Sewa		stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	10-11, 1985. Universit	y of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.85E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	300.99	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.34	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate r	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.94E+07	76.1
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.9
		-0.0	Delduit		1.07 E+07	20.0
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.36E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.80E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation	ated Sediments		1.34 Acre Lots - Standard Septic System	Parcel Identificat	tion
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	O DEPARTNES
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	- IJE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	`	ONAMENTAL OU

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortco	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT		•		OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	7.85E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	300.99	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.34	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.3	
Nitrogen Budget (all concentrations represent nitrate )	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.94E+07	84.1
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.9
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.36E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.06E+07	
	0.3	0.3	Deiduit		1.002+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida		1.34 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation	
eet/day) estimated from total annual precipitation			1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	DJ B
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		VOLDENTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGI</b>	EN EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September	10-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.51E+04	96.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.7
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.20E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	313.27	Site-specific		Total Water Volume	1.56E+04	
Parcel Area (acres)	1.4	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
· · · · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.18E+07	76.8
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.2
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.46E+04	0.0
			_ 514414			2.10
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.05E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.40 Acre Lots - Standard Septic System	Parcel Identific	ation
(feet/day) estimated from total annual precipitation			1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	(TAP) = (TAP) = 0.0046 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	his software.	O DEPARTAREN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		VOIMENTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITRO	<b>DGEN MASS-BAL</b>	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approx	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, September	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT	•			OUTPUT	· · ·	
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.51E+04	96.8
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.7
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.20E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	313.27	Site-specific		Total Water Volume	1.56E+04	
Parcel Area (acres)	1.4	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.18E+07	84.6
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.3
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.46E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
		Freezeout Ridge Estates Subdivision	Site Name		
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.40 Acre Lots - 40% Nitrate Reducing System	Parcel Identifie	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LITE
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMENTAL COM

IDEQ LEVEL 1 NUTRIENT-PATHOGE					V. 1.3	5/2/2002
				efer.Estimating Ground-Water Quality Impacts From On-Site Sewa		/stems.
	eatment Shortc	ourse, September 10	-11, 1985. Univers	sity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	<u>% of Total</u>
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.32E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	302.05	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.42	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.2	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate r	itrogen)			Yearly Nitrogen Budget		
·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.96E+07	76.1
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	23.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.50E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.82E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.42 Acre Lots - Standard Septic System	Parcel Identification	on
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	<b>E</b>
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	LI
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	NOT	MENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	stems.
In Proceedings of 5th Northwest On-Site Wastewater Tr	eatment Shortco	ourse, September	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.45E+04	96.7
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.8
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.32E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	302.05	Site-specific		Total Water Volume	1.50E+04	
Parcel Area (acres)	1.42	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.7	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.4	
Nitrogen Budget (all concentrations represent nitrate r	itrogen)			Yearly Nitrogen Budget		
· · ·					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	5.96E+07	84.2
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	15.8
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.50E+04	0.0
Nitrate in Natural Becharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	7.08E+07	
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Detault		1.000+01	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation	ated Sediments		1.42 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	27
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMPANYAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman, I	B.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater T	eatment Shortco	ourse, September 1	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT		·		Ουτρυτ		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.57E+04	96.9
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.6
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.55E+01	0.5
Aquifer Width Perpendicular to Flow (ft)	326.11	Site-specific		Total Water Volume	1.62E+04	
Parcel Area (acres)	1.46	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
Nitrogen Budget (all concentrations represent nitrate r	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.43E+07	77.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	22.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.57E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.30E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.46 Acre Lots - Standard Septic System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/8/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0046 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing	this software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality m	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	271
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMPANYAL COM

<b>VEVALUA</b>	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
ch documented	in: 1985.Bauman, B.	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	vstems.
eatment Shortco	ourse, September 10	-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
			Ουτρυτ		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	1.02E+04	95.3
0.00477	Site-specific		Eflluent	4.14E+02	3.9
15	15	Default	Recharge	8.79E+01	0.8
211.51	Site-specific		Total Water Volume	1.07E+04	
1.5	Site-specific				
5			Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
1.0					
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.7	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
itrogen)			Yearly Nitrogen Budget		
0 /				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	4.17E+07	69.1
45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	30.9
0	0	Default	Recharge Nitrate Mass	2.64E+04	0.0
0.3	0.3	Default	Total Nitrate Mass	6.04E+07	
	h documented eatment Shortcr 65 0.00477 15 211.51 1.5 5 1.0 300 0.6 itrogen) 4.1 45.0 0	Input Value         Default Value           65         Site-specific           0.00477         Site-specific           15         15           211.51         Site-specific           1.5         Site-specific           300         300           0.6         Site-specific           0.6         Site-specific           itrogen)         Ite-specific           4.1         Site-specific           0         0	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       15         211.51       Site-specific         1.5       Site-specific         300       300         300       Site-specific         0.6       Site-specific         1.0       Site-specific         0       O         0       O	Detault Value       OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         211.51       Site-specific       Total Water Volume         1.5       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Avg. Downgradient Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget         45.0       45.0       Default         0       0       Default	Default Value       OUTPUT         Input Value       Default Value       Yearly Water Budget       Volume (m³)         65       Site-specific       Ground Water       1.02E+04         0.00477       Site-specific       Efluent       4.14E+02         1.5       Site-specific       Total Water Volume       1.07E+04         0       O       Default       Avg. Downgradient Nitrate Concentration Goal (mg/l)       5.1         1.0       Site-specific       Current/Acceptable Lot Size (Acres)       1.5         0.6       Site-specific       Current/Acceptable Lot Size (Acres)       1.5         1.10       Site-specific       Background GW Nitrate Mass       4.17E+07         4.1       Site-specific       Septic Tank Effluent Nitrate Mass       1.87E+07         0       0       Default       Recharge Nitrate Mass       2.64E+04

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.50 Acre Lots - Standard Septic System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	his software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality m	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	A DOL
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CINCENTAL CON

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	DGEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ch documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater T	eatment Shortco	ourse, Septembe	r 10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.02E+04	95.3
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	3.9
Mixing Zone Thickness (ft)	15	15	Default	Recharge	8.79E+01	0.8
Aquifer Width Perpendicular to Flow (ft)	211.51	Site-specific		Total Water Volume	1.07E+04	
Parcel Area (acres)	1.5	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.0	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.5	
Nitrogen Budget (all concentrations represent nitrate r	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.17E+07	78.8
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	21.1
Ceptie Fank Enident Concentration (mg/)	21.0	+0.0	Trovide oustilication		1.122+07	21.1
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.64E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.29E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the blue shaded cells on the INPUT side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated Average Downgradient Nitrate Concentration in GW (shown in the OUTPUT side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.50 Acre Lots - 40% Nitrate Reducing System	Parcel Identifi	ication
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing the	nis software.	SO DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dar	nages resulting	A DOL
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		CINCENTAL CON

IDEQ LEVEL 1 NUTRIENT-PATHOGE	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman, B	.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	/stems.
In Proceedings of 5th Northwest On-Site Wastewater	Treatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT	·	· · ·		Ουτρυτ		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.66E+04	97.0
Hydraulic Gradient	0.00477	Site-specific		Eflluent	4.14E+02	2.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	9.90E+01	0.6
Aquifer Width Perpendicular to Flow (ft)	345.17	Site-specific		Total Water Volume	1.71E+04	
Parcel Area (acres)	1.69	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.7	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.81E+07	78.5
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	21.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	2.97E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.68E+07	
	0.5	0.3	Delault		0.002+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
	0.1.1		Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolid	ated Sediments		1.69 Acre Lots - Standard Septic System	Parcel Identifica	ation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	O DEPARTMENT
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	BUL
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		VOLAGENTAL OF

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	EN EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance appro	ach documented	in: 1985.Bauman, B	.J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	age Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater	reatment Shortc	ourse, September 10	0-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.66E+04	96.9
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	2.4
Mixing Zone Thickness (ft)	15	15	Default	Recharge	1.10E+02	0.6
Aquifer Width Perpendicular to Flow (ft)	344.61	Site-specific		Total Water Volume	1.71E+04	
Parcel Area (acres)	1.87	Site-specific				
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	6.80E+07	78.4
Septic Tank Effluent Concentration (mg/l)	45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	21.5
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	3.29E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	8.67E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidation	ated Sediments		1.87 Acre Lots - Standard Septic System	Parcel Identificat	tion
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	s software.	O DEPARTAIO
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality mal	kes no warranty 🛛 🖉	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any dam	ages resulting	
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.	×	OWMENTAL COM

N EVALUA	TION NITROG	EN MASS-BA	ALANCE SPREADSHEET	V. 1.3	5/2/2002
ch documented	in: 1985.Bauman, B.	J. and W.M. Schae	efer.Estimating Ground-Water Quality Impacts From On-Site Sewa	ge Treatment Sy	vstems.
eatment Shortc	ourse, September 10	-11, 1985. Univers	ity of Washington, Seattle, WA. Pages 23-41. See Instructions f	or Use below.	
	· · ·		OUTPUT		
Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
65	Site-specific		Ground Water	1.14E+04	95.6
0.00477	Site-specific		Eflluent	4.14E+02	3.5
15	15	Default	Recharge	1.11E+02	0.9
236.19	Site-specific		Total Water Volume	1.19E+04	
1.89	Site-specific				
5			Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
1.0	Site-specific				
300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	5.5	
0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
itrogen)			Yearly Nitrogen Budget		
· · ·				Mass (mg)	% of Total
4.1	Site-specific		Background GW Nitrate Mass	4.66E+07	71.4
45.0	45.0	Default	Septic Tank Effluent Nitrate Mass	1.87E+07	28.6
0	0	Default	Recharge Nitrate Mass	3.32E+04	0.1
0.3	0.3	Default	Total Nitrate Mass	6.53E+07	
	h documented eatment Shortc 65 0.00477 15 236.19 1.89 5 1.0 300 0.6 itrogen) 4.1 45.0 0	Input Value     Default Value       65     Site-specific       0.00477     Site-specific       15     15       236.19     Site-specific       1.89     Site-specific       300     300       300     300       0.6     Site-specific       10     Site-specific       11     Site-specific       12     Site-specific       13     Site-specific       14     Site-specific       15     Site-specific       16     Site-specific       17     Site-specific       18     Site-specific       19     Site-specific       10     Site-specific	Input Value       Default Value         65       Site-specific         0.00477       Site-specific         15       Default         15       Site-specific         1.89       Site-specific         300       300         300       Site-specific         0.6       Site-specific         1.0       Site-specific         300       300         Default       Site-specific         1.0       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1       Site-specific         1.1 <t< td=""><td>eatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         236.19       Site-specific       Total Water Volume         1.89       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget       Septic Tank Effluent Nitrate Mass         45.0       45.0       Default       Recharge Nitrate Mass         0       0       Default       Recharge Nitrate Mass</td><td>ch documented in: 1985.Bauman, B.J. and W.M. Schaefer. Estimating Ground-Water Quality Impacts From On-Site Sewage Treatment Sy eatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for Use below. OUTPUT Input Value <u>Default Value</u> <u>Yearly Water Budget</u> <u>Volume (m<sup>3</sup>)</u> 65 Site-specific Ground Water 1, 14E+04 0,00477 Site-specific Effluent 15 Default Recharge 1, 11E+02 236.19 Site-specific Total Water Volume 1, 19E+04 5 Site-specific Point of Compliance Nitrate Concentration Goal (mg/l) 5, 1 1.0 Site-specific Point of Compliance Nitrate Concentration in GW (mg/l) 5, 1 1.0 Site-specific Current/Acceptable Lot Size (Acres) 1, 9 0.6 Site-specific Patholic Current/Acceptable Lot Size (Acres) 1, 9 4,11 Site-specific Setter Sectific Setter Sectific Sector</td></t<>	eatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for OUTPUT         Input Value       Default Value       Yearly Water Budget         65       Site-specific       Ground Water         0.00477       Site-specific       Eflluent         15       15       Default         236.19       Site-specific       Total Water Volume         1.89       Site-specific       Point of Compliance Nitrate Concentration Goal (mg/l)         1.0       Site-specific       Point of Compliance Nitrate Concentration in GW (mg/l)         0.6       Site-specific       Current/Acceptable Lot Size (Acres)         itrogen)       Yearly Nitrogen Budget       Septic Tank Effluent Nitrate Mass         45.0       45.0       Default       Recharge Nitrate Mass         0       0       Default       Recharge Nitrate Mass	ch documented in: 1985.Bauman, B.J. and W.M. Schaefer. Estimating Ground-Water Quality Impacts From On-Site Sewage Treatment Sy eatment Shortcourse, September 10-11, 1985. University of Washington, Seattle, WA. Pages 23-41. See Instructions for Use below. OUTPUT Input Value <u>Default Value</u> <u>Yearly Water Budget</u> <u>Volume (m<sup>3</sup>)</u> 65 Site-specific Ground Water 1, 14E+04 0,00477 Site-specific Effluent 15 Default Recharge 1, 11E+02 236.19 Site-specific Total Water Volume 1, 19E+04 5 Site-specific Point of Compliance Nitrate Concentration Goal (mg/l) 5, 1 1.0 Site-specific Point of Compliance Nitrate Concentration in GW (mg/l) 5, 1 1.0 Site-specific Current/Acceptable Lot Size (Acres) 1, 9 0.6 Site-specific Patholic Current/Acceptable Lot Size (Acres) 1, 9 4,11 Site-specific Setter Sectific Setter Sectific Sector

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development flow, the site specific aquifer width value is determined using the		SITE INFORMATION			
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolida			1.89 Acre Lots - Standard Septic System	Parcel Identifi	cation
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = (TAP) <sup>2</sup> * 0.0046	Ethan Salove, PE	Prepared By	
Silty sands and fine sands	0.03 to 3	(TAP) = (TAP) = 0.0046 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing t	nis software.	ODEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality ma	akes no warranty	
Well-sorted gravel	30 to 3000		regarding its accuracy and shall not be held liable for any da	mages resulting	E DO
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		NOMENTAL COM

<b>IDEQ LEVEL 1 NUTRIENT-PATHOGE</b>	N EVALUA	TION NITRO	GEN MASS-BAL	ANCE SPREADSHEET	V. 1.3	5/2/2002
This spreadsheet is based on the mass balance approa	ach documented	in: 1985.Bauman	, B.J. and W.M. Schaefer	Estimating Ground-Water Quality Impacts From On-Site Sewa	ige Treatment Sy	vstems.
In Proceedings of 5th Northwest On-Site Wastewater T	reatment Shortc	ourse, Septembe	10-11, 1985. University	of Washington, Seattle, WA. Pages 23-41. See Instructions for	or Use below.	
INPUT				OUTPUT		
Water Budget	Input Value	Default Value		Yearly Water Budget	Volume (m <sup>3</sup> )	% of Total
Hydraulic Conductivity (ft/day)	65	Site-specific		Ground Water	1.14E+04	95.6
Hydraulic Gradient	0.00477	Site-specific		Efluent	4.14E+02	3.5
Mixing Zone Thickness (ft)	15	15	Default	Recharge	1.11E+02	0.9
Aquifer Width Perpendicular to Flow (ft)	236.19	Site-specific		Total Water Volume	1.19E+04	
	1.00	0.1				
Parcel Area (acres)	1.89	Site-specific			-	
Percent of Parcel That Is Impervious (Percent)	5	Site-specific		Point of Compliance Nitrate Concentration Goal (mg/l)	5.1	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300	300	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	4.9	
Natural Recharge rate (inches/yr)	0.6	Site-specific		Current/Acceptable Lot Size (Acres)	1.9	
Nitrogen Budget (all concentrations represent nitrate	nitrogen)			Yearly Nitrogen Budget		
					Mass (mg)	% of Total
Upgradient Ground Water Concentration (mg/l)	4.1	Site-specific		Background GW Nitrate Mass	4.66E+07	80.6
Septic Tank Effluent Concentration (mg/l)	27.0	45.0	Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	19.4
	21.0	40.0			1.122107	10.4
Denitrification Rate (decimal fraction)	0	0	Default	Recharge Nitrate Mass	3.32E+04	0.1
Nitrate in Natural Recharge (mg/l)	0.3	0.3	Default	Total Nitrate Mass	5.78E+07	

Input parameter values appropriate to conditions at the site under consideration are entered in the <u>blue shaded cells</u> on the *INPUT* side of the spreadsheet. These input values form the basis for calculating yearly water and nitrogen budgets. Default values for selected parameters are provided, as described in the accompanying N-P guidance. Selecting values other than these defaults will require providing adequate justification. Sources of water and nitrogen include ground water inflow from upgradient, natural recharge on pervious portions of the site, and from septic tank effluent. The total yearly nitrogen mass input is then divided by the total yearly volume of water available to recharge groundwater to arrive at an estimated **Average Downgradient Nitrate Concentration in GW** (shown in the *OUTPUT* side of the spreadsheet).

Aquifer Width Perpendicular to Flow: For land development projects not completely oriented perpendicular to ground water flow, the site specific aquifer width value is determined using the average property width that is perpendicular to flow.			SITE INFORMATION		
			Freezeout Ridge Estates Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be			1.89 Acre Lots - 40% Nitrate Reducing System	10% Nitrate Reducing System Parcel Identification	
(feet/day)		estimated from total annual precipitation	1/11/2021	Date	
Silt and sandy silt	0.003 to 0.3	(TAP) using the equation: NRR (inches/yr) = $(TAP)^2 * 0.0046$	Ethan Salove, PE	Prepared By	
Silty sands and fine sands		(TAP) = (TAP) = 0.0040 TAP is input in inches/yr.	Disclaimer: Considerable care was exercised in developing th	is software.	O DEPARTMEN
Well-sorted sands and glacial outwash	3 to 300		However, the Idaho Department of Environmental Quality makes no warranty regarding its accuracy and shall not be held liable for any damages resulting		
Well-sorted gravel	30 to 3000				
Typical Range of Hydraulic Gradient	0.0001 to 0.1		from its use.		COMPANYAL COM

CANYON COUNTY DEVELOPMENT SERVICES MAKES NO WARRANTY WITH ACCURACY, COMPLETENESS, OR USEFULNESS OF THIS PARCEL INFORM

12/11/2024 10:26:50 AM

## **R34479 PARCEL INFORMATION REPORT**

PARCEL NUMBER: R34479

**OWNER NAME: THORNTON GALLUP LLC** 

**CO-OWNER:** 

MAILING ADDRESS: PO BOX 1495 NAMPA ID 83653

SITE ADDRESS: 14180 GADSDEN LN

**TAX CODE: 0320000** 

TWP: 4N RNG: 3W SEC: 03 QUARTER: NE

ACRES: 31.40

HOME OWNERS EXEMPTION: No

**AG-EXEMPT: Yes** 

DRAIN DISTRICT: NOT In Drain Dist

ZONING DESCRIPTION: AG / AGRICULTURAL

HIGHWAY DISTRICT: HIGHWAY DISTRICT #4

FIRE DISTRICT: MIDDLETON FIRE

SCHOOL DISTRICT: MIDDLETON SCHOOL DIST #134

**IMPACT AREA: MIDDLETON** 

FUTURE LAND USE 2011-2022 : Res

FLU Overlay Zone Desc 2030:

FLU RR Zone Desc 2030:

FUTURE LAND USE 2030: Res

IRRIGATION DISTRICT: BLACK CANYON IRRIGATION DIST

FEMA FLOOD ZONE: X FLOODWAY: NOT IN FLOODWAY FIRM PANEL: 16027C0233F

WETLAND: Freshwater Emergent Wetland \ Riverine

NITRATE PRIORITY: NE CANYON CO.

