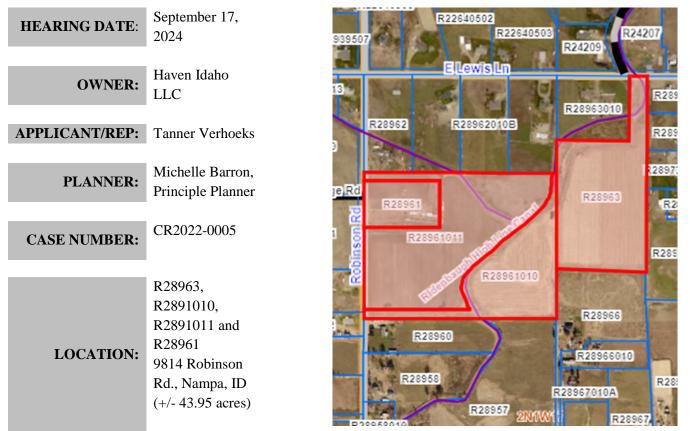


BOARD OF COUNTY COMMISSIONERS

STAFF REPORT ADDENDUM CR2022-0005 Tanner Verhoeks, Haven Idaho



EXECUTIVE SUMMARY:

On November 2, 2023, the Planning and Zoning Commission held a Public Hearing to consider this application. The Commission recommended denial of CR2022-0005. On February 8, 2024, the BOCC requested specific additional information from the applicant. On February 20, 2024, staff met with the applicant and representatives to go over what BOCC had requested. On May 31, 2024, staff received a packet of information from the applicant. Staff reviewed the packet of information to verify if all of the requested items were submitted. An email was sent to the applicant on July 15, 2024 verifying that they had submitted all that they wanted to submit. *The original Staff Report packet for February 8, 2024 can be found at https://www.canyoncounty.id.gov/land-hearings/under BOCC Hearings, September 17, 2024.*

The Board requested the following items be provided at a continued public hearing:

- a. The applicant to provide information addressing the viability of 29 septic systems on this property, and how far they will migrate to any of the other surface wells that are immediately adjacent. They also had concerns about the basalt, lava, and other rock close to the surface.
- b. Response times of fire, police and ambulance.
- c. The viability of this applicant's responsibility for schools.

The Board of County Commissioners also requested draft conditions for a Development Agreement in order to proceed in the continued public hearing if they move towards an approval. Full noticing to agencies, the newspaper and neighbors will be completed once the hearing is scheduled.

The applicant, Tanner Verhoeks of Haven Idaho, is requesting a Conditional Rezone of parcels R28963, R2891010, R2891011, and R28961, approximately 43.95 acres, from "A" (Agricultural) to CR-R-1 (Conditional Rezone – R-1 Residential) zone. The request includes a development agreement to limit residential development to 29 lots with a public

water system in substantial conformance with the concept plan. The subject property is located at 9814 Robinson Rd., Nampa; also referenced as a portion of the NW¹/4 of Section 17, T2N, R1W, Canyon County, Idaho.

Parcel R28961, originally approximately 30 acres, was divided in 1991 by deed (PI2020-0039). Parcel R28963 was created by land division in 1999 (LS2002-475). If approved, platting per CCZO §07-17-09 is required. A preliminary plat for Haven Creek Subdivision was submitted concurrently with the conditional rezone application (SD2022-0013).

The Plat has been placed on hold until Conditional Rezone conditions are decided.

Notice of this hearing for the additional information was sent to property owners within 600' of the involved parcels on August 13, 2024. Notice to agencies was provided on August 13, 2024. Notice was published in the newspaper on August 16, 2024. Signs were placed on the property on August 15, 2024.

DECISION OPTIONS for Conditional Rezone:

- The Board of County Commissioners may **approve** the conditional rezone and direct staff to return with findings that support the decision along with a Development Agreement and Ordinance; or
- The Board of County Commissioners may deny the conditional rezone; or
- The Board of County Commissioners may **continue the discussion** and request additional information on specific items.

ATTACHMENTS/EXHIBITS:

Attachment A: Memo for file

Attachment B: Minutes from February 8, 2024 BOCC hearing

Attachment C: Draft conditions of approval

Attachment D: Email correspondence between applicant and planner

- Attachment E: Applicant submission with additional information requested from Board
- Attachment F: Applicant presentation slides
- Attachment G: Letter from Public
 - 1. Russell Johnson
 - 2. Benedetto Family



Attachment A

Canyon County, 111 North 11th Ave. Suite 310, Caldwell, ID 83605 (208) 454 7458 • <u>zoninginfo@canyoncounty.id.gov</u> • <u>www.canyoncounty.id.gov</u>

Memo

То:	For file CR2022-0005
From:	Michelle Barron
Date:	July 19, 2024
Re:	CR2022-0005 Verhoeks - BOCC requested information update

At the BOCC hearing held on February 8, 2024, the Board requested the following items:

- a. The applicant provide information addressing the viability of 29 septic systems on this property, and how far they will migrate to any of the other surface wells that are immediately adjacent. They also had concerns about the basalt, lava, and other rock close to the surface.
- b. Response times of fire, police and ambulance.
- c. The viability of this applicant's responsibility for schools.

Staff was also directed to bring back draft conditions of approval that, if the conditional rezone is approved, would be added to a Development Agreement.

The applicant submitted a packet of information to Development Services on May 31, 2024. After thorough review by DSD staff and a deadline for additional information, the applicant has stated they are ready to take the attached information back to the Board.

Full noticing to agencies, the newspaper and neighbors will be completed once the hearing is scheduled.

Attached are minutes from BOCC February 8, 2024 hearing, email correspondence between applicant and planner, and applicant submission with additional information requested from Board along with proposed conditions of approval from the applicant.

Planning • Zoning • Building • Code Enforcement

Dedicated to providing quality, efficient and equitable service to the citizens of Canyon County by planning for orderly growth and development through consistent administration and enforcement of County Ordinances.

Commissioners Minutes

February 8, 2024 – 1:35 p.m. to 4:53 p.m.

PUBLIC HEARING – REQUEST BY TANNER VERHOEKS OF HAVEN IDAHO FOR A CONDITIONAL REZONE FROM AN "A" (AGRICULTURAL) ZONE TO A "CR-R-1" (CONDITIONAL REZONE - R-1 RESIDENTIAL) ZONE, CASE NO. CR2022-0005

Commissioners Brad Holton and Leslie Van Beek

Deputy PA Zach Wesley, DSD Planner Michelle Barron, DSD Assistant Director Jay Gibbons, DSD Director Sabrina Minshall, In favor: Tanner Verhoeks, Joe Stewart, Robbie Reno, Rick Brown, Justin Ruthenbeck, Hethe Clark, Samantha Hammond, Todd Lowell, Julia Ruis, Emily Niel, Nathan Orchard, Kyle Belknap, Jena Cloy; Neutral: Terry Scanlan; Opposition: Sue Marostica, Victor Marostica, Ted Zahradnicek, Tom Zahradnicek, Ronald Plummer, Jim Danes, Irene Chavolla, Doug Stittsworth, Cynthia Atnip, Polly Plummer, Linda Emry, Roxanne Geyer, Dewight Higel, Gary Geyer, Larry Peterson, Russ Johnson, Curtis Kessel, Mike Fast, Brad Smith, Kimberly Smith, and other interested citizens

Deputy Clerk Monica Reeves

Janice Beeves

PUBLIC HEARING – REQUEST BY TANNER VERHOEKS OF HAVEN IDAHO FOR A CONDITIONAL REZONE FROM AN "A" (AGRICULTURAL) ZONE TO A CR-R-1 (CONDITIONAL REZONE- R-1 RESIDENTIAL) ZONE, CASE NO. CR2022-0005

The Board met today at 1:35 p.m. to conduct a public hearing in the matter of a request by Tanner Verhoeks of Haven Idaho for a conditional rezone of parcels R28963, R2891010, R2891011 and, R28961, approximately 43.95 acres, from "A" (Agriculture) to CR-R-1 (Conditional Rezone – R-1 Residential), Case No. CR2022-0005. The subject property is located at 9814 Robinson, Nampa. Present were: Commissioners Brad Holton and Leslie Van Beek, Deputy PA Zach Wesley, DSD Planner Michelle Barron, DSD Assistant Director Jay Gibbons, DSD Director Sabrina Minshall, In Favor: Tanner Verhoeks, Joe Stewart, Robbie Reno, Rick Brown, Justin Ruthenbeck, Hethe Clark, Samantha Hammond, Todd Lowell, Julia Ruis, Emily Niel, Nathan Orchard, Kyle Belknap, Jena Cloy, Neutral: Terry Scanlan, In Opposition: Sue Marostica, Victor Marostica, Ted Zahradnicek, Tom Zahradnicek, Ronald Plummer, Jim Danes, Irene Chavolla, Doug Stittsworth, Cynthia Atnip, Polly Plummer, Linda Emry, Roxanne Geyer, Dewight Higel, Gary Geyer, Larry Peterson, Russ Johnson, Curtis Kessel, Mike Fast, Brad Smith, Kimberly Smith, and other interested citizens; and Deputy Clerk Monica Reeves. As part of Commissioner Holton's opening statements, he informed the audience that Commissioner Zach Brooks felt he had too much conflict of interest to attend today's hearing, although he didn't give any specifics or allude to what that was he is a very fair man and Commissioner Holton said he will honor his decision not to attend. Neither Commissioner Van Beek nor Commissioner Holton had any conflicts of interest or declarations to make pertaining to this hearing.

DSD Principal Planner Michelle Barron gave the oral staff report. The request includes a development agreement to limit residential development to 29 lots with a public water system. On February of 2023, the P&Z Commission recommended denial of the application. On September 14, 2023, the Board remanded the case back to the P&Z Commission so they could consider the updated information. On November 2, 2023, the P&Z Commission heard the case again with updated information and evidence and they recommended denial of the application. The items the Commission had not seen or used in their decision included a new recommendation from the Kuna School District, an agreement to place a monitoring well that has been made between the applicant and Idaho Department of Water Resources (IDWR). A pumping test was conducted to gain information about the impact on groundwater from the development. The applicant has also firmed up irrigation and drainage issues, along with a landscaping plan that will be addressed at the time of platting. The developer also had a traffic threshold analysis completed. Principal Planner Barron reviewed the parcel and land division history. A preliminary plat for Haven Creek Subdivision was submitted concurrently with the conditional rezone application, but it has been on hold until the conditional rezone conditions are decided upon. The future land use designation in the 2020 comprehensive plan is residential. The property is located within the Nampa impact area and has a future land use designation of low-density residential. The City of Nampa recommended denial because they would like to see smaller lots sizes with a maximum of 32,000 square feet. There was a review of the soil information, and it was noted there are 13 subdivisions in the area. The proposed plan aligns with three goals and six polices of the comprehensive plan. The City of Nampa has said connection to city water is not feasible at this time and current city sewer capacity would be insufficient to serve the development. There was a review of the concerns related to water and sewage disposal. Concerns from neighboring property owners include water quantity for the proposed use, additional traffic, smaller lot sizes and the loss of productive agriculture in the area. The applicant submitted possible conditions to add to a development agreement if the request is approved.

The following people testified in support of the request:

The applicant, Tanner Verhoeks of Haven Idaho, testified the property is located on Robinson Road, south of Lewis Lane and is very close to Kuna and is designated by both the County and the City of Nampa as low-density residential. There are 140 existing homes surrounding the subject property to the north, south, east, and west. The most common lot size is 0 to 1 acre; there are 27 small parcels in the staff report, the remainder are from 1 acre to 5 acres. The lots in the project are between 1 and 2 acres. Mr. Verhoeks said the project could propose R-R zoning, R-1 zoning, or urban density, but they are proposing somewhere between R-R and R-1 suited for the transitional character of the area. He reviewed the concept plan which includes a pressurized irrigation system with a storage pond along with a community well system. There will be meandering curved roads, and three protected cul-de-sacs which are meant to keep the rural character without lining up houses cookie cutter style. They invited neighbors to brainstorm the 6 areas of concern and they took the best ideas and included them in their plan. The single biggest concern was the potential impact to wells, so they adopted a community water system to have

one shared system instead of 29 individual wells. It will be over 200 feet for a reliable arsenic-free water system, and they have started thinking how to invite neighbors to connect to the system if they are worried about their shallow wells. Residential use will use drastically less water than existing irrigation water rights let them use. The largest agricultural production nearby is Stewart Dairy, and they support the project as it creates a transitional buffer between city density and production agricultural areas. The developer has a signed agreement with Kuna School District that will allow students at Swan Falls High to design and construct a home at Haven Creek as part of their construction trades education program and they are giving one of their lots to the school and will donate time to help the students learn practical skills in the trades. Mr. Verhoeks reviewed images of what Community of the Country looks like, it will be an artistic inspiration with the rural rustic feel with extra setbacks with a landscape buffer and median planting at the entrance to the subdivision, and it consist of small acreage homes. Staff originally determined the project met all eight standards of the code, but the P&Z Commission made a different recommendation. The comprehensive plan directs residential development to property like this which is already surrounded by housing. It's appropriate and compatible with the area. The proposed water and septic approaches have been measured and shown to be compatible, and the traffic is compatible. He spoke about the lot sizes in the area and said having a variety of housing options in a large area is healthy and will meet the housing needs. If we cannot build houses at a location that is consistent with the comprehensive plan, inside of an area of impact, consistent with the future land use maps, in an area of transition already surrounded by houses, supported by production agriculture, including community water with mitigations included for impacts, and with lot sizes larger than others in the vicinity, how we will build anywhere? Following his testimony, Mr. Verhoeks responded to questions from the Board. In regard to questions about the school district, Mr. Verhoeks said by donating a lot, having a house built, and the school district being allowed to sell that lot, they will surpass the district's voluntary mitigation fee of \$90,000 they request from developers. They are providing funds for capital improvements, but also of a large educational Hethe Clark, the applicant's counsel, responded to questions regarding their impact. communication with the Kuna School District and they have indicated they can serve the project's students.

Joe Stewart, who represents Stewart Dairy and farms in the property, believes the applicant has presented a thorough plan and said if it fits the comprehensive plan he does not oppose it. He said as a neighboring landowner, you want the rights of your property and the best value and opportunity. He said he opposed a different application due to a rights issue through access of property and because it was building a home of rehabilitation that was a risk to the neighborhood. Mr. Stewart said the valley is growing and homes are part of that growth.

Robbie Reno offered testimony on behalf of the Kuna School District regarding the overcrowding and failed bond issues the school district faces. The school board has asked him to meet with developers because they are coming and there has been no mitigation to help that. Idaho is one of two states that have zero impact fees and require a supermajority of bond passage. With current enrollment this development will feed into Crimson Point Elementary which is at 86% education capacity, and Kuna Middle School which is at 96% capacity, and eventually into Kuna High and Swan Falls High Schools which are at 103% capacity. He said this development team has asked how they can help and what mitigation measures they can take. The district is proud to partner with this developer because it will provide some mitigation and learning opportunities for the kids, and there is an opportunity where the revenues created will go into a capital improvement fund. Following his testimony, Mr. Reno responded to questions from the Board regarding the school district's capital needs.

Rick Brown is the construction trades teacher at Swan Falls High School, and he will be working on the partnership where students will work on the construction of a house, and he spoke of the benefits in terms of planning, budget, and being involved in the development project on the subject property. They are looking at having a builder and developer involved where the students can work a day or two on site and return to the classroom and study for the next phase. They will be involved in the processes, but not responsible for the processes taking place. Following his testimony, Mr. Brown responded to questions from the Board.

Justin Ruthenbeck testified about the hours the development team has spent speaking with neighbors, consultants, and other stakeholders discussing the issues in the community such as shallow wells, grading, drainage, water quality, schools, and traffic. The project developers are motivated to help solve the problems and allow the neighbors to be part of the community water system. The project says yes to the school district and to production agriculture. The project says no to people who claim this farmland should be saved. Those who farmed it said they will only rent it at 60% of comparable market value because the yields are only 60% of what they can get elsewhere due to its shape, and water, and being bisected by the canal. The project says no to people who do not want houses next to their houses. There are 140 homes surrounding the property and the developers feel as long as what they are doing is consistent with the comprehensive plan and is consistent with transitional uses they should have the same right to use their property as those around them. Following his testimony, Mr. Ruthenbeck responded to questions from the Board.

Neutral testimony was offered as follows:

Terry Scanlan with HDR Engineering testified the developers asked him to do several studies, and their initial study said there will be very little impact on surrounding wells. It also showed the water levels and although they fluctuate, they are stable in this area and are not falling or rising year over year. The developers want a public drinking water system so they provided what that would entail; two redundant community wells to serve the property with minimum capacity of 72 gallons per minute, with a maximum of 112 gallons per minute by IDWR standards. They will design a system with 100 gallons per minute. The average demand for 29 homes is much less because homes do not use that much water, they will use approximately 10-acre feet per year compared to the amount of water used for 3 acres of irrigation. There is not much use and most of it returns to the aquifer through septic drain fields. Monitoring shows that water levels rise from spring to fall, this is a surface water irrigated area and is the dominant driving factor on

ground water supply. They hit a low point in April and hit a peak in September. Domestic-type demands will not impact neighboring wells. Water samples show naturally occurring arsenic concentrations exceed drinking water standards so they will go deeper and find lower concentrations. Following his testimony, Mr. Scanlan responded to questions from the Board. The uses by development do not really drive down water levels, but what does drive down levels is the reduction of recharge and as this area develops over time you will see reduced recharge. As farms go away there will be less and less recharge, there is still the same amount of water available but how that water is managed and where it provides recharge is going to change and water levels will probably go down in areas like this. Historically, before the irrigation came in the water levels in this area were 100-150 feet lower than they are now and they came up responding to irrigation recharge and as that irrigation goes away over the next 100 years they will start to decline. There is a permit for an agricultural well authorizing irrigation of 40 acres at 360 gallons permit and it's supplemental to the to the Boise Project water that's delivered from the Nampa and Meridian Irrigation District. There is an existing domestic well that is around 105 feet deep. There was further discussion regarding well monitoring and well construction.

The following people testified in opposition to the request:

DeWight Higel said despite being denied the applicants keep coming back with different proposals and now they are now proposing to give a building lot to the school district which seems like a quid pro quo situation. Other concerns include traffic, lot size, groundwater levels, and who will be the controlling authority over the community well to make sure it is operated and maintained properly. He is also concerned about the impact 29 septic systems will have on the soil where in an area that already has a problem with nitrates.

Larry Peterson lives adjacent to the subject property and his concerns include impacts to water, traffic, schools, and congestion. He said the developer has indicated they have overcome the water issues and there will be no impact traffic and the schools are happy, and the neighbors are happy, but nothing could be further from the truth. The pump study was done in late spring or early summer when the recharge was at its highest, and they only pump the well enough for domestic use, but that is the best case scenario - they need to pump a worst case scenario which is late summer early fall when the irrigation has been turned off and when the large lots want to continue watering their landscaping and they will pump 30-40 times more water than for domestic use. There are another 85 wells in the area that are pumping hard as well and there is a bigger problem. Mr. Peterson said the developer's proposal to the school helps very few students and the offer doesn't come close to mitigating the impact of the additional students this subdivision could add. There are 90 neighbors who are opposed to the development. Lastly, the P&Z Commission unanimously rejected this twice and he wants the Board to deny it as well.

Russ Johnson testified he has lived near the subject property for 17 years and is the HOA President of his subdivision and he is representing 9 property owners today. The average lot size in his development ranges from 2.8 acres to 6 acres and he believes the proposed lot size of 1.2+ acres

is too small, and he would like to see the lot size at 3 to 5 acres to maintain the rural character of the area.

Mike Fast testified about his concerns regarding impacts to water, schools, traffic, and EMS response times. There are a number of items on the comprehensive plan regarding having services available at the property already for water, sewer, and gas but that is miles away and it will be at great expense before services reach the area. He feels the proposed lot size should be larger.

Curtis Kessel is strongly opposed to the project and is concerned about impacts to water and the potential of 29 septic systems being placed in a small area. He said the developer has proposed the neighbors could connect to the community well but gave no provision for how to accomplish that.

Jim Danes testified that he spent 44 years in the fire protection industry working with fire departments and said they will have specific requirements the developer will have to comply with. He agrees with the opposition testimony that has been given in relation to water and contaminants and said even though he is opposed to the request, we need to look at possible solutions. He said there is a neighborhood between Robinson and McDermott, on the north side of Amity does not have septic tanks or sewer, but they have a system with several tanks next to each other and it's self-contained and the homes are piped to that system, and it goes through a process of breaking everything down so that when it goes back into the ground it's clean water. It has been said the City of Nampa will someday take it over and so that is a possibility for the area.

Ron Plummer said it seems like all of the problems that have been brought up could be solved if you could pass funding for the schools, and if they could have the water and sewage set up ahead of time, but they have 29 septic tanks and that's scary for those who have shallow wells. Given the funding and staffing problems the school district faces he questions whether they will be able to find people to help build the house referred to in the partnership. He said the infrastructure should be in place before development is allowed.

Tom Zahradnicek testified about the impacts to irrigation that will affect his father's property and the concern with placing septic tanks on solid lava. He has been in communication with the Nampa Highway District about putting a roundabout on the corner of Robinson and Locust where he owns 20 acres, and he said he would be willing to sell it and take this farm ground in the trade because he does not need all the money the land is worth at this time, there is plenty of land to build on. If the developers are hurting for land they could present a plan to him and take some of their land in trade because he wouldn't mind giving some to his son or grandson, and 15 years year down the road when the land is ready for development then they can develop it but at this point it's not ready and it will hurt the neighbors and everybody around it by putting this kind of density on property that sits on a lava field.

Ted Zahradnicek, whose property borders the subject property, submitted a letter of concern and he wanted to make sure the Board read it because it outlines his concerns about water, environmental issues, and transportation issues. (The letter is identified as Exhibit 13G that was received on February 1st). The field next to his property grows beets, corn, and, alfalfa. Irrigation is provided by the Pioneer Irrigation District, and he is not aware of any test holes or perc tests being performed. The well on the subject property has gone dry in the past and he is concerned about placing 29 septics on a lava field because they will run through his property and will create problems. Mr. Zahradnicek says the developer has been denied several times and he asked when does no mean no, and how many more times do the neighbors have to spend time testifying at hearings?

Sue Marostica testified that she sent an email requesting 10 minutes of testimony since she is representing a group. (Staff did not indicate whether her email was received.) With all of the comprehensive plans these are speculations and the property they want to build on is at the very edge of the impact areas so when the County puts together speculations they are making a best guess as to how things are going to develop and what's going to happen, but to bring in businesses or homes and plop them down in the middle of farmland when there are no services like water and sewer, and not allowing the schools to catch up, it doesn't seem fair to those who have to suffer the consequences. Another subdivision was approved behind her property about 15 years ago and those are 4-5 acre lots, but her well dropped and she had to lower it and they were fine for another 10 years, but 5 years before that both neighbors lost their wells and they had to go over 250 feet to reach water again. It goes up and down with the irrigation season, they are fine in the summer, but in January and February they are at the lowest. She put together maps from IDWR and said KRON4 News did a national advertisement saying Idaho is one of the toxic states that is facing massive underground water issues. There are 60 aquifers in Idaho that are under groundwater watch and for 11% of them their decline has more than doubled in the last century. The Mountain Home area is critical, and Micron in Boise pumps 48 million gallons of water per day and so all of Boise and Garden City are in dire need. There is a spot between Boise and Meridian that used to be rural, and they allowed people to drop wells and septics, but no one can drill a well now because the water is contaminated. Up to within a half mile of her house are marked areas of concern where the withdrawals are causing or expected to cause serious problems. Almost all the neighbors are struggling with water and there is a water problem and a subdivision like this should not go in before city services are available. Commissioner Holton asked if the Board wanted to give her more time to speak, and Commissioner Van Beek asked if she has other nonrepetitive testimony she would like to share. Ms. Marostica said the only other testimony she had dealt with the schools, and she spoke to the Kuna City Council about it why are some developments approved and others are denied, and their response was when they write a letter to Kuna School District they do not get a response which means nobody cares and yet the school district cannot keep up with all the developments. Idaho is ranked 47th and it is dire, and the problem is not going to be fixed by bringing in more developments.

Brad Smith testified about his concerns with drinking water and contamination from 29 new septic tanks affecting those with shallow wells. The cost of drilling a new well can cost upwards of \$75,000 and he and the neighbors are concerned about that because they have had dry years where they've had to bring water in during droughts. Mr. Smith is concerned about the impacts

to irrigation and access to/maintenance of his irrigation source as well as the health of his farm and the ability to keep feeding his animals and producing livestock.

Kimberly Smith testified that her concerns are about there being only one access into the subdivision, the safety of kids waiting at the bus stop, and the potential for noise that could be upsetting to farm animals. She has arsenic in her well and she filters it. Her well is 102 feet deep and was dug deeper by the previous owner because it went dry.

The Board took a break from 3:45 p.m. to 3:51 p.m.

Rebuttal testimony was offered by Hethe Clark:

Pressurized irrigation comes out of a canal, and there are two lines into a holding pond that charges over time which is what charges the irrigation system that avoids the fluctuation. The law requires them to maintain any historic conveyance of irrigation water to the neighboring properties, so they are not going interfere with any of the neighbors. They've had some conversations with Mr. Smith about his connection point and there's been a willingness on the developer's part to look at whether they can bring it closer to him. The Kuna Fire District has reviewed the proposal and provided initial comments. The developer will do an enhanced septic system, and they will have a nutrient pathogen study that will be reviewed by SWDH and DEQ. Regarding the bus stop, they have started conversations with the school and will provide a turnout that will allow for a waiting area. The subdivision at buildout will add 16 students. It's a small project with small impacts and that's why a traffic impact study has not been required but they have done the additional work to provide counts to prove up the lack of impact on area roadways. Regarding the water system, they will be much deeper and not in the same aquifer so if there's an impact on area wells it won't be because of their community water system. The pump testing was done as irrigation came on and the worst-case scenario comes in August/September and the monitoring shows that after April the water levels went up 15-20 inches so when you hit the worstcase scenario later on in the irrigation season there is already 15-20 inches above what's shown on the tests. A community water system triggers additional DEQ regulations, and they have to go through the technical financial managerial process and identify a qualified operator to operate the system. It adds a level of complexity but also provides an additional layer of safety for the residents. As a showing of good will they have offered to allow the neighbors to connect to the system which they see as a similar model to what the cities use. The developer believes the proposed density preserves agricultural ground and notes that the City of Nampa wants the lot sizes to be smaller. Mr. Clark said forcing the property to remain in agriculture would be inconsistent with the comprehensive plan which says the area is designated as residential. The character of the area is mixed; there are 140 residential lots within the area, and the future planning in the area is residential. The project is also compatible with the agricultural uses in the area. The character of the area already has significant residential use, and this project is going to be low-density when the City of Nampa gets there. The developer has mitigated the impact with the community water system, and they have gone above and beyond with the voluntary commitment that they've made to the Kuna Scholl District. The developer has provided proposed conditions of approval that could be attached to a development agreement. If approved, they will bring the preliminary plat for the Board's review. Commissioner Holton said there was testimony about the basalt lava flow in the area and septic tanks are not viable in his opinion. Mr. Clark said this is a matter that DEQ and Southwest District Health will weigh in heavily on including the siting of each septic tank.

Tanner Verhoeks said they have completed a geotechnical study, and they have advanced test pits 10-12 feet deep in a couple dozen areas across the sites and they know the soil conditions. They've had a predevelopment meeting with SWDH who has reviewed the geotechnical report and their plan, and Atlas has prepared a level one nutrient pathogen study that has been given to DEQ for review. SWDH will also see it. In the case where you find a lot and you advance a septic and hit lava there are a few solutions: mounted systems, or you can blast the rock to get your percolation rates, and there is advanced treatment. There are solutions that are heavily regulated and so they felt comfortable pursuing this project after doing their due diligence early on to know that septics will be regulated and safe. There has not been testimony about septic fields failing in this area.

Mr. Clark said there will be multiple layers of protection and SWDH is also a signing authority on the plat.

DSD Director Minshall said the Board could table the decision and request more information, or additional time to review the geotechnical report or get confirmation from SWDH. Those items could be a condition of approval prior to the preliminary plat, we would have to have more detail which is when they work out the exact siting. If we say septic has to be in compliance with SWDH that would come up during the plat phase. The Board can also ask for an expert to provide additional information about the soil to locate septic tanks in this area.

Mr. Clark said as part of the conditional rezone they are signing a development agreement and it runs with the property and it's important to get the conditions right at the appropriate stage and the type of data Chairman Holton is looking for is probably the type that doesn't typically come along until the preliminary plat phase and that's why the issue he is pointing to would be handled with a condition of approval that says SWDH has to sign off on the septic systems.

Commissioner Holton said the request is for a higher density than anything immediately around it and he doesn't have the data to know if the area can support 29 septic tanks.

Samantha Hammond testified that at the preliminary plat stage they have to go through SWDH, and beyond that when it gets to the final plat they have to write subdivision engineering reports and go through multiple levels of checklists and reports, and they have to clarify that data.

Director Minshall said there is criteria in a conditional rezone, and you have to address the ability to have essential services and if you do not feel there is enough evidence or you have conflicting evidence from testimony the Board can ask for additional information. She agrees with the applicant that it typically comes up at the preliminary plat phase, but what she hears the Chairman saying is it is a concern because of that essential services criteria and if we don't have enough

information at that point it's within the Board's purview to ask for more. If there is uncertainty it's her preference it be tabled so staff can work with the developer and see what type of additional information or type of experts we could get to make sure before the Board makes a finding of that certainty it's found at the right rezone process.

Commissioner Holton wants the information before he goes into discussion. Commissioner Van Beek said she's heard enough testimony that she thinks the Board will either come to a decision after hearing the comments or it's going to be a moot decision because there won't be agreement and there will be a de novo hearing at that point.

Mr. Clark said they have provided a lot of the information the Chairman is looking for and it sounds like they should spend some time with staff and make sure it's packaged in a way that easier to digest. They would like to have a complete list of the items the Board would hold the public hearing process open for so they can make sure all the questions are answered. It would be cleaner to have the hearing closed after, or have it held open only for the purpose of that one report and then have the deliberation but if there are specific items they would like to have that back and forth with the Board today so they have the complete list of things to come back with.

Commissioner Holton is okay with closing testimony and instructing staff to work with the applicant on getting the information about soil depth and the viability of the septic systems and make sure it's a viable facility of service that's available on the property. Upon the motion of Commissioner Holton and the second by Commissioner Van Beek, the Board voted unanimously to close public testimony.

Commissioner Holton made a motion to request DSD staff and engineering to work with the applicant to provide viable information about the viability of 29 septic systems on this property, and how far they will migrate to any of the other surface wells that are immediately adjacent.

Commissioner Van Beek said the Board has to make positive findings for all eight criteria and she has concerns about two of them. Having lots sized so people can manage them does save agricultural ground. The purpose of the R-1 zone is promote and enhance predominately single-family living areas in a low-density standard but she doesn't think the Board can make an argument that this is a low-density residential area because most of the lots in the area would classify as rural living. She likes Mr. Verhoeks plan because he presented examples of what he would build in the area but said the secondary dwelling units are problematic. She said Canyon County is facing a crisis with EMS including our ambulance district. The Canyon County Sheriff's Office manages all 604 square miles and for these areas that are farther out the response times are of concern and if this becomes a subdivision this is potentially the beginning of the domino effect that would change the nature and character of the area. She recognized the concern about water, well issues, and sending kids into a crowded school environment and she doesn't believe the \$100,000 donation is going to cover what is required for the school infrastructure. There is no validation that going deeper into another aquifer is going to be better or worse, it's a point that's an unknown variable. She agrees you can make a rural transitional area, but she would eliminate the secondary

homes. The County does not have jurisdiction over CC&Rs. There was no testimony about a failproof water system that would ensure that if that system goes down everybody in the subdivision is affected. Commissioner Van Beek said this is better than a high-density development, but she cannot overcome the fact that we cannot meet all eight criteria. The Kuna School District clearly stated they are at capacity.

Mr. Clark said some of the items Commissioner Van Beek brought up are not items they had an opportunity to discuss so would those items be part of the additional information Chairman Holton is requesting. Following discussion Commissioner Van Beek said she would like input from Kuna Fire, the irrigation district, Canyon County Sheriff's Office and the Canyon County Ambulance District as to what their resources are. Deputy PA Wesley said we need to lay out what questions we want to ask regarding the septic and other essential services and have those narrowed down in the motion. We are going to instruct DSD to send out request letters to fire, police, ambulance about their response times and we'll have the applicant respond to the septic issue and we will allow testimony on those limited areas to the public.

Commissioner Holton made a motion to continue the hearing to a date uncertain to obtain engineering details on the viability of septics with the concern of basalt, lava, or other form of rock that is just under the surface, and to solicit information from fire, police, and ambulance on the viability of their response times to this location. We will reopen the public hearing for only those topics. The motion was seconded by Commissioner Van Beek. Director Minshall said the Board also brought up other items related to schools and the surrounding area. Commissioner Holton amended the motion to include the viability of the applicant's impact on the school district and we would keep it broad. Commissioner Van Beek said she wants the secondary houses to be completely off the table, we should not allow a higher density. Commissioner Holton amended his motion to include further discussion about the development agreement. The amended motion was seconded by Commissioner Van Beek and carried unanimously. Deputy PA Wesley said at the next hearing we will hear testimony on the limited issues and allow public comment on those issues, and we will go through the process. The hearing will be re-noticed. Upon the motion of Commissioner Holton and the second by Commissioner Van Beek, the Board voted unanimously to adjourn to an unknown date certain that will be advertised and listed for a future date. The hearing concluded at 4:52 p.m. An audio recording is on file in the Commissioners' Office.

ATTACHMENT A DEVELOPMENT AGREEMENT CONDITIONS

- 1. The development shall comply with all applicable federal, state, and county laws, ordinances, rules and regulations that pertain to the property.
- 2. The subject parcel shall be in subjection to the Canyon County Zoning Ordinance Chapter 7, Article 17 for platting with a maximum of 26 buildable lots with the average lot size of 1.69 acres. The following restrictions apply:
 - a. No secondary dwelling (CCZO §07-10-27 & 07-14-25) are allowed on the subdivision lots without an expanded nutrient pathogen study and approval by Southwest District Health and IDEQ that their standards can be met.
- 3. A Public Water System is required to service the 29 residential lots in lieu of individual wells.
- 4. Historic irrigation lateral, drain and ditch flow patterns shall be maintained and protected. Modification or improvements shall be approved in writing by the local Irrigation District.
- 5. The developer shall comply with CCZO §07-06-07 (4) Time Requirements: "All conditional rezones for a land use shall commence within two (2) years of the approval of the board."

Michelle Barron

From:	Tanner Verhoeks <tanner@havenidaho.com></tanner@havenidaho.com>
Sent:	Monday, July 15, 2024 2:15 PM
To:	Michelle Barron
Cc:	Samantha Hammond; Isaac Josifek; Justin Ruthenbeck; Hethe Clark
Subject:	Re: FW: [External] Re: Haven Creek - BoCC Follow-up Submittal
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hey Michelle, thanks for the memo!

Please go ahead and get a hearing date scheduled.

As to item a. (septic), we believe that the bulk of information requested by the Board of County Commissioners is already contained in the record, but we wanted to summarize it in one location to ensure the Commissioners' questions have been answered. For example, Commissioner Holton's question regarding soil depth is addressed on pages 4-5 of the resubmittal package. There is not an issue with soil depths above rock based upon the careful evaluation that has already been completed, which goes above and beyond the preliminary reports that are required at this stage of the application.

Additionally, there is specific information that is new that covers the research, analysis, and discussion of septic viability in sections 'Contingencies' (page 6) and 'Ongoing Operation and Enforcement' (page 6) that needs to be reviewed by the commissioners. Specifically, the inclusion of septics in the WUA is new. This WUA is further explained on page 17. The development agreement has also been updated appropriately to further enforce that septics must be designed and approved by DEQ and SWDH (page 15). Lastly, Secondary Dwellings which factored into the discussion on septics, have been removed (page 14). All of this combined speaks to the evidence that 29 new septics on this project site are viable and will be monitored and approved through multiple checkpoints.

So as you can see, the document is full of new information that all intertwines in one way or another, we did our best to lay it out in a straightforward and concise manner. We trust that the resubmittal package will be reviewed in its entirety.

Thank you, have a great day!



Tanner Verhoeks, PE Land Development :: Principal 208-391-3838 Tanner@HavenIdaho.com www.havenidaho.com

On Mon, Jul 15, 2024 at 9:46 AM Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> wrote:

Good Morning Tanner,

Please see the attached Memo in regards to scheduling the BOCC meeting. Just making sure we are all set.

Have a nice day,

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: <u>www.canyoncounty.id.gov</u>

From: Tanner Verhoeks <<u>tanner@havenidaho.com</u>>
Sent: Tuesday, July 9, 2024 8:15 AM
To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>>
Cc: Samantha Hammond <<u>SHammond@ardurra.com</u>>; Isaac Josifek <<u>ijosifek@ardurra.com</u>>; Justin Ruthenbeck
<<u>Justin@havenidaho.com</u>>
Subject: Re: FW: [External] Re: Haven Creek - BoCC Follow-up Submittal

Good Morning Michelle, Happy Tuesday! Hope you had a good 4th of July.

Thanks for the response! Understand the workload and the pressure the county is feeling.

I just simply came in to get some clarity in person if possible, sorry you weren't available when I stopped by. I was under the impression we can schedule for a date and then the applicant and staff both have up until 10 days before the hearing to put all of their staff reports, submittal materials, and presentations together per the new ordinance. In the event something is deemed missing before that deadline, couldn't we simply use the time until the deadline to provide that or worst case continue/push to a later date certain?

I'm just concerned we are looking at September at this point and with us having a case number from early 2022 I'm sure you can understand we are getting squeezed from our investors on this saga that this entitlement period has been. I can assure you, we have been practicing patience.

I originally heard at our Feb 20th meeting that we as a group were simply concerned about the KSD material as being the long lead item. The rest of the requests were straight forward and could be turned in before the applicant submittal

deadline for the hearing. With the KSD piece solved and turned in, we were ready to schedule in late April, but we were then told we needed to have everything put together before we could be scheduled. We then worked to finalize everything and turned it in at the end of May as you noted.

Appreciate you taking time to help us all refresh on the case. I'm sure you'll find that everything requested is provided. Looking forward to seeing our date. Thank you for your hard work and anything you can do to move us forward in the queue.

Best,

Tanner Verhoeks, PE Land Development :: Principal

208-391-3838 Tanner@HavenIdaho.com www.havenidaho.com

On Mon, Jul 1, 2024 at 12:43 PM Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> wrote:

Tanner,

I see that you stopped by. It was mentioned that you had a question about a 10-day timeframe. I am not sure what you are referring to.

As stated in my June 11th email: "We do not have a date yet. I need to have time to organize the new information and get it prepared for going to the BOCC. I have several cases ahead of this one and the scheduling is tight with BOCC right now with the Budget Hearings coming up. I have you in the que to schedule, I just don't have a date yet."

According to my records, On February 8, 2024, the BOCC requested specific additional information from the applicant. On February 20, 2024, I met with the applicant and representatives to go over what BOCC had requested. On May 31, 2024, I received a packet of information from the applicant. I then sent a response email on June 11th. At that time, I was working on cases that I was going to present at a public hearing on June 20th. I went on vacation for a week and then was out for a few days for medical leave. So, although you have provided requested information, I have not had the opportunity to review the submitted information to assure it is what the Board asked for. As I have waited for this information for over three

months, I appreciate your patience in allowing me the time to review my old notes to verify all of the information has been submitted. I don't believe that the Board will continue the hearing any further if there is missing information that they specifically requested. I need time to review the information and refresh my memory on this case.

As previously stated, I have you in my que to get this scheduled. I will let you know as soon as I have a date for the Board hearing.

Thank you,

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>

From: Samantha Hammond <<u>SHammond@ardurra.com</u>>
Sent: Wednesday, June 19, 2024 11:06 AM
To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>>; 'Tanner Verhoeks' <<u>tanner@havenidaho.com</u>>
Cc: Isaac Josifek <<u>IJosifek@ardurra.com</u>>; Justin Ruthenbeck <<u>Justin@havenidaho.com</u>>
Subject: RE: [External] Re: Haven Creek - BoCC Follow-up Submittal

Hi Michelle,

Checking in on this, please let me know if you need anything else from us or if we can assist in any way to get a hearing date.

Thank you,

Samantha Hammond



From: Samantha Hammond
Sent: Tuesday, June 11, 2024 11:56 AM
To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>>; 'Tanner Verhoeks' <<u>tanner@havenidaho.com</u>>
Cc: Isaac Josifek <<u>IJosifek@ardurra.com</u>>; Justin Ruthenbeck <<u>Justin@havenidaho.com</u>>
Subject: RE: [External] Re: Haven Creek - BoCC Follow-up Submittal

Michelle-

I'm a bit confused about the process. I thought the staff report was not due until at least 10 days before the hearing, and that comments/additional exhibits could be submitted up to 20 days before. What needs to be prepared to get this scheduled?

Thank you,

Samantha Hammond



Land Use Planner O: (208) 323-2288 | M: (208) 661-6764

2471 S. Titanium Place, Meridian, Idaho, 83642 SHammond@ardurra.com | www.ardurra.com



From: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> Sent: Tuesday, June 11, 2024 9:33 AM To: 'Tanner Verhoeks' <<u>tanner@havenidaho.com</u>>
 Cc: Isaac Josifek <<u>IJosifek@ardurra.com</u>>; Justin Ruthenbeck <<u>Justin@havenidaho.com</u>>; Samantha Hammond
 <<u>SHammond@ardurra.com</u>>
 Subject: RE: [External] Re: Haven Creek - BoCC Follow-up Submittal

Tanner,

We do not have a date yet. I need to have time to organize the new information and get it prepared for going to the BOCC. I have several cases ahead of this one and the scheduling is tight with BOCC right now with the Budget Hearings coming up. I have you in the que to schedule, I just don't have a date yet.

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>

From: Tanner Verhoeks <<u>tanner@havenidaho.com</u>>
Sent: Monday, June 10, 2024 3:59 PM
To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>>
Cc: Isaac Josifek <<u>ijosifek@ardurra.com</u>>; Justin Ruthenbeck <<u>Justin@havenidaho.com</u>>; Samantha Hammond
<<u>SHammond@ardurra.com</u>>
Subject: Re: [External] Re: Haven Creek - BoCC Follow-up Submittal

Hey Michelle, do we have a date yet?

Tanner Verhoeks, PE Haven Idaho :: Principal 208.391.3838

On Tue, Jun 4, 2024 at 11:17 AM Tanner Verhoeks <<u>tanner@havenidaho.com</u>> wrote:

Yes, that is everything including the letter that Robbie should have sent over from KSD. We also refer to the letter in our document.

On Tue, Jun 4, 2024 at 9:20 AM Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>> wrote:

I did receive this information. Is this everything along with the letter from Kuna School District?

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: Tanner Verhoeks <<u>tanner@havenidaho.com</u>>
Sent: Monday, June 3, 2024 1:59 PM
To: Michelle Barron <<u>Michelle.Barron@canyoncounty.id.gov</u>>
Cc: Isaac Josifek <<u>ijosifek@ardurra.com</u>>; Justin Ruthenbeck <<u>Justin@havenidaho.com</u>>; Samantha Hammond
<<u>SHammond@ardurra.com</u>>
Subject: [External] Re: Haven Creek - BoCC Follow-up Submittal

Hey Michelle, just left you a VM. Wanted to confirm my last email made it through.

Thanks!

Tanner

On Fri, May 31, 2024 at 2:56 PM Tanner Verhoeks <<u>tanner@havenidaho.com</u>> wrote:

Hey Michelle,

Please see the link below for the document on all of the additional information requested at the last BoCC hearing.

Haven Creek BoCC Resubmittal Package

Please let me know if you have any questions.

Thank you!

Tanner Verhoeks, PE Land Development :: Principal

208-391-3838 Tanner@HavenIdaho.com www.havenidaho.com



Canyon County, 111 North 11th Ave. Suite 310, Caldwell, ID 83605 (208) 454 7458 • <u>zoninginfo@canyoncounty.id.gov</u> • <u>www.canyoncounty.id.gov</u>

Memo

То:	Tanner Verhoeks and team
From:	Michelle Barron
Date:	July 15, 2024
Re:	CR2022-0005 Verhoeks - BOCC requested information update

In advance of scheduling the continued public hearing for the subject application, I am reaching out to you to ensure that the additional information provided is finalized. The information should address the discussion points identified from the previous public hearing. At the BOCC hearing held on February 8, 2024, the Board of County Commissioners requested the following items:

- a. The applicant provide information addressing the viability of 29 septic systems on this property, and how far they will migrate to any of the other surface wells that are immediately adjacent. They also had concerns about the basalt, lava, and other rock close to the surface.
 - After reviewing the information submitted to date for item "a" listed above, it appears that the materials submitted are a summary of information from previous reports for the septic, but no new information has been in the document received via email on May 31, 2024.
- b. Response times of fire, police and ambulance.
 - After reviewing the information provided in your May 31, 2024 packet, response times have been provided for Kuna Fire and Canyon County Paramedics. No response has been received from the County Sheriff's Department.
- c. The viability of this applicant's responsibility for schools.
 - A letter has been submitted (dated May 30, 2024) by the school's representative restating their support for the project and the arrangement that they have with the developer. The letter indicates that the High School is at capacity, and there is some capacity for the elementary and middle schools. The school representative information provided indicates that the subdivision is expected to produce 14 new students in the 29-lot subdivision.

We also received your analysis of the criteria for a rezone and a proposed development agreement condition list (dated May 31, 2024).

Planning • Zoning • Building • Code Enforcement

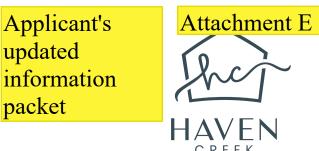
Dedicated to providing quality, efficient and equitable service to the citizens of Canyon County by planning for orderly growth and development through consistent administration and enforcement of County Ordinances.

This letter is to ensure that that the information you have provided is everything that you wanted to provide to address the requested additional information. Please advise if there is additional information that you would like to submit. Any additional information to address these items must be submitted by July 22nd at close of business.

Please advise if additional time is needed, otherwise Development Services will proceed with noticing and scheduling after the deadline indicated above.

Planning • Zoning • Building • Code Enforcement

Dedicated to providing quality, efficient and equitable service to the citizens of Canyon County by planning for orderly growth and development through consistent administration and enforcement of County Ordinances.



May 31, 2024

Canyon County Development Services 111 N 11th Ave. Caldwell, ID 83605

Re: Haven Creek Subdivision CR2022-0005 | BOCC Requested Information

Canyon County Development Services Department and Board of County Commissioners:

This document package includes additional information as requested in the carried motion by Commissioners at the public hearing on February 8, 2024. Per the published Meeting Minutes (page 11), this specifically includes:

- 1. SEPTIC "Engineering details on the viability of septics with the concern of basalt ... and other rock that is just under the surface."
- 2. EMERGENCY SERVICES "Solicit information from fire, police, and ambulance on the viability of the response times to this location."
- 3. SCHOOL "The viability of the applicant's impact on the school district."
- 4. DENSITY "Secondary houses to be completely off the table."
- 5. DA "Further discussion about the development agreement."

Being the Applicant's burden of Proof - This document also provides the:

6. UPDATED RESPONSES - Applicant's updated response to standards of evaluation

We are willing to discuss other topics if requested, but have limited our responses to the above topics, per direction by Deputy PA Wesley within the <u>Meeting Minutes</u>¹. We are excited to move this project forward and to do what's best for the project and community.

Sincerely,

Tanner Verhoeks, PE Principal, Haven Idaho <u>Tanner@HavenIdaho.com</u> 208-391-3838 Hethe Clark Partner, Clark Wardle, LLP hclark@clarkwardle.com 208-386-3327

¹ https://agenda.canyoncounty.id.gov/Agenda?date=2024-02-08

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Septic

Request from the Board

"Engineering details on the viability of septics with the concern of basalt ... and other rock that is just under the surface."

Executive Summary

- 1. 18 test pits have been dug, with basalt rock encountered an average of 8.7 feet below grade (4.5-13.8 feet).
- 2. 61% of the property has at least 8 feet of soil cover overlying bedrock, allowing for typical septic system design.
- 3. The remainder of the site has bedrock between 4.5-8'. Alternative septic systems are available for use in areas where separation to bedrock cannot be achieved.
- 4. Infiltration tests for Stormwater Retention were performed on 5 test pits, with a measured average infiltration rate of 2.74 inches per hour.
- 5. Proposed lot boundaries, informed by engineering studies, have been designed to meet down-gradient nitrate concentration limits².
- 6. An abundance of options to meet site constraints and nitrate requirements (as conditioned by SWDH and DEQ) <u>are available</u>³.
- 7. Test pits for each lot at time of home build will be advanced with a SWDH representative present for septic system design and approval.
- 8. Septic system maintenance, if any, will be performed by the proposed private Water Users Association (WUA). The WUA will function much like a homeowners' association, with a focus specifically on septic and water system maintenance. Funding will be provided by the homeowners through assessments. In addition, operations and maintenance manuals and required specifications for septic systems will be included in CCRs and enforceable by the WUA.

² See Appendix A

³ https://www2.deq.idaho.gov/admin/LEIA/api/document/download/14470

Details

Significant physical and engineering studies were completed in 2022 and 2023 to verify how and where proposed lots would support septic systems. Applicable reports and exhibits have been re-attached as an appendix for ease of reference.

Per Atlas, "The site is relatively flat and level" and "Regional Drainage is north and west toward the Boise River". Official Geotechnical Fieldwork investigations were performed on November 8th and 9th in 2021 by ATLAS. During this time 18 test pits were advanced across the entire project site.



Rock Depth

Logs of these results can be found in the appendix. Rock depths were as shallow as 4.5 ft and as deep as 13.8 ft with an average of 8.67 ft below grade. Septics typically have a drain field depth of about 4' and the separation from the confining layer is another 2.5 to 6 feet, depending on soil conditions.

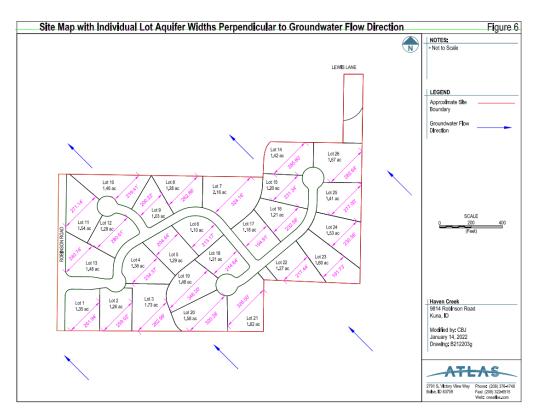
Septic systems are designed with application rates that correlate to the soil texture as classified during the septic approval test pits with SWDH.

Specific claims were made during public testimony at the last BoCC hearing in regards to septics and soil conditions:

- "There's solid lava out there, and.... it's not more than 2 feet deep"
- "No test holes, no perc tests, nothing"

These comments were specific to our southern property line on the west side of the canal. As noted in the geotechnical reports (appendix, dated 2021), test pits TP-01 and TP-08 were dug in

this area and encountered basalt at depths of 6.1 ft and 8.6 ft, respectively. A total of 18 test holes were dug on the property to measure both rock depth and drainage rates.



Level 1 Nutrient Pathogen Study

A Level 1 Nutrient Pathogen study (January 2022) was prepared by Atlas detailing how advanced treatment septics are feasible for this location for 26 residential lots. The report states that there is a <u>Northwestern groundwater flow direction</u> and that on average there are 192-438 ft aquifer widths perpendicular to flow direction. The report analyzed the worst case (two of the smallest lots) with a Mass-balance calculation done for the lots with the smallest aquifer width. Those lots met compliance with the requirement to use 40% nitrate reducing systems. SWDH and IDEQ must review and approve parameters used in the report and calculations. The report is also required to be submitted to SWDH with a Subdivision Engineering Report and a pre-development meeting as a part of the development process.

A year later, a subsequent technical memo (January 2023) was also written. This technical memo was an update to the L1NP during the entitlement process to evaluate whether the project would still be in compliance with nutrient pathogen levels with 29 residential lots and secondary dwelling units on those lots. A worst case study of a 1-acre lot with a lot width of 145 ft and max 500 gpd effluent flow (the average flow of a house and secondary dwelling combined) was found to be compliant with a 65% nitrate reducing system.

With the most recent update found in our proposed Development Agreement (see <u>SDA</u>), you'll see that secondary dwellings are prohibited which further makes this worst case scenario even more conservative and viable.

SWDH, ATLAS, Ardurra, and Haven Idaho all held a pre-development meeting on January 10th 2022 where SWDH reviewed all of the data, findings, reports, and preliminary plat and found our approach and development plans to be acceptable with further review of the L1NP to be done through the proper channels and agencies.

The L1NP study found that, with properly installed septic systems, the point of compliance nitrate concentration is not exceeded. Further, such septic systems will have a negligible impact on surrounding surface wells in accordance with DEQ guidelines.

Contingencies

Regardless of the field measurements and findings, some may still ask: "What happens when you go to put a septic on a 1 acre lot and have limited locations where the rock is deep enough and fractured enough to have a high enough hydraulic conductivity." DEQ has published a <u>technical guidance manual</u>⁴ outlining, in deep detail, design options including measurement and maintenance to ensure systems operate safely. Broadly, this means:

- All individual septic systems will have test pits advanced with a representative from SWDH and will be engineered appropriately.
- There are multiple components of septic systems that can be utilized in conjunction with each other to create septic system design to meet compliance.
- Through the Subdivision process, septics are heavily regulated and controlled when being designed and installed.

If site conditions for a lot, despite the aforementioned site investigations, cannot support a DEQ and SWDH-compliant septic solution, then the lot won't be built out.

Ongoing Operation and Enforcement

A WUA (similar to a homeowners' association) will be established for this project. The applicable CCRs will include requirements for sewer specifications as well as an operations and maintenance manual detailing how these facilities will be maintained. Beyond and in addition to the requirements of SWDH and DEQ, the WUA will have the authority to ensure that appropriate septic systems are installed and properly maintained.