**FUNCTIONAL Classification: NOT In COLLECTOR** 

**INSTRUMENT NO. : 2020036886** 

SCENIC BYWAY: NOT In Scenic Byway

LEGAL DESCRIPTION: 03-4N-3W NE TX 19480 IN S 1/2 OF NE LS TX 97652

**PLATTED SUBDIVISION:** 

**SMALL CITY ZONING:** 

**SMALL CITY ZONING TYPE:** 

**DISCLAIMER:** 

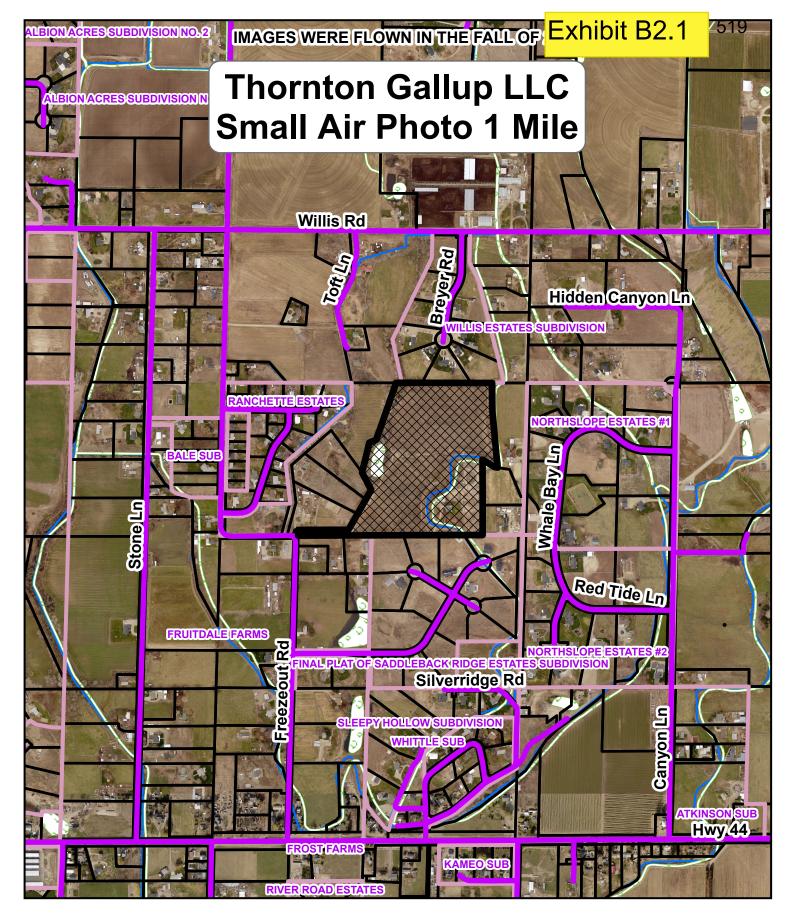
THIS FORM DOES NOT CALCULATE DATA FOR PARCELS INSIDE CITY LIMITS SO WATCH YOURSELVES.
 WETLANDS CLASSIFICATION WILL POPULATE IF "ANY" PORTION OF SAID PARCEL CONTAINS A DELINEATED WETLAND.

4. COLLECTORS AND ARTERIALS ARE BASED ON THE SHERRIFS CENTERLINE WITH AN ADDITIONAL 100 FOOT BUFFER.

CANYON COUNTY ASSUMES NO LIABILITY FOR DIRECT, INDIRECT, SPECIAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OR MISUSE OF THIS PARCEL INFORMATION TOOL OR ANY OF THE INFORMATION CONTAINED HEREIN.

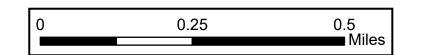


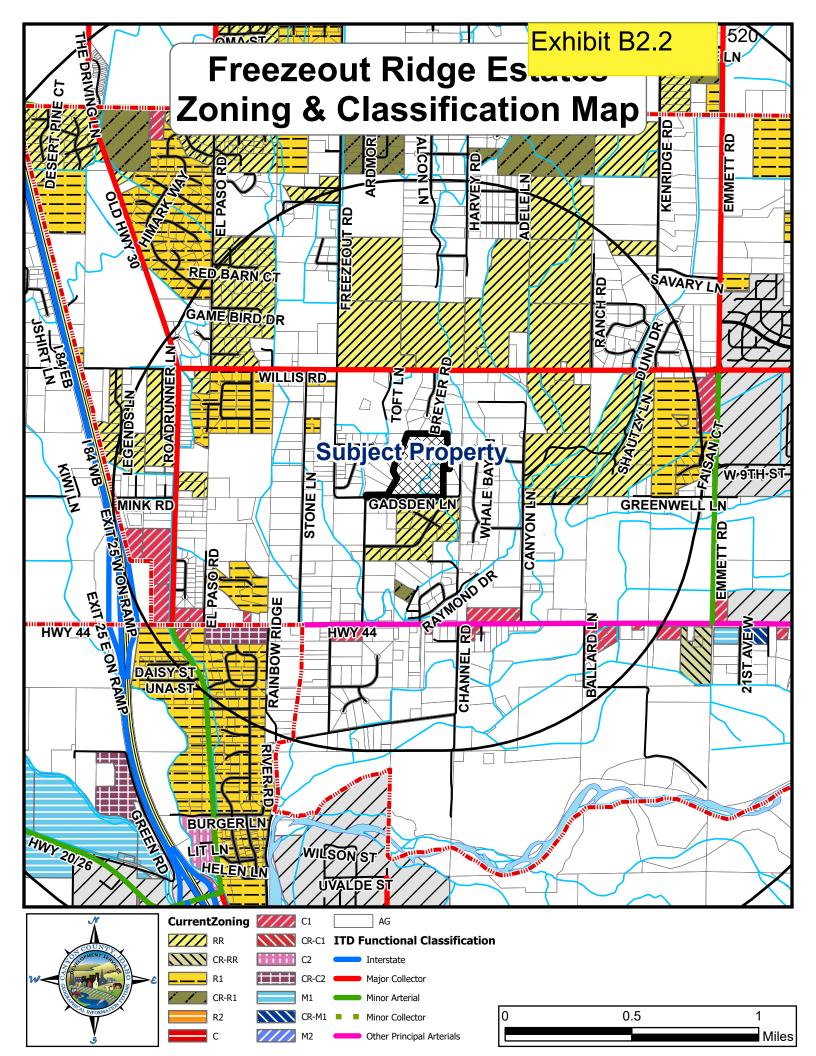
<sup>1.</sup> FEMA FLOOD ZONE REFERS TO THE DESIGNATED FEMA FLOOD AREAS. POSSIBLY ONE (1) OF SEVERAL ZONES - SEE FIRM PANEL NUMBER.

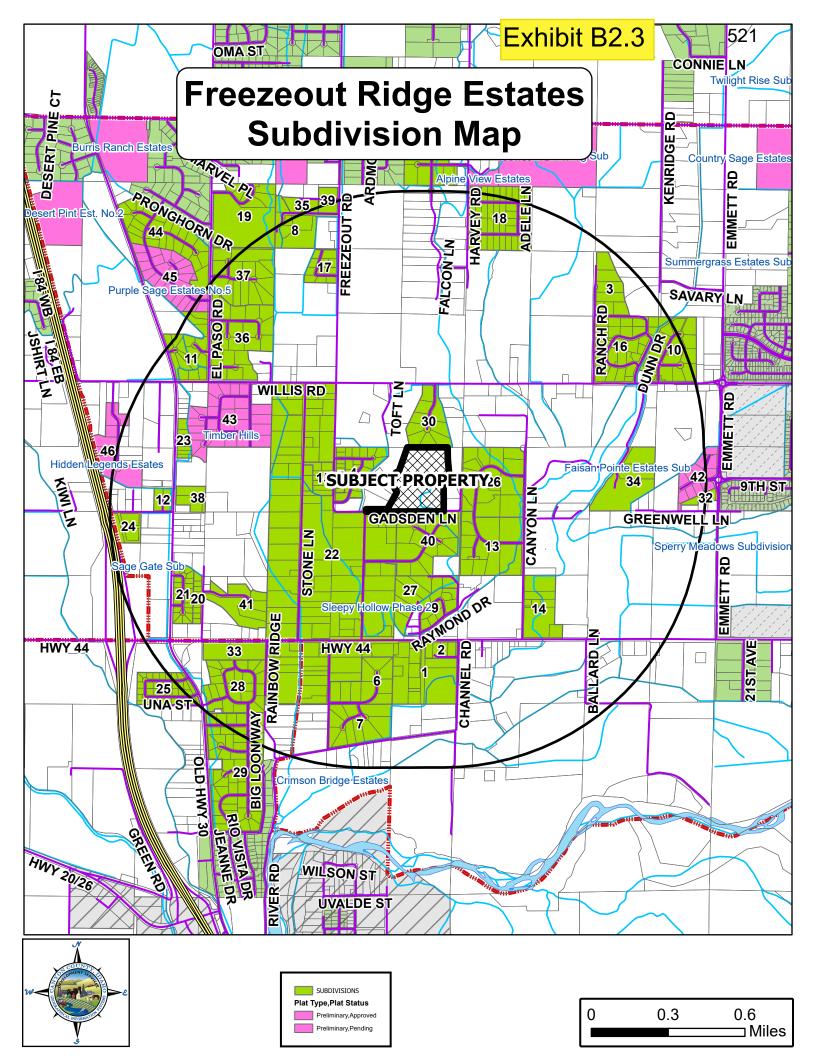












# Exhibit B2.4

## 522

# SUBDIVISION & LOT REPORT

NUMBER OF SUBS	ACRES IN SUB	NUMBER OF LOTS	AVERAGE LOT SIZE	
46	1262.78	711	1.78	
NUMBER OF SUBS IN PLATTING	ACRES IN SUB	NUMBER OF LOTS	AVERAGE LOT SIZE	
4	107.14	70	1.53	
NUMBER OF LOTS NOTIFIED	AVERAGE	MEDIAN	MINIMUM	MAXIMUM
65	3.42	1.93	0.01	31.40
NUMBER OF MOBILE HOME PARKS	ACRES IN MHP	NUMBER OF SITES	AVG HOMES PER ACRE	MAXIMUM
0	0	0	0	0

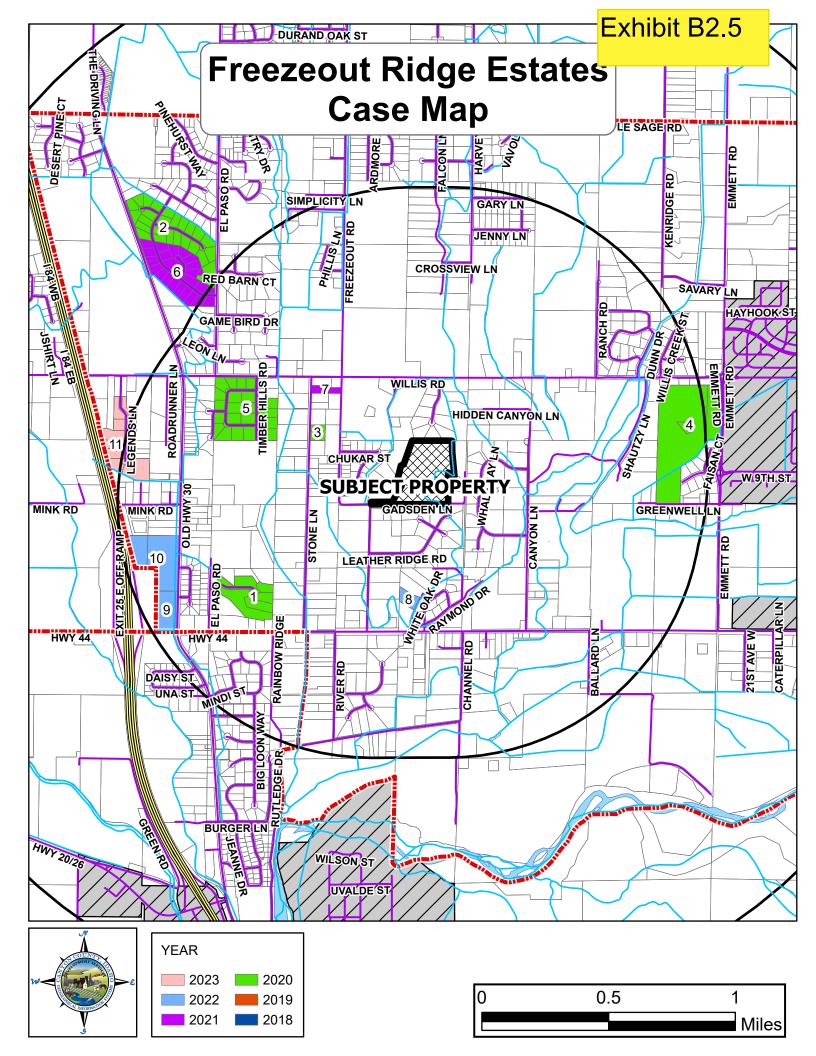
# PLATTED SUBDIVISIONS

SUBDIVISION NAME	Label	LOCATION	ACRES	NO. OF LOTS	AVERAGE LOT SIZE	CITY OF	Year
	1	T	1	1	1	-1	
FROST FARMS	1	4N3W10	53.58	20	2.68	COUNTY (Canyon)	190
KAMEO SUB	2	4N3W10	5.09	4	1.27	COUNTY (Canyon)	200
RANCH ROAD ESTATES	3	5N3W35	15.21	7	2.17	COUNTY (Canyon)	200
RANCHETTE ESTATES	4	4N3W03	17.05	20	0.85	COUNTY (Canyon)	19
RANCHETTE ESTATES #2	5	4N3W03	2.89	9	0.32	COUNTY (Canyon)	19
RIVER ROAD ESTATES	6	4N3W10	21.39	10	2.14	COUNTY (Canyon)	20
RIVER ROAD ESTATES #2	7	4N3W10	23.92	12	1.99	COUNTY (Canyon)	20
WEN-JEFF ESTATES	8	5N3W34	16.78	7	2.40	COUNTY (Canyon)	19
WHITTLE SUB	9	4N3W03	11.42	10	1.14	COUNTY (Canyon)	1
WILLIS CREEK SUBDIVISION	10	5N3W35	28.54	19	1.50	COUNTY (Canyon)	2
WILLIS RANCH	11	5N3W33	21.11	16	1.32	COUNTY (Canyon)	1
YOTIE SUB	12	4N3W04	4.14	4	1.03	COUNTY (Canyon)	2
NORTHSLOPE ESTATES #2	13	4N3W02	37.37	12	3.11	COUNTY (Canyon)	2
ATKINSON SUB	14	4N3W02	21.36	10	2.14	COUNTY (Canyon)	1
BALE SUB	15	4N3W03	7.08	7	1.01	COUNTY (Canyon)	1
D&S PURPLE SAGE RANCHETTES	16	5N3W35	36.47	31	1.18	COUNTY (Canyon)	1
DEE ANN MEADOWS SUB	17	5N3W34	9.71	12	0.81	COUNTY (Canyon)	1
DRAKE SUB	18	5N3W35	40.05	41	0.98	COUNTY (Canyon)	1
EL PASO HEIGHTS	19	5N3W34	37.90	7	5.41	COUNTY (Canyon)	1
FOREST HILLS ESTATES	20	4N3W04	4.82	9	0.54	COUNTY (Canyon)	1
FOREST HILLS ESTATES #2	21	4N3W04	11.35	21	0.54	COUNTY (Canyon)	1
FRUITDALE FARMS	22	4N3W03	273.92	83	3.30	COUNTY (Canyon)	1
HECK SUB #1	23	4N3W04	4.69	9	0.52	COUNTY (Canyon)	1
KABLE SUB	24	4N3W04	8.04	4	2.01	COUNTY (Canyon)	1
MOUNTAIN GEM ESTATES	25	4N3W09	17.72	37	0.48	COUNTY (Canvon)	1
NORTHSLOPE ESTATES #1	26	4N3W02	42.71	15	2.85	COUNTY (Canyon)	
SLEEPY HOLLOW SUBDIVISION	27	4N3W03	17.60	6	2.93	COUNTY (Canvon)	
SOUTHWICK ESTATES	28	4N3W09	29.57	24	1.23	COUNTY (Canyon)	
TAYLOR RIDGE SUBDIVISION	29	4N3W10	62.78	53	1.18	COUNTY (Canyon)	
WILLIS ESTATES SUBDIVISION	30	4N3W03	19.35	10	1.93	COUNTY (Canyon)	
EAGLES NEST ESTATES	31	5N3W34	35.62	11	3.24	COUNTY (Canyon)	
GREEN ESTATES	32	4N3W02	2.87	2	1.44	COUNTY (Canyon)	
NORTH SOUTHWICK COMMERCIAL SUBDIVISION	33	4N3W10	10.55	2	5.27	COUNTY (Canyon)	
KINDER PLATZ SUBDIVISION	34	4N3W02	25.33	4	6.33	COUNTY (Canyon)	
RADFORD RIDGES SUBDIVISION	35	5N3W34	4.59	2	2.29	COUNTY (Canyon)	
ALBION ACRES SUBDIVISION NO. 1	36	5N3W34	41.10	19	2.16	COUNTY (Canyon)	
ALBION ACRES SUBDIVISION NO. 2	37	5N3W34	33.13	19	2.10	COUNTY (Canyon)	
PALOMINOS SUBDIVISION	38	4N3W04	6.49	2	3.24	COUNTY (Canyon)	
RADFORD RIDGES NO 2 SUBDIVISION	39	5N3W34	4.75	3	1.58	COUNTY (Canyon)	
FINAL PLAT OF SADDLEBACK RIDGE ESTATES SUBDIVISION	40	4N3W03	35.81	16	2.24	COUNTY (Canyon)	
BOULDER CREEK SUBDIVISION	40	4N3W03 4N3W03	18.01	7	2.24	COUNTY (Carlyon)	
FAISAN POINTE ESTATES SUBDIVISION	41	4N3W03 4N3W02	18.01	13	2.57	COUNTY (Canyon)	
TIMBER HILLS SUBDIVISION		4N3W02 4N3W03&04	45.62		1.06		
	43			28		COUNTY (Canyon)	
PURPLE SAGE ESTATES SUBDIVISION NO. 4	44	5N3W33	33.44	25	1.34	COUNTY (Canyon)	2
PURPLE SAGE ESTATES SUBDIVISION NO. 5	45	5N3W33	28.45	25	1.14	COUNTY (Canyon)	2
HIDDEN LEGENDS ESTATES SUBDIVISION	46	4N3W04	19.59	9	2.18	COUNTY (Canyon)	2

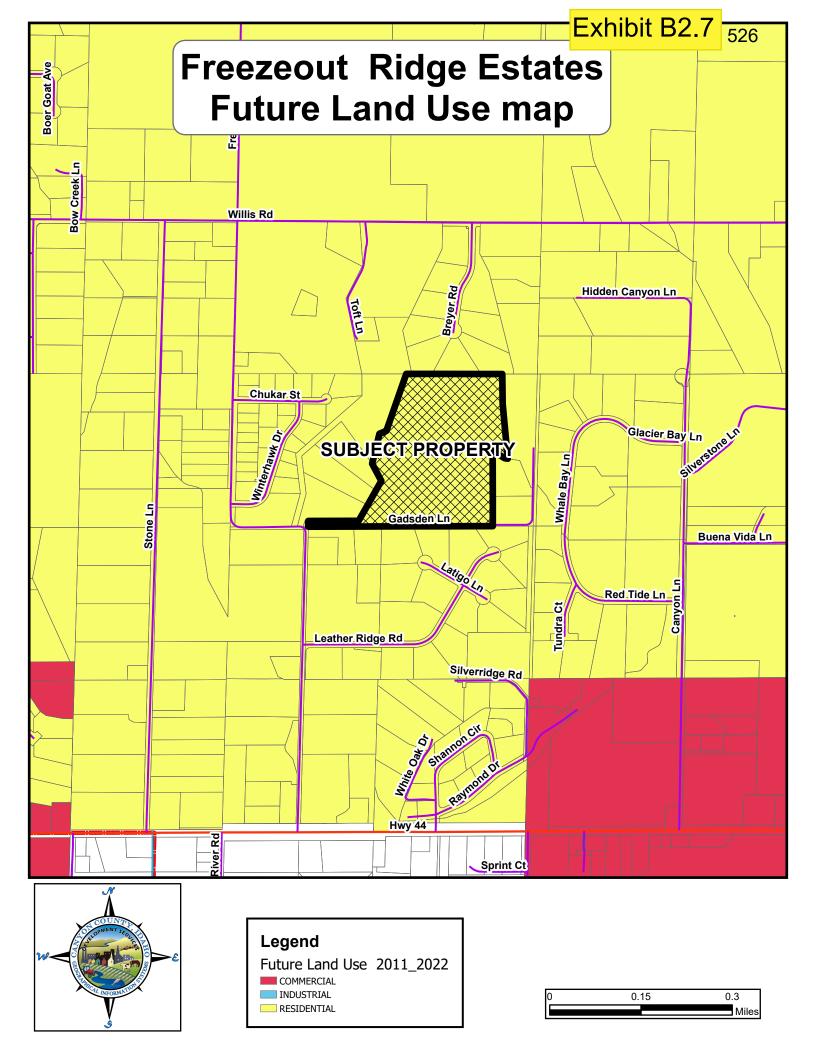
# SUBDIVISIONS IN PLATTING

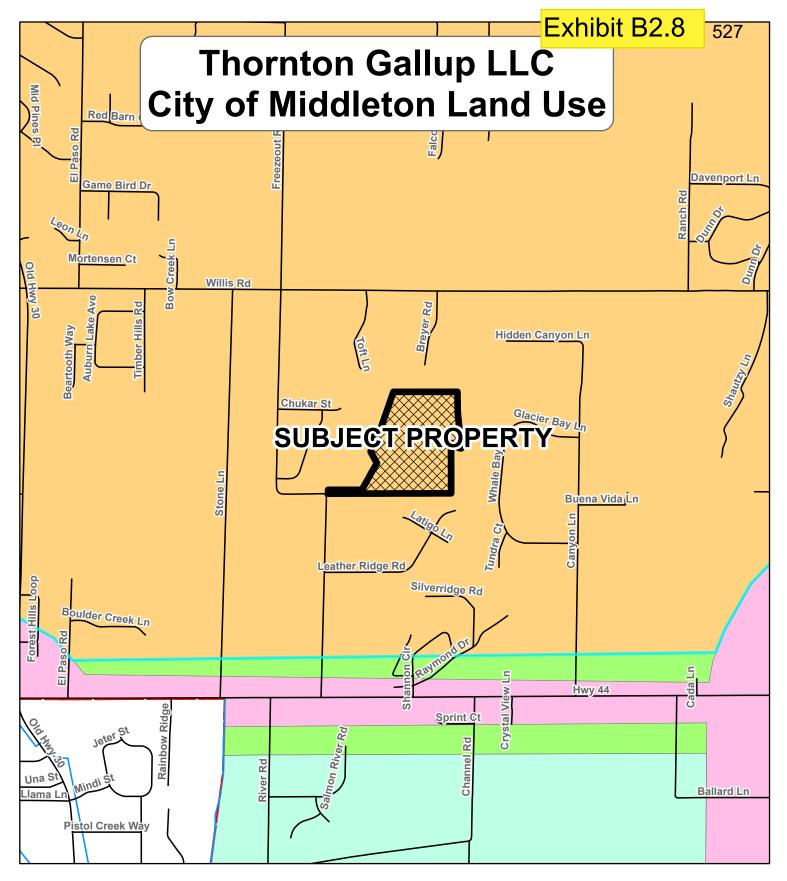
SUBDIVISION NAME	ACRES	NO. OF LOTS	AVERAGE LOT SIZE		
Purple Sage Estates No.5	28.32	23	1.23		
Timber Hills	45.49	28	1.62		
Faisan Pointe Estates Sub	13.82	11	1.26		
Hidden Legends Esates	19.51	8	2.44		

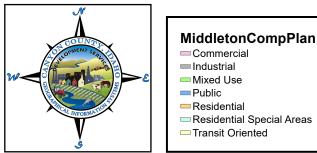
	MOBILE HOME	& RV PA	RKS		
SUBDIVISION NAME	SITE ADDRESS	ACRES	NO. OF SPACES	UNITS PER ACRE	CITY OF



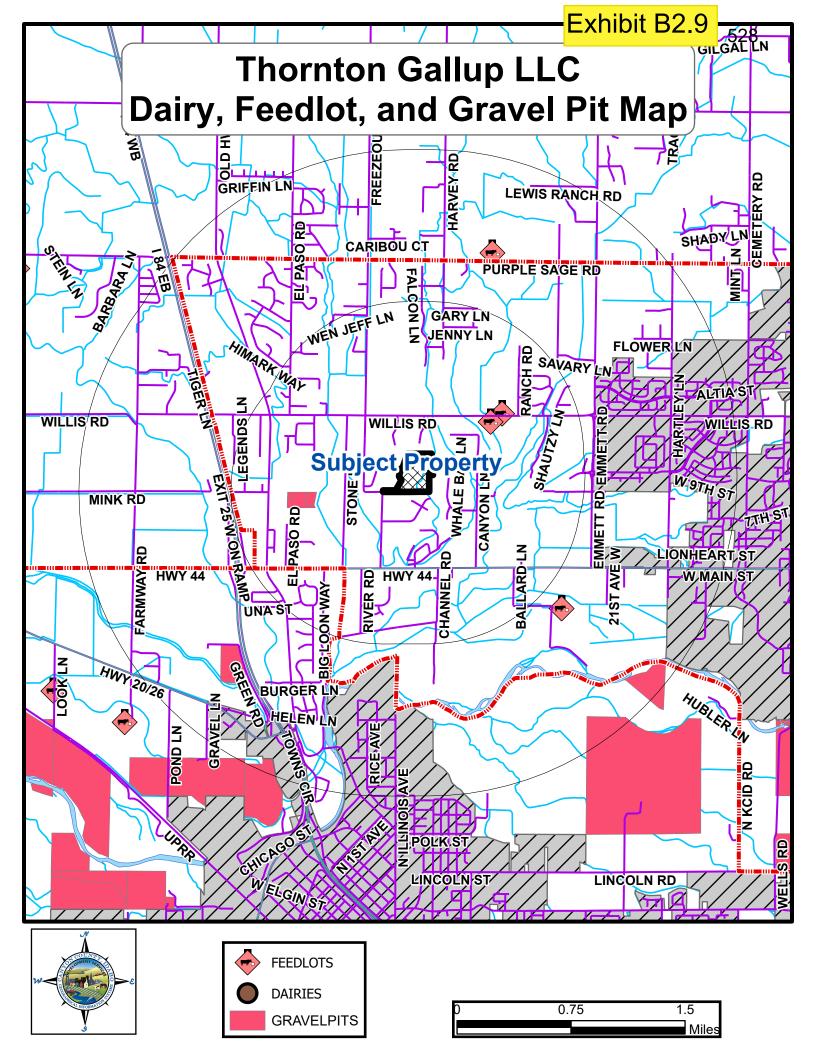
	CASE SUMMARY						
ID	CASENUM	REQUEST	CASENAME	FINALDECIS			
1	SD2019-0004	Boulder Creek Sub	Boulder Creek Sub	APPROVED			
2	SD2019-0043	Purple Sage Estaates No.4	Purples Sage Estates No.4	APPROVED			
3	RZ2019-0040	Rezone AG to R1	Wangsgard, Kathi	APPROVED			
4	RZ2019-0034	Rezone AG to R1	Mortensen	APPROVED			
5	Trison Estates Sub	0	Trison Estates Sub	Approved			
6	SD2020-0026	Plat - Purple Sage Esates No.5	Plat - Purple Sage Esates No.5	APPROVED			
7	RZ2021-0016	Rezpme AG to R 1	Guijaro	APPROVED			
8	RZ2022-0006	Rezone AG to CR-R1	Phoenix	APPROVED			
9	RZ2022-0009	Rezone AG to C1	Oregon Trail Chruch of God	APPROVED			
10	CU2021-0009	Planned Unit Development	Sage Gate Storage & Business Park	DENIED			
11	SD2022-0003	Hidden Legends Estates Sub	Hidden Legends Estates Sub	APPROVE			







# 0 0.25 0.5



# Exhibit C





All three photos were taken from the same location. The top left and bottom photo are looking Northeast onto the property. The top right is looking West up the private road.

All three photos were taken from the same location. The top image was taken looking North at the residential buildings. The bottom left is looking West at the lateral. The bottom right is looking Northeast at the lateral.





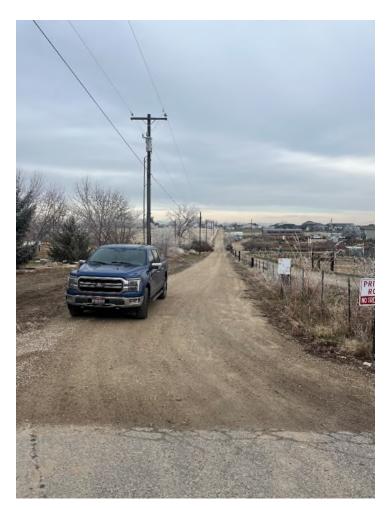




The top photo is taken looking South near the boundary of the property on the East. (blue star) The bottom photo is taken looking South (yellow star).









All three photos were taken at the same location. The first is taken looking West at Freezeout Rd, the second is taken looking South at Freezeout Rd and the last is looking back down the private road to the West.





DEPARTMENT OF THE ARMY WALLA WALLA DISTRICT, CORPS OF ENGINEERS BOISE REGULATORY OFFICE 720 EAST PARK BOULEVARD, SUITE 245 BOISE, IDAHO 83704-9754

August 23, 2021

Walla Walla District Regulatory Division

SUBJECT: NWW-2021-00298

Mr. Robert T. Gallup Thornton Gallup LLC P.O. Box 1495 Nampa, Idaho 83653

Dear Mr. Gallup:

We have reviewed your September 16, 2020 application for permit in accordance with Section 404 of the Clean Water Act and have determined that the subject project area contains water features which are (b)(5) excluded waters, and not considered waters of the United States. Therefore, a Department of Army authorization is not required.

Enclosed is our Department of Army (DA) Approved Jurisdictional Determination (AJD) that there are no waters of the United States, including wetlands, within your proposed project area. Therefore, no DA authorization is required. This decision is based upon our review of the information your agent provided and additional information available to our office. Your project site is located at the C.L.E. 10.2 Lateral at the Freezeout Ridge Estates, within Section 3 of Township 4 North, Range 3 West, near latitude 43.715278° N and longitude -116.675556° W, in Canyon County, in Caldwell, Idaho. Your request has been assigned file number NWW-2021-00298, which should be referred to in future correspondence with our office regarding this site.

The DA exerts regulatory jurisdiction over waters of the United States (U.S.), including wetlands, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344). Section 404 of the Clean Water Act requires a DA permit be obtained prior to discharging dredged or fill material into waters of the U.S., which are defined at 33 CFR 328.3.

This approved JD is valid for a period of 5-years from the date of this letter, unless new information supporting a revision is provided to this office before the expiration date. Also enclosed, you will find the Approved Jurisdictional Determination Form addressing wetlands and waters of the U.S. located within the JD review area, and a Notification of Administrative Appeals Options and Process and Request for Appeal Form (RFA) regarding this DA Approved Jurisdictional Determination. Should you disagree with certain terms and/or conditions this Approved JD, the Notification of Administrative Appeal Options form outlines the steps to take to file your objection. Please note, the RFA form must be received by the Northwest Division Office no later than October 22, 2021.

Nothing in this letter shall be construed as excusing you from compliance with other Federal, state, or local statutes, ordinances or regulations which may affect this work.

If you have any questions about this determination, please contact Sarah Windham by telephone at 208-433-4464, by mail at the address in the above letterhead, or via email at <u>sarah.v.windham@usace.army.mil</u>. We appreciate your cooperation with the Corps of Engineers' Regulatory Program.

Sincerely Shane Skaar

Environmental Resources Specialist Regulatory Division

Enclosures:

Wetland/Waters Delineation Map Approved JD Form Notification of Administrative Appeal Options and Request for Appeal Form

## **Michelle Barron**

From:	Don Popoff <dpopoff@rh2.com></dpopoff@rh2.com>
Sent:	Wednesday, August 30, 2023 2:19 PM
То:	Michelle Barron
Cc:	Olga Powers; Nick Sparacino; carl@blackcanyonirrigation.com;
	tyler@blackcanyonirrigation.com; Cameron Shippy; William Mason
Subject:	[External] BCID Comments_RZ2021-0053_SD2021-0055_Freezeout Ridge
Attachments:	BCID_LTR_Response_RZ2021-0053_SD2021-0055_Freezeout_20230830.pdf
Follow Up Flag: Flag Status:	Follow up Flagged

Michelle,

Please see the attached BCID Comments\_RZ2021-0053\_SD2021-0055\_Freezeout Ridge. Please let me know if you have any questions.

Thanks Don District Engineer Black Canyon Irrigation District



**Donald Popoff** PE Nampa Office Manager | RH2 Engineering, Inc.

16150 N. High Desert Street Suite 201 Nampa, Idaho 83687 C: 208.807.0015 O: 208.563.2280 dpopoff@rh2.com www.rh2.com 60.000 IRRIGABLE ACRES

August 30th, 2023

Canyon County Development Services Department 111 North 11<sup>th</sup> Ave. Suite 140 Caldwell, ID 83605 (208) 454-7458

RE: Freezeout Ridge Subdivison, Parcel R3447900000 Case No. RZ2021-0053/SD2023-0008 Applicant: Mason & Associates, Inc. Planner: Michelle Barron

The parcel is located at 23442 Freezeout Rd, Nampa ID 83653.

The Black Canyon Irrigation District (District) is providing PRE-PLAT CONCURRENCE APPROVAL with the following conditions and comments regarding this proposed rezone/preliminary plat.

### General Comments

- The District requests that all District requirements be met (as indicated below) prior to rezone approval, preliminary plat approval, construction drawing approval and final plat approval respectively.
- This project was previously approved by the District on November 4, 2021. Unknown delays have required this project to be re-approved with the District, with some very minor revisions that the District has identified with the Developer.
- The District has begun the review process with the developer for the Freezeout Ridge subdivision. The developer has filled out an intake sheet and is on track with the District's development review process. We appreciate this coordination from the Developer.

### Prior to District Pre-plat Concurrence / Rezone Approval

• The provided pre-plat shows a 35-foot District easement along the north edge of the parcel. A portion of this easement is shown to be on the Developer's property. Please provide the additional easement width as discussed and as requested of the Developer for future access to this pipeline. Please show the required easement on pre-plat documents.

### Prior to District Construction Plan Concurrence Approval

- The pre-plat map shows an assumed "private" gravity irrigation line extending west and south to the parcel located at 23440 Freezeout Rd. The developer will need to ensure that water is delivered to this parcel as has historically been delivered. A separate weir box for District's flow measurements may be required. This detail will need to be resolved during construction plan review approval.
- Initial approval documents with the District shows the adjacent property owner providing an easement along the eastern edge of this plat. Pipe location will be determined based on the successful acquisition of this easement. This detail will need to be resolved during construction plan review approval.
- A turnout off Freezeout road to access the last irrigation and weir boxes along the south side of property has been shown and approved. This access will be reviewed and any changes resolved based on pipeline location during construction plan review approval.
- An agreement with the Bureau of Reclamation will be required prior to working in the District's easement. This agreement was almost completed, but is waiting on concurrence of construction drawings with the

District. Once construction plans are approved a letter will be provided to the Bureau for concurrence.

IDAH

### Prior to District Final Plat Concurrence Approval

- A legal, standalone, recorded easement for the District will be required prior to final plat concurrence from the District for the east-west running easement across the northern property line. A 20-foot easement is shown on the final plat for the southern edge of the neighboring subdivision (Willis Estates). Please ensure that a minimum of 15' of easement is provided (completing the 35-foot easement) within the Freezeout Ridge subdivision. No other utilities will be allowed within the District's easement including pressure irrigation or fencing.
- All items required in the Bureau's license agreement will be required to be completed.
- All District construction standard items relevant to this project, including hydrostatic pipe testing, will need to be completed.
- District policy requires that all easements are fenced along the District facility easement/right-of-way boundary line located within the subdivision. Specifically for this subdivision, the easement along the east edge and southeast corner of the plat will be required to be fenced prior to concurrence of final plat.
- District policy requires that a 12' wide all-weather road be constructed along the District's easement as shown. A 12' wide all-weather road will be required to be constructed prior to concurrence of final plat.
- A lot division fee will be assessed to the developer of this project prior to final plat.
- All fees will need to be paid in full to the District.
- As-constructed surveyed plans will be required to be provided to the District / along with digital pipe network design drawings.

### General Comments

- Runoff and drainage from the proposed land subdivision should be addressed as well to ensure downstream users are not adversely affected by the proposed land use changes.
- All Maintenance road right-of ways, lateral right-of ways and drainage right-of ways will need to be protected (including the restriction of all encroachments). Also, any crossing agreement(s) and/or piping agreement(s) will need to be acquired from the Bureau of Reclamation (Reclamation), once approved by the District, to cross over or under any existing lateral, pipe any lateral or encroach in any way the right-of ways of the District or the Reclamation.
- As long as this property has irrigation water attached to it, an irrigation system with an adequate overflow needs to be installed to ensure the delivery of irrigation water to each lot and/or parcel of land entitled to receive irrigation water.

All the above requirements are requested to be met, including any others that arise during future reviews.

Thank You,

Donald Popoff P.E. District Engineer Black Canyon Irrigation District



### **Michelle Barron**

From:	Richard Sims <middletown.rich@gmail.com></middletown.rich@gmail.com>
Sent:	Wednesday, November 20, 2024 9:19 PM
То:	Michelle Barron
Subject:	Re: [External] Rz2021-0053

Thank you for sending the picture. I looked in my records and the parcel was reviewed and no comment was offered. Thanks for clearing it up for me. Rich Sims

On Wed, Nov 20, 2024 at 5:20 PM Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> wrote: Good afternoon Rich,

Sorry for the confusion. It is the same application. Your agency was previously noticed in January of 2022. I do not see where the Soil Conservation commented. If you would like to provide comment, that would be great. The deadline for the comments is 12/9/2024. I will attach the aerial for your use.

Thanks,

Michelle Barron Principal Planner Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605 Direct Line: 208-455-6033 DSD Office Phone: 208-454-7458 Email: <u>Michelle.Barron@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

-----Original Message-----From: Richard.Sims <<u>middletown.rich@gmail.com</u>> Sent: Tuesday, November 19, 2024 11:50 AM To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> Subject: [External] Rz2021-0053

I am a little confused. In the same day I received two messages about this tract. One asking for comments and one saying we do not need to respond with two different due dates. I did not get a copy of the p and z aerial phot which is essential for me to do my work. Was this submitted previously for comments. If not please send an aerial photo. Rich Sims

Canyon county soil conservation district.

Sent from my iPhone



CANYON COUNTY RECORDER Pgs=12 HCRETAL NO FEE MISC CITY OF MIDDLETON

Space above this line for Recorder's use

### CONSENT TO ANNEXATION

THIS CONSENT TO ANNEXATION ("Consent"), is made this / day of <u>September</u>, <u>2021</u>, between the City of Middleton, Idaho, an Idaho municipal corporation ("City") and <u>Thornton Gallup</u>, <u>AAC</u>.

WHEREAS, Developer is the owner of the Subject Property located in Canyon County, Idaho and more particularly described below; and

WHEREAS, the Subject Property is located outside the City corporate limits but within the City's area of impact as established by Idaho Code Section 67-6526; and

WHEREAS, Developer is in the process of developing the Subject Property under the land use jurisdiction of Canyon County, Idaho, but the parties acknowledge that the orderly development of the City will encompass the Subject Property within the foreseeable future; and

WHEREAS, Both City and Developer have an interest in the thoughtful, well-planned, and coordinated growth of Canyon County and City; and

WHEREAS, Developer desires to agree and consent to the annexation of the Subject Property into the corporate limits of City (the "Annexation") as soon as the Subject Property becomes contiguous to City limits; and

WHEREAS, there are costs associated with processing applications and noticing hearings for annexations when a property proposes itself as a candidate for annexation into the City ("Costs"); and,

WHEREAS, said costs are the responsibility of the property owner of the land proposing annexation.

NOW, THEREFORE, based upon the foregoing recitals, and the mutual consideration for the

ANNEXATION AND UTILITY CORRIDOR AGREEMENT, Page 1

execution of this Consent described herein, the parties agree as follows:

### I. <u>General</u>

A. The Subject Property is legally described on **Exhibit** A attached and incorporated by this reference ("Subject Property").

B. In recognition of this binding commitment and consent to annexation, City shall be responsible for all Costs associated with the Annexation of the Subject Property into the City.

C. City staff shall support the Annexation application at the time of said application so long as the same is in the best interests of City, at the time thereof.

D. Developer's subsequent and/or associated applications for the development of the Subject Property shall be granted no special privilege, license, priority, approval, or entitlement hereby, and shall progresses in accordance with the then-current and applicable law.

E. This Consent shall be recorded in the Canyon County Recorder's Office following complete execution by the Developer and the City. This Consent shall run with the land. By the execution of this Consent, Developer is bound and likewise binds its heirs, assigns, and any and all successors in interests to the terms of this Consent.

### II. Annexation:

A. The Subject Property is not currently contiguous to the Middleton City limits and cannot, therefore, be immediately annexed into City. The annexation process shall proceed immediately at such time as an annexation path, as required by Idaho law, becomes available.

B. The Annexation shall be initiated and consummated pursuant to Idaho Code 50-222, and the same shall be a "Category A" annexation, as the term is used therein.