Septic Appendices Attached in Appendix A:

- B213035g_geotech.pdf
- B212203g_L1NP.pdf
- Pre-Development_1.10.23.pdf
- B212203g_ADU Letter-29 reference.pdf

⁴ https://www2.deq.idaho.gov/admin/LEIA/api/document/download/14470

Table 3 – Infiltration Test Results

Test Location	Test Depth (feet bgs)	Soil Type	Stabilized Infiltration Rate (inches/hour)	Design Infiltration Rate (inches per hour)
TP-1	6.1	Basalt	12.2*	6.1*
TP-5	5.1	Basalt	2.0	1.0
TP-6	9.2	Basalt	11.5*	5.75*
TP-14	9.6	Basalt	0.8	0.4
TP-18	8.9	Basalt	0.9	0.45

*It is anticipated that water was draining through fractures in the basalt. These rates are appropriate for the tested location only and may not be suitable for design in other areas of the site. Additional infiltration testing is recommended once actual infiltration facility locations have been determined.

xcavated	hced: November 8, 2021 Long by: Turn of the Century Homes Dept	ide: 43.51 itude: -11 h to Water Depth: 6.	6.493220 • Table: Not Enco	ountered		Excavated	nced: November 8, 2021 Lon by: Turn of the Century Homes Dep	ude: 43.51 gitude: -11 th to Wate I Depth: 8.	6.492150 Table: Not Enco	ountered	
Depth feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID	Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lat Test
	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. -Organic material and plow zones to a depth of 1 foot bgs.			0.75		0.0-1.3	Lean Clay with Sand (CL): Brown, slight moist, medium stiff, with fine to mediun grained sand. Organic material and plow zones to a depl of 1 foot bgs.	-		0.75	
1.4-6.1	Sandy Silt (ML): Brown, slightly moist, stiff to very stiff, with fine to medium-grained sand. Refusal on basalt rock at a depth of 6.1 feet bgs.					1.3-8.4	Sandy Silt (ML): Brown, slightly moist, stiff hard, with fine to coarse-grained sand. Weak calcium carbonate cementation fro 2.8 to 8.4 feet bgs.	n			
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Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID	Depth (feet bgs)	Field Description and USCS Soil an Sediment Classification	d Sample Type	Sample Depth (feet bgs)	Qp	Lal Test
0.0-1.4	Lean Clay with Sand (CL): Brown, slig moist, medium stiff, with fine to medi grained sand. -Organic material and plow zones to a de of 1 foot bgs.	m- oth		0.75		0.0-1.5	Lean Clay with Sand (CL): Brown, sligh moist, medium stiff, with fine to mediu grained sand. Organic material and plow zones to depth of 1 foot bgs.	m- GS	1.0-1.5	0.75	A
1.4-5.1	Sandy Silt (ML): Brown, dry, stiff to hard, fine to coarse-grained sand. Weak calcium carbonate cementation 1 2.9 to 5.1 feet bgs. Refusal on basalt rock at a depth of 5.1 bgs.	om				1.5-6.6	Sandy Silt (ML): Brown, dry, stiff to ha with fine to coarse-grained sand. –Weak calcium carbonate cementati from 3.1 to 6.6 feet bgs. –Refusal on basalt rock at a depth of feet bgs.	on			
Infiltrat Fest Pit Lo Date Advar	nced: November 8, 2021 L	titude: 43.5 ngitude: -1	16.490435	ountered		Lab Test I	e Map for test pit location. D Moisture (%) LL PI 16.3 31 9	#4 99	6ieve Analysis (% #10 #40 98 95	Passing) #100 90	#200 77.9
Infiltrat Fest Pit Lo Date Advar Excavated Logged by Depth	ion testing conducted at a depth of 5.1 feet bgs. g #: TP-6 L nced: November 8, 2021 L by: Turn of the Century Homes D Engrar Jensen, EI T Field Description and USCS Soil and	ngitude: -1 pth to Wate tal Depth: 9 Sample	16.490435 or Table: Not Enc 0.2 feet bgs Sample Depth		Lab Test ID	Lab Test I A Test Pit Lo	D Moisture (%) LL PI 16.3 31 9	#4	#10 #40 98 95 513284	#100	#20
Infiltrat Fest Pit Lo Date Advar Excavated Logged by	Ion testing conducted at a depth of 5.1 feet bgs. g #: TP-6 Leby: Turn of the Century Homes Dy: Turn of the Century Homes Hyar Jensen, El Field Description and USCS Soll and Sediment Classification Lean Clay with Sand (CL): Brown, slig moist, medium stiff, with fine to medi grained sand.	ngitude: -1 pth to Wate tal Depth: 9 Sample Type	16.490435 or Table: Not Enc 0.2 feet bgs		Lab Test ID	Lab Test I A Test Pit Lo Date Advau Excavated Logged by Depth	D Moisture (%) LL PI 16.3 31 9 g #: TP-8 need: November 8, 2021 by: Turn of the Century Homes : Bryar Jensen, EI Field Description and USCS Soil a	#4 99 Latitude: 43. Longitude: - Depth to Wa Total Depth: nd Samp	#10 #40 98 95 513284 116.491078 116.491078 Enclose er Table: Not Enclose 8.9 feet bgs e Sample Depth	#100 90	#20 77.5
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Excavated	nced: November 8, 2021 Longi by: Turn of the Century Homes Depth			ountered		Date Adva Excavated	nced: November 8, 2021 Lon by: Turn of the Century Homes Dep			ountered	
Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID	Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test I
0.0-1.6	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material to a depth of 1 foot bgs.			0.75		0.0-1.8	Lean Clay with Sand (CL): Brown, slight moist, medium stiff, with fine to medium grained sand. Organic material and plow zones to a dept	Bulk	1.0-1.5	0.75	R-valu
1.6-10.0	Sandy Silt (ML): Brown, dry, very stiff, with fine to coarse-grained sand. Moderate calcium carbonate cementation from 6.9 to 10.0 feet bgs.						of 1 foot bgs. Sandy Silt (ML): Brown, dry, very stiff to hard with fine to coarse-grained sand. Weak calcium carbonate cementatio				
10.0-11.6	Sandy Lean Clay (CL): Brown, dry, hard, with fine to medium-grained sand.					1.8-10.4	throughout. Refusal on basalt rock at a depth of 10.4 fee				
lotes: See Site Piezom	I-Refusal on indurated clay at a depth of 11.6 feet bgs. whap for test pit location. eter installed to a depth of 11.6 feet bgs.		6354			Test Pit Lo Date Adva	nced: November 8, 2021 Lon	ude: 43.51 gitude: -11	6.488617		1
lotes: See Site Piezom Test Pit Lo Date Advar Excavated	[feet bps. whop for test pill location. weter installed to a depth of 11.6 feet bps. g #: TP-10 Latitu nced: November 8, 2021 Long by: Turn of the Century Homes Depti	ide: 43.51	6.487011 Table: Not Enc.	ountered		Test Pit Lo Date Adva Excavated Logged by Depth	te Map for test pit location. pg #: TP-12 Lati nced: November 8, 2021 Lon by: Turn of the Century Homes Dep : Bryar Jensen, El Totz Field Description and USCS Soil and	gitude: -11 th to Wate I Depth: 10 Sample	6.488617 • Table: Not Enco 0.4 feet bgs Sample Depth		Lab
Test Pit Lo Date Advar Excavated Logged by: Depth	[feet bps. whop for test pill location. weter installed to a depth of 11.6 feet bps. g #: TP-10 Latitu nced: November 8, 2021 Long by: Turn of the Century Homes Depti	ide: 43.51 itude: -11 n to Water Depth: 8.	6.487011 Table: Not Enc.	ountered	Lab Test ID	Test Pit Lo Date Adva Excavated Logged by	te Map for test pit location. pg #: TP-12 Lati nced: November 8, 2021 Lon by: Turn of the Century Homes Pryar Jensen, El Totz Field Description and USCS Soll and Sediment Classification Lean Clay with Sand (CL): Brown, slight	tude: -11 th to Water I Depth: 10 Sample Type	6.488617 r Table: Not Enco 0.4 feet bgs	Duntered Qp	
Inters: See Situ Piezom Test Pit Log Date Advar Excavated Logged by: Depth (feet bgs)	feet bgs. e Map for test pit location. teer installed to a depth of 11.6 feet bgs. g #: TP-10 Latitu need: November 8, 2021 Long by: Turn of the Century Homes : Bryar Jensen, El Field Description and USCS Soil and Sediment Classification Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand.	ide: 43.51 litude: -11i to Water Depth: 8. Sample Type	6.487011 Table: Not Enc 1 feet bgs Sample Depth			Test Pit Lo Date Adva Excavated Logged by Depth	te Map for test pit location. pg #: TP-12 Lati nced: November 8, 2021 Lon by: Turn of the Century Homes Dep r: Bryar Jensen, El Field Description and USCS Soil and Sediment Classification Lean Clay with Sand (CL): Brown, slighti molsit, medium stiff, with fine to medium grained said. -Organic material and plow zones to a dept of 1 foot bgs.	gitude: -11 th to Wate I Depth: 10 Sample Type	6.488617 • Table: Not Enco 0.4 feet bgs Sample Depth		Lab Test II
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Depth feet bgs)	: Bryar Jensen, El Total Field Description and USCS Soil and Sediment Classification	· · ·	3.8 feet bgs Sample Depth (feet bgs)	Qp	Lab Test ID	Depth (feet bgs)	Field Description and USCS Sediment Classificati
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75		0.0-2.4	Lean Clay with Sand (CL): Bu moist, very stiff, with fine to me sand. Organic material and plow zon of 1 foot bgs.
1.3-11.5	Sandy Silt (ML): Light brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 5.7 to 11.5 feet bgs.					2.4-10.3	Sandy Silt (ML): Light brown to very stiff to hard, with fine to co sand. Weak calcium carbonate ceme
					1 1	1 1	 4.6 to 10.3 feet bgs. -Refusal on basalt rock at a dept
est Pit Lo ate Advar	ced: November 8, 2021 Long	ıde: 43.51 itude: -11	6.489470			Test Pit Lo Date Adva Excavated	bgs. te Map for test pit location. tg #: TP-16 nced: November 8, 2021 by: Turn of the Century Homes
est Pit Log ate Advar xcavated ogged by:	moist, hard, with fine to medium-grained sand, - Refusal on indurated clay at a depth of 13.8 [feet bgs. ■ Map for test pit location. g #: TP-14 Latitu code: November 8, 2021 Long by: Turn of the Century Homes Depti Bryar Jensen, El Total	ide: 43.51 itude: -11 h to Water Depth: 9.	6.489470 • Table: Not Enco 6 feet bgs	ountered		Test Pit Lo Date Adva Excavated Logged by Depth	bgs. te Map for test pit location. g #: TP-16 nced: November 8, 2021
est Pit Lo ate Advar	moist, hard, with fine to medium-grained sand, -Nefusal on indurated clay at a depth of 13.8 [feet bgs. ■ Map for test pit location. g #: TP-14 Latitu ccd: November 8, 2021 Long by: Turn of the Century Homes Depti	ide: 43.51 itude: -11 h to Water Depth: 9.	6.489470 Table: Not Enc	puntered	Lab Test ID	Test Pit Lo Date Adva Excavated Logged by	bgs. e Map for test pit location. g #: TP-16 nced: November 8, 2021 by: Turn of the Century Homes : Bryar Jensen, El Field Description and USCS Sediment Classificat Lean Clay with Sand (CL): Br
est Pit Log ate Advar xcavated ogged by: Depth	moist, hard, with fine to medium-grained sand, Refusal on indurated clay at a depth of 13.8 feet bgs. • Map for test pit location. g #: TP-14 by: Turn of the Century Homes Bryar Jensen, El Field Description and USCS Soil and Sediment Classification Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand.	ıde: 43.51 itude: -11 h to Wateı Depth: 9. Sample Type	6.489470 • Table: Not Enc. 6 feet bgs Sample Depth			Test Pit Lo Date Adva Excavated Logged by Depth	bgs. Map for test pit location. g #: TP-16 need: November 8, 2021 by: Turn of the Century Homes : Bryar Jensen, El Field Description and USCS Sediment Classificati
est Pit Log ate Advar xcavated ogged by: Depth feet bgs)	moist, medium-grained sand, Refusal on indurated clay at a depth of 13.8 feet bgs. Map for test pit location. g #: TP-14 Section 2021 By: Turn of the Century Homes Field Description and USCS Soil and Sediment Classification Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium-	ude: 43.51 itude: -11 h to Wateus Depth: 9. Sample Type	6.489470 • Table: Not Enc. 6 feet bgs Sample Depth	Qp		Test Pit Lc Date Adva Excavated Logged by Depth (feet bgs)	bgs. e Map for test pit location. g #: TP-16 need: November 8, 2021 by: Turn of the Century Homes : Bryar Jensen, El Field Description and USCS Sediment Classificat Lean Clay with Sand (CL): Br moist, very stiff, with fine to me sand. Organic material and plow zon

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Excavated	hced: November 8, 2021 Long by: Turn of the Century Homes Depth			ountered	
Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-2.4	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			2.25	
2.4-10.3	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 4.6 to 10.3 feet bgs. Refusal on basalt rock at a depth of 10.3 feet bgs. Map for test pit location.				
Excavated Logged by Depth	by: Long by: Turn of the Century Homes Deptilier : Bryar Jensen, El Total Field Description and USCS Soil and Soil and	Depth: 4. Sample	6.487201 Table: Not Enco 9 feet bgs Sample Depth	Qp	Lab
Date Advar Excavated Logged by	by: Turn of the Century Homes Deptil Bryar Jensen, El Total	itude: -11 to Water Depth: 4. Sample Type	6.487201 Table: Not Enco 9 feet bgs		Lab Test ID
Date Advar Excavated Logged by Depth (feet bgs)	Ted: November 8, 2021 Long by: Turn of the Century Homes Dept Enyar Jensen, El Total Field Description and USCS Soil and Sediment Classification Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. -Organic material and plow zones to a depth	itude: -11 n to Water Depth: 4. Sample Type	6.487201 Table: Not Enco 9 feet bgs Sample Depth	Qp	

ate Advar	nced: November 8, 2021 Longi by: Turn of the Century Homes Depth			ountered	
Depth feet bgs)	Field Description and USCS Soil and Sediment Classification		Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.9	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			3.5	
1.9-10.3	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 10.3 feet				
est Pit Log ate Advar xcavated ogged by:	bgs. e Map for test pit location. ig #: TP-18 Latitut need: November 8, 2021 Long by: Turn of the Century Homes Depth : Bryar Jensen, El Total	de: 43.518 tude: -116 to Water Depth: 8.9	6.486296 • Table: Not Enco 9 feet bgs	ountered	
est Pit Log ate Advan xcavated	bgs. e Map for test pit location. g #: TP-18 Latitu nced: November 8, 2021 Longi by: Turn of the Century Homes Depth Bryar Jensen, El Total Field Description and USCS Soil and Sediment Classification	de: 43.518 tude: -116 to Water Depth: 8.9	6.486296 • Table: Not Enco	ountered Qp	Lab Test ID
Test Pit Log Date Advan Excavated ogged by: Depth feet bgs)	bgs. e Map for test pit location. g #: TP-18 nced: November 8, 2021 by: Turn of the Century Homes Bryar Jensen, El Total Field Description and USCS Soli and	de: 43.518 tude: -116 to Water Depth: 8.9 Sample Type	6.486296 • Table: Not Enco 9 feet bgs Sample Depth		

Emergency Services

Request from the Board

"Solicit information from fire, police, and ambulance on the viability of the response times to this location."

Executive Summary

- 1. Kuna Rural Fire responded by confirming existing adequate response times.
- 2. Fire response times will improve when Station #2 (undergoing entitlement) opens.
- 3. Police have not responded to multiple applicant and Staff inquiries. County Code Section 7-17-09(3)B states: "If no written reply is received from any of the various departments or interested agencies within thirty (30) calendar days from the date of notification, approval of the preliminary plat by such department or agency will be considered to be granted."
- 4. EMS responded with a list of stations in the service area of this project.
- 5. EMS response times range from 12-15 min.
- 6. EMS has a levy in place and funding goals to further improve response times.

Kuna Rural Fire

We have had multiple written and verbal interactions with Kura Fire over the course of this project's design.

Initial <u>review and comments</u> were received, dated 3/13/2022. These comments indicated the project is in compliance with fire requirements, subject to three requirements: road access from Robinson, fire hydrants installed, and buildings numbered. All of these were included in the proposed design.

We requested and received clarification for <u>engine response times</u> on 4/10/2023. Engine response times are 10-12 minutes.

Kuna Fire reviewed and formally approved and stamped the proposed design on 5/1/2023.

At the Board's request, additional clarification was <u>requested and received</u> on 5/1/2024. New information in this response includes an update on Kuna Fire Station #2, **which will decrease response times to 10 minutes**. This new station is funded by the recently approved Fire Bond.

Fire Appendices attached in Appendix B:

- 1st Review Pre-Plat Residential Subdivision Conditional letter_Fire District.pdf
- Haven Creek Kuna Fire Prelim Plat Approved 20230501.pdf
- Haven Creek Kuna Rural Fire Protection District Response Times.pdf
- HC Kuna Fire Letter 2024.pdf

EMS

There are four medic stations with response times less than 15 minutes to the Haven Creek location. A <u>complete response</u> was received, including funding plans and other details.

EMS Appendices Attached in Appendix C:

• HC - Canyon Paramedics.pdf

Police

Despite multiple attempts by the applicant and Staff, no response from Police has been received. County Code is clear that no response is equivalent to approval by the requested agency. County Code Section 7-17-09(3)B states: "If no written reply is received from any of the various departments or interested agencies within thirty (30) calendar days from the date of notification, approval of the preliminary plat by such department or agency will be considered to be granted."

School (Kuna School District)

Request from the Board

"The viability of the applicant's impact on the school district."

Executive Summary

- 1. KSD has reinforced that "The Kuna School District has a constitutional duty to provide educational services to children within our district. We will do so with every means at our disposal."
- 2. KSD is forecasting that Haven Creek's 29 homes will generate a total of 14 students
- 3. Elementary capacities serving Haven Creek are 97% (Indian Creek) & 79% (Ross)
- 4. Middle School capacity serving Haven Creek is 91% (Kuna Middle)
- 5. High School capacity serving Haven Creek is over 100%
- 6. The KSD Board of Trustees have unanimously approved the proposed partnership with Haven Creek, which provides financial and curriculum support to the high school directly.
- 7. A written agreement has been signed and executed between the KSD Board of Trustees and Haven Idaho. KSD has indicated that they "are grateful for partnerships such as this that provide additional educational opportunities for our students while financially mitigating the cost of providing those services."
- KSD has provided official written comments both on 5/5/2023 and on 5/30/2024 indicating, "we can serve the students generated from this development of 29 homes."

Details

At the original P&Z hearing (2/2/23) for this project, comments were received the day before the hearing from the school district noting that they did not support the project. Haven was unaware of these challenges faced by KSD and immediately reached out after the hearing.

After discussing and finding out what specific needs KSD had, Haven Creek proposed multiple partnership options to the school district. These options were considered by the School Board at the <u>4/11/2023 School Board meeting</u>⁵ and "Option E" was unanimously approved by the Board. This includes the donation of one building lot to KSD (including proceeds from its sale), along with curriculum coordination to involve high school students in the design and construction of the home.

⁵ https://www.youtube.com/live/s7SOINLpYnE?si=xKISIKkoRQd0CDPU&t=10603

Haven Creek and KSD executed a formal agreement, dated 6/6/2023.

KSD subsequently provided written and in-person testimony to P&Z and the BoCC hearings, dated 5/5/2023 and 9/14/2023, respectively, discussing why they support the Haven Creek project and the agreed partnership

At the Board's request, KSD provided <u>additional written clarification, dated May 30, 2024</u>, detailing available school capacity to serve Haven Creek, along with details on KSD's long term funding plan. The agreed partnership supports both the immediate and long-term needs of KSD to serve students throughout the district.

Ultimately, the substantial and competent evidence in the record before the Commissioners includes a statement from KSD - the agency providing educational services - that they have the ability to serve this subdivision's students.

School Appendices Attached in Appendix D:

- KSD Haven Creek Support Letter 20230505.pdf
- Haven Creek KSD V3 signed 06062023 EXECUTED.pdf
- KSD HTV Creek Letter of Support 2024.pdf

Density - Secondary Dwellings

Request from the Board

"Secondary houses to be completely off the table."

Executive Summary

- 1. Secondary Dwellings were originally considered as a part of the Haven Creek project
- 2. Secondary Dwelling impact on septics were modeled and analyzed by Atlas in a technical memo and found to be acceptable.
- 3. Commissioners have indicated they think Secondary Dwellings do not fit in with the current densities and land uses around our project
- 4. Haven Idaho agrees to remove the possibility of secondary dwellings on any of the building lots as conditioned by the proposed Development Agreement

Details

Haven Idaho interacts with home buyers all the time, so we hear what sorts of things people are looking for. From what we hear, we know that people are looking for multigenerational properties, or some other way to produce income to help carry mortgages in the face of current home prices and interest rates. Not wanting to limit future flexibility and possibilities for homeowners, Haven Idaho desired to keep secondary dwellings on the table.

However, we understand the concerns from Commissioners with the possibility of secondary dwellings on the table. Haven has agreed to condition the development agreement to take secondary houses completely off the table.

Benefits include:

- Not stressing Fire's resources on a single point of access
- Limiting septic effluent flow
- Decreasing potential draws on the community well system
- Keeping this rural transitional character and land use of the area
- Allowing for the extra lot space to have a barn and/or shop as opposed to another dwelling which will promote hobby agricultural practices

DA - Development Agreement Updates

Request from the Board

"Further discussion about the development agreement."

Executive Summary

- 1. A development agreement has been proposed to ensure that the commitments made by the applicant are adhered to on an ongoing basis
- The development agreement requires the formation of a Water Users Board (in lieu of a typical homeowners' association) that shall be responsible for the operation of a public water system and advanced septic systems in accordance with the requirements of IDEQ and Southwest District Health (SWDH)
- 3. The public water system shall serve all 29 residential lots, and shall be designed, reviewed, constructed, operated, and maintained in accordance with the requirements of a Public Drinking Water System in accordance with Idaho Administrative Code
- 4. The septic systems shall be advanced and include nitrate reducing systems with holding tanks, and shall be installed in accordance with the Level I Nutrient Pathogen Study prepared by the applicant and approved by IDEQ and SWDH.
- 5. The development agreement confirms the obligation of the applicant to adhere to the requirements of commenting agencies.

Details

A development agreement was previously prepared that began with staff-suggested requirements and expanded to include commitments by the applicant. Since the meeting with the Board, the applicant has reviewed and updated the development agreement to address certain of the comments raised by the public and the Board.

In particular, additional detail was provided related to the formation of the Water Users Board, which will oversee the maintenance and operation of the public water system and septic systems to be installed at the property. With regard to the public water system, the development agreement requires that the applicant satisfy each of the requirements of IDEQ and SWDH, including the requirements for Public Drinking Water Systems pursuant to Idaho Administrative Code 58.01.08. With regard to the septic system, the applicant is required to conform to the Level I Nutrient Pathogen Study and shall include advanced systems providing for nitrate reduction, including to the septic system media.

The Water Users Board is responsible to work with each individual homeowner to ensure that the components of the public water system on each homeowners' lot as well as the advanced septic systems are maintained in accordance with operations and maintenance manuals that will be attached to the CCRs.

Water Users Association Role and Responsibilities

We wanted to share our thoughts and plans on how all of the private, community infrastructure for Haven Creek is going to be managed and maintained.

In lieu of a standard homeowner's association, our plan is to institute a formal Water Users Association (WUA). The WUA will be privately funded, available to neighboring landowners, and operated based on assessments required in the project CCRs. Specifically, it will be in charge of the following items:

- Community Water System
 - Community water system will be a redundant system with appropriate fail-safes as required by state level agencies and designed by qualified engineers, specifically Terry Scalan at HDR.
 - DEQ and DWR regulate community water systems.
 - They require that a certified operator be retained to do regularly scheduled maintenance, inspections, and certifications.
 - The WUA will maintain the landscaping around the community well site.
- Pressurized Irrigation
 - Pressurized irrigation system will consist of properly designed and engineered system to serve all 29 building lots
 - A Storage Holding Pond and pump facility will be located in the Northwest corner of the project
 - The storage pond will be filled with surface water rights through Boise Project's irrigation lines that already serve the property.
 - The surface water rights that currently serve the property are more than sufficient for the proposed residential uses.
 - The holding pond will ensure that water is available at a consistent schedule while allowing our neighbors on our same lines to continue to use their irrigation water as they have historically.
 - The WUA will also maintain the holding pond, pump equipment, and landscaping at the pond site.
- Advanced Treatment Septics
 - Advanced Treatment Septic systems require regular inspections and maintenance.

- Most homeowners are not aware of or desire to do these inspections and maintenance.
- Traditionally this O&M is to be enforced by SWDH, but SWDH does not have the resources to consistently do so
- The WUA will retain a certified Operator that will inspect, certify, and perform O&M on the community's private, individual septic systems.

All of these plans will be further flushed out at the Preliminary Plat phase of this Project.

DA Appendices Attached in Appendix E:

Overlopment Agreement (Update for BOCC Hearing).docx

Applicant's Updated Responses to 8 Criteria

As it is placed upon the applicant to produce the burden of proof, we felt it important to provide clear and concise conclusions to the Criteria of Evaluation for the Commissioners' consideration.

Below you will find responses to the 8 criteria that a Conditional Rezone is subject to.

Criteria A:

Is the proposed conditional rezone generally consistent with the comprehensive plan?

Conclusion: The proposed conditional change is consistent with the 2020 Future Land Use Map and Comprehensive Plan. The FLUM identifies the site as "Residential."

Facts and Findings:

• The 2020 comprehensive plan identifies the site as "Residential."

Criteria B:

When considering the surrounding land uses, is the proposed conditional rezone more appropriate than the current zoning designation?

Conclusion: The proposed conditional rezone is more appropriate than the current zoning designation.

Facts and Findings:

- The city of Nampa has this area planned for residential use.
- The County FLUM has the area planned for residential use.
- The subject property is surrounded by 140 other houses in each direction
- There are 6 subdivisions within a 0.5 mile radius (or 13 subdivisions if increased to 1.0 mile) that, if built today, would require residential zoning.

Criteria C:

Is the proposed conditional rezone compatible with surrounding land uses?

Conclusion: As conditioned, this proposed conditional rezone is compatible with surrounding land uses which are defined as transitional.

Facts and Findings:

- The surrounding land use is primarily characterized by the 140 residential homes around this project and defined as rural transitional.
- Nearby Production agriculture has testified there are no compatibility concerns.
- Proposed water and septic approaches have been measured, studied, and shown compatible with surrounding water uses.
- New vehicle trips avoid all neighboring residential streets through direct access to Robinson Rd, an arterial street.
- Applicant's initial traffic study demonstrates negligible impact to Robinson Rd and no impact to level of service at relevant intersections.

Criteria D:

Will the proposed conditional rezone negatively affect the character of the area? What measures will be implemented to mitigate impacts?

Conclusion: The proposed conditional rezone does not cause a negative impact on the character of the area. The area is planned to be residential. It will continue to transition to residential. Concerns with lot size do not change the fact that the area is planned for increased residential density.

Facts and Findings:

- Surrounding parcels have a primary use as residential homes, with secondary use for personal agriculture.
- Proposed parcels have a primary use as residential homes, with secondary use for personal agriculture.
- Proposed project density is 1.51 acres per parcel.
- Within a 1 mile radius, 37 existing parcels are less than the average parcel size of this project. The character of the neighborhood already includes many home sites smaller than those proposed here.
- The surrounding neighborhood has supported parcels both larger and smaller than the proposed project for 30+ years without conflict or incompatibility.
- Additional mitigations have been proposed to improve the character of the area, including:
 - **Drainage/Irrigation:** Piping the Fieselmann Lateral; pressurized irrigation pond eliminates potential conflict in understanding surface irrigation processes
 - Wells: Neighboring property owners may join the proposed WUA, if desired

- **Traffic:** All traffic directed to existing arterial road; safety pull out for traffic exiting onto Robinson Rd and school bus pickup
- **Groundwater Supply:** Funded and maintained septic systems to avoid impact to neighboring wells' groundwater supply
- **Upkeep:** Funded and responsible party to maintain landscape improvements. Lots sized for ease of upkeep for typical homeowner without farm equipment.
- **Rural Design:** Road design, drainage, and landscape designed to blend with landscaping on neighboring residential properties

Criteria E:

Will adequate facilities and services including sewer, water, drainage, irrigation, and utilities be provided to accommodate the proposed conditional rezone?

Conclusion: As conditioned and planned, adequate facilities and services will be provided to accommodate the proposed conditional rezone.

Facts of Finding:

- Adequate sewer facilities have been demonstrated through use of standard and/or advanced nitrate-reducing septic systems, including sufficient ongoing maintenance through a proposed WUA.
- Adequate water facilities have been proposed through a redundant, fail-safe Community Public Water System designed and constructed in accordance with the requirements of IDEQ and SWDH, to be operated by a state-certified operator in accordance with IDEQ regulations
- Adequate drainage has been proposed through use of rural-scale road drainage and basins with existing offsite patterns maintained.
- Adequate irrigation has been proposed through inclusion of pressurized irrigation with a storage holding pond to prevent impact on neighboring usage patterns.
- Adequate other utilities (electric) have been proposed.

The Applicant has agreed – at the former County Engineer's suggestion – to provide a Community Public Water System. This brings with it a number of heightened standards and requirements beyond what would be required for individual wells, increasing safety and ensuring a steady water source for our residents. The Applicant has also agreed to install advanced nitrate-reducing septic systems, which will be overseen by the Community's WUA. The Applicant will continue to engineer, refine, and submit for review and approval for all required agencies including, but not limited to DEQ, SWDH, DWR, and Canyon County Development Services in accordance with standard development practices.

Criteria F:

Does legal access to the subject property for the conditional rezone exist or will it exist at the time of development?

Conclusion: The Property has existing access from Robinson Road, a public road.

Facts and Findings:

- Nampa Highway District #1 approved a request for a single point of access off of Robinson Rd since Nampa-Meridian Irrigation District requested that access not be taken off of Lewis Ln.
- A single point of access is acceptable and approved by the Fire District as this is under the limit of 30 single family residences and secondary dwellings are restricted as conditioned in the development agreement.

Criteria G:

Does the proposed conditional rezone 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? What measures have been taken to mitigate traffic impacts?

Conclusion: As conditioned and planned, the proposed conditions rezone will not cause undue interference with existing or future traffic patterns.

Facts and Findings:

- The rezone is conditioned to provide dedicated Right-of-Way along Robinson Road at subdivision time.
- Per Applicant's Traffic Threshold Analysis and Trip Comparison, Adjacent Intersections are LOS A/B and expected ADT from the project will not affect the LOS.
- A traffic study is not required and street improvements are not required for a project of the proposed size.
- To mitigate any impact of increased school bus traffic, the project includes a new proposed school bus stop, which is sited to provide safe pickup/dropoff without impacting traffic flow

Criteria H:

Will the proposed conditional rezone amendment impact essential public services and facilities, such as schools, police, fire, and emergency medical services? What measures will be implemented to mitigate impacts?

Conclusion: Adequate essential public services and facilities are available.

Facts and Findings:

- Fire:
 - Kuna Rural Fire has signed off on the fire suppression plan and fire access turnarounds. They have provided an updated letter (4/2024) indicating current response times from Station #1 are adequate. Station #2 is undergoing entitlement and will improve response times further once complete.
- Police:
 - No response received as of 5/1/2024 after multiple requests. County Code Section 7-17-09(3)B states: "If no written reply is received from any of the various departments or interested agencies within thirty (30) calendar days from the date of notification, approval of the preliminary plat by such department or agency will be considered to be granted."
- EMS:
 - Indicated they can serve the project from five different stations with responses times ranging between 12-18 mins
- Schools:
 - KSD expects 14 new students generated by this project. While KSD is confronting challenges in terms of capacity, KSD has confirmed in writing that it has the capacity to serve the students generated by this project
 - The applicant has agreed with KSD to provide mitigation in the form of an innovative construction project and funding source that the KSD Board of Trustees has reviewed and approved.

Appendix A

Septic Appendices Attached in Appendix A:

- B213035g_geotech.pdf
- B212203g_L1NP.pdf
- Pre-Development_1.10.23.pdf
- B212203g_ADU Letter-29 reference.pdf



GEOTECHNICAL INVESTIGATION

HAVEN ROBINSON

9814 Robinson Road Kuna, ID

PREPARED FOR:

Mr. Tanner Verhoeks Haven Idaho 521 North 10th Avenue #4 Caldwell, ID 83605

PREPARED BY:

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

January 3, 2022 B213035g



January 3, 2022

Atlas No. B213035g

Mr. Tanner Verhoeks Haven Idaho 521 North 10th Avenue #4 Caldwell, ID 83605

Subject: Geotechnical Investigation Haven Robinson 9814 Robinson Road Kuna, ID

Dear Mr. Verhoeks:

In compliance with your instructions, Atlas has conducted a soils exploration and foundation evaluation for the above referenced development. Fieldwork for this investigation was conducted on November 8 and 9, 2021. Data have been analyzed to evaluate pertinent geotechnical conditions. Results of this investigation, together with our recommendations, are to be found in the following report. We have provided a PDF copy for your review and distribution.

Often, questions arise concerning soil conditions because of design and construction details that occur on a project. Atlas would be pleased to continue our role as geotechnical engineers during project implementation.

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

Respectfully submitted,

C. Bruger

Bryar Jensen, El Staff Engineer

Elizabeth Brown

Elizabeth Brown, PE Geotechnical Services Mariagen ENGIN 4919 1-3-22 Monica Saculles, P Senior Geotechnical SA

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- Appendix I Warranty and Limiting Conditions
- Appendix II Vicinity Map
- Appendix III Site Map
- Appendix IV Geotechnical Investigation Test Pit Log
- Appendix V Geotechnical General Notes
- Appendix VI Important Information About This Geotechnical Engineering Report



1. INTRODUCTION

This report presents results of a geotechnical investigation and analysis in support of data utilized in design of structures as defined in the 2018 International Building Code (IBC). Information in support of groundwater and stormwater issues pertinent to the practice of Civil Engineering is included. Observations and recommendations relevant to the earthwork phase of the project are also presented. Revisions in plans or drawings for the proposed development from those enumerated in this report should be brought to the attention of the soils engineer to determine whether changes in the provided recommendations are required. Deviations from noted subsurface conditions, if encountered during construction, should also be brought to the attention of the soils engineer.

1.1 Project Description

The proposed development is northwest of the City of Kuna, Canyon County, ID, and occupies a portion of the NW¼ of Section 17, Township 2 North, Range 1 West, Boise Meridian. This project will consist of construction of a 19 to 29 lot residential subdivision to be developed on 43.86 acres. Total settlements are limited to 1 inch. Loads of up to 4,000 pounds per lineal foot for wall footings, and column loads of up to 50,000 pounds were assumed for settlement calculations. Additionally, assumptions have been made for traffic loading of pavements. Retaining walls are not anticipated as part of the project. Atlas has not been informed of the proposed grading plan.

1.2 Authorization

Authorization to perform this exploration and analysis was given in the form of a written authorization to proceed from Mr. Tanner Verhoeks of Haven Idaho to Monica Saculles of Atlas Technical Consultants (Atlas), on December 20, 2021. Said authorization is subject to terms, conditions, and limitations described in the Professional Services Contract entered into between Haven Idaho and Atlas. Our scope of services for the proposed development has been provided in our proposal dated October 19, 2021 and repeated below.

1.3 Scope of Investigation

The scope of this investigation included review of geologic literature and existing available geotechnical studies of the area, visual site reconnaissance of the immediate site, subsurface exploration of the site, field and laboratory testing of materials collected, and engineering analysis and evaluation of foundation materials.

2. SITE DESCRIPTION

2.1 Site Access

Access to the site may be gained via Interstate 84 to the Ten Mile Road exit. Proceed south on Ten Mile Road approximately 2.2 miles to its intersection with Amity Road. From this intersection, proceed west on Amity Road 3.0 miles to Robinson Road. Continue south on Robinson Road for

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approximately 3.2 miles. The project site is located east of this location. The location is depicted on site maps included in the **Appendix**.

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 "Basalt Flows of Indian Creek, Undivided" as mapped by Othberg and Stanford (1993). This volcanic deposit is composed of multiple flows of medium to dark gray olivine basalt. These flows erupted from numerous vents found south of the Boise River and north of the Snake River, southeast of the City of Boise, Idaho. At the time of eruption lavas flowed into and down ancestral Indian Creek and Boise River valleys. Northwest-trending, gently sloping escarpments suggest faulting of the basalt. These basalts are mantled with loess 2-12 feet thick that contains about 35% pedogenic clay and a duripan that can be 3 feet thick.

2.3 General Site Characteristics

The site to be developed is approximately 43.86 acres in size. Currently, a residence is present in the western portion of the site. This residence fronts Robinson Road, which runs along the western property boundary. Ridenbaugh Highline Canal runs roughly northeast to southwest through the central portion of the property. The Fieselmann Lateral Canal branches from the Ridenbaugh Highline Canal in the center of the site. The Fieselmann Lateral Canal runs northwest from the center of the site. The remainder of the site consists of agricultural cropland. Surrounding the project site from all directions is agricultural cropland and residential properties. Vegetation around the residence consists primarily of landscape trees, shrubs, and grasses adjacent to the residence. The remainder of the site consists of agricultural crops. The site is relatively flat and level.

Regional drainage is north and west toward the Boise River. Stormwater drainage for the site is achieved by percolation through surficial soils. The site is situated so that it is unlikely that it will receive any drainage from off-site sources. Stormwater drainage collection and retention systems are not in place on the project site and do not currently exist within the vicinity of the project site.

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2.4 Regional Site Climatology and Geochemistry

According to the Western Regional Climate Center, the average precipitation for the Treasure Valley is on the order of 10 to 12 inches per year, with an annual snowfall of approximately 20 inches and a range from 3 to 49 inches. The monthly mean daily temperatures range from 21°F to 95°F, with daily extremes ranging from roughly -25°F to 111°F. Winds are generally from the northwest or southeast with an annual average wind speed of approximately 9 miles per hour (mph) and a maximum of 62 mph. Soils and sediments in the area are primarily derived from siliceous materials and exhibit low electro-chemical potential for corrosion of metals or concretes. Local aggregates are generally appropriate for Portland cement and lime cement mixtures. Surface water, groundwater, and soils in the region typically have pH levels ranging from 7.2 to 8.2.

3. SEISMIC SITE EVALUATION

3.1 Geoseismic Setting

Soils on site are classed as Site Class D in accordance with Chapter 20 of the American Society of Civil Engineers (ASCE) publication ASCE/SEI 7-16. Structures constructed on this site should be designed per IBC requirements for such a seismic classification. Our investigation did not reveal hazards resulting from potential earthquake motions including: slope instability, liquefaction, and surface rupture caused by faulting or lateral spreading. Incidence and anticipated acceleration of seismic activity in the area is low.

3.2 Seismic Design Parameter Values

The United States Geological Survey National Seismic Hazard Maps (2008), includes a peak ground acceleration map. The map for 2% probability of exceedance in 50 years in the Western United States in standard gravity (g) indicates that a peak ground acceleration of 0.189 is appropriate for the project site based on a Site Class D.

The following section provides an assessment of the earthquake-induced earthquake loads for the site based on the Risk-Targeted Maximum Considered Earthquake (MCE_R). The MCE_R spectral response acceleration for short periods, S_{MS} , and at 1-second period, S_{M1} , are adjusted for site class effects as required by the 2018 IBC. Design spectral response acceleration parameters as presented in the 2018 IBC are defined as a 5% damped design spectral response acceleration at short periods, S_{DS} , and at 1-second period, S_{D1} .

The USGS National Seismic Hazards Mapping Project includes a program that provides values for ground motion at a selected site based on the same data that were used to prepare the USGS ground motion maps. The maps were developed using attenuation relationships for soft rock sites; the source model, assumptions, and empirical relationships used in preparation of the maps are described in Petersen and others (1996).

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Seismic Design Parameter	Design Value
Site Class	D "Stiff Soil"
Ss	0.275 (g)
S1	0.101 (g)
Fa	1.580
Fv	2.397
Sms	0.435
S _{M1}	0.243
Sds	0.290
S _{D1}	0.162

Table 1 – Seismic Design Values

4. SOILS EXPLORATION

4.1 Exploration and Sampling Procedures

Field exploration conducted to determine engineering characteristics of subsurface materials included a reconnaissance of the project site and investigation by test pit. Test pit sites were located in the field by means of a Global Positioning System (GPS) device and are reportedly accurate to within ten feet. Upon completion of investigation, each test pit was backfilled with loose excavated materials. Re-excavation and compaction of these test pit areas are required prior to construction of overlying structures.

In addition, samples were obtained from representative soil strata encountered. Samples obtained have been visually classified in the field by professional staff, identified according to test pit number and depth, placed in sealed containers, and transported to our laboratory for additional testing. Subsurface materials have been described in detail on logs provided in the **Appendix**. Results of field and laboratory tests are also presented in the **Appendix**. Atlas recommends that these logs <u>not</u> be used to estimate fill material quantities.

4.2 Laboratory Testing Program

Along with our field investigation, a supplemental laboratory testing program was conducted to determine additional pertinent engineering characteristics of subsurface materials necessary in an analysis of anticipated behavior of the proposed structures. Laboratory tests were conducted in accordance with current applicable American Society for Testing and Materials (ASTM), and results of these tests are to be found in the **Appendix**. The laboratory testing program for this report included: Atterberg Limits Testing – ASTM D4318, Grain Size Analysis – ASTM C117/C136, Hydrometer – ASTM D422, and Resistance Value (R-value) and Expansion Pressure of Compacted Soils – Idaho T-8. As to date, the R-value test results have not been received and, therefore, have not been included within this report. Atlas will forward the results in the form of an addendum once the R-value test results have been received.

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4.3 Soil and Sediment Profile

The profile below represents a generalized interpretation for the project site. Note that on site soils strata, encountered between test pit locations, may vary from the individual soil profiles presented in the logs, which can be found in the **Appendix**.

Sandy lean clays were encountered at ground surface. These soils were brown, slightly moist, and medium stiff to very stiff, with fine to medium-grained sand. Organic materials and disturbed materials as a result of plowing activities were measured to depths of roughly 1 foot.

Sandy silts were encountered beneath surficial clays. These fine-grained soils were brown to light brown and slightly moist. Consistencies commonly ranged from stiff to hard, with many of these firmer soil horizons containing some degree of calcium carbonate cementation (hardpan). Fine to coarse-grained sand was present throughout this horizon. Refusal on basalt was encountered at depth in all test pits except test pits 9 and 13, where refusal was met on indurated clay soils.

During excavation, test pit sidewalls were generally stable. However, moisture contents will affect wall competency with saturated soils having a tendency to readily slough when under load and unsupported.

4.4 Volatile Organic Scan

No environmental concerns were identified prior to commencement of the investigation. Therefore, soils obtained during on-site activities were not assessed for volatile organic compounds by portable photoionization detector. Samples obtained during our exploration activities exhibited no odors or discoloration typically associated with this type of contamination. No groundwater was encountered.

5. SITE HYDROLOGY

Existing surface drainage conditions are defined in the **General Site Characteristics** section. Information provided in this section is limited to observations made at the time of the investigation. Either regional or local ordinances may require information beyond the scope of this report.

5.1 Groundwater

During this field investigation, groundwater was not encountered in test pits advanced to a maximum depth of 13.8 feet bgs. Soil moistures in the test pits were dry to slightly moist throughout.

Atlas has previously performed 2 geotechnical investigations within 0.75 mile of the project site. Information from these investigations has been provided in the table below.

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Date	Approximate Distance from Site (mile)	Direction from Site	Groundwater Depth (feet bgs)
January 2006	0.55	East	Not Encountered to 17.4
September 2020	0.75	West	Not encountered to 9.8

Table 2 – Groundwater Data

Furthermore, according to Idaho Department of Water Resources (IDWR) monitoring well data within approximately ¼-mile of the project site, groundwater was measured at depths ranging between 38 and 62 feet bgs.

Based on evidence of this investigation and background knowledge of the area, Atlas estimates groundwater depths to remain greater than approximately 20 feet bgs throughout the year. This depth can be confirmed through long-term groundwater monitoring.

5.2 Soil Infiltration Rates

Soil permeability, which is a measure of the ability of a soil to transmit a fluid, was tested in the field. For this report, an estimation of infiltration is also presented using generally recognized values for each soil type and gradation. Of soils comprising the generalized soil profile for this study, lean clay with sand and sandy lean clay soils generally offer little permeability, with typical hydraulic infiltration rates of less than 2 inches per hour. Sandy silt soils will commonly exhibit infiltration rates from 2 to 4 inches per hour. However, calcium carbonate cementation and induration encountered within the clay and silt soils may reduce these values to near zero. Infiltration rates through basalt rock can be highly variable, ranging from nearly zero to greater than 6 inches per hour in some cases. Movement of water through the basalt may be more characteristic of fracture flow. Infiltration testing is required to determine site-specific infiltration rates for drainage design once proposed locations of infiltration facilities are determined.

5.3 Infiltration Testing

Infiltration testing was conducted using an open test pit method. Test pit areas will need to be reexcavated and compacted prior to construction of structures that will be sensitive to settlement. Test locations were presoaked prior to testing. Pre-soaking increases soil moistures, which allows the tested soils to reach a saturated condition more readily during testing. Saturation of the tested soils is desirable in order to isolate the vertical component of infiltration by inhibiting horizontal seepage during testing.

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Testing was conducted on November 9, 2021. Details and results of testing are as follows:

Test Location	Test Depth (feet bgs)	Soil Type	Stabilized Infiltration Rate (inches/hour)	Design Infiltration Rate (inches per hour)
TP-1	6.1	Basalt	12.2*	6.1*
TP-5	5.1	Basalt	2.0	1.0
TP-6	9.2	Basalt	11.5*	5.75*
TP-14	9.6	Basalt	0.8	0.4
TP-18	8.9	Basalt	0.9	0.45

Table 3 – Infiltration Test Results

*It is anticipated that water was draining through fractures in the basalt. These rates are appropriate for the tested location only and may not be suitable for design in other areas of the site. Additional infiltration testing is recommended once actual infiltration facility locations have been determined.

Appropriate factors of safety have been applied to the stabilized infiltration rates achieved during testing to obtain the design infiltration rates listed above. The reason for the decreased infiltration rate is to account for long term saturation of the soils and the potential for less permeable soils to settle into the bottom of the infiltration facilities. Atlas recommends that all infiltration facilities be

6. FOUNDATION AND SLAB DISCUSSION AND RECOMMENDATIONS

Various foundation types have been considered for support of the proposed structures. Two requirements must be met in the design of foundations. First, the applied bearing stress must be less than the ultimate bearing capacity of foundation soils to maintain stability. Second, total and differential settlement must not exceed an amount that will produce an adverse behavior of the superstructure. Allowable settlement is usually exceeded before bearing capacity considerations become important; thus, allowable bearing pressure is normally controlled by settlement considerations.

Considering subsurface conditions and the proposed construction, it is recommended that the structures be founded upon conventional spread footings and continuous wall footings. Total settlements should not exceed 1 inch if the following design and construction recommendations are observed. Presently, there are approximately 19 to 29 lots proposed for the project site. The following recommendations are not specific to the individual structures, but rather should be viewed as guidelines for the subdivision-wide development.

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6.1 Foundation Design Recommendations

Based on data obtained from the site and test results from various laboratory tests performed, Atlas recommends the following guidelines for the net allowable soil bearing capacity:

Footing Depth	ASTM D1557 Subgrade Compaction	Net Allowable Soil Bearing Capacity
Footings must bear on competent, undisturbed, native sandy lean clay soils, sandy silt soils, or compacted structural fill. Existing organics materials and fill materials (if encountered) must be completely removed from below foundation elements. ¹ An excavation depth of approximately 1 foot bgs should be anticipated to expose proper bearing soils. ²	Soli	1,500 lbs/ft ² A ¹ / ₃ increase is allowable for short-term loading, which is defined by seismic events or designed wind speeds.

Table 4 – Soil Bearing Capacity

¹It will be required for Atlas personnel to verify the bearing soil suitability for each structure at the time of construction. ²Depending on the time of year construction takes place, the subgrade soils may be unstable because of high moisture contents. If unstable conditions are encountered, over-excavation and replacement with granular structural fill and/or use of geotextiles may be required.

The following sliding frictional coefficient values should be used: 1) 0.35 for footings bearing on native sandy silt, sandy lean clay, or silty sand soils and 2) 0.45 for footings bearing on granular structural fill. A passive lateral earth pressure of 320 pounds per square foot per foot (psf/ft) should be used for sandy lean clay soils and 349 psf/ft should be used for sandy silt soils. For compacted sandy gravel fill, a passive lateral earth pressure of 496 psf/ft should be used.

Footings should be proportioned to meet either the stated soil bearing capacity or the 2018 IBC minimum requirements. Total settlement should be limited to approximately 1 inch, and differential settlement should be limited to approximately ½ inch. Objectionable soil types encountered at the bottom of footing excavations should be removed and replaced with structural fill. Excessively loose or soft areas that are encountered in the footings subgrade will require over-excavation and backfilling with structural fill. To minimize the effects of slight differential movement that may occur because of variations in the character of supporting soils and seasonal moisture content, Atlas recommends continuous footings be suitably reinforced to make them as rigid as possible. For frost protection, the bottom of external footings should be 24 inches below finished grade.

6.2 Foundation Drain Recommendations

Considering the presence of shallow cemented soils across the site, Atlas recommends that foundation drains be installed. The drains should be placed at the footing elevation, sloped at least 2 percent, and be directed to suitable discharge points at least 10 feet away from the structures. Discharge points should be protected to prevent erosion.

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6.3 Crawl Space Recommendations

Considering the presence of shallow cemented soils across the site, all residences constructed with crawl spaces should be designed in a manner that will inhibit water in the crawl spaces. Atlas recommends that roof drains carry stormwater at least 10 feet away from each residence. Grades should be at least 5 percent for a distance of 10 feet away from all residences. In addition, rain gutters should be placed around all sides of residences, and backfill around stem walls should be placed and compacted in a controlled manner.

6.4 Floor, Patio, and Garage Slab-on-Grade

Organic, loose, or obviously compressive materials must be removed prior to placement of concrete floors or floor-supporting fill. In addition, the remaining subgrade should be treated in accordance with guidelines presented in the **Earthwork** section. Areas of excessive yielding should be excavated and backfilled with structural fill. Fill used to increase the elevation of the floor slab should meet requirements detailed in the **Structural Fill** section. Fill materials must be compacted to a minimum 95 percent of the maximum dry density as determined by ASTM D1557.

A free-draining granular mat should be provided below slabs-on-grade to provide drainage and a uniform and stable bearing surface. This should be a minimum of 4 inches in thickness and properly compacted. The mat should consist of a sand and gravel mixture, complying with Idaho Standards for Public Works Construction (ISPWC) specifications for ¾-inch (Type 1) crushed aggregate. The granular mat should be compacted to no less than 95 percent of the maximum dry density as determined by ASTM D1557. A moisture-retarder should be placed beneath floor slabs to minimize potential ground moisture effects on moisture-sensitive floor coverings. The moisture-retarder should be at least 15-mil in thickness and have a permeance of less than 0.01 US perms as determined by ASTM E96. Placement of the moisture-retarder will require special consideration with regard to effects on the slab-on-grade and should adhere to recommendations outlined in the ACI 302.1R and ASTM E1745 publications. Upon request, Atlas can provide further consultation regarding installation.

7. CONSTRUCTION CONSIDERATIONS

Recommendations in this report are based upon structural elements of the project being founded on competent, native sandy lean clay soils, sandy silt soils, or compacted structural fill. Structural areas should be stripped to an elevation that exposes these soil types.

7.1 Earthwork

Excessively organic soils, deleterious materials, or disturbed soils generally undergo high volume changes when subjected to loads, which is detrimental to subgrade behavior in the area of pavements, floor slabs, structural fills, and foundations. Mature trees, brush, thick grasses, and agricultural crops with associated root systems were noted at the time of our investigation. It is recommended that organic or disturbed soils, if encountered, be removed to depths of 1 foot (minimum), and wasted or stockpiled for later use. However, in areas where trees are/were

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present, deeper excavation depths should be anticipated. Stripping depths should be adjusted in the field to assure that the entire root zone or disturbed zone (plow depths) or topsoil are removed prior to placement and compaction of structural fill materials. Exact removal depths should be determined during grading operations by Atlas personnel, and should be based upon subgrade soil type, composition, and firmness or soil stability. If underground storage tanks, underground utilities, wells, or septic systems are discovered during construction activities, they must be decommissioned then removed or abandoned in accordance with governing Federal, State, and local agencies. Excavations developed as the result of such removal must be backfilled with structural fill materials as defined in the **Structural Fill** section.

Atlas should oversee subgrade conditions (i.e., moisture content) as well as placement and compaction of new fill (if required) after native soils are excavated to design grade. Recommendations for structural fill presented in this report can be used to minimize volume changes and differential settlements that are detrimental to the behavior of footings, pavements, and floor slabs. Sufficient density tests should be performed to properly monitor compaction. For structural fill beneath building structures, one in-place density test per lift for every 5,000 square feet is recommended. In parking and driveway areas, this can be decreased to one test per lift for every 10,000 square feet.

7.2 Dry Weather

If construction is to be conducted during dry seasonal conditions, many problems associated with soft soils may be avoided. However, some rutting of subgrade soils may be induced by shallow groundwater conditions related to springtime runoff or irrigation activities during late summer through early fall. Solutions to problems associated with soft subgrade soils are outlined in the **Soft Subgrade Soils** section. Problems may also arise because of lack of moisture in native and fill soils at time of placement. This will require the addition of water to achieve near-optimum moisture levels. Low-cohesion soils exposed in excavations may become friable, increasing chances of sloughing or caving. Measures to control excessive dust should be considered as part of the overall health and safety management plan.

7.3 Wet Weather

If construction is to be conducted during wet seasonal conditions (commonly from mid-November through May), problems associated with soft soils <u>must</u> be considered as part of the construction plan. During this time of year, fine-grained soils such as silts and clays will become unstable with increased moisture content, and eventually deform or rut. Additionally, constant low temperatures reduce the possibility of drying soils to near optimum conditions.

7.4 Soft Subgrade Soils

Shallow fine-grained subgrade soils that are high in moisture content should be expected to pump and rut under construction traffic. During periods of wet weather, construction may become very difficult if not impossible. The following recommendations and options have been included for dealing with soft subgrade conditions:

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- Track-mounted vehicles should be used to strip the subgrade of root matter and other deleterious debris. Heavy rubber-tired equipment should be prohibited from operating directly on the native subgrade and areas in which structural fill materials have been placed. Construction traffic should be restricted to designated roadways that do not cross, or cross on a limited basis, proposed roadway or parking areas.
- Soft areas can be over-excavated and replaced with granular structural fill.
- Construction roadways on soft subgrade soils should consist of a minimum 2-foot thickness of large cobbles of 4 to 6 inches in diameter with sufficient sand and fines to fill voids. Construction entrances should consist of a 6-inch thickness of clean, 2-inch minimum, angular drain-rock and must be a minimum of 10 feet wide and 30 to 50 feet long. During the construction process, top dressing of the entrance may be required for maintenance.
- Scarification and aeration of subgrade soils can be employed to reduce the moisture content of wet subgrade soils. After stripping is complete, the exposed subgrade should be ripped or disked to a depth of 1½ feet and allowed to air dry for 2 to 4 weeks. Further disking should be performed on a weekly basis to aid the aeration process.
- Alternative soil stabilization methods include use of geotextiles, lime, and cement stabilization. Atlas is available to provide recommendations and guidelines at your request.

7.5 Frozen Subgrade Soils

Prior to placement of structural fill materials or foundation elements, frozen subgrade soils must either be allowed to thaw or be stripped to depths that expose non-frozen soils and wasted or stockpiled for later use. Stockpiled materials must be allowed to thaw and return to near-optimal conditions prior to use as structural fill.

The onsite, shallow clayey and silty soils are susceptible to frost heave during freezing temperatures. For exterior flatwork and other structural elements, adequate drainage away from subgrades is critical. Compaction and use of structural fill will also help to mitigate the potential for frost heave. Complete removal of frost susceptible soils for the full frost depth, followed by replacement with a non-frost susceptible structural fill, can also be used to mitigate the potential for frost heave. Atlas is available to provide further guidance/assistance upon request.

7.6 Structural Fill

Soils recommended for use as structural fill are those classified as GW, GP, SW, and SP in accordance with the Unified Soil Classification System (USCS) (ASTM D2487). Use of silty soils (USCS designation of GM, SM, and ML) as structural fill may be acceptable. <u>However, use of silty soils (GM, SM, and ML) as structural fill below footings is prohibited.</u> These materials require very high moisture contents for compaction and require a long time to dry out if natural moisture contents are too high and may also be susceptible to frost heave under certain conditions. Therefore, these materials can be quite difficult to work with as moisture content, lift thickness, and compactive effort becomes difficult to control. <u>If silty soil is used for structural fill, lift thicknesses should not exceed 6 inches (loose)</u>, and fill material moisture must be closely monitored at both the working elevation and the elevations of materials already placed. Following



placement, silty soils <u>must</u> be protected from degradation resulting from construction traffic or subsequent construction.

Recommended granular structural fill materials, those classified as GW, GP, SW, and SP, should consist of a 6-inch minus select, clean, granular soil with no more than 50 percent oversize (greater than ³/₄-inch) material and no more than 12 percent fines (passing No. 200 sieve). These fill materials should be placed in layers not to exceed 12 inches in loose thickness. Prior to placement of structural fill materials, surfaces must be prepared as outlined in the **Construction Considerations** section. Structural fill material should be moisture-conditioned to achieve optimum moisture content prior to compaction. For structural fill below footings, areas of compacted backfill must extend outside the perimeter of the footings for a distance equal to the thickness of fill between the bottom of foundation and underlying soils, or 5 feet, whichever is less. All fill materials must be monitored during placement and tested to confirm compaction requirements, outlined below, have been achieved.

Each layer of structural fill must be compacted, as outlined below:

- <u>Below Structures and Rigid Pavements</u>: A minimum of 95 percent of the maximum dry density as determined by ASTM D1557.
- <u>Below Flexible Pavements</u>: A minimum of 92 percent of the maximum dry density as determined by ASTM D1557 or 95 percent of the maximum dry density as determined by ASTM D698.

The ASTM D1557 test method must be used for samples containing up to 40 percent oversize (greater than ³/₄-inch) particles. If material contains more than 40 percent but less than 50 percent oversize particles, compaction of fill must be confirmed by proof rolling each lift with a 10-ton vibratory roller (or equivalent) until the maximum density has been achieved. Density testing must be performed after each proof rolling pass until the in-place density test results indicate a drop (or no increase) in the dry density, defined as maximum density or "break over" point. The number of required passes should be used as the requirements on the remainder of fill placement. Material should contain sufficient fines to fill void spaces, and must not contain more than 50 percent oversize particles.

7.7 Backfill of Walls

Backfill materials must conform to the requirements of structural fill, as defined in this report. For wall heights greater than 2.5 feet, the maximum material size should not exceed 4 inches in diameter. Placing oversized material against rigid surfaces interferes with proper compaction, and can induce excessive point loads on walls. Backfill shall not commence until the wall has gained sufficient strength to resist placement and compaction forces. Further, retaining walls above 2.5 feet in height shall be backfilled in a manner that will limit the potential for damage from compaction methods and/or equipment. It is recommended that only small hand-operated compaction equipment be used for compaction of backfill within a horizontal distance equal to the height of the wall, measured from the back face of the wall.

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Backfill should be compacted in accordance with the specifications for structural fill, except in those areas where it is determined that future settlement is not a concern, such as planter areas. In nonstructural areas, backfill must be compacted to a firm and unyielding condition.

7.8 Excavations

Shallow excavations that do not exceed 4 feet in depth may be constructed with side slopes approaching vertical. Below this depth, it is recommended that slopes be constructed in accordance with Occupational Safety and Health Administration (OSHA) regulations, Section 1926, Subpart P. Based on these regulations, on-site soils are classified as type "C" soil, and as such, excavations within these soils should be constructed at a maximum slope of 1½ feet horizontal to 1 foot vertical (1½:1) for excavations up to 20 feet in height. Excavations in excess of 20 feet will require additional analysis. Note that these slope angles are considered stable for short-term conditions only, and will not be stable for long-term conditions.

During the subsurface exploration, test pit sidewalls generally exhibited little indication of collapse. For deep excavations, native granular sediments cannot be expected to remain in position. These materials are prone to failure and may collapse, thereby undermining upper soil layers. This is especially true when excavations approach depths near the water table. Care must be taken to ensure that excavations are properly backfilled in accordance with procedures outlined in this report.

7.9 Groundwater Control

Groundwater was not encountered during the investigation and is anticipated to be below the depth of most construction. Special precautions may be required for control of surface runoff and subsurface seepage. It is recommended that runoff be directed away from open excavations. Silty and clayey soils may become soft and pump if subjected to excessive traffic during time of surface runoff. Ponded water in construction areas should be drained through methods such as trenching, sloping, crowning grades, nightly smooth drum rolling, or installing a French drain system. Additionally, temporary or permanent driveway sections should be constructed if extended wet weather is forecasted.

8. GENERAL COMMENTS

Based on the subsurface conditions encountered during this investigation and available information regarding the proposed development, the site is adequate for the planned construction. When plans and specifications are complete, and if significant changes are made in the character or location of the proposed development, consultation with Atlas must be arranged as supplementary recommendations may be required. Suitability of subgrade soils and compaction of structural fill materials must be verified by Atlas personnel prior to placement of structural elements. Additionally, monitoring and testing should be performed to verify that suitable materials are used for structural fill and that proper placement and compaction techniques are utilized.

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Appendix I WARRANTY AND LIMITING CONDITIONS

Atlas warrants that findings and conclusions contained herein have been formulated in accordance with generally accepted professional engineering practice in the fields of foundation engineering, soil mechanics, and engineering geology only for the site and project described in this report. These engineering methods have been developed to provide the client with information regarding apparent or potential engineering conditions relating to the site within the scope cited above and are necessarily limited to conditions observed at the time of the site visit and research. Field observations and research reported herein are considered sufficient in detail and scope to form a reasonable basis for the purposes cited above.

Exclusive Use

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

Report Recommendations are Limited and Subject to Misinterpretation

There is a distinct possibility that conditions may exist that could not be identified within the scope of the investigation or that were not apparent during our site investigation. Findings of this report are limited to data collected from noted explorations advanced and do not account for unidentified fill zones, unsuitable soil types or conditions, and variability in soil moisture and groundwater conditions. To avoid possible misinterpretations of findings, conclusions, and implications of this report, Atlas should be retained to explain the report contents to other design professionals as well as construction professionals.

Since actual subsurface conditions on the site can only be verified by earthwork, note that construction recommendations are based on general assumptions from selective observations and selective field exploratory sampling. Upon commencement of construction, such conditions may be identified that require corrective actions, and these required corrective actions may impact the project budget. Therefore, construction recommendations in this report should be considered preliminary, and Atlas should be retained to observe actual subsurface conditions during earthwork construction activities to provide additional construction recommendations as needed.

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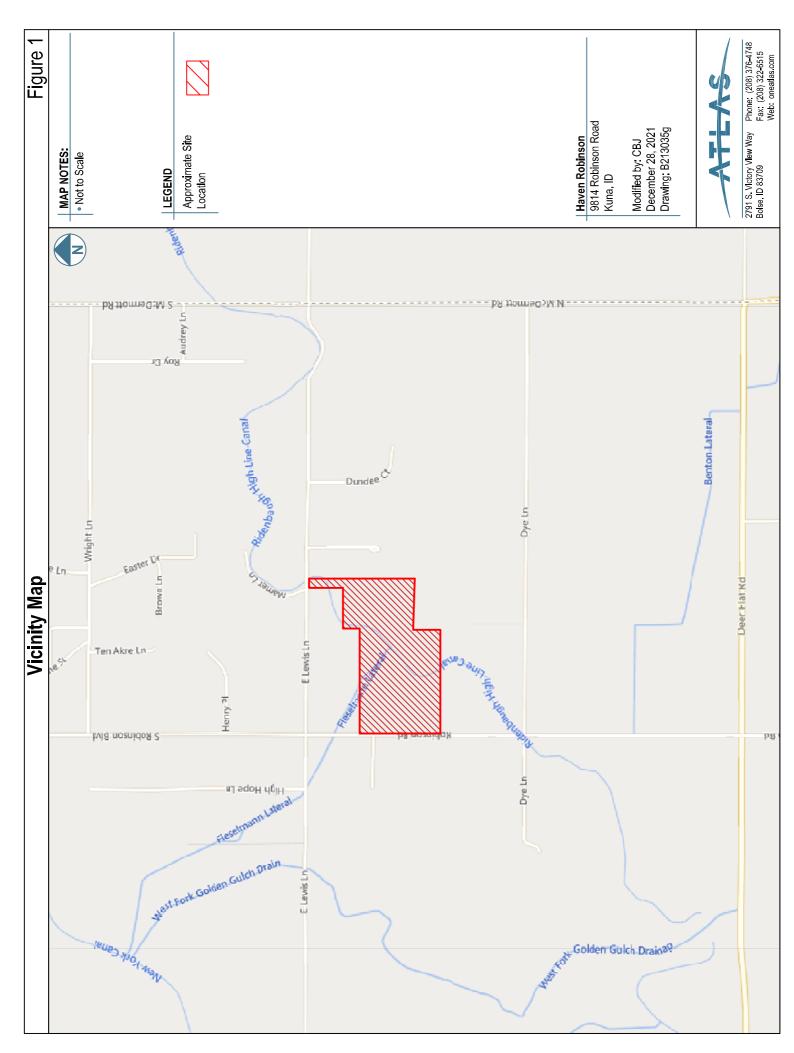
Since geotechnical reports are subject to misinterpretation, <u>do not</u> separate the soil logs from the report. Rather, provide a copy of, or authorize for their use, the complete report to other design professionals or contractors. Locations of exploratory sites referenced within this report should be considered approximate locations only. For more accurate locations, services of a professional land surveyor are recommended.

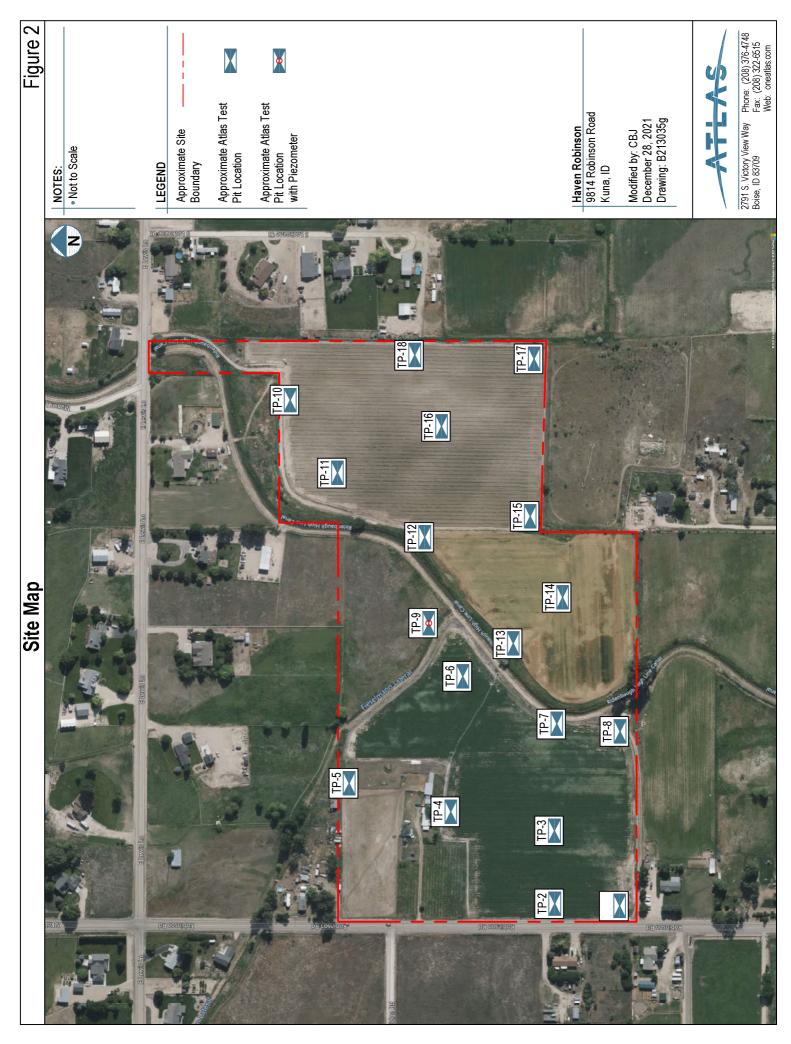
This report is also limited to information available at the time it was prepared. In the event additional information is provided to Atlas following publication of our report, it will be forwarded to the client for evaluation in the form received.

Environmental Concerns

Comments in this report concerning either onsite conditions or observations, including soil appearances and odors, are provided as general information. These comments are not intended to describe, quantify, or evaluate environmental concerns or situations. Since personnel, skills, procedures, standards, and equipment differ, a geotechnical investigation report is not intended to substitute for a geoenvironmental investigation or a Phase II/III Environmental Site Assessment. If environmental services are needed, Atlas can provide, via a separate contract, those personnel who are trained to investigate and delineate soil and water contamination.

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Appendix IV GEOTECHNICAL INVESTIGATION TEST PIT LOG

Test Pit Log #: TP-1 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513370 Longitude: -116.493220 Depth to Water Table: Not Encountered Total Depth: 6.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-6.1	Sandy Silt (ML): Brown, slightly moist, stiff to very stiff, with fine to medium-grained sand. Refusal on basalt rock at a depth of 6.1 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 6.1 feet bgs.

Test Pit Log #: TP-2 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513919 Longitude: -116.493232 Depth to Water Table: Not Encountered Total Depth: 9.2 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.6	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.6-9.2	Sandy Silt (ML): Brown, slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.5 to 9.2 feet bgs. Refusal on basalt rock at a depth of 9.2 feet bgs.				

Notes: See Site Map for test pit location.

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GEOTECHNICAL INVESTIGATION TEST PIT LOG

Test Pit Log #: TP-3

Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514004 Longitude: -116.492150 Depth to Water Table: Not Encountered Total Depth: 8.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-8.4	Sandy Silt (ML): Brown, slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.8 to 8.4 feet bgs. Refusal on basalt rock at a depth of 8.4 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-4 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514769 Longitude: -116.492048 Depth to Water Table: Not Encountered Total Depth: 4.5 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.2	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.2-4.5	Sandy Silt (ML): Brown, slightly moist, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 4.5 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-5

Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515734 Longitude: -116.491675 Depth to Water Table: Not Encountered Total Depth: 5.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-5.1	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.9 to 5.1 feet bgs. Refusal on basalt rock at a depth of 5.1 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 5.1 feet bgs.

Test Pit Log #: TP-6 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514699 Longitude: -116.490435 Depth to Water Table: Not Encountered Total Depth: 9.2 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.2	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.2-9.2	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.3 to 9.2 feet bgs. Refusal on basalt rock at a depth of 9.2 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 9.2 feet bgs.

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Test Pit Log #: TP-7 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514023 Longitude: -116.490859 Depth to Water Table: Not Encountered Total Depth: 6.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.5	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.	GS	1.0-1.5	0.75	A
1.5-6.6	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.1 to 6.6 feet bgs. Refusal on basalt rock at a depth of 6.6 feet bgs.				

Notes: See Site Map for test pit location.

					Sieve An	alysis (%	Passing)	
	t ID Moisture (%) LL PI	PI	#4	#10	#40	#100	#200	
A	16.3	31	9	99	98	95	90	77.9

Test Pit Log #: TP-8 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513284 Longitude: -116.491078 Depth to Water Table: Not Encountered Total Depth: 8.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-8.9	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.8 to 8.9 feet bgs. Refusal on basalt rock at a depth of 8.6 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-9 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515059 Longitude: -116.489707 Depth to Water Table: Not Encountered Total Depth: 11.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.6	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material to a depth of 1 foot bgs.			0.75	
1.6-10.0	Sandy Silt (ML): Brown, dry, very stiff, with fine to coarse-grained sand. Moderate calcium carbonate cementation from 6.9 to 10.0 feet bgs.				
10.0-11.6	Sandy Lean Clay (CL): Brown, dry, hard, with fine to medium-grained sand. Refusal on indurated clay at a depth of 11.6 feet bgs.				

Notes: See Site Map for test pit location.

Piezometer installed to a depth of 11.6 feet bgs.

Test Pit Log #: TP-10 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.516354 Longitude: -116.487011 Depth to Water Table: Not Encountered Total Depth: 8.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-8.1	Sandy Silt (ML): Light brown, dry, very stiff to hard, with fine to coarse-grained sand. Moderate calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 8.1 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-11 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515509 Longitude: -116.487674 Depth to Water Table: Not Encountered Total Depth: 10.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.8	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.	Bulk	1.0-1.5	0.75	R-value
1.8-10.4	Sandy Silt (ML): Brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 10.4 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-12 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515085 Longitude: -116.488617 Depth to Water Table: Not Encountered Total Depth: 10.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-10.4	Sandy Silt (ML): Light brown, dry to slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.5 to 10.4 feet bgs. Refusal on basalt rock at a depth of 10.4 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-13 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514232 Longitude: -116.489891 Depth to Water Table: Not Encountered Total Depth: 13.8 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-11.5	Sandy Silt (ML): Light brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 5.7 to 11.5 feet bgs.				
11.5-13.8	Lean Clay with Sand (CL): Brown, slightly moist, hard, with fine to medium-grained sandRefusal on indurated clay at a depth of 13.8 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-14 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513946 Longitude: -116.489470 Depth to Water Table: Not Encountered Total Depth: 9.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.9	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.9-9.6	Sandy Silt (ML): Light brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 4.4 to 9.6 feet bgs. Refusal on basalt rock at a depth of 9.6 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 9.6 feet bgs.

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Test Pit Log #: TP-15 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514030 Longitude: -116.488480 Depth to Water Table: Not Encountered Total Depth: 10.3 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-2.4	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			2.25	
2.4-10.3	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 4.6 to 10.3 feet bgs. Refusal on basalt rock at a depth of 10.3 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-16 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514700 Longitude: -116.487201 Depth to Water Table: Not Encountered Total Depth: 4.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.1	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			3.5	
1.1-4.9	Sandy Silt (ML): Brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 4.9 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-17 Date Advanced: November 8, 2021

Excavated by: Turn of the Century Homes **Logged by:** Bryar Jensen, El Latitude: 43.514012 Longitude: -116.486229 Depth to Water Table: Not Encountered Total Depth: 10.3 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.9	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			3.5	
1.9-10.3	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 10.3 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-18 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515035 Longitude: -116.486296 Depth to Water Table: Not Encountered Total Depth: 8.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.7	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			2.5	
1.7-8.9	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 8.9 feet bgs.	GS	8.0-8.5		В

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 8.9 feet bgs.

		LL	PI		Sieve An	alysis (%	Passing)	
Lab Test ID	Moisture (%)			#4	#10	#40	#100	#200
В	24.1	NP	NP	86	83	81	80	69.6

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Appendix V GEOTECHNICAL GENERAL NOTES

	Unified Soil Classification System				
Major	Divisions	Symbol	Soil Descriptions		
	Gravel &	GW	Well-graded gravels; gravel/sand mixtures with little or no fines		
Coarse-	Gravelly Soils	GP	Poorly-graded gravels; gravel/sand mixtures with little or no fines		
Grained	< 50%	GM	Silty gravels; poorly-graded gravel/sand/silt mixtures		
Soils < 50%	coarse	GC	Clayey gravels; poorly-graded gravel/sand/clay mixtures		
	Sand & Sandy	SW	Well-graded sands; gravelly sands with little or no fines		
passes No.200	Soils > 50%	SP	Poorly-graded sands; gravelly sands with little or no fines		
sieve	coarse	SM	Silty sands; poorly-graded sand/gravel/silt mixtures		
51070	fraction	SC	Clayey sands; poorly-graded sand/gravel/clay mixtures		
Fine-		ML	Inorganic silts; sandy, gravelly or clayey silts		
Grained Soils >	Silts & Clays LL < 50	CL	Lean clays; inorganic, gravelly, sandy, or silty, low to medium- plasticity clays		
50%		OL	Organic, low-plasticity clays and silts		
passes		MH	Inorganic, elastic silts; sandy, gravelly or clayey elastic silts		
No.200	Silts & Clays LL > 50	CH	Fat clays; high-plasticity, inorganic clays		
sieve	LL > 50	OH	Organic, medium to high-plasticity clays and silts		
Highly C	Drganic Soils	PT	Peat, humus, hydric soils with high organic content		

Relative Density and Consistency Classification				
Coarse-Grained Soils	SPT Blow Counts (N)			
Very Loose:	< 4			
Loose:	4-10			
Medium Dense:	10-30			
Dense:	30-50			
Very Dense:	> 50			
Fine-Grained Soils	SPT Blow Counts (N)			
Very Soft:	< 2			
Soft:	2-4			
Medium Stiff:	4-8			
Stiff:	8-15			
Very Stiff:	15-30			
Hard:	> 30			

Particle Size					
Boulders:	> 12 in.				
Cobbles:	12 to 3 in.				
Gravel:	3 in. to 5 mm				
Coarse-Grained Sand:	5 to 0.6 mm				
Medium-Grained Sand:	0.6 to 0.2 mm				
Fine-Grained Sand:	0.2 to 0.075 mm				
Silts:	0.075 to 0.005 mm				
Clays:	< 0.005 mm				

Moistu	Moisture Content and Cementation Classification				
Description	Field Test				
Dry	Absence of moisture, dry to touch				
Slightly Moist	Damp, but no visible moisture				
Moist	Visible moisture				
Wet	Visible free water				
Saturated	Soil is usually below water table				
Description	Field Test				
Weak	Crumbles or breaks with handling or				
	slight finger pressure				
Moderate	Crumbles or breaks with				
	considerable finger pressure				
Strong	Will not crumble or break with finger				
	pressure				

	Acronym List			
GS	grab sample			
LL	Liquid Limit			
Μ	moisture content			
NP	non-plastic			
ΡI	Plasticity Index			
Qp	penetrometer value, unconfined compressive strength, tsf			
V	vane value, ultimate shearing strength, tsf			

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Important Information about This Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you - assumedly a client representative - interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer will <u>not</u> likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will <u>not</u> be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it;
 e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnicalengineering report did not read the report in its entirety. Do <u>not</u> rely on an executive summary. Do <u>not</u> read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept* responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the "Findings" Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site's subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report's Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are <u>not</u> final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals' misinterpretation of geotechnicalengineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals' plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note* conspicuously that you've included the material for information purposes only. To avoid misunderstanding, you may also want to note that "informational purposes" means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, only from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and be sure to allow enough time to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled "limitations," many of these provisions indicate where geotechnical engineers' responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a "phase-one" or "phase-two" environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer's services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer's recommendations will <u>not</u> of itself be sufficient to prevent moisture infiltration. Confront the risk of moisture infiltration by including building-envelope or mold specialists on the design team.*



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LEVEL 1 NUTRIENT PATHOGEN STUDY HAVEN CREEK SUBDIVISION

9814 Robinson Road Kuna, ID

PREPARED FOR:

Mr. Tanner Verhoeks Haven Idaho 521 North 10th Avenue #4

> **PREPARED BY:** Atlas Technical Consultants, LLC 2791 South Victory View Way

January 14, 2022 B212203g

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

Atlas No. B212203g

Mr. Tanner Verhoeks Haven Idaho 521 North 10th Avenue #4

Subject: Level 1 Nutrient Pathogen Study Haven Creek Subdivision 9814 Robinson Road Kuna, ID

Dear Mr. Verhoeks:

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,

SIONAL 4919 Monica Saculles, PE Senior Geotechnical Engin

Bryar Jensen, El Staff Engineer

Distribution: Fritz Durham, Idaho Department of Environmental Quality (PDF Copy); Stephen Fitzner, Southwest District Health (PDF Copy).



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1. INTRODUCTION

This report presents results of a Level 1 Nutrient Pathogen (NP) Study conducted for the proposed Haven Creek Subdivision in Kuna, 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

1.1 Authorization

Authorization to perform this analysis was given in the form of written authorization to proceed from Mr. Tanner Verhoeks of Haven Idaho to Monica Saculles of Atlas Technical Consultants (Atlas), on 20 December 2021. Said authorization is subject to terms, conditions, and limitations described in the Professional Services Contract entered into between Haven Idaho and Atlas.

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

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

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.

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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 Haven Idaho, 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

2. PROJECT DESCRIPTION AND EXISTING SITE CONDITIONS

2.1 Project and Vicinity Description Including Site Topography and Drainage

The proposed development is located southwest of the City of Nampa, Canyon County, ID, and occupies a portion of the NW¼ of Section 17, Township 2 North, Range 1 West, Boise Meridian. The site address is 9814 North Robinson Road in Kuna, Idaho.

Currently, the proposed development consists of 43.86 acres of agricultural land with a residence located in the western portion of the parcel. A general westerly slope is present across the site. The project site is bordered on the west by Robinson Road, and surrounded on all sides by existing rural residential/agricultural properties. The proposed development will consist of 26 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

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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 "Basalt Flows of Indian Creek, Undivided" as mapped by Othberg and Stanford (1993). This volcanic deposit is composed of multiple flows of medium to dark gray olivine basalt. These flows erupted from numerous vents found south of the Boise River and north of the Snake River, southeast of the City of Boise, Idaho. At the time of eruption lavas flowed into and down ancestral Indian Creek and Boise River valleys. Northwest-trending, gently sloping escarpments suggest faulting of the basalt. These basalts are mantled with loess 2-12 feet thick that contains about 35% pedogenic clay and a duripan that can be 3 feet thick. A geologic map showing the approximate site boundary is included in Appendix Ш

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 clays that are underlain by basalt.

The well logs also showed static groundwater levels generally ranging from around 14 to 68 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 30 to 83 feet below ground surface. In some limited instances, first encountered water wasn't noted until depths of up to 106 feet. The water depths appear to vary with location and topography.

Prior to preparing this Nutrient Pathogen Study, Atlas conducted a subsurface geotechnical investigation for the property. Based on review of the Geotechnical Engineering Report (B213035g), onsite soils primarily consisted of sandy lean clay soils that were underlain in most areas by sandy silt soils. Hardpan cementation was present through portions of the sandy silt soils. Basalt rock was noted at depth in most of the test pits. This soils/rock profile is similar to profiles found on nearby driller's well logs that are included later in this report. In general, these driller's well logs showed topsoil near the surface, hardpan, and sand-clay mixtures. At greater depths, varying layers of sand, clay, basalt and gravels were noted. Copies of the test pit logs and a map showing the test pit locations can be found in **Appendix III**.

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Groundwater was not encountered within test pits advanced to a maximum depth of 13.8 feet below ground surface (bgs). Review of the Idaho Department of Water Resources (IDWR) monitoring well data within approximately ¼-mile of the project site, groundwater was measured at depths ranging between 38 and 62 feet bgs. Furthermore, the driller's well logs generally show static groundwater depths ranging from 14 to 68 feet bgs. These static water depths appear to vary with location and topography. Since elevations on the site vary roughly 20 feet from the low

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 the Potratz-Power silt loams, Power-Potratz complex silt loams, and Power-Purdam 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 IV**

- **Potratz-Power silt loam** Potratz-Power silt loam soils occur on lava plains. These soils are classified as well drained and the most limiting soil layer has a moderately high to high capacity to transmit water. Typical soil profiles for the Potratz-Power silt loam include silt
- **Power-Potratz silt Ioam** Power-Potratz soils occur on terraces. These soils are classified as well drained and the most limiting soil layer has a moderately high to high capacity to transmit water. Typical soil profiles of Power-Potratz silt loam include silt loam
- **Power-Purdam silt loam** Power-Purdam soils occur on stream terraces. These soils are classified as well drained and the most limiting soil layer has a very low to moderately high capacity to transmit water. Typical soil profiles of Power-Purdam silt loam include silt loam or silty clay loam at the surface, followed by cemented material underlain by stratified

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

Atlas has filed a request for information with IDEQ to view nutrient pathogen studies completed

- Level 1 Nutrient Pathogen Study, Hardrock Ridge Subdivision, southwest of Lewis Lane and Happy Valley Road, Canyon County, Idaho, prepared by Skinner Land Surveying and
- Level 1 Nutrient Pathogen Study Addendum 1, Butterfield Subdivision, NWC of Columbia Road and Ridgewood Road, Canyon County, Idaho, prepared by Skinner Land Surveying and dated July 25, 2006

Information gathered from review of these documents is referenced within the **Hydraulic Conductivity** section of this report.

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ATLAS

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

3.1 Water Budget 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 an 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 53 Well Driller's Reports on file for this area were copied and are included in **Appendix V** of this report, along with a map showing approximate well locations. Although numerous well logs are available for the site vicinity, only 14 wells provided complete pump test data. A spreadsheet showing tabulated data from the well logs can be found in **Appendix V**.

Of the wells with complete pump test data, several listed a drawdown that was higher than possible, and were excluded from analysis. Other wells had drawdown values that were either listed as "zero" or "none" and were not used in the analysis. Lastly, a bailer was used for the test of well 46, so the well was likewise eliminated from analysis. Atlas was left with 3 usable well logs that were used for hydraulic conductivity analysis.

Discharge rates listed on the well logs ranged from 15 to 150 gallons per minute. Drawdown data generally ranged from 1 to 80 feet, though some well logs reported drawdown as high as 135 feet.

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_0 -h = Drawdown (feet)

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

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

Where:

K = Hydraulic Conductivity (feet/day) T = Transmissivity (feet²/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 21 to 369 feet/day. Atlas calculated the average hydraulic conductivity value as 141 feet/day. Additionally, based on two previous NP Studies that have been conducted within the vicinity of the project site, hydraulic conductivity values ranging from 75 to 87 feet per day were used and approved during the IDEQ/SWDH review process. For the mass-balance spreadsheets, Atlas used a hydraulic conductivity of 81 feet/day, which is the average of values used and approved in previous NP studies, and lower than the calculated well

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 15,000 linear feet. This drop in groundwater elevation yields a hydraulic gradient of 0.0033 feet/feet. A northwestern groundwater flow direction (roughly 315° Azimuth) was also determined based on this map. For this report, Atlas used a hydraulic gradient of 0.0033 feet/feet for the mass-balance spreadsheet. Atlas has presented a map of the IDEQ groundwater flow contours in **Appendix VI**

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

- If distance is less than 500 feet to the property boundary, use a mixing zone thickness of
- If distance is between 500 and 1,000 feet to the property boundary, use a mixing zone
- 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 is less than 500 feet, Atlas used a value of 15 feet as the mixing zone thickness for the mass-

3.1.5 Aquifer Widths Perpendicular to Flow

Atlas used a northwest groundwater flow direction (approximately 315° 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 191.73 to 348.20 feet are the aquifer widths that are perpendicular to the northwesterly flow direction. A site map with the perpendicular widths identified is located in **Appendix VII** of the report.



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

The Client described the project as 43.86 acres with 26 proposed lots that are approximately 1.03 to 2.16 acres in size. For the mass-balance spreadsheets, Atlas analyzed two of the smallest lots and estimated that less than ten percent of the parcel would be impervious to percolation as a

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

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 - 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:

Using the above relationship, an annual precipitation rate of 11 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 VIII**

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 3 wells in the project site vicinity. Additional monitoring wells were present within the site vicinity, though they were either set in deep aquifers or had not been sampled within the past several years. Atlas averaged the nitrate value obtained from two of the wells with the most recent monitoring date. These wells had nitrate concentrations of 5.27 and 5.5 mg/L, which resulted in an average concentration of 5.4 mg/L. Therefore, Atlas used a value of 5.4 mg/L as the background nitrate level for the mass-balance spreadsheets in this report. A spreadsheet showing tabulated data from these 3 well logs, as well as a map showing the well locations, can be found in **Appendix IX**.

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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

- ٠
- A 40 percent nitrate reducing system releases a nitrate concentration of 27 mg/L in the
- A 65 percent nitrate reducing system releases a nitrate concentration of 16 mg/L in the

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

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 for the lots with the smallest aquifer width perpendicular to groundwater flow direction and smallest acreage are present in **Appendix X**. A summary of values used in the analysis are presented in **Table 1** and results of the analyses are presented in **Table 2**.

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Value Used
81
0.0033
15
10
300*
0.6
Value Used
5.4
0*
0.3*
6.4

Table 1 – Parameters Used in the Level 1 Nitrate Mass-Balance Analysis

*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 lots with the smallest aquifer width perpendicular to groundwater flow direction and smallest acreage are outlined below. Mass-balance spreadsheets for standard and 40% nitrate reducing septic systems were prepared for these two lots.

	Aquifer Width Lot Area Perpendicular to –		Downgradient Nitrate Concentration (mg/L)			
Lot Number	r (acres)	Groundwater Flow Direction (feet)	Standard Septic Systems	40% Nitrate Reducing Systems	65% Nitrate Reducing Systems	
Lot 9	1.03	200.22	7.2*	6.4	N/A	
Lot 23	1.60	191.73	7.3*	6.4	N/A	

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

*Value exceeds the point of compliance nitrate concentration goal of 6.4 mg/L.

CONCLUSIONS AND RECOMMENDATIONS 5.

Mass-balance spreadsheets for down-gradient nitrate concentration have been prepared for the lots with the smallest aquifer width perpendicular to groundwater flow direction and smallest acreage. All spreadsheets are presented in the Appendices of this report. Considering the estimated input parameters, the results of the nitrogen mass-balance approach indicated that the down-gradient nitrate concentration using a 40 percent nitrate reducing system is 6.4 mg/L. Thus for the entire site, the Point of Compliance Nitrate Concentration value of 6.4 mg/L was not exceeded when analyzing for the 40 percent nitrate reducing septic systems.

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Note that SWDH and IDEQ 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

- If changes in the number of lots are desired, a revised lot layout must be provided to Atlas,
- 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
- 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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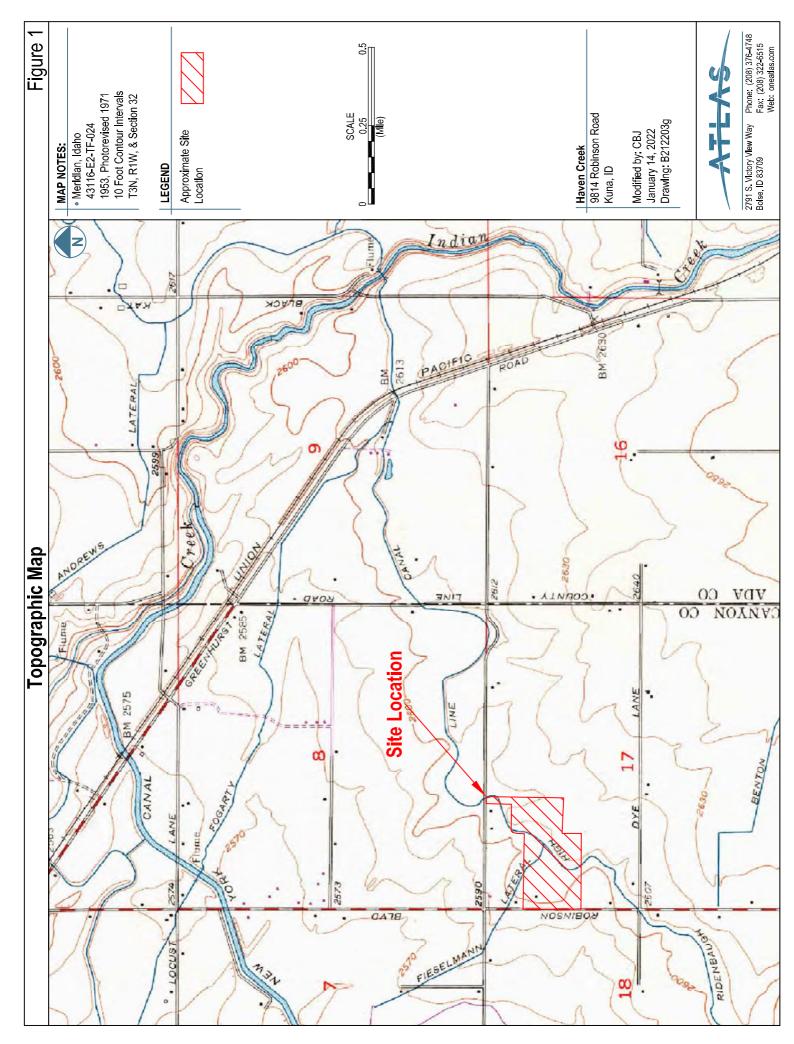
7. LIST OF APPENDICES

Appendix I	Topographic Map and General Site Map
Appendix II	Geologic Map with Approximate Project Site Location
Appendix III	Site Map with Test Pit Locations and Subsurface Investigation Test Pit Logs
Appendix IV	Soil Survey Information
Appendix V	Site Location with Vicinity Wells Map and IDWR Driller's Well Logs
Appendix VI	IDEQ Groundwater Contour Map
Appendix VII	Site Plan with Aquifer Width Map for Individual Lots
Appendix VIII	Historic Precipitation/Climate Data for Project Location
Appendix IX	Site Location with Vicinity Monitoring Wells Map and Monitored Well Data
Appendix X	Nitrate Mass-Balance Spreadsheets for Individual Lots

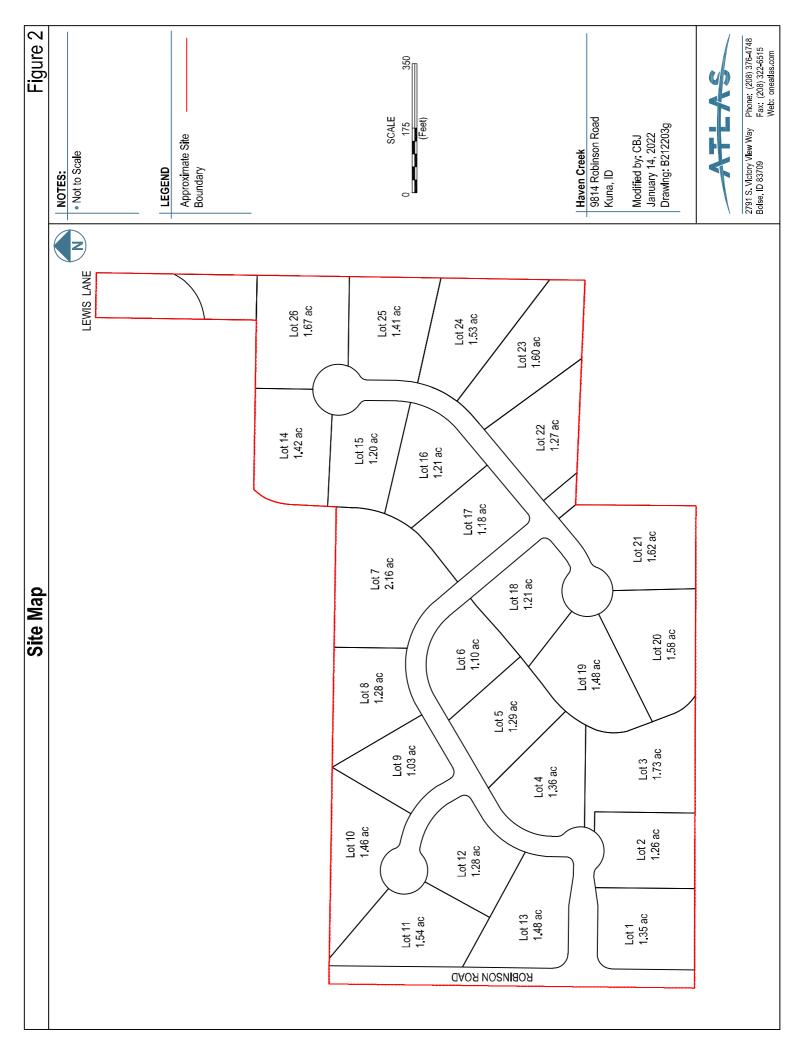
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Appendix I TOPOGRAPHIC MAP AND GENERAL SITE MAP

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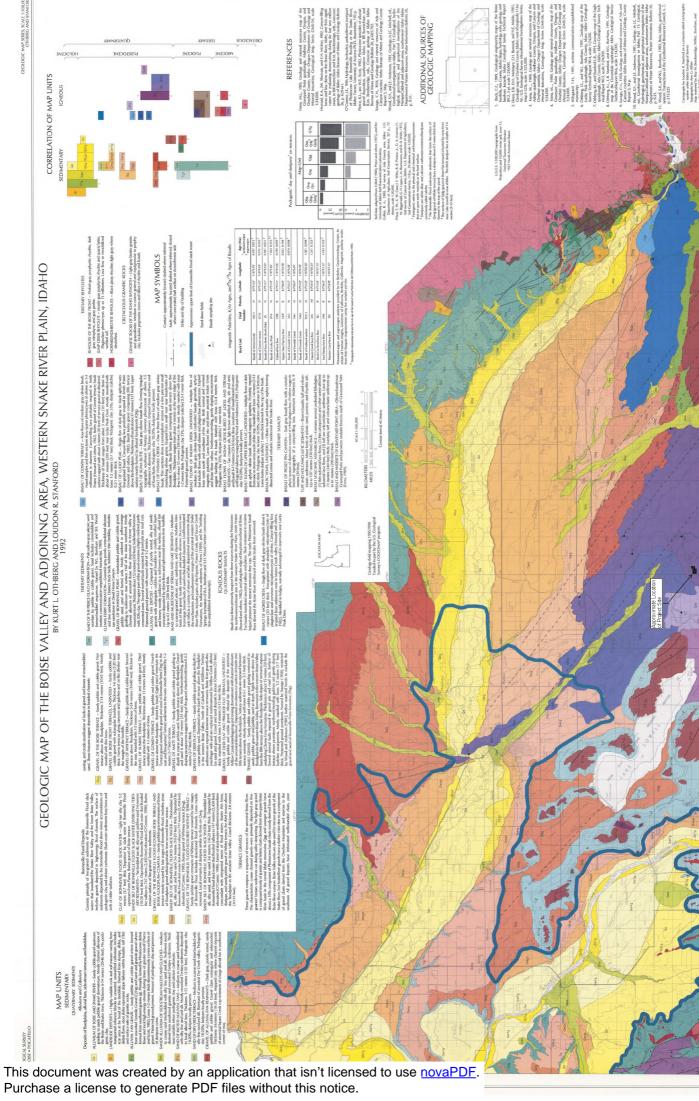
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Appendix II GEOLOGIC MAP WITH APPROXIMATE PROJECT SITE LOCATION

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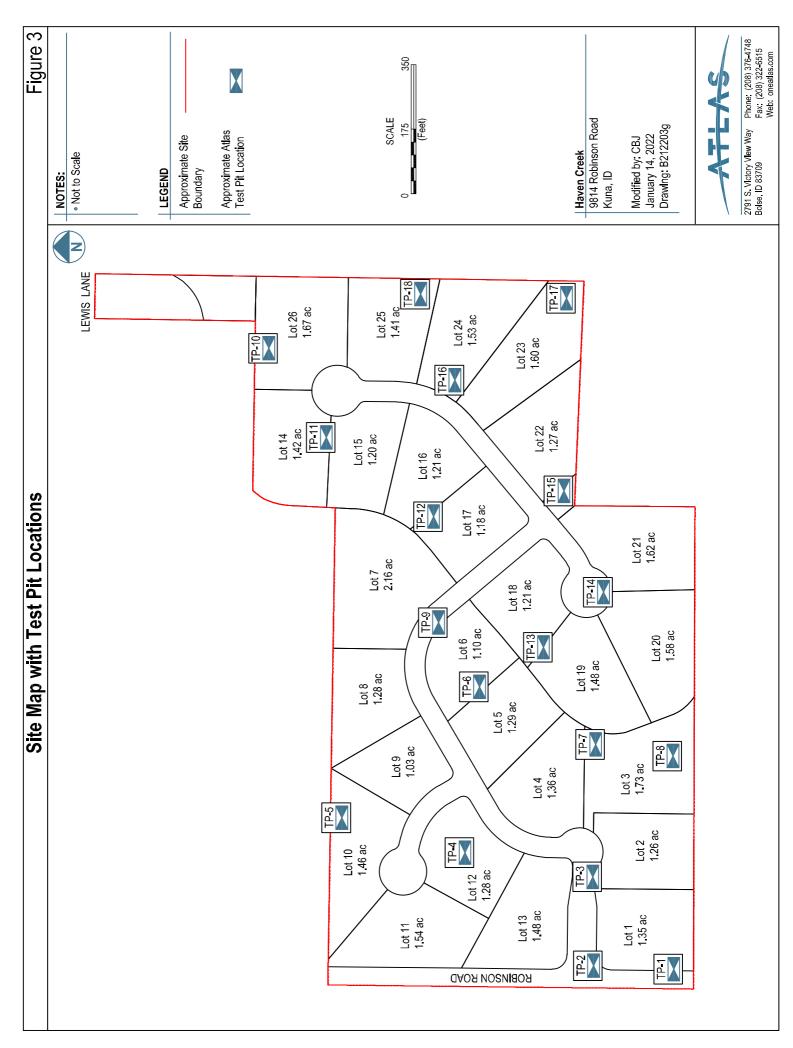




sold by the Idah

Appendix III SITE MAP WITH TEST PIT LOCATIONS AND SUBSURFACE INVESTIGATION TEST PIT LOGS

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Test Pit Log #: TP-1 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513370 Longitude: -116.493220 Depth to Water Table: Not Encountered Total Depth: 6.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-6.1	Sandy Silt (ML): Brown, slightly moist, stiff to very stiff, with fine to medium-grained sand. Refusal on basalt rock at a depth of 6.1 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 6.1 feet bgs.

Test Pit Log #: TP-2 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513919 Longitude: -116.493232 Depth to Water Table: Not Encountered Total Depth: 9.2 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.6	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.6-9.2	Sandy Silt (ML): Brown, slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.5 to 9.2 feet bgs. Refusal on basalt rock at a depth of 9.2 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-3 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514004 Longitude: -116.492150 Depth to Water Table: Not Encountered Total Depth: 8.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-8.4	Sandy Silt (ML): Brown, slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.8 to 8.4 feet bgs. Refusal on basalt rock at a depth of 8.4 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-4 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514769 Longitude: -116.492048 Depth to Water Table: Not Encountered Total Depth: 4.5 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.2	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.2-4.5	Sandy Silt (ML): Brown, slightly moist, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 4.5 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-5 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515734 Longitude: -116.491675 Depth to Water Table: Not Encountered Total Depth: 5.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-5.1	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.9 to 5.1 feet bgs. Refusal on basalt rock at a depth of 5.1 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 5.1 feet bgs.

Test Pit Log #: TP-6 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514699 Longitude: -116.490435 Depth to Water Table: Not Encountered Total Depth: 9.2 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.2	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.2-9.2	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.3 to 9.2 feet bgs. Refusal on basalt rock at a depth of 9.2 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 9.2 feet bgs.

Test Pit Log #: TP-7 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514023 Longitude: -116.490859 Depth to Water Table: Not Encountered Total Depth: 6.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.5	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.	GS	1.0-1.5	0.75	A
1.5-6.6	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 3.1 to 6.6 feet bgs. Refusal on basalt rock at a depth of 6.6 feet bgs.				

Notes: See Site Map for test pit location.

	Moisture (%)				Sieve An	alysis (%	Passing)	
	Moisture (%)		PI	#4	#10	#40	#100	#200
A	16.3	31	9	99	98	95	90	77.9

Test Pit Log #: TP-8 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El

Latitude: 43.513284 Longitude: -116.491078 Depth to Water Table: Not Encountered Total Depth: 8.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-8.9	Sandy Silt (ML): Brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.8 to 8.9 feet bgs. Refusal on basalt rock at a depth of 8.6 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-9 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515059 Longitude: -116.489707 Depth to Water Table: Not Encountered Total Depth: 11.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.6	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material to a depth of 1 foot bgs.			0.75	
1.6-10.0	Sandy Silt (ML): Brown, dry, very stiff, with fine to coarse-grained sand. Moderate calcium carbonate cementation from 6.9 to 10.0 feet bgs.				
10.0-11.6	Sandy Lean Clay (CL): Brown, dry, hard, with fine to medium-grained sand. Refusal on indurated clay at a depth of 11.6 feet bgs.				

Notes: See Site Map for test pit location.

Piezometer installed to a depth of 11.6 feet bgs.

Test Pit Log #: TP-10 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.516354 Longitude: -116.487011 Depth to Water Table: Not Encountered Total Depth: 8.1 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.4	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.4-8.1	Sandy Silt (ML): Light brown, dry, very stiff to hard, with fine to coarse-grained sand. Moderate calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 8.1 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-11 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515509 Longitude: -116.487674 Depth to Water Table: Not Encountered Total Depth: 10.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.8	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.	Bulk	1.0-1.5	0.75	R-value
1.8-10.4	Sandy Silt (ML): Brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 10.4 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-12 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515085 Longitude: -116.488617 Depth to Water Table: Not Encountered Total Depth: 10.4 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-10.4	Sandy Silt (ML): Light brown, dry to slightly moist, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 2.5 to 10.4 feet bgs. Refusal on basalt rock at a depth of 10.4 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-13 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514232 Longitude: -116.489891 Depth to Water Table: Not Encountered Total Depth: 13.8 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.3	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1.3-11.5	Sandy Silt (ML): Light brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 5.7 to 11.5 feet bgs.				
11.5-13.8	Lean Clay with Sand (CL): Brown, slightly moist, hard, with fine to medium-grained sand. Refusal on indurated clay at a depth of 13.8 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-14 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.513946 Longitude: -116.489470 Depth to Water Table: Not Encountered Total Depth: 9.6 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
	Lean Clay with Sand (CL): Brown, slightly moist, medium stiff, with fine to medium- grained sand. Organic material and plow zones to a depth of 1 foot bgs.			0.75	
1 9-9 6	Sandy Silt (ML): Light brown, dry, stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 4.4 to 9.6 feet bgs. Refusal on basalt rock at a depth of 9.6 feet bgs.				

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 9.6 feet bgs.

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Test Pit Log #: TP-15 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514030 Longitude: -116.488480 Depth to Water Table: Not Encountered Total Depth: 10.3 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-2.4	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			2.25	
2.4-10.3	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation from 4.6 to 10.3 feet bgs. Refusal on basalt rock at a depth of 10.3 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-16 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514700 Longitude: -116.487201 Depth to Water Table: Not Encountered Total Depth: 4.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.1	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			3.5	
1.1-4.9	Sandy Silt (ML): Brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 4.9 feet bgs.				

Notes: See Site Map for test pit location.

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Test Pit Log #: TP-17 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.514012 Longitude: -116.486229 Depth to Water Table: Not Encountered Total Depth: 10.3 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.9	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			3.5	
	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 10.3 feet bgs.				

Notes: See Site Map for test pit location.

Test Pit Log #: TP-18 Date Advanced: November 8, 2021 Excavated by: Turn of the Century Homes Logged by: Bryar Jensen, El Latitude: 43.515035 Longitude: -116.486296 Depth to Water Table: Not Encountered Total Depth: 8.9 feet bgs

Depth (feet bgs)	Field Description and USCS Soil and Sediment Classification	Sample Type	Sample Depth (feet bgs)	Qp	Lab Test ID
0.0-1.7	Lean Clay with Sand (CL): Brown, slightly moist, very stiff, with fine to medium-grained sand. Organic material and plow zones to a depth of 1 foot bgs.			2.5	
1.7-8.9	Sandy Silt (ML): Light brown to brown, dry, very stiff to hard, with fine to coarse-grained sand. Weak calcium carbonate cementation throughout. Refusal on basalt rock at a depth of 8.9 feet bgs.	GS	8.0-8.5		В

Notes: See Site Map for test pit location.

Infiltration testing conducted at a depth of 8.9 feet bgs.

	est ID Moisture (%) LL PI		Sieve Analysis (% Passing)					
	Moisture (%)	LL	PI	#4	#10	#40	#100	#200
В	24.1	NP	NP	86	83	81	80	69.6

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GEOTECHNICAL GENERAL NOTES

		Unif	ied Soil Classification System
Major	Divisions	Symbol	Soil Descriptions
Coarse- Grained	Gravel & Gravelly Soils < 50%	GW	Well-graded gravels; gravel/sand mixtures with little or no fines
Soils < 50%	coarse		
passes	Sand & Sandy	SW	Well-graded sands; gravelly sands with little or no fines
No.200	Soils > 50%		
sieve	coarse fraction		
Fine-		ML	Inorganic silts; sandy, gravelly or clayey silts
Grained Soils >	Silts & Clays LL < 50	CL	Lean clays; inorganic, gravelly, sandy, or silty, low to medium- plasticity clays
50%			
passes	Silts & Clays	MH	Inorganic, elastic silts; sandy, gravelly or clayey elastic silts
No.200 sieve	LL > 50		
Highly C	Drganic Soils	PT	Peat, humus, hydric soils with high organic content

Relative Density Classif	
Coarse-Grained Soils	SPT Blow Counts (N)
Very Loose:	< 4
Loose:	4-10
Medium Dense:	10-30
Dense:	30-50
Very Dense:	> 50
Fine-Grained Soils	SPT Blow Counts (N)
Very Soft:	< 2
Soft:	2-4
Medium Stiff:	4-8
Stiff:	8-15
Very Stiff:	15-30
Hard:	> 30

Particle	e Size
Boulders:	> 12 in.
Cobbles:	12 to 3 in.
Gravel:	3 in. to 5 mm
Coarse-Grained Sand:	5 to 0.6 mm
Medium-Grained Sand:	0.6 to 0.2 mm
Fine-Grained Sand:	0.2 to 0.075 mm
Silts:	0.075 to 0.005 mm
Clays:	< 0.005 mm

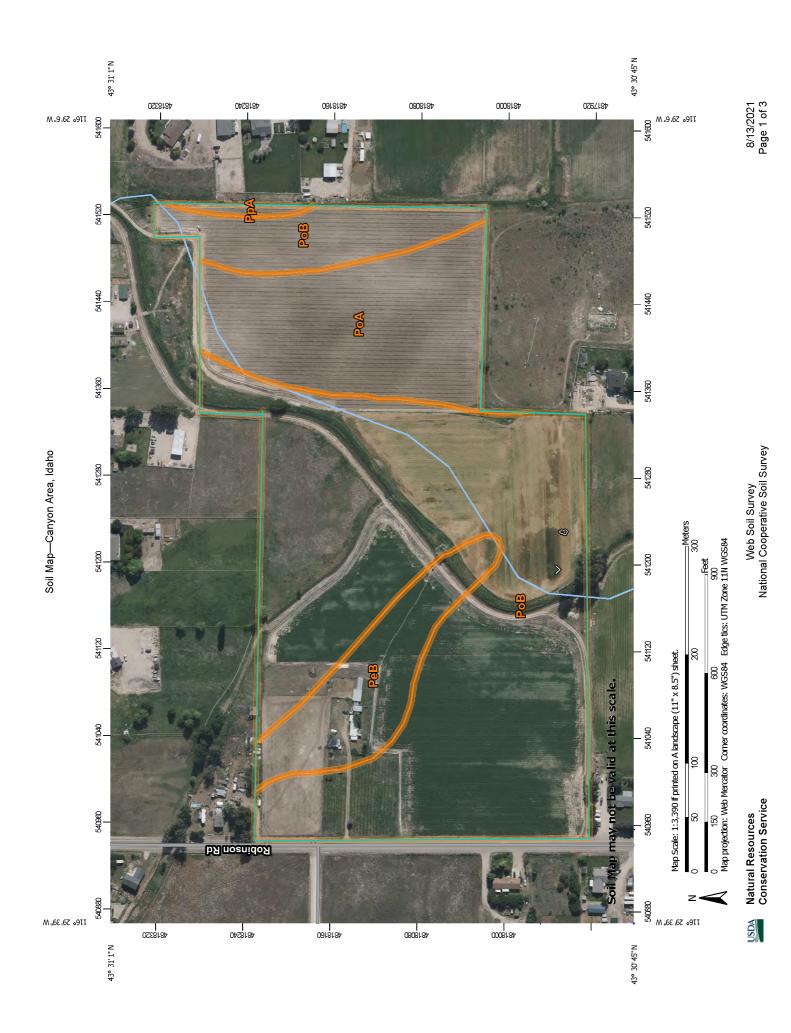
Moistu	re Content and Cementation Classification
Description	Field Test
Dry	Absence of moisture, dry to touch
Slightly Moist	Damp, but no visible moisture
Moist	Visible moisture
Wet	Visible free water
Saturated	Soil is usually below water table
Description	Field Test
Weak	Crumbles or breaks with handling or
	slight finger pressure
Moderate	Crumbles or breaks with
	considerable finger pressure
Strong	Will not crumble or break with finger
	pressure
	Acronym List

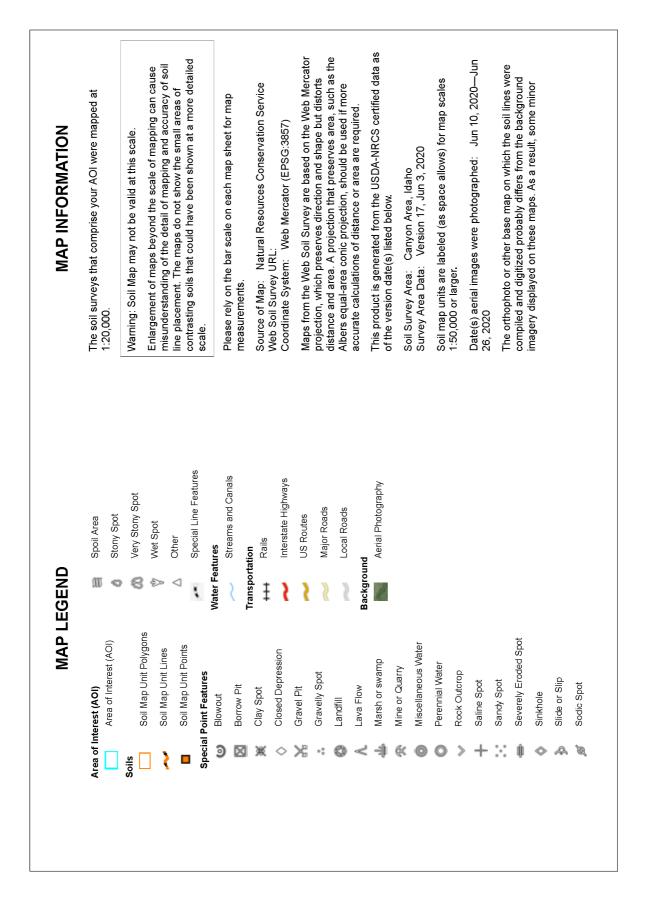
	ACTONYM LIST
GS	grab sample
LL	Liquid Limit
М	moisture content
NP	non-plastic
PI	Plasticity Index
Qp	penetrometer value, unconfined compressive strength, tsf
V	vane value, ultimate shearing strength, tsf

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Appendix IV SOIL SURVEY INFORMATION

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
РеВ	Potratz-Power silt loams, 1 to 3 percent slopes	4.2	10.0%
РоА	Power-Potratz silt loams, 0 to 1 percent slopes	7.9	18.7%
РоВ	Power-Potratz silt loams, 1 to 3 percent slopes	29.8	70.7%
РрА	Power-Purdam silt loams, 0 to 1 percent slopes	0.3	0.6%
Totals for Area of Interest		42.2	100.0%

Map Unit Legend



Natural Resources Conservation Service Web Soil Survey National Cooperative Soil Survey 8/13/2021 Page 3 of 3

Canyon Area, Idaho

PeB—Potratz-Power silt loams, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2q3d Elevation: 2,000 to 4,600 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 52 degrees F Frost-free period: 100 to 170 days Farmland classification: Prime farmland if irrigated

Map Unit Composition

Potratz and similar soils: 70 percent Power and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Potratz

Setting

Landform: Lava plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess over bedrock derived from basalt

Typical profile

A - 0 to 3 inches: silt loam Bw - 3 to 10 inches: silt loam Bk - 10 to 24 inches: loam R - 24 to 34 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent Depth to restrictive feature: 20 to 40 inches to lithic bedrock Drainage class: Well drained Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 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 supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

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

Description of Power

Setting

Landform: Lava plains Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium and/or loess

Typical profile

Ap - 0 to 9 inches: silt loam *Btk - 9 to 17 inches:* silt loam *Bk - 17 to 60 inches:* silt loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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 supply, 0 to 60 inches: High (about 10.6 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



Canyon Area, Idaho

PoA—Power-Potratz silt loams, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2q3m Elevation: 2,000 to 4,600 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 52 degrees F Frost-free period: 100 to 170 days Farmland classification: Prime farmland if irrigated

Map Unit Composition

Power and similar soils: 70 percent Potratz and similar soils: 20 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Power

Setting

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

Typical profile

Ap - 0 to 9 inches: silt loam Btk - 9 to 17 inches: silt loam Bk - 17 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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 supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No



Natural Resources Conservation Service

Description of Potratz

Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess over bedrock derived from basalt

Typical profile

A - 0 to 3 inches: silt loam Bw - 3 to 10 inches: silt loam Bk - 10 to 24 inches: loam R - 24 to 34 inches: bedrock

Properties and qualities

Slope: 0 to 1 percent Depth to restrictive feature: 20 to 40 inches to lithic bedrock Drainage class: Well drained Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 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 supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

Land capability classification (irrigated): 3s 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



Natural Resources Conservation Service

Canyon Area, Idaho

PoB—Power-Potratz silt loams, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 2q3n Elevation: 2,000 to 4,600 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 52 degrees F Frost-free period: 100 to 170 days Farmland classification: Prime farmland if irrigated

Map Unit Composition

Power and similar soils: 70 percent Potratz and similar soils: 20 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Power

Setting

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

Typical profile

Ap - 0 to 9 inches: silt loam Btk - 9 to 17 inches: silt loam Bk - 17 to 60 inches: silt loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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 supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

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

Description of Potratz

Setting

Landform: Terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Loess over bedrock derived from basalt

Typical profile

A - 0 to 3 inches: silt loam Bw - 3 to 10 inches: silt loam Bk - 10 to 24 inches: loam R - 24 to 34 inches: bedrock

Properties and qualities

Slope: 1 to 3 percent Depth to restrictive feature: 20 to 40 inches to lithic bedrock Drainage class: Well drained Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.57 to 2.00 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 supply, 0 to 60 inches: Low (about 4.7 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



Natural Resources Conservation Service

Canyon Area, Idaho

PpA—Power-Purdam silt loams, 0 to 1 percent slopes

Map Unit Setting

National map unit symbol: 2q3p Elevation: 2,000 to 5,000 feet Mean annual precipitation: 8 to 12 inches Mean annual air temperature: 45 to 52 degrees F Frost-free period: 100 to 170 days Farmland classification: Prime farmland if irrigated

Map Unit Composition

Power and similar soils: 65 percent Purdam and similar soils: 25 percent Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Power

Setting

Landform: Stream terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium and/or loess

Typical profile

Ap - 0 to 9 inches: silt loam Btk - 9 to 17 inches: silt loam Bk - 17 to 60 inches: silt loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high (0.20 to 0.60 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 supply, 0 to 60 inches: High (about 10.6 inches)

Interpretive groups

Land capability classification (irrigated): 2e Land capability classification (nonirrigated): 6c Hydrologic Soil Group: C Hydric soil rating: No

Description of Purdam

Setting

Landform: Stream terraces Down-slope shape: Linear Across-slope shape: Linear Parent material: Mixed alluvium and/or lacustrine deposits and/or loess

Typical profile

Ap - 0 to 10 inches: silt loam Btk - 10 to 13 inches: silty clay loam Bk - 13 to 24 inches: silt loam Bkqm - 24 to 38 inches: cemented material 2C - 38 to 60 inches: stratified very gravelly sand to loam

Properties and qualities

Slope: 0 to 1 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 supply, 0 to 60 inches: Low (about 4.7 inches)

Interpretive groups

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

Data Source Information

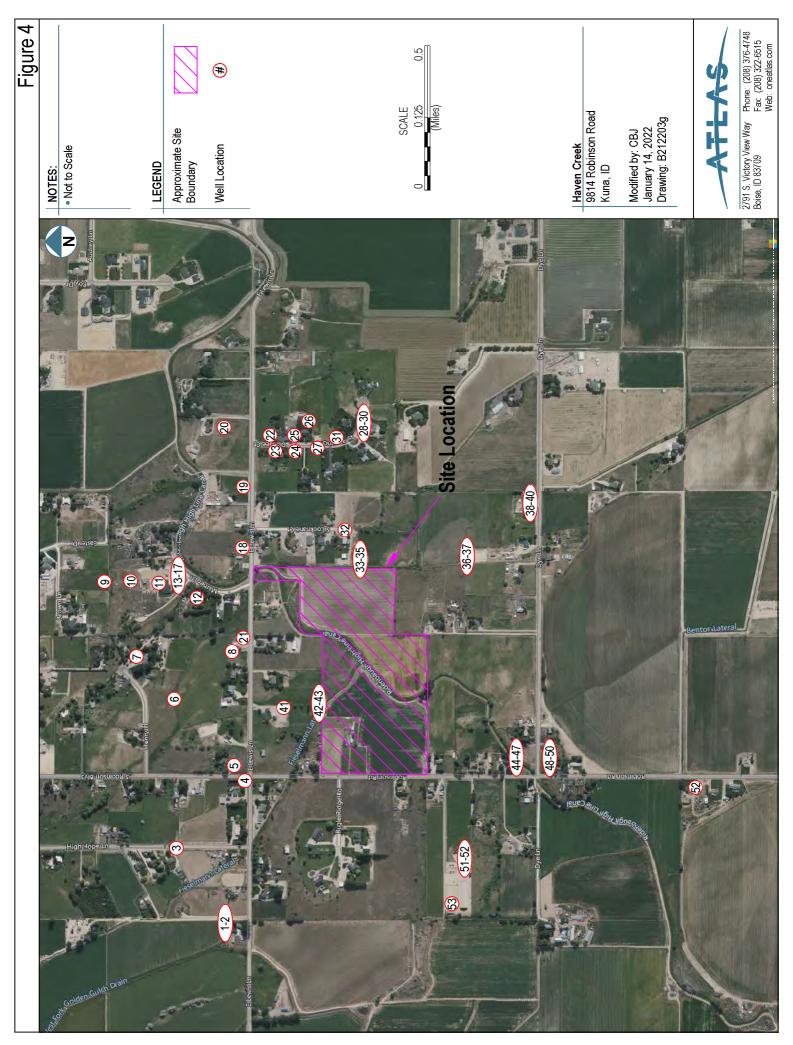
Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 17, Jun 3, 2020



Natural Resources Conservation Service

Appendix V SITE LOCATION WITH VICINITY WELLS MAP AND IDWR DRILLER'S WELL LOGS

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within 30 days after the comple	etion of	aband	lonmen	t of the well.	2 9 1989		
1. WELLOWNER Name <u>Robert L. Vaugha</u> Address <u>1552 Kligh Kope Jane</u> Owner's Permit No. <u>63-88-2-173</u>	7.	Static Flowi Artes Contr	ng? [ian clos olled b [.] erature	VEL Pepartment	ow <u>· .</u> i.] Plug	ource	
2. NATURE OF WORK	8.			DATA] Other		
materials, plug depths, etc. in lithologic log)		Discharg Ø	e G.P.M.	Pumping Level	Hours P	umped	
3. PROPOSED USE		LITH			525		-
□ Industrial □ Stock □ Waste Disposal or Injection □ Other (specify type)	Bore		pth	Material		Wa	1
4. METHOD DRILLED ➢ Rotary □ Air □ Hydraulic □ Reverse rotary		16	249	Top Soil Brown Clay Black Java Ro	٢K		1
Cable Dug Other		19	10	w/ CRACKS at E water			-
Casing schedule: Steel Concrete Other Thickness Diameter From To				JUN 3 0 19 Department of Water F Western Regional	Resources		
Number From To perforations feet feet perforations feet feet perforations feet feet				CULSIC	<u>.</u>		
Manufacturer's name							
Coverbore to seal depth Method of joining casing: Threaded Welded Solvent Weld Cemented between strata Describe access port	10.	Wor	k starte	ed <u>(4/8/88</u> finished	6/10/5	38	
6. LOCATION OF WELL Sketch map location <u>must</u> agree with written location. N Subdivision Name W Subdivision Name E Robinson Ranchetters Lot No. 6 Block No. 2 County <u>Canyon</u> NUL 1/1991		DRIL I/We of compli Firm N Addres	LERS C certify ed with <i>Cas</i> lame s	CERTIFICATION that all minimum well constru- at the time the rig was removed and Well Drilling RE F (una, JA 83034 Dri and Difficial) Earl She operator) Earl She	uction standar red. irm No. 30	14 26.19)

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USE ADDITIONAL SHEETS IF NECESSARY — FORWARD THE WHITE COPY TO THE DEPARTMENT This document was created by an application that isn't licensed to use <u>novaPDF</u>. Purchase a license to generate PDF files without this notice.

orm 238-7 5/82 DEPARTMENT OF WELL DRILLE State law requires that this report be filed with within 30 days after the completion within 30 days after the completion State law requires that this report be filed with	WATE ER'	R RE	EP , Depar	CES ORT	PEWRITHER F POINT PEN 920 988
1. WELLOWNER Name Robert Vaughn Address Bolziam + Sturin Jane Mampa, Vd. Owner's Permit No. 63-88-2-123	7.	Static Flowi Artes Contr	ng? an close olled by	Department of Wate evel 20 feet below land surf Yes 20 No Grin pressure p.s.l. ': Valve Cap Plug 51 OF. Quality 1790 artesian or temperature zones delow.	ace.
 2. NATURE OF WORK New well Deepened Replacement Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log) 		Discharg	. TEST mp e G.P.M. 5	🗆 Bailer 🕅 Air 🗆 Othe	r Hours Pumped
3. PROPOSED USE	Bore	De		C LOG Material	Water
4. METHOD DRILLED X Rotary □ Air □ Hydraulic □ Reverse rotary □ Cable □ Dug □ Other	9999	From 0 2 11 18	2/1/18	top soil Mown clay Mark lauro Rock	Yes N
Casing schedule: Steel Concrete Other Thickness Diameter From To Inches inches inches feet feet inches inches inches feet feet inches inches inches feet feet inches inches feet feet feet was casing drive shoe used? Yes Yo No Was a packer or seal used? Yes Yo No How perforated? Person To To Perforation inches by inches feet feet Number From To To feet feet perforations feet feet				Depe View View View View View View View Vie	
Surface seal depth 18 Material used in seal: Cement grout Bentonite Puddling clay Sealing procedure used: Slurry pit Temp. surface casing Overbore to seal depth Method of joining casing: Threaded Welded Solvent Weld Cemented between strata Describe access port Santary Well Seal	10.	Wor	k started	Department of Water Frase	
5. LOCATION OF WELL Sketch map location <u>must</u> agree with written location. N Subdivision Name W Subdivision Name Lot No Block No Sounty T A Subdivision Name Lot No Block No Subdivision Name	, 1 2	DRILI I/We c compli Tirm N Addres Signed	ERS Cl ertify the ed with ame Ca s by (Firm (Op	ERTIFICATION hat all minimum well construction at the time the rig was removed. HAL 1 Firm No. <u>RL 1</u> Date G Kuna, JA 83634 C Date G NOfficial) and perator) CA Skin	standards were <u>304</u> /9/88 811

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PY TO THE DEPARTMENT

STATE O DEPARTMENT OF USE TYPEWRITER OR BALLPOINT PEN State law requires that this report be filed wit within 30 days after the complete State law requires that this report be filed within the state of the state o	WATE ER'	R RE	REP	rtment of Water Resources A t of the well.		
1. WELLOWNER Name <u>Pote Ubernaga</u> Address <u>Route 6 Nampa, Ida</u> Owner's Permit No.	5	Static v Flowing Femper Artesia	g? □ ature_ n closed	Vel <u>30</u> feet below land su Yes 10-No G.P.M. flow PF. Quality 1-in pressure p.s.i.		
2. NATURE OF WORK		VELL	PEST D	DATA Bailer 🗆 Other	- 197 - 6)	
□ Abandoned (describe method of abandoning)		icharge 30	G.P.M.	Drawdown - 0 -	Hours Pum	ped
3. PROPOSED USE			a m		05861	
Municipal Industrial Stock Waste Disposal or Injection	9. Hole Diam.	D	epth	LOG	100001	Water Yes No
4. METHOD DRILLED	6	From 0 1 5	To / 5 30	Top soil pard pan plack Plava		2
5. WELL CONSTRUCTION	*	30 43 58	43		ara	111
Diameter of hole inches Total depth feet Casing schedule: B-Steel □ Concrete Concrete inches inches feet	4	85	92	Sandy Clay		
Was casing drive shoe used? Yes Var No Was a packer or seal used? Yes Yes Perforated? Yes Var 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 Prior				Department Regional Unice	es	
Manufacturer's name Type Model No DiameterSlot sizeSet fromfeet tofeet DiameterSlot sizeSet fromfeet tofeet Gravel packed? □ Yes □K Size of gravel						
Placed from feet to feet Surface seal depth 19 Material used in seal: Cement grout Puddling clay PWell cuttings Sealing procedure used: Slurry pit Temporary surface casing Proverbore to seal depth					****	
6. LOCATION OF WELL Sketch map location must agree with written location. 63	10.	Wor	k starte	d <u>2/20/78</u> finished	1 2/26/	78
w		DRILL Firm N Addres	ERS Cl ame 2 s 0 by (Fir	errification Schuston Drilling Prease, Idaho m Official) Chrun and Operator) Ralah	_ Firm No. 7	12