C. At such time as the Subject Property shall become contiguous to the City limits, the Developer, his heirs, successors, and assigns shall support the Annexation of the Subject Property in whole into the City limits to become part of the same with a  $\frac{2}{2}$  zone designation. The Annexation application, and associated application for the designation of a zone to the Subject Property, may be initiated by the City. The failure of any application to result in the annexation of the Subject Property shall not prevent or prohibit future annexation applications under this Consent.

D. In consideration of City's assumption of the Costs of the Annexation of the Subject Property in the impact area, Developer and its successors, forever, hereby irrevocably consent to the annexation of the Subject Property into the City limits as a voluntary "Category A Annexation" under Idaho law.

E. Developer, for itself and its heirs, assigns, and any and all successors in interest,

### ANNEXATION AND UTILITY CORRIDOR AGREEMENT, Page 2

forever, waive the right to object to annexation of the Subject Property or revoke consent to the Annexation of the Subject Property.

F. Notice of such consent and waiver shall appear on any plat recorded in the office of the Canyon County Recorder and upon the covenants of any subsequent development occurring on the Subject Property.

# IV. Effective Date/Binding Effect:

This Consent shall become effective at the time that both parties execute the same. This Consent constitutes the legal, valid, and binding obligation of each party. The individuals executing this Consent warrants that he or she has full power and has been duly authorized to execute and deliver this Consent on behalf of the entity for which he or she signs.

V. <u>Termination</u>: Termination of this Consent shall occur upon complete satisfaction of its terms.

[end of text.]

IN WITNESS WHEREOF the parties hereto have set their hands the day and year written below.

Date: 9.3-21

Thornton Gallup, LLC.	
[name of entity]	
By: Non alrouter	
Its: Member	

Date: 9/17/2021 June By: STEVEN Its Ma

CITY OF MIDDLETON, IDAHO

Its Mayor

ATTEST:

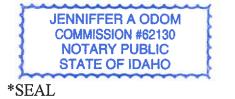
Date: 9-17-2021

BE lerk

# STATE OF IDAHO ) ss. COUNTY OF CANYON ) On this <u>17</u> day of <u>September</u>, 20<u>21</u>, before me the undersigned, a Notary Public in and for said State personally appeared Steven Rule and Becky Crofts known or

Public in and for said State personally appeared Steven Rule and Becky Crofts known or identified to me to be the Mayor and City Clerk of the City of Middleton, Idaho that executed the said instrument, and acknowledged to me that such City executed the same.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.



Residence: My Commission Expires:

#### STATE OF IDAHO

#### **COUNTY OF CANYON**

On this 3 day of September , in the year 20 21, before me the undersigned, a Notary Public in and for said State personally appeared bon Thornton known or identified to me to be the manager or a member of the limited liability company that executed the instrument or the person who executed the instrument on behalf of said limited liability company and acknowledged to me that such limited liability company executed the same.

) ss.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed my official seal the day and year in this certificate first above written.

NOTA

Residence: Canyon County My Commission Expires: April 22 2006

JULIE R VAUDREY SEALTY Public - State of Idaho Commission Number 20201512 My Commission Expires Apr 22, 2026

# Exhibit A

Legal Description of the Subject Property

Mason &. Assocíates Inc

Professional Engineers, Land Surveyors and Planners

924 3<sup>rd</sup> St. So. Nampa, ID 83651 Ph (208) 454-0256 Fax (208) 467-4130

e-mail: dholzhey@masonandassociates.us

FOR: Pioneer Homes JOB NO.: JY1420 DATE: September 9, 2021

#### SUBDIVISION BOUNDARY PARCEL

A parcel of land being a portion of the SW1/4 NE1/4 and a portion of the SE1/4 NE1/4 of Section 3, Township 4 North, Range 3 West, Boise Meridian, Canyon County Idaho, more particularly described as follows:

Commencing at the southwest corner of the SW1/4 NE1/4, marked with a found G.L.O. brass monument;

Thence N 89° 47' 50" E a distance of 677.27 feet along the south boundary of the SW1/4 NE1/4 to the **POINT OF BEGINNING** marked with a found 1/2 rebar BBCE 940, replaced with a 5/8 rebar pls 9366;

Thence N 00° 01' 01" W a distance of 50.05 feet to a found 5/8 rebar PLS 8960;

Thence N 89° 49' 42" E a distance of 438.55 feet to a found 1/2 rebar, replaced with a 5/8 rebar PLS 9366;

Thence N 29° 32' 40" E a distance of 397.27 feet to a found 5/8 rebar PLS 8960;

Thence N 28° 07' 21" W a distance of 169.92 feet to a found 5/8 rebar PLS 8960;

Thence N 13° 47' 27" E a distance of 268.10 feet to a found 1/2 rebar, replaced with a 5/8 rebar PLS 9366;

Thence N 67° 17' 49" E a distance of 65.01 feet to a found 1/2 rebar, replaced with a 5/8 rebar PLS 9366;

Thence N 19° 11' 52" E a distance of 523.26 feet to a found 1/2 rebar on the north boundary of the SE1/4 NW1/4, replaced with a 5/8 rebar PLS 9366;

Mason &

Professional Engineers, Land Surveyors and Planners  $\mathsf{Page}\ 1\ \mathsf{of}\ 2$ 

Thence S 89° 58' 08" E a distance of 832.99 feet along the north boundary of the SE1/4 NE1/4 to a found 1/2 rebar, replaced with a 5/8 rebar PLS 9366;

Thence S 00° 50' 23" E a distance of 258.22 feet to a point marked with a 5/8 rebar PLS 9366;

Thence S 05° 23' 12" E a distance of 479.39 feet to a found 1/2 rebar, replaced with a 5/8 rebar PLS 9366;

Thence N 81° 01' 58" W a distance of 28.29 feet to a point marked with a 5/8 rebar PLS 9366;

Thence N 57° 47' 44" W a distance of 122.26 feet to a point, witness with a found 1/2 rebar replaced with a 5/8 rebar PLS 9366, bearing S 00° 11' 44" E a distance of 6.97 feet to said point;

Thence S 00° 11' 44" E a distance of 654.93 feet to a found 1/2 rebar on the south boundary of the SE1/4 NW1/4, replaced with a 5/8 rebar PLS 9366;

Thence S 89° 49' 13" W a distance of 965.15 feet along the south boundary of the SE1/4 NE1/4 to a found G.L.O. brass monument at the southwest corner of the SE1/4 NE1/4;

Thence S 89° 47' 50" W a distance of 637.76 feet along the south boundary of the SW1/4 NE1/4 to the **POINT OF BEGINNING**.

This parcel contains 31.408 acres more or less.

SUBJECT TO: All existing rights of way and easements of record or implied appearing on the abovedescribed parcel of land.



ason & ssociates Inc.

Professional Engineers, Land Surveyors and Planners  $P_{age \ 2 \ of \ 2}$ 

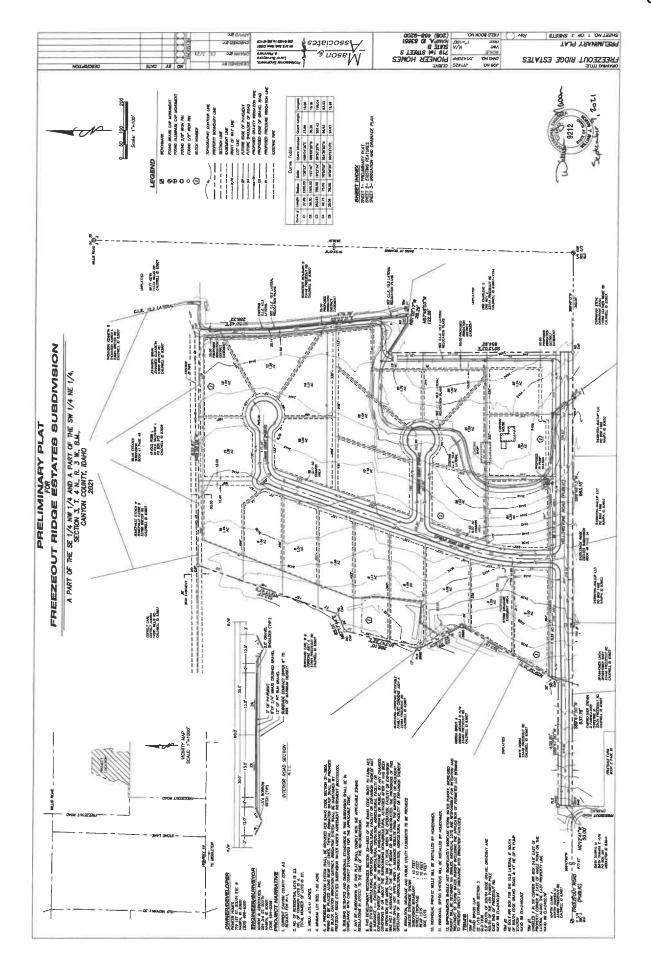
# Exhibit B

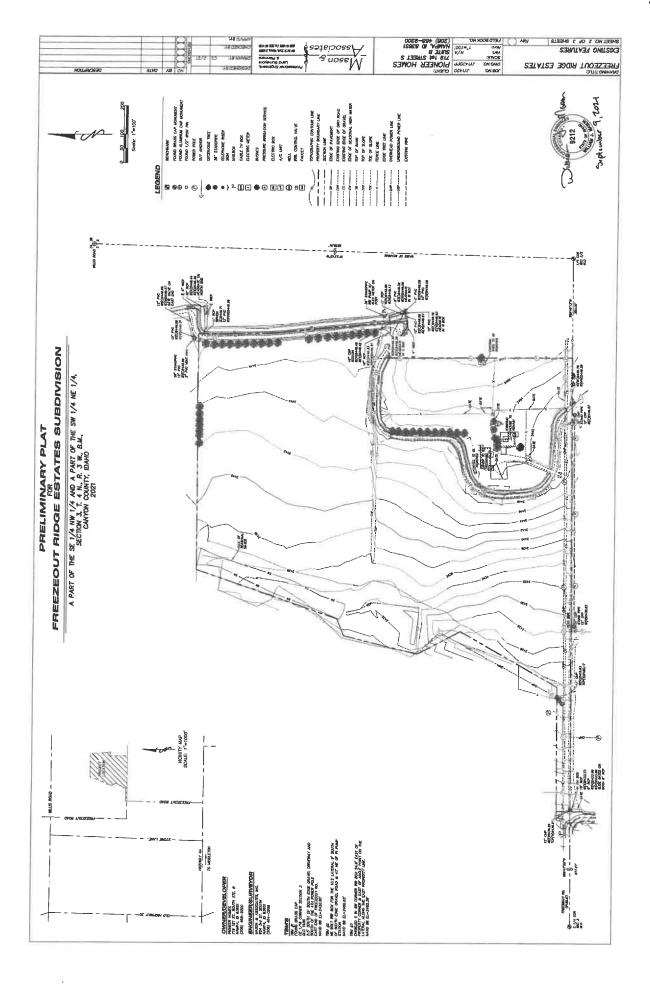
Preliminary Plat or Site Plan

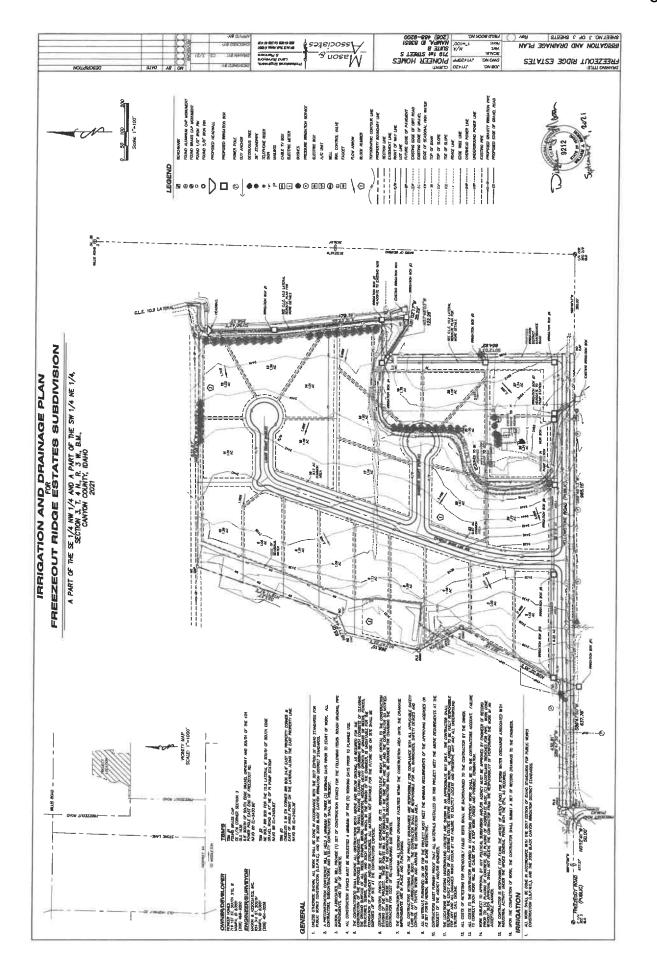
5

ANNEXATION AND UTILITY CORRIDOR AGREEMENT, Page 7

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From:	Doug Critchfield < critchfieldd@cityofnampa.us>
Sent:	Tuesday, November 19, 2024 10:16 AM
То:	Michelle Barron
Subject:	[External] RE: Full Political RZ2021-0053 Thornton Gallup LLC

Michelle - Nampa Planning and Zoning has no comments on this proposal. Thanks - Doug

N

Doug Critchfield, Principal Planner, ASLA

O: 208.468.5406, F: 208.468.5439 500 12<sup>th</sup> Ave. S., Nampa, ID 83651 <u>Planning and Zoning - Like us on Facebook</u> Citizen's Guide to Planning - Learn More About Planning!



From: Amber Lewter < Amber.Lewter@canyoncounty.id.gov>

Sent: Tuesday, November 19, 2024 8:50 AM

To: 'rcollins@cityofcaldwell.org' <rcollins@cityofcaldwell.org>; 'p&Z@cityofcaldwell.org' <p&Z@cityofcaldwell.org>; 'dgeyer@cityofcaldwell.org' <dgeyer@cityofcaldwell.org>; 'jdodson@cityofcaldwell.org' <jdodson@cityofcaldwell.org>; 'mbessaw@cityofcaldwell.org' <mbessaw@cityofcaldwell.org>; 'amy@civildynamics.net' <amy@civildynamics.net>; 'alicep@cityofhomedale.org' <alicep@cityofhomedale.org>; 'jgreen@marsingcity.com' <jgreen@marsingcity.com>; 'mayor@cityofmelba.org' <mayor@cityofmelba.org>; 'cityclerk@cityofmelba.org' <cityclerk@cityofmelba.org>; 'jhutchison@middletoncity.com' <jhutchison@middletoncity.com>; 'jreynolds@middletoncity.com' <jreynolds@middletoncity.com>; 'mhobbs@middletoncity.org' <mhobbs@middletoncity.org>; 'rstewart@middletoncity.com' <rstewart@middletoncity.com>; Robyn Sellers <sellersr@cityofnampa.us>; Kristi Watkins <watkinsk@cityofnampa.us>; Daniel Badger <BadgerD@cityofnampa.us>; Addressing <Addressing@cityofnampa.us>; Doug Critchfield <critchfieldd@cityofnampa.us>; Clerks <clerks@cityofnampa.us>; Char Tim <timc@cityofnampa.us>; 'notuscityclerk@gmail.com' <notuscityclerk@gmail.com>; 'info@parmacityid.org' <info@parmacityid.org>; 'mayor@parmacityid.org' <mayor@parmacityid.org>; 'planning@parmacityid.org' <planning@parmacityid.org>; 'snickel@staridaho.org' <snickel@staridaho.org>; 'wsevery@cityofwilder.org' <wsevery@cityofwilder.org>; 'casanderson@caldwellschools.org' <casanderson@caldwellschools.org>; 'jshoemaker@blm.gov' <jshoemaker@blm.gov>; 'nicmiller@cwi.edu' <nicmiller@cwi.edu>; 'ddenney@homedaleschools.org' <ddenney@homedaleschools.org>; 'Brian Graves' <bgraves@kunaschools.org>; 'tejensen@kunaschools.org' <tejensen@kunaschools.org>; 'nstewart@marsingschools.org' <nstewart@marsingschools.org>; 'sadams@melbaschools.org' <sadams@melbaschools.org>; 'horner.marci@westada.org' <horner.marci@westada.org>; 'lgrooms@msd134.org' <lgrooms@msd134.org>; 'mgee@msd134.org' <mgee@msd134.org>; 'cstauffer@nsd131.org' <cstauffer@nsd131.org>; 'dleon@nsd131.org' <dleon@nsd131.org>; 'krantza@notusschools.org' <krantza@notusschools.org>; 'tkelly@parmaschools.org' <tkelly@parmaschools.org>; 'jenny.titus@vallivue.org' <jenny.titus@vallivue.org>; lisa.boyd <lisa.boyd@vallivue.org>; 'joseph.palmer@vallivue.org' <joseph.palmer@vallivue.org>; 'jdillon@wilderschools.org' <jdillon@wilderschools.org>; 'lrichard@cityofcaldwell.org' <lrichard@cityofcaldwell.org>; 'Alan Perry' <aperry@cityofcaldwell.org>; 'homedalefd@gmail.com' <homedalefd@gmail.com>; 'tlawrence@kunafire.com' <tlawrence@kunafire.com>; 'khinkle@kunafire.com' <khinkle@kunafire.com>; 'marsingfiredistrict@yahoo.com' <marsingfiredistrict@yahoo.com>; 'marsingruralfire@gmail.com' <marsingruralfire@gmail.com>; 'brian.mccormack@melbafire.id.gov' <br/><br/>brian.mccormack@melbafire.id.gov>; 'kenny.hoagland@melbafire.id.gov' <kenny.hoagland@melbafire.id.gov>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'johnsonre@nampafire.org' <johnsonre@nampafire.org>;

Ron Johnson <johnsonrl@nampafire.org>; 'linanj@nampafire.org' <linanj@nampafire.org>; 'jeff@parmafire.us' <jeff@parmafire.us>; 'parmaruralfire@gmail.com' <parmaruralfire@gmail.com>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'eddy@heritagewifi.com' <eddy@heritagewifi.com>; 'jmaloney@wilderfire.org' <jmaloney@wilderfire.org>; 'knute.sandahl@doi.idaho.gov' <knute.sandahl@doi.idaho.gov>; 'Chris Hopper' <chopper@hwydistrict4.org>; 'Lenny Riccio' <lriccio@hwydistrict4.org>; 'bobw@gghd3.org' <bobw@gghd3.org>; 'office@gghd3.org' <office@gghd3.org>; 'Eddy Thiel' <eddy@nampahighway1.com>; 'gwatkins@nphd.net' <gwatkins@nphd.net>; 'admin1@kunalibrary.org' <admin1@kunalibrary.org>; 'admin2@kunalibrary.org' <admin2@kunalibrary.org>; 'lizardbuttelibrary@yahoo.com' <lizardbuttelibrary@yahoo.com>; 'brandy.walker@centurylink.com' <brandy.walker@centurylink.com>; 'eingram@idahopower.com' <eingram@idahopower.com>; 'easements@idahopower.com' <easements@idahopower.com>; 'mkelly@idahopower.com' <mkelly@idahopower.com>; 'monica.taylor@intgas.com' <monica.taylor@intgas.com>; 'jessica.mansell@intgas.com' <jessica.mansell@intgas.com>; 'contract.administration.bid.box@ziply.com' <contract.administration.bid.box@ziply.com>; 'developmentreview@blackcanyonirrigation.com' <developmentreview@blackcanyonirrigation.com>; 'aflavel.bkirrdist@gmail.com' <aflavel.bkirrdist@gmail.com>; 'tritthaler@boiseproject.org' <tritthaler@boiseproject.org>; 'gashley@boiseproject.org' <gashley@boiseproject.org>; 'irr.water.3@gmail.com' <irr.water.3@gmail.com>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; 'office@idcpas.com' <office@idcpas.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'farmers.union.ditch@gmail.com' <farmers.union.ditch@gmail.com>; 'wilders04@msn.com' <wilders04@msn.com>; 'irrigation.mm.mi@gmail.com' <irrigation.mm.mi@gmail.com>; 'nmid@nmid.org' <nmid@nmid.org>; 'eolvera@nmid.org' <eolvera@nmid.org>; 'terri@nyid.org' <terri@nyid.org>; 'kirk@pioneerirrigation.com' <kirk@pioneerirrigation.com>; 'sheepmama25@gmail.com' <sheepmama25@gmail.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'mack@settlersirrigation.org' <mack@settlersirrigation.org>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; 'mitch.kiester@phd3.idaho.gov' <mitch.kiester@phd3.idaho.gov>; 'anthony.lee@phd3.idaho.gov' <anthony.lee@phd3.idaho.gov>; 'drain.dist.2@gmail.com' <drain.dist.2@gmail.com>; 'bryce@sawtoothlaw.com' <bryce@sawtoothlaw.com>; 'scott\_sbi@outlook.com' <scott\_sbi@outlook.com>; 'projectmgr@boiseriver.org' <projectmgr@boiseriver.org>; 'testrada@starswd.com' <testrada@starswd.com>; 'jlucas@achdidaho.org' <jlucas@achdidaho.org>; 'clittle@achdidaho.org' <clittle@achdidaho.org>; 'brentc@brownbuscompany.com' <breatc@brownbuscompany.com>; 'gis@compassidaho.org' <gis@compassidaho.org>; 'D3Development.services@itd.idaho.gov' <D3Development.services@itd.idaho.gov>; 'niki.benyakhlef@itd.idaho.gov' <niki.benyakhlef@itd.idaho.gov>; 'itdd3permits@itd.idaho.gov' <itdd3permits@itd.idaho.gov>; 'airport.planning@itd.idaho.gov' <airport.planning@itd.idaho.gov>; 'webmaster@valleyregionaltransit.org' <webmaster@valleyregionaltransit.org>; 'smm5156@gmail.com' <smm5156@gmail.com>; 'deb0815@yahoo.com' <deb0815@yahoo.com>; 'kunacemetery@gmail.com' <kunacemetery@gmail.com>; '3tjj@frontiernet.net' <3tjj@frontiernet.net>; 'melbacemetery@gmail.com' <melbacemetery@gmail.com>; 'middletoncemdist13@gmail.com' <middletoncemdist13@gmail.com>; 'ann jacops@hotmail.com' <ann jacops@hotmail.com>; 'facjhill@gmail.com' <facjhill@gmail.com>; Brian Crawforth <Brian.Crawforth@canyoncounty.id.gov>; Christine Wendelsdorf <Christine.Wendelsdorf@canyoncounty.id.gov>; Michael Stowell <mstowell@ccparamedics.com>; 'tryska7307@gmail.com' <tryska7307@gmail.com>; Curt Shankel <shankelc@cityofnampa.us>; Diana Little <Diana.Little@canyoncounty.id.gov>; Loretta Tweedy <Loretta.Tweedy@canyoncounty.id.gov>; Assessor Website <2cAsr@canyoncounty.id.gov>; Elections Clerk <electionsclerk@canyoncounty.id.gov>; 'roger@amgidaho.com' <roger@amgidaho.com>; Nichole Schwend <Nichole.Schwend@canyoncounty.id.gov>; Rick Britton <Rick.Britton@canyoncounty.id.gov>; 'Richard Sims' <middletown.rich@gmail.com>; Jim Lunders <jlunders@2cmad.org>; 'mgrodriguez@usbr.gov' <mgrodriguez@usbr.gov>; 'edward owens@fws.gov' <edward owens@fws.gov>; 'BRO.Admin@deg.idaho.gov' <BRO.Admin@deq.idaho.gov>; 'kenny.huston@oer.idaho.gov' <kenny.huston@oer.idaho.gov>; 'brenna.garro@oer.idaho.gov' <brenna.garro@oer.idaho.gov>; 'peter.Jackson@idwr.idaho.gov' <peter.Jackson@idwr.idaho.gov>; 'maureen.oshea@idwr.idaho.gov' <maureen.oshea@idwr.idaho.gov>; 'westerninfo@idwr.idaho.gov' <westerninfo@idwr.idaho.gov>; 'john.graves@fema.dhs.gov' <john.graves@fema.dhs.gov>; 'idahoaaa@gmail.com' <idahoaaa@gmail.com>; 'zlathim@idl.idaho.gov' <zlathim@idl.idaho.gov>; 'brandon.flack@idfg.idaho.gov' <brandon.flack@idfg.idaho.gov>; 'aubrie.hunt@dhw.idaho.gov' <aubrie.hunt@dhw.idaho.gov>; 'marilyn.peoples@dhw.idaho.gov' <marilyn.peoples@dhw.idaho.gov>; 'tricia.canaday@ishs.idaho.gov' <tricia.canaday@ishs.idaho.gov>;

552

'dan.everhart@ishs.idaho.gov' <dan.everhart@ishs.idaho.gov>; 'patricia.hoffman@ishs.idaho.gov' <patricia.hoffman@ishs.idaho.gov>; 'stevie.harris@isda.idaho.gov' <stevie.harris@isda.idaho.gov>; 'brock.cornell@isda.idaho.gov' <brock.cornell@isda.idaho.gov>; 'tate.walters@id.usda.gov' <tate.walters@id.usda.gov>; 'carol.chadwick@usda.gov' <carol.chadwick@usda.gov>; 'noe.ramirez@usda.gov' <noe.ramirez@usda.gov>; 'CENWW-RD-BOI-TV@usace.army.mil' <CENWW-RD-BOI-TV@usace.army.mil>; 'laura.j.freedman@usps.gov' <laura.j.freedman@usps.gov>; 'rakesh.n.dewan@usps.gov' <rakesh.n.dewan@usps.gov>; 'chad.m.franklin@usps.gov' <chad.m.franklin@usps.gov>; 'melvin.b.norton@usps.gov' <melvin.b.norton@usps.gov>; 'tammi.l.barth@usps.gov' <tammi.l.barth@usps.gov>; 'henry.medel@usps.gov' <henry.medel@usps.gov>; 'khrista.m.holman@usps.gov' <khrista.m.holman@usps.gov>; 'rochelle.fuguay@usps.gov' <rochelle.fuguay@usps.gov>; 'leroy.eyler@usps.gov' <leroy.eyler@usps.gov>; 'marc.c.boyer@usps.gov' <marc.c.boyer@usps.gov>; 'mhuff@co.owyhee.id.us' <mhuff@co.owyhee.id.us>; 'gmprdjennifer@gmail.com' <gmprdjennifer@gmail.com>; 'lisaitano@me.com' saitano@me.com>; 'scott@fccnw.com' <scott@fccnw.com>; 'srcsbinfo@gmail.com' <srcsbinfo@gmail.com>; 'tottens@amsidaho.com' <tottens@amsidaho.com>; 'melvin.b.norton@usps.gov' <melvin.b.norton@usps.gov>; 'scott.hauser@usrtf.org' <scott.hauser@usrtf.org>; 'info@destinationcaldwell.com' <info@destinationcaldwell.com>; Media - IPT Newsroom <newsroom@idahopress.com>; Media - KBOI TV News <news@kboi2.com>; Media - KIVI News <news@kivitv.com>; Media - KBOI Radio News <670@kboi.com>; Media - KTVB News <ktvbnews@ktvb.com>; 'middletonexpress1@gmail.com' <middletonexpress1@gmail.com>; 'rmorgan@kellerassociates.com' <rmorgan@kellerassociates.com>

Subject: Full Political RZ2021-0053 Thornton Gallup LLC

**CAUTION:** This email originated <u>OUTSIDE</u> the City of Nampa domain. <u>DO NOT</u> click on links or open attachments unless you recognize the sender or are sure the content is safe. Highlight the suspect email and send using the Outlook Phish Alert Report button or call the IT Helpdesk at (208) 468-5454.

Dear Agencies,

Your agency is being notified pursuant to the Local Land Use Planning Act, Idaho Code 67-6509, to all political subdivisions providing services within the planning jurisdiction of Canyon County, including school districts and media.

No response is required from your agency unless you have input on the proposed project.

Contact the planner of record, **Michelle Barron** at <u>michelle.barron@canyoncounty.id.gov</u> with any questions or additional agency comments or concerns if applicable.

Thank you,



**Amber Lewter** Hearing Specialist Canyon County Development Services Department 111 N. 11<sup>th</sup> Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-6631 Fax: 208-454-6633 Email: <u>amber.lewter@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

Development Services Department (DSD)

NEW <u>public</u> office hours Effective Jan. 3, 2023 Monday, Tuesday, Thursday and Friday 8am – 5pm Wednesday 1pm – 5pm \*\*We will not be closed during lunch hour \*\*

PUBLIC RECORD NOTICE: All communications transmitted within the Canyon County email system may be a public record and may be subject to disclosure under the Idaho Public Records Act and as such may be copied and reproduced by members of the public.



From: Sent: To: Subject: Amber Lewter Wednesday, November 20, 2024 8:24 AM Michelle Barron FW: Full Political RZ2021-0053 Thornton Gallup LLC

From: Christine Wendelsdorf
Sent: Wednesday, November 20, 2024 7:41 AM
To: Amber Lewter <Amber.Lewter@canyoncounty.id.gov>
Subject: Re: Full Political RZ2021-0053 Thornton Gallup LLC

Thank you Amber. I believe this property may be in a floodplain. I want to make sure these codes and regulations will be met.

Sent from my iPad

On Nov 19, 2024, at 8:49 AM, Amber Lewter <<u>Amber.Lewter@canyoncounty.id.gov</u>> wrote:

Dear Agencies,

Your agency is being notified pursuant to the Local Land Use Planning Act, Idaho Code 67-6509, to all political subdivisions providing services within the planning jurisdiction of Canyon County, including school districts and media.

No response is required from your agency unless you have input on the proposed project.

Contact the planner of record, **Michelle Barron** at <u>michelle.barron@canyoncounty.id.gov</u> with any questions or additional agency comments or concerns if applicable.

Thank you,

<image001.png> **Amber Lewter** Hearing Specialist Canyon County Development Services Department 111 N. 11<sup>th</sup> Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-6631 Fax: 208-454-6633 Email: <u>amber.lewter@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

Development Services Department (DSD) **NEW** <u>public</u> office hours Effective Jan. 3, 2023 Monday, Tuesday, Thursday and Friday 8am – 5pm Wednesday 1pm – 5pm \*\*We will not be closed during lunch hour \*\*

PUBLIC RECORD NOTICE: All communications transmitted within the Canyon County email system may be a public record and may be subject to disclosure under the Idaho Public Records Act and as such may be copied and reproduced by members of the public.

<NEW - P&Z Rezone full political agency notice.pdf>



From: Sent:	Steve Pemberton <spemberton@canyonhd4.org> Tuesday, June 27, 2023 2:00 PM</spemberton@canyonhd4.org>
То:	Dan Lister; wmason@masonandassociates.us
Cc:	Chris Hopper; Michelle Barron
Subject:	[External] Freezeout Ridge Estates
Attachments:	Frezeot Rd-Freezeout Ridge Estates Pre Plat Comments 6-27-2023.pdf
Follow Up Flag:	Follow up
Flag Status:	Flagged

Sorry for the delay response, here is the comments for Freezeout Ridge Estates.

Steve Pemberton Engineer Technician Canyon Highway District No. 4 208-454-8135 spemberton@canyonhd4.org Canyonhd4.org

# NO HIGHURAN DISTRICT

CANYON HIGHWAY DISTRICT No. 4 15435 HIGHWAY 44 CALDWELL, IDAHO 83607

> TELEPHONE 208/454-8135 FAX 208/454-2008

June 27, 2023

Canyon County Board of Commissioners and Planning & Zoning Commission 111 N. 11<sup>th</sup> Street Caldwell, Idaho 83605 Attention: Dan Lister, Planner Director Mason & Associates 924 3<sup>rd</sup> St. South Nampa, Id Attention: William J. Mason, PE

## RE: Freezeout Ridge Estates Preliminary Plat Canyon County Parcel R34479000 0

Dear Commissioners:

Canyon Highway District No. 4 (CHD4) has reviewed the application for preliminary plat of Freezeout Ridge Estates, parcel R34479000 0, approximately 31 acres, located in the SE <sup>1</sup>/<sub>4</sub> and a part of the SW <sup>1</sup>/<sub>4</sub> NE <sup>1</sup>/<sub>4</sub> of Section 3 T4N R3W. CHD4 provides the following comments on the proposed development:

#### General

The subject property is located on the east side of Freezeout Road approximately 2620-feet north of Hwy 44. Freezeout Road is under the jurisdiction of CHD4. Freezeout Road is classified as a Collector on the long range functional classification map. Property is considered rural by CHD4 for purposes of development.

CHD4 provides the following comments on the preliminary plat dated 10/25/22:

#### **Right-of-Way**

- 1. Relocate all encroachments out utilities out of right-of-way north and south side of Yellowstone Road.
- 2. Relocate mailboxes out of right-of -way on the east side of Freezeout Road.
- 3. Need dedicated right-of-way for parcel R34482012.
- 4. Verify legal access and crossing for parcel R34482012.

#### **Preliminary Plat**

- 1. CL radius C4 needs to be 200 feet. (AASHTO standards)
- 2. Label ROW radius at Yellowstone road and Big Sky Drive (40 feet).

#### **Internal Street Improvements**

1. CHD4 will require a 56 foot stub street 310 feet north of Yellowstone Road west of Big sky drive for parcels R34482 and R34482010 preventing any landlock.

2. CHD4 would allow a reduction in Yellowstone Road from the section that is 60 feet to 56 feet and Big Sky Way from 60 feet to 56 feet.

All other platting and improvement requirements to be in accordance with the current edition of the Highway Standards and Development Procedures Manual in effect at the time of preliminary plat consideration by the CHD4 Board.

Respectfully,

Star Penberta

Steve Pemberton Engineer Tech



#### CANYON HIGHWAY DISTRICT No. 4 15435 HIGHWAY 44 CALDWELL, IDAHO 83607

TELEPHONE 208/454-8135 FAX 208/454-2008



August 24, 2023

Canyon County Commissioners, P&Z Commission, & Development Services 111 N. 11<sup>th</sup> Ave Suite 140 Caldwell, Idaho 83605 Attention: Michelle Barron, Planner

Mason & Associates 924 3<sup>rd</sup> St South Suite B Nampa, Idaho 83657

## RE: SD2022-0055 Freezeout Ridge Estates Subdivision Canyon County Parcel R34479 aka 23442 Freezeout Rd

Dear Commissioners:

Canyon Highway District No. 4 (CHD4) has reviewed the application and agency notice for Freezeout Ridge Subdivision, a proposed 24 lot rural subdivision on 31 acres located in the NE <sup>1</sup>/<sub>4</sub> Section 3 T4N R3W. CHD4 offers the following comments on the proposed use:

#### General

The subject property has frontage available to one public highway, Freezeout Rd, at the west end of the 50-foot wide flag lot portion of the parcel. Freezeout Rd is identified as a major collector on the functional classification maps adopted by Canyon Co and CHD4. The development is proposed to be served by extension of a public road (Faithful Road) east from Freezeout Rd, and public local roads within the development.

#### Access

Access to the public highway system is available only at the west end of the 50-foot wide flag extension of the parcel. This access location is suitable for the proposed R-1 development density.

#### **Transportation Impacts**

The 23 proposed residential lots will generate approximately 218 new vehicle trips per day, about half of the 500 trips/day threshold which would require a traffic impact study. The approximate 20 peak hour trips from the development are not anticipated to have significant direct effect on the public roadway intersections at Freezeout/SH 44 or Freezeout/Willis Rd. The cumulative effects of the new vehicle trips will be mitigated through collection of transportation impact fees at the time of access permit issuance. These impact fees will be used to provide for improvements at nearby arterial intersections to mitigate the indirect impacts from the development.

#### **Preliminary Plat**

In a letter dated March 8, 2023, CHD4 provided the following comments on the preliminary plat dated October 24, 2022:

#### **Right-of-Way**

- 1. Relocate all encroachments out of right-of-way south side of Yellowstone Road.
- 2. Relocate all encroachments and power poles out of the right-of-way on the north side of Yellowstone Road.
- 3. Relocate mailboxes out of right-of -way on the east side of Freezeout Road.
- 4. Need dedicated right-of-way for parcel R34482012.
- 5. Verify legal access and crossing for parcel R34482012.

#### **Preliminary Plat**

- 1. Wide CL radius C4 needs to be 200 feet.
- 2. Label CL radius at Yellowstone road and Big Sky Drive (40 feet).

## **Internal Street Improvements**

- 1. CHD4 would require a 56 foot stub street 310 feet north of Yellowstone Road west of Big sky drive for parcels R34482 and R34482010 preventing any landlock unless other legal means of access for this parcel can be demonstrated.
- 2. CHD4 would allow a reduction in Yellowstone Road from 60 feet to 56 feet and Big Sky Way from 60 feet to 56 feet.

Yellowstone Rd appears to have been renamed to Faithful Road on the January 23, 2023 plat. The curve C4 at the end of White Wolf Ct does not meet the minimum 200-ft centerline radius for a 25 mph design speed.

All other platting and improvement requirements to be in accordance with the current edition of the Highway Standards and Development Procedures Manual in effect at the time of preliminary plat consideration by the CHD4 Board.

CHD4 recommends the applicant confirm the comments above have been addressed, and submit a revised preliminary plat to the highway district for approval. CHD4 does not have record of preliminary plat review fees being paid; these fees in the amount of \$338 are due prior to scheduling a hearing for preliminary plat approval by the CHD4 Board.

CHD4 does not opposed the requested land use changes, but requests that the Planning & Zoning Commission and Canyon County Commissioners consider these comments, and make any conditional approval of the applicant's request subject to the requirements listed above.

Please feel free to contact me with any questions on this matter.

Respectfully,

Chris Hopper, P.E. District Engineer

File: Subdivision\_Freezeout Rd- Freezeout Ridge Estates Subdivision

From:	Chris Hopper <chopper@hwydistrict4.org></chopper@hwydistrict4.org>
Sent:	Monday, December 2, 2024 5:32 PM
То:	Michelle Barron
Cc:	Mason & Associates (Darrin, Will & Jordan) Mason
Subject:	[External] RZ2021-005 Freezeout Ridge Estates
Attachments:	Freezeout Rd- RZ2021-005 Freezeout Ridge Estates.pdf

Michelle & William-For your use please see the attached comments from HD4 on the rezone for Freezeout Ridge Estates Sub.

Respectfully,

**Chris Hopper, P.E.** District Engineer



Highway District No. 4 15435 Hwy 44 Caldwell, Idaho 83607 208-454-8135 Ext. 104



TELEPHONE 208.454.8135 FAX 208.454.2008

December 3, 2024

Canyon County Board of Commissioners and Planning & Zoning Commission 111 N. 11<sup>th</sup> Street Caldwell, Idaho 83605 Attention: Michelle Barron Mason & Associates 924 3<sup>rd</sup> Street South Nampa, ID 83651 Attention: William Mason, P.E.

# RE: RZ2021-005 Freezeout Ridge Estates Preliminary Plat Canyon County Parcel R34479000 0

Dear Commissioners:

Highway District No. 4 (HD4) has received the notice of application for rezone of approximately 31.4 acres from agricultural to R-1 residential for purposes of developing a 23-lot subdivision. HD4 has previously provided comments on a preliminary plat dated March 28, 2024. (Freezeout Ridge Estates) for this parcel. The comments dated April 15, 2024 are repeated below for reference.

#### General

The subject property has frontage available to one public highway, Freezeout Rd, at the west end of the 50-foot wide flag lot portion of the parcel. Freezeout Rd is identified as a major collector on the functional classification maps adopted by Canyon Co and HD4. The development is proposed to be served by extension of a public road (Faithful Road) east from Freezeout Rd, and public local roads within the development.

HD4 provides the following comments on the preliminary plat dated March 28, 2024:

## Right-of-Way

- 1. The preliminary plat is the final work product and is intended to be relied upon to make policy decisions, <u>Add notation on any 1 of the 3 Preliminary Plat sheets for</u> items previously specified to be removed/relocated, below;
  - a. Relocate all encroachments (utility, irrigation or otherwise) to be out of rightof-way of Faithful Road.
  - b. Relocate mailboxes out of right-of -way on the east side of Freezeout Road.

## Preliminary Plat

- 1. *CL* radius C4 needs to be 200 feet. Re-submitted changing radius to 100', adding a knuckle, without a variance, staff will present as re-submitted to HD4 Board of commissioners for approval.
- 2. Revise to move irrigation box #4 east to provide 90° crossing of Faithful Road to the irrigation lateral on the south side of the road.

563

3. Revise to provide a cul-de-sac/turnaround at the east end of Faithful Rd meeting ACCHD HS & DP (3120.020) that transitions to existing lane at east boundary, or if the portion of Faithful, east of Prismatic Drive is private, the cul-de-sac is not required. An ingress/egress easement for lots inside the subdivision or adjoining parcels that use the private lot, will be required.