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

ther IDWR No amefact ddressG125	1	Cox E.	y er Zen	- State I	D ZIP 8368	$-\Box$	PL /ield gal./r		Bailer ¥A Drawdown 200	Pumping Level	3	K	
LOCATION O			15000	1.1.1.1			er Temp er Quali		comments:	Bottom Depth first Water Er			-
N N	Twp.	2		orth K	or South 🗆	Bore	From	To	C LOG: (Describ Remarks: Lithology,	e repairs or aband	donment)		
	Rge. Sec. Gov't L	4 .ot		st 🗆 1/4	or West & SE 1/4 SE 40 acres 1/4 SE 40 acres 160 acre	1 10	0216	A IR	Top Soil Bin Cant	LE CLAY			
s s	Constant		: Site_	2/	Alinga	5	18 104 108	109	Red Ch	Grave/	4	X	
(Give at least name of road				•									
LICE.					-				•				
Thermal	Munic Inject	ion	Moni Othe	r	Irrigation				RECE	EIVED	-		
Comestic Thermal TYPE OF WO V New Well	□ Inject RK che Modify OD	ion eck all th □ A	Othe at apply	r ment	Irrigation (Replacement Other	etc.)				EIVED 1 1996			
X Domestic Thermal TYPE OF WO Y New Well DRILL METHO YAir Rotary SEALING PRO SEALING PRO	 Inject RK che Modify OD Cable OCED 	ion eck all th D A D C URES	Othe at apply bandonr Mud Ro AMOU	nent otary	(Replacement	etc.)	R	EC	NOV 0				
X Domestic Thermal TYPE OF WO Y New Well DRILL METHO YAir Rotary SEALING PRO	Inject RK che Modify OD Cable OCEDI	ion eck all th D A D C URES	C Othe at apply bandonr Mud Ro	nent otary	(Replacement	etc.)		YOV	NOV 0 D D D I 1935				
X Domestic Thermal TYPE OF WO New Well DRILL METHO YAir Rotary SEALING PRO SEALING PRO Material Material Material Material Material Material Material Material Material Material	Inject RK che Modify OD Cable Cable OCEDI Fro Fro I? □ Y C tested?	ion ick all th A A URES m To IC N Sh	Othe at apply bandonr Mud Ro AMOU Sacks Pounc 2/C	nent otary	(Replacement	etc.)		YOV	NOV 0 D E I V E D D 1 1995 Water Resources				
X Domestic Thermal TYPE OF WO X New Well DRILL METHO YAir Rotary SEALING PRI SEALING PRI SEALING PRI SEALIFILTE Material Material Material CASING/LINE Diargeter From	Inject RK che Modify OD Cable Cable OCEDI Fro Fro I? □ Y C tested? ER: To IG I G	ion ack all th A A A A A A A A A A A A A	Othe at apply bandonr Mud Ro AMOU Sacks Pounc 2/C	nent blary NT or Js S Cesing Cesing	(Replacement Other Other METHOD Bur Liner Welded Th K	hreaded		YOV tment o MiC	NOV 0 D E I V E D B 1 1935 Water Resources F O ROFILMED	1 1996			
X Domestic Thermal TYPE OF WO X New Well DRILL METHO YAir Rotary SEALING PRI SEALING PRI SEALING PRI SEALIFILTE Material Material Material CASING/LINE Diargeter From	Inject RK che Modify OD Cable Cable OCEDI RPACK Fro I? □ Y □ tested? I? □ Y □	ion ick all th A A A A A A A A A A A A A	Othe at apply bandonr Mud Rc AMOU Sacks Pounc AMOU Sacks Pounc AMOU Sacks Length C	nent otary h(s) ?	(Replacement Other Other METHOD Bur Liner Welded Th Liner Welded Th	hreaded		YOV tment o MiC	NOV 0 D E I V E D D 1 1993 Water Resources F	1 1996 RECEIVED			
X Domestic Thermal TYPE OF WO X New Well DRILL METHO YAIR Rotary SEALING PRO SEALING PRO	Inject RK che Modify OD Cable Cable OCEDI Fro Fro I? UY tested? I? UY Casted? I? UY C	ion ick all th A A A A A A A A A A A A A	Othe at apply bandonr Mud Rc AMOU Sacks Pounc AMOU Sacks Pounc AMOU Sacks Length C	nent otary h(s) ?	(Replacement Other Other METHOD Bur Liner Welded Th E C De	hreaded	Depa	HOY tment & MIC DE	NOV 0 D E I V E D B 1 1935 Water Resources F O ROFILMED	1 1996 RECEIVED	\$ 	asurab	

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7 8/90 STATE O DEPARTMENT OF V WELL DRILLE State law requires that this report be filed with within 30 days after the completion	R'	R RE		ORT Itment of Water Resources	USE TYPEWRITE BALLPOINT P		5 R
1. WELL OWNER Name_ <u>SHERUIK</u> BUILDERS Address <u>1404</u> <u>MIDLAND</u> BUDD Drilling Permit No. <u>63-92-W-087</u> Water Right Permit No.	7.	Flowin Artesi Contro	water I ng? an close olled by erature	YEL evel <u>42</u> feet belov Yes No G.P.M ed-in pressure Y: Vaive Cap OF, Quality cribe artesian or temperature z	. flow p.s.i. □ Plug		
 2. NATURE OF WORK New well Deepened Replacement Well diameter increase Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log) 			. TEST	DATA		_	
3. PROPOSED USE							
Domestic Irrigation Test Municipal Industrial Stock Waste Disposal or Injection Other (specify type)	Bore	-	oth	C LOG Materia	079478	Wa	ter s No
4. METHOD DRILLED	8	04	4 16	TOPSOIL/HA SOLID LA LAWA WIC SOLID LA LAVA WIC	REVICES		XXX
5. WELL CONSTRUCTION Casing schedule: Steel Concrete Other Thickness Djameter Thickness Djameter From To From To From Vas casing drive shoe used? Yes No Was a packer or seal used? Yes No How perforated? Factory Knife Torch Gun Size of perforation Perforations Perforations Perforations From To Perforations feet feet feet feet feet feet feet fee			UN CONTRACTOR	1992			
perforationsfeetfeet Well screen installed? □ Yes				JUN 23 Department of Water Western Regiona	Resources		
Describe access port $UG 1 1 1992$ 6. LOCATION OF WELL AUG 1 1 1992 Sketch map location <u>must</u> agree with written location. N Subdivision Name W E HEARY HEIGHTS Lot No Block No County CANYON SW χ SW χ Sec. \Re , T. \Re \Re R W χ	10. 5. 0 11.	Wo DRIL I/We compl DAY	LERS certify led wit 415 M 415 M MPA, I by (Fi	ted 2-28-92 fini CERTIFICATION that all minimum well co h at the time the rig was re ELL & PUMP CO. N. PITT LANE IDAHO 83687 irm Official) Corol and Operator) Church	onstruction standau emoved. Firm No. <u>/0</u> Date <u>6-10-</u> M. Javie	rds w 1 92	vere

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STATE UF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

6

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.

	r	-				-
1. WELL OWNER	7.	WATE	RLEV	'EL		6-91
Name Shervik Builders		Static	water	evel		
Address Robinson & Lewis Lane 204 10th Ave. S. Nampa, Idaho	0.255	Flowin		Yes I No G.P.M. flow		
204 10th Ave. S. Nampa, Idano	0302	Artesia	an close	ed-in pressure p.s.i.		-
Drilling Permit No. <u>63-91-w-458</u>	1.00	Contro	led by	/: 🗆 Valve 🗆 Cap 🗔 Plug		
Water Right Permit No.	1.15	Tempe	rature	OF. Quality		
2. NATURE OF WORK	8,	WELL	TEST	DATA		
🖾 New well 🛛 Deepened 🔷 Replacement	-		np	Bailer Air Other		
Well diameter increase	-					
Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)		Discharge	G.P.M.	Pumping Level Hours	umped	(a
	-					-
3. PROPOSED USE						
3. PROPOSED USE			_	072251		
😡 Domestic 🛛 Irrigation 🗇 Test 🖾 Municipal	9.	LITH	DLOGI	C LOG		
Industrial Stock Waste Disposal or Injection	Bore	Der	oth	the second s	Tw	ater
Other (specify type)		From		Material		s No
	8	0	8	Top soil/hard pan		X
4. METHOD DRILLED		8	10	Loose lava rock; hard pa	n	X
🙀 Rotary 😡 Air 🗆 Hydraulic 🗆 Reverse rotary	-	10		Lava		XX
🗆 Cable 🛛 Dug 🗖 Other		20		Lava crevices Solid lava		X
	6	40		Lava crevices	x	
5. WELL CONSTRUCTION		42		Solid lava		x
Casing schedule: 😥 Steel 🛛 Concrete 🗅 Other	1	65		Lava crevices	X	-
Thickness Diameter From To	-	-86	- 88	Solid lava	+	x
$\underline{}$, 250 inches $\underline{}$ 6 inches + $\underline{}$ feet 31 feet	-		-		-	-
inches feet feet						
inches inches feet feet feet feet feet				DECENTEN	-	
Was casing drive shoe used?	1 11 16	-	-	15 Second Sill	+	-
Was a packer or seal used? I Yes IX No						
Perforated? 🛛 Yes 🖓 No				MAR 1 8 1992	-	1
How perforated? Factory Knife Torch Gun				Department of Water Resources		1.001
Size of perforation inches by inches Number From To				Department of water nesserous		12
Number From To perforations feet feet		-			-	1 1
perforations feet feet					+	-
perforations feet feet						
Well screen installed? Q Yes No			1.1			1.1
Manufacturer's name Model No,				DDA	-	
Diameter Slot size Set from feet to feet				-DISCENTER-		+
Diameter Slot size Set from feet to feet			-			-
Gravel packed? Yes K No Size of gravel				an Attenan U		1
Placed from feet to feet Surface seal depth 30 Material used in seal:	-			MAR 18 1992/1 MAR	X	-
E Bentonite Puddling clay				Department of Porter D	-	+
Sealing procedure used: 🖸 Sluery pit 🖾 Temp, surface casing			-	Department of Plater Resources Western Regional atil902		+
Overbore to seal depth						
Method of joining casing: Threaded & Welded Solvent			1		#	
Veld	1 Sault					1
Describe access port	10.			in the sound	0.1	
free 1		Wo	k start	ed 12/18/91 finished 12/18/	91	_
	1.52	1			-	-
6. LOCATION OF WELL	11.			CERTIFICATION		
Sketch map location must agree with written location.				that all minimum well construction stand	ards w	rere
Subdivision Name	5.00	100.00		h at the time the rig was removed.		5.
		FIRAN	(IS W	ELL & PUMP CO. Firm No. /	21	_
			410	N. PITT LANE	n.0	41
		Addre	SIMPA	, IDAHO 83687 Date /-//	1-1	1
Lot No Block No		Cineral		rm Official arounda	. H	1
S		Signed	DY (F)	II A	ere	2
CountyCanyon				and (his 1)	÷.,	
			(Operator) _ Putch Chi	2	-1
<u>SW % SW % Sec. 8 , T.2 N S R.1 W W </u>	4	-		hum	U.	2.1

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n 238-7 4/92 DEPARTMENT OF WELL DRILL State law requires that this report be filed wi within 30 days after the compl	WATE	R RE		ORT	Location Corre T02N R01W S By: mciscell	Sec. 8 NES	vsw	
WELL OWNER Name William Knipe Address 6603 Henry Pl. Nampa, ID Drilling Permit No. 63-92-W-0790-000 Water Right Permit No. 63-92-W-0790-000	S F A C	lowing Artesian Controlle	ater le ?	vel <u>45</u> Yes X d-in press U Valve	5 feet below la No G.F ure p.s.i e Cap D Quality esian or temperature zon	M. flow Plug		
 NATURE OF WORK New well Deepened Replacement Well diameter increase Modification Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.) 		VELL T] Pum Discharge 3 (р G.P.M.	Bailer	Air C Pumping Level	Cother	umpec	
PROPOSED USE Domestic I Irrigation Monitor Industrial Stock S Waste Disposal or Injection Other	Bore	ITHOL De	oth	LOG	Material	7055		
METHOD DRILLED Rotary	Diam. 8" "	From 0 6 28 105					Yes	N:
i. WELL CONSTRUCTION Casing schedule: Isteel Concrete Other Thickness Diameter From To								
perforationsfeet					SEP 2819			
DiameterSlot sizeSet fromfeet tofeet Get tofeet tofeet DiameterSlot sizeSet fromfeet tofeet Get gravel Placed fromfeet tofeet feet tofeet Surface seal depth-20 Material used in seal: Cement grout		A 173.0	5 5 10 19 49	224703	Western Regional	Office		
Bentonite Puddling clay Sealing procedure used: Slurry pit Soften Surface casing Overbore to seal depth Method of joining casing: Solvent Weld Cemented between strata Describe access port Top of Well	10.	EB) 9 1 9	94	192 finished	9/18,	92	
LOCATION OF WELL Sketch map location must agree with written location. $ \begin{array}{c} $		I/We ce complie Firm Na Address	ertify ti ed with ames_ <u>Na</u> by Dri	at the tin Adamso & Dri mpa, Iling Supe and erator)	nimum well constru- ne the rig was remo- on Pump Firm	oved. No. <u>457</u> <u>9/21</u> <i>G</i>cfa	'92 114	207

Form 238-7 4/92	1	l
	1	

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well. 1. WELL OWNER 7. WATER LEVEL Name ALLAN CABA Static water level 12 feet below land surface. Flowing?
Yes No G.P.M. flow Address 6600 E LEWIS LANE NAMP. Artesian closed-in pressure _ p.s.i. Drilling Permit No. 63-93-W-0699 Controlled by:
Valve Cap Plug Temperature ______ °F. Quality _____ Describe artesian or temperature zones below. Water Right Permit No. 2. NATURE OF WORK 8. WELL TEST DATA K New well D Pump D Bailer 🗆 Air Deepened Replacement Other_ Well diameter increase Modification Discharge G.P.M. **Pumping Level** Hours Pumped □ Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.) 3. PROPOSED USE 9. LITHOLOGIC LOG A Domestic 70528 Irrigation Monitor Industrial Stock Waste Disposal or Injection Bore Depth Water Other Material (specify type) Diam. From To Yes No 10 0 4 TOP SOIL HARD PAN × 4. METHOD DRILLED 4 34 SOLID LAUA 34 38 LAUACREVICES K 🛿 Air 🗆 Auger × Rotary Reverse rotary 38 59 SOCID LAUA 59 86 LAUA CREVICES R Cable Mud D Other 8 (backhoe, hydraulic, etc.) x 86 88 SOLIDLAVA X 5. WELL CONSTRUCTION Casing schedule: A Steel D Concrete D Other_ Biameter From Thickness 53 feet 250 inches 2_feet_ inches inches inches _ feet ____ feet inches inches feet feet K No Was casing drive shoe used? & NO Perforated?
Ves KNo
How perforated?
Factory
Knife
Torch
Gun Size of perforation? _____ inches by _____ inches From Number RECEIVED _ perforations __ ____ feet _ feet ___perforations ______ feet _____ feet AUG 2 3 1993 perforations ____ _feet __ feet Well screen installed?
Ves LNo Department of Water Resources Manufacturer ____ _ Type _ Top Packer or Headpipe Bottom of Tailpipe _ Diameter _____ Slot size _____ Set from _____ feet to _____ feet Diameter _____ Slot size _____ Set from _____ feet to _____ feet Gravel packed?
Yes X No Size of gravel ____ Placed from _____ feet to ____ feet AUG 1 9 1993 Surface seal depth $\frac{20}{2}$ Material used in seal: \Box Coment grout Western Regional Office Sealing procedure used: Slurry pit Sealing procedure used: Slurry pit Temp. surface casing Deverbore to seal depth Threaded Develoed EBDg C Solvent Weld Cemented between strata 10. Work started 7-14-93 finished 7-14-93 Describe access port. 6. LOCATION OF WELL 11. DRILLER'S CERTIFICATION Sketch map location must agree with written location. I/We certify that all minimum well construction standards were DAVIS WELL at the time the rig was removed. Subdivision Name HENRY HEI BHTS Lot No. 4+3 Block No. 1 ____ Firm No. 10 / FirmANSTAN PITT LANE NAMPA, IDAHO 83687 ____ Date 8-17-93 Address ____ County CANYON Signed by Drilling Supervisor Church Uan SAME Address of Well Site

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NASors D

EDOW

and

(Operator)

(If different than the Drilling Supervisor)

(give at least name of road)

T. 0

SW 1/4 SW 1/4 Sec. 8

Form 238-7 6/07

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Flowing Artesian?	1. WELL TAG NO. D 0087651	12 S					re.		
Water quilty repercent weight or input on weight or input on the level of (*) 511 Construction of (*) 513 Name, HECTOR MIGUEL CAMACHO MARQUEZ Address 606 WINTER PL Test method: Test method: Put of a database port WELL CAP Name, HECTOR MIGUEL CAMACHO MARQUEZ Suble ID 2 is 05866 Suble ID 2 is 05866 Net: QL2: NMPA State ID 2 is 05866 Suble ID 2 is 05866 SUELL LOCATION: Year Year Year Year Year Sec: 0. County CANYON Year Year Year Year Address of Vield Size 6811 BROWN LN Cog VIAMPA Year Year Year Year So TYPE OF WORK: Size 71 State (*) (*) (*) (*) (*) (*) (*) (*) (*) (*)	Drilling Permit No 896644	Denth	first wat			30 c.	ið:	30	
2. OWNER: Describe access prof. WELL CAP Address GGE WINTER PL Cry NAMPA State ID Zig 83686 JWELL CATION: Zig 83686 Well Cation: Text method: Well Cation: Text method: Well Cation: Text method: Weil Cation: Text method: String 16: String 16: Cation: Cation: Weil Cation: Text method: Weil Cation: Cation: String 16: Montered Domesto: Manage: String 16: Montered String 16: Manage: String 16: Manage: String 16: Manage: String 16: Manage:		Water	temn ()	_{=\} 61	untered (II)	Ot	and water level (π)		
Name Lot ON NUMPER PL datases dG WINTER PL compared to a status for the	2. OWNER:	Descri			WELL C		e temp ("F) <u></u>		
Address G0G WINTER PL	Name HECTOR MIGUEL CAMACHO MARQUEZ			s por					-
City/MMPA State D z/g 83868 SWELL LOCATION: Twp D2 North 20 or South Rgs 01 East or West 6 So 10000 Image: 1000 South 10000 Image: 10000South	Address 606 WINTER PL			D	scharge or			A.,.	Flowing
3.WELL LOCATION: Two 02	City NAMPA State ID Zip 83686			y	ield (gpm)	(minutes)	-		artes an
Two 2 Nork 2		00		00					
Bank Convertige Convertige Convertige Non- Non		Water	quality to	est or c	omments:				-
Bank Convertige Convertige Convertige Non- Non	soo 8						donment:	-	_
Gov/Low Courty CANYON Imit With Proceeding and been an investor Laid 4.31.2798N (Deg and been an investor XX Address of Weit Site 521.180C/WN Lin XX Address of Weit Site 521.180C/WN Lin XX Tot	$\frac{110 \text{ acres}}{10 \text{ acres}} \frac{174}{40 \text{ acres}} \frac{174}{10 \text{ acres}} \frac{174}{160 \text{ acres}} \frac{174}{160 \text{ acres}} \frac{174}{160 \text{ acres}}$	Bore						v	Vater
Address of Well Side 06 11 BROWNELN 01/2 21/2 BLACK BASALT X Interviewerward mater indexcented particular distributions of the second se	Gov't Lot County CANYON		(ft)	(ft)	1.2	abandonment, w	ater temp.		
Address of Well Side 06 11 BROWNELN 01/2 21/2 BLACK BASALT X Interviewerward mater indexcented particular distributions of the second se	Lat 43 031.2798N (Dec and Decimal minutes)			2	TOP SC	DIL			X
Address of Well Side 06 11 BROWNELN 01/2 21/2 BLACK BASALT X Interviewerward mater indexcented particular distributions of the second se	Long 116 29.2134W (Des and Decimal minutes)	-							X
city NAMPA 10 22 BCKE N BASALT X tot	Address of Well Site 6811 BROWN LN		and the second second						-
Lot		-	-						X
Dur	City = at least name of road + Distance to Road or Landrian)			-			ROWN	X	
Note: Note: <th< td=""><td>Lot Bik Sub Name</td><td>-</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td>X</td></th<>	Lot Bik Sub Name	-	-						X
Differ								- ^	V
S. TYPE OF WORK; B New writ: Integrated and the second of the	Domestic L Municipal L Monitor L Irrigation D Thermal D Injection							X	$+^{-}$
Bit New Well Implemented method Implemented method 6. DRILL METHOD: Started Method Implemented method 30 Arr Abdary Mark Rotary Cable Other 5. SEALING PROCEDURES: Implemented method Implemented method 8. CASINGLINER: Implemented method Implemented method 100 method Schwald Markall Casing Liner Threaded Winded 6" +1.5 40 .250 STEEL Implemented method 100 method Schwald Markall Casing Liner Threaded Winded Implemented method 6" +1.5 40 .250 STEEL Implemented method Implemented method 100 method Implemented method Implemented method Implemented method Implemented method Implemented method 9. PERFORATIONS/SCREENS: PERFORATIONS/SCREENS: Implemented method Implemented method Implemented method 9. Organization Implemented method Implemented method Implemented method Implemented method 101 method of installation Stet Line Implemented method Implemented method Implemented method		1	2		P.I.O.I.L			+	-
Advandamment Other		1						1	-
Bar Rotary Mud Rotary Cable Other	Abandonment Other	1.1							
7. SEALING PROCEDURES: Statistications Statistications From (h) 100 LBS POWNITE 2/8 0 8. CASINGLINER: Statistications Material Casing Material 6* 1.15 40 2.50 9. PERFORATIONS/SCREEMS: Perforations Y 9. PRECORATIONS/SCREEMS: Perforations Y 9. Visconstructured screen Material Completed Depth, (Measurable) Material Gauge or Screed.ele Material 40 69 1.5 11. FLOWING ARTESIAN: From (h) To (h) From (h) To (h) Control 11. FLOWING ARTESIAN: From (h) To (h) 11. FLOWING ARTESIAN: From (h) To (h) Flow (hor actisian Pressure (PSIG) Procent or Pressure (PSIG)					1				
Betronkline File	X Air Rotary D Mud Rotary Cable D Other	1						1	
BENONITE 3/8 0 38 1100 LBS POURED B CASINGLINER: RECEIVED Dimment for (nft) Catage: Material Casing Liner FEB 10 2021 Comment for (nft) Catage: Waterial Casing Liner Winter Comment for (nft) State of the st	7. SEALING PROCEDURES:	1							
S. CASING/LINER: 1 and the from (ft) To (ft) Schwaden Material Casing Liner Threaded Wellowd 6 th +1.5 40 -250 STEEL Image: Schwaden FEB 10 2021 1 1 1 1 Image: Schwaden Image: Schwaden <td< td=""><td>Seal material From (ft) To (ft) Quantity (los or ft²) Placement method/procedure</td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	Seal material From (ft) To (ft) Quantity (los or ft ²) Placement method/procedure	-							
Dameted From (th) To (th) Gauger Gauger States Material Casing Liner Threaded Weided 6" +1.5 40 .250 STEEL Image: Completed Depth (Masurable) Image: Completed Depth (Measurable)	BENGAILE OR O 30 TIOUEBS FOURED		-		-				-
Dameted From (th) To (th) Gauger Gauger States Material Casing Liner Threaded Weided 6" +1.5 40 .250 STEEL Image: Completed Depth (Masurable) Image: Completed Depth (Measurable)		-			-	RECE	IVED	-	-
Incommand Indexed Material Casing Liner Threaded Velided 6" +1.5 40 .250 STEEL Image: Standard Casing Liner Image:				-	-		IVLD	-	-
Was drive shoe used? Y N Shoe Depth(s)	(nominal) From (ft) I o (ft) Schedule Material Casing Liner Threaded Welded					FFR 1	0 2021	-	-
Was drive shoe used? Y N Shoe Depth(s) 9. PERFORATIONS/SCREENS: Perforations Y N Manufactured screen Y N Manufactured screen Y N Method of installation From (ft) To (ft) Silot size Number/it Material Gauge or Schedule 40 69 020 4.5" PVC SDR17 Completed Depth (Measurable) 60 Completed Depth (Measurable) 60' Completed Depth (Measurable) 60' Date 11. FLOWING ARTESIAN: Flowing Artesian? Proving Artesian? Compartor I Date Compartor I Date Diller Date Date Operator I Date Distance (PSIG)	6" +1.5 40 .250 STEEL 🖾 🗋 🖾			-	-			-	-
Was drive shoe used? Y N Shoe Depth(s) 9. PERFORATIONS/SCREENS: Perforations Y N Manufactured screen Y N Manufactured screen Y N Method of installation From (ft) To (ft) Silot size Number/it Material Gauge or Schedule 40 69 020 4.5" PVC SDR17 Completed Depth (Measurable) 60 Completed Depth (Measurable) 60' Completed Depth (Measurable) 60' Date 11. FLOWING ARTESIAN: Flowing Artesian? Proving Artesian? Compartor I Date Compartor I Date Diller Date Date Operator I Date Distance (PSIG)				C		WATER RES	OURCES		
Was drive shoe used? Y N N Shoe Depth(s) 9. PERFORATIONS/SCREENS: Perforations Y N Manufactured screen M Manufacture						VESTERN	REGION		
Was drive shoe used? Y N Shoe Depth(s) 9. PERFORATIONS/SCREENS:		1							
9. PERFORATIONS/SCREENS: Perforations _ Y _ N Method Manufactured screen _ N Y _ D N Type CERTA LOK Manufactured screen _ N Y _ D N Type CERTA LOK Method of installation From (ft) To (h) Stot size Number/ti _ Commail _ Material _ Gauge or Schedule 40 69 020 4.5" PVC _ SDR17 Length of Headpipe Length of Tailpipe _		-	-					122	
Perforations Y X N Method Manufactured screen Y N Type Certain SET IN Set IN From (ft) To (ft) Sit size Number/ft Dametor 40 69 020 4.5" PVC SDR17 40 69 020 4.5" PVC SDR17 Length of Headpipe Length of Tailpipe								1	-
Manufactured screen Y N Type CERTA LOK Method of installation SET IN SET IN From (ft) To (ft) Slot size Number/ft Dameter 40 69 020 4.5" PVC SDR17 Length of Headpipe Length of Tailpipe		-		-	-			-	-
Method of installation SET IN From (ft) To (h) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule 40 69 .020 4.5" PVC SDR17 Length of Headpipe		-		-	1				-
From (ft) To (ft) Stot size Number/ft Diameter (nominal) Material Gauge or Schedule 40 69 .020 4.5" PVC SDR17 Date Completed 11/7/2020 Length of Headpipe Length of Tailpipe Date Completed 11/7/2020 Packer Y X N Type Company Name PEARSON WELL DRILLING Co No 771 Packer Y X N To (ft) Quantity (bs or ft) Placement method			- 11		1			1	-
Individual Status Number in (nominal) Material Gauge or Schedule 40 69 .020 4.5" PVC SDR17 Length of Headpipe Length of Tailpipe	Method of installation		_	-					1
40 03 020 4.5 PVC SDR17 Date Started: 11/4/2020 Date Completed: 11/7/2020 Length of Headpipe Length of Tailpipe Length of Tailpipe Length of Tailpipe Packer Y X N Type Company Name PEARSON WELL DRILLING Co No 771 10.FILTER PACK: Fitter Material From (ft) To (ft) Quantity (lbs or ft') Placement method SILICA SAND 38 69 5 YRDS TAGGED IN Operator Date Date 11. FLOWING ARTESIAN: Flowing Artesian? Y X N Artesian Pressure (PSIG) Operator I Date Date		Consta						-	
Date Started: 11/4/2020 Date Completed: 11/7/2020 Length of Headpipe Length of Tailpipe Packer [] Y [X] N Type Co No 771 10.FILTER PACK: Date Started: 11/9/2020 Principal Driller Date 11/9/2020 SILICA SAND 38 69 5 YRDS 8/16 Date Date 11. FLOWING ARTESIAN: Date Date Flowing Artesian? [] Y [X] N Artesian Pressure (PSIG) Principal Driller and rig operator are required							11/7/2020		
Image: Image							pleted. 11/7/2020)	
Length of Headpipe Length of Tailpipe Image: Constant State		14. DR	ILLER'S	CER	TIFICATIO	N:			
Price material From (ff) To (ff) Quantity (lbs or ff') Placement method SILICA SAND 38 69 5 YRDS TAGGED IN SILICA SAND 38 69 5 YRDS TAGGED IN 11. FLOWING ARTESIAN: Date Date Date Flowing Artesian? Y X N Artesian Pressure (PSIG) Date		the time	tiny that the ria	aii min was rer	imum well o noved	construction stan	idards were compl	red with	at
Independence Principal Driller Date 11/9/2020 Filter Matenai From (ft) To (ft) Quantity (lbs or ft') Placement method SILICA SAND 38 69 5 YRDS TAGGED IN Date Date 8/16 0 0 0 Date 0 11. FLOWING ARTESIAN: 0 0 0 Date 0 Flowing Artesian? Y N Artesian Pressure (PSIG) Signature of Principal Driller and rig operator are required			~					71	
Filter Material From (ft) To (ft) Quantity (lbs or ft') Placement method SILICA SAND 38 69 5 YRDS TAGGED IN 'Driller Date 8/16 0 0 0 Date Date 11. FLOWING ARTESIAN: 0 0 0 Date Flowing Artesian? Y N Artesian Pressure (PSIG) 'Signature of Principal Driller and rig operator are required	4 March 1997	Compa	ny Name						
Printer Madellal Profit (h) To (h) Quantity (lbs or fr) Placement method SILICA SAND 38 69 5 YRDS TAGGED IN 'Driller Date 8/16 0 0 0 0 Date 0 11. FLOWING ARTESIAN: 0 0 0 Date 0 Flowing Artesian? Y N Artesian Pressure (PSIG) 'Signature of Principal Driller and rig operator are required		*Princip	al Driller	CH	87	1	Date 11/9	/2020	
SILICA SAND 38 69 5 YRDS TAGGED IN 8/16 Operator Operator Operator 11. FLOWING ARTESIAN: Operator Date Flowing Artesian? Y X N Artesian Pressure (PSIG) 'Signature of Principal Driller and rig operator are required					1 . Carlo				
11. FLOWING ARTESIAN: Operator I Date Flowing Artesian? Y N Artesian Pressure (PSIG) * Signature of Principal Driller and rig operator are required	SILICA SAND 38 69 5 YRDS TAGGED IN	Driller	•		40	10	Date		-
Flowing Artesian? Y X N Artesian Pressure (PSIG) 'Signature of Principal Driller and rig operator are required	8/16	*Operat	or	Ler	AR	andr	Date		_
Flowing Artesian? Y X N Artesian Pressure (PSIG) 'Signature of Principal Driller and rig operator are required	11. FLOWING ARTESIAN:	Operato	or I				Date		
Signature of Philippal Unifier and rid operator are required	Flowing Artesian? 🔲 Y 🛛 🛛 Artesian Pressure (PSIG)	·							-
	Describe control device	Signa	ure of F	rincip	ai Uriller ar	na rig operator	are required		

Form 238-7 6/07

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IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL	TAG N	o n D	00834	112						40.07					
Drilling F	Permit N	0	-19	25	70				_					nd WELL TE	
										Depth	TIRSE Water	Col	unterea (π) d	Bottom h	Static
2. OWNE										vvater	temp. (°F)		6" Turtle	Bottom h	ole te
Name Ja								-	-			port	o rurue	Cap	-
Address										Well to		D	scharge or	Test duration	
City Na	mpa				State Ida	ho .	8368	6			down (feet)	y y	ield (gpm)	(minutes)	
			-		State 100	<u></u>	Zip	0		50'		100	GPM	1 HR.	
3.WELL	LOCAT	ION:										-	_		
Twp. 2 Sec. 8	Nor	th 🗵 🛛	or Sou	ıth 🗖	Rge.	E	ast 🔲 🛛	or V	Vest 🔀				omments:		
Sec. 8				_1/4	SE1	⊿ <u>SW</u>	1/4			13. LIT Bore		_	1	epairs or ab	
						100 80	185			Dia.	From (ft)	To (ft)	Remar	ks, lithology or d abandonment	
Gov't Lot			ounty C							(in) 10"	0	2	Top So		
Lat. 43 Long. 11	0	-03	0.241	IN N		(De	g. and Decin	nal mir	iutes)		2	6	Hard Pa		
Long. 11	6	02	9.204	VV	_	(Deg	g. and Decim	nal mir	nutes)		6	11	Broken		
Address of	of Well S	site Sar	ne								11	39	Black L	ava	
(Give at least na					City Nan	пра					39	42	Red La	va	
Lot. 6	+ DIL	Uistance to t	Coad or Land	mark)	Mamer	Sub. (I	Par. #R	242	10)		42	96	Black L	ava	
		*	_ Sub.	Name		(.				6"	96		Sand &	Gravel	
4. USE: Dome:	etic 🗖	Municin		Monitor		tion [Thormol	п	Iniontian						
Other				MOTILO			merma	ы	njection						
5. TYPE															
X New w	veli 🗖	Replace	ement w	ell 🕻	Modify e	xisting w	elt								
Aband	onment	D Ot	her									_			
6. DRILL	METH	OD:													
🗙 Air Ro	itary 🛛	Mud F	Rotary	🗖 Ca	able 🔲	Other						_			
7. SEALI													-		-
					ntity (Ibs or f				cedure						
3/8" Be	entonite	e 0	50	1 1	050 lbs.	10" (Overbor	e							
		-				_						-			
8. CASIN	IG/LINE	R:	~												
Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule		Material	Casing	Liner Thre	bebae	Welded						_
6"	4	57	.250	Stee	el				×	-					_
		-		1											_
				-											
				-											
										-		_			
Was drive	shoe u	sed?	YX	N Sho	e Depth(s	N/A									
9. PERFO	ORATIC	NS/SC	REENS	S:											
Perforatio													1		
Manufactu					Certa-I	ock P	/C. Scre	ene							
Manufact	urea scre	een 🗵 Dr/	n Ur	чтуре		U UNI I		Joine							
Method of	finstalla	tion Dr	эр ш												
From (ft)	To (ft)	Slot size	Number		neter M	aterial	Gauge	or Scl	hedule	Comple	eted Depth	(Moor	urahla).	96'	
36	96	.020	60'		5" PV0	2	SDR1	7							
				-				-			tarted: De	_		Date C	omple
				_			-	-					TIFICATIO		
		NI/A	-	_							eruny that ie the rig v			construction s	standa
Length of					ength of 1	ailpipe	W/A	-			-			no Vall Dr	illing
Packer 🕻	Y 🛛	N Туре								Compa	any Name	Den	NA	ps Well Dr	ming
10.FILTE	R PAC	K:								*Princi	paí Driller		Y Holy	11	_
Filter I	Material	From	n (ft)	To (ft)	Quantity (bs or ft ³)	Placem	ient me	ethod			7		1	
N	I/A									*Driller			-	· ·	
										*Open	ITOT II		L		
44 51 61		DTEO:			L									Tr	
11. FLOV	VING A	RIESIA	AN:							Operat		22	21		

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

DFC 27 2019					
	-		A 7	00	110
	– –	сс.	- 7 1	/ /]	пч

ULU	L 1	2010	
WATER	RES	OURCE	s

RECEIVED

50' Vater	est: down (feet) quality te	Dra yi 100 est or co	S" Turtle Cap Test method: scharge or Idd (gpm) (minutes) GPM 1 HR. GPM 1 HR. Domments:		owing tesian
Jore Dia.	From	То	G and/or repairs or abandonment: Remarks, lithology or description of repairs or	Wa	ter
(in) 10''	(ft) 0	(ft) 2	abandonment, water temp.	Y	N X
10	2	6	Hard Pan	-	Ŷ
	6	11	Broken Lava		X
	11	39	Black Lava		X
	39	42	Red Lava		X
6"	42	96	Black Lava Sand & Gravel	X	
omple	eted Dept	h (Meas	urable): 96'		
	tarted: De			19	
4. DF We c he tim	RILLER' ertify that le the rig	S CER t all min was rer	TIFICATION: imum well construction standards were compli	ed with a	at
Princi	paí Drílie	r]	And Date Dec	13, 20	19

Operator II	Date Dec 13, 2019
Operator I	Date Dec 13, 2019
1900	

/_____ Date ____

* Signature of Principal Driller and rig operator are required.

Form 238-7 6/07

63 IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELI		10. D D	00834	11					-	12. S	ΤΑΤΙ
Drilling	Permit N	lo	892	569	1				-	Depth	
										Water	
2. OWN	ER:								_	Descr	
Name	Allen P	erkins								Well t	
Addres	_s 5307	Mame	er Ln.								down
City Na	ampa			Stat	_e Idah	0 z	_{ip} 83	686		80'	
3.WELL											
тир. 2_	Noi	th 🗵	or Sout	h 🗖 F	Rge. 1	Ea	ast 🗖	or W	/est 🗙	Water	
Sec. 8			10 00000	1/4 SE	1/4	SW	1/4	ł		13. LIT Bore	T
										Dia. (in)	Fn (f
Govi Lo	۲ <u></u>	0	ounty <u></u>	N	-		-	5		10"	(
Lat. 10	16		9 209'	N		(Deg	and D	ecimal mir	iutes)		1
Long.	-(14/-)) (Sal	me	anyon N V		(Deg	and D	ecimal mIn	utes)		6
Address	or wells			City	Nam	а				ur.	1
(Give at least i	same of road	· Distance to	Road or Landm	City Mar							4
Lot 0	BI	¢	_ Sub. N	ame Mar	mer 5	ub.				6"	8
4. USE:						_	-			-	8
Other		Municip	al L, M	onitor	Imgati	on 🔟	Inern	nal 📋	Injection		9
5. TYPE		DRK:									10
X New v	vell 🕻	Replac	ement we	II 🗆 Ma	odify exi	sting we	eli				_
Aban	donment	Ot Ot	her								-
6. DRIL			Rotarv	Cable	По	ther					-
7. SEAL											
Seal	material	From	(ft) To (ft)	Quantity (Place	mentm	ethod/prod	cedure		
3/8" B	entonit	e 0	50	1100	lbs.	10" C)verb	ore			
											-
8. CASI	NG/LIN	ER:	George 1			1					
Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Mater	rial	Casing	Liner	Threaded	Welded		+
6"	2	57	.250	Steel					X		\square
4.5"	40	60	SD17	PVC			X	\mathbf{X}			
											_
Was driv	e shoe i	used?		Shoe De	enth(s)	57					-
			REENS		span(0)		_				1
			Method								
Monufao				_{Туре} Се	rta-Lo	ck P\	/C S	creens		-	
Method			op in	rype	_						
		r	-	Diameter	r	-	T		_		_
From (ft)	To (ft)	Stot size		(nominal)		terial	-	uge or Sci	nedule	Compl	eted
60	100	.020	40'	4.5"	PVC		SD	R17		Date S	Starte
										14. D	RILL
										I/We of the tin	
Length o	f Headpi	pe 20'		Leng	th of Ta	ilpipe N	I/A			ule ul	ne un
Packer		oran i	9							Comp	any I
10.FILT									1	*Princ	ipal (
	r Material	Fro	m (ft) T	o (ft) Qu	antity (Ibs	or ft ³)	Pla	cement me	əthod	*Drille	r
	N/A										
							_	_]	*Open	
11. FLO										Opera	
				teslan Pre	ssure (ł	-SIG) _				* Sign	atur
Describe	control	device _	with22552002376	020007123		_	_	_			

RECEINED

DEC 1 3 2019

WATER RESOURCES

	down (feet)	Dis	Scharge or Test duration Pump Bailer A	- FI	owing
_	uown (ieer	1 yi	aid (gpm) (minutes)	ar	teslan
80'		55 G			
			omments:		
Bore	From	To	G and/or repairs or abandonment: Remarks, lithology or description of repairs or	Wa	ter
Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N
10"	0	2	Top Soil		X
10	2	6	Hard Pan		X
_	6	14	Coarse Sand & Gravel		x
	14	42	Black Lava Rock		$\hat{\mathbf{x}}$
ursz	42	42	Red Lava Rock	x	^_
	45	84	Black Lava Rock	Ŷ	
6"	84	87	Clay	^	x
0	87	92	Black Lava Rock	x	
_	92	100	Red Cinders	X	
-	100		Sand & Gravel	Х	
_					
		_			
					_
		_			
_		_			-
				_	
_		_			
	·/				_
Comple	eted Dept	h (Meas			
Date S	tarted: D	ec 10,	2019 Date Completed: Dec 11, 201	9	
			TEICATION.		
IA.DH	viller' ertifv tha	ວ CER tallmin	TIFICATION: imum well construction standards were complied	d with ≤	at
the tim	e the rig	was rer	moved.		••
_		Den	nis Phipps/Well Drilling In _{Co.No.} 332	,	
Compa	any Nam	e			
Princi	pal Drille	r)	And h Date Dec 1	2, 201	19

company warne	0 (10 WO.
*Principal Driller	Date Dec 12, 2019
*Driller	Date
*Operator II	Date Dec 12, 2019
Operator I Wash	Date Dec 12, 2019

Signature of Principal Driller and rig operator are required.

Form 238-7 1/78

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

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

7. WATER LEVEL 1. WELL OWNER Static water level <u>38</u> feet below land surface. Flowing? □ Yes □ No G.P.M. flow _____ Name Artesian closed-in pressure ____ p.s.i. ddress Controlled by: D Valve D Cap D Plug Temperature ____OF. Quality _ **Owner's Permit No** 2. NATURE OF WORK 8. WELL TEST DATA New well Deepened D Pump Bailer Air DOther C Replacement Abandoned (describe method of abandoning) Discharge G.P.M. Pumping Level Hours Pumped 3. PROPOSED USE 106439Domestic D Irrigation D Test D Municipal 9. LITHOLOGIC LOG □ Industrial □ Stock □ Waste Disposal or Injection Depth Hole Water C Other (specify type) Material Diam. From To Yes No proil + hard pan X 0 10 4. METHOD DRILLED olia lava 10 50 50 55 x deva crave Air 🛛 Hydraulic Rotary Reverse rotary 55 X Cable D Dug Other 71 80 × crewe de 80 88 Solid Lava 5. WELL CONSTRUCTION 88 90 Yeva cruce Casing schedule: K-Steel
Concrete
Other 350 inches Diameter From To inches + 1/2 feet 38//2feet inches inches feet feet inches inches feet feet inches ____ inches feet feet D No Was casing drive shoe used? K Yes □ Yes X No Was a packer or seal used?
Q Yes ANO Perforated? How perforated?
Factory
Knife
Torch Size of perforation _____ inches by _____ inches From To Number feet ____ perforations feet ____ perforations ______ feet ____ feet feet perforations feet K No Manufacturer's name_____ Model No. Type
 Diameter
 Slot size
 Set from
 feet to
 feet

 Diameter
 Slot size
 Set from
 feet to
 feet
 1 5 Gravel packed?
Yes KNo Size of gravel Placed from feet to feet Surface seal depth Are Material used in seal: Cement grout 1000 MAY AUG 14 1980 Sealing procedure used:
Slurry pit D Temp. surface casing Method of joining casing: Department of their Resources Department of Water Recources Western Regional Office Weld Cemented between strata welded plate 10. Describe access port _ Work started 10/17/79 finished 10/19/29 6. LOCATION OF WELL 11. DRILLERS CERTIFICATION Sketch map location must agree with written location. I/We certify that all minimum well construction standards were N complied with at the time the rig was removed. Subdivision Name June Well Hounger No. 101 Firm Name Address 415 n. Pitto enc Lot No. _____ Block No. _ Signed by (Firm Official) / Canyon and (Operator) E 1/2 SW 1/4 Sec. N/0, R. ON

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



control devices:

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

053407

. OWNER	(in the second second	field gal./	min.
ame	M		HAR					-	-	50	_
ddress				ER L							-
ity	NA	MP	A		State	I DZip_	8	3686	- 1	-	
LOCATI				ST	the second second	tion:				r Temp r Qualit	1000
N N	cation mu	i <u>si</u> ayi	ee wiin	whiten	10Calion.				12.	LITHO	LO
									Bore	From	То
		wp	2	- No	orth X	or	South	12.23	Dia.	"0	
	E	ge	<u> </u>	Ea	ast 🗆	OF	West	CW 1		"2	25
	S	ec	0	104	1/4	CANY	014	0 acres	4 11	"5	20
X	G	OVTL	01	_ Count	y	CANT	UN		9"		
s									9"		
	and the second second		s of We			MAND			9"		
Give at least n	AMER	LA.	o Road or L	andmark)	City1	NAMP	A				
									9"		
t	_Blk		S	ub, Nam	e				9"		
		2	-		in terms	_	_		9"		9
. PROPOS			A			1. 1.2.			9"		10
X Dome	stic 🗆	Munic	ipal	1 Mon	itor F	Irrinati	on		6'	100	LL
	and the second second	a				- migan					
	al 🗆	1.0	ion	Othe		- Inngan				114	
Therm TYPE O New We DRILL M Mud R		K odify (or Repa	□ Othe ir □ Re	placemer	nt 🗆	Abar	ndonme	6'	114 118	
5. TYPE O X New We DRILL N Mud R		Air Ro	or Repa otary	□ Othe ir □ Re □ Cab	er placemer ble [nt 🗆 Other] Abar		6'	118	11 RE
5. TYPE O X New We DRILL M Mud R SEALING	F WORI	Air Ro	or Repa otary URES	Cab	placemer	nt 🗆 Other	Abar		6'	118	11 RE
5. TYPE O X New We 5. DRILL N Mud R 7. SEALIN SE Mater	F WORI	Air Ro	or Repa otary URES	Othe Cab	placemer	nt 🗆 Other, M] Abar		nt	118	II RE
5. TYPE O X New We DRILL M Mud R SEALING	F WORI	Air Ro	or Repa otary URES	Cab	placemer	nt 🗆 Other, M] Abar		nt	118	II RE
5. TYPE O X New We DRILL N Mud R SEALIN SE Mater BENT	ETHOR ETHOR otary & G PROC AL/FILTER F al	Air Ro	or Repa otary URES	Othe Cab AMOU Sacks Poun	placemer	nt 🗆 Other, M] Abar		nt	118	II RE
5. TYPE O X New We 5. DRILL N Mud R 7. SEALIN SE Mater	ETHOR ETHOR otary & GPRO(AL/FILTER F al e used? e seal tes	Air Ro	or Repa	Othe AMOU AMOU AMOU	placemer placemer ple [JNT s or ds 4.S	nt 🗆 Other, M] Abar		nt	118	1 RE
CASING Diameter	ETHOR ETHOC otary & G PRO(AL/FILTER F al e used? e seal tes /LINER m To	Air Ro	or Repa otary URES To Y & N Y U N Y U N Auge	Othe AMOU AMOU Sacks Poun O How Material	placemer placemer ple [JNT s or ds 4S 4S	nt Other, N O	Abar	BORE		118	1 RE
5. TYPE O X New We DRILL M O Mud R SE Mater BENT Vas drive sho S. CASING	ETHOE Dotary & GPRO(AL/FILTER F al e used? e seal tes /LINER m To	Air Ro	or Repa otary URES To Y & N Y & N Y LI N Auge	Othe AMOU AMOU AMOU	Parameter placement placement placement placement sor ds ds ds ds ds ds ds ds ds ds	nt Other, N O Liner	Abar	BORE		118	1 RE
CASING Diameter	ETHOR ETHOC otary & G PRO(AL/FILTER F al e used? e seal tes /LINER m To	Air Ro	or Repa otary URES To Y & N Y U N Y U N Auge	Othe AMOU AMOU Sacks Poun O How Material	Parameter placement placement placement sor 4 S 4 S 7 Casing L Casing L Casing L	nt Other, N O	Abar	BORE		118	1 RE
CASING Diameter	ETHOR ETHOC otary & G PRO(AL/FILTER F al e used? e seal tes /LINER m To	Air Ro	or Repa	Othe AMOU AMOU Sacks Poun Material TEEI	Proper Casing	Liner	Abar	BORE	nt	118 D	
S. TYPE O New We DRILL N Mud R SEALING SEALING Mater BENT Vas drive sho S. CASING Diameter Fr 6" +	E WORI	Air Ro	or Repa	Othe AMOL AMOL Sacks Poun Material TEEI Length	Parameter placement placement placement sor 4 S 4 S 7 Casing L Casing L Casing L	Liner	Abar	BORE	nt	118	II RE
S. TYPE O New We DRILL N Mud R SEALING SEALING Mater BENT Vas drive sho Vas drive sho S. CASING Diameter Fro 6" +3	E WORI	Air Ro	or Repa	Othe AMOL AMOL Sacks Poun Material TEEI Length	Proper Casing	Liner	Abar	BORE	nt	118 D	II RE
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT CASING Diameter From 6" + 4 Sealing Diameter From CASING Diameter FOR DIAMETER FOR DIAMETER FOR DIAMETER FOR DIAMETER FOR CASING	ETHOR ETHOC otary & GPRO(AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI Ack From 0 5ted?	auge	Othe AMOU AMOU Sacks Poun O How Material TEEI Length NS	Provide Casing	Liner	Abar	BORE		118 D	1: RE M/
A New Wee New Wee DRILL N Mud R SEALING S	ETHOR ETHOC otary & GPRO(AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI Ack From 0 5ted?	or Repa	Othe AMOU AMOU Sacks Poun O How Material TEEI Length NS	Provide Casing	Liner	Abar	BORE		118 Di	
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT Vas drive sho Sealing Mater BENT CASING Diameter Fro 6" + Casing Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING 0. CASIN	ETHOR Data PROC AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI ACK Fror 0 5 5 5 7 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	auge	Othe AMOU AMOU Sacks O How Material TEEI Length	Prplacemer ple JNT s or 4 S 4 S 7? Casing Casing D Casing D D T X D D D T T D Casing D D D T T D D Casing D	Liner		Threade		118 D	
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT Vas drive sho Sealing Mater BENT CASING Diameter Fro 6" + Casing Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING 0. CASIN	ETHOR Data Mail ETHOC Datary & GPRO(AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI Ack From 0 5ted?	auge	Othe AMOU Sacks Poun AMOU Sacks Poun AMOU Sacks Poun AMOU Sacks Poun Length NS	Provide Casing	Liner		BORE		118	1 : REM/
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT Vas drive sho Sealing Mater BENT CASING Diameter Fro 6" + Casing Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING 0. CASIN	ETHOR Data PROC AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI ACK Fror 0 5 5 5 7 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	auge	Othe AMOU AMOU Sacks O How Material TEEI Length	Prplacemer ple JNT s or 4 S 4 S 7? Casing Casing D Casing D D T X D D D T T D Casing D D D T T D D Casing D	Liner		BORE	nt 6	118 Di Di V 2 mpleter te: Stai	1: RE M/
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT Vas drive sho Sealing Mater BENT CASING Diameter Fro 6" + Casing Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING 0. CASIN	ETHOR Data PROC AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI ACK Fror 0 5 5 5 7 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	auge	Othe AMOU AMOU Sacks O How Material TEEI Length	Prplacemer ple JNT s or 4 S 4 S 7? Casing Casing D Casing D D T X D D D T T D Casing D D D T T D D Casing D			BORE	nt 6"	Di Di Di Transformer Transform	d De tted
A Rew Wee A New Wee DRILL M C DRILL M Aud R SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING SEALING Mater BENT Vas drive sho Sealing Mater BENT CASING Diameter Fro 6" + Casing Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING Diameter Fro 0. CASING 0. CASIN	ETHOR Data PROC AL/FILTER F al e used? e seal tes /LINER m To B 11 dpipe_ RATION ons	Air Ro CEDI ACK Fror 0 5 5 5 7 2 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	auge	Othe AMOU AMOU Sacks O How Material TEEI Length	Prplacemer ple JNT s or 4 S 4 S 7? Casing Casing D Casing D D T X D D D T T D Casing D D D T T D D Casing D	Liner		BORE	nt 6"	118	d Dep thed

WELL TES	STS:				
D Pump	🗆 Bailer	NO Air	Flowing	Artesian	
Yield gal./min. Drawdown			Pumping Level	Time	
50	80		NO	TEST	
				10.0.0	

Bottom hole temp. st or comments:

ore lia.	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N
11	"0	2	TOPSOIL	NO	
11	"2	5	BRN LAVA BOULDERS/CLAY	NO	1
11	"5	20	SOLID BLACK LAVA	NO	
)"	20	50	SOLID BLACK LAVA	NO	
9"	50	53	CRACKS RED CINDERS	NO	
) "	53	59	SOLID BLACK LAVA	NO	1
9"	59	70	CRACKS BLACK LAVA Y	ES	-
9"	70	80	CRACKS BLACK LAVA	NO	1
9"	80	97	SOLID BLACK LAVA	NO	1
9 "	97	100	BRN CLAY	NO	5
6 "	100	114	BRN GRAVEL SAND Y	ES	1
	114		BRN CLAY	NO	14
6 "	118	121	BRN SAND GRAVEL Y	ES	11
	-			1	11
_					
	-			1.1	11
	- 1	REC	CEIVED	1.71	110
		MAR	1 7 1995		
	Da	oertra	n of War Tuble to		
			RECEIVED		
-			NOV 1 4 1994		_
-		-	WATER RESOURCES		1
1.10			WESTERN REGION		
	1. A. A. A.	100	S to B.		
		1.00		1	
1.				1	
μ	N 2	129		14	1.
	1		·		
			120 FROM TOP OF CASING		

'S CERTIFICATION

all minimum well construction standards were complied with at vas removed.

S.O.S.WELLDRILLING	212 Firm No.
1 101	Date 10-21-94
Supervisor or Operator (Sign once Firm Official & Operator)	Date 10-21-94
O WATER RESOURCES	

FORWARD WHITE COPY TO

				RECEIVED		14
Department of water Resources that this report be filed with	WATE	R RE	REP	ORT ^{Bepartment} of Water Resources	YPEWRITE LPOINT PI	EN
Western Regional Office 1. WELL OWNER Name <u>Bob Hardesty</u> Address <u>6912</u> <u>Lews Los Names ID</u> Drilling Permit No. <u>63-92-w-1079</u> Water Right Permit No.	7. W 5 F A C	VATER tatic w lowing rtesian controlle	LEVEL ater lev ? D ` closed ed by:	rel <u>60</u> feet below land surfa Yes X No G.P.M. flov I-in pressure p.s.i. Qualve Cap Plug		
2. NATURE OF WORK 2. New well Deepened Replacement Well diameter increase	E	Pum		Bailer 🗶 Air 🗆 Othe	3	
Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)	0	Ischarge .5 C		Pumping Level	lours Pumped	
	-			040	00	_
3. PROPOSED USE Domestic Irrigation Monitor Industrial Stock Waste Disposal or Injection	-		OGIC L	.0G	ua	
Other (specify type)	Bore Diam.	De From Ø	To R	Material Top Swil	Yes	N
4. METHOD DRILLED	x	8	98	LAVA Rock		5
X Rotary □ Air □ Auger □ Reverse rotary X Cable □ Mud □ Other (backhoe, hydraulic, etc.)		58	117	SAND & Grand	×	
Thickness Diameter From To 250_inches _6_inches + feet //// feet _257_inches _6_inches /05_feet feet /// feet _257_inches _5_inches /05_feet /// feet _257_inches _5_inches //5_feet /// feet _257_inches _5_inches //5_feet //0 feet Was a packer or seal used? X Yes No Perforated? Factory Knife Torch Gun Size of perforation? _inches by _inches _inches perforations				MICROSILMED		
□ Temp. surface casing X Overbore to seal depth Method of joining casing: □ Threaded X Welded □ Solvent Weld □ Cemented between strata	10.			AUG 0 9 1993	1	
Describe access port Well See 1 6. LOCATION OF WELL Sketch map location must agree with written location. N Subdivision Name W Image: Charge on the second seco	11.	DRILLI I/We complic complic Firm N Addres	ertify the ed with ame s <u>he</u> by Dril	ERTIFICATION hat all minimum well construction at the time the rig was removed. Deuxis Ph.pps Firm No. Deuxis Ph.pps Firm No. Date 2- lling Supervisor The Date 2- lling Supervis	standards v 372 3-53 199	

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USE TYPEWRIT	EROR
BALL POINT	PEN

1. WELL OWNER

Name_

County

SE

State of Idaho

- 1	5
	-

Department of	Water Administration
WELL DRIL	LER'S REPORT
	be filed with the State Reclamation Engineer
bert A. Hardesty + 2 Meridian, Ala	7. WATER LEVEL Static water level <u>47</u> feet below land sur Flowing? □ Yes IV No G.P.M. flow. Temperature <u>°</u> F. Quality <u>P.s.i.</u> Artesian closed-in pressure <u>P.s.i.</u> Controlled by □ Valve □ Cap
ĸ	8. WELL TEST DATA

Name A ober N. Hardesly Address At 2 Meridian, Ida Owner's Permit No	Static water level <u>49</u> feet below land surface Flowing? □ Yes Ø No G.P.M. flow Temperature° F. Quality Artesian closed-in pressurep.s.i. Controlled by □ Valve □ Cap □ Plug									
2. NATURE OF WORK	8. WELL TEST DATA									
New well Deepened D Replacement		D Pump D Bailer D Other								
			e G.P.M.		Hours P	umped	121			
Abandoned (describe method of abandoning)	-	20		NONE	64	re				
		-	_			_	-			
3. PROPOSED USE	-						-			
🛱 Domestic 🗆 Irrigation 🗆 Test	9. 1	LITHO	LÒGIC	LOG 3	1487					
🗆 Municipal 🔲 Industrial 💭 Stock	Hole Diam.	D	epth To	Material		Wat Yes				
4. METHOD DRILLED	-6	0	2	Fop Soil			1			
4. METHOD DRILLED	-	2	4	Calechie & How	1 pan	+	1			
Cable 🗆 Rotory 🗆 Dug 🗆 Other	-	3,	31.	Broy loug :	Hord		7			
	1	44	49	Ling long "Ve	y Hord.		ż			
5. WELL CONSTRUCTION	11.00	49	69	Shan long bo	ise '	X	-			
Diameter of hole 6 inches Total depth 72 fee		69	72	Black Cinders	-	X				
Casing askadula. IV Casal Cl Casada			+	STALLEd.O	11-	+-+				
Casing schedule: A Steel Concrete Thickness Diameter From To 250 inches 574 feet 20 inches inches feet feet	-	-	1-			++				
250 inches 67 dinches _O_feet 20 fee	t	1	1			1	: 1.1			
inches inches feet _feetfeetfeet _deetfeet _deetfeetf							1.1.1			
inches inches feet fee						++				
inches inches feet fee						+ +	-			
	-	-	-			+				
Was a packer or seal used? Ves Vo	-	-	1-			+++				
Perforated? ☐ Yes Ø No	0.000						1 1 1			
How perforated? Factory Knife Torch Size of perforation inches by inches			-							
Number From To	-		-			1-1				
perforations feet feet		-	-			+				
perforations feet feet feet feet	1		+		- Algement	+				
perforations feet feet	:		1		Contract of the second s					
Well server installed D. Di M	0HES									
Well screen installed? 🛛 Yes 🖈 No Manufacturer's name	1.5									
Type Model No.	-	-	1-				-			
DiameterSlot size Set from feet to fee		-	1			++	-			
Diameter Slot size Set from feet to fee	t t	-					11.1			
	a		1				1			
Gravel packed? □ Yes I No Size of gravel Placed from feet to feet	-		-							
	-		-			++				
Surface seal? Ø Yes □ No To what depth <u>19</u> feet Material used in seal □ Cement grout Ø Puddling clay				······		+				
Material used in seal 🔲 Cement grout 🛛 🛱 Puddling clay		-10	1			+				
6. LOCATION OF WELL		1								
	1.35				. fel					
Sketch map location must agree with written location.	10. W	ork sta	arted_	ac - 1.72 finished	Dec 7-	- 72	2			
. 3						90	-			
6	11.0	RILL	ER'S CE	RTIFICATION	(per	-			
W E	MILL MORE			illed under my supervision a	nd this report	is				
~				of my knowledge.						
	1	0		. 1 .						

Broomfield Stame St Manupa 2 miello 5

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N/S, R.