#### Internal Street Improvements

1. HD4 would require a 56-foot stub street 310 feet north of <del>Yellowstone</del> Faithful Road west of <del>Big sky</del> Prismatic Drive for parcels R34482 and R34482010 preventing any land lock **unless** Canyon County can confirm there is a recorded document or recorded easement providing the access, as it is today.

*Please provide HD4 with a single hard copy and electronic copy of the plans, including supplementary materials requested above, for additional review. Also, submit a review comment sheet, which explains the changes made versus the review comments.* 

All other platting and improvement requirements to be in accordance with the current edition of the Highway Standards and Development Procedures Manual in effect at the time of preliminary plat consideration by the HD4 Board.

HD4 is charging additional review fees for any submittal after the 3<sup>rd</sup> review. We recommend you perform complete in-house quality control reviews of plans and plats and supporting reports or documents, prior to submittal to avoid additional delays or additional fees for review of this and any other project submitted.

Please feel free to contact me with any questions on these comments.

-End April 15, 2024 Comments-

HD4 has no objection to the proposed rezone. Transportation impacts will be mitigated by dedication of public right-of-way, construction of public improvements, transportation impact fees, or a combination of these means.

Respectfully,

Chris Hopper, P.E. District Engineer

File: Subdivision\_Freezeout Rd- Freezeout Ridge Estates Subdivision

From:	O'Shea, Maureen <maureen.oshea@idwr.idaho.gov></maureen.oshea@idwr.idaho.gov>
Sent:	Tuesday, November 19, 2024 4:09 PM
То:	Michelle Barron
Cc:	Dalia Alnajjar
Subject:	[External] re: Full Political RZ2021-0053 Thornton Gallup LLC - 14180 Gadsden Lane (formerly 23442 Freezeout Road), Caldwell
Attachments:	NEW - P&Z Rezone full political agency notice.pdf

Michelle,

#### The site is not in the Special Flood Hazard Area (SFHA) therefore I have no comments.



I am working part-time & generally available from 9:00 a.m. to noon Monday through Thursday.

Thank you, Maureen O'Shea, CFM Floodplain Specialist Idaho Dept. of Water Resources 322 E. Front Street, PO Box 83720, Boise, ID 83720-0098 Office # 208-287-4928 Cell # 208-830-4174 <u>Maureen.OShea@idwr.idaho.gov</u> https://www.idwr.idaho.gov/floods/

From: Amber Lewter < Amber.Lewter@canyoncounty.id.gov>

Sent: Tuesday, November 19, 2024 8:50 AM

To: 'rcollins@cityofcaldwell.org' <rcollins@cityofcaldwell.org>; 'p&Z@cityofcaldwell.org' <p&Z@cityofcaldwell.org>; 'dgeyer@cityofcaldwell.org>; 'jdodson@cityofcaldwell.org' <jdodson@cityofcaldwell.org>; mbessaw@cityofcaldwell.org; 'amy@civildynamics.net' <amy@civildynamics.net>; 'alicep@cityofhomedale.org' <alicep@cityofhomedale.org>; 'jgreen@marsingcity.com' <jgreen@marsingcity.com>; 'mayor@cityofmelba.org' <mayor@cityofmelba.org>; 'cityclerk@cityofmelba.org' <cityclerk@cityofmelba.org>; 'jhutchison@middletoncity.com' <jreynolds@middletoncity.com>; 'mhobbs@middletoncity.com' <irewart@middletoncity.com' <retwart@middletoncity.com' <sellersr@cityofnampa.us' <sellersr@cityofnampa.us'; 'watkinsk@cityofnampa.us'</text

<watkinsk@cityofnampa.us>; 'badgerd@cityofnampa.us' <badgerd@cityofnampa.us>; 'addressing@cityofnampa.us' <addressing@cityofnampa.us>; 'critchfieldd@cityofnampa.us' <critchfieldd@cityofnampa.us>; 'clerks@cityofnampa.us' <clerks@cityofnampa.us>; 'timc@cityofnampa.us' <timc@cityofnampa.us>; 'notuscityclerk@gmail.com' <notuscityclerk@gmail.com>; 'info@parmacityid.org' <info@parmacityid.org>; 'mayor@parmacityid.org' <mayor@parmacityid.org>; 'planning@parmacityid.org' <planning@parmacityid.org>; 'snickel@staridaho.org' <snickel@staridaho.org>; 'wsevery@cityofwilder.org' <wsevery@cityofwilder.org>; 'casanderson@caldwellschools.org' <casanderson@caldwellschools.org>; 'jshoemaker@blm.gov' <jshoemaker@blm.gov>; 'nicmiller@cwi.edu' <nicmiller@cwi.edu>; ddenney@homedaleschools.org; 'Brian Graves' <bgraves@kunaschools.org>; tejensen@kunaschools.org; 'nstewart@marsingschools.org' <nstewart@marsingschools.org>; 'sadams@melbaschools.org' <sadams@melbaschools.org>; 'horner.marci@westada.org' <horner.marci@westada.org>; 'lgrooms@msd134.org' <lgrooms@msd134.org>; 'mgee@msd134.org' <mgee@msd134.org>; 'cstauffer@nsd131.org' <cstauffer@nsd131.org>; 'dleon@nsd131.org' <dleon@nsd131.org>; 'krantza@notusschools.org' <krantza@notusschools.org>; 'tkelly@parmaschools.org' <tkelly@parmaschools.org>; 'jenny.titus@vallivue.org' <jenny.titus@vallivue.org>; 'lisa.boyd@vallivue.org' <lisa.boyd@vallivue.org>; 'joseph.palmer@vallivue.org' <joseph.palmer@vallivue.org>; 'jdillon@wilderschools.org' <jdillon@wilderschools.org>; 'lrichard@cityofcaldwell.org' <lrichard@cityofcaldwell.org>; Alan Perry <aperry@cityofcaldwell.org>; 'homedalefd@gmail.com' <homedalefd@gmail.com>; 'tlawrence@kunafire.com' <tlawrence@kunafire.com>; 'khinkle@kunafire.com' <khinkle@kunafire.com>; 'marsingfiredistrict@yahoo.com' <marsingfiredistrict@yahoo.com>; 'marsingruralfire@gmail.com' <marsingruralfire@gmail.com>; 'brian.mccormack@melbafire.id.gov' <br/>stian.mccormack@melbafire.id.gov>; 'kenny.hoagland@melbafire.id.gov' <kenny.hoagland@melbafire.id.gov>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'johnsonre@nampafire.org' <johnsonre@nampafire.org>; 'johnsonrl@nampafire.org' <johnsonrl@nampafire.org>; 'linanj@nampafire.org' <linanj@nampafire.org>; 'jeff@parmafire.us' <jeff@parmafire.us>; 'parmaruralfire@gmail.com' <parmaruralfire@gmail.com>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'eddy@heritagewifi.com' <eddy@heritagewifi.com>; 'jmaloney@wilderfire.org' <jmaloney@wilderfire.org>; Knute Sandahl <Knute.Sandahl@doi.idaho.gov>; 'Chris Hopper' <chopper@hwydistrict4.org>; 'Lenny Riccio' <lriccio@hwydistrict4.org>; 'bobw@gghd3.org' <bobw@gghd3.org>; 'office@gghd3.org' <office@gghd3.org>; 'Eddy Thiel' <eddy@nampahighway1.com>; 'gwatkins@nphd.net' <gwatkins@nphd.net>; 'admin1@kunalibrary.org' <admin1@kunalibrary.org>; 'admin2@kunalibrary.org' <admin2@kunalibrary.org>; lizardbuttelibrary@yahoo.com; 'brandy.walker@centurylink.com' <br/><br/>ker@centurylink.com>; 'eingram@idahopower.com' <eingram@idahopower.com>; 'easements@idahopower.com' <easements@idahopower.com>; 'mkelly@idahopower.com' <mkelly@idahopower.com>; 'monica.taylor@intgas.com' <monica.taylor@intgas.com>; 'jessica.mansell@intgas.com' <jessica.mansell@intgas.com>; 'contract.administration.bid.box@ziply.com' <contract.administration.bid.box@ziply.com>; 'developmentreview@blackcanyonirrigation.com' <developmentreview@blackcanyonirrigation.com>; 'aflavel.bkirrdist@gmail.com' <aflavel.bkirrdist@gmail.com>; 'tritthaler@boiseproject.org' <tritthaler@boiseproject.org>; 'gashley@boiseproject.org' <gashley@boiseproject.org>; 'irr.water.3@gmail.com' <irr.water.3@gmail.com>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; 'office@idcpas.com' <office@idcpas.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'farmers.union.ditch@gmail.com' <farmers.union.ditch@gmail.com>; 'wilders04@msn.com' <wilders04@msn.com>; 'irrigation.mm.mi@gmail.com' <irrigation.mm.mi@gmail.com>; 'nmid@nmid.org' <nmid@nmid.org>; 'eolvera@nmid.org' <eolvera@nmid.org>; 'terri@nyid.org' <terri@nyid.org>; 'kirk@pioneerirrigation.com' <kirk@pioneerirrigation.com>; 'sheepmama25@gmail.com' <sheepmama25@gmail.com>; 'fcdc1875@gmail.com' <fcdc1875@gmail.com>; 'mack@settlersirrigation.org' <mack@settlersirrigation.org>; 'kchamberlain.fcdc@gmail.com' <kchamberlain.fcdc@gmail.com>; Mitch Kiester <mitch.kiester@phd3.idaho.gov>; 'anthony.lee@phd3.idaho.gov' <anthony.lee@phd3.idaho.gov>; 'drain.dist.2@gmail.com' <drain.dist.2@gmail.com>; 'bryce@sawtoothlaw.com' <br/>sawtoothlaw.com>; 'scott sbi@outlook.com' <scott sbi@outlook.com>; projectmgr <projectmgr@boiseriver.org>; testrada@starswd.com; 'jlucas@achdidaho.org' <jlucas@achdidaho.org>; 'clittle@achdidaho.org' <clittle@achdidaho.org>; 'brentc@brownbuscompany.com' <brentc@brownbuscompany.com>; 'gis@compassidaho.org' <gis@compassidaho.org>; 'D3Development.services@itd.idaho.gov' <D3Development.services@itd.idaho.gov>; 'niki.benyakhlef@itd.idaho.gov' <niki.benyakhlef@itd.idaho.gov>; 'itdd3permits@itd.idaho.gov' <itdd3permits@itd.idaho.gov>; 'airport.planning@itd.idaho.gov' <airport.planning@itd.idaho.gov>; 'webmaster@valleyregionaltransit.org' <webmaster@valleyregionaltransit.org>;

'smm5156@gmail.com' <smm5156@gmail.com>; 'deb0815@yahoo.com' <deb0815@yahoo.com>; 'kunacemetery@gmail.com' <kunacemetery@gmail.com>; '3tjj@frontiernet.net' <3tjj@frontiernet.net>; 'melbacemetery@gmail.com' <melbacemetery@gmail.com>; 'middletoncemdist13@gmail.com' <middletoncemdist13@gmail.com>; 'ann jacops@hotmail.com' <ann jacops@hotmail.com>; 'facjhill@gmail.com' <facjhill@gmail.com>; Brian Crawforth <Brian.Crawforth@canyoncounty.id.gov>; Christine Wendelsdorf <Christine.Wendelsdorf@canyoncounty.id.gov>; Michael Stowell <mstowell@ccparamedics.com>; 'tryska7307@gmail.com' <tryska7307@gmail.com>; 'shankelc@cityofnampa.us' <shankelc@cityofnampa.us>; Diana Little <Diana.Little@canyoncounty.id.gov>; Loretta Tweedy <Loretta.Tweedy@canyoncounty.id.gov>; Assessor Website <2cAsr@canyoncounty.id.gov>; Elections Clerk <electionsclerk@canyoncounty.id.gov>; 'roger@amgidaho.com' <roger@amgidaho.com>; Nichole Schwend <Nichole.Schwend@canyoncounty.id.gov>; Rick Britton <Rick.Britton@canyoncounty.id.gov>; 'Richard Sims' <middletown.rich@gmail.com>; Jim Lunders <jlunders@2cmad.org>; 'mgrodriguez@usbr.gov' <mgrodriguez@usbr.gov>; 'edward\_owens@fws.gov' <edward owens@fws.gov>; BRO Admin <BRO.Admin@deq.idaho.gov>; Kenny Huston <kenny.huston@oer.idaho.gov>; Brenna Garro <Brenna.Garro@oer.idaho.gov>; Jackson, Peter <Peter.Jackson@idwr.idaho.gov>; O'Shea, Maureen <Maureen.OShea@idwr.idaho.gov>; Western Info <westerninfo@idwr.idaho.gov>; 'john.graves@fema.dhs.gov' <john.graves@fema.dhs.gov>; 'idahoaaa@gmail.com' <idahoaaa@gmail.com>; 'zlathim@idl.idaho.gov' <zlathim@idl.idaho.gov>; Flack,Brandon <brandon.flack@idfg.idaho.gov>; 'aubrie.hunt@dhw.idaho.gov' <aubrie.hunt@dhw.idaho.gov>; 'marilyn.peoples@dhw.idaho.gov' <marilyn.peoples@dhw.idaho.gov>; Tricia Canaday <Tricia.Canaday@ishs.idaho.gov>; Dan Everhart <Dan.Everhart@ishs.idaho.gov>; Patricia Hoffman <Patricia.Hoffman@ishs.idaho.gov>; Stevie Harris <Stevie.Harris@ISDA.IDAHO.GOV>; Brock Cornell <Brock.Cornell@ISDA.IDAHO.GOV>; 'tate.walters@id.usda.gov' <tate.walters@id.usda.gov>; 'carol.chadwick@usda.gov' <carol.chadwick@usda.gov>; 'noe.ramirez@usda.gov' <noe.ramirez@usda.gov>; 'CENWW-RD-BOI-TV@usace.army.mil' <CENWW-RD-BOI-TV@usace.army.mil>; 'laura.j.freedman@usps.gov' <laura.j.freedman@usps.gov>; 'rakesh.n.dewan@usps.gov' <rakesh.n.dewan@usps.gov>; 'chad.m.franklin@usps.gov' <chad.m.franklin@usps.gov>; 'melvin.b.norton@usps.gov' <melvin.b.norton@usps.gov>; 'tammi.l.barth@usps.gov' <tammi.l.barth@usps.gov>; 'henry.medel@usps.gov' <henry.medel@usps.gov>; 'khrista.m.holman@usps.gov' <khrista.m.holman@usps.gov>; 'rochelle.fuquay@usps.gov' <rochelle.fuquay@usps.gov>; 'leroy.eyler@usps.gov' <leroy.eyler@usps.gov>; 'marc.c.boyer@usps.gov' <marc.c.boyer@usps.gov>; 'mhuff@co.owyhee.id.us' <mhuff@co.owyhee.id.us>; 'gmprdjennifer@gmail.com' <gmprdjennifer@gmail.com>; 'lisaitano@me.com' <lisaitano@me.com>; 'scott@fccnw.com' <scott@fccnw.com>; 'srcsbinfo@gmail.com' <srcsbinfo@gmail.com>; 'tottens@amsidaho.com' <tottens@amsidaho.com>; 'melvin.b.norton@usps.gov' <melvin.b.norton@usps.gov>; 'scott.hauser@usrtf.org' <scott.hauser@usrtf.org>; 'info@destinationcaldwell.com' <info@destinationcaldwell.com>; Newsroom <newsroom@idahopress.com>; 'news@kboi2.com' <news@kboi2.com>; 'news@kivitv.com' <news@kivitv.com>; '670@kboi.com' <670@kboi.com>; 'ktvbnews@ktvb.com' <ktvbnews@ktvb.com>; 'middletonexpress1@gmail.com'

567

<middletonexpress1@gmail.com>; 'rmorgan@kellerassociates.com' <rmorgan@kellerassociates.com> Subject: Full Political RZ2021-0053 Thornton Gallup LLC

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

#### Dear Agencies,

Your agency is being notified pursuant to the Local Land Use Planning Act, Idaho Code 67-6509, to all political subdivisions providing services within the planning jurisdiction of Canyon County, including school districts and media.

No response is required from your agency unless you have input on the proposed project.

Contact the planner of record, **Michelle Barron** at <u>michelle.barron@canyoncounty.id.gov</u> with any questions or additional agency comments or concerns if applicable.

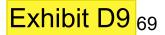


**Amber Lewter** Hearing Specialist Canyon County Development Services Department 111 N. 11<sup>th</sup> Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-6631 Fax: 208-454-6633 Email: <u>amber.lewter@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

Development Services Department (DSD) **NEW** <u>public</u> office hours **Effective Jan. 3, 2023** Monday, Tuesday, Thursday and Friday 8am – 5pm Wednesday 1pm – 5pm \*\*We will not be closed during lunch hour \*\*

PUBLIC RECORD NOTICE: All communications transmitted within the Canyon County email system may be a public record and may be subject to disclosure under the Idaho Public Records Act and as such may be copied and reproduced by members of the public.



From:Niki Benyakhlef <Niki.Benyakhlef@itd.idaho.gov>Sent:Tuesday, August 1, 2023 1:43 PMTo:Michelle BarronCc:Bonnie PuleoSubject:[External] RE: Agency Notification RZ2021-0053 & SD2021-0055 / Mason & Assoc

Hello Michelle -

After careful review of the transmittal submitted to ITD on July 31, 2023 regarding RZ2021-0053 & SD2021- / Mason & Assoc, the Department has no comments or concerns to make at this time. This development is only proposing 23 buildable lots which will not warrant enough impact to our state highway system.

Thank you,



Niki Benyakhlef Development Services Coordinator

District 3 Development Services O: 208.334.8337 | C: 208.296.9750 Email: <u>niki.benyakhlef@itd.idaho.gov</u> Website: <u>itd.idaho.gov</u>

From: Bonnie Puleo <Bonnie.Puleo@canyoncounty.id.gov>

Sent: Monday, July 31, 2023 1:08 PM

To: 'lgrooms@msd134.org' <lgrooms@msd134.org>; Marc Gee <mgee@msd134.org>; 'mitch.kiester@phd3.idaho.gov' <mitch.kiester@phd3.idaho.gov>; Anthony Lee <anthony.lee@phd3.idaho.gov>; 'Kent, Lori - NRCS-CD, Caldwell, ID' <Lori.Kent@id.nacdnet.net>;'permits@starfirerescue.org' <permits@starfirerescue.org>; 'CHOPPER@CANYONHD4.ORG' <CHOPPER@CANYONHD4.ORG>; 'JESSICA.MANSELL@INTGAS.COM' <JESSICA.MANSELL@INTGAS.COM>; 'MONICA.TAYLOR@INTGAS.COM' <MONICA.TAYLOR@INTGAS.COM>; Idaho Power <easements@idahopower.com>; Megan Kelly <mkelly@idahopower.com>; 'BRO.Admin@deq.idaho.gov' <BRO.Admin@deq.idaho.gov>; 'CARL@BLACKCANYONIRRIGATION.COM' <CARL@BLACKCANYONIRRIGATION.COM>; dpopoff@rh2.com; COMPASS <gis@compassidaho.org>; Niki Benyakhlef <Niki.Benyakhlef@itd.idaho.gov>; D3 Development Services <D3Development.Services@itd.idaho.gov>; 'GMPRDJENNIFER@GMAIL.COM' <GMPRDJENNIFER@GMAIL.COM>; 'westerninfo@idwr.idaho.gov' <westerninfo@idwr.idaho.gov> Subject: Agency Notification RZ2021-0053 & SD2021-0055 / Mason & Assoc

CAUTION: This email originated outside the State of Idaho network. Verify links and attachments BEFORE you click or open, even if you recognize and/or trust the sender. Contact your agency service desk with any concerns.

Good afternoon;

Please see the attached agency notice. You are invited to provide written testimony or comments by August 31, 2023, although as of this point, no hearing date has been set. You will receive a separate notification when the hearing date has been set for this case. The deadline for written testimony or additional exhibits is to ensure planners can consider

the information as they develop their staff report and recommended findings. All items received by the deadline will also be placed in the hearing packet, allowing the hearing body adequate time to review the submitted information.

Please direct your comments or questions to Planner Michelle Barron at michelle.barron@canyoncounty.id.gov

Thank you,

#### Bonnie Puleo Hearing Specialist



Hearing Specialist Canyon County Development Services 111 No 11<sup>th</sup> Ave. Suite 310 Caldwell, ID 83605 bonnie.puleo@canyoncounty.id.gov (208) 454-6631 *direct NEW* public office hours **effective January 3, 2023** Monday, Tuesday, Thursday and Friday 8 am – 5 pm Wednesday 1 pm – 5 pm \*\*We will not be closed during lunch hour\*\*

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From:	Niki Benyakhlef <niki.benyakhlef@itd.idaho.gov></niki.benyakhlef@itd.idaho.gov>
Sent:	Monday, November 25, 2024 8:06 AM
To:	Michelle Barron
Cc:	Amber Lewter
Subject:	[External] RE: Agency Notification RZ2021-0053 Thornton Gallup LLC
Follow Up Flag:	Follow up
Flag Status:	Flagged

Good Morning, Michelle -

After careful review of the transmittal submitted to ITD on November 19, 2024, regarding RZ2021-0053 Thornton Gallup LLC, the Department has no comments or concerns to make at this time. This development does not meet the threshold for a Traffic Impact Study and does not abut the state highway system. Additionally, there is currently a SH-44 corridor study that addresses form I-84 east to Star Rd that would potentially address congestion in that area.

Thank you,



Niki Benyakhlef

Development Services Coordinator

District 3 Development Services O: 208.334.8337 | C: 208.296.9750 Email: <u>niki.benyakhlef@itd.idaho.gov</u> Website: <u>itd.idaho.gov</u>

From: Amber Lewter <Amber.Lewter@canyoncounty.id.gov>

Sent: Tuesday, November 19, 2024 8:42 AM

To: 'jhutchison@middletoncity.com' <jhutchison@middletoncity.com>; 'jreynolds@middletoncity.com' <jreynolds@middletoncity.com>; 'mhobbs@middletoncity.org' <mhobbs@middletoncity.org>; 'rstewart@middletoncity.com' <rstewart@middletoncity.com>; 'lgrooms@msd134.org' <lgrooms@msd134.org>; 'mgee@msd134.org' <mgee@msd134.org>; 'permits@starfirerescue.org' <permits@starfirerescue.org>; 'Chris Hopper' <chopper@hwydistrict4.org>; 'Lenny Riccio' <lriccio@hwydistrict4.org>; 'monica.taylor@intgas.com' <monica.taylor@intgas.com>; 'jessica.mansell@intgas.com' <jessica.mansell@intgas.com>; 'easements@idahopower.com' <easements@idahopower.com>; 'mkelly@idahopower.com' <mkelly@idahopower.com>; 'developmentreview@blackcanyonirrigation.com' <developmentreview@blackcanyonirrigation.com>; 'mitch.kiester@phd3.idaho.gov' <mitch.kiester@phd3.idaho.gov>; 'anthony.lee@phd3.idaho.gov' <anthony.lee@phd3.idaho.gov>; 'gis@compassidaho.org' <gis@compassidaho.org>; D3 Development Services <D3Development.Services@itd.idaho.gov>; Niki Benyakhlef <Niki.Benyakhlef@itd.idaho.gov>; 'knute.sandahl@doi.idaho.gov' <knute.sandahl@doi.idaho.gov>; Brian Crawforth <Brian.Crawforth@canyoncounty.id.gov>; Christine Wendelsdorf <Christine.Wendelsdorf@canyoncounty.id.gov>; Michael Stowell <mstowell@ccparamedics.com>; Assessor Website <2cAsr@canyoncounty.id.gov>; Dalia Alnajjar <Dalia.Alnajjar@canyoncounty.id.gov>; Tom Crosby <Tom.Crosby@canyoncounty.id.gov>; Cassie Lamb <Cassie.Lamb@canyoncounty.id.gov>; Eric Arthur <Eric.Arthur@canyoncounty.id.gov>; Kathy Husted <Kathleen.Husted@canyoncounty.id.gov>; Tony Almeida <tony.almeida@canyoncounty.id.gov>; Sage Huggins

<Sage.Huggins@canyoncounty.id.gov>; 'Richard Sims' <middletown.rich@gmail.com>; 'BRO.Admin@deq.idaho.gov' <BRO.Admin@deq.idaho.gov>; 'brandon.flack@idfg.idaho.gov' <brandon.flack@idfg.idaho.gov>; 'westerninfo@idwr.idaho.gov' <westerninfo@idwr.idaho.gov>; 'idahoaaa@gmail.com' <idahoaaa@gmail.com>; 'gmprdjennifer@gmail.com' <gmprdjennifer@gmail.com> Subject: Agency Notification RZ2021-0053 Thornton Gallup LLC

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Dear Agencies,

Please see the attached agency notice regarding the scheduled Planning and Zoning Commission hearing on this project. We had previously requested your agency provide comments for the noticed land use application and if any agency comments were received, they were included in the Staff report. No response is required unless there is an update to your original comments.

This is the notification that a hearing date of **December 19, 2024** at 6:30 pm has been set for this case along with a final deadline of **December 9, 2024** for agency comments. If the comment deadline is on a weekend or holiday, it will move to close of business 5pm the next business day.

Please direct your comments or questions to Planner Michelle Barron at michelle.barron@canyoncounty.id.gov

Thank you,



**Amber Lewter** Hearing Specialist Canyon County Development Services Department 111 N. 11<sup>th</sup> Ave., #310, Caldwell, ID 83605

Direct Line: 208-454-6631 Fax: 208-454-6633 Email: <u>amber.lewter@canyoncounty.id.gov</u> Website: <u>www.canyoncounty.id.gov</u>

Development Services Department (DSD) **NEW** <u>public</u> office hours **Effective Jan. 3, 2023** Monday, Tuesday, Thursday and Friday 8am – 5pm Wednesday 1pm – 5pm \*\*We will not be closed during lunch hour \*\* PUBLIC RECORD NOTICE: All communications transmitted within the Canyon County email system may be a public record and may be subject to disclosure under the Idaho Public Records Act and as such may be copied and reproduced by members of the public.

From: Sent: To: Subject: Timothy Jensen <tejensen@kunaschools.org> Wednesday, November 20, 2024 5:41 PM Michelle Barron [External] RZ2021-0053 Thornton Gallup LLC

Michelle,

Kuna School District has no official comment on this application as it does not lie within our boundaries. Thank you.

Tim Jensen Ed.S KSD Planning & Development Team Principal-Fremont MS IMLA President

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#### MIDDLETON RURAL FIRE DISTRICT

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STAR FIRE PROTECTION DISTRICT

#### FIRE DEPARTMENT PRELIMINARY PLAT APPLICATION

PLEASE PRINT			Date: 6/15/2023
Applicant Name: Pioneer Ho	mes	Primary Contact:	Applicant Owner Representative
Address: 719 1 5+ St. 9	S. Suit	e B City:	Nampa Zip: 83651
Phone/Mobile: (208) 468-9		mail Address: brian	· @ pioneerhomesidaho. Com
Owner(s): Thornton G			
Address: P.O. Box 1495		City:	Nampa Zip: 83653
Phone/Mobile:		mail Address:	
Representative: Mason and	Associate	S Contact Name:	Will Mason
			son @ mason and associates, us
Billing: Name and Email:			
		DJECT INFORMATI	ON
Subdivision Name: Freezeou-	+ Ric	lge Estate	25
Site Location: 23442 Freez			well, ID
Approved Zoning Designation of Site: A	a Reques	sting RI Legal De	scription: Section 3 T4N R3W
Total Acreage of Site: 31.41 AC		Dwelling	Units Per Gross Acre:
Minimum Lot Size: 1.00 AC		Minimum Lot	Width: 125 min
Total Number of Lots: 27	Residentia	d: 23	Commercial: N/A
Industrial: N/A	Common:	4	Other: N/A
Total Number of Units: N/A	Single-fan	nily: N/A	Duplex: $N/A$
Multi-family N/A	Other:	NIA	Water Services: Mdividual Well
Streets: Public Private	# Entrance	es:	Gated: Yes
REVIEW NOTES:	FIRE C	ODE OFFICAL USE	
See attached staff report.			Received: (Date/By) 6/21/23 Dropoff-N.Sinc
		Permit Fee: \$200.00	
		Fire Authority Havir	ng Jurisdiction: Middleton Rural FD
		Fire District Permit	# 23 MS-135
		City/County Jurisdic	tion: Middleton / Canyon
		County/City Permit	
		FIRE	DISTRICT APPLICATION STATUS
김 사람이는 성격을 했다.		Approved	Approved with Conditions
		Fire Code Official:	

(208) 286-7772 11665 W. STATE ST., SUITE B STAR, IDAHO 83669



DATE: August 28, 2023

TO: Pioneer Homes Mason and Associates

FROM: Victor Islas, Deputy Chief

SUBJECT: Fire District Review (23MS-135)

PROJECT NAME: Freezeout Ridge Estates 23442 Freezeout Rd., Caldwell, Idaho

#### **Fire District Summary Report:**

#### 1. Overview

- a. This development can be serviced by the Middleton Rural Fire District. This development shall comply with the 2018 International Fire Code (IFC), Authority Having Jurisdiction (AHJ) and any codes set forth by the Canyon County, Idaho
- b. Scope: New Development
- c. Construction Type VB
- d. Purposed Lots = 27 (Residential =23, Common =4)
- e. Zoning R1 Rural Residential
- f. Any overlooked hazardous condition and/or violation of the International Building and/or Fire Code does not imply approval of such condition or violation.

#### 2. Fire Response Time:

a. This development will be served by the Middleton Rural Fire District Station 53, located at 302 E. Main St., ., Middleton, Idaho 83644. Station 53 is 3.7 mile with a travel time of 7 minutes under ideal driving conditions to the purposed entrance off Freezeout Rd.

#### 3. Accessibility: Roadway Access, Traffic, Radio Coverage

- a. Access roads shall be provided and maintained following Appendix D and Section 503 of the IFC. Access shall include adequate roadway widths, signage, turnarounds, and turning radius for fire apparatus.
- b. Access road design shall be designed and constructed to allow for evacuation simultaneously with emergency response operations.
- c. All access roads in this development shall remain clear and unobstructed during construction of the development. Additional parking restrictions may be required as to maintain access for emergency vehicles at all times.
- d. Purposed access roads meet the intent of the fire code for subdivision under 30 lots.
- e. If the home sites more than 150 ft off the road way additional turnaround will be required.
- f. No parking signs will be required in all cul de sac.

**Project:** Freezeout Ridge Estates Preliminary Plat Review (23MS-135)

Fire District Headquarters • 11665 W. State St., Suite B • Star, Idaho 83669 • (208) 286-7772 • www.midstarfire.org



### 4. Addressing/Street Signs:

- a. Addressing/building identification sign shall be placed in a position that is plainly legible and visible from the street or road fronting the property.
  - i. Approved residential address numbers a minimum of six inches (6") in height and in a contrasting color shall be placed on all new buildings in such a position as to be clearly visible and legible from the street or road fronting the property.
- b. Upon commencement of initial construction of a new structure, a clear visible freestanding sign or post shall be erected and maintained in place until the permanent address numerals are attached or otherwise displaced upon the premises at completion.
- 5. <u>Water Supply:</u> Water supply requirements will be followed as described in Appendix B of the 2018 International Fire Code unless agreed upon by the Fire District.
  - a. Fire Flow: The fire-flow calculation area shall be the total floor area of all floor levels within the exterior walls, and under the horizontal projections of the roof of a building.
  - b. Fire Flow: One and two family dwellings not exceeding 3,600 square feet require a fire-flow of 1,000 gallons per minute for a duration of 1 hour to service the entire project. One and two family dwellings in excess of 3,600 square feet require a minimum fire flow as specified in Appendix B of the International Fire Code.
  - c. Water Supply: Water Supply Options
    - i. Municipal Water System
    - ii. Private or Community well capable of supplying required fire flow.
    - iii. Elevated and pressure tanks
    - iv. NFPA 13D Residential Fire Sprinkler System

### 6. Additional Comments:

a. Final inspection by the Fire District of the above listed must be completed before building permits are issued by Canyon County.





June 15, 2021

Brian Falck Pioneer Homes 719 1<sup>st</sup> Street South, Suite B Nampa, Idaho 836

RE: Freezeout Ridge Estates, Level 1 Nutrient Pathogen (NP) Study Approval

Dear Mr. Falck:

Southwest District Health (SWDH) and the Idaho Department of Environmental Quality (DEQ) received your Level 1 Nutrient-Pathogen study for review on April 19, 2021 for the proposed <u>Freezeout Ridge</u> <u>Estates</u>, located north of Caldwell, Canyon County, Idaho in SE1/4NE1/4 and SW1/4NE1/4, Section 3, Township 4N, Range 3W, Boise Meridian. The NP study was prepared by Atlas Technical Consultants, LLC, for Pioneer Homes of Nampa, Idaho.

The Property is reported to be an approximate 31-acre area of land. The proposed development includes 20 residential lots, with lot sizes ranging from approximately one (1) acre to 1.9 acres. Individual wastewater disposal systems and individual water wells for single family residences are planned.

Based on the data presented in the NP Study, Freezeout Ridge Estates will likely not significantly impact ground water quality downgradient of the proposed subdivision. The NP Study is approved, and the following conditions apply:

- <u>DEQ's review of the MB Spreadsheets indicate all lots, apart from lots 4,7,8 and 10, will need</u> extended treatment systems to reduce nitrate concentrations in wastewater to 27 mg/L or less.
- Maximum house size permitted is a four (4) bedroom house (300 gallons per day). 300 gallons per day is the value used in the NP study as the amount of effluent discharged from each individual subsurface disposal system.
- If lots are added the study must be resubmitted and/or amended before additional lots are approved.
- Secondary dwellings are not approved for this proposed subdivision, without resubmitting and/or amending the NP study to include additional dwellings. Approval of secondary dwellings is based on the resubmittal/amended NP study findings.

Based upon the review and results provided by DEQ, Freezeout Ridge Estates can now move forward with the next stage in the process by meeting the requirements of SWHD's Subdivision Engineering Report (SER). The SER and subsurface sewage disposal design must incorporate the findings of the Nutrient-Pathogen study. For lot design care should be taken to locate septic systems so potential

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impacts to downgradient wells are minimized. Once an SER is submitted to our office, SWDH can review it. A pre-development meeting is required to being the SER process. During this meeting an on-site evaluation, including test holes can be scheduled.

If you have questions, please call our office at 208-899-3907 or <a href="mailto:brigita.gruenberg@phd3.idaho.gov">brigita.gruenberg@phd3.idaho.gov</a>.

Sincerely,

Brigitta Gruenberg, RCHS

Brigitta Gruenberg, REHS/RS Land Development Senior

c Monica Saculles, Atlas Technical Consultants, LLC Angie Cuellar, Mason & Associates Inc. File copy

# Exhibit E1

## **Michelle Barron**

From:	DEBBIE WHITE <luckiestnumber1@msn.com></luckiestnumber1@msn.com>
Sent:	Monday, December 9, 2024 1:14 PM
To:	Michelle Barron
Subject:	Re: [External] Impact Statement Case No. RZ2021-005
Attachments:	Gadsen Development 2.docx
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hello,

Thank you for the replay, it is nice to see someone is listening. Please add my additional comments to the list.

To whom it may concern, Thank you for the reply, it is nice to know that someone is listening. December 9, 2024

Please add my additional comments to Case No. RZ2021-005.

In the first meeting with developers, all current neighbors were very concerned about the following:

- Impact to water table in the area, 23 additional wells will cause a substantial drop in the water table to the entire area, necessitating deeper wells, possible fail of existing wells. The developer needs to be held accountable, to ensure that this is addressed and guarantee existing homeowners he will cover any impact they may have on their water level or well functionality.
- Impact to water quality and purity, due to 23 individual septic systems and sewer drain fields. The developer needs to be held accountable, to ensure all testing and evaluation has been completed to verify NO effect to the purity of the area's ground water.
- Impact to Freezeout Road traffic, the easement to the Gadsen development sits at the base of a
  natural incline to the West on Freezeout Road, this impact visibility of all drivers, the additional
  traffic caused by 23 new residents will highly impact this area, and no doubted increase the
  safety of this small country road. Countless accidents happen on this stretch of Freezeout Road
  every year, resulting in property damage, pets killed, and injuries.
- The West side of the Gadsen development is currently a wetland for an abondance of wildlife. The developer needs to be help accountable to maintain this wetland, the existing trees and natural habitat.

Please DO NOT maintain the RR zoning for Freezeout Road Caldwell Idaho – do the right thing for the existing IMPACTED community - Maintain our community with RR-Rural Resident zoning.

Sincerely, Debbie White 23448 Freezeout Road Caldwell Id 83607 208-880-1618 From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>
Sent: Friday, December 6, 2024 4:50 PM
To: 'DEBBIE WHITE' < luckiestnumber1@msn.com>
Subject: RE: [External] Impact Statement Case No. RZ2021-005

Thank you for your response. I will add this to the file.

Thanks,

Michelle Barron Principal Planner Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605 Direct Line: 208-455-6033 DSD Office Phone: 208-454-7458 Email: <u>Michelle.Barron@canyoncounty.id.gov</u> Website: www.canyoncounty.id.gov

From: DEBBIE WHITE <luckiestnumber1@msn.com>
Sent: Wednesday, December 4, 2024 4:27 PM
To: Michelle Barron <Michelle.Barron@canyoncounty.id.gov>
Subject: [External] Impact Statement Case No. RZ2021-005

To whom it may concern,

December 4, 2024

I am writing to you today to express my concerns on the zoning changes proposed by Mason & Associates development (Case No. Rz2021-005).

I have lived on Freezeout Road for 28 years and consider this to be a rural community.

All the homes in the impact area are zoned RR – Rural Resident.

If R1 zoning is granted this target development of 31 acre would be the only neighborhood zoned RI, they would not have enough room to own large animals, opportunities of a rural community, etc., yet be surrounded by RR homes, which do own large animals and are rural residents.

As a responsible member of society, and an active member in our community, living in Idaho this sounds like an Impact that should be reconsidered. Why would Canyon County approve this type of request, which would create an uncoordinated neighborhood and additional congestion and conflict with the existing community?

The title - Impact Statement – should recognize the IMPACT to existing homeowners, HEAR their concerns and do what is BEST for the current residents! These are the people Impacted!

I understand development is inevitable and change is something we live with every day. But why make is the worst development decision possible, versus a development that will blend in with the CURRENT community and maintain the Rural Residents.

Most developers are millionaires, yet they are after the most money they can make on a project, I understand this. But consider this land, locked by rural resident piece of property, and the new neighborhood becomes a

suburbia in the country, WHY? No developer should have the right to ruin an RR community, just to make an extra million on top of the millions they already make.

Picture it in your head.....

If R1 zoning is granted this target development of 31 acre would become a neighborhood who would not get what everyone else has, not have enough room to own large animals, build shops, etc., they will get the country life this area brings, but they will be surrounded by RR homes, which do own large animals, do build shops, etc., and do enjoy the country lifestyle.

I am not a millionaire, I have no way to fight development, nor should I, all I have is my voice. The first meeting I went to on this development project was disappointing as the panel behind the desk did not listen, empathize, or consider anyone's impact statements.

I do not know if that is part of their responsibilities, but I would think so. Most people feel there is no support for the homeowner, the existing communities, the families, and lifestyles that are impacted when developers always win. Does Canyon County care?

Items to consider, from the Idaho Planning and Zoning website.

Rezone Development Considerations:

- Maintain a balance between residential growth and agriculture that protects the rural character.
- None of the current homeowners in the impacted areas approve the re-zone request, and no one believes the rezone is compatible or will have co-exist success in the community.
- There is no additional growth opportunity in this area, the site should follow current zoning, to provide less impact to the current community.

R1 is non-agriculture development which is encouraged to the city locations to lessen the impact on small rural communities like Freezeout Road. The 31.39 acres located at 14180 Gadsen Lane is the last open piece of property in this area, therefore it should align with the zoning of the surrounding properties.

I am not a millionaire, I am not a developer, and I am not a planning and zoning officer, I am a concerned homeowner trying to maintain the rural lifestyle I have built for many years. I want to protect the neighborhood with development that fits in, with as minor impact as possible.

Please DO NOT grant Mason & Associates development (Case No. Rz2021-005) their rezoning request to R1single family for 31.39 acres located at 14180 Gadsen Lane – the last 31 acres on Freezeout Road, Caldwell Idaho – Maintain our community with RR-Rural Resident zoning.

Sincerely, Debbie White 23448 Freezeout Road Caldwell Id 83607 208-880-1618



From: Sent: To: Subject: Jason Roach <jason@galtsmiles.com> Sunday, December 8, 2024 2:34 PM Michelle Barron [External] Case No. RZ2021-005

Hi,

My name is Jason Roach at 14177 Leather Ridge Rd and I am writing regarding case no. RZ2021-005 Located at 14180 Gadsden Ln. Caldwell, ID. The project is going to add 23 residential homes on 1 acre lots that will affect traffic flow on our small street, freeze out road and leather ridge rd.