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of Boise meridia

SW 1/4 Sec

USE TYPEWRITER Department of Wa BALL POINT PEN WELL DRILL	ED'C	dminis	DOD	APR	8 1976	1016
State law requires that this report be filed with the Dir days after the completion or	ector, D aband	Departm	ent of W	ater Administration within 30 vell.	f Water Resou	rces
1. WELL OWNER Name_Fred Schwindt Address 303 Flordia (we Owner's Permit No Nampa Ide	S F T A	Static w lowing rempera	? D Y ature closed-i	1 <u>49</u> feet below land sur es XNo G.P.M. flow F. Quality <u>F771</u> n pressure <u>p.s.i.</u>	1	1
2. NATURE OF WORK		VELL T	EST DA	TA		
Abandoned (describe method of abandoning)	in the second second	Discharge	G.P.M.	Draw Down	Hours Pu	mped
3. PROPOSED USE			-			
Domestic Irrigation Test Other (specify type)					131	
Municipal Industrial Stock Waste Disposal or	Hole	D	LOGIC I	_OG Material		Wate
4. METHOD DRILLED	Diam.	From 0	7	Casult Coulders	- En Sail	Yes 1
Cable 🗆 Rotory 🗆 Dug 🗆 Other	8	Sur	35	Broken Casal	(\mathcal{L})	E
5. WELL CONSTRUCTION	8	10	10	Basalt Basal	+ E	
Diameter of hole 6 inches Total depth 86 feet Casing schedule: A Steel Concrete	600	18	25	Baralt Dasalt	(A	
1250 inches inches feet feet feet	6	30	40	Hard Basul	哲シ	1
inches inches feet feet feet feet feet feet feet fe	6	55	57	Red Casalt	selt	
Was a packer or seal used? 🗆 Yes 🕅 No	66	70	70 74 75	Social Busilt	Some	1 X
Perforated?	6	75	90	Boy Clay chunk	ult_	X
Number From To	6	85	86	Some Cinden	ult	X
perforations feet feet	6	86	88	Dasalt		\square
Well screen installed? Yes No Manufacturer's name Type Model No.						Ħ
Diameter Slot size Set from feet to feet			1			
packed? Yes X No Size of gravel						+
fromfeet tofeet toffeet toffeet toffeet to_		-				
Puddling clay UWell cuttings						
Coverbore to see depth	10.	Vork m	arted 2	20/76 finished	3/17/	76
Sketch map location must agree with written location.	ii. t		RS CERT	IFICATION (MV ase Hill Thigh St namps	Firm N	2/1
County <u>Canyon</u> SExSW/2 SOC. B. T. 2 NB, R. / M	1	Signed b	y (Firm a (Ope	officient esse c	VIII	

USE TYPEWRITERER BALL POINT PEN State WELL DRILL		dminis		1 K	weined	47	17				
State law requires that this report be filed with the Dir days after the completion o	ector, D	Departn	nent of W	ater Administration within 3	10 1	n	-				
1. WELL OWNER Name Dave Durfre Address fit 3 m anpa ldako Owner's Permit No.	7. V S F T A	VATER Static w Flowing Fempera Artesian	ater leve ? D Y ature	The second se	N						
2. NATURE OF WORK	8. V	8. WELL TEST DATA									
22 New well 🖸 Deepened 🔲 Replacement] Pump	-	Bailer Othe	r Hours Put		-				
Abandoned (describe method of abandoning)	-	20	G.F.W.	S S S S S S S S S S S S S S S S S S S	3	npeo					
and a second	-				-						
3. PROPOSED USE	-						-				
Domestic Irrigation Test		ITUO	LOGIC		3133						
	Hole	_	epth	1		Wa	ter				
🗆 Municipal 🗆 Industrial 🗔 Stock	Diam.	From	To	Material		Yes	N				
4. METHOD DRILLED	14	0 4	4	Sail Black			10				
	6	50	65	Lang Black			L				
12 Cable 🗆 Rotory 🗆 Dug 🗆 Other	4	65	69	Jane Black	1		L				
5. WELL CONSTRUCTION	6	68		filack Cinder	1	~	F				
	1.000						+				
Diameter of hole inches Total depth feet	1		1.1	11 0 4 2 S 1		2-01					
Casing schedule: Steel Concrete Thickness Diameter From To	1.000		-								
260_ inches _ inches + 18 feet 20 feet	-			1			-				
inches inches feet feet							-				
inches inches feet	11										
inches inches feet feet							-				
						-	-				
Was a packer or seal used? Perforated? Yes BrNo Perforated?	11						-				
How perforated? Factory Knife Torch	11.00						-				
Size of perforation inches by inches	-		1			-	-				
Number From To											
perforations feet feetfeet feet feetfeet feet feet	-		1.2								
perforations feet feet	-	-					-				
Well screen installed?	L. III				1. A. M						
Well screen installed?											
Type Model No Diameter Slot size Set from feet to feet	-						-				
DiameterSlot sizeSet fromfeet tofeet DiameterSlot sizeSet fromfeet tofeet				· · · · · · · · · · · · · · · · · · ·	- 1/						
feet		1	1								
Gravel packed?											
Placed from feet to feet					10 A 10		h				
Surface seal? BYes DNo To what depth feet		224									
Material used in seal Cement grout Puddling clay	150					-	-				
LOCATION OF WELL											
Sketch map location must agree with written location. $ \begin{array}{c} $	11. D T tr	RILLE his well ue to the	was dri he best d	RTIFICATION Iled under my supervision a of my knowledge.	29		3				
County <u>Canyfon</u> <u>SE %SW % Sec. 8, T. 2 N/B, R. / \$/W</u>		Idress	Firm'sh	~ mampa de			1				
<u>DE %560 % Sec. 8, T. 2, N/B, R. / #/W</u>	Si	gned By	Da	comfield St	15197 Date	- 3	-				

orm 238-7 4/92 STATE DEPARTMENT OF WELL DRILL State law requires that this report be filled w within 30 days after the comp	LER	R RE		CES T02N ORT By: m	ion Correct R01W Sei nciscell 2	c.8 SESE	sw	<u>18</u> o:
1. WELL OWNER Name Address Gri Afith Address <u>6902</u> <u>E. Lewis Lu Nampa ISP</u> Drilling Permit No. <u>63-93-60-0207</u> Water Right Permit No.	5 	Static w Flowing Artesiar Controll	r closed ed by:	el <u>63</u> feet /es 承 No l-in pressure □ Valve □ C	G.P.M p.s.i. Cap □ P	. flow		
 2. NATURE OF WORK New well Deepened Replacement Well diameter increase Modification Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.) 	[] Purr Discharg	TEST D hp e G.P.M.	ATA Bailer Pumping		Other Hours P	'umped	
3. PROPOSED USE → Domestic □ Irrigation □ Monitor □ Industrial □ Stock □ Waste Disposal or Injection □ Other (specify type)	Bore	1	OGIC L		08	2804	Wa Yes	ter
4. METHOD DRILLED	8	0 2 4 75 104	2 4 75 104 118	HAND PA LAUA Ro LAUA Ro	nl n n k k		XX	XXX
Casing schedule:								
Bottom of Tailpipe 2' Diameter 5 Slot size 2e Diameter Slot size Set from feet to Diameter Slot size Set from feet to Diameter Slot size Set from feet to Gravel packed? Yes No Size of gravel Placed from feet to feet Placed from feet to feet Surface seal depth 2 Material used in seal: Cement grout Ø Bentonite A-Puddling clay	10.				Water Resour			
6. LOCATION OF WELL Sketch map location must agree with written location. W Subdivision Name Lot NoBlock No County <u>CHU You</u> Address of Well Site <u>16902</u> <u>F. Louis Lu</u> (give at least name of road) <u>T</u> N Zhor S <u>SE</u> 14 <u>SW</u> 14 Sec. <u>8</u> , R. <u></u> E or W JA	11.	DRILL I/We c compli Firm N Addres	ertify the ed with lame is <u>Mer</u> l by Dril	3-25-53. ERTIFICATION hat all minimum w at the time the rig enswish Ph. 30 20. HweID. ling Supervisor ind erator uterfifterer	ell construc was remove	tion standa ed. o. <u>332</u> 7-39-9	ards w	

A/92 EB1 2 1993 Department of Wates Base New requires that this report be filed within 30 days after the completion of	WATE	R RE			Location Corr T02N R01W S By: mciscell	Sec. 8 SW	SWSE	
1. WELL OWNER Name <u>Todd Newby</u> Address <u>7114</u> <u>Lewis</u> <u>Law. Nampor ID</u> . Drilling Permit No. <u>63-92-60-1059-001</u> Water Right Permit No.	S F A	lowing	ater le ? close ed by:	vel <u>75</u> Yes X d-in pressu U Valve	re p.s.	P.M. flow i. i Plug		
2. NATURE OF WORK	Ĩ	VELL 1 Denne Discharge	p	Bailer	Air [Other	s Pumpeo	đ
such as liners, screen, materials, plug depths, etc. In lithologic log, section 9.)		4	0			1		_
3. PROPOSED USE		ITHOL		LOG		84	1307	
Other (specify type)		From	pth To		Material		Yes	
4. METHOD DRILLED	8	2	2 15 90	LAU.	& Rock			XXX
Cable I Mud I Other		90	110.		l & Grand		X	
250 inches 6 inches + / feet /30 feet 258 inches 5 inches /26 feet /31 feet 258 inches 5 inches /26 feet /37 feet 258 inches 5 inches /26 feet /38 feet 258 inches 5 inches /26 feet /38 feet 258 inches 5 inches /26 No Was a packer or seal used? X Yes No No Perforated? Factory Knife Torch Gun Size of perforation? inches by inches No Number From To feet feet				Mici	Brilgin			
Sealing procedure used: Sealing procedure used: Temp. surface casing X Overbore to seal depth Method of joining casing:				AUG	0 9 1993	1		
□ Solvent Weld □ Cemented between strata Describe access port <u>We</u> [] <u>Sea 1</u> 6. LOCATION OF WELL Sketch map location must agree with written location. N Subdivision Name Lot No. Block No. County <u>Caryow</u> Address of Well Site <u>7/14 Lewin</u> Lo. (give at least name of road) <u>SE 14 SW</u> 14 Sec. <u>8</u> , R. <u>JW</u> E □ or W □	11.	DRILLI I/We c complia Firm N Addres	ertify t ed with ame 1 s 00000000000000000000000000000000000	ERTIFICAT hat all min a at the tim Depution	Tion imum well construction $Ph \cdot pp \cdot pr \cdot pr \cdot pr \cdot pr \cdot pr \cdot pr \cdot p$	ruction stan oved. I No	dards v ?2	

STATE DEPARTMENT OF WELL DRILL State law requires that this report be filed w within 30 days after the compl	WATE ER	R RE	REP	PORT T02N R01W Se	c. 8 SESW	R To	20
1. WELL OWNER Name <u>KEN or LINDA L. NUNGESSER</u> Address <u>7226 E. LEWIS LN. NAMPA, ID 83686</u> Drilling Permit No. <u>63-92-C-078</u> Water Right Permit No.	F A C	lowing Artesian	ater le ?	vel <u>68</u> feet below land Yes Ø No G.P.M rd-in pressure p.s.i. □ Valve □ Cap □ 1	A. flow Plug	11	
2. NATURE OF WORK	j	VELL 1	P	🗆 Bailer 🙀 Air 🗆	Other		-
Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)	-	discharge 30	e G.P.M.	Pumping Level 901	Hours Pu 30 MI		
3. PROPOSED USE	9. L	ITHOL	OGIC	roe O,	79482		
Industrial Stock Waste Disposal or Injection Other(specify type)	Bore Diam	De	pth To	Material			No
	8	0	1	TOP SOIL		100	X
4. METHOD DRILLED	8	1 3	3 60	BROKEN ROCK			X
Cable Mud Other	8	60	72	BROKEN ROCK			X
(backhoe, hydraulic, etc.)	8	72	80	RUCK			X
5. WELL CONSTRUCTION	8	80	<u>83</u> 87	CINDERS BROKEN ROCK		x	X
Casing schedule: X Steel Concrete Other	8	87	94	ROCK			X
Thickness Diameter From To	8	94	96	CINDERS		X	
.250 inches 6 inches + 1.5' feet 98.5' feet	6	96	100	GRAVEL	182112	X	
inches inches feet feet feet feet feet feet			1.21	SANTE COME	1811131		
Was casing drive shoe used? D Yes D No	1	1-34	1	100 150 - see	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Was a packer or seal used?	-			MAY 7 3 19	32		-
Perforated? Ves No How perforated? Factory Knife Torch Gun				1954 MALL 20 -			
How perforated? Factory Knife Torch Gun Size of perforation? inches by inches Number From To			-	in at wate	(RESOURCE		
perforations feet feet	-		1				
perforations feet feet	-			INFRAIEN	TRIN	-	
perforationsfeetfeetfeet Well screen installed?				17 2 433	V CIII		
Manufacturer Type			1	Ma	21		
Top Packer or Headpipe Bottom of Tailpipe				44 MAY 11	992	r	
Diameter Slot size Set from feet to feet				Department of Wat	er Resources	}	
Diameter Slot size Set from feet to feet	÷	-		1.1		-	-
Gravel packed? Ves X No Size of gravel Placed fromfeet tofeet	1	1 11		N AN AN AN			
						-	
Surface seal depth <u>96</u> Material used in seal: Cement grout	-	-	-	MAY 20 133	-	-	-
				Byper	15647665	_	
Method of joining casing: Solvent Weld	1		1	Dapa Regional D			
Solvent Weld Cernented between strata Describe access port	10.		tarted	<u>5-2-92-</u> finished	5-2-92		
6. LOCATION OF WELL Sketch map location must agree with written Weation, 1 1992 Subdivision Name LOT 2, WAMER SUBDIVISION Lot No Block No		I/We co complie Firm N Addres	ertify 1 ed with B ame C 1 sC	CERTIFICATION that all minimum well constru- n at the time the rig was remove TLL DOTY DRILLING 0., INC	ved. No. <u>42</u>		
S	1 12	Signed	by Dr	3605 illing Supervisor	the p	2	_
County CANYON				and The	5		
<u>SE</u> ¼ <u>SE</u> ¼ Sec. <u>8</u> , T. <u>2N</u> S □ R. <u>1W</u> W X□			(Op	perator)		- 1/	
- 14 JE 14 JEC. 0, 1. LIN S LI H. IW WX				(If different than the	urilling Super	visor	1

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

Form 238-7 6/02 1. WELL TAG NO. D DAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT 003/4/10		CES			Inspe	Office User ID No ected by Rge 1/41/4	_Sec	2	21
DRILLING PERMIT NO	12. V	VELLI	ESTS	f	Lat:	: : Lon	g: :	4	
	*	-	oump	Bailer	KAI		Artesian		
2. OWNER:		Sold gal.	/mia.	Drawdow	m	Pumping Level	24	Time	_
Name Rob Goodcord Address P.O. Box 251	-	SO	r				All	n.	-
City Dampa State Id Zip 8-3653	1							-	
	Water	Temp.	-		_	Bott	om hole te	mp	_
3. LOCATION OF WELL by legal description: You must provide address or Lot, Blk, Sub. or Directions to well. Twp North & or South □	_			comments:		Depth first W		unter _	
Rge East I or_ West D	-	ITHOL	OGIC	1		irs or abandonme	-	Wa	ter
Sec. 17 New 1/4 $1/4$ $1/4$ $1/4$ Gov't Lot County Caryon Tell acres	Bore Dia.	From	То	Remarks: 1	ithology	, Water Quality & Ter	mperature	Y	N
Lat: : : Long:	10	0	3	Top Son	1				5
Lat: : : Long: Address of Well Site <u>So. off of Lewis Rd.</u> City <u>Nompa</u> (Give at stat hards of total + Distance in Road or Lands ran) Lt. <u>P</u> Bik. <u>Sub.</u> Name <u>Aussissice Across</u>	10	5	13	Hic pa	1 \$ 0	lax			T
City Nompa	104	2	18	Solid				-	1
(Glore at east hands at total + Distance to Road or Landrark)	6	28	33			auc mixed	with		X
Lt Bik Sub. Name Sub. Name	L		1.000	red er			1.1		1.3
		33	54	Solid				-	x
4. USE:	1	54	10	Fractu	red	Lava		X	1
Domestic I Municipal I Monitor I Irrigation	-	12.77	102						
Thermal Injection U Other	-			1					
			1						-
5. TYPE OF WORK check all that apply (Replacement etc.)	-		-						
6. DRILL METHOD:		-					_		
Air Rotary Cable Mud Rotary Other	-	1	-	-	_				-
7. SEALING PROCEDURES									-
Seal Material From To Weight Volume Seal Placement Method								-	-
Western Best 0 19 300 las 10 overbore				1	-				1
Was drive shoe used? XY IN Shoe Depth(s) Stop built	1								
Was drive shoe seal lested? KY UN How?	-								
8. CASING/LINER:	1				-				-
Diameter From To Gauge Material Casing Liner Welded Threaded	1		1000	<u> </u>	RE	CEIVED)		
6, +2 19 250 Steel = = x = 4/2 10 50 PVC x = =	-		-	-	M	AY 18 2004	e		
		1	1		NALA.	TER RESOURCE	s		
Length of Headpipe Length of Tailpipe	1		1			ESTERN REGION			
Packer Y N Type	1		1						
9. PERFORATIONS/SCREENS PACKER TYPE	_								-
	-			1				-	-
Perforation Method	-		-		_			-	
Screen Type & Method of Installation Som			1	70					
Screen Type & Method of Installation Son Casing Liner			Diam'r.				0	Aeasura	able)
Screen Type & Method of Installation Son Casing Liner	Cor	npleted	Depth	1				7/	201
Screen Type & Method of Installation Inson From To Slot Size Number Diagoster Material Gasing Liner SO Soft III SO Soft IIII SO Soft IIIII	10.0	npleted e: Sta	-	5/17/0	4	Completed	5/1	1/0	1
Screen Type & Method of Installation Son Casing Liner	Dat	e; Sta	rted	5/17/0	Y.	Completed	5/	10	7
Screen Type & Method of Installation Disconsistent From To Stot Size Number Diagoety Material Casing Liner SO Soft PUC SO To Soft SO Soft PUC SO Soft PUC	Dat 14. D	e: Sta RILLI	rted	S/17/0 ERTIFICATIO			1	ith at th	7 ne
Screen Type & Method of Installation Drison From To Slot Size Number Diagons Material Casing Liner SO Soft The public SO To The public SO To The public SO To The public	Dat 14. D I/We time t	e: Sta RILLE certify the rig of	ER'S C	ninimum well co loved.	onstructi	on standards were o	complied w		
Screen Type & Method of Installation Anson From To Slot Size Number Diagoster Material Casing Liner. Casing L	Dat 14. D I/We time t	e: Sta RILLE certify the rig of	ER'S C	ninimum well co loved.	onstructi	on standards were o	complied w		
Screen Type & Method of Installation Anson From To Slot Size Number Diagoster Material Casing Liner. Casing L	Dat 14. D I/We time t	e: Sta RILLE certify the rig of	ER'S C	ninimum well co loved.	onstructi	on standards were o	complied w		
Screen Type & Method of Installation Minison From To Slot Size Number Diagetor Material Casing Liner. 50 50 Soft C Fild PUC III IIII IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	Dat 14. D I/We time t Comp	e: Sta RILLE certify the rig of	ER'S C that all r was ren	ninimum well co loved.	onstructi	on standards were o	complied w		
Screen Type & Method of Installation Mumber Diageter Material Gasing Liner From To Slot Size Number Diageter Material Gasing Liner 50 50 Soft C Fild PUC PUC PUC PUC 10. FILTER PACK Filter Material From To Weight / Volume Placement Method 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: State Part Part Part Part Part Part Part Part	Dat 14. D I/We time t Comp Princi and	e: Sta DRILLE certify the rig to bany National Dri			onstructi	on standards were o <u> <u> </u> <u> </u> </u>	complied w Firm N ate 5		
Screen Type & Method of Installation Mumber Diageter Material Casing Liner. From To Stot Size Number Diageter Material Casing Liner. 10. FILTER PACK Filter Material From To Weight / Volume Placement Method 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: It. below ground Artesian pressure Ib. Depth flow encountered ft. Describe access part or control devices: ft. Describe access part or control devices:	Dat 14. D I/We time t Comp Princi and	e: Sta DRILLE certify the rig to bany National Dri	ER'S C that all r was ren		onstructi	on standards were o <u> <u> </u> <u> </u> </u>	complied w		
Screen Type & Method of Installation Mumber Diageter Material Gasing Liner From To Slot Size Number Diageter Material Gasing Liner 50 50 Soft C Fild PUC PUC PUC PUC 10. FILTER PACK Filter Material From To Weight / Volume Placement Method 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: State Part Part Part Part Part Part Part Part	Dat 14. D I/We time t Comp Princi and	e: Sta DRILLE certify t the rig t bany Na bany Na			onstructi	on standards were o <u> ///////////////////////////////////</u>	complied w Firm N ate 5		

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Form 238-7 6/02 IDAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT 1. WELL TAG NO. D <u>003/068</u>	2. 2. 18 1	CES			Office Use Well ID No	Sec_		
DRILLING PERMIT NO.	12 1	VELL	TESTS		1/4 1/4 Lat: : : Lon		4	
Water Right or Injection Well No.	12.1		Pump	E Bailer		v	~	1
2. OWNER: Rock Consol		Yield gal		Drawdow	Pumping Level		Ume	
Name Bob Goodwin Address P.C.Box 251	0	30	1	-	75	In	r.	_
City Limpa State 70 7in 83653	-	_		-		-	_	
	Water	r Temp.	-		Bott	om hole ter	200	
3. LOCATION OF WELL by legal description:				r comments: C	Good Clear	- Col	lor	-
You must provide address or Lot, Blk, Sub. or Directions to well. Twp North or South				nell	Depth first W			22
Rge East 🗆 , or West 🗙	13. L	ITHO	OGIC	LOG: (Descri	be repairs or abandonmer	nt)		ater
Sec, KU1/4 1/4 1/4 1/4	Bore Dia,	From	To	Remarks: L	Ithology, Water Quality & Ter	operature	Y	N
Gov't Lot County	10	0	6	over	hirden		1.5.1	ter
Address of Well Site	106	6	4.5	Solid	lava		-	¥
(3 ve gi Isaa I umin of road - Jiganeo to Food or Linnman)	6	45.	52	Fracto	ve lava			H
(a ve get least carrier of read - stiganes to Food or Lansman) Lt. Blk. Sub. Name AUSS - Acres	4	52	6h	Ked C	inder; fal	ra		+
	14	80	pc .	med	rd lava		X	-
I. USE:	-	20		med	carge sand	-	x	-
Domestic Municipal Monitor Irrigation	1		15.17				1	1
Thermal Injection Other	-	_						
TYPE OF WORK check all that apply (Replacement etc.)	_		-					
New Well Modify Abandonment Other		_				_	-	-
		-	÷ .			-	1	11
Air Rotary Cable Mud Rotary Other			1			_		
X Air Rotary Cable Mud Rotary Other		-	1.1					
7. SEALING PROCEDURES	-	-						
Seal Material From To Weight Jolume Seal Placement Method	-		-	-			4 G-2	10
hereGold Bent C 1965004510 overbare		-						
Nas drive shoe used? XY IN Shoe Depth(s) Shop built	2	-	20	1				-
Nas drive shoe seal tested? I'Y AN How? Luith pipe								
3. CASING/LINER:		-	-		-			-
Diameter From To Gauge Material Casing Liner Welged Threaded						-	-	
6 72 19.6 250 Steel 1 1 x]	1			HE	CEIVED		1	
				the second second		_		
ength of Headpipe Length of Tailpipe			-	MA	R 2 5 2004			- 1
acker Y N Type		-		WATE	ER RESOURCES		-	
PERFORATIONS/SCREENS PACKER TYPE				WES	TERN REGION			
Perforation Method								
creen Type & Method of Installation Charson Schuidh rig	-	-				-		
From To Slot Size Number Diangeter Material Casing Linfer	Com	pleted	Deeth	80				
1	1.0			lirla	1	2/2	asura	ble)
10 50 Solid PA POC X	1	: Star		115/01	Completed	Sta	40	Z
0. FILTER PACK				RTIFICATION	Natruction standards were co	mplied with	a at the	~
Filter Material From To Weight / Volume Placement Method	time th	e rig w	as temp	pved.	and double and nuards were co	mpned with	atth	e
	Como	any Na	Y	er: 5:20	Lor Krilling	Firm No	5	27
			1	IN		- 1	2-7	1
1. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Princip and	al Drille	er ¥	you	aufor Da	e 5/2	4	07
T ft below ground Artesian pressuretb. epth flow encounteredft. Describe access port or control devices:	Driller	or Ope	rator II		Dal	e		
Sant Seal Well Cas								
	Operat	lor I	-	Princinal Driller	and Rig Operator Required	e		
					and nu oberain annual			

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Form 238-7 IDAHO DEPARTMENT OF WATER RES		-EC			Well I	Office Use	1944	1	
8/02		JES			100000		111	-	
WELL DRILLER'S REPOR	1				1.00	cted by	0		
1. WELL TAG NO. D 0031069					Twp_	Rge	_Sec _	14	
DRILLING PERMIT NO.			-		Lati	1/4 1/4		/4	
Water Right or Injection Well No.	12. 1		TESTS	Strate and	Lat:	: : Lon	-	- 8-	1
	_		Pump	Bailer	🗆 Air	and the second			
2. OWNER: Bob Goodwin		Vield gal	L	Drawdow	n	Pumping Level		Time	
Address_P.O. Box 251	-	50	-		-	00	1h		
City Lumpa State Zip 83653	. —								-
- Allering - State - Lip Beer	Wato	r Temp.		1		Dette	am hole to	-	
3. LOCATION OF WELL by legal description:			_	comments:		Boll	om hole te	mp	
You must provide address or Lot. Blk, Sub. or Directions to well.	wate	Qualit	y test of	comments.		Sec. John			-
Twp North & or South L	10.1	ITUOI	0010	100.00		Depth first W		unter_	
Rge East C or West		ITHOL	JUGIC	LOG: (Descril	be repair	rs or abandonmen	nt)	W	ater
Sec, 200 1/4 1/4 1/4 1/4 Gov't Lot, County 1/4 1/4 1/4 1/4 1/4	Bore Dia.	Fram	To	Remarks: L	ithology,	Water Quality & Ten	nperature	Y	N
Gov't Lot County tables	10	0	8	archin	rder	Rober	lava	110	x
Address of Well Site	106	8	45	Solid				-	4
City L'ampa	6	45	60	Fracta					オイ
(Ging at least owne of road - Distance (: Road or Landman)	T	60	63		low	the second se		-	×
Congentional arms of code - Expansed or Canomians		62	89			lave		X	
	T	89	E			re Sand	1	XX	
4. USE:			1	170					
KDomestic Municipal Monitor Irrigation	1.7	1	-						1
Thermal Injection Other								-	
									1
5. TYPE OF WORK check all that apply (Replacement etc.)	100	-							
New Well D Modify D Abandonment D Other		-							
6. DRILL METHOD:									
Air Rotary Cable Mud Rotary Other									
			J.L.L.						
7. SEALING PROCEDURES							_	1	1.1
Seal Material From To Weight / Volume Seal Placement Method		1.1						1	
Rive Gold Bent C 196 550115 10 aribore		-					-	-	-
01 11		-				-		-	-
Was drive shoe used? DY IN Shoe Depth(s) Shop built				1 30 -	_			-	-
Was drive shoe seal tested? I'Y XN How? trom pipe		0-	-					-	-
8. CASING/LINER:		-							1
Diameter From To Gauge Material Casing Liner Welded Threaded			-	R	EC	EIVED		-	-
6 +2 19-6 250 steel 1 1 X 1	-							-	-
4128 48 DUL & D T	-	-			MAR	2 5 2004		-	-
	-	-				Contract of the second second		-	-
Length of Headpipe Length of Tailpipe				- W	NESTE	RESOURCES		1	
Packer DY TN Type							-3-	-	
BEBEORATIONO/CODEFINE REQUIRE THEF							~	-	-
9. PERFORATIONS/SCREENS PACKER TYPE		-							
Perforation Method Screen Type & Method of Installation Delarson Puce Set with Fig	1.1						-		
From To Slot Size Number Diameter Material Casing Liner				1	1		-		
48 89 20 412 PUC &	Con	pleted	Depth	. 89			(M	leasura	ble)
		: Star		120/00	4		7/2	10	4
	-			1-11-		Completed	2107	1	-
IO. FILTER PACK				RTIFICATION		where the state of the second		a	1
IN THE BUT PAUL			ne rome	wood		standards were co	and are been	in at th	a
Filter Material From To Weight / Volume Placement Material	arrie d		2010110			dester			
Filter Material From To Weight / Volume Placement Method		anv Na	metro	ec Sien	con	11 drilling	Firm N	05.	22
Filter Material From To Weight / Volume Placement Method	Comp			NILL		/	- 1	201	v
	1	1.1	0	VIII.	11100		- 4/	6116	
J. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Princip	oal Drill	er 97	ppla	1200	n Dar	te 3/1	φr	1
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 5. ft. below ground Artesian pressurelb.	Princip and	1.1	er 47	ppla	1100	•• Dat	te 3/1	epe	<u>/</u>
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 0.3 ft. below ground Artesian pressure lb. Depth flow encountered ft. Describe access port or control devices:	Princip and Driller	oal Drill or Ope	er 47	Ppla	wa	••• Dat	te	οjc	
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 5. ft. below ground Artesian pressurelb.	Princip and	oal Drill or Ope	er Y 7 rator II	ry ua		n Da	te 3/1 te	ejc	·/
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 0.3 ft. below ground Artesian pressure lb. Depth flow encountered ft. Describe access port or control devices:	Princip and Driller	oal Drill or Ope	er Y 7	Principal Driller	and Rig	••• Dat	te 3/1 te	ejc	

Gov't Lot County Curry 160 senss 160 senss 100 or 3 100 So. 1 Lat: : : Long: : :	Form 238-7 6/02 IDAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT 1. WELL TAG NO. D DRILLING PERMIT NO.	ľ		ESTS:	Office Use Only Well ID No. 815104 Inspected by		24
2. UNKER State Concidencia Address P.C. Box 251 3. LOCATION OF WELL by legit description: Water form: Vormati poind and leads on Lot Bits, and the origination of the state of the	Water Right or Injection Well No.		DP	ump		-	
City Diagram State 2 to 2 523 Water Temp Bottom hole temp 3. LOCATION OF WELL by lead description: Water Temp Bottom hole temp Top 2 North 2 or South 2 Top 2 North 2 or South 2 Bec 7 South 2 Top South 2 South 3 Community Control on the control data on the cont	2. OWNER: O / O /						
City Diagram State 2 to 2 523 Water Temp Bottom hole temp 3. LOCATION OF WELL by lead description: Water Temp Bottom hole temp Top 2 North 2 or South 2 Top 2 North 2 or South 2 Bec 7 South 2 Top South 2 South 3 Community Control on the control data on the cont	Name Sob Goodium		301	-	10 KM	3.	_
City Divergin Batefield Exp = 5000 3. LOCATION OF WELL by lead description: Water Ferre Bottom hole terro Too Control or South Deptine terro Deptine terro Deptine terro Deptine terro Deptine terro Deptine terro South Deptine terro Deptine ter	Address P. C. Box 251 - 02102	1		_			
4. USE: Municipal Municipal Impacton Impacton <t< th=""><th>3. LOCATION OF WELL by legal description: You must provide address or Lot, Blk, Sub. or Directions to well. Twp. North or South I Rge. East or West I Sec. Image: South I Gov't Lot County Carries Lat: : Long: Address of Well Site </th><th>Wate 13. L Bore Dia.</th><th>ITHOL</th><th>To 3</th><th>comments: Good Clear Color Depth first Water Encour LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soil Hob pan Low Churden</th><th>nter. Wa</th><th></th></t<>	3. LOCATION OF WELL by legal description: You must provide address or Lot, Blk, Sub. or Directions to well. Twp. North or South I Rge. East or West I Sec. Image: South I Gov't Lot County Carries Lat: : Long: Address of Well Site	Wate 13. L Bore Dia.	ITHOL	To 3	comments: Good Clear Color Depth first Water Encour LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soil Hob pan Low Churden	nter. Wa	
4. USE: Municpal Municpal Municpal Impact on the set of the set	(Qive as level nome of road + Datance to Roat or Landmink)	6	57	54	Red Cinders	1	t
4. USE: Municipal	Lt Blk Sub. Name MUSS- e. Acres	T	54	58		x	
4. USE: Municipal Monitor Imigation Thermal Imigation Other Imigation 5. TYPE OF WORK check at that apply (Replacement etc.) RECEIVED Maximum Modify Abandonment Other 6. DRILL METHOD: Max Other MAY 17 2004 7. SEALING PROCENTES Mud Rotary Other MAY 17 2004 7. SEALING PROCENTIONS Max TER RESOURCES Westrenn Recaion Was drive shoe used? TYP IN Shoe Depth(s) They burnet Westrenn Recaion Was drive shoe used? TYP IN How? Now? New Wester Trivestee Was drive shoe used? Type Now? Now? 8. CASING/LINER: Caserg Lever Wester Trivestee Trivestee Proceed Tipe State Toppie Conflict State Caserg Uner Deptine Madpipe Length of Tailpipe Tripe State Tripe State Caserg Uner 10. FILTER PACK The Method of Installation Caserg Uner The Method of Installation Caserg Uner 11. State Wester Tripe Time Time Time Time Time Time Time Tim		T	58	61			+
4. USE: Monitor Inrigation Thermal Injection Other 5. TYPE OF WORK check all that apply (Replacement etc.) X New Weit Modify Abandonment Other MAY 17 2004 6. DRILL METHOD: WATER RESOURCES X All Rotand Tom To Y Statundard Tom Tom Y Statundard Tom Tom Y Statundard Tom Tom Y Statundard Tom Tom	4 USE-	1	61	15		K	
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Was drive shoe seal lested? Y N How? 8. CASING/LINER:	Purchaid but a 19 500/6 10 overbare						-
8. CASING/LINER: Diometer From Diameter From Casing Liner Weided Threaded Dender From Dender From Dender Promoter Dender From Dender Packer Packer Y N Type 9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method of Installation Completed Deptilitize Completed Soft A Discipize Soft A Discipize Soft A Discipize Soft A Discipize Discipize Discipize Soft A Discipize Discipize			4.0				
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Packer Y N Type 9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method Screen Type & Method of Installation Screen Type & Method of Installation Image: Started Screen Type & Method of Installation Image: Sc	have been a server a server a server of the	-	-				
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Perforation Method			-	1			
Screen Type & Method of Installation From To Slot Size Number Diameter Incr 15 55 75 30 110 Filder Material Cosing Lincr 15 55 55 110 Filder Material Filder Material Completed Depth 115 Completed Depth Completed Depth Completed Screet 110 10. Filter PACK Filter Material From To Weight / Volume Placement Method NWe certify that all minimum well construction standards were complied with at the time the rig was removed. 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Scand Method Date Scand Method Date Scand Method Scand Artesian pressure Ib. Depth flow encountered It. Describe access port or control devices: Date Date Date Scand Scand Method Filter Method Date Date Date							
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55 75 30 4/h PUC 0 15 55 50 10 PUC 0 0 10. FILTER PACK 0 0 0 0 0 0 10. FILTER PACK 14. DRILLER'S CERTIFICATION 0 0 0 0 0 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 0					mal		
10. FILTER PACK In the started of the started		Co	mpletec	Depth	M	easura	able)
10. FILTER PACK 10. FILTER PACK Filter Material From To Weight / Volume Placement Method II. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 59 ft. below ground Artesian pressure lb. Depth flow encountered ft. Describe access port or control devices: San: Scan: San: Scan: San: Scan: San: Scan: San: Scan: Principal Driller and Rig Operator Required.		Da	te: Sta	rted	5/13/09 _ Completed 5/1	2/0	24
10. FILTER PACK I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Filter Material From To Weight / Volume Placement Method 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Company Name Principal Driller Depth flow encountered Fit. Describe access port or control devices: Date Date Static Static Static Depth flow encountered Date Date Principal Driller or Operator II Date Date Date Principal Driller and Rig Operator Required, Date Date		14	DRILLI	D'S C	ERTIFICATION	Y	-
Filter Material From To Weight / Volume Placement Method time the rig was removed. 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Company Name Company Name Company Name Company Name Company Name Company Name Depth flow encountered It. Describe access port or control devices: Date Date State State State Company Name Depth flow encountered It. Describe access port or control devices: Date Date State State Company I and Rig Operator Required. Date Date	10. FILTER PACK					h at ti	ne
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Company Name Company Name Company Name Firm Not Firm Not 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Principal Driller Operator II Date Date 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Ib. Principal Driller Operator II Date Date 11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Ib. Principal Driller Operator II Date Date 11. Depth flow encountered It. Describe access port or control devices: Date Operator II Date 11. Static water in the principal Driller of Operator II Date Date Operator II Date							
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: Principal Driller Operator II Date 5/17/0 54 ft. below ground Artesian pressureIb. Date Date Depth flow encountered It. Describe access port or control devices: Date Sarr: Sea Date Principal Driller or Operator II Date Operator I Date Principal Driller and Rig Operator Required. Date		Com	nam. M	2	Ac. Stanberg Idilling and	5	22
59 ft. below ground Artesian pressurelb. and Depth flow encounteredft. Describe access port or control devices: Date Source Seal well Cap Operator II Date Principal Driller and Rig Operator Required. Date		Com	many w	amer	1000 -	The	101
59 ft. below ground Artesian pressurelb. and Driller or Operator IIDate	11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:		cipal Dri	ller C	off landon Date Sp	14	107
Depth flow encountered It. Describe access port or control devices: Drifler or Operator II Date Sign: Seal well each Operator I Date Principal Drifler and Rig Operator Required,	P=/1			1		1	
Principal Driller and Rig Operator Required.		Driffe	ar or Op	erator II	Uate		
Principal Driller and Rig Operator Required.	_ Sani Seal well Cap	Ope	rator I			_	
Operator I must have signature of Driller/Operator II.		24.20					
FORWARD WHITE COPY TO WATER RESOURCES		TON	ATER		[1] M. D. LEWIS M. C. M. S. Martin Model of Advances of the Astronomy and the Ast		

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Form	238-7
9/82	

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

25 USE TYPEWRITER OR BALLPOINT PEN

. WELL OWNER	7.	WATE	RLEV	EL			
Name Dwight Higel		Static	water I	evel54_ feet below land s	surface.		
				l Yes □ No G.P.M. flow ad-in pressure p.s.i.		-	-
Address		Contro	lled by	/: 🗆 Valve 🗆 Cap 🗆 P	lug		
Owner's Permit No.		Tempe	Desc.	OF. Quality	low.		-
2. NATURE OF WORK	8.	WELL	TEST	DATA			
Replacement Deepened Replacement Abandoned (describe abandonment procedures such as	_	🗆 Pur	mp	□ Bailer □ Air □ O	ther		_
materials, plug depths, etc. in lithologic log)		Discharge	G.P.M.	Pumping Level	Hours Pum	ped	_
B. PROPOSED USE							
🕱 Domestic 🗀 Irrigation 🗆 Test 🗆 Municipal	0	LITH		C LOG		~	
Industrial Stock Stock Vaste Disposal or Injection	Bore				8754	Wa	ter
Other (specify type)	100000	From		Material		Yes	N
. METHOD DRILLED		U		Top soil & hard pan		-	X
	-	8		Loose lava Solid lava			1x
B Rotary B Air Hydraulic Reverse rotary Cable Dug Other		30		Lava crevices			3
Cable Dug Other		57		Solid Lava		-	3
5. WELL CONSTRUCTION	-	50		Lava crevices		-	x
	1	55	72	Solid lava Lava w/crevices		X	
Casing schedule: 🖬 Steel 🗆 Concrete 🗆 Other		78		Solid Lava			X
Thickness Diameter From To inches inches + 1 合 feet 3 8 合 feet	-	84	88	Lava w/crevices w/ber		X	┢
inches inches feet feet		00	0	& loose lava			>
inches feet feet		88	wQ.	Solid lava			Ľ
inches feet feet	(1121					
Was casing drive shoe used? ⊠ Yes □ No Was a packer or seal used? □ Yes ⊠ No						-	
Perforated?							t
How perforated? Factory Knife Torch							
Size of perforation inches by inches			1	DIECE	11110		
Number From To				and the formation	<u>1. (2. 11</u>	-	+
perforations feet		-	-		التبيينية المراجع	P	+
perforations feet feet	-			- 00T30 i	369		t
Well screen installed? Yes No					- in more		
Manufacturer's name Model No,				Visia and Sector	n ornee		-
Diameter Slot size Set from feet to feet	_					-	+
Diameter Slot size Set from feet to feet		1				6	
Gravel packed? Yes X No Size of gravel		015	CIE	TVIED			
Placed from feet to feet Surface seal depth ZU Material used in seal: Cement grout	1	15	90	a c c ll			╀
Bentonite Puddling clay	-8	1					t
Sealing procedure used: 🛛 Slurry pit 🗷 Temp. surface casing		0	CT 1:	1986			T
Coverbore to seal depth	-						L
Method of joining casing: Threaded Welded Weld Weld	D	epartme	nt of V	ater Resources		1	1
Cemented between strata Well seal	10						
			_	ted <u>11-6-85</u> finished	 82	D	_
6. LOCATION OF WELL	11			CERTIFICATION			
Sketch map location must agree with written location.				/ that all minimum well construct th at the time the rig was remove		as w	/ere
Subdivision Name	1.0	comp	neu wi	that the time the rig was removed			
		Firm	DOW	is Well & Pump Co	m No. 101		_
W E				415 No. Pitt Lane Dat	1	01	
		Addre	ess	415 No. Pitt Lane Dat Vampa, Idaho 83851	e (0 6-2	5 4	
Lot No Block No	1.1	Cience	d by /F	irm Official)	P	4	
il then	1000	Slotte					-
county Canyon Can	In	Signe	u by tr	and	- mar	<u>a</u>	

									1	26
Form 238-7 IDAHO DEPARTMENT OF WATER RESC						Offic	eUse	22a	0	1
BATTO DELATIMENT OF WATER RESC		CES					814	20	<u>s</u>	-
WELL DRILLER'S REPORT	5					ected by				-
1. WELL TAG NO. D 0031126					Twp		lge	_Sec	ar.	1
DRILLING PERMIT NO.						1/4		1/	4	
Water Right or Injection Well No.	12. 1		TESTS:		Lat:		Long		ŝ.,	
	-	and the state	pump	Bailer	X		Flowing A	Artesian		
2. OWNER: Bob Goodwin	-	Vield gal		Drawde	nwo	Pumpir	g Level	34	Time	-
Name 150B (FOOdwing Address P.O. BOX 251	1 -	00	-	-		-10.	2	Ant	- 2-	-
City Van Da State Id Zip 83653	1	-				-	-	1		-
/	Wate	r Temp.		-la -		-	. Botto	om hole ter	TD.	
3. LOCATION OF WELL by legal description:	Wate	Qualit	y test or	comments:	60	od CI				-
rou must provide address or Lot, Blk, Sub. or Directions to well.			Sine					ater Encou		
Rige East or South Right Strength Stren				LOG: (Desc	ribe rep	airs or aba	ndonmen	it)		ater
Sec. 17 NUNIA NE 1/41/4	Bore	From	To						T	T
Gov't Lot County Can yo-7	Dia.		10	1		y, Water Ou	any & ten	perature	Y	N
Address of Well Site Sor off of Lewis La.	10	0	5		50.		11	12		X
Address of Well Site SOr Off Of Lew's La.	+	5	27	Clay	4.5	edion	F& Hr	apan	-	1
(Give an east hame of road + Distringent Print of Lance ast) 1. 6. Blk. 1 Sub. Name Aussie Acres	+	22	21	Solic	1 40	va	1		1	T
1. 6. Blk. 1 Sub. Name Aussie Acres		25	47	Ked	1.10	(Tal)	eau	a		1
		47	64	Soli			a		-	1
. USE:	1	64	74	Fract	51/0	d In	R		x	r
X Domestic □ Municipal □ Monitor □ Irrigation		74	38	Soli				Fract	+	X
□ Thermal □ Injection □ Other	16	38	94	Frain					4	
	8	94	110			Yed 4	pittes	muel	K	
5. TYPE OF WORK check all that apply (Replacement etc.)	*				200		- 1			1
X New Well I Modify Abandonment Other										
5. DRILL METHOD:	-				-				-	
Air Rotary Cable Mud Rotary Other	-	-				_			-	-
	-								-	-
7. SEALING PROCEDURES	-			(-		-	-
Seal Material From To Weight / Volume Seal Placement Method		-				-		-	-	-
Enviroplug O 100 1500165 10" overbore						D	ECE	IVE	D	-
Nas drive shoe used? XIY IN Shoe Depth(s)				-		- 0				
Nas drive shoe seal tested?	1			RP	- 27-		AUG 1	8 2004	1	
			-							
B. CASING/LINER:	1_1					N N	ATER R	ESOURC	ES N	
Diameter From To Gauge Matenal Casing Liner Welded Threaded							NESIER	IN TIL OIL	1	
6 +2 100-4 120 Steel 0 0 X 0	-	-								_
	-		-	~ ./.	1-	11	1			
ength of Headpipe 5 Length of Jailpipe	-			pulles	d O	tr or	derc	d		-
Packer XY UN Type 6-R.6	-			pulles Acio	1.		1.4		-	-
				nue.	zan	Arce	2.1			-
PERFORATIONS/SCREENS PACKER TYPE	-									-
Perforation Method			1	1						-
From To Slot Size Number Diameter Material Casing Liner					11					
100 110 18 4/2 S. S	Con	pleted	Depth	, 1	10'			(M	easura	ible)
	Date	: Star	ted 3	12.5/09	1-5	19/04	mpleted	5/29	10	4
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0. FILTER PACK				inimum well o		ion standard	s were co	molied wit	h at th	e
			as remo					1.1.42.111		
	Come	алу Na	math	ease	0.70	reld	stis	E Eline M	5	20
	Comp	any wa	1	Inn	2		1	- Firm No	1	1
	Princip	bal Drill	er	yu	ru	tom	Dat	e 5/	24/	04
			11	/		100 C 100 C 100			11	1
1. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	and	~ ~ ~	fotor II							
	and	or Ope	rator II	·	-		Dat	te		_
	and			Principal Drill	-		Dat	ie		

Wate Wate	Yield gal Yield gal Y Temp. r Temp. r Qualit	y test or	Baller Air Flowing Arlesian Drawdown Pumping Level Bottom hole ter comments: Good Clear Color	np	
Wate Wate 13. L Bore Dia.	r Temp. r Qualit SITHOL	y test or OGIC I	Bailer Air Flowing Arlesian Drawdown Pumping Level 2 Bottom hole fer Bottom hole fer comments: Good Clear Color Depth first Water Encou Depth first Water Encou LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soil 1	np inter Wa	70 aler
Wate Wate 13. L Bore Dia.	r Temp. r Qualit O S JTHOL	y test or OGIC I	Drawdown Pumping Level 24 Bottom hole ter comments: Good Clear Color Depth first Water Encou LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soci	np inter Wa	70 aler
Wate Wate Mate 13. L Bore Dia.	r Temp. r Qualit O S ITHOL	y test or OGIC I	Bottom hole ter comments: Good Clear Color Depth first Water Encou LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soci	np inter Wa	70 aler
Wate 13. L Bore Dia.	r Qualit OS ITHOL		Comments: GOOD Clear Color Depth first Water Encou LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soci	nter Z	ater
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Wate 13. L Bore Dia.	r Qualit OS ITHOL		Comments: GOOD Clear Color Depth first Water Encou LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature Top Soci	nter Z	ater
13. L Bore Dia.	From		LOG: (Describe repairs or abandonment) Remarks: Lithology, Water Quality & Temperature	Wa	ater
Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	1	1
Dia.		2	TopSoil	Y	N
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1	32	40	Fractured Lava	-	A
T	40	61	Solidfaux	1	X
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	1		WESTERN REGION		
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Com	pleted i	Depth	0.5 TT. (Me	asura	ble)
Date	: Star	led	518/04 Completed 5/2/	10	4
14. D	RILLE	R'S CF		-	<u></u>
				h at the	8
Comp	any Na	Pro	cision loxildelling	5	2:
South	ary red	" IC	2000	T	17
	bal Drille	er y	all lauren Date 5/	24	10
and		(1		1	-
Dniler	or Ope	rator II	Date	-	-
Opera	tor I		Date		
		1.1	Principal Driller and Rig Operator Required.		_
	Date 14. D I/We c time th Comp Princip and Driller Opera	Date: Start 14. DRILLE I/We certify the time the rig we Company Nare Principal Driller and Driller or Ope Operator I	I/We certify that all mit time the rig was remo Company Name Principal Driller and Driller or Operator II Operator I Ope	E7 S5 Fract hursed Lacua 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 Completed Depth B S F Date: Started S S F Date: Started S S F Me certify that all minimum well construction standards were complied with time the rig was pergoved. Company Name Company Name C S S F M Principal Driller D <t< td=""><td>67 85 Fraction and Lawa K RECEIVED </td></t<>	67 85 Fraction and Lawa K RECEIVED

Form 238-7 6/02 IDAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT 1. WELL TAG NO. D 0031125		CES		Office Use Only Well ID No Inspected by Twp RgeSec		- 28	
DRILLING PERMIT NO	12.1		TESTS				
		X	Pump	Bailer Air Flowing Artesian		-	
2. OWNER: Rob Gooding	-	Yield gal	Imin.	Drawdown Pumping Level	ma	_	
Name Bob Goodcein Address P. O- Box 251	+	حر	l =	161	~		
Address P. O-150 x 251 City Nampa State Id Zip 83653	-					- 15	
Sidio 20 210	Wate	er Temp.		. A Pottom bala tem			
3. LOCATION OF WELL by legal description: You must provide address or Lot, Blk, Sub, or Directions to well. Twp North A or South Rge Fast , , or West A	Wate	Pr Qualit	y test or	Comments: GOO CLCAR COLCAR COLCAR COLCAR COLCAR COLCAR COLCAR COLCAR COLCAR Depth first Water Encour LOG: (Describe repairs or abandonment)	nter	59 ater	
Sec. 17 NECNA NE 1/4 1/4	Bore	From	To	Remarks: Lithology, Water Quality & Temperature	Y	N	
Gov't Lot County	Pia	0	8	Sirihi = 1	-		
Lat: : : Long: : :	10	0	12	Received	-	t	
Address of Well Site	To	812	10-	Broken lava	-	K	
(Over at every name of soud + Highere to Road or Eard-wash) Lt. 5 Bik. Sub. Name Aussie Acres	66	45	64	Lavo mixed with Red	5001	t	
	6	64	80	Fractured lava	x	n	
4. USE:	P	e 1					
Pomestic Municipal Monitor Irrigation			Y		2		
Thermal Injection Other					1		
5. TYPE OF WORK check all that apply (Replacement etc.)	-	1			-		
DBUL NETLOD	1						
6. DRILL METHOD: Kair Rotary Cable Mud Rotary Cother	1				1		
XAir Rotary Cable Mud Rotary U Other							
7. SEALING PROCEDURES						1.00	
Seal Material From To Weight / Volume Seal Placement Method Ruse Go 10 Bear O 20 550 15 10 "Over fore Was drive shoe used? (XY UN Shoe Depth(s) Shop Bu; 14							
Was drive shoe seal tested? IY IN How? Luith pipe							
8. CASING/LINER:							
Diameter From To Gauge Material Casing Liner Welded Threaded				RECEIVED			
7/2 18 60 PUC & Solard &]				MAR 2 6 2004			
Length of Tailpipe Packer CY IN Type				WATER RESOURCES WESTERN REGION			
9. PERFORATIONS/SCREENS PACKER TYPE							
Perforation Method	1						
Screen Type & Method of Installation Schusson Schusik rig	-	-					
From To Slot Size Number Dampker Material Casing Liner				- 79'			
60 80 20 912 PVC X 1	Cor	mpleted	Depth	(Me	asura	able)	
	Dat	e: Star	ted	3/25/04 Completed 3/25	5/0	64	
	14.0	RILLE	R'S CE	ERTIFICATION	-	-	
10. FILTER PACK	I/We	certify t	hat all m	inimum well construction standards were complied with	at th	e	
Filter Material From To Weight / Volume Placement Method	time t	the rig v	as remo	oved.			
	Com	anv Na	metr	ccision wellderting Firm No.	5	22	
			1	1111 1 21	-	1	
11 STATIC WATER LEVEL OR ARTESIAN PRESSURE:		ipal Dril	er_4	fflauren Date S/2	5/	0	
56 tt. below ground Artesian pressurelb.	and	r or Ope	inator II	· /	5		
Depth flow encounteredft. Describe access port or control devices:	Drule	or Ope	alator II	Date		_	
San sear wer cap	Opera	ator I_	-	Date			
			-	Principal Driller and Rig Operator Required. erator I must have signature of Driller/Operator II.			
			Cine	araint I must have supplure of Unillar/Operator II			

~~

Form 238-7 6/02 IDAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT 1. WELL TAG NO. D DRILLING PERMIT NO.		CES			Office Use Only Well ID No. 8/2956 Inspected by Twp RgeSec 1/41/41/4			1	29
Water Right or Injection Well No.	12. 1		ESTS:		Lat:	: : Long		3	
	_		Pump	C Bailer	RA			-	
2. OWNER: Rock Good		Yield gal.		Drawdo	wn	Pumping Level	26	ime	-
Name Bob Goodwin Address P. O. Box 251		101	-			107	An	15.	-
City Nampa State Zip 83653	-								
	Wate	r Temp.		1		Botto	m hole tem	10.	_
3. LOCATION OF WELL by legal description:			v test or	comments:	60	odclear	Col	ar	6
You must provide address or Lot, Blk, Sub. or Directions to well.						Depth first Wa	aler Encou	nter	55
Twp North AT or South L Rge Fast D or West AT	13. L	ITHOL	OGIC	LOG: (Desc	ribe repa	irs or abandonment			ater
Sec. 17 NW 1/4 NE 1/4 1/4	Bore	From	То	Remarks:	Lithology	Water Quality & Tem	nerature	Y	N
Gov't Lot County Carryon TEO acres	Dia.	-	E		1	1	perature		12
Lat: : Long: : :	10	0	22	Solic				1	1
Address of Well Site	-	22	20			2 Java	-	-	XX
(Sink at least tame of lease + Charles to Flease or Landrack) Lt. <u>H</u> Bik, Sub. Name ASSie Acres	H	49	64	Solin	1/4	m		-	F
Lt. H Bik, Sub. Nameral Sie Acres	T	64	84	Fract	wed	Tava		x	
So. off of Lewis	K	84	21	Grey	clo	y			K
4. USE:	6	91	93	Sonds	910	vel		+	
Domestic 🖾 Municipal 🗆 Monitor 🖾 Irrigation	6	13	15	-		lava			x
Thermal Injection Other	6	75	106	Sano	199	ravel		×	
5. TYPE OF WORK check all that apply (Replacement etc.)			-	1200					-
New Well Modify Abandonment Other	-	-						-	1
	-			-				1	1
6. DRILL METHOD:									
Air Rotary Cable Mud Rotary Other									
7. SEALING PROCEDURES	-							1	
Seal Material From To Weight / Volume Seal Placement Method								-	+
Western Bent 0 84 31 Bags 10"overbore	-				DEC			-	12:
Was drive shoe used? XY N Shoe Depth(s) 95	-			1	nEC.	EIVED			1
Was drive shoe seal tested? XY IN Shoe Deprins)	1				APD	2 3 2004 -	-		1
8. CASING/LINER:					WATER	RESOURCES			
Diameter From To Gauge Material Dasing Liner Welded Threaded		_			WESH	RN REGION			1
6 12 95 250 Steel *		_				-	_	-	-
	-	-							-
Length of Headpipe 5 Length of Tailpipe &								-	+
Packer RY IN Type 3-Rib	1							-	
9. PERFORATIONS/SCREENS PACKER TYPE	12.17								
Perforation Method		1.000							
Screen Type & Method of Installation, Johnson Set Pullback.			-					-	
From To Slot Size Number Diameter Material Casing Liner	-				Int.	1			
96 106 20 6 Tele S.S. D	Cor	mpleted	Depth	1 110	20		11/1	easura	able)
	Dat	e: Star	ted 7	107/	04	_ Completed	7/0	70	97
				RTIFICATIO		data and	13.0		
10. FILTER PACK			hat all m vas remo		onstructio	on standards were co	mplied will	h at th	1e
Filter Material From To Weight / Volume Placement Method			6	3	2.5	1 all a			
	Comp	bany Na	me Z	case	8.1	con willing	Firm No	5	ad
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Princ	ipal Dril	ler C	lille	lau	son Dat	e 4/2	211	09
7.6 tt. below ground Artesian pressurelb.	and		1	11-	un		11	1	1
Depth flow encounteredfl_ Describe access port or control devices:	Drille	r or Ope	erator II			Dat	ie		-
San' Seal well Cap	Open	ator I				Dat	e		
						g Operator Required.			
	1.11		and the second second	erator I must h IRCES	ave signa	ature of Driller/Operat	or II.		