I realize development is inevitable for this piece of land. That being said, I would ask the developer to consider making the lots 2 acres in size, reducing the number of homes to 13 instead of 23. I would also ask the developer to make it so traffic entering and exiting the proposed community would not be allowed to use leather ridge road as an access road to the new community. Reducing increased traffic on our small roads and reducing possible well water issues would be much appreciated from the surrounding residents. We all realize that plot of land will be developed, we would just like you to consider doing it in a way that would keep our country homes feeling like the country. Idaho is a special place and this is a special area to the residents who have made this their home. Let's try to preserve this area as much as possible, but still allow reasonable development to occur. This would be a win win for all. Please consider my request. Thank you-Jason Roach

Sent from Jason's iPhone



From:	Judy Cordeniz <jcordeniz53@gmail.com></jcordeniz53@gmail.com>
Sent:	Wednesday, November 20, 2024 12:38 PM
To:	Michelle Barron
Subject:	Re: [External] Case no. RZ2021-005. Rezone of parcel R34479
Follow Up Flag:	Follow up
Flag Status:	Flagged

Thank you your prompt response. If my math serves me right we are looking at 1 acre lot per residence.

Secondly- we are desperately hoping that the woodland buffer stays intact. This is an irrigation drainage area and refuge for many fowl and other wild life , fox, coyotes etc. Do you have any insight into the plans for that area ?

Thanks so much.

Judy A. Cordeniz, NASM/CPT Judy's Fitness on the Fly 208-371-0058 (txt, message, voice) jcordeniz53@gmail.com

On Wed, Nov 20, 2024 at 12:10 PM Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> wrote: Common lots are lots that are reserved for some type of common area (maintained by an HOA), such as for a road lot, irrigation structure, landscaping buffer, etc. Sometimes subdivisions will have a park, but I don't see that on this concept plan.

Thanks,

Michelle Barron Principal Planner Canyon County Development Services Department <u>111 N. 11th Ave., #310, Caldwell, ID 83605</u> Direct Line: 208-455-6033 DSD Office Phone: 208-454-7458 Email: <u>Michelle.Barron@canyoncounty.id.gov</u> Website: www.canyoncounty.id.gov

-----Original Message-----From: Judy Cordeniz <<u>icordeniz53@gmail.com</u>> Sent: Wednesday, November 20, 2024 9:06 AM To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> Subject: [External] Case no. RZ2021-005. Rezone of parcel R34479

Hello Michelle - please clarify for me the definition of "4 common lots" in the description of the proposed rezoning at 14180 Gadsden Lane.

Thank you. Judy Cordeniz-Burchard Homeowner at 23464 Freezeout Rd

Sent from my iPhone



From:	leann1075@gmail.com	
Sent:	Monday, December 9, 2024 5:00 PM	
То:	Michelle Barron	
Subject:	[External] OPPOSED: Case #RZ2021-0	

To Whom it May Concern:

I am writing to express my grave concern with the proposed development at 14180 Gadsden Ln, parcel R34479.

This development has a long history of strong disagreement from all neighbors that this would affect. We previously met on May 5, 2021 with the developer, Brian Faulk of Pioneer Homes to oppose this development. We especially oppose the rezoning request from A to R-1. There is no precedent for this rezone as all other nearby developments are R2. An R1 request comes across as greedy and irresponsible development.

-005

Developing this land will have long lasting, dire consequences on the land and surrounding areas.

First and foremost, the strain on our natural resources will be immeasurable, irreversible, and reckless. To add 23 wells and individual septics will deplete all wells/water tables in the surrounding areas. This would devastate all current homeowners, especially those that rely on the water for income producing agriculture crops. Not to mention the septic drain fields will contaminate the surrounding soil, with no proposed solution to rectify this for current homeowners.

Second, this development would wipe out all current wildlife in the area. This land is home to golden eagles, redtail hawks, owls, canadian geese, deer, mallard ducks, red and black fox, pheasants, quail and numerous other birds and field wildlife. Previously, the developer mentioned having a common area--this is not only NOT a viable solution, but it's offensive to strip the area wildlife of their natural habitat only to turn around and offer a small plot of land that will not sustain all the wildlife.

Third, there is no current or proposed infrastructure to support 50+ cars that would occupy the development.

I am proposing the following studies:

Road use assessment Environmental impact study Assessment of ground water impact to include purity

Again, we strongly oppose this development for the above mentioned reasons.

Regards, Le Ann Stephens and Ben Schneider 14000 Gadsden Ln



From: Sent: To: Subject: Attachments:	Jill Chris <jchris@micron.com> Monday, December 9, 2024 1:49 PM Michelle Barron [External] RZ2021-005 Rezoning Letter RA2021-005 Chris.docx</jchris@micron.com>	
Follow Up Flag: Flag Status:	Follow up Flagged	
Micron Confidential		
Hi Michelle,		
Please find the attached letter in connection with rezoning case RZ2021-005.		
Therefore		

Thanks!

**Jill Chris** 

**Micron Confidential** 

To Whom It May Concern,

This letter is provided to convey concerns connected to development plans for case number RZ2021-005. The following is being requested before any development is allowed to continue:

- Full details provided regarding any new roads or impacts to easements for all surrounding neighborhoods
- Traffic assessment to understand any risks associated with the new development
- Environmental impact assessment to confirm no undue impact
- Ground water assessment to understand impact of new wells and septic systems to surrounding areas
- Confirmation that there will be no impact to the well depth of all surrounding communities as a result of this development
- Rezoned to no less than R-R like neighboring developments

We hope that these factors are seriously considered.

Sincerely,

Ryan and Jill Chris

# Exhibit E6 <sup>39</sup>

## **Michelle Barron**

From:	Steve Carnahan <scarnahanc@gmail.com></scarnahanc@gmail.com>		
Sent:	Monday, December 9, 2024 3:01 PM		
То:	Michelle Barron		
Subject:	[External] Regarding case # Rz2021-005		

The proposal for rezoning of this parcel is detrimental to our property at 14056 Leather Ridge Road and the surrounding areas for the following reasons 1. The drain on the water table from the proposed 23 new wells would cause a decrease in the water table to the entire area and existing wells.

2. The impact of the proposed 23 septic drainage fields will affect the purity of the ground water in the area and to the neighboring properties.

3. The proposed egress on the small county road Freezeout and this additional traffic is a safety concern. The is a sharp turn at the corner were this neighborhood would access Freezeout rd. There is also a slope that makes it difficult to clearly see oncoming traffic. There have already been numerous accidents taking out fencing and mail boxes and with the additional amount of cars that would be coming in and out of the proposed development there surely will be more. This is a rural community where people ride horses, farm equipment, heard sheep, walk and bike, there are also several bus stops in the area. The increased traffic is a huge safety concern and could lead to more accidents and possible fatalities. The majority of the area is R-R and I think that the proposed development should also be no less than R-R

Sincerely, Steve and Dana Carnahan 14056 Leather Ridge Rd Caldwell I'd Sent from my iPad



From: Sent:	Tasha Roach <roachteam7@gmail.com> Sunday, December 8, 2024 9:46 PM</roachteam7@gmail.com>
То:	Michelle Barron
Subject:	[External] Re: Case No. RZ2021-005
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hi Michelle,

Thank you so much for your response. I am attaching the same letter with the correct verbiage regarding the builder. There was conflicting information that it was Pioneer Homes instead of Mason and Associates. This new letter will reflect it being Mason and Associates as shown upon further investigation.

To: Michelle Barron

Dec. 8, 2024

Re: Case No. RZ20211-005

From: Tasha Roach

I'm writing with concerns in regards to the rezoning and building of the property located at 14180 Gadsden Lane Caldwell, Idaho.

It is my understanding that this property is wanting to rezone to a residential property from what was an agricultural one. As someone who purchased land here several years ago, the draw was to be in a rural area surrounded by like-minded neighbors who wanted to raise animals and grow their own food. We appreciate being able to have the quiet streets and safety of riding horses and walking along the roads. As growth has continued further out around us, Freezeout Road has become a path for commuters. Because of this, several accidents (not all reported) have occurred as a result. In the few years we have been here, it has gotten increasingly less safe due to the already increased traffic. Adding 30 homes on the most dangers curve would increase traffic by a possible 60 cars, assuming each household has just two cars. This would increase traffic and potential accidents tenfold. With more cars on the road, it would also impact us being able to walk on our streets (remember there are no sidewalks) or ride our horses or walk livestock. Additionally, our local schools in the Middleton District are already overcrowded. The addition of this many homes would further impact this problem. Given the already approved homes within MSD and the already overcrowded schools, what is being done to help compensate for that? Is the builder going to financially contribute to the district to help make the changes to accommodate for the additional students and load that will impact the schools? Or will they just want residents to be taxed? I think I know the answer. The fact is, that the addition of this many homes will not only impact surrounding neighbors, but also, the schools and surrounding communities that are already feeling the constriction of overgrowth. Furthermore, the proposal shows that "the individual lots are responsible for retention and treatment of storm water runoff including the application of perimeter lot berming to prevent direct lot discharge into irrigation facilities". This leads itself to the inevitable contamination of our water systems, especially given that many people moving here are unfamiliar with our well and irrigation systems. This needs to be a more uniformed approach to avoid contamination. Of course the addition of these homes also impacts our water table and could create problems with current

wells. Also, there will be the need to add septic systems which also would impact the purity of the well water for neighbors. For obvious reasons, water access and purity are of utmost concern. Furthermore, growth in this area will disturb the wildlife that have grown accustomed to this open land, increased people equals an increase in crime, decrease in safety, increase in light pollution, and a general decrease in the rural life we were all seeking when we purchased here.

I realize that growth is inevitable and I'm not one to complain without a solution. Although I would prefer to have NO more houses added, I would guess that the change is already underway and I don't even know if my letter will have any impact, but I will try. As I understand it, Mason and Associates are the ones wanting to expand this area. As a show of solidarity with neighbors, who want to keep the quietness that they moved here for, it would be nice if they would take into consideration our concerns and in the least, keep it zoned Ag or no less than the R-R zone of bordering developments. By making each lot 2 acres at the minimum, this would limit the amount of traffic to half the size due to half the homes being built. If they care at all about the neighbors, they would be willing to do this. If not, it is quite apparent that this is strictly a financial decision, which is not the Idaho way and would be very disappointing. I hope I am wrong and Idaho values of respecting our neighbors is upheld.

I am asking that the county and builder takes into consideration our concerns and will at least compromise to keep the rural vibe of the community that drew us and many others here in the first place.

Sincerely,

Tasha Roach (Concerned Resident)

On Dec 8, 2024, at 4:30 PM, Tasha Roach <<u>roachteam7@gmail.com</u>> wrote:

To: Michelle Barron

Dec. 8, 2024

Re: Case No. RZ20211-005

From: Tasha Roach

I'm writing with concerns in regards to the rezoning and building of the property located at 14180 Gadsden Lane Caldwell, Idaho.

It is my understanding that this property is wanting to rezone to a residential property from what was an agricultural one. As someone who purchased land here several years ago, the draw was to be in a rural area surrounded by like-minded neighbors who wanted to raise animals and grow their own food. We appreciate being able to have the quiet streets and safety of riding horses and walking along the roads. As growth has continued further out around us, Freezeout Road has become a path for commuters. Because of this, several accidents (not all reported) have occurred as a result. In the few years we have been here, it has gotten increasingly less safe due to the already increased traffic. Adding 30 homes on the most dangers curve would increase traffic by a possible 60 cars, assuming each household has just two cars. This would increase traffic and potential accidents tenfold. With more cars on the road, it would also impact us being able to walk on our streets (remember there are no sidewalks) or ride our horses or walk livestock. Additionally, our local schools in the Middleton District are already overcrowded. The addition of this many homes would further impact this problem. Given the already approved homes within MSD and the already overcrowded schools, what is being done to help compensate for that? Is the builder going to financially contribute to the district to help make the changes to accommodate for the additional students and load that will impact the schools? Or will they just want residents to be taxed? I think I know the answer. The fact is, that the addition of this many homes will not only impact surrounding neighbors, but also, the schools and surrounding communities that are already feeling the constriction of overgrowth, Furthermore, the proposal shows that "the individual lots are responsible for retention and treatment of storm water runoff including the application of perimeter lot berming to prevent direct lot discharge into irrigation facilities". This leads itself to the inevitable contamination of our water systems, especially given that many people moving here are unfamiliar with our well and irrigation systems. This needs to be a more uniformed approach to avoid contamination. Of course the addition of these homes also impacts our water table and could create problems with current wells. Also, there will be the need to add septic systems which also would impact the purity of the well water for neighbors. For obvious reasons, water access and purity are of utmost concern. Furthermore, growth in this area will disturb the wildlife that have grown accustomed to this open land, increased people equals an increase in crime, decrease in safety, increase in light pollution, and a general decrease in the rural life we were all seeking when we purchased here.

I realize that growth is inevitable and I'm not one to complain without a solution. Although I would prefer to have NO more houses added, I would guess that the change is already underway and I don't even know if my letter will have any impact, but I will try. As I understand it, Pioneer Homes, are the ones wanting to expand this area and also own a lot still located in the Saddleback Ridge Estates. As a show of solidarity with neighbors, who want to keep the quietness that they moved here for, it would be nice if they would take into consideration our concerns and in the least, keep it zoned Ag or no less than the R-R zone of bordering developments. By making each lot 2 acres at the minimum, this would limit the amount of traffic to half the size due to half the homes being built. If they care at all about the neighbors, they would be willing to do this. If not, it is quite apparent that this is strictly a financial decision, which is not the Idaho way and would be very disappointing. I hope I am wrong and Idaho values of respecting our neighbors is upheld.

I am asking that the county and builder takes into consideration our concerns and will at least compromise to keep the rural vibe of the community that drew us here in the first place.

Sincerely,

Tasha Roach (Concerned Resident)



Resolution No 24

## RESOLUTION NO. $24 \cdot 203$

### A RESOLUTION OF THE CANYON COUNTY BOARD OF COUNTY COMMISSIONERS AUTHORIZING THE QUITCLAIM OF PARCEL NO. R34482012 TO CANYON HIGHWAY DISTRICT NO. 4

The following resolution and order was considered and adopted by the Canyon County, Idaho Board of Commissioners on this

Upon m	otion of Commissioner	Brooks	and the second by
Commissioner	Van Bock	, the Board resol	ves as follows:

WHEREAS, Idaho Code § 31-801 grants general powers and duties, subject to the restrictions of law, to the boards of county commissioners in their respective counties; and

WHEREAS, Idaho Code § 31-828 grants the Board authority "to do and perform all other acts . . . which may be necessary to the full discharge of the duties of the chief executive authority of the county government"; and

WHEREAS, Idaho Code § 31-807 authorizes the Board to manage county property subject to restrictions including, but not limited to, those described in Idaho Code § 31-808; and

WHEREAS, Idaho Code § 31-808(9) states that the Board may grant any real or personal property to any political subdivision after a decision that it is in the public interest; and

WHEREAS, Canyon County Parcel No. R34482012 is a .04 acre parcel with a portion of a public road built through it, and was taken by tax deed by Canyon County on or about July 24, 2019 for delinquent taxes; and

**WHEREAS,** the Board has considered the value of Parcel No. R34482012 to the County in light of its condition, location, and other factors; and

WHEREAS, the Board has determined it is in the best interest of Canyon County to transfer interest in this property to Canyon Highway District No. 4, which is a political subdivision of the state of Idaho, rather than offer the property at tax deed auction; and

**WHEREAS,** Canyon Highway District No 4, has an interest in Parcel No. R34482012 and is willing to accept the transfer of the parcel by quitclaim deed from Canyon County.

**NOW THEREFORE, THE BOARD HEREBY RESOLVES,** that upon issuance and recording of Quitclaim Deed for Parcel No. R34482012, located at 0 Freezeout Road, Caldwell, Idaho, the County's interests in Parcel No. R34482012 shall be conveyed by quitclaim deed executed by the Board to Canyon Highway District No. 4.

IT IS FURTHER RESOLVED BY THE BOARD, that this resolution shall be effective this day of October, 2024.

### CANYON COUNTY BOARD OF COMMISSIONERS

\_\_\_\_ Motion Carried Unanimously \_\_\_\_\_ Motion Carried/Split Vote Below Motion Defeated/Split Vote Below

Commissioner)Leslie Van Beek

Commissioner Brad Holton

Commissioner Zach Brooks

Yes

No

Did Not Vote

ATTEST: RICK HOGABOAM, CLERK

By: \_\_( Deputy Clerk

Resolution Authorizing Quit Claim for Parcel R34482012 to Highway District No 4



# UNOFFICIAL COPY

### **COUNTY QUITCLAIM DEED**

THIS INDENTURE, made this <u>S</u><sup>st</sup> day of October, 2024, between Canyon County, a political subdivision of the state of Idaho, whose mailing address is 1115 Albany Street, Caldwell, Idaho 83605, by and through its Board of County Commissioners, and Highway District No. 4, whose address is, 15435 Hwy 44, Caldwell, Idaho, 83607.

**Canyon County** does hereby remise, release, and quitclaim unto **Highway District No. 4**, and to its assigns forever, all of **Canyon County's** rights, title, and interests in the odd-lot property situated in Canyon County, state of Idaho, sometimes referred to as 0 Freezeout Rd Caldwell, Idaho PIN 34482012 0 and more particularly described in Exhibit "A" attached herein by reference. Said parcel comprising approximately 0.042 acres is intended for public right-of-way for Freezeout Rd, a public highway under jurisdiction of **Highway District No. 4**.



RICK HOGABOAM CANYON COUNTY RECORDER Pgs=3 TYOUREN NO FEE DEED BOCC nofficial cop

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COUNTY QUITCLAIM DEED

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# UNOFFICIAL COPY

IN WITNESS WHEREOF, Canyon County has caused the due execution and attestation hereof of this County Quitclaim Deed under and by virtue of a resolution duly passed by the Board of County Commissioners of Canyon County, Idaho, on October 315, 2024.

## BOARD OF COUNTY COMMISSIONERS

Commissioner Leslie Van Beek



mod Holton

Commissioner Brad Holton

Commissioner Zach Brooks

STATE OF IDAHO)

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County of Canyon \_\_\_\_)

On this  $\cancel{2}$  day of October, 2024, before me, **RICK HOGABOAM** (the Clerk of the County of Canyon, ex officio auditor and recorder, and ex officio clerk of the Board of County Commissioners), or the deputy clerk whose signature appears below, personally appeared **LESLIE VAN BEEK, BRAD HOLTON, and ZACH BROOKS,** known or identified to me to be the duly elected commissioners of the Board of County Commissioners of the County of Canyon, a political subdivision of the State of Idaho, and executed said instrument, and acknowledged to me that such County of Canyon, State of Idaho, executed the same.

**IN WITNESS WHEREOF**, I have hereunto set my hand and affixed my official seal, the day and year first above written.

Deputy Clerk

COUNTY QUITCLAIM DEED

# UNOFFICIAL COPY

## EXHIBIT A

A PORTION OF THE SOUTHWEST <sup>1</sup>/<sub>4</sub> OF THE NORTHEAST <sup>1</sup>/<sub>4</sub> OF SECTION 3, TOWNSHIP 4 NORTH RANGE 3 WEST OF THE BOISE MERIDIAN, CANYON COUNTY, IDAHO, AND MORE PARTICULARLY DESCRIBED AS: COMMENCING AT THE SOUTHWEST CORNER OF THE SOUTHWEST QUARTER OF THE NORTHEAST QUARTER OF SAID SECTION 3; THENCE NORTH 89° 08' 36" EAST A DISTANCE OF 633.76 FEET TO THE TRUE POINT OF BEGINNING; THENCE NORTH 14° 30' 08" EAST A DISTANCE OF 51.91 FEET; THENCE NORTH 89° 08' 30" EAST A DISTANCE OF 30.00 FEET; THENCE SOUTH 0° 51' 24" EAST A DISTANCE OF 50.05 FEET TO A POINT ON THE SOUTH BOUNDARY OF SW <sup>1</sup>/<sub>4</sub> NE <sup>1</sup>/<sub>4</sub> SECTION 3; THENCE SOUTH 89° 08' 36" WEST ALONG THE SOUTH BOUNDARY OF THE SW <sup>1</sup>/<sub>4</sub> NE <sup>1</sup>/<sub>4</sub> SECTION 3 TO THE TRUE POINT OF BEGINNING.



COUNTY QUITCLAIM DEED

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