Form 238-7 3/95-C96

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

8	177	707	30
nspec	Offic ted by	e Use Only	
Twp	Re	e Sec	3
2.2.2	1/4	1/4	3/4
et.		Long	

1. DRILLING	PERMIT	NO.			11,	WEL						
Other IDWR N	b. D00314	100			Viel	d gal/min	Pump	Bailer rawdown	Air I F	lowing Arte	sian	_
. OWNER:	dowf				50 G			I A WOLVYN	80'	1 Hr.		
lame Wes Wal		***										T
ddress <u>100 N</u> Lity Kuna	McDermo		State ID	7:- 02/24					1 L			
LOCATION			State ID	Zip 83034	Wat	ter Tem	p		Bottom hole te	mp	_	-
ketch map locat	ion must a	gree wit	th written locat	ion	Wat	ter Qual	ity test	or comments	s: epth first Water En	countered 76		
	Пт	wp. 2	North 🛛	or South 🗌			DLOC		(Describe repairs			
		ge. 1	East 🗌	or West 🖾	Bore	From	To	Remarks:L	ithology, Water Qual	lity & Temp.	TY	N
HH	- s	ec. 17	- 1/4 To acres	NW 1/4 NE 1/4 40 acres 160 acres	Dia 12"	0'	1'	top soil		-	Н	Б
المالية الم			County		12"	11	6'	dry brown clay				Ď
S			-		12"	6'	9'	broken lav				Ď
Lat:		_ 1	ong::	<u></u>	12"	9	18'	solid lava				5
ddress of We	1 Site 985	7 Dun	Dee Ct.		8"	18'	45'	solid lava				D
ve at least name of ro	ad + Distance	in Road or	City Nampa		8"	45'	50'	cracks				Σ
					8"	50'	76'	solid lava	1 -			D
BI	к	- Sub.	Name		8"	76'	96'	cracks lava			$- \bowtie$	
LICE.					8"	96'	98'	sand & gra	ivel		$\underline{\times}$	
USE:						line of	·	1				
Domesti D Thermal		nicipal	Monitor Other	Irrigation			1				_	
				Replacement etc.)	-	1.1.1.1		1			+	
New Well	Modify [Abenc	ionment [] Ot	her		1			-			
DRILL MET		Jatourie			-						-	
Air Rotary [Mu	d Rotary	ther	-							
SEALING P					-	-			RECEIVE	-D		-
	TER PAC		AMOUNT	METHOD								-
Material	From	То	Sacks or Pounds		-	-			JUN 2 8 200	4		1
ntonite	0'	18'	12 sacks	poured		11 - 22	1			(* · · ·		F
					1	-	-	-	WATER RESOURC	ES		\vdash
			· · · · · · · · · · · · · · · · · · ·						WESTERN REGIO	1N		1
on drive chos w	v D Cha	MN	Shoe Dooth(a)			1						F
as drive shoe se	al tested?	E V	IN How?		-							F
											+	-
ameter From 1	o Gauge	Materia	al Casing Liner	Welded Threaded		1					-	r
+2' 1	8 .250	steel										r
<u>y 12' 9</u>	5 Sc40	PVC		Welded Threaded		1		1			T	F
					1							-
ength of Headpi	pe		Length of Tail	pipe	1	1						Г
PERFORAT						npleted			0	Measurable)		1
Perforations	Method					e: Starte		the second se		pleted 6/21/0	4	-
Screens	Screen 7	ype					- N. 101 - 15	CERTIFI		10 - 10 - 1 - 1		
om To Slot S	ize Numb	- In-	and hereit	Carina Line					vell construction sta	andards were	ē.	
om To Slot S ' 98' 1/4"			neter Material PVC	Casing Liner	com	plied w	ith at th	e time the ri	g was removed.			
1/4	120	-+	1.40									-
	-			ă ă	Firm	n Name	Down	Right Drillin	g & Pum	Firm N	lo. <u>63</u>	7
16.77	10000				Pte		1		1.		1.	
0. STATIC W	ATER L	EVEL	OR ARTES	AN	Firm	n Officia	"	aunt	figues 11 1	Date	10-1	4
RESSURE:					e.	minar	-0-	y Sa	in Hall	4	11.	. 1
ft. below ground			Artesian Pres		Supe	ervisor (w Oper		igm Official & Operat	L Date	200	4
epth flow encou	ntered	ft.	Describe acce	ss port or control				Caller ones It I	on onen o operat			1
evices:				1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Date:	6/23/20	04 Time	:8:21 AM				

							812	2958		3
								Office Use Only	-	٦
Form 238-7	I		PARTMENT (by Rge Sec		-
3/95-C96		V	VELL DRILL	ER'S	REP	ORT	1/4	1/4	1/4	
		D 002	0.60	11	WELI	TES		: Long: :	3	
DRILLING PERM		0-0030	1-909					Flowing Artes	ian	_
her IDWR No OWNER:					gal/min.	Dr	awdown Pumping Lev			-
me Larry Hays				40		+	80'	1 Hr.		-
dress 292 W. Boise	St					-				
y Kuna		State ID Z	ip 83634	Wat	er Temp		Bottom ho	le temp.		-
LOCATION OF W	VELL by le	gal descripti	on:	Wat	er Quali	ity test	or comments: Nitrate 0			
etch map location mus	st agree with	written locatio	n	Har	dness 1	6	Depth first Wate	r Encountered 80'		-
N				12.	LITHO	DLOG	IC LOG: (Describe rep	urs or abandonn	ient)	
	Twp. 2	North 🛛	or South							
HTH.	Rge. 1	East	or West 🛛	Bore	_	To	Remarks: Lithology, Water	Quality & Temp.	TY	N
	Sec. 17	1/4 1	NE 1/4 NW 1/4	Dia		11.01		10 N.C. 900 10.4	44	
HHH		10 Bores 7	lo acres 160 acres	12"	0	2'	Topsoil Brown Dry Clay			₿
G	ov't lot	County	Canvon	12"	7	12'	Cleachey Burnt Clay			Ø
S	2010 C 10 10 10 10 10 10 10 10 10 10 10 10 10			12"	12'	19	Solid Black Lava			\overline{X}
Lat: : :				8"	19	60'	Solid Black Lava			X
Dermott	Lewis Lin. E	lity Nampa	HOUL OF FIRE	8"	60'	70'	Cracks in Black Lava		T	X
cDermott e at least name of road + Dist	ance to Road or L	andmark)		8"	70'	80'	Solid Black Lava			\boxtimes
Blk			4799	8"	80'	94'	Cracks in Black Lava		$ \ge $	
				8"	94'	97'	Brown Sand & Gravel			
New Well DModi DRILL METHON Air Rotary Ca SEALING PROC	D ible 🗌 Mud	Rotary 🗌 O	ther					EIVED		
SEAL/FILTER	PACK	AMOUNT	METHOD				HE	4000		
Material F	rom To	Sacks or Pounds			Aut 1		t.	R21200.		
entonite 0	19'	550#'s	Overbore		111	i i e e	Pi Pi	- AFSOURCE		
				-		-		TER RESOURCES		+
				-	-	+	Y Y	IEC.	+	+
as drive shoe used?	DY N N	Shoe Depth(s)		-	-	-			-	1
as drive shoe seal tes] N How?_		-	-	+				T
CASING/LINER	ana Materia	Casing Liner	Welded Threaded	-		1	1			
iameter From 10 G	250 Steel			1	1		11 1			
	Sc40 PVC			1		12				
	_				1	1				1
ength of Headpipe		Length of Tail	pipe		1_	-	1.07	() for such 1	1	1
PERFORATION		IS					oth: 97	(Measurable Completed 04/1)		
Perforations Me	thod saw				nte: Star		'S CERTIFICATION	Compared Vill	S. Contest	-
Screens Sci	reen Type			13	Ve certi	fy that	all minimum well construct	tion standards we	re	
rom To Slot Size	Number Dian	neter Material	Casing Liner	CO	mplied	with at	the time the rig was remov	ed.		
86' 96' 1/4" 300 6" PVC				Contract, saladie mary and the set of the set of the						
X3"							n Right Drilling & Pum		No. <u>6</u>	
10. STATIC WAT	ER LEVEL	OR ARTES	IAN	Fi	rm Offic	cial	Sam plainen	Date	4-1	13-
PRESSURE: <u>52ff. b</u> elow ground Depth flow encountered		Artesian Pre	ssurelb	Sı	perviso	r or Op	(Sign once if from Official 8	Date 2 Operator) Date	41	34
Depth flow encountered devices:	а <u></u> п.	Describe acc	ess port of control	Da	ate: 4/13/	2004 Ti	ime:9:58 AM			

USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Water Administration

RECENTO

32

WELL DRILLER'S REPORT State law requires that this report be filed with the State Reclamation Engineer

within 30 days after complete	ion or	abando	nment	of the well.	1972	-	944
1. WELL OWNER	1.501		LEVEL	separtment of	If Water Ad		1
Name Bill Lee				feet below land su	irface minin	stration	È.
AddressRte. 6 Nampa, Ideho	F	lowing?	U Y	es □ No G.P.M. flow ° F. Quality			
Address nee. o Nampa, 102110				pressurep.s.i,			-
Owner's Permit No	c	ontrolle	d by	□ Valve □ Cap	D Plug		÷
2. NATURE OF WORK	8. W	ELLT	EST DA	ТА		- ×	-2
X New well Deepened Replacement		Pump		🗆 Bailer 🔲 Other			
	D	ischarge	G.P.M.	Draw Down	Hours P	umped	
Abandoned (describe method of abandoning)	122						
	-						
3. PROPOSED USE			1	3	1395		i
X Domestic C Irrigation C Test	9. L	_	OGIC L				0
Municipal Industrial Stock	Hole Diam.	De	pth To	Material	(Wa Yes	No
		0		Top soil		14	X
4. METHOD DRILLED	1	2		Loose Lava		1.0	X
Cable Cotory Dug Other		4	19	Solid lava			Ŷ
Cable Contraction Rotory Contraction Dug Contraction Other	-	19		Lava with crev:		-	X
5. WELL CONSTRUCTION	-	35	46	Solid lava Lava with crev:		X	1º
		54		Solid lava			X
Diameter of hole inches Total depth feet	1.1	59		Loose lava		X	100
Casing schedule: 120 Steel 🗆 Concrete Thickness Diameter From To		17.721				+	-
.250 inches 6 inches 18" feet 38 feet				8" to 38"		+	-
inches feetfeet				6" from there		1	-
inches feet feet						THE P	1.2
inches inches feet feet							1
inches inches feet feet							
Was a packer or seal used? 🛛 Yes 😰 No		1 = 2		· · · · ·		1 (= 1	
Perforated? ☐ Yes Ø No							-
How perforated? Factory Knife Torch					_	+	Av
Size of perforation inches by inches		1	1				
Number From To	_		<u>C 7</u>				
perforations feet feet feet feet feet						+	+
perforations feet feet					within		-
	The state						
Well screen installed? ☐ Yes ☑ No	1						
Manufacturer's name Model No					- Andrew Contractor	14	
DiameterSlot size Set from feet to feet			-				-
Diameter Slot size Set from feet to feet	1					-	+
	1.1	- me		· · · · · · · · · · · · · · · · · · ·		1	
Gravel packed? Ves 10 No Size of gravel							13
Placed from feet to feet	-					10-1	-
Surface seal? 🙀 Yes 🛛 No To what depth 38 feet							-
Material used in seal 🔲 Cement grout 🐴 Puddling clay			1			1	1
	10.00						
6. LOCATION OF WELL							
Sketch map location must agree with written location.	10.			on Inc			
N	W	ork sta	rted	-8/27/72 finished		·	-
				and the second s	en		
	11.0	RILLE	R'S CE	RTIFICATION	1.4		
W The last of the	A	And the second second		illed under my supervision a	nd this report	t is	
	t	rue to t	he best	of my knowledge.	1 - 0	. 4C	
			- 2.3				
6.2	Ē	Da-	Vis V	Vell Drilling	101 Num		
County Canyon				Box 6209 Nampa,			
	A	ddress	~ ~	LUA VEUT Nampa,	- TUSUO		0
NE 1/2 NW 1/2 Sec. 17, T. 2 N/S, R. 1 X/W	-				-9/23/7	2	
	S	igned By			Date	-	

USE ADDITIONAL SHEETS IF NECESSARY FORWARD THE WHITE BUILE AND PINK COPIES TO THE DEPARTMENT This document was created by an application that isn't licensed to use <u>novaPDF</u>. Purchase a license to generate PDF files without this notice.

and a standard and a standard and a	Office Use Inspected by Twp Rge	
JOHCO	1wpRge 1/41/4 Lat: : Long:	1/4
Bailer	Air E Flowing	Artesian
Drawdown 300	Pumping Level	1/2
		- in P
1		
56	and the second se	hole temp 52
t or comments:	Depth first Water En	
SIC LOG: (Des	cribe repairs or abanc	donment) Wat
Remarks: Lithol	logy, Water Quality & Ten	
TOP So.	7	
Hard	Pan	
1500 km	n deva	
LAOA	11	
Gravel	I Sal	X
1		
1		
ECEIVE	C 4 - 1 - 1	
IVE	D	
UL 3 0 1996		
nent of Water Resou	Ces	
24	REC	EIVED
1 1 1996	JUL 1	7 1996
	WATER	RESOURCES
1	5 WEBIEI	RN REGION
OF		
1221.91	Completed A	(Measurable
0 20 14	Outpleted	age re
S CERTIFICA		
as removed.	onstruction standards w	ere complied wit
easure l	216/2/11-	- M
asane C	E SAN MA	Firm No 56
mant	June Date	210
141	Was	0.
1 IV	Prato Sign once I	rator (Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

Form 238-7	14	
4/92	1.1	

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

. WELL OWNER	7. 1	WATER	LEVE	EL			
Name LOCKLANE, MIKE	1	Static v	water l	evel feet b	elow land surface.		
COOF TELES TANK				Yes 🗆 No			-
NAMPA, ID 83651	1	Artesia	n close	ed-in pressure	p.s.i.		
Drilling Permit No63-92-W-0986-000	(Contro	lled by	: 🗆 Valve 🗆 Cap	Plug		
Water Right Permit No		Tempe	rature .	Describe artesian or tempe	ature zones below.		-
NATURE OF WORK		VELL	TEST	DATA		~	
Vew well Deepened Replacement	1.000		10.25	ALC: NOTE: N	-		
Well diameter increase Modification	1.0	- Pur	ήÞ	🗆 Bailer 🗆 🕅	Other	-	
Abandoned (describe abandonment or modification procedures	C	Discharg	e G.P.M	. Pumping Lev	el Hours	Pumpe	d
such as liners, screen, materials, plug depths, etc. in lithologic	1	50		245	2		
log, section 9.)			-				_
PROPOSED USE	1						
Domestic Irrigation Monitor	9. L	ITHO	LOGIC	LOG	84141		
Industrial Stock Waste Disposal or Injection Other	Bore		pth	Mate	rial		ater
	Diam. 9'	From				Yes	1
METHOD DRILLED	9'	-				NO	
Air Auger Reverse rotary	9'	2				NO	
Cable Mud Other	9'	2				NO	
(backhoe, hydraulic, etc.)	9'					NO	1
WELL CONSTRUCTION	9' 9'					NO	-
	9'			9 SAND 00 GRAVEL		S	-
Casing schedule: Steel Concrete Other	6'		10 1			NO	
250 inches 6 inches + 1 feet 249et	6'		133		YES		
inches feet feet	6'	133	148		444	NO	
inches feet feet	6"				D YES		
Was casing drive shoe used? Var Xes No	6'		_			NO	-
Was a packer or seal used? Yes Ko	6"				D YES	-	-
Perforated? Ves Ko	6"	205	207	CLAY			-
How perforated? Factory Knife Torch Gun Size of perforation? inches by inches	6"	207	225	HEAVING SANI	YES		-
Number From To	5"	245	249	BLUE CLAY COARSE SAND	YES	NO	-
perforations feet feet		- 10	200	CONTROL ONLY	100		
perforations feet feet	1					11.24	
perforations feet feet		-		VED			-
Well screen installed? Yes Note Manufacturer Type		Pr -	0.EI	1002			-
Top Packer or Headpipe		nE	c 2	8 1992		-	
Bottom of Tailpipe		De		Nation Franciscumpers			
		T Wat	not	Water	20000		-
Diameter Slot size Set from feet to feet		Lope		10) 5 (GI	LIV 12 IN		
Diameter Slot size Set from feet to feet		- 7		1112-	- 511		-
Gravel packed? Ves X No X Ves gravel feet to feet				11 100	1 1992		
	1.1		·		And the second sec		
Surface seal depth used in seal: D Cement grout			1100	MIT I Protocont of	Mator Burnutous	1	
Bentonite Puddling clay		14	1		picad Other		
Sealing procedure used: Slurry pit					Antina ditta	_	
□ Temp, surface casing □ 12 verbore to seal depth Method of joining casing: □ Threaded □ 13 Velded		-	AUG	0 9 1993			-
Method of joining casing: Threaded XVelded Solvent Weld Cemented between strata	10.			153.5			
Describe access port	1.00	Vork s	tarted .	11/13/92 fi	nished 11/1	5/93	2
LOCATION OF WELL	11. 0	BILLE	B'S C			-	-
Sketch map location must agree with written location.				hat all minimum well	construction stars to	-	
Subdivision Name	c	omplie	ad with	at the time the rig was	s removed.	ius w	ere
	F	irm N	ame	Can-Ada Well	Drilling 304	1	
W E Lot No. Block No				State of the second			-
The second se	A	ddress	s	4250 Murphy R	adig		
S County CANYON	s	ligned	by Dri	Kuna, Idaho	Skin	en	
		-			"greeter	- 1	-
(give at least name of road)				and 1	1		

Form 238-7 1/78

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

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

	1		Grute		an experimental second		
1. WELL OWNER	7.	WAT					
Name fx & Construction Address Caldwell				level <u>57</u> feet belo			
Caldwidde				□ Yes □ No G.P.N		_	-
Address				sed-in pressure			
Owner's Permit No				eOF. Quality			_
2. NATURE OF WORK	8.	WEL	TES	T DATA	-		
K New well 🗆 Deepened 🗆 Replacement		🗇 Pu	mp	🗆 Bailer 🛛 Air	Other		
Abandoned (describe method of abandoning)	-	Discharg	e G.P.N	A. Pumping Level	Hours Po	mped	1
				a second state of the seco			
3, PROPOSED USE							
S Domestic 🗆 Irrigation 🗆 Test 🗆 Municipal	0	1170	01.00	10100	106238	3	
□ Industrial □ Stock □ Waste Disposal or Injection	_			IIC LOG		1	
Other (specify type)	Hole	De From	-	Materi	al	-	ater s No
	Diam	0	3		hown		V
4. METHOD DRILLED			25	Speid lav	a	1	X
🖄 Rotary 🕅 Air 🗆 Hydraulic 🗆 Reverse rotary		35	25	Lava Cre	recea	12.1	X
Cable Dug Other		33		Soled la			X
		56	10	Sova wi	the second s	X	
5. WELL CONSTRUCTION		00	85	1 creve			X
	_		92			1.1	X
Casing schedule: 🖾 Steel 🛛 Concrete 🗆 Other	-	80	704		lava	X	
Thickness Diameter From To -350 inches 6 inches + 1/2 feet 38//deet		-		Korac	saun	11	1
-250 inches _ Co inches + 1/2 feet 38/ deet	-		1			1	
inches feet feet						10.1	
inches inches feet feet inches feet feet		1.000					
Was casing drive shoe used? K Yes 🗆 No		-					-
Was a packer or seal used? 🗆 Yes 🖉 No	_		-	2.28.25.25.2	and the second	1.2	
Perforated?						-	-
How perforated? Factory Knife Torch	-	-					
Size of perforation inches by inches	-						-
Number From To		-				1	1
perforations feet feet		1.000	1.1	1-2-2			1.1
perforations feet feet			-				1.5
Well screen installed? □ Yes							
Manufacturer's name						-	1
Type Model No.		-	-			-	-
Diameter Slot size Set from feet to feet		-		0000		-	-
Diameter Slot size Set from feet to feet					in and	-	1
Gravel packed? □ Yes 🖄 No □ Size of gravel	D	5 6	51	MEM	2 3111	1	
Placed from feet to feet Surface seal depth 20 Material used in seal:	UU1	100	les tr	- UNO	101	· · · ·	
Well cuttings			00	MAY &	1 080		
Sealing procedure used: 🛛 Slurry pit 💆 Temp. surface casing	1 1	MAY	30		Nator Resources	-	-
Soverbore to seal depth		1.5	1.57	400000	Aleter Kesources gional Office		
	DEC	erer tu	A 26 31	Printes Western Re	Biolial Alling		
Weld	11.40	100.21	First 1			•	12-1
Describe access port Welse plate	10.	Wo	rk star	ted <u>2/24/19</u> fin	ished 7/241	199	r
and the second second second second	-						
6. LOCATION OF WELL	11.	DRIL	LERS	CERTIFICATION			
Sketch map location must agree with written location.				y that all minimum well c		s down	ere
N Subdivision Name Moke				th at the time the rig was r			a. H
Subdivision Name 100 PCC		Firm I	Jamo	Carro Wulle	Illinon 10:	2	SU 1
w X -							
W E		Addre	ss 41	50 Pitth Dam	Parate 8/2	P	19
Lot No Block No				DI'	10	5	
		Signed	by (F	irm Official) Chap	tis Da		6
s Ca				and			
county <u>S</u> <u>Campon</u>				(Operator)			
SE 1/ NW 1/2 Sec. 17, T. 2 NO, R. 1 DW.						-	
	1.1						

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

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

36 USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT res that this report be filed with the Director, Department of Water Resources OCT 1 5 9991

Form

8/90

within 30 days after the completion or abandonment of the well.

1. WEREPARTMENT of Water Resources	1 7	-				
	1.	WATE	RLEN	/EL		
Name Harold Coon	111	Static	water	level 59 feet below land	surface.	
Address 4756 Dye Lane Nampa, Idhao 83686				Yes No G.P.M. flow		
Nampa, Idnao 83686 Drilling Permit No. <u>63-91-w-277</u>	1111			ed-in pressure p.s.i.		
		Contr	olled b	y: 🖸 Valve 🗆 Cap 🗆 P	lug	
Water Right Permit No.		Temp	erature Des	OF. Quality	low.	-
2. NATURE OF WORK	8,	WELL	TEST	DATA	71224	
X New well Deepened Replacement Well diameter increase		D Pu	mp	🗆 Bailer 🗆 Air 🗆 O)ther	_
Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log)	1	Discharg	e G.P.M	. Pumping Level	Hours Pumped	-
3. PROPOSED USE						
🖈 Domestic 🖾 Irrigation 🗆 Test 🗆 Municipal	9.	LITH	OLOG	IC LOG		
Industrial Stock Waste Disposal or Injection	Bore	De	oth		T W	ater
Other (specify type)	Diam.	From	To	Material	Ye	No
	8	0	5	Top soil/hard pan	A	x
4. METHOD DRILLED	-	5	7	Loose lava		x
🖈 Rotary 🛱 Air 🗆 Hydraulic 🗆 Reverse rotary	1	28		Solid lava		X
Cable Dug Other	-	35		Lava crevices Solid lava		x
		37		Lava crevices		x
5. WELL CONSTRUCTION	6	38		Solid lava		x
Casing schedule: 🖞 Steel 🗆 Concrete 🗆 Other	100	65	73	Lava crevices	x	
Thickoess Diameter From To	1	73	94	Loose lava/crevice	s	x
Thickness Diagneter From 29 To feet		94	98	Lava/grave1	X	
inches feet feet		98	101	Sand/grave1	×	
inches inches feet feet	-		-			-
inches feet feet		-				+
Was casing drive shoe used? Yes 🔂 No	-		-			-
Was a packer or seal used? 🗆 Yes 🖳 No	1			1		1 1
Perforated? Ves G No			1			
How perforated? Factory Knife Torch Gun						
Size of perforation inches by inches Number From To	_					1
perforations feet feet						-
perforations feet feet						-
perforations feet feet				00		+
Well screen installed? D Yes 💭 No				PECENT		-
Manufacturer's name			1	MESSEVI	SIN	1.51
Type Model No			H	44		
Diameter Slot size Set from feet to feet	1 and	1		OCT 10 1991	701	
DiameterSlot sizeSet fromfeet tofeet Gravel packed? Yes No Size of gravel	25-65			001 10 1991	0	
Placed from feet to feet	ART A			Depertment ne wat		1.1.11
Surface seal depth _ 39 Material used in seal:	-			Department of Weter Resource Western Regional Office	68	-
Bentonite 🛛 Puddling clay 🗂		-		Will Uttice		+
Sealing procedure used: Slurry pit Stremp, surface casing						
St Overbore to seal depth					2115	1
Method of joining casing: Threaded Welded Solvent	1.1					
Weld		-	1.0			
Describe access port <u>well seal</u>	10.					
wert seat	10.		rk star	ted 8/5/91 finished	8/5/91	
	-					
6. LOCATION OF WELL Sketch map location <u>must</u> agree with written lo	11.	DRIL	LERS	CERTIFICATION &		
Sketch map location must agree with written lo	2.0	IAVe		that all minimum well construct	tion standards w	vore
N	MPn.	com		h at the time the rig was removed		vere .
Subdivision Name	I E L	VIS		& PUMP CO.		
N Subdivision Name DEC 0 4 199		Firm		PITT LANE Firm	No. 101	
W F E F F F F F F F F F F F F F F F F F				ALLO BOOCT		
		Andre	55	Date	10-9-91	
Lot No Block No		1				
		Figned	by (F	irm Official)	Maria	-
S Country Convers		1		and	Sec. 6.	
County Canyon SE NW 17 2 N ND 1 W ED			1	Operator) Church	laund	
SE NW 17 2 N N 1 W E				irm Official) Coule M and (Operator) Chuck of Suy (1 mall.	-

and the second se	
USE TYPEWRITER	OR
BALL POINT PEN	1
	-

State d Idaho Department of Water Resources

WELL DRIL										
WEI	1.1	DE	11	1	ED'S	D	FD	0	DT	i

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 Static water level _______ feet below land surface Flowing? [] Yes [] No G.P.M. flow Temperature ______ No G.P.M. flow Artesian closed in pressure ______ p.s.i. Name E. L. Koortz Address Dye Love Manfau Ila 83607 Cap inter Bestylices Controlled by
□ Valve Owner's Permit No. Western Regional Offica Depart 2. NATURE OF WORK 8. WELL TEST DATA B New well Deepened
 Replacement D Pump D Bailer C Other Discharge G.P.M. Draw Down Hours Pumped Abandoned (describe method of abandoning) 20 2 3. PROPOSED USE Domestic 033156 I Irrigation Test Other (specify type) 9. LITHOLOGIC LOG Depth Water - Waste Disposal or Hole Ci Municipal 🔲 Industrial Stock Material Diam. From To Yes I No Injection 4 8 Sait 0 2 4. METHOD DRILLED hard pan 6 8 7 A lava 8 2 20 4 Cable Rotory
 Dug
 Other 20 80 loug Braken 1. 6 5. WELL CONSTRUCTION Diameter of hole 6 inches Total depth 80 feet Casing schedule: E Steel Concrete Diamater Thickness Diameter From To 2.30 inches _____ inches +1555 feet 20 feet Thickness inches _ _ inches ___ feet feet inches _ inches feet feet _____ inches ___ inches feet feet inches _ inches feet feet Was casing drive shoe used? CT Yes D No How perforated?
G Factory
G Knife
G Torch Size of perforation _____ inches by _____ inches Number From To _____ feet ____ perforations ____ feet _ perforations _____ feet __ feet perforations ____ _ feet _ feet I Yes INO Well screen installed? 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 PNo Size of gravel___ Placed from feet to feet Surface seal depth 3.0 Material used in seat Coment grout Puddling clay D Well cuttings Sealing procedure used 🔲 Shurry pit 🖾 Temperary surface casing Overbore to seel depth 10. 6. LOCATION OF WELL Work started aug 11 finished aug 181926 6 Sketch map location must agree with written location. 0 II. DRILLERS CERTIFICATION Firm Name Baldroom field Subdivision Name_ w E Mampa Lloon Oct 12 B Broomfield Lot No .____ Block No .. Signed by (Firm Official). County Canyon and Same (Operator)_ E & N & VA Sec. 12, T. 2.

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N/ R.

37

USE TYPEWRITER OR BALL POINT PEN State o Department of Wa WELL DRILLE State law requires that this report be within 30 days after complet	ter Ad ER'S	RE	POF		the star	38
1. WELL OWNER Name Bichard H. Kolbo Address 1011 10th and So Nampa Ida Owner's Permit No.	S F T A	tatic wa lowingi empera rtesian	ture ture	el <u>49</u> feet below land surface //es DNo G.P.M. flow ° F. Qualityp.s.i. in pressurep.s.i. DValve DCap DPlug	_	
2. NATURE OF WORK	E	ELL T Pump ischarge	G.P.M.	ATA Bailer Other Draw Down Hours P Jal 121 Hr.	umper	1
3. PROPOSED USE			ÓGIC	LOG 31394	1	ater
Municipal Industrial Stock	Hole Diam.	From	To /	Material Colucture & Hord par	-	No
Cable Cotory Dug Other		3 24 54	3 4 54 54	Brown lous Soff Curlus Brown lous Soff Curlus Black Ana porse. Cintres		+
5. WELL CONSTRUCTION Diameter of hole				Stalled in Black linderes		
6. LOCATION OF WELL Sketch map location must agree with written location. W W B County Count	11. C T t	DRILLI 'his wel rue to t	R'S CE I was di he best 2. C r Firm's Me	Int-29-12 finished <u>act-9</u> ERTIFICATION filled under my supervision and this report of my knowledge. Rocomfuld # 2 Name Many It Manna, D Abourn act 5- Date	is 9	7

USE ADDITIONAL SHEETS IS NECESSARY ECONARD THE WHITE DUILS AND PINK COPIES TO THE DEPARTMENT This document was created by an application that isn't licensed to use <u>novaPDF</u>. Purchase a license to generate PDF files without this notice.

USE TYPEWRITER OR BALL POINT PEN Department of Wa WELL DRILL	ater A	dminis			Que ga	3	39
State law requires that this report be within 30 days after comple 1. WELL OWNER Name Richard H. Kollos Address 1011, 10th Que So Mampa, tha Owner's Permit No.	tion or 7. V S f 7	aband VATER Static w Flowing Fempera Artesian	ater lev	of the well.	ow	1	
2. NATURE OF WORK	8. V	VELL T Pump	EST D	ATA Bailer Oth Draw Down		-	-
3. PROPOSED USE	Hole		OGIC	1	31396		ater
□ Municipal □ Industrial □ Stock 4. METHOD DRILLED	Diam.	From 0 1 3 24	To 1 3 24 54	Material Calechie YR Calechie Ho Jay Loua Brown Lous	Soft "49"		N
5. WELL CONSTRUCTION Diameter of hole inches Total depth feet Casing schedule: Steel Concrete Thickness Brown To Inches Inches From To inches Inches feet feet feet Inches Inches feet feet Inches Inches feet feet Inches Inches feet feet Inches		54		Some find Block long also Some find Stalled out in	kone	X	
Gravel packed?						•	
B. LOCATION OF WELL Sketch map location must agree with written location.	11. D TI	RILLE nis well	R'S CE was dri	RTIFICATION RETIFICATION Iled under my supervision of my knowledge, Broomfield Marne Monnfield Marne Monnfield Marne Oct.	and this report i	5	H 1

8	SIL	180	
	Office Us	e Only	
spected	by		
vp	Rge	Sec	_

Form 238-7 3/95-C96

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

0	Office	Use ()	nly		
ted b	y				
1	Rge		Sec	1.1	
1/4		1/4		1/	4
:	5	Long	-		9
	ted b	ted by Rge	ted by Rge 1/41/4	Rge Sec	ted by Rge Sec

1. DRILLING PERMIT NO. D 0031457	11.	WELL		TS:		Flowing Artesia		
Other IDWR No. «Other IDWR No»	Vield	gal/min.		wdown	Pumping Leve			-
2. OWNER:	75	For min	135	- Porta	135	lhr		
Name_John Defferies					12		-	_
Address 2012 Stuart Ln.	1				1	1. 5		_
City Nampa State ID Zip 83687		Temp.	56		Bottom hole	e temp. <u>56</u>		_
3. LOCATION OF WELL by legal description:	Water	Quality	test or	comments:	16 . 2 . 117.1.0.	P 170		_
Sketch map location must agree with written location	-					Encountered 60		-
	12.	LITHO	DLOG	IC LOG: (Describe repair	rs or abandonm		
Twp 2 North Or South	10	From	To	In 1. 71	at the set Strates of	Quality & Temp.	Vater	IN
w $E Rge 1$ East \Box or West \boxtimes	Bore	From	10	Remarks:Li	thology, water	Quanty & Temp.	1	I.
W E Say 17 #000 NE 1/4 NW 1/4	10	0	2	Top Soil				$\sum_{i=1}^{n}$
" <u>HE 1/4</u> NW. 1/4 10 acres <u>HE 1/4</u> NW. 1/4	10	2	3	Broken up	Lava			Ņ
Gov't lot County Canyon	10	3	18	Lava				X
S	6	18	25	Lava				X
Lat: Long:	6	25	41	Red Lava			-	Х
Address of Well Site 6549 E. Lewis Ln.	6	41	60	Lava			1	17
City Nampa	6	60	63	Broken up	Lava		X	T
(Give at least name of road + Distance to Road or Landmark)	6	63	95	Lava & Cla	the second se		+	12
Lt. «Lt» Blk. «Blk» Sub. Name «Subname»	8	95	100		Lava & Clay		X	-
	-	100	140	Gravel	Lava & Clay		X	-
4. USE:	6	100	140	Gravei			1	₽
Domestic 🗌 Municipal 🗌 Monitor 🔲 Irrigation	1.1	1					-	₽
Thermal Injection Other		1					-	Ł
5. TYPE OF WORK check all that apply (Replacement etc.)		-					-	Ł
New Well 🗌 Modify 🗋 Abandonment 🗌 Other	1							
6. DRILL METHOD		-					- 41	
Air Rotary Cable Mud Rotary Other								1
7. SEALING PROCEDURES		·		1				
SFAL/FILTER PACK AMOUNT METHOD	h	-		2				1
Material From To Sacks or Pounds		111						Г
Bentonite 0 18 600 overborc	-	1						T
		1	1	-				t
	-	1	1	1				t
	-	1	1	1	14.1.3 C.O.S.	a daria		t
Was drive shoe used? X I N Shoe Depth(s) 140		1	1-	H H	ECEIV	ED		t
Was drive shoe seal tested? X IN How? Air	-	-	+	-			+	t
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded	-	-	+		JUN 242	104	-	t
6^{7} +2 140 .250 steal \square \square		-	-		2011 2 1 2		-	t
		-	-		VATER RESOL		-	ł
	-	1	+	-	WESTERN RE	GION	-	╉
	-	-					-	╋
Length of Headpipe Length of Tailpipe		1	-					4
		mpletec				(Measural		L
9. PERFORATIONS/SCREENS	1 1 2 5 4	e: Starte				Completed 6/22/)4	_
Perforations Method	1		TONC	CEDTIEL	CATION			
	13.	DRILI				and the second states and the second states and the		
Perforations Method Screens Screen Type	13. I/W	e certify	that al	minimum v	vell construction	n standards were		
Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner	13. I/W	e certify	that al	minimum v				
□ Perforations Method □ Screens Screen Type From To Slot Size Number Diameter Material Casing Liner	13. I/W com	e certify plied wi	that al ith at th	l minimum v e time the rij	ell construction was removed.			
Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner	13. I/W com	e certify plied wi	that al ith at th	minimum v	ell construction was removed.			560
Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner Image: Construction of the state of the stat	13. I/W com Firm	e certify plied wi n Name	that al ith at th Treasu	l minimum v e time the rij	ell construction was removed.	Firm	No. <u>:</u>	
□ Perforations Method □ Screens Screen Type From To Slot Size Number Diameter Material Casing Liner □	13. I/W com Firm	e certify plied wi	that al ith at th Treasu	l minimum v e time the rij	ell construction was removed.		No. <u>:</u>	
Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner Image: Complex strength of the strengt of the strength of the strengeh of the stre	13. I/W com Fim	e certify plied wi n Name n Officia	that al ith at th <u>Treasu</u> al	minimum w e time the rig re Valley Dri	ell construction was removed.	Firm	No	104
Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner Image: Screen Type From To Slot Size Number Diameter Material Casing Liner Image: Screen Type Image:	13. I/W com Fim	e certify plied wi n Name	that al ith at th <u>Treasu</u> al	minimum v e time the rig re Valley Dri Ale ator	vell construction g was removed. illing	Firm Date	No	104
	13. I/W com Fim	e certify plied wi n Name n Officia	that al ith at th <u>Treasu</u> al	minimum w e time the rig re Valley Dri	vell construction g was removed. illing	Firm	No	104

13						838789			4
Form 238-7 IDAHO DEPARTMENT OF WATER F 6/02 WELL DRILLER'S REP		CES			12.1.1.1	Office Use C D No. 409 cted by	01150		
1. WELL TAG NO. D 200 42638	•				Twp	Rge	Sec	-	
DRILLING PERMIT NO.	12	WELL	TESTS:		Lat:	_ 1/4 1/4			
Water Right or Injection Well No.	12.		^D ump	🗆 Bailer				-	
2. OWNER:	E	Yield gal	/min.	Drawdo	wn	Pumping Level	T	ime	_
2. OWNER: Name Shurlack, Hours Address 524 35 55 Jours # 102 City NCUMPA State ID Zip 8365		0			-		-	-	
City NCINPA State TD Zip 8365	7	-		1	-			-	
3. LOCATION OF WELL by legal description:	0.000	er Temp.					om hole terr	ip	
You must provide address or Lot, Blk, Sub. or Directions to well.		Que 11 (1.1.1.)				an + Cle		-	-
Twp. ZN North D or South D		UTHO				Depth first W			D
Rge. $\underline{12}$ East \Box or West \Box Sec. $\underline{17}$ $\underline{14}$ $\underline{14}$ $\underline{14}$ $\underline{14}$	Bor	1	To			Water Quality & Ten		Y	N
Gov't Lot County to area	Dia	1.2	1			Water Quality & Ten	perature		14
Lat: : : Long: : : Address of Well Site Southwest Conter of Lewis +	10	6	25	Brak	246	Lave	-		-
HC DEF M. T (Give at boas name of road or Landment) City Nampa		25	50	5/1	-((ava			
(Great at lease name of road + Disserve to Head of Landmont) Lt. Blk. Sub. Name		50	10	lace		1 everice	5	x	
	6	80	19	Sand	FG	rave/		x	
4. USE:					-				
Domestic Municipal Monitor Irrigation		12.			-				
Thermal Injection Other		-	-		_			-	-
5. TYPE OF WORK check all that apply (Replacement	etc.)					RECE	IVED		
XNew Well 🛛 Modify 🖾 Abandonment 🔅 Other				1					
6. DRILL METHOD:	-	-	-		_	MAR 2		-	-
XAir Rotary Cable Mud Rotary Other	_				~	WATER BE WESTER	N RECIO	1	
7. SEALING PROCEDURES						Vy mer			
Seal Material From To Weight / Volume Seal Placement Metho	d	-	-	-	-			-	-
Bentonite 0 20 1000 30 Overborn	e			-	_				
Was drive shoe used? BY IN Shoe Depth(s)		1							
Was drive shoe seal tested? Y N How?		-	-	-					
8. CASING/LINER:		-	-	-	_				
Diameter From To Gauge Material Casing Liner Welded T									
6" + 2 10 - 250 Steel X . K		-	-					-	
Length of Headpipe Length of Tailpipe									
Packer XTY IN Type K-packer		-	-				-		
9. PERFORATIONS/SCREENS PACKER TYPE	-	1			-				
Perforation Method Screen Type & Method of Installation Johnson + Washdow	-								
From To Slot Size Number Diameter Material Casing Line	t	L		<u></u>	10	~			
	 1.103 	ompleted		2	13		(Me	asura	ble)
£5 95 P250 5- 55 0	-	ate: Sta	1	4141	06	Completed	-2/1	4	æ
10. FILTER PACK	14.			inimum well c		in standards were co	mplied with	at th	e
Filter Material From To Weight / Volume Placement Method			was remo		Ale accure		and the second second		
	Соп	npany Na	ame	lanson	pum	of Prilling	Firm No	45	7
		cipal Dri	O	Taur 1		emanne		11	in4
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE: 60 It. below ground Artesian pressurelb.	and			2000	PC		21-	1	1
Depth flow encounteredft. Describe access port or control devices	_	er or Op	erator II	1 10	1 64	Da Da	te ZZ	40	6
	Ope	rator IC	Har	6592	Sol	Dal Dal	~	4/	26
			Ope			g Operator Required ture of Driller/Operat		2.0	

FORWARD WHITE COPY TO WATER RESOURCES

	11
Form 238	
4/92	
	-

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

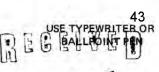
	P P 11 1	mento	MERANT	
			REPORT	
	UNILL		REFURI	

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

1. WELL OWNER Name Orrin D Gardner Address <u>9814 Robinson</u> RD Nampa Drilling Permit No. <u>63-92-W-1034-000</u> Water Right Permit No.	7. WATER LEVEL Static water levelfeet below land surface. Flowing? □ Yes						
2. NATURE OF WORK		WELL Pun Discharg	np	🗆 Bailer 🙇 Air 🛛	Other		
 Abandoned (describe abandonment or modification procedures such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.) 		35		100	1/2		
3. PROPOSED USE	9. 1	LITHO	ogic	LOG C.	82812		
Industrial Stock Waste Disposal or Injection Other (specify type)		. From	pth To	Material			No
4. METHOD DRILLED	200000	0171827	171827	Soil Broken Lava Solid Lava Solid Lava Broken Lava			XXXXX
5. WELL CONSTRUCTION	6	35	37	Red Cinder Solid Lava			×
Casing schedule: See Concrete Other Thickness Diameter From inches feet	6	109 113	113	Ornge Cinder Gravel		X	
Was casing drive shoe used? Yes No Was a packer or seal used? Yes No Perforated? Yes No How perforated? Factory Knife Torch Gun Size of perforation? From To perforations feet feet feet				RECEIVED DEC 2 8 (EV2			
perforationsfeet				DEC 2 8 (201			
Top Packer or Headpipe Bottom of Tailpipe	-						
Diameter Slot size Set from feet to teet Diameter Slot size Set from feet to feet Gravel packed? □ Yes 🐱 No □ Size of gravel Placed from feet to feet				DECEIV	EM		
Surface seal depth 18 Material used in seal: 🗆 Cement grout	- 1	<u>7:0</u>		DEC 16 1992			
Bentonite Puddling clay Sealing procedure used: Slurry pit Temp, surface casing Moverbore to seal depth		AU		1995 Bartment of Water Reso Western Regional Office	ources		
Method of joining casing: Threaded Welded Solvent Weld Describe access port	10.	Work-s	tarted .	11/25/92_finished	l	92	
6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name W W Address of Well Site MW 1/4 MW 1/4 Sec. 17, R. T E O or W X		I/We compliance Compliance Firm N 120 Address	ertify the ame s by Drill	ERTIFICATION hat all minimum well constru- at the time the rig was remo-	No. 483 11/27/9	rds w	

Form 238-7 1/78

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 JUN 2 1963 within 30 days after the completion or abandonment of the well.

1. WELL OWNER	7.	WAT	ER LEV	VEL	1000	<u></u>
	_			. 1		
Name Miss. Ballard	Static water level feet below land surface. Flowing?					
Address						
Owner's Permit No.	1.1	Conte	olled b	y: 🗆 Valve 🗆 Cap 🗔 Plug		
2. NATURE OF WORK	8.	WEL	L TEST	DATA		
K New well Deepened Replacement		D Pu	mp	Bailer Air Other		
Abandoned (describe method of abandoning)		Discharg	e G.P.M	. Pumping Level Hours Pu	mped	1
						_
3. PROPOSED USE	-					_
Domestic 🗹 Irrigation 🗆 Test 🗆 Municipal	9.	LITH	OLOG	IC LOG 8367	5	
Industrial Stock Waste Disposal or Injection Other	Hole	De	pth	Material		ater
the statement of the second	Diam	Prom	8	Dap courtherdpan	Ye	s No
4. METHOD DRILLED		8	10	Abose lava	1	Ý
🖌 Rotary 🖌 Air 🗆 Hydraulic 🗆 Reverse rotary	1	10	22	Suid lava		X
Cable Dug Other	1		25	Aqua crewiced		X
		25		Socia lava		X
5. WELL CONSTRUCTION		55	65	Seva creviced	X	1.,
5. WELL CONSTRUCTION	1.1	65		Solia Java		X
Casing schedule: K Steel 🗆 Concrete 🗆 Other		84		Arai lava	X	110
	-	88	90	Claysand "gravel	X	
Thickness Diameter From To 350 inches 6 inches + 1/2 feet 39 1/2 feet	-				1	-
inches feet feet	-		1		-	-
inches feet feet		-	-		-	-
inches inches feet feet	1.00	-	-			-
Was casing drive shoe used? X Yes	-	-			-	-
Was a packer or seal used? Yes No		-				1.00
Perforated?	11					-
How perforated?						-
Size of perforation inches by inches	· · · · · ·	-				
Number From To	1				_	1111
perforations feet feet		1.1			-	-
perforations feet feet						
perforationsfeetfeet					-	-
Well screen installed? Ves A No						
Manufacturer's name	-	-			-	
Type Model No	-	1.00	1	MEREINVISIA	-	-
Diameter Slot size Set from feet to feet			1	LACOSS VIEIII	-	-
Diameter Slot size Set from feet to feet		-			-	-
Gravel packed? Yes K No Size of gravel			-	1012	-	
Placed from feet to feet		-		JUN 3 1983	-	-
Surface seal depth 20 Material used in seal: Cement grout			-	s and the Decourand	-	+
Puddling clay 🛛 Well cuttings	-			Department of Water Resources	-	+
Sealing procedure used: Slurry pit 🖄 Temp. surface casing				Western Regional Office		-
Overbore to seal depth					1-	+-
Method of joining casing: 🗆 Threaded 🖄 Welded 🗆 Solvent	1				-	-
Weld		-	13 14 1	Bold We dill	1	+-
Describe access port Will access	10.			The Carlo Carlos Carlos Carlos		-
Describe access port with alla	10.	Wo	rk start	ted 8 - 4-82 finished 8-5-8	2	
	-		14 9 <u>11</u> 0			_
6. LOCATION OF WELL	11.	DRIL	LERS	CERTIFICATION		
Sketch map location must agree with written location.		INVe	certify	that all minimum well construction standa	rds w	ere
N				h at the time the rig was removed.		cic
Subdivision Name		1.1.1.1		0		
		Firm	Name	5 n Aut Nene Date 12-7-	1	
X	11.5		- Per	A . A . O		5)
		Addre	ss #1	5 n Muthene Date 12.7.	8:	2
Lot No. Block No.		10000		21 10	6	
	1 1	Signed	by (Fi	irm Official) Charles Dell	-	
S						
county Campon				and		
			(Operator)		_
SW 1/4 NUL 1/4 Sec. 17, T. 2 NO. R. / WW.	-					

IDAHO DEPARTMENT OF WA				A REAL PROPERTY AND A REAL	Inspect	Office Use O	nly		4
Use Typewriter or Ballpo			5.4	62885	Iwp	Rge	Sec_		
	÷.		-			41/4	_1/4		
I. DRILLING PERMIT NO. 63 -96 -61 - 0030 - 000	11.					: Long:	1	<u>. </u>	
		P		Bailer Drawdown	₩ Air	T Flowing A		1	
Name ANN COLE			(omit)	Diawoown	-	Pumping Level		ITK	_
Address RT / BOX 177		00			1.1			in.	-
City THREE FORKS State MT Zip 59752									
	Wate	r Tem	D	58°		Bottom he	ole temr	n.	
3. LOCATION OF WELL by legal description:				or comments: 🗹	1 JEON				-
Sketch map location must agree with written location.	_				_ Depth	first Water Enco	ountered	d é	2
N	12.1	ITHO	LOG	IC LOG: (Des	cribe rep	airs or abando	nment)		ater
	Bore	From	To	Pamarke: Lithal	any Wata	Quality & Temp			Γ.
Twp North≰ or South □ RgeEast □ or West 桊	Dia.		3			duality & Temp	erature		-N
E Rge East □ or West X E Sec <u>/7</u> , <u>S'</u> (2) 1/4 <u>S</u> (2) 1/4 <u>N</u> (2) 1/4	10	3	8	TOP SO				-	-
Gov't Lot County CAUSON 100 acres 160 acres	5	8	11	CLAY	av	-		-	-
Lat: : : Long: : :	5	11	20	LAVA RO	14		-		-
Address of Well Site 9522 ROBINSONRD	8	au	62	LAVAI					1
VPN NVEL.	1	62	66				-	×	
(Give at least name of road + Distance to Road or Landmark)	5	66	70	LAVA					
tBlkSub. Name	1	Charles and the second	90	CLAY POCI			-	×	5
	6	90	97	JAND -			LOTS	+	
ADDOMESTIC Municipal Monitor Irrigation Thermal Injection Other TYPE OF WORK check all that apply (Replacement etc.) New Well Modify Abandonment Other New Well Modify Abandonment Other DRILL METHOD Air Rotary Cable Mud Rotary Other SEALING PROCEDURES SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or Pounds Dell_Currines Nixe 250-300 // Vas drive shoe used? Y N N Shoe Depth(s) 91			F	ECEIVE EB 1 5 199	6	RECEIVE			
Diameter From To. Gauge Material Casing Liner Welded Threaded		18 7 4		nent of Water Res	ources !	IL OLIVE	-		-
6" +2 97 .25 STEEL #	122.0	T	A 49.54	99964 64 77	F	EB 0 9 19	96		
	1	-			1 5		10.11		
	1 . 1	1	Anv	0 6 1000		WATER REJOURS WESTERN REGI			
ength of Headpipe Length of Tailpipe	-		MAY	0 6 1996	1	and a state of the			
PERFORATIONS/SCREENS			-					-	
Perforations Method				00	+				
Screens Screen Type NONE			Depth	97	- fa	ompleted /-	_(Meas	surab	ie)
From To Slot Size Number Diameter Material Casing Lines	- Del			1 00 10	- it C	ompleted_7-1		6	_
	I/We of the time	certify ne the	that all rig was	minimum well con s removed.		1			
0. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Firm	vame_	and in	11100101	<u>unir</u>	DRULINDF	irm No.	0 1	-

FORWARD WHITE COPY TO WATER RESOURCES

Form: 238-7		102.0003.000						77668	3		45
11/97			PARTMENT OF WAT	100 BL 0 D		IRCES	2	Office Use Only]
		W	ELL DRILLER'S R	EPO	RT			Inspected by		÷	
1. WELL TAG NO.	D_ ac	19747					-	Twp RgeSe 1/41/4		-	
DRILLING PERMIT				11.	WEL	L TES	TS:	Lat: : : Long:	- u		
Other IDWR No						ump	and the second se	Air D Flowing Art	tesian		1
2. OWNER:	C IL	1.4			Yield gal		Drawdown	Pumping Level	1 dim	ne	
Name	om your	19		-	100)			Tho	ur	-
Address 4528 City Ku	1-uc		ieta zip 83634	-		_	1		-	-	
ny put	na		inerra cip o slogy	Wate	r Temn		620	Bottom hale	tamo	-	
3. LOCATION	OF WELL b	y legal descr	iption:				comments:	Iron 1 PH		-	
Sketch map location	n must agree w	ith written locatio	п.	111	G	ains	3 Sulf	Wr Smapp Depth first Water E	ncounter	10	9
N				12.	LITHO	DLOGI	C LOG: (Desi	cribe repairs or abandon	ment)	Wa	
	1	1		Bore Dis.	From	To	Remarks: Litholo	gy, Water Quality & Temper	ature	Y	N
V	Rge, J	East L		10	-	11	400 Soil		anare	-	-
	E Sec. 17	QF 1	4 NW 1/4 1/4 1/4	10	ŭ	7	hard par			-	
	Gov't Lot	County	Cane in 160 acres	4	1	20		a			
	Lal:	Lor		4	26	28	Soll lave				
S	Address of	Well Site 45:	28 Dye Lone	4	28	45	hard la				
10mm of best some of	road + Dislance to Read	Cit	a second s	ł,	45	60	hard la				
				h	60	65	Soft lave				
LtB	k	Sub. Name		-H	65		hard law	a		-	
				6	83	109	gravel		-	x	
4. USE:	🗆 Municipal	Monitor	□ Irrigation	14	115		Sand			â	-
Thermal	□ Injection	Other	a tingation	4			clay			-	TI
5. TYPE OF W	and the second second		(Replacement etc.)	ų	187	192	Sand			x	
	Andity		V Other	ji	192	93	clay			1	
6. DRILL METHON				K	193	220	Sand			X	_
XAir Rotary	Cable	Mud Rotary	Other	-11		235	Sand			K	-
7. SEALING	PROCEDURE	s		4		2.45	clay Sand		-	x	-
	ER PACK	AMOUNT	METHOD	4		254		,	-	4	-
Material	From	To Sacks or Pounds		41		261	grayson			x	
Bentonite	0 10	9 2000 #	overbone		1.1	1.20	-1				
a 22 a sector pro-											114
			1000	121	1221					-	_
Was drive shoe used		Shoe Depth(s)	255	1			the second second			2	-
Was drive shoe sea 8. CASING/LIN		A W HOW?	- 1 ×	1		-			-	-	
Diameter From	To Gauge	Material Casin	g Liner Welded Threaded	-				RECEIVE	-		-
	255 250	Steel x0						TIL CEIVEL	1		
1.1.1								MAY 1 3 2002			
					1	-				-	
Length of Headpip		Length of Tall	pipe	-			-	WATER REA WESTERA	-	-	-
	TIONS/SCRE		during	-			-				1
Perforations Screens	Meth	the second se	ndown	Des	npleted	- D-	epth	261	714-1-1-	anhi	
OUIDENS.	Scree	on type 100	-SON	1.	npreteo le: Sta		51.02		(Measu		e)
From To	Slot Size Numb	er Diameter Materia	Casing Liner	04	0. 016		-		1 00	2	-
356 261	1020	5- 53	u u	13.	DRIL	LER'S	CERTIFICA	TION			
								tion standards were complied w	with at		
						ig was n			10	2	
12. 12. 10.	Sand Street	S. S. S. And		Comp	any Na	me	& Well L	Date 56:03	62	/	
00			IAN PRESSURE:		- 4	-	La C				
ft. below		sian pressure		Firm	Officia	Inf	1 tayle	Date 56 03	-		
Depth flow encou control devic			ribe access port or	and		R	11 Port	KI.00			
	une une	lecap		Uniter	or upe	alor <u>7 4</u>	(Sign once it Firm	Official & Operator)	<u>, 1</u>		

FORWARD WHITE COPY TO WATER RESOURCES

REPORT OF WELL DRILLER State of Idaho

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

WELL OWNER: Name Jose Mr Clust	Size dept1	of d n of	well: 105 Standing water	r
Address Bh (leve:	l bel	well: <u>105</u> Standing wate: low ground: <u>14</u> Temp.	
namps Daho	Fahr.		° Test delivery: 15 cfs Pump? X Bail	_gpm
Owner's Permit No.			pump and motor used to make te	st:
NATURE OF WORK (check): Replacement well	2	5C	lyinder Pump	
New well X Deepened Abandoned	Leng	th of	forime of test: / Hrs. /	Min.
Water is to be used for: Comestic	Draw	down:	22 ft. Artesian pressure:	ft.
METHOD OF CONSTRUCTION: Rotary Cable	or	gr	nd surface Give flow com. Shutoff pressure:	10
Dug Other	Conti	rolle	ed by: Valve Cap Plug	
(explain)	No co	ontre	Does well leak around c	asing?
CASING SCHEDULE: Threaded Welded X	Yes		No MATERIAL 31390	UADED
<u>6</u> "Diam. from <u>+</u> ft. to <u>105</u> ft.	FROM	TO	MATERIAL 31.390	S OR NO
"Diam. fromft. toft. "Diam. fromft. toft. "Diam. fromft. toft. Thickness of casing:Material:	FEET			
"Diam. from ft. to ft.	0	3	Top soil	no
Thickness of casing: Material:	3	17	Thand I lath Sandy Clay Straty	yes
Steel 🛛 concrete 🗍 wood 🗍 other	17		cremined lava	ipes
	50	53	cinters, "Slock"	afes
(explain)	The second se		land a	no
PERFORATED? Yes No X Type of	92	102	cange clay	no
perforator used:	102		sand i Gravel	ipes
Size of perforations: "by " perforations from ft. to ft. perforations from ft. to ft. perforations from ft. to ft.				
perforations from ft. to ft.		1.1		
perforations from ft. to ft.				000000
periorations from it. to it.				
WAS SCREEN INSTALLED? Yes No 🗵		10.15		
Manufacturer's name Model No			the second s	
Manufacturer's name Type Model No. Diam. Slot size Set from ft. to ft.				
Diam. Slot size Set from ft. to ft.				
CONSTRUCTION: Well gravel packed? Yes		Ump		
No. X size of gravel Gravel				
No. Size of gravel grav		1		
provided? Yes No To what depth?				
ft. Material used in seal		1		
Matine Clay Did any strata contain unusable water? Yes	2	11.01		
No. Type of water:	124-21			
Depth of strata ft. Method of sealing		1		
strata off:				
	10.5			
Surface casing used? Yes No. X		10.00		
Cemented in place? Yes No	-	ICIII		
Locate well in section		1		
Locate well in section				
in the first sector of the sec				
	Work	star	ished Och. 7-1968	
8	Well	Dri	ller's Statement: This well wa	
i Sec.			under my supervision and this	
			to the best of my knowledge.	TY CONT
	Name	: 		
	Addr			1000
i i	Sign	ed ha	William E. Do	ty
	Lice	nse l	No. 42 Date: 10-9-6	5-
LOCATION OF WELL: County Canyon				here
SWUNWU Goo I'M A N/A D/ I M/W			- 6	
Use other side for	addi	tiona	al remarks y 👘 33	

Red 46

Form	238-7
1/78	

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

47 USE TYPEWRITER OR BALLPOINT PEN

NUM I MUNICIPAL		MAT	DIE	/E1		
Name Gary Denrickson Address Kung		Static	na? [evel / D feet below land sur Yes & No G.P.M. flow ed-in pressure p.s.i.		
AddressAuha Owner's Permit No		Contr	olled by	y: Valve Cap Plu OF. Quality	9	_
NATURE OF WORK	8.			DATA	er	
Abandoned (describe method of abandoning)			e G.P.M.		Hours Pumped	
. PROPOSED USE			_			
□ Domestic	9. Hole		OLOGI pth	c LOG 834	125 Wat	ter
	Diam.	From	To 8	Jop Drie & Haid	Yes	
. METHOD DRILLED Ø Rotary) Air □ Hydraulic □ Reverse rotary	1	8	30	Solid lava	x	X
Cable Dug Other	Ħ		59.	Seva with Son		X
WELL CONSTRUCTION	H	20	88	Solia lava		X
Casing schedule: ▲ Steel □ Concrete □ Other Thickness Diameter From To - 250 inches 10 inches 1/2 feet 26 feet inches inches inches inches ifeet ifeet ifeet		88	99	eme benton	X	
inches inches feet feetfeet f			-			
Was a packer or seal used?	-			RECEIVED)	-
Size of perforation inches by inches Number From Ta perforations feet feet				DEC 15 1982		-
perforations feet				Department of Water Resource		
Type Model No. Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet				DECENVEN	<u>a</u>	-
Gravel packed? Yes X No Size of gravel Placed from feet to feet				JUN 30 1981	9	
Surface seal depth 20 Material used in seal: Cement grout Puddling clay UWell cuttings Sealing procedure used: Slurry pit 20 Temp. surface casing				Department of Water Resources		-
Method of joining casing: Threaded Melded Solvent Welded Welded				Western Regional Offica	-;	1-1-1
Describe access port <u>Welded plate</u>	10.	Wa	ork start	red <u>7/5/29</u> finished <u>7</u>	1/9/19	7
Sketch map location nust agree with written location.	11.	DRIL I/We compl	LERS certify lied with	CERTIFICATION D.C. that all minimum well construction h at the time the rig was removed. Carrs WILL fullting N 5 H. PULLARE Date 2	on standards we	
W VI E		Addre	ss 41	5 M. Puttoane Date &	9/27/79	1

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

	1	۰,					0	64790	Office Use Only		_
Form 238- 3/95-C96	7			DEPARTMENT WELL DRILI 0-0860-0			RES	SOURCES	Inspected by Twp Rge Se		
	Carrow	6	3-98-0	0-0860-0	00				1/41/4 Lat: : : Long:	//	4
DRILLING P	ERMIT	NO.			11,	WEL	L TES	TS:		-	-
her IDWR No.	D00079	16							Air 🗍 Flowing Artesia	the second s	-
OWNER:					30	d gal/mur	2 1 12	rawdown	Poroping Level Time 80 hr		
me Doug Teus					30	1	1		80 1 hr		
dress 6925 E 1	Lewis Ln										-
y Nampa	00000		State ID	Zip 83686	Wat	er Temp	2.		Bottom hole temp.		-
LOCATION (etch map location	n <u>must</u> ag	rce with	written locatio	nion: M	Wat	ter Quali	ity test o		pth first Water Encountered 65		_
ПП	Т	wp. 2	North 🛛	or South	-					ent) Wate	
2 8 8 8 8 8	R	ge. 1	East	or West 🛛	Bore	From	To	Remarks: Lit	hology, Water Quality & Temp.	Y	N
X	E S	ec. 17	1/4	NW 1/4 SW 1/4 40 acres 160 acres	10"	0'	1	brown top so	bil	1	N
	1	25	TU acres	40 acres 160 acres	10"	2'	4'	white hardpa	Contraction (Contraction)		K
	Gov't	lot	Count	v Canyon	10"	4'	25'	black/grey la		-	15
S				<u></u>	8"	25	26'	crack	+ 1-111-111-		15
Lat:	man the second		Due I -		8"	26"	65'	black lava w	/occasional cracks		15
					825	65*	74'	broken black	lava	X	T
e at least name of road	1 + Distance t	o Road or I	(andmark)		8"	74	85'	cavy black la	ava	X	1
Blk					8"	85'	90'	broken black	lava	X	
Dik		_ 540.	Ivanic		8"	90"	96'	It brown clay	ſ		D
USE:					6"	96'	102	It brown clay	1	1.5	D
Domestic		I fenini	Monitor	-	6"	102'	120'	brown sand	& gravel	X	
Kand an oraciono				Irrigation					er Bratter		
Thermal	Inject	ion [Other	Irrigation					- Brite	T	
TYPE OF WO	Inject	ion [Other							Ť	F
TYPE OF WO	ORK che	ion [ck all the	Other	Replacement etc.)							
TYPE OF WO New Well D M DRILL MET	ORK che lodify [] HOD	ion [ck all the Abando	Other at apply nment Oth	Replacement etc.)							
TYPE OF WO New Well [] M DRILL MET Air Rotary []	ORK che lodify [] HOD Cable [ion [ck all the Abando	Other at apply nment Oth	Replacement etc.)							
TYPE OF WO New Well D M DRILL MET Air Rotary SEALING PR	ORK che lodify HOD Cable [ROCED]	ion [ck all the Abando] Mud JRES	Other	Replacement etc.) her							
TYPE OF WO New Well \square M DRILL MET Air Rotary \square SEALING PR SEAL/FILT	ORK che fodify HOD Cable [Cable [COCEDU	ion [ck all the Abando] Mud JRES K	Other at apply (nument Oth Rotary C AMOUNT	Replacement etc.)							
TYPE OF WO New Well D M DRILL MET Air Rotary SEALING PR	ORK che lodify HOD Cable [ROCED]	ion [ck all the Abando] Mud JRES K	Other at apply (nument Oth Rotary C AMOUNT Sacks or	Replacement etc.) her							
TYPE OF WO New Well D M DRILL MET Air Rotary SEALING PR SEALING PR SEAL/FILT Material	ORK che fodify HOD Cable [Cable [COCEDU	ion [ck all the Abando] Mud JRES K	Other at apply (nment Oth Rotary C AMOUN Sacks or Pounds	Replacement etc.) her Other METHOD							
TYPE OF WO New Well D M DRILL MET Air Rotary SEALING PR SEALING PR SEAL/FILT Material	ORK che Iodify HOD Cable [ROCEDI TER PAC From	ion [ck all tha Abando] Mud JRES K To	Other at apply (nment Oth Rotary C AMOUN Sacks or Pounds	Replacement etc.) her				7	BECEIVED		
TYPE OF WO New Well D M DRILL MET Air Rotary SEALING PR SEALING PR SEAL/FILT Material	ORK che Iodify HOD Cable [ROCEDI TER PAC From	ion [ck all tha Abando] Mud JRES K To	Other at apply (nment Oth Rotary C AMOUN Sacks or Pounds	Replacement etc.) her Other METHOD				2	BECEIVED		
TYPE OF WO New Well [] M DRILL MET] Air Rotary [] SEALING PR SEAL/FIL] Material ntonite	DRK che fodify HOD Cable [CoCEDI From 3' 4? \vee Y	ion [ck all the Abando] Mud JRES K To +30' +30'	Other	Replacement etc.) er		R	E C	EIVED	BECEIVED		
TYPE OF WO New Well [] M DRILL MET] Air Rotary [SEALING PR SEAL/FIL] Material Material stonite s drive shoe use s drive shoe seal	DRK che fodify HOD Cable [CoCEDI From 3' 4? Y i tested?	ion [ck all the Abando] Mud JRES K To +30' +30'	Other	Replacement etc.) er				10.00	BECEIVED		
TYPE OF WO New Well [] M DRILL MET] Air Rotary [SEALING PR SEAL/FIL] Material ntonite s drive shoe use is drive shoe use as drive shoe seal CASING/LIN	DRK che fodify HOD Cable [CoCEDU From 3' 4? Y i tested? [ER:	ion [ck all the Abando] Mud JRES K To +30' +30' N S X Y [☐ Other	Replacement etc.) er Other METHOD Overbore			E C	E I V E D 9 1998	BECEIVED		
TYPE OF WO New Well [] M DRILL MET] Air Rotary [SEALING PR SEAL/FIL] Material ntonite s drive shoe use is drive shoe use is drive shoe seal CASING/LIN meter From [] To	DRK che fodify HOD Cable [CoCEDU From 3' 4? Y i tested? [ER:	ion [ck all the Abando] Mud JRES K To +30' +30' N S X Y [Materia	Other	Replacement etc.) er		0	EC (9 1998	BECEIVED DEC 0 4 1998 WATER RESOURCES WEOTERN REGION		
TYPE OF WO New Well [] M DRILL MET] Air Rotary [SEALING PR SEAL/FIL] Material tonite s drive shoe uses s drive shoe uses s drive shoe seal CASING/LIN meter From [] To	DRK che fodify HOD Cable [CoCEDI From 3' 4? Y tested? ER: Gauge	ion [ck all the Abando] Mud JRES K To +30' +30' N S X Y [Materia	Other at apply (nment Oth Rotary Oth Rotar	Replacement etc.) er Other METHOD Overbore		0	EC (9 1998	BECEIVED DEC 0 4 1998 WATER RESOURCES WEOTERN REGION		
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STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

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NA/FI		VDII I	FD/C	REPOR	7.
				RFFIII	
	_	//////			

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.	WAT	ER LEV	/EL			
May Pinch	1.27			. 75			
Name Max Finch		Static	water I	evel 75 feet below lan Yes 🖄 No G.P.M. flow	id surface.		
Address RT. #1 Dye Lane Nampa, Idaho				ed-in pressure p.s.i.			
Address					Plug		
Owner's Permit No.		Temp	erature	OF. Quality			
2. NATURE OF WORK	8.			DATA			
X New well 🗆 Deepened 🗆 Replacement		🗆 Pu	mp	🗆 Bailer 🕈 Air 🗆	Other		
Abandoned (describe method of abandoning)	0	Discharg	6.P.M.	Pumping Level	Hours P 2	umped	3.1
3. PROPOSED USE	-						
			171.1		00	00	0
🗗 Domestic 🛛 Irrigation 🗔 Test 🗔 Municipal 🗆 Industrial 🗆 Stock 🖾 Waste Disposal or Injection	9.	LITH	OLOGI	C LOG	88	59	0
□ Other (specify type)		De	-	Material			ter
	_	From				Ye	s No
4. METHOD DRILLED	8	OF	1	top soil			x
A. METOUD DRILLED	8	1	3	boulders			x
登 Rotary 図 Air □ Hydraulic □ Reverse rotary	8	3	75	rock			x
Cable Dug Other	6	75	80	sand		-	x
	6	80	90	gravel		x	+-
	680	90	95	sand		X.	1
5. WELL CONSTRUCTION	6	95	110	sand and gravel		x	1
Casing schedule: 🖄 Steel 🔲 Concrete 🗆 Other	6	110	115	clay		-	x
	6	115		sand		x	
.250 Diameter From feet 112'59' feet	-	1				1	1-
inches inches + teet teet	1						1
inches inches feet feet	1.		t III	1			
inches inches feet feet							
inches feet feet	1000	1000	la-cti	1			
Was casing drive shoe used? 🐱 Yes 🗆 No	11.00					1.1	
Was a packer or seal used? 🗆 Yes 🛛 😡 No	1					-	1
Perforated? 🛛 Yes 🐱 No		1	-			1	1
How perforated? Factory Knife Torch Torch						-	+
Size of perforation inches by inches		-				-	-
Number From To	-						-
perforations feet feet		-			-	-	
perforations feet feet	-	-	-			+	+
perforations feet feet	1						-
Well screen installed? 🗆 Yes 🖄 No Manufacturer's name	-			an in in inter		-	
Type Model No,	-	-		Base	71CINI-	+	+
Diameter Slot size Set from feet to feet	-	-	-	mrcclaut	1111-16(-	-
Diameter Slot size Set from feet to feet	-	a; l	E F	IN IE OG	5111	-	-
Gravel packed? Yes No Size of gravel		AI L	3 161	- INAC	-	-	-
Placed from feet to feet				DEC 17	1981	-	-
Surface seal depth 75 Material used in seal: Cement grout	-		· · ·	DFC -		-	-
■ Puddling clay	1	-	(i - i	- Alle - Chiefe	Resources	-	
Sealing procedure used:			1 2	Department of Wate	at Office		-
	11	Sugar.	1.1	Department of Western Region	lai o	1	-
☐ Overbore to seal depth Method of joining casing: □ Threaded 团 Welded □ Solvent					-		-
	1					1.1.1.4	-
Weld	L_{1},L_{2}						1.
Describe access port	10.			ed 6-5-81 finished	6-5-81		
	-	vvo	K start				_
6. LOCAT CONF WELL	11.	DRIL	LERS	CERTIFICATION	e		
Sketch man location must agree with written location.		1/We	certify	that all minimum well constru	uction stand:	ards w	ere
			Contract of the second	h at the time the rig was remov			~~~
Subdivision Name		12.00			200		
		Firm	VanBIL	L DOTY WELL DRILLING	rm No. 42		
		2000					=
W E		Addre	SS RT	.#7 BX. 311CALDWEL	ate 8-31-8	31	
Lot No, Block No			· · · · · · · ·	Q . 11	10 7	1-	-
		Sinner	by (Fi	rm Official) Rill	1Un	1	
s S	11.1	orginet	. by tra	- 0	~~~~	A	
County Canyon				and DITT		V	
county carriques			(Operator) Sallay			
MW 14 820 1/4 Sec. 17, T. 2 N/3, R. 1 4W.							
14 Job. 11 N/2, D N/2, N.							

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Form 238-7 6/07

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D D0053304 12. STATIC WATER LEVEL and WELL TESTS: Depth first water encountered (ft) Static water level (fl) 66 Drilling Permit No. Water temp. ("F) Bottom hole temp. (°F) Water right or injection well # 2. OWNER Describe access port Name Steve Lambson Well test: Test method Address 9151 Robinson B Bluc Test duration Flowing Discharge or Drawdown (feet) vield (apm) Pump (minutes) City Kuna State ID Zip 83634 180 100+ 2 hrs 3. WELL LOCATION: 120 70 1 hr North Or South Rge. 1 East or West Twp. 2 100 42 1 hr Sec. 18 NE SE SE 1/4 1/4 1/4 40 acres Water Quality test or comments: 160 acres 10 agres County Canyon 13. LITHOLOGIC LOG and/or repairs or abandonment: Gov't Lot 43 30 ° 22.5 (Deg. and Decimal minutes) Bore Lat. Dia From To Remarks, lithology or description of repairs or Water 116 29 ° 38.0 (Deg. and Decimal minutes) Long. YN (in) (ft) (ft) abandonment, water temp. Address of Well Site same 2' top soil х 0 10 X City 2 3' white baked clay 10 Cline at least runne of road + Distance to Read or Lin 19' basalt black X 10" 3 Sub. Name Lot Blk X 19' 25' basalt black 8" 4. USE: Ŷ 8" 45' red basalt 25 Domestic Municipal Monitor Imigation Thermal Injection 8" 45 78' black basalt X Other 6" 78 98' sand & gravel 5. TYPE OF WORK check all that apply (Replacement etc.) 6" 98' 138 silty sand X New Well Replacement well Modify existing well X 6* 138 141 tan clay Abandonment Other 6' 141 148 tan clay & sand strips X 6" 148 152 tan clay X 6. DRILL METHOD: 6" 152 169 tan clay & sand strips X Air Rotary Mud Rotary Cable Other X 6 169 175 tan clay with cracks 7. SEALING PROCEDURES 175 6" 180 tan clay From (R) To (R) Quantity (lbs or R³) Placement method/procedure Seal material 6" 180 188 sand medium X bentonite 0 550 lbs poured 19' 8. CASING/LINER: To Gauge/ (R) Schedule Diameter From added 32 inches (nominal) (ft) Casing Line Thread to top of casing 178 .250 \boxtimes 6" +2. steel \boxtimes П Π RECEIVED Was drive shoe used? XY **N** Shoe Depth(s) 178.5 9. PERFORATIONS/SCREENS: DEC 17 2008 Perforations Y N Method Manufactured screen XY N Type telescoping WATER RESOURCES Method of installation washed in WESTERN REGION Diamet From (ft) To (ft) Slot size Gauge or Schedule Number/fi Material (nomi 190 185' .018 5" ST ST 174' 190' 5" screen ass Completed Depth (Measurable) 188 Date: Started 11-05-08 11-08-08 Completed Length of Headpipe 11.8" Length of Tailpipe 14. DRILLER'S CERTIFICATION Packer XY N Туре I/We certify that all minimum well construction standards were complied with at **10. FILTER PACK:** the time the rig was removed. Filter Material From (ft) To (ft) Quantity (lbs or ft³) Placement method Company Name Down Right Drilling & Pump, Inc Co. No. 637 Date 12-15 08 *Principal Driller **11. FLOWING ARTESIAN:** Date 12-15-01 *Driller Flowing Artesian? Y XN Artesian Pressure (PSIG) *Operator II Date Describe control device Operator I Date Signature of Principal Driller and rig operator are required.

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				La.		
1. WELL OWNER Name Phillip Estrada. Address <u>B to 3, Boy 36 71 Hamps 83651</u> Owner's Permit No.	S F T A	tatic w lowing emper	ature		En of Unice	
2. NATURE OF WORK	1.00	Pum		ATA 40' ののの □ Bailer □ Other	PUMP 2	571
Abandoned (describe method of abandoning)	Dia	charge (20		Drawdown	Hours 2	Pumped
3. PROPOSED USE		_		1		
Domestic Irrigation Test Other (specify type) Municipal Industrial Stock Waste Disposal	9. L Hole		LOGIC		t ta Set source of	Water
or Injection 4. METHOD DRILLED	Diam.	From	то /	TOP SOIL	rial	Yes No
ter Cable □ Rotary □ Dug □ Other	500	4 5 85	4 5 55	HATO PAN BROKAN LO LAVA SAND & T	Sec. 2	4
Diameter of holeinches Total depth \$5 feet Casing schedule:Concrete ThicknessIcetFrom feetfeetfeet inchesinchesfeetfeetfeet inchesinchesfeetfeetfeet inchesinchesfeetfeetfeet inchesinchesfeetfeet inchesinches Was casing drive shoe used? VesNo Was a packer or seal used? VesNo Was a packer or seal used? Ves How perforated? Ves						
6. LOCATION OF WELL Sketch map location must agree with written location.	1 d	Firm N	ERS CI	d 7/24 1975 file ERTIFICATION RON E. PROW WELL DI 013 EAST ON STREET MERIOLAN, IDAHO 8364 383-2123 of 456-4128 m Official) My or and Operator) My	RILLING Firm No	. 324

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Form 238-7 4/92	1
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State

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT aw requires that this report be filed with the Director, Department of Water Resources

CIW	requires mai	r nue leb	on be me	a writer tine i	Director, Depart	mont of water	neovuit
	within 3	0 days af	ter the co	mpletion of	r abandonment	of the well.	

1. WELL OWNER	7. V	VATER	LEVE	iL				
Name	Static water level feet below land surface. Flowing?							
Name CORNELL, H.D.	F	lowing	7 🗆	Yes D	No G.I	P.M. flow		_
Address 9555 ROBINSON RD.	A	rtesiar	close	ed-in pressur	ep.s.	i.		
Drilling Permit No63-92-W-642-600	Controlled by: Valve Cap Plug					Plug		
Water Right Permit No.	Т	empera	ature _	°F. Describe artes	Quality	nes below.		
2. NATURE OF WORK	8. V	VELL 1	EST	DATA				
New well Deepened Replacement Well diameter increase Modification	C] Pum	p	D Bailer	□ Ajr (Other		-
Abandoned (describe abandonment or modification procedures	-	ischarge			Pumping Level	Hours	Pumped	-
such as liners, screen, materials, plug depths, etc. in lithologic log, section 9.)	- 7!	5	-		44	+ +	_	
3. PROPOSED USE	-							-
D Domestic D Irrigation D Monitor	9. L	ITHOL	OGIC	LOG		8496	9	
□ Industrial □ Stock □ Waste Disposal or Injection	Bore	De	pth	1	1.000		Wa	ter
Other (specify type)	Diam.	From			Material		Yes	Trank
	- 9		0	1 7	TOP SOIL			NO
4. METHOD DRILLED	9		1	-	ARD CLAY			NO
🗆 Rotary 🗆 🖍 ir 🗆 Auger 🗆 Reverse rotary			3		BLACK LAVA			ND
Cable Mud Other	R		18	1	BLACK LAVA			NO
(backhoe, hydraulic, etc.)	8		24		RACK			NO
			25		BLACK LAVA			NO
5. WELL CONSTRUCTION	6	1	50		BLACK LAVA			ND
Casing schedule: Steel Concrete Other	-6	1	61		RACK			S
Thickness Diameter From To	-6		62		BLACK LAVA			NO
250 inches feet 4 Bet	-6	1 6	9		RAVEL		YES	1
inches inches feet feet			P		20.03			
inches inches feet feet							1	-
Was casing drive shoe used? Yes X No	11	1	-				-	
Was a packer or seal used? Yes X No	-				VEN		-	
Perforated? Ves DX No				DECE'				
How perforated? Factory Knife Torch Gun	-	1	1	RECEN	1992	_	1.20	
Size of perforation? inches by inches	-	-	12-2	ACIE	Water Resources		1000	
Number From To	-	-	1		Water Resource			
perforations feet feet				moustment or			-	
perforations feet feet				Dok-			-	-
perforations feet feet	-	-				_	-	-
Well screen installed? Yes XNo							-	-
Manufacturer Type	-						1	
Top Packer or Headpipe			-	5	Direrates.	1. 1. T	-	-
Bottom of Tailpipe	-				$D_{15}(C)E$	- W/ 11:		-
and the second second second second	-							-
Diameter Slot size Set from feet to feet	1	-					1.	-
Diameter Slot size Set from feet to feet	-				AUG28	1992	12	
Gravel packed? Yes Ko Size of gravel	-							-
Placed from feet to feet	-				apartment of Wat	er Recours		-
Quidage and death	-		-		TUSININ MANUNI	and and the	-	-
Surface seal depth Material used in seal: Cement grout	-	-			- Phil	The state	1. 190.	-
Bentonite DPuddling clay						44-515 91		-
Sealing procedure used: Sealing procedure use					- Dr	0.0	Jut A	-
□ Temp. surface casing □ Overbore to seal depth Method of joining casing: □ Threaded □ XWelded			· · · ·			C 0 4 199	-	
Method of joining casing: Threaded Xelded Solvent Weld Cemented between strata	10.				7			- 1
Describe access port	1.00	Work s	tarted	8	10/97inished	d8/	12/5	22
6. LOCATION OF WELL	11. 1	DRILLE	R'S C	ERTIFICATI	ON	trans subserver a	**	<u>ne</u>
Sketch map location must agree with written location.						unting start		
Skelch map location must agree with written location.					num well constr the rig was remo		ards w	/ere
	1 .	Firm N	ame	SOS W	ell Drifidm	NØ 2	12	
Lot No Block No			anne _				1	
		Addres		4145	Blackes	rt Boad	8/25	192
Address of Well Site DORIALSON & DVE LONE		Signed	by Dr	illing Store	adan	342	4	~
Address of Well Site <u>ROBINSON & DYE LANE</u> (give at least name of road) TN	1			and	100	~		
(give at least hand of load) T2 N ↓ or S □ T2 N ↓ or S □	<		(Op	perator)	different wan the	Drilling Supe	ervisor	,

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Form 238-7 6/07

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IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

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		ection wel	1#			-		
Name G		Coop	or					
Name C Address	920 V	V Ash	St					_
Address City Ca				2.5	iD	-	92605	_
(2.1) (State		Zi	p 83605	-
3.WELL							1000	
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			ounty Ca					
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_ot	BI	·	Sub. Na	ame	_			
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CASIN	G/LINI	ER.	- P	4		1		
Diamator	From (ft)	To (ft)	Gauge/	Materi	al	Casing	Liner Thread	ed Welded
Diameter			.250	Steel		X	-	X
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	+2'	58.						
	+2'	58.						
	+2'	58.					3 3	
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Describe control device

12. STATIC WATER LEVEL and WELL TESTS:

State Fine State State State State	30	18'	
Depth first water encountered	(m) 00	Static water level (ft)	

Water temp. (^o F) _ 56	Bottom hole temp. (^G F)
Describe access port Well Cap	

Vell test:			Test m	ethod:		
Drawdown (feet)	Discharge or yield (gpm)	Test duration (minutes)	Pump	Bailer	Air	Flowing
67'	80 GPM	30 minutes			X	
		1				

Water quality test or comments:

13. LITHOLOGIC LOG and/or repairs or abandonment:

Bore Dia.	From To Remarks, lithology or description of repairs or abandonment, water temp.		_	ter	
(in) 10"	0'	2'		Y	N
10"	2'	12'	Topsoil Tan Clay		X
10"	12'	30'	Black Basalt		X
10"	30'	32'	Broken Black Basalt	-	X
10"	32'			X	-
		50'	Black Basalt		X
10"	50'	55'	Broken Black Basalt	X	-
10"	55'	58'	Black Basalt		X
6"	58'	76'	Black Basalt w/Cracks	X	
6"	76'	85'	Red Basalt	X	
6"	85'	90'	Gravel	X	_
			RECEIVED		
			AUG 0 8 2014		
			WATER RESOURCES WESTERN REGION		
Comple	eted Dept	h (Mea	surable): 84'		_
Date S	tarted: Ju	129,2	2014 Date Completed: Jul 30, 201-	4	

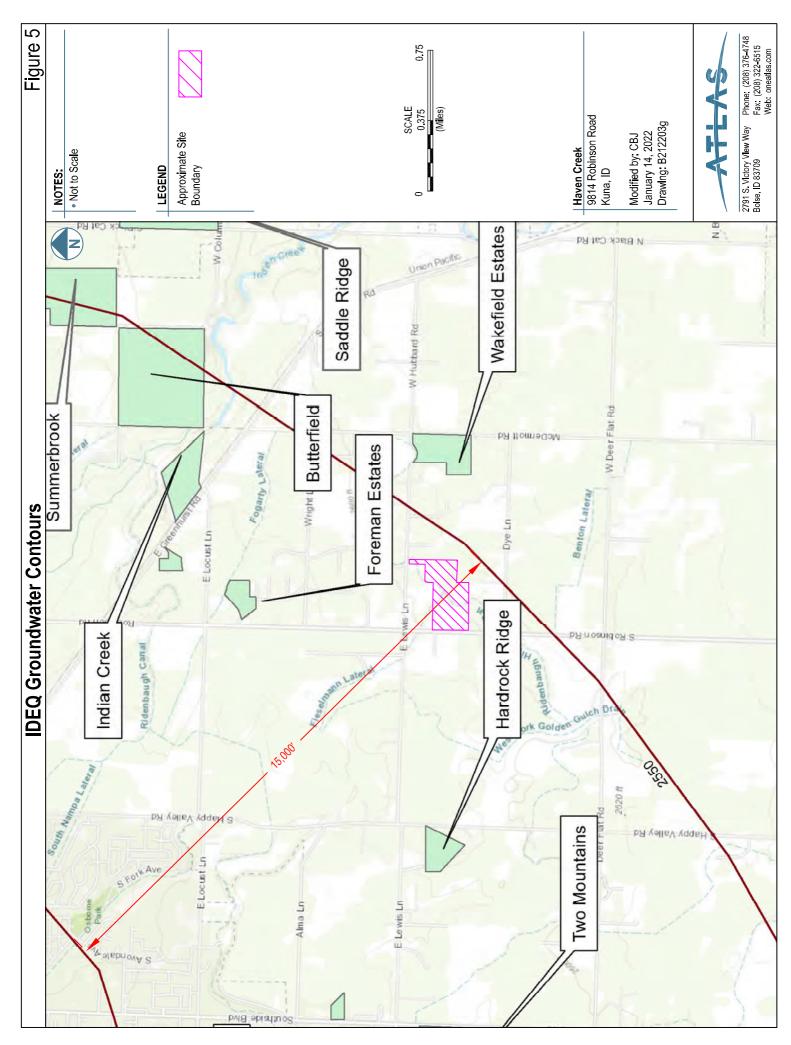
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.

Company Name Adamson Pump & Drilling	Co. No. 457
*Principal Delle Dave Cadama	ON Date Aug 6, 2014
Driller John Setton	Date Aug 6, 2014
"Operator II Mate Che	Date
Operators Mates Chapa	Date Aug 6, 2014

* Signature of Principal Driller and rig operator are required.

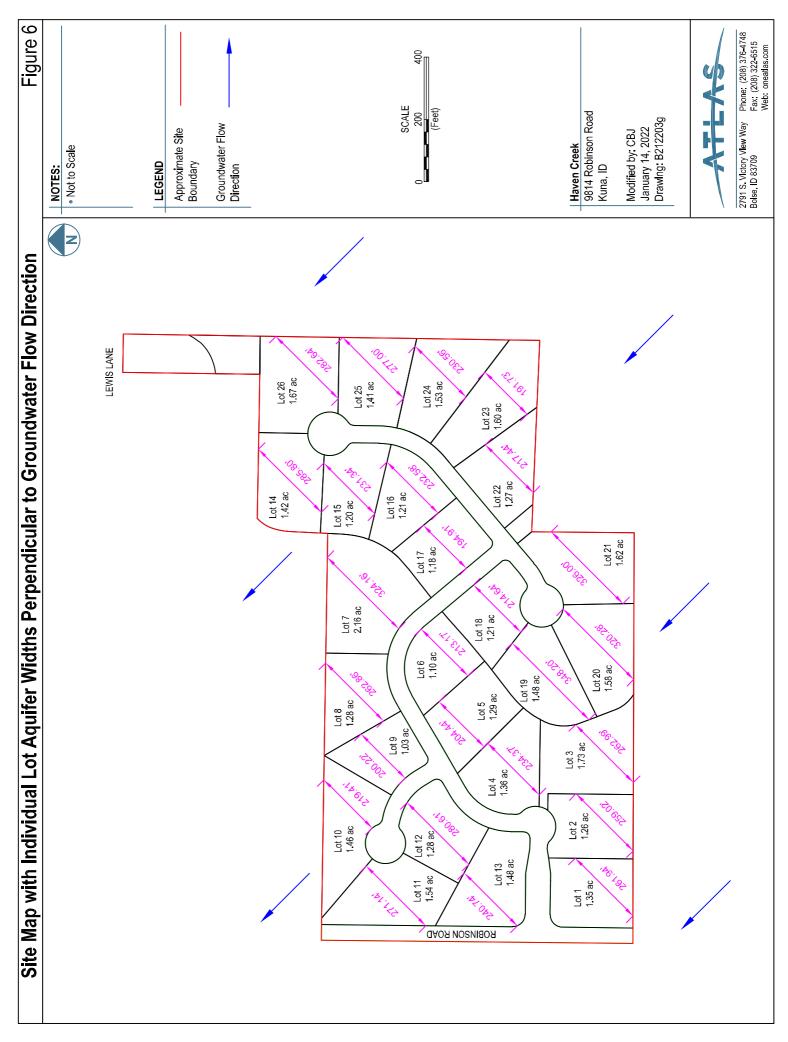
Appendix VI IDEQ GROUNDWATER CONTOUR MAP

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Appendix VII SITE PLAN WITH AQUIFER WIDTH MAP FOR INDIVIDUAL LOTS

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Appendix VIII HISTORIC PRECIPITATION/CLIMATE DATA FOR PROJECT LOCATION

Atlas No. B212203g Copyright © 2021 Atlas Technical Consultants



Home United States Idaho

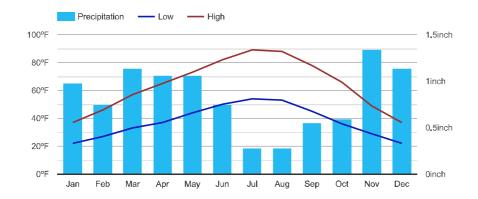
Monthly Geo & Map

Climate Kuna - Idaho

	Jan (January)	Feb (February)	Mar (March)	Apr (April)	May (May)	Jun (June)
Av. high	37	46	57	65	73	82
Av. low	22	27	33	37	44	50
Av. precip.	0.98	0.75	1.14	1.06	1.06	0.75

	Jul (July)	Aug (August)	Sep (September)	Oct (October)	Nov (November)	Dec (December)
Av. high	89	88	78	66	49	37
Av. low	54	53	45	36	29	22
Av. precip.	0.28	0.28	0.55	0.59	1.34	1.14

Kuna Climate Graph - Idaho Climate Chart



Liver Damage Signs You S Ignore (Must Watch

Kuna weather averages

Annual high temperature	64°F
Annual low temperature	38°F
Average annual precip.	9.92 inch

Share

Station Data

Monthly averages Kuna Longitude: -116.42, Latitude: 43.49 Average weather Kuna, ID - 83634

Monthly: 1981-2010 normals

Abbreviations

Jan (January): January, Feb (February): February, ...

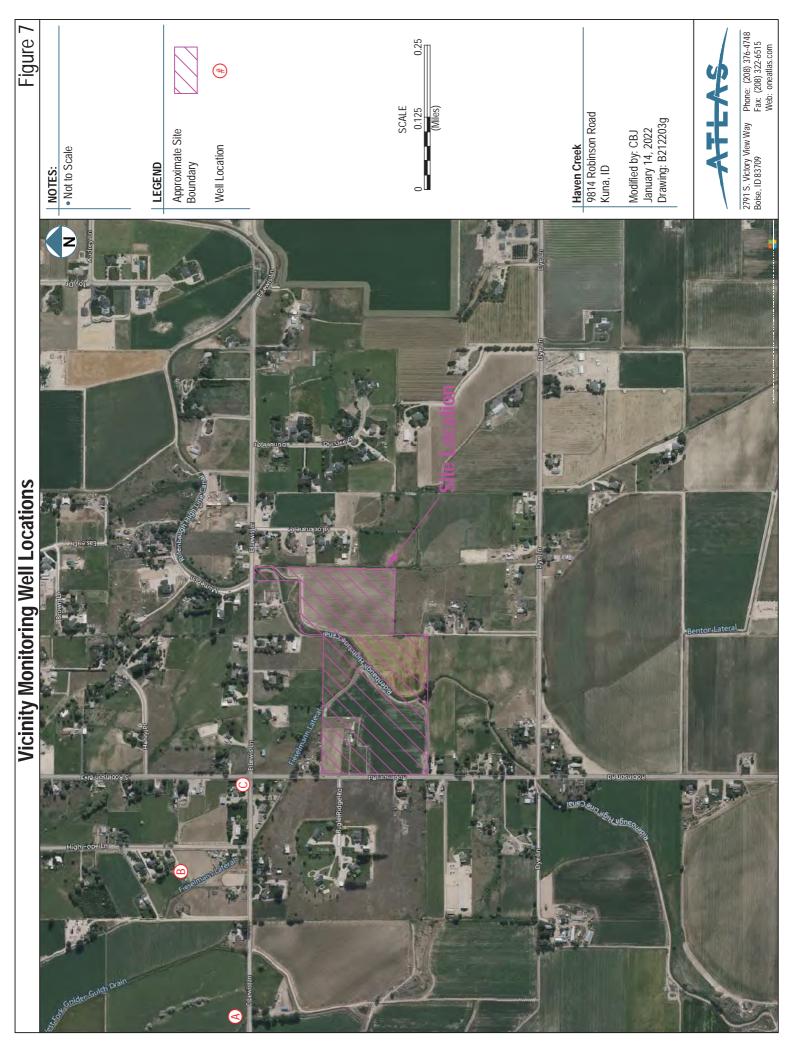


© US Climate Data 2021 | version 3.0 | by Your Weather Service |

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

Atlas No. B212203g Copyright © 2021 Atlas Technical Consultants



Appendix X NITRATE MASS-BALANCE SPREADSHEETS FOR INDIVIDUAL LOTS

> Atlas No. B212203g Copyright © 2021 Atlas Technical Consultants

	NPUT (
Water Burdret	Innut Value	Default Value		Vestiv Water Budret	Volume (m ³)	% of Total
Hydraulic Conductivity (ft/dav)	81.000	Site-specific		Ground Water	8.30E+03	94.6
Hydraulic Gradient	0.0033	Site-specific		Efluent	4.14E+02	4.7
Mixing Zone Thickness (ft)	15	-	Default	Recharge	5.72E+01	0.7
Aquifer Width Perpendicular to Flow (ft)	200.22			Total Water Volume	8.78E+03	
Parcel Area (acres)	1 03	Site-specific				
Percent of Parcel That Is Impervious (Percent)	<u></u> 2	Site-specific		Point of Compliance Nitrate Concentration Goal	6.4	
Current/Acceptable Number of Homes in Parcel	1.0 300	Site-specific	Default	Ave Downstadiant Nitrate Concentration in GW (mail)	C 7	
	000		Delault		7.1	
Natural Recharge rate (inches/yr)	0.6	Site-specific			1.0	
Nitrogen Budget (all concentrations represent nitrate nitrogen)	nitrogen)			Yearly Nitrogen Budget	Maaa ()	0/ 25 Tatal
Upgradient Ground Water Concentration (mg/l)	5.4	Site-specific		Background GW Nitrate Mass	<u>wass (mg)</u> 4.48E+07	<u>% of lotal</u> 70.6
	1					
Septic Tank Effluent Concentration (mg/l)	45.0		Default	Septic Tank Effluent Nitrate Mass	1.87E+07	29.4
Denitrification Rate (decimal fraction)	0		Default	Recharge Nitrate Mass	1.72E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3		Default	Total Nitrate Mass	6.35E+07	
Instructions for Use Invertigent Invertigent </th <th>nder consideration der consideration , as described in e on pervious portio t Nitrate Concent percent of total fo</th> <th>are entered in bl the accompanying N ons of the site, and fr ration in GW</th> <th>blue shaded cells <i>INPUT</i> side of the <i>NPUT</i> side of the <i>NP</i> guidance. Selecting values other than from septic tank effluent. The total vearly nits of the water and nitrogen budgets are</th> <th>ll re ut is</th> <th>alculating yearly wa alculating yearly wa titon. Sources of wa blume of water avails</th> <th>y water and nitroger of water and nitroger available to recharge Avg. Downgradien</th>	nder consideration der consideration , as described in e on pervious portio t Nitrate Concent percent of total fo	are entered in bl the accompanying N ons of the site, and fr ration in GW	blue shaded cells <i>INPUT</i> side of the <i>NPUT</i> side of the <i>NP</i> guidance. Selecting values other than from septic tank effluent. The total vearly nits of the water and nitrogen budgets are	ll re ut is	alculating yearly wa alculating yearly wa titon. Sources of wa blume of water avails	y water and nitroger of water and nitroger available to recharge Avg. Downgradien
Nitrate Concentration in GW is also calculated. The Density button allows the calculation of both the Acceptable Number of Homes in the Parcel (shown in button opens an input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the to approxe the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted the concentration opens and input parcel is the concentration opens and the concentrate opens adjusted the concentration opens adjusted the concentrate opens adjusted the	/ button allows the f Compliance Nit r	e calculation of both t ate Concentration (ne Acceptable Number of soal . The number of home	Nitrate Concentration in GW is also calculated. The Density button allows the calculation of both the Acceptable Number of Homes in the Parcel (shown in INPUT area) as well as the acceptable lot size. Clicking the Density button opens an input bot that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted to meet the specified goal. This calculation can be redone iteratively along	eptable lot size. Clicl ation can be redone	king the Densit iteratively alon
Aquifer Width Perpendicular to Flow: For land development projects not completely flow, the site specific aquifer width value is determined using the average property widt	t projects not com he average proper	bletely oriented perpendicular to grou ty width that is perpendicular to flow.	oriented perpendicular to ground water th that is perpendicular to flow.	SITE INFORMATION		
				Haven Creek Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natu (feet/day)	lated Sediments	Natural Recharge estimated from tot	JRR) can al precipit	Lot 9 - Regular Septic System 1/14/2022	Parcel Identification Date	ation
Silt and sandy silt		(TAP) using the equation:	luation: NKK 2*00010	Bryar Jensen, El	Prepared By	
Silty sands and fine sands	0.03 to 3	(Incres/yr) = (I AP	0.0040	Disclaimer: Considerable care was exercised in developing this software.	nis software.	ALL AND A
Well-sorted sands and glacial outwash	3 to 300			However, the Idaho Department of Environmental Quality makes no warranty	ikes no warranty	
Well-sorted gravel	30 to 3000			regarding its accuracy and shall not be held liable for any damages resulting	nages resulting	
					- n	

/NPUT Water Budget Hudraulic Conductivity (#Idav)						
Water Budget Hvdrantic Conductivity (#/dav)				OUTPUT		
Hydraulic Conductivity (ft/day)	Input Value	Default Value		Yearly Water Budget	<u>Volume (m³)</u>	<u>% of Total</u>
	81.000	Site-specific		Ground Water	8.30E+03	94.6
Hydraulic Gradient	0.0033	Site-specific		Efluent	4.14E+02	4.7
Mixing Zone Thickness (ft)	15		Default	Recharge	5.72E+01	0.7
Aquifer Width Perpendicular to Flow (ft)	200.22			Total Water Volume	8.78E+03	
Parcel Area (acres)	1 03	Site-specific				
Percent of Parcel That Is Impervious (Percent)	<u></u>	Site-specific		Point of Compliance Nitrate Concentration Goal	6.4	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300		Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	6.4	
Natural Recharge rate (inches/yr)	0.6	Site-specific			1.0	
Nitrogen Budget (all concentrations represent nitrate nitrogen)	nitrogen)			Yearly Nitrogen Budget	()	+ 3
Upgradient Ground Water Concentration (mg/l)	5.4	Site-specific		Background GW Nitrate Mass	Mass (mg) 4.48E+07	<u>% of Total</u> 80.0
		•				
Septic Tank Effluent Concentration (mg/l)	27.0		Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	20.0
Denitrification Rate (decimal fraction)	0		Default	Recharge Nitrate Mass	1.72E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3		Default	Total Nitrate Mass	5.60E+07	
Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in budgets. Default values for selected parameters are provided, as described in the accompany include ground water inflow from upgradient, natural recharge on pervious portions of the site, Average Downgradient Nitrate Concentration in GW	nder consideration d, as described in e on pervious porti it Nitrate Concent	i are entered in the accompanying ons of the site, anc :ration in GW	blue shaded cells <i>INPUT</i> side of the N-P guidance. Selecting values other than from septic tank effluent. The total yearly ni <i>OUTPUT</i> side of the spreadsheet)	Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in blue shaded cells <i>INPUT</i> 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 Average Downgradient Nitrate Concentration in GW OUTPUT side of the spreadsheet).	alculating yearly wa ion. Sources of wal lume of water avails	ter and nitroger er and nitroger tble to recharge
As values are blue shaded cells the totals and percent of total for various components of the water and nitroden budgets are	percent of total fo	r various compone	ents of the water and nitroder	n budgets are OUTPUT	Avg.	<u>Ava. Downaradien</u>
Nitrate Concentration in GW is also calculated. The Density button allows the calculation of both the Acceptable Number of Homes in the Parcel (shown in button opens an input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted with changing other site input parameters to examine the resultant impact on nitrate concentrations.	y button allows the f Compliance Nitu litant impact on nitu	e calculation of both rate Concentration rate concentrations	h the Acceptable Number of n Goal . The number of home	INPUT o meet the (otable lot size. Click tion can be redone	king the Densit iteratively alon
Aquifer Width Perpendicular to Flow: For land development projects not completely flow, the site specific aquifer width value is determined using the average property width	it projects not comp the average proper	pletely oriented per tv width that is per	oriented perpendicular to ground water th that is perpendicular to flow.	SITE INFORMATION		
				Haven Creek Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments/Natural Recharge Rate (NRR) can be (feet/day)	lated Sediments	Natural Rechar estimated from t	Natural Recharge Rate (NRR) can be estimated from total annual precipitation	Lot 9 - 40% Nitrate Reducing Septic System 1/14/2022	Parcel Identification Date	ation
Silt and sandy silt		(TAP) using the equation:	equation: NRR	Bryar Jensen, El	Prepared By	
Silty sands and fine sands	0.03 to 3	(inches/yr) = (IAP) ^{- *} 0.0046	1P) ^{- ×} 0.0046	Disclaimer: Considerable care was exercised in developing this software	s software.	and of
Well-sorted sands and glacial outwash	3 to 300			However, the Idaho Department of Environmental Quality makes no warranty	tes no warranty	
Well-sorted gravel	30 to 3000			regarding its accuracy and shall not be held liable for any damages resulting	active reculting	A alla
					Allininesi cafipi	S.

INPUT Water Budget						
Water Budget				OUTPUT		
	Input Value	Default Value		Yearly Water Budget	<u>Volume (m³)</u>	% of Total
Hydraulic Conductivity (ft/day)	81.000	Site-specific		Ground Water	7.95E+03	94.0
Hydraulic Gradient	0.0033	Site-specific		Efluent	4.14E+02	4.9
Mixing Zone Thickness (ft)	15		Default	Recharge	8.88E+01	1.1
Aquifer Width Perpendicular to Flow (ft)	191.73			Total Water Volume	8.45E+03	
		- 31				
Parcel Area (acres)	0.1	Site-specific				
Percent of Parcel That Is Impervious (Percent)	0 0	Site-specific		Point of Compliance Nitrate Concentration Goal	6.4	
Current Acceptable Number of routes in Faicer Septic Tank Effluent (gallons/d/home)	300	olipade-alio	Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	7.3	
Natural Recharge rate (inches/yr)	0.6	Site-specific			1.6	
Nitrogen Budget (all concentrations represent nitrate nitrogen)	trogen)			Yearly Nitrogen Budget		1-7-1-9- JO
Upgradient Ground Water Concentration (mg/l)	5.4	Site-specific		Backaround GW Nitrate Mass	<u>Mass (mg)</u> 4.29E+07	<u>% of lotal</u> 69.7
6.6						
Septic Tank Effluent Concentration (mg/l)	45.0		Default	Septic Tank Effluent Nitrate Mass	1.87E+07	30.3
Denitrification Rate (decimal fraction)	0		Default	Recharge Nitrate Mass	2.66E+04	0.0
Nitrate in Natural Recharge (mo/))	۲ ر ا		Default	Total Nitrate Mass	6 16E+07	
	2		Deladir		0.101.0	
Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in Input parameter values appropriate to conditions at the site under consideration are entered in budgets. Default values for selected parameters are provided, as described in the accompany include ground water inflow from upgradient, natural recharge on pervious portions of the site, Average Downgradient Nitrate Concentration in GW.	ler consideration as described in on pervious portion Nitrate Concent	i are entered in b the accompanying N ons of the site, and fi ration in GW	blue shaded cells <i>INPUT</i> side of the <i>N-P</i> guidance. Selecting values other than from septic tank effluent. The total yearly ni OUTPUT side of the spreadsheet).	Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in blue shaded cells <i>INPUT</i> 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 pervisus 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 Average Downgradient Nitrate Concentration in GW	alculating yearly wa tion. Sources of wal	ter and nitroge ter and nitroge able to recharg
As values are blue sharled cells the totals and nercent of total for various commonents of the water and nitronen burdnets are	ercent of total fo	r various component	s of the water and nitrode	n huddrefs are	Avn	Avg Downgradient
Nitrate Concentration in GW is also calculated. The Density button allows the calculation of both the Acceptable Number of Homes in the Parcel (shown in button opens an input box that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of the Point of the Point of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that allows the input of the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted that a submitted that an adjusted that	button allows the compliance Nitr	e calculation of both i	coal. The number of home	INPUT o meet the :	ptable lot size. Click ation can be redone	king the Densit iteratively alon
Aquifer Width Perpendicular to Flow: For land development projects not completely oriented perpendicular to grou flow. the site specific acuifer width value is determined using the average property width that is perpendicular to flow.	projects not comp e averade proper	pletely oriented perperty width that is perpe	oriented perpendicular to ground water th that is perpendicular to flow.	SITE INFORMATION		
	-			Haven Creek Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments Natural Recharge Rate (NRR) can be (feet/day)	ted Sediments	Natural Recharg estimated from to	Natural Recharge Rate (NRR) can be estimated from total annual precipitation	Lot 23 - Regular Septic System	Parcel Identification Date	ation
Silt and sandy silt		(TAP) using the equation:	quation: NRR	Brvar Jensen. El	Prepared By	
Silty sands and fine sands	0.03 to 3	(inches/yr) = (TAP) [±] * 0.0046	y) [≤] * 0.0046	Disclaimer: Considerable care was exercised in developing this software.	is software.	A NAME
Well-sorted sands and glacial outwash	3 to 300			However, the Idaho Department of Environmental Quality makes no warranty	kes no warranty	LOT
Well-sorted gravel				sources the accuracy and shall not be hold light for any damages well the	:	
	20 10 2000				nages resulting	ET I

INPUT Water Budget						
<u>Water Budget</u>				OUTPUT		
	Input Value	Default Value		Yearly Water Budget	<u>Volume (m³)</u>	% of Total
Hydraulic Conductivity (rt/day)	81.000	Site-specific		Ground Water	7.95E+03	94.0
Hydraulic Gradient	0.0033	Site-specific		Efluent	4.14E+02	4.9
Mixing Zone Thickness (ft)	15		Default	Recharge	8.88E+01	1.1
Aquifer Width Perpendicular to Flow (ft)	191.73			Total Water Volume	8.45E+03	
Parcel Area (acres)	ب م	Site-snecific				
Percent of Parcel That Is Impervious (Percent)	<u>;</u> 6	Site-specific		Point of Compliance Nitrate Concentration Goal	6.4	
Current/Acceptable Number of Homes in Parcel	1.0	Site-specific				
Septic Tank Effluent (gallons/d/home)	300		Default	Avg. Downgradient Nitrate Concentration in GW (mg/l)	6.4	
Natural Recharge rate (inches/yr)	0.6	Site-specific			1.6	
Nitrogen Budget (all concentrations represent nitrate nitrogen)	nitrogen)			Yearly Nitrogen Budget	, , ,	
harsdiont Ground Weter Concentration (ma/)	۲ ل	Sito-enocific		Backarainad GW Nitrata Mass	Mass (mg)	<u>% of Total</u> 70.3
	ţ	olioade-alio			4.2351-07	0.67
Septic Tank Effluent Concentration (mg/l)	27.0		Provide Justification	Septic Tank Effluent Nitrate Mass	1.12E+07	20.7
Denitrification Rate (decimal fraction)	0		Default	Recharge Nitrate Mass	2.66E+04	0.0
Nitrate in Natural Recharge (mg/l)	0.3		Default	Total Nitrate Mass	5.42E+07	
Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in budgets. Default values for selected parameters are provided, as described in the accompany include ground water inflow from upgradient, natural recharge on pervious portions of the site, Average Downgradient Nitrate Concentration in GW	nder consideration I, as described in on pervious porti t Nitrate Concent	i are entered in the accompanying ons of the site, and :ration in GW	blue shaded cells <i>INPUT</i> side of the N-P guidance. Selecting values other than from septic tank effluent. The total yearly ni OUTPUT side of the spreadsheet)	Instructions for Use Input parameter values appropriate to conditions at the site under consideration are entered in blue shaded cells <i>INPUT</i> 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 Average Downgradient Nitrate Concentration in GW OUTPUT side of the spreadsheet).	alculating yearly wai cion. Sources of wai lume of water avails	ter and nitroger er and nitroger tble to recharge
As values are blue shaded cells the totals and percent of total for various components of the water and nitrogen budgets are	percent of total fo	r various compone	ents of the water and nitroder	n budgets are OUTPUT	Avg.	Ava. Downaradien
Nitrate Concentration in GW is also calculated. The Density button allows the calculation of both the Acceptable Number of Homes in the Parcel (shown in button opens an input box that allows the Point of Compliance Nitrate Concentration Goal. The number of homes in the parcel is then adjusted t with changing other site input parameters to examine the resultant impact on nitrate concentrations.	/ button allows the f Compliance Nitr Itant impact on nitr	e calculation of both rate Concentrations rate concentrations	n the Acceptable Number of In Goal The number of home	INPUT o meet the (ptable lot size. Click tion can be redone	king the Density iteratively along
Aquifer Width Perpendicular to Flow: For land development projects not completely flow, the site specific aquifer width value is determined using the average property wid	: projects not comp he averade proper	pletely oriented per tv width that is per	oriented perpendicular to ground water th that is perpendicular to flow.	SITE INFORMATION		
-	-	-		Haven Creek Subdivision	Site Name	
Ranges of Hydraulic Conductivity (K) for Unconsolidated Sediments/Natural Recharge Rate (NRR) can be (feet/day)	lated Sediments	Natural Rechar estimated from t	Natural Recharge Rate (NRR) can be estimated from total annual precipitation	Lot 23 - 40% Nitrate Reducing Septic System 1/14/2022	Parcel Identification Date	ation
Silt and sandy silt		(TAP) using the equation:	equation: NRR	Bryar Jensen, El	Prepared By	
Silty sands and fine sands	0.03 to 3	(incnes/yr) = (IAP) 0.0046	14)- ° 0.0046	Disclaimer: Considerable care was exercised in developing this software	is software.	ALL DATE OF
Well-sorted sands and glacial outwash	3 to 300			However, the Idaho Department of Environmental Quality makes no warranty	tes no warranty	
Well-sorted gravel	30 to 3000			regarding its accuracy and shall not be held liable for any damages resulting	and realiting	
	00000			ובפמומוום וים מככמומכל מווא כוומוי ויכי אב ווכום וומצור וכי ביול בייווי		all and



Southwest District Health

Pre-Development Meeting Planned Unit/Commercial **Environmental Health Services** 13307 Miami Lane Caldwell, ID 83607 208.455.5400 FAX 208.455.5405

Name of Development: Applicant: P.E./P.G.: All others in Attendance:		
	EHS #'sDate	
Number of Lots or Flow: Location of Development:	Acreage of Proposed Development:	
	Groundwater/Rock <10'	
LSAS/CSS Proposed:		
Proposed Drinking Water:	Individual , City , Community , Public Water Supply	
Information Distributed:	SER , NP Guidance , Non-Domestic WW ap.	
Additional Comments:		

Attach conceptual plan, if provided, or any other correspondence, and create a file for this information. The information will be helpful when responding to the county about permitting requirements and should be maintained with the subdivision file or commercial permit file when completed, for a complete written history of the project and SWDH involvement.

1008 E. Locust Emmett 83617 365-6371 FAX 365-4729 1155 Third Ave., N. Payette 83661 642-9321 FAX 642-5098 46 W. Court Weiser 83672 549-2370 FAX 549-2371

824 S. Diamond St. Nampa 83686 465-8402 FAX 442-2809

Atlas No. B212203g



January 20, 2023

Mr. Tanner Verhoeks Haven Idaho 521 North 10th Avenue #4 Caldwell, ID 83605

Subject: Accessory Dwelling Unit Letter – Level 1 Nutrient Pathogen Study Haven Creek Subdivision 9814 Robinson Road Kuna, ID

Dear Mr. Verhoeks:

Atlas previously conducted a Nutrient Pathogen (NP) Study for the above-mentioned project (Atlas File Number B212203g). The previous study was based on a total of 26 residential lots, with each residence assumed to be 4 bedrooms in size. This equated to a per lot wastewater flow of 300 gallons per day (gpd). Results of that study indicated that 40 percent nitrate reducing septic systems would be required for each lot in order to meet down-gradient nitrate concentration limits required by the Southwest District Health (SWDH) and Idaho Department of Environmental Quality (IDEQ). The NP Study has been submitted to SWDH and IDEQ for review, though results of that review are not yet available.

Atlas has since been informed that it is desirable to increase the number of residential lots to 29, and that accessory dwelling units (ADUs) may be constructed on at least some of the lots. Atlas preliminarily re-analyzed the site assuming that up to 500 gpd of wastewater flow would be used for each of the proposed 29 lots, which would allow for a 4-bedroom residence and 2-bedroom ADU on a single lot. Wastewater flow could be adjusted as needed for each structure on any given lot, though the total effluent is limited to 500 gpd per lot. Atlas also assumed a minimum lot size of 1 acre in the re-analysis. Results of the analysis indicate that as long as each individual lot width perpendicular to groundwater flow direction is at least 145 feet and advanced treatment capable of 65% nitrate reduction is implemented, the site will meet the point-of-compliance down-gradient nitrate concentrations as required by SWDH and IDEQ. Smaller lots widths perpendicular to groundwater flow down and IDEQ. Smaller lots widths perpendicular to groundwater flow shere no ADUs are planned and flow rates are less than 500 gpd. Once Atlas is provided a revised lot layout showing the proposed 29 lots, a revised NP Study will be prepared and submitted to SWDH and IDEQ for review and approval.

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

Respectfully submitted,

Monica Saculles, PE Senior Geotechnical Engineer

Appendix B

Fire Appendices attached in Appendix B:

- 1st Review Pre-Plat Residential Subdivision Conditional letter_Fire District.pdf
- Haven Creek Kuna Fire Prelim Plat Approved 20230501.pdf
- Haven Creek Kuna Rural Fire Protection District Response Times.pdf
- HC Kuna Fire Letter 2024.pdf



KUNA RURAL FIRE DISTRICT Est. 1951

150 W BOISE ST PO Box 607 Kuna, ID 83634 PHONE: (208) 922-1144 FAX: (208) 922-1982

Date:3/13/2022From:Kuna Rural Fire Protection District

Regarding: Haven Creek Subdivision Pre_Plat E Lewis Lane / Robinson Rd Kuna, ID

New residential subdivisions shall comply with the Idaho State Fire Code section 102.5 and section D107 for one or two family residential developments.

• <u>Fire Apparatus Access:</u>

Plans indicate a single fire service roadway connection from south Robinson Road. This service roadway shall be maintained unobstructed with approved cul-de-sacs available for fire apparatus turn around. A secondary access, complying with IFC section D107.2, may be required if more than 30 buildable lots are proposed. No Parking Fire Lane signs shall be installed in areas determined to have significant potential to obstruct emergency access and firefighting operations. Refer to IFC appendix "D" sections D103, D103.6.1, & D103.6.2 for details.

• Fire Hydrants:

A fire hydrant water distribution system and approved fire hydrants are required. At least one fire hydrant shall be available along residential service roadways and within 600 lineal feet of the furthest exterior portion of each future residential building. Hydrants and fire flow shall be designed to meet the minimum requirements of IFC appendix B105.1 for oneand two-family dwellings.

Premises Identification:

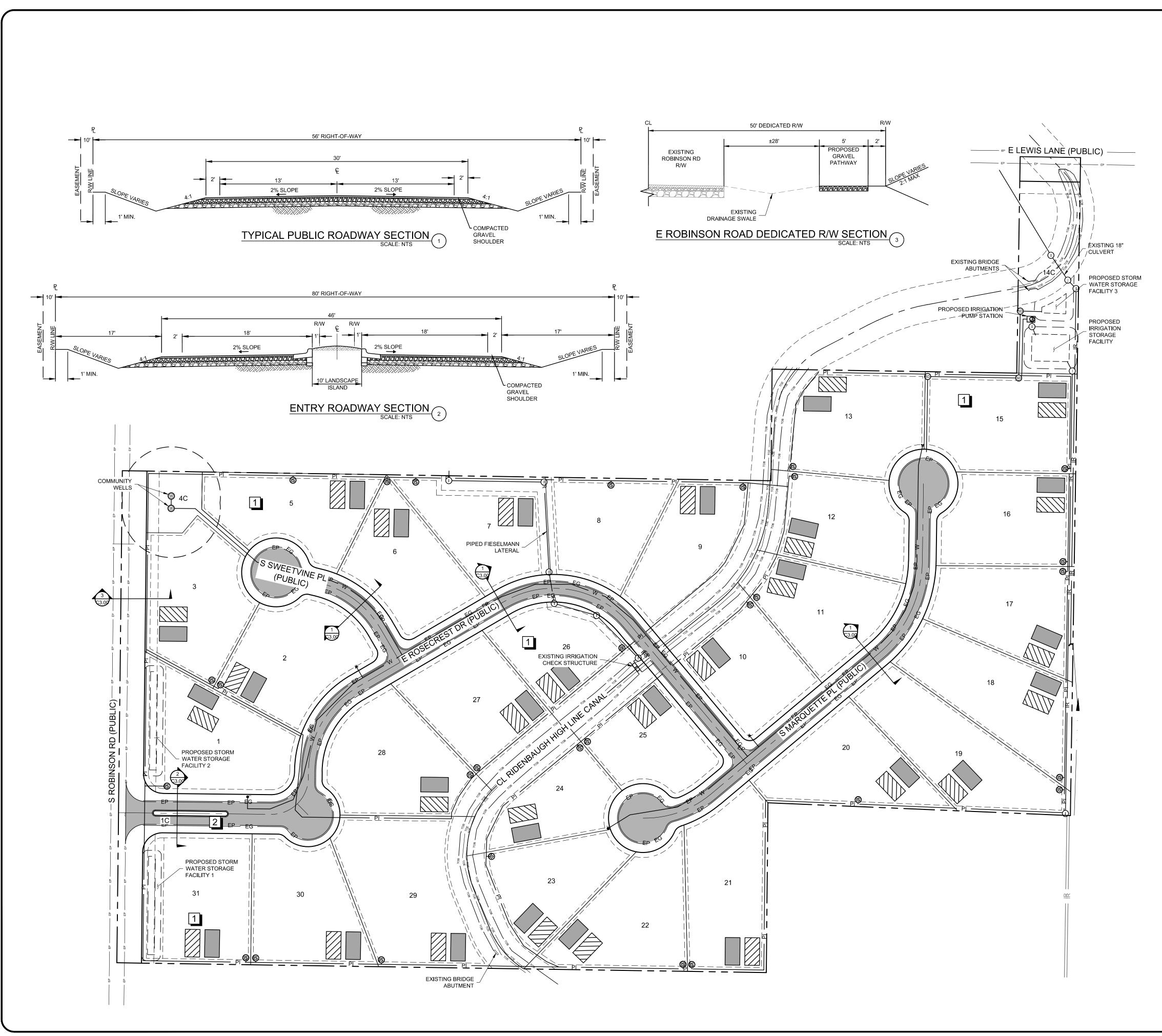
• New residential buildings shall be provided with approved address identification. The address identification shall be legible and placed in a position that is visible from the street or road fronting the property. Address numbers shall be not less than 4 inches high with a minimum stroke of ½ inch. Where access is by means of a private road and the building cannot be viewed from the public way, a monument, pole or other means shall be used to identify the structure. (IFC 505.1)

Regards,

Kuna Rural Fire Protection District Kuna, ID 83634 1.208.922.1144 (main)







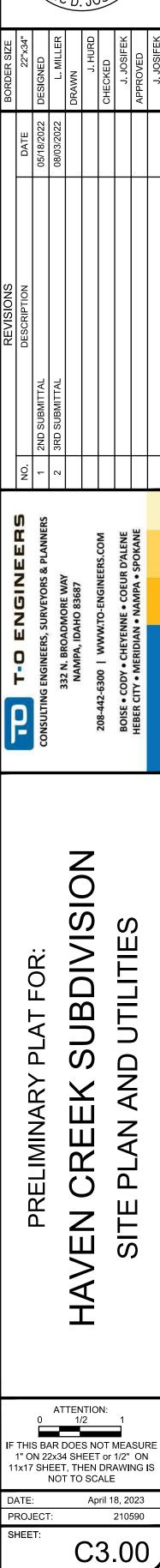
LICENSED 19574 300 1"=100 LEGEND SUBDIVISION BOUNDARY ROAD RIGHT-OF-WAY · ROAD CENTERLINE PROPOSED EASEMENT EXISTING EDGE OF PAVEMENT PROPOSED EDGE OF PAVEMENT PROPOSED EDGE OF GRAVEL 1 BLOCK NUMBER LOT NUMBER COMMON LOT NUMBER WELL SET BACK BOUNDARY 0 PROPOSED COMMUNITY WELL SD PROPOSED STORM DRAIN STRUCTURE PROPOSED STORM DRAIN LINE SD **()**-PROPOSED PRESSURE IRRIGATION SERVICE - | ~ | PROPOSED PRESSURE IRRIGATION LINE EXISTING GRAVITY IRRIGATION LINE PROPOSED GRAVITY IRRIGATION LINE \bigcirc PROPOSED GRAVITY IRRIGATION STRUCTURE w PROPOSED WATER MAIN $\mathcal{V}_{\gamma \vee 0}$ PROPOSED FIRE HYDRANT 0 🗭 в.о. PROPOSED BLOW-OFF

PROPOSED SEPTIC DRAIN FIELD AREA

PROPOSED REPLACEMENT DRAIN FIELD AREA



APPROVED By Scott Arellano at 1:52 pm, May 01, 2023



Mon, Apr 10, 2023 at 2:59 PM

Haven Creek - Kuna Rural Fire Protection District - Request for Support

T.J. Lawrence <tlawrence@kunafire.com> To: "tanner@havenidaho.com" <tanner@havenidaho.com> Cc: "scott@fccnwi.com" <scott@fccnwi.com>

Mr. Verhoeks,

The drive time from Kuna Fire Station #1 to the SE corner of Robinson RD and Lewis LN is approximately 10-12 minutes.

Thank you,

T.J. Lawrence

Fire Chief

Kuna Rural Fire District

PO Box 607

Kuna, Idaho 83634

Station 1:(208)922-1144

Fax:(208)922-1982



[Quoted text hidden]

Samantha Hammond

From:	T.J. Lawrence <tlawrence@kunafire.com></tlawrence@kunafire.com>
Sent:	Wednesday, May 1, 2024 8:06 AM
To:	Samantha Hammond; James Trumble
Cc:	Krystal Hinkle
Subject:	RE: Land Use Development Kuna Fire Response Time
Follow Up Flag:	Follow up
Flag Status:	Flagged

Samantha,

Good morning. Approximate response time is 15 minutes from Kuna Fire station #1 located at 150 W. Boise St, Kuna. Kuna Fire Station #2 is proposed to be located on Kune Rd West of Ten Mile Rd directly across Kuna Rd from a current subdivision called Madrone Heights. We are currently working with the developer on a lot split which has not been finalized. Station #2 in this location would improve response time to the Haven Creek project to approximately 10 minutes. There are no plans for a future station off Black Cat and Kuna Rd, however some developers identify space in their conceptual unapproved plans where if approved would donate space for a potential future station. I hope you find this information useful, let me know if you need anything else.

Thank you,

T.J. Lawrence Fire Chief Kuna Rural Fire District PO Box 607 Kuna, Idaho 83634 Station 1:(208)922-1144 Fax:(208)922-1982



Appendix C

EMS Appendices Attached in Appendix C:

• HC - Canyon Paramedics.pdf

Samantha Hammond

From: Sent:	Michael Stowell <mstowell@ccparamedics.com> Monday, May 6, 2024 4:34 PM</mstowell@ccparamedics.com>
То:	Samantha Hammond
Subject:	RE: EMS Services Land Development Application
Follow Up Flag:	Follow up
Flag Status:	Flagged



Samantha,

I have some response times and information to share. We are currently running a levy override on the May 21 ballot due to the growth in Canyon County over the last several years. The Ambulance District does not currently have the funds to maintain current levels of service let alone add any stations or ambulances. You can visit our website to see more information about our needs. <u>www.ccparamedics.com</u>

Medic 41 is located at 406 Constitution way and is first in to your development with a response time of 12 minutes. Medic 41 is the second busiest ambulance in the County. This station is being torn down in the near future due to private development and the fact that the Ambulance District does not own this station. If voter approved, the levy would provide funds to rebuild this station.

Medic 44 is located at 4280 East Flamingo and is second in to your development with a response time of 13.34 minutes.

Medic 42 is located at 301 6th St North and is third in to your development with a response time of 14.52 minutes.

Medic 45 is located at 1725 West Roosevelt and is third in to your development with a response time of 16.55 minutes. Medic 45 is the first ambulance that is shut on certain days due to funding/staffing. Shutting down this unit causes other units to have longer response times.

Medic 43 is located at 1222 North Midland Boulevard and is fourth in to your development with a response time of 18 minutes. Medic 43 is the second busiest ambulance in the County.

I hope this helps with your planning. Please let me know if you need further clarification or have any other questions.

-Michael

Appendix D

School Appendices Attached in Appendix D:

- KSD Haven Creek Support Letter 20230505.pdf
- Haven Creek KSD V3 signed 06062023 EXECUTED.pdf
- KSD HTV Creek Letter of Support 2024.pdf

Kuna School District

Inspiring each student to become a lifelong learner and a contributing, responsible citizen.



May 5, 2023

RE: Haven Creek Subdivision

Dear Canyon County Commissioners.

Kuna School District has reviewed the application of Haven Creek and provides the following comments for your consideration. Kuna School District has experienced approximately 2% growth over the last ten years. While the developments approved exceed our current capacity, Haven Creek has been able to partner with Kuna School District in helping to mitigate the impact of this development.

Kuna School District has experienced unprecedented growth recently and we seek voluntary partnerships with developers to support our ability to educate the students in our community.

Because this developer has partnered with us, we can serve the students generated from this development of 29 homes.

We do request the following regarding bussing for this subdivision. Our practice is that buses try not to go into subdivisions. We request that the pickup area for this subdivision is located on the east side of Robinson Road. We ask there be space for children to congregate and wait for the bus twelve feet from the road. Twelve feet is the minimum safe distance for our buses. The district has worked with the developer on the location and they have confirmed and met our request.

In order to reduce our reliance on bonds, and to promote reasonable growth within our district that pays for itself, we seek partnerships with the residential developers of this area. We are grateful for the level of partnership demonstrated by Haven Creek.

Regards,

Danielle Horras and Robbie Reno

School District Planners

CC: School Board of Trustees



Letter of Understanding V2

VISION

Swan Falls High School and Haven partner to create *The Swan Falls House*. Swan Falls CTE students design, manage, and assist with construction of this house. Students involved graduate with marketable skills to enter the real estate or construction industries. Profits from the home sale benefit Swan Falls High School. All residents served by KSD benefit.

CONTEXT

- 1. Haven Creek is a proposed Canyon County subdivision consisting of (29) 1-2 acre lots. The Developer is *Haven Idaho*.
- 2. The project will be served by the Kuna School District ("KSD").
- 3. A proposed bond measure to fund KSD capital improvements was rejected by residents in April 2023.
- 4. KSD is looking for creative ways to partner with developers to fund capital improvements needed to accommodate current and future students.
- 5. A Voluntary Capital Mitigation Fee ("VCMF") study prepared by TBG Jan 2023 led the KSD Board to seek \$3,286 per new single family residence.
- 6. The requested VCMF for Haven Creek is \$95,294.
- 7. Haven has a "Better Than We Found It" pledge where the ownership group only takes on projects that can include varying degrees of community benefit. Haven's website states:
 - a. "We call this *Community-First Development*. We desire to be an agent of change that models a different approach to residential development. We fix business profits, then work to generate excess profits that can be used to make a meaningful impact on the communities we are active in. We find creative ways for residential development to cause positive human experiences that wouldn't otherwise happen."
- 8. A preliminary partnership proposal was presented to the KSD Board of Trustees in April. The Board received it well and requested continued development of the partnership.
- 9. Haven and KSD Staff met in May to discuss additional details of how this partnership could work. This updated agreement is meant to reflect these conversations.

PROPOSED PARTNERSHIP

This partnership is dependent on approval by Canyon County of the proposed Haven Creek 29 lot subdivision (as described in the conceptual pre-plat, attached) without conditions causing substantial additional financial costs to the project.

Haven and KSD intend to voluntarily enter into a partnership as follows:

- A. Haven and KSD will mutually seek approval from KSD Board of Trustees for this partnership.
- B. Haven and KSD will mutually advocate for the project (and this Partnership) with the Canyon County Board of County Commissioners for approval.
- C. Haven will identify one lot in Haven Creek for The Swan Falls House ("TSFH").
- D. Haven and KSD will jointly identify a Builder willing to participate in this partnership.
 - a. We expect this to be a Builder already building in Haven Creek, but are open to other ideal-driven Builders who may be interested in helping KSD.
- E. Haven will coordinate with Swan Falls CTE Staff to work TSFH into the curriculum beginning in Fall 2023.
- F. Haven, the Builder, and CTE Staff will collaborate to identify which topics are appropriate for inclusion in curriculum. Haven and Builder will be available for scheduled in-class time to facilitate student learning and participation. How students participate and whether/how topics are integrated into existing lesson planning is entirely at discretion of CTE Staff. Potential topics include:
 - a. **Site Design:** How to orient structures to make best use of land, including requirements for access, septics, wells, setbacks, and other details.
 - b. **Engineering:** Design and layout of lots, roads, utilities, stormwater management, public water system design and operation.
 - c. **Floorplan:** Choose ideal floorplan from existing options, including any adjustments appropriate for the lot and building orientation.
 - d. **Elevations:** Aesthetic changes for exterior finishes based on which elevations are visible and costs associated with different options.
 - e. **Permitting:** Taking paper construction docs through various agencies for permit issuance. Includes exposure to both discretionary and ministerial processes leading to an understanding of how the business of home building works.
 - f. **Capital Stack:** Underwriting for build, including projected profits, financing, and capital stack.
 - g. Pre-Construction: Cost estimating, value engineering, and job scheduling.
 - h. **Site Management:** Planning for temporary utilities, site setup, material staging, and other logistical details.
 - i. **Construction:** Participating or other involvement with the specific trades and/or physical work at the site.

- j. **Construction Administration:** Insurance, material shopping and purchasing, tradeoff decisions during construction, proposals from trades, change orders,
- k. Landscape: Design and installation of hard and softscape elements.
- I. **Disposition:** Sales, marketing, staging, contracts, understanding title and escrow processes. Everything related to closing out a sale.
- G. Construction financing for TSFH is TBD. Our goal is to bring a local financial institution on board as a community engagement effort. The backup plan is for Haven or Builder to arrange financing just like any other build in Haven Creek.
- H. At time of sale, Haven will be reimbursed for direct costs allocated to the lot (estimated at \$125k). All profit related to the lot will be donated to KSD. Assuming a retail value of \$225k for the lot, this would result in a lot donation of \$100k.
- I. At time of sale, Builder will donate net profits (less a fair management fee amount) to KSD. These terms are negotiable with Builder directly, but we are targeting a Builder who will help maximize this financial donation.
- J. KSD will identify how to incorporate TSFH into curriculum beginning Fall 2023.
- K. KSD will help craft and market the story of TSFH. The messaging goals are as follows:
 - a. Provide an example for other Developers that inspires others to creatively engage with their local school districts.
 - b. Provide an example for County Staff and government bodies on how public/private partnerships could fill gaps.
 - c. Promote opportunities KSD students have that they can't get elsewhere.
 - d. Give Haven Creek buyers another reason to live in the community; people often want to associate with things they feel represent their values help future buyers want to associate with Haven Creek, Kuna, and KSD.
- L. Haven and KSD will update the Board of Trustees every 3 months on the partnership.

Our mutual aim is to kindle a passion in the next generation of industry players for responsible development and quality construction processes. This partnership is based on a hypothesis that kids who come out of school with a broad understanding of the industry will:

- (a) Be more valuable to their employer earlier in their career
- (b) Be more likely to pick a speciality in the industry that matches their interests
- (c) Be more likely to stay in the industry and grow it into their career

This agreement may be amended/updated by written agreement of the parties. We look forward to evolving the details around this partnership and creating surprisingly meaningful human experiences.

SignNow e-signature ID: 1d0c7604fd... 06**1 ustin** 1Ratitation (Deck, Manager HTV Creek LLC

06/15/2023

J.D. Grant, Chairman Kuna School District Board of Trustees

Haven Creek - A Haven Idaho Project



Kuna School District

Empowering students to lead productive lives.

May 30, 2024

RE: Haven Creek Subdivision

Dear Canyon County Commissioners:

We previously provided commentary on the proposed Haven Creek Subdivision by letter dated May 5, 2023. In that letter, we stated that we can serve the 14 forecasted students generated by the 29 homes in this development. This letter is intended to provide additional detail related to our ability to serve and the partnership this developer has offered.

Over the course of the past 7 years, Kuna School District has seen an enrollment increase of two percent (2%) year-to-year. We currently have capacity at the elementary and middle school facilities that would serve these new homes as follows: Indian Creek at 97% Ross Elementary at 79% and Kuna Middle School at 91%. While our high schools are currently over capacity, we believe the mitigation that this developer has offered more than adequately addresses that issue by providing both financial assistance to serve students and valuable educational and experiential opportunities for all our students.

The Kuna School District has a constitutional duty to provide educational services to children within our district. We will do so with every means at our disposal. The District has performed an exhaustive study to formulate a financing plan for current and future demand, culminating in a report prepared by TBG and dated January 2023. This long term plan includes a \$3,268 financing gap for each new single family residence that, if filled, provides the resources necessary to meet our financing goals along with passing bonds. Our shared agreement with Haven Creek covers this financial gap in addition to providing unique educational opportunities that we value tremendously. We are grateful for partnerships such as this that provide additional educational opportunities for our students while financially mitigating the cost of providing those services.

The Board of Trustees has discussed this topic during a recent public meeting and has unanimously voted to support this proposal. The executed Letter of Understanding between Haven Creek and Kuna School District, which describes this agreement, is attached. As noted in Robbie Reno's testimony before the Commissioners at the February 8, 2024 public hearing, Kuna School District has the ability to serve the students generated by this project.

Regards,

Robbie Reno Kuna School District

> 711 E. Porter Rd., Kuna, Idaho 83634 Phone: (208) 922-1000

JD Grant Vice Chairman, Zone 2 Hillary Lowe Trustee Zone 1 Kyrsti Bruce Trustee Zone 3 Michael Thornton Trustee Zone 5

Appendix E

DA Appendices Attached in Appendix E:

Development Agreement (Update for BOCC Hearing).docx

ATTACHMENT A DEVELOPMENT AGREEMENT CONDITIONS

[THESE CONDITIONS TO BE ATTACHED TO CANYON COUNTY'S STANDARD FORM OF DEVELOPMENT AGREEMENT; <u>UNDERLINED</u> COMPONENTS ARE ADDITIONS/MODIFICATIONS FROM PRIOR HEARING DRAFT]

- 1. The development shall comply with all applicable federal, state, and county laws, ordinances, rules and regulations that pertain to the property.
- 2. <u>Development shall be consistent with the site plan on file with the Canyon County Development</u> <u>Services and as reviewed and approved by the Canyon County Board of County Commissioners</u> on ______.
- 3. The subject parcel shall be in subjection to the Canyon County Zoning Ordinance Chapter 7, Article 17 for platting with a maximum of 29 buildable lots with the average lot size of 1.69 acres. The following restrictions apply:
 - a. Future subdivision and development shall conform to the generalized concept plans on file with Canyon County.
 - b. No secondary dwelling (CCZO §07-10-27 & 07-14-25) is allowed on the subdivision lots without an expanded nutrient pathogen study and approval by Southwest District Health and IDEQ that their standards can be met.
 - c. Future development shall comply with Idaho Department of Environmental Quality requirements and BMPs (best management practices) for dust control during construction, and stormwater pollution prevention plan.
 - d. Future development shall meet all applicable requirements and standards of the Nampa Highway District #1.
 - e. Future development shall meet all applicable Nampa subdivision requirements, in accordance with Canyon County Code Section 09-11-19, subject to the right of the Board of County Commissioners to approve waivers of standards in connection with plat review.
- 4. A Public Water System is required to service the 29 residential lots in lieu of individual wells. The public water system shall receive all required approvals by any government agency having jurisdiction and shall comply with all applicable federal, state, and local rules and laws for drinking water systems. The owner shall receive the necessary IDEQ and/or health district approvals for said Public Water System and shall at all times comply with the requirements of IDEQ for Public Drinking Water Systems as set forth in Idaho Administrative Code 58.01.08, as well as any requirements of Southwest District Health (SWDH). The Technical, Financial, and Managerial documentation filed with IDEQ shall identify an operator qualified as a Responsible Charge Operator under IDEQ rules. Appropriate language shall be included in any Declaration of Covenants, Conditions, and Restrictions (CCRs) addressing the common use of the same, including pressurized irrigation. Oversight for the Public Water System shall be provided by the Water Users Board, as defined in Condition 9, below. Ongoing maintenance of common facilities and components of the Public Water System shall be identified in an operations and maintenance manual ("O&M Manual") attached to the CCRs and updated from time to time.

- 5. <u>All septic systems to be installed on the property (the "Septic Systems") shall be Advanced</u> <u>Treatment Septic systems and the location and technical specifications for each shall be reviewed</u> <u>and approved by SWDH in accordance with its standard processes. The Septic Systems shall</u> <u>conform to the Level I Nutrient Pathogen Study prepared by Atlas Technical Consultants, LLC</u> <u>and dated January 14, 2022, subject to any modifications to the foregoing required from time to</u> <u>time by IDEQ and SWDH. Advanced Treatment Septic systems shall include nitrate reducing</u> <u>systems with holding tanks, with a treatment medium poured in and maintained. An O&M</u> <u>Manual for operation of the Septic Systems shall be prepared and included in the CCRs to ensure</u> <u>ongoing, standard installation, operations, maintenance, and repair of the Septic Systems.</u> <u>Homeowners shall be responsible to ensure ongoing maintenance, replacement, and repair of the</u> <u>Septic Systems on their individual lots. The Water Users Board, as defined in Condition 9,</u> <u>below, shall have authority to ensure maintenance in accordance with O&M Manual and shall</u> <u>retain a certified operator to conduct annual inspections to ensure ongoing operation consistent</u> <u>with the O&M Manual.</u>
- 6. Historic irrigation lateral, drain and ditch flow patterns shall be maintained and protected. Modification or improvements shall be approved in writing by the applicable irrigation district.
- 7. The developer shall comply with CCZO §07-06-07 (4) Time Requirements: "All conditional rezones for a land use shall commence within two (2) years of the approval of the board."
- 8. The developer shall comply with the terms and conditions of its agreement with Kuna School District <u>dated June 15, 2023</u>.
- 9. Prior to County signature of the first final plat, the owner shall provide CCRs to the County for review and approval, which review shall include appropriate provisions related to the maintenance and ongoing operation of the <u>Public Water System and Sewer System</u>. In lieu of a typical homeowners' association, the CCRs shall provide for a "Water Users Board" that is responsible for administration of the Public Water System (described in Condition 4, above) as well as the Septic Systems on each of the individual lots. The Water Users Board shall, on an ongoing basis, ensure that the Public Water and Septic Systems are incompliance with the requirements of IDEQ and Southwest District Health. The CCRs shall provide operations and maintenance manuals for any facilities associated with the Public Water System and Septic System and Septic System, including elements of said systems located on common area and within individually owned residential lots.
- 10. A note shall be placed on the face of each final plat and recorded CCRs that recognizes Idaho State Code 22-4503, Right to Farm Act: "No agricultural operation, agricultural facility or expansion thereof shall be or become a nuisance, private or public, by any changed conditions in or about the surrounding nonagricultural activities after it has been in operation for more than one (1) year, when the operation, facility or expansion was not a nuisance at the time it began or was constructed. The provisions of this section shall not apply when a nuisance results from the improper or negligent operation of an agricultural operation, agricultural facility or expansion thereof."
- 11. <u>All residential lots shall be served by pressurized irrigation, managed and maintained by the Water Users Board.</u>

- 12. Development shall conform to the requirements of Kuna Rural Fire District as set forth in its March 13, 2022 letter, including requirements for fire apparatus access, fire hydrants, and premises identification.
- 13. <u>Structures, including foundations, shall be installed in accordance with the recommendations</u> <u>identified in that certain Geotechnical Investigation prepared by Atlas Technical Consultants,</u> <u>LLC and dated January 3, 2022</u>.
- 14. <u>Development shall conform to the requirements of Nampa & Meridian Irrigation District and the</u> <u>Boise Project Board of Control.</u>

Attachment F (from 2/8/24 hearing)

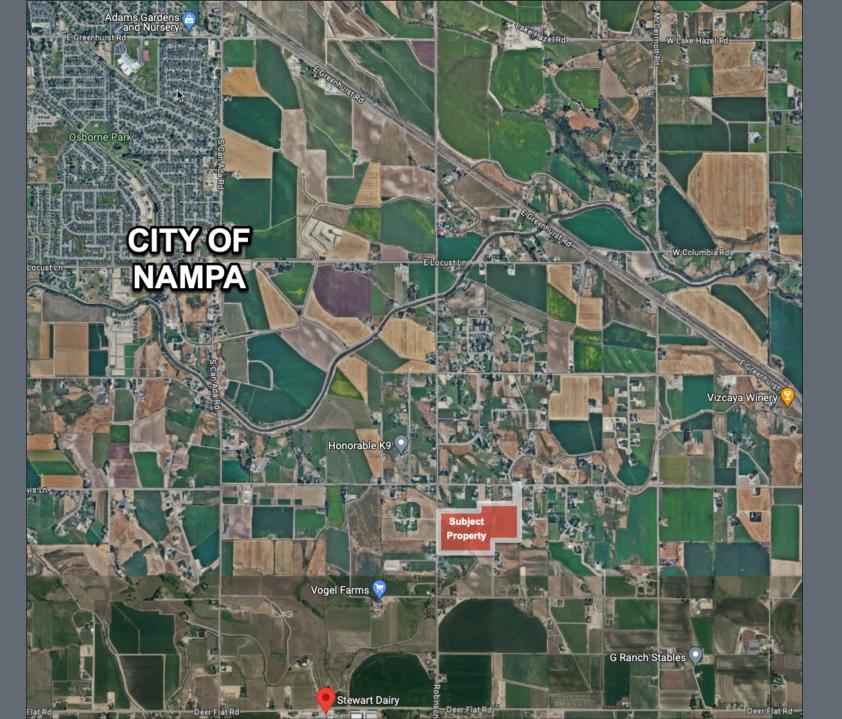
Haven Creek Rezone Conditional R1 (Residential)





Robinson and Lewis

About 1 mile north of Stewart Dairy

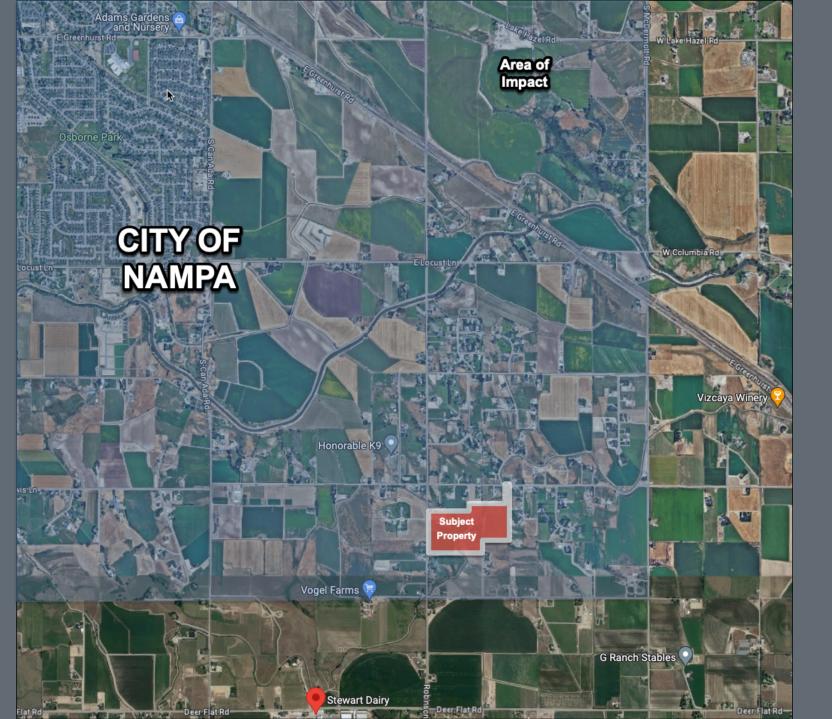




Robinson and Lewis

About 1 mile north of Stewart Dairy

> Inside Nampa Area of Impact





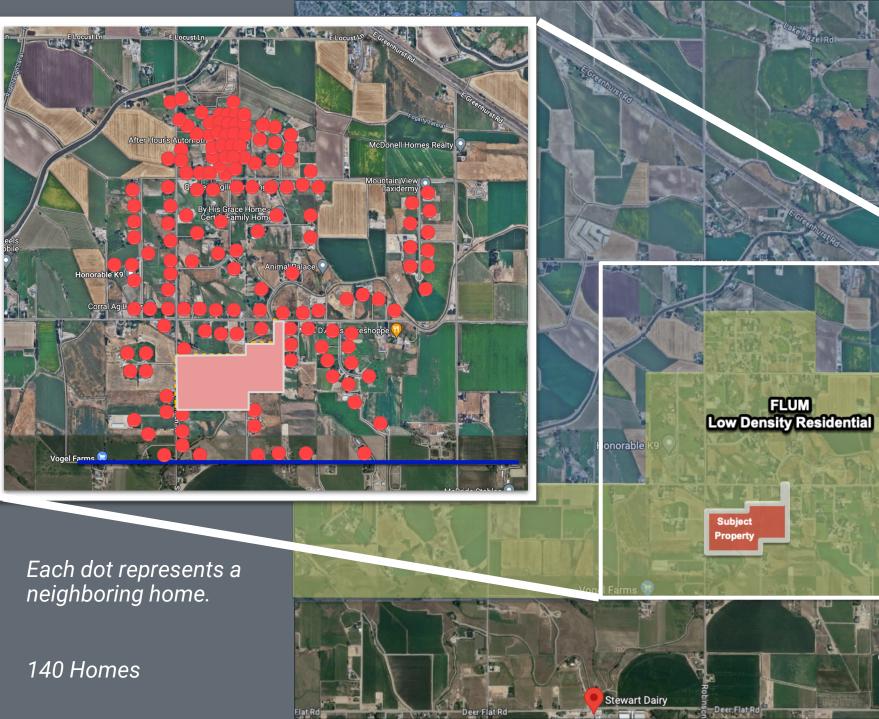
Robinson and Lewis

About 1 mile north of Stewart Dairy

> Inside Nampa Area of Impact

Future Land Use: Low Density Residential





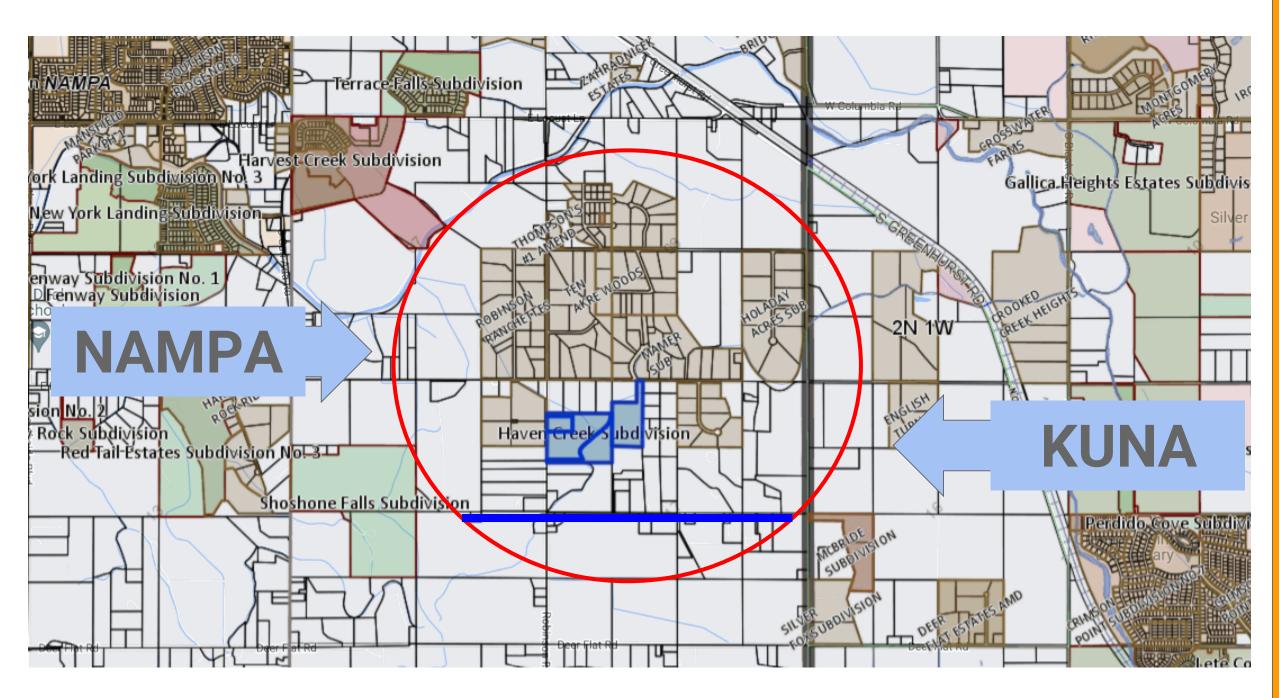
IK -

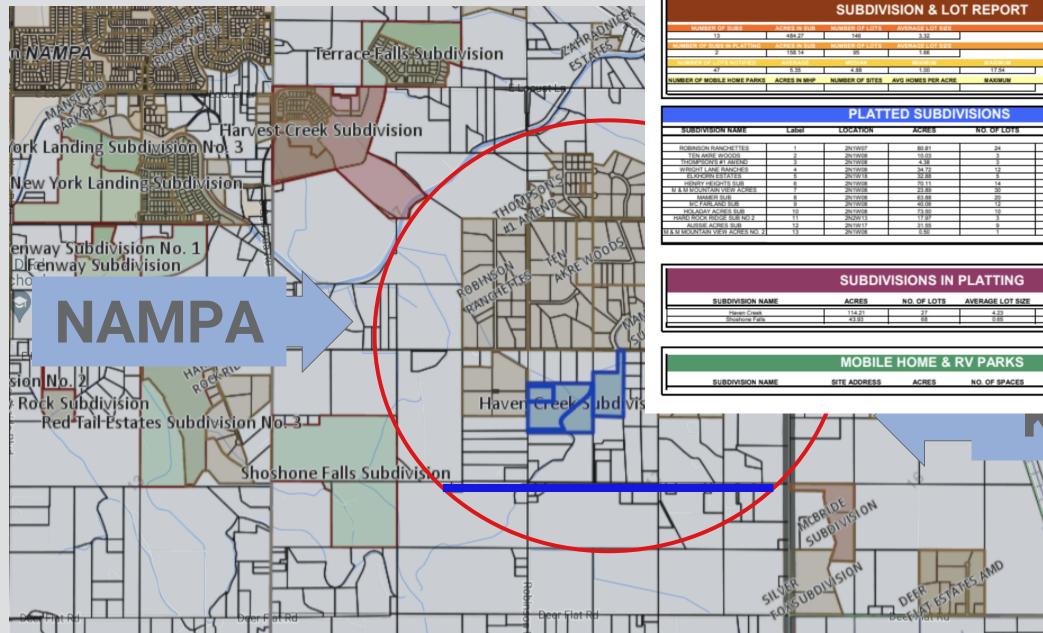
G Ranch Stables 📀

Vizcaya Winer

IΥ

Deer Flat Rd-





47	5.35	4.88	1.00	17.54	1
NUMBER OF LOTS NOTIFIED	AVERAGE	MEDIAN	MENIMUM	MAXIMUM	
2	158.14	95	1.68		
NUMBER OF SUBS IN PLATTING	ACRES IN SUB	NUMBER OF LOTS	AVERAGE LOT SIZE		
13	484.27	146	3.32		
NUMBER OF SUBS	ACRES IN SUB	NUMBER OF LOTS	AVERAGE LOT SIZE		

SUBDIVISION NAME	Label	LOCATION	ACRES	NO. OF LOTS	AVERAGE LOT SIZE	CITY OF	Year
ROBINSON RANCHETTES	1	2N1W07	80.81	24	3.37	COUNTY (Canyon)	199
TEN AKRE WOODS	2	2N1W08	10.03	3	3.34	COUNTY (Canyon)	200
THOMPSON'S #1 AMEND	3	2N1W08	4.38	3	1.46	COUNTY (Canyon)	197
WRIGHT LANE RANCHES	4	2N1W08	34.72	12	2.89	COUNTY (Canyon)	200
ELKHORN ESTATES	5	2N1W18	32.88	5	6.58	COUNTY (Canyon)	195
HENRY HEIGHTS SUB	6	2N1W08	70.11	14	5.01	COUNTY (Canyon)	195
N & M NOUNTAIN VIEW ACRES	7	2N1W08	23.89	30	0.80	COUNTY (Canyon)	197
MAMER SUB	8	2N1W08	63.88	20	3.19	COUNTY (Canyon)	197
NC FARLAND SUB	9	2N1W08	40.06	12	3.34	COUNTY (Canyon)	19
HOLADAY ACRES SUB	10	2N1W08	73.50	10	7.35	COUNTY (Canyon)	200
HARD ROCK RIDGE SUB NO 2	11	2N2W13	17.97	3	5.99	COUNTY (Canyon)	200
AUSSIE ACRES SUB	12	2N1W17	31.55	9	3.51	COUNTY (Canyon)	20
M MOUNTAIN VIEW ACRES NO. 2	13	2N1W08	0.50	1	0.50	Canyon County	20

SUBDIVISION NAME	ACRES	NO. OF LOTS	AVERAGE LOT SIZE		
Haven Creek	114.21	27	4.23		
Shoshone Falls	43.93	68	0.65		
	-	-	-		

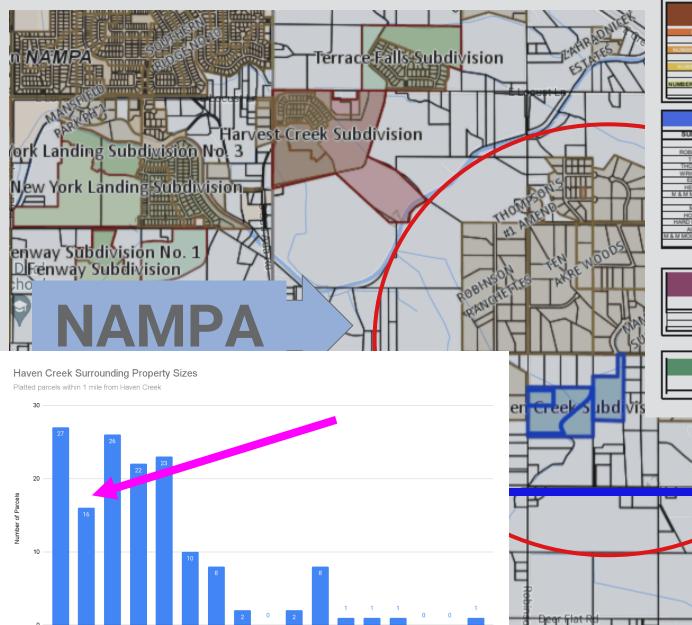
UNITS PER ACRE

001

CITY OF ...

Pendido, Cove Subdivi

Lete



9-10 10-11 11-12 12-13 13-14 14-15 15-16 16-17

0-1 1-2 2-3 3-4 4-5 5-6

6-7

7-8

8 8-9 9 Lot Size (acres)

SUBDIVISION & LOT REPORT

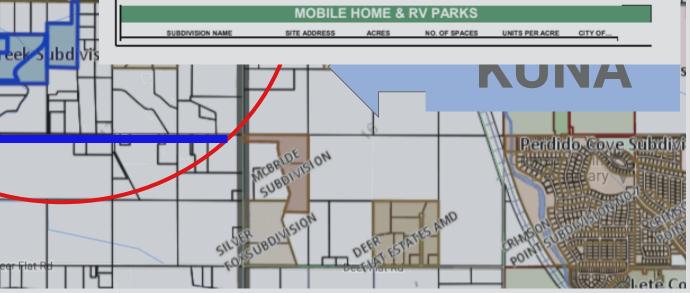
NUMBER OF LOTS NOTIFIED AVERAGE MEDIAN MINIMUM MAXIMUM

PLATTED SUBDIVISIONS

SUBDIVISION NAME	Label	LOCATION	ACRES	NO. OF LOTS	AVERAGE LOT SIZE	CITY OF	Year
					_		
ROBINSON RANCHETTES	1	2N1W07	80.81	24	3.37	COUNTY (Canyon)	15
TEN AKRE WOODS	2	2N1W08	10.03	3	3.34	COUNTY (Canyon)	21
THOMPSON'S #1 AMEND	3	2N1W08	4.38	3	1.46	COUNTY (Canyon)	1
WRIGHT LANE RANCHES	4	2N1W08	34.72	12	2.89	COUNTY (Canyon)	21
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AUSSIE ACRES SUB	12	2N1W17	31.55	2	3.51	COUNTY (Canyon)	2
M MOUNTAIN VIEW ACRES NO. 2	13	2N1W08	0.50	1	0.50	Canyon County	2

SUBDIVISIONS IN PLATTING

SUBDIVISION NAME	ACRES	NO. OF LOTS	AVERAGE LOT SIZE	 	
Haven Creek	114.21	27	4.23		
Shoshone Falls	43.93	68	0.65		



"Community in the Country" Haven Ridge – Middleton



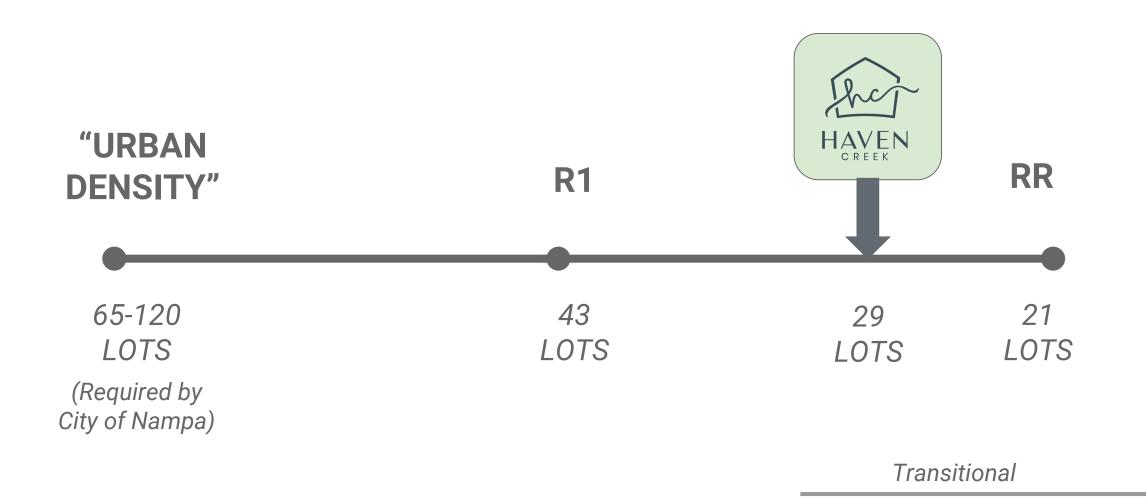












Concept Plan:

Project size: 43.95 AC

Proposed Zoning: R-1 Low-Density

Buildable Lots: 29 Lots

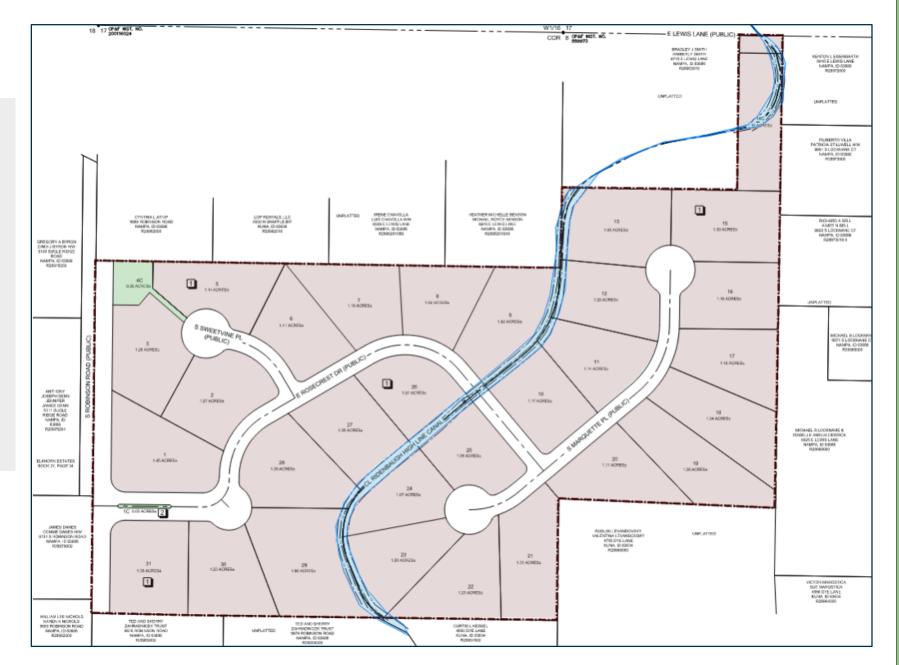
Common Lots: 3

Gross Average Size: 1.52 AC

Utilities: Community Well,

Pressurized Irrigation, & Individual Septic

Meandering Curved Roads Short sight lines Cul-de-sacs







WORKSHOP #2









Water

PARTNER W/ COUNTY ENGINEER AND IDWR

• Draft White Paper

WELL MONITORING

- Partner with IDWR
- Hourly level data from three wells surrounding property.

EXISTING WATER RIGHT

 Our approved right allows 100+ GPM; residential will use a tiny fraction of that.

PUMPING TEST

 Sustained draw test w/ neighboring well monitoring in place.

COMMUNITY WATER SYSTEM

- One shared system instead of 29 individual.
- Deeper than residential wells (200+ feet).
- Reliable and arsenicfree water system for residents.
- Invite neighbors to connect, if they wish.
- Less water use than existing irrigation right.
- More expensive and complicated, but solves multiple challenges.

Dairy

"We support small acreage residential development. This creates a transitional buffer between dense city and production agriculture areas."

Stewart Farms Inc. 5459 Deer Flat Rd Nampa, ID 83686-9447 Ph. (208) 573-2460 Fax (208) 465-6564

March 10, 2023

Canyon County Commissioners,

I am Joe Stewart, a third generation dairyman and part owner/manager of Stewart Farms Inc., located at 5459 Deer Flat Road, southwest of the intersection of Deer Flat and Robinson Road in the Nampa/Kuna area. I am writing this letter representing the company Stewart Farms Inc. to provide input on the proposed Haven Creek rezone and community, located near Robinson and Lewis Ln. It is approximately 0.8 miles from our dairy.

I have seen the 29 lot layout concept and have discussed the proposed project with Tanner Verboeks, one of the landowners and principals of Haven Idaho. The question of compatibility with our agricultural operations has been raised and after much discussion, I believe this residential project is compatible with our operations.

Stewart Farms Inc. supports the proposed Haven Creek project.

Our operation is located south of Deer Flat Rd and includes 550 head of milking cows, and 500 head of heifers or beef cattle. We also produce forage crops on 484 acres of irrigated fields including one property south of Dye lane. My family has operated the dairy for 84 years - since 1939.

Our operations are just south of the Nampa area of impact and we understand that future residential growth in this area is natural and inevitable. We encourage development on land like the proposed property that has rock shelves and results in lower productivity. We support concentrating residential growth within the area of impact as a way to protect our commercial farmland – this higher density means a smaller overall housing footprint that will not sprawl out into the production agricultural areas. The Haven Creek project achieves this.

We support small acreage residential development. This creates a transitional buffer between dense city and production agriculture areas. Rather than ¼ acre lots, we agree that lots closer to 1 acre size are better. Lots larger than 2 acre are often too big to tackle by hand, but too small to justify a tractor and are more likely to become overrun with weeds. This is not the highest and best use of the land. Lots that are 1-1.75 acres in size are manageable, spacious and valuable. The Haven Creek project does this.

Exhibit D, Attachment 1

We support new neighbors understanding how living near a dairy might impact them. We take no issue with the new residents and growth, but we do want them to be aware of the practices that take place in the area they are moving to. After expressing this concern, Haven Idaho has agreed to sit with us and draft a custom Right-to-Farm Acknowledgement that describes our operations for new neighbors. Signatures on this document will be required prior to any future home sale in their project. We believe this type of responsible development practices should be generally required. The Haven Creek project does this.

I have been told that there were some concerns about congestion and traffic. I work closely with Nampa Highway District 1 to plan our transport routes and understand that Robinson is planned to be a main thoroughfare in the near future. Various roundabouts and other projects in the area are planned to ensure that Level of Service values are maintained to standards. I appreciate that Haven proactively reached out to us about our dairy traffic and operations to add to their traffic technical memo. Traffic from Stewart Farms Inc. is consistent year round throughout the year.

Commissioners, we need responsible residential development. I hope you have looked closely at the Haven Creek project and the thoughtful tradeoffs it is proposing. This is the type of residential development we should promote within the Area of Impact and I hope this letter encourages your support.

Respectfully,

Joe Stewart Stewart Farms Inc. 208-573-2460



Kuna School District

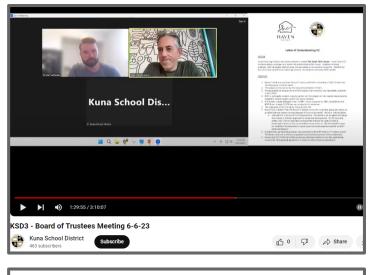




Signed Agreement in Place

"They will help... provide real world lessons from design to construction."

"The Completed Swan Falls House sale would ultimately provide <u>more</u> than we asked them to contribute"



https://www.idahopress.com/news/local/agreement-between-developer-and-kuna-school-district-could-leadto-new-cte-program/article_001fb08e-070f-11ee-9425-27d42e8c3761.html

Agreement between developer and Kuna school district could lead to new CTE program

SYDNEY KIDD skidd@idahopress.com Jun 9, 2023



The first phase of Swan Falls extension high school in Kuna was funded by a 2017 bond that cost voters a combined \$40 million. It hosts the Kuna School District's CTE program. Kuna School District Facebook

Exhibit B, Attachment 4

Message from Trustee Grant

One of my priorities in serving on the Board is to advocate for the needs of our students and schools as we see farm ground transform into more and more homes and students.

Our Board is leading the way in Idaho by asking developers – who are not required to pay impact fees – to voluntarily contribute to help mitigate the impact of the growth on our students and taxpayers. We've had some successes including one celebrated Tuesday night.

At our meeting, I was excited to approve an agreement with Haven Creek developers who understand how important it is to partner with their communities.

You'll see the details in the section called "Students could get real world experience building a house from scratch."

If their small development is approved later this month, they plan to use one of their lots as a "Swan Falls House." They will help connect professionals with our career technical education students and their teacher to provide real world lessons from design to construction. The completed Swan Falls House sale would ultimately provide more than we asked them to contribute.

I appreciate this forward thinking and innovative approach to working with us to hopefully provide a unique learning experience for our students.

Students could get real world experience building house from scratch

Trustees approved an agreement with a small subdivision developer to support the district's construction trades program with property and expertise.

In this unique partnership, Haven Creek will donate a parcel from its proposed 29-home development to the district for the career technical education (CTE) program. CTE students will participate in the design and construction of a house on the parcel. Profits from the home sale benefit the CTE program and future hands-on projects.



HAVEN

The Kuna Board of Trustees asks developers to consider making a voluntary contribution as Idaho doesn't allow for or require impact fees from developers to support schools.

Review the donation agreement here. Watch this part of the meeting here.

What's next? This agreement depends on the development being approved by Canyon County decision makers in the coming months.























Character of the Proposed Community

Code and Law

Standards of Evaluation

- A. Is the proposed conditional rezone generally consistent with the comprehensive plan?
 - A. When considering the surrounding land uses, is the proposed conditional rezone more appropriate than the current zoning designation?
 - A. Is the proposed conditional rezone compatible with surrounding land uses?
 - A. Will the proposed conditional rezone negatively affect the character of the area? What measures will be implemented to mitigate impacts?
- A. Will adequate facilities and services including sewer, water, drainage, irrigation, and utilities be provided to accommodate the proposed conditional rezone?
- A. Does legal access to the subject property for the conditional rezone exist or will it exist at the time of development?
- A. Does the proposed conditional rezone 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? What measures have been taken to mitigate traffic impacts?
- A. Will the proposed conditional rezone amendment impact essential public services and facilities, such as schools, police, fire, and emergency medical services? What measures will be implemented to mitigate impacts?

Standards B & C

B: Is the proposed conditional rezone more appropriate than the current zoning designation? C: Is the proposed conditional rezone compatible with surrounding land uses?

- Nampa, FLUM, and Comp Plan all encourage Residential zoning here
- 140 residential homes already surrounding the property
- Compatible with hobby & production Agriculture
- Compatible with water and septic in area
- Compatible with traffic
- Compatible with school district
- □ Which density makes sense here?

Stewart Farms Inc.

5459 Deer Flat Rd Nampa, ID 83686-9447 Ph. (208) 573-2460 Fax (208) 465-6564

March 10, 2023

Canyon County Commissioners,

I am Joe Stewart, a third generation dairyman and part owner/manager of Stewart Farma Inc., located at 5450 Deer Flat Road, southwest of the intersection of Deer Flat and Robinson Road in the NampArkins area. I am writing this letter representing the company Stewart Farm Sinc. to provide input on the proposed Haven Creek rezone and community, located near Robinson and Levis Lin. It is approximately 00 Amiles from our dairy.

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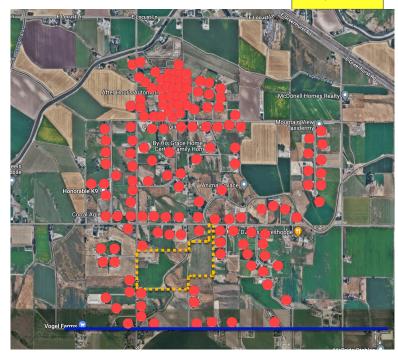
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Exhibit D, Attachment 1



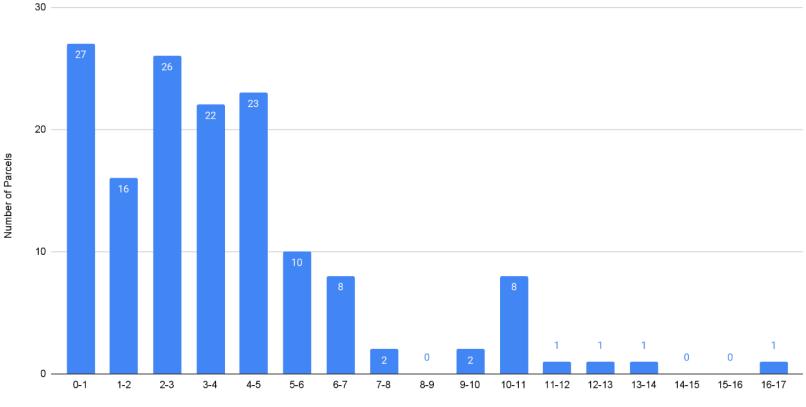
Standards B & C

Which Density Makes Sense?

Haven Creek Surrounding Property Sizes

Platted parcels within 1 mile from Haven Creek

- Surrounding lot sizes between 1/2ac to 5ac
- Varying lot sizes are natural over time
- Variety of housing for a variety of people



Lot Size (acres)

Standard D

Will the proposed conditional rezone negatively affect the character of the area? What measures will be implemented to mitigate impacts?

- 1. Drainage/Irrigation
- 2. Substandard Wells
- 3. Traffic
- 4. Emergency Services
- 5. Ground Water Supply
- 6. Upkeep
- 7. Design

neighboring physical design

Pressurized irrigation, no runoff flow change

Adjacent neighbors may connect to new Community Water system

No change in intersection level of service

Kuna Rural Fire has adequate access times

Tested, measured, monitored - no impact on neighboring wells

1-2 acre lots are kept tidier than larger lots

All design elements in the plat will be complementary to

If Not Here, Then ... Where?

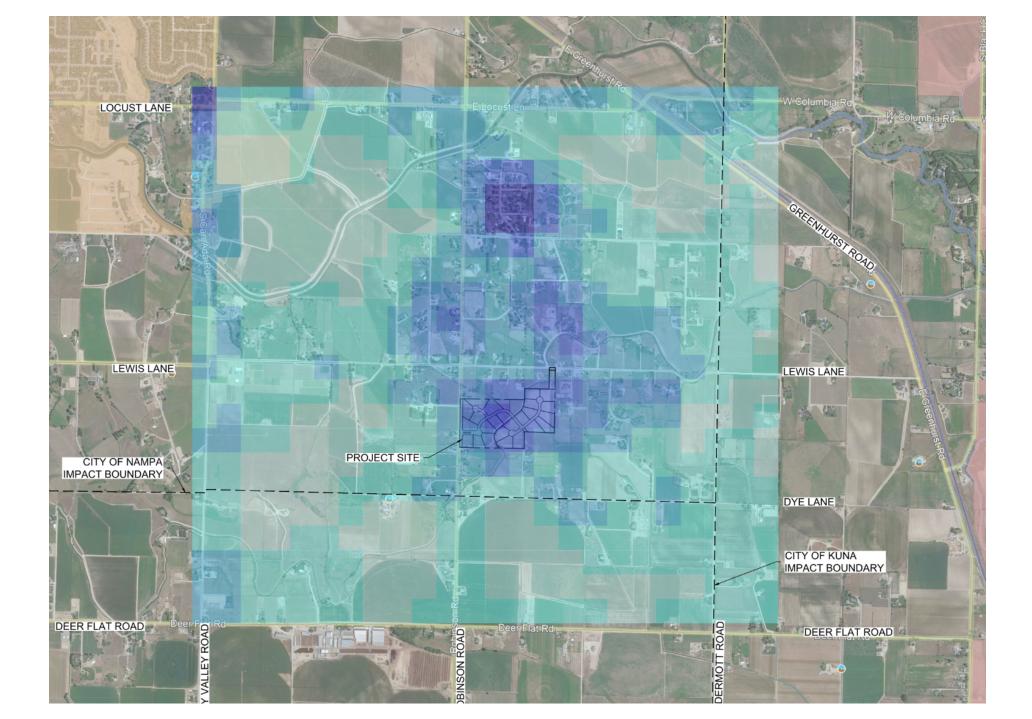
Consistent with Comp Plan
 Consistent with County and City FLUMs
 Transitional Land Use
 Support from Large Production Ag
 Community Water System

Adopt Staff's Original FCOs

Questions?







Attachment F continued (additional information)

Haven Creek Rezone Conditional R1 (Residential)

BoCC Meeting #3 9/14/2023 | 2/8/2024 | 9/17/2024

THEFT IS IN

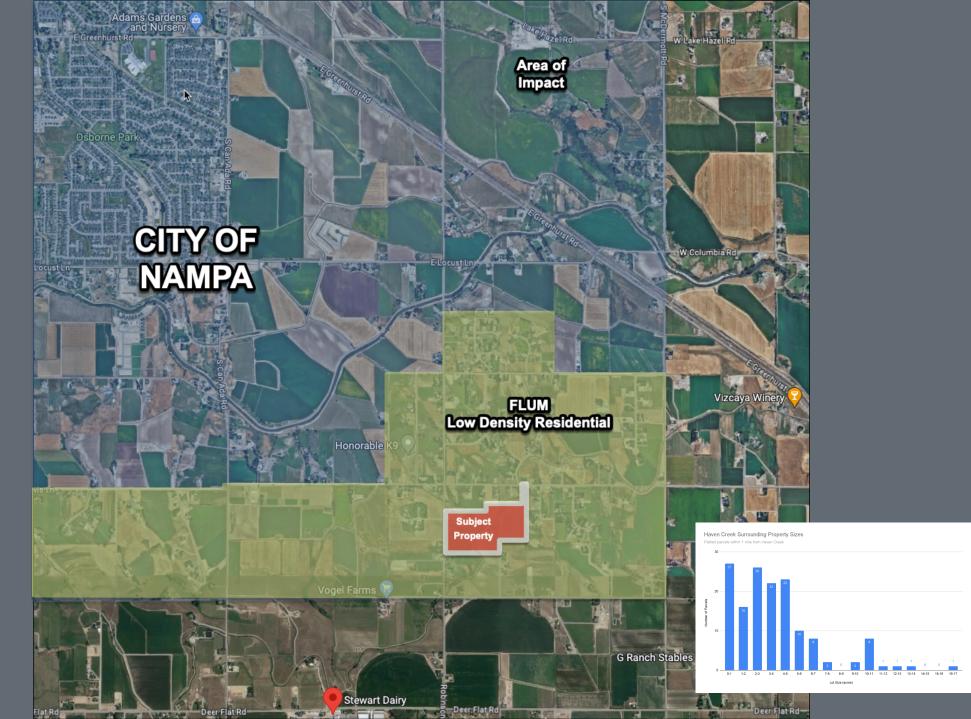


Robinson and Lewis

About 1 mile north of Stewart Dairy

> Inside Nampa Area of Impact

Future Land Use: Low Density Residential



Clear Ask from Commissioners 2/8/2024

Limit Comment to the Following

- **1 SEPTIC** *"Engineering details on the viability of septics with the concern of basalt … and other rock that is just under the surface."*
- 2 EMERGENCY SERVICES

"Solicit information from fire, police, and ambulance on the viability of the response times to this location."

- **3 SCHOOLS** *"The viability of the applicant's impact on the school district."*
- 4 SECONDARY HOUSES

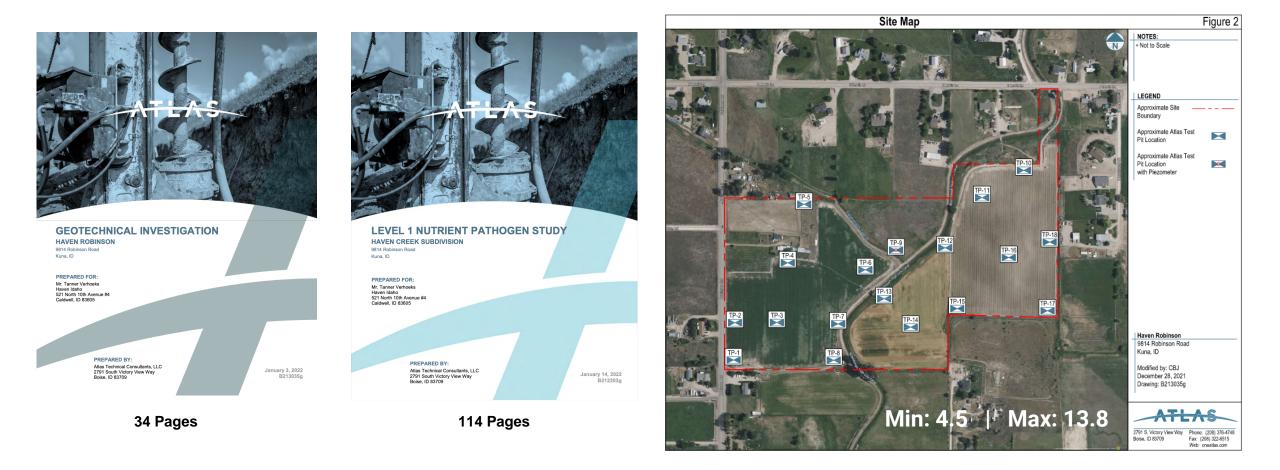
"Secondary houses to be completely off the table."

5 DEVELOPMENT AGREEMENT

"Further discussion about the development agreement."

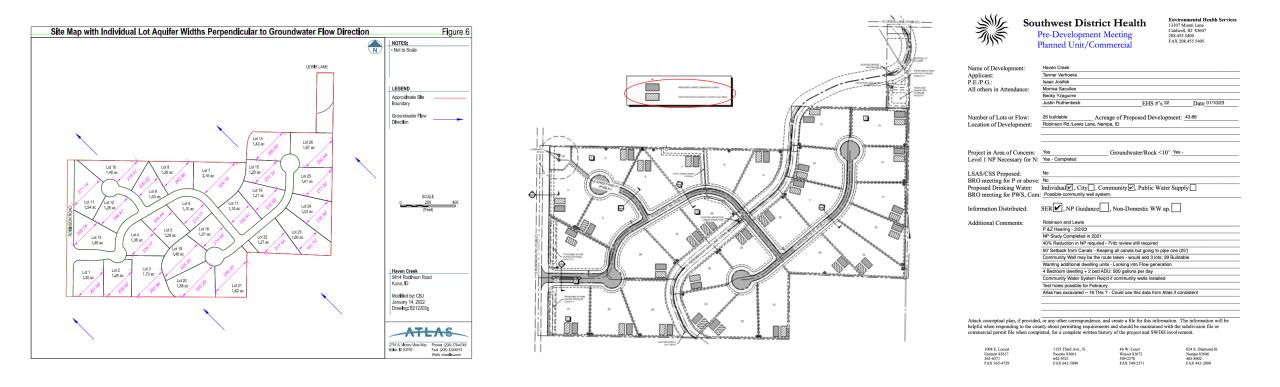


"Engineering details on the viability of septics with the concern of basalt ... and other rock that is just under the surface."





"Engineering details on the viability of septics with the concern of basalt ... and other rock that is just under the surface."



TECHNICAL REVIEW PROCESS



"Solicit information from fire, police, and ambulance on the viability of the response times to this location."







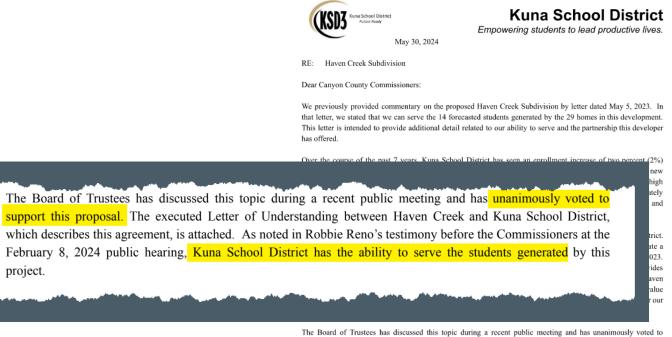
- Responded by confirming existing adequate response times.
- Fire response times will improve when Station #2 (undergoing entitlement and coordination) opens.
- Did not respond to multiple applicant and Staff inquiries.
- County Code §7-17-09(3)B states a preliminary plat is considered approved by agency if no reply is received.
- Responded with a list of stations in the service area of project.
- Response times range 12-15min
- Has levy in place to further improve response times.



"The viability of the applicant's impact on the school district."

- Provided additional capacity data • specific to Elementary, Middle, and HS facilities serving project location.
- Provided additional context on the District's long term planning and how the proposed project fits that plan.
- Reinforced **unanimous support** from • District Trustees after public discussion on the topic.

2/2/2023 4/11/2022 6/6/2022 9/14/2022 11/2/2023 2/8/2023 5/30/2024



support this proposal. The executed Letter of Understanding between Haven Creek and Kuna School District, which describes this agreement, is attached. As noted in Robbie Reno's testimony before the Commissioners at the February 8, 2024 public hearing, Kuna School District has the ability to serve the students generated by this project.

Regards.

project.

Robbie Reno Kuna School District

> Phone: (208) 922-1000 Kim Nixon JD Gran Hillary Low Kyrsti Bruc stee Zone 3 Chairman, Zone 4 Vice Chairman, Zone Trustee Zone

711 E. Porter Rd., Kuna, Idaho 83634

Michael Thornto Trustee Zone 5



"Secondary houses to be completely off the table."



Development Agreement modified to prevent secondary houses.

DEVELOPMENT AGREEMENT

"Further discussion about the development agreement."

Atlas Technical Consultants ridian Irrigation District and th

- Updated DRAFT DA provided with submittal
- Establishes WUA: centralized responsibility for septic and water systems
- Puts our words into writing
- Happy to discuss further

j	CANYON COUNTY'S STANDARD FORM OF DEVELOPMENT / <u>INDERLINED</u> COMPONENTS ARE ADDITIONS/MODIFICATION HEARING DRAFT]				
1.	The development shall comply with all applicable federal, state, and cour rules and regulations that pertain to the property.	nty laws, ordinances,			
	Development shall be consistent with the site plan on file with the Canvo Services and as reviewed and approved by the Canvon County Board of O on	County Commissioners	be installed on the property (the "Septic Systems") sl ems and the location and technical specifications for DH in accordance with its standard processes. The S I Nutrient Pathogen Study prepared by Atlas Technic (2022, subject to any modifications to the foregoing)	each shall be reviewed eptic Systems shall al Consultants, LLC required from time to	
3.	The subject parcel shall be in subjection to the Canyon County Zoning Or Article 17 for platting with a maximum of 29 buildable lots with the aver- acres. The following restrictions apply:		VDH. Advanced Treatment Septic systems shall incl fanks, with a treatment medium poured in and maintnear of the Septic Systems shall be prepared and included fallation, operations, maintenance, and repair of the S	ained. An O&M Lin the CCRs to ensure	
	 Future subdivision and development shall conform to the generalized with Canyon County. 	l concept plans on file	iniation, operations, maintenance, and repair of the S responsible to ensure ongoing maintenance, replacer ir individual lots. The Water Users Board, as defined b ensure maintenance in accordance with O&M Mann	ment, and repair of the d in Condition 9, below,	
	No secondary dwelling (CCZO §07-10-27 & 07-14-25) is allowed on without an expanded nutrient pathogen study and approval by Southy IDEQ that their standards can be met.	n the subdivision lots west District Health and	onduct annual inspections to ensure ongoing operatic	on consistent with the	
	c. Future development shall comply with Idaho Department of Environ requirements and BMPs (best management practices) for dast control and stormwater pollution prevention plan.	mental Quality I during construction,	eral, drain and ditch flow patterns shall be maintaince ovements shall be approved in writing by the applical omply with CCZO §07-06-07 (4) Time Requirement shall commence within two (2) years of the approva	ble irrigation district. s: "All conditional	
	G. Future development shall meet all applicable requirements and standa Highway District #1.	ards of the Nampa	omply with the terms and conditions of its agreement		
	e. Future development shall meet all applicable Nampa subdivision required with Canyon County Code Section 09-11-19, subject to the right of the Commissioners to approve waivers of standards in connection with provide the standards in conn	he Board of County	ture of the first final plat, the owner shall provide CC which review shall include appropriate provisions re- oing operation of the Public Water System and Sewer	lated to the System. In lieu of a	
4.	A Public Water System is required to service the 20 residential lots in leux of individual wells. The public water system hall received an lenguined approach by your government agency having juridicition and shall comply with all applicable forkerd, state, and least rules and laws for entriking water systems. The converse full receive the necessary IDEO and not health district approach for said Public Water System and shall at all times comply with the requirements of IDEO for Public Public Water System and shall at all limba Administrative Code S 8.0.108, as well as any requirements of Southwest District Health (SWDH): The Technical, Financial, and Managerial documentiation field with IDEO shall identify an operator qualified as a Responsible Charge Operator number IDEO nume, Appropriate language shall be included in any Declaration of Coverants, Conditions, and Restrictions (CCRs) addressing the common use of the same,		suscentration, the CCRs shall provide for a "Water Use instrains of the Dwilk Water System (described in C. ferms on each of the individual Ists. The Water Users that the Pable Water and System's Services are income 2 and Southwest District Health. The CCRs shall pro- for any facilities associated with the Pable. Water S ments of sold systems located on common area and s- for the face of each final plat and recorded CCRs the on the face of each final plat and recorded CCRs the light to Farm ACTs on gardenular operation, and records of the sold systems of the sold system of the sold system of the south sold systems of the sold system of the sold system of the solution to Farm ACTs on gardenular operation, and records of the solution to Farm ACTs on gardenular operation, and records of the solution to Farm ACTs on gardenular operation, and records of the solution to Farm ACTs on gardenular operation, and records of the solution of the solution of	ers Board" that is andtion 4, above) as a Board shall, on an olinance with the system and Septic within individually at recognizzes Idaho	
	including pressurized irrigation. Oversight for the Public Water System so Water Users Board: as defined in Condition 2, below. Ongoing maintena and components of the Public Water System shall be identified in an oper manual ("O&M Manual") attached to the CCRs and updated from time to	nce of common facilities rations and maintenance	Il be or become a nuisance, private or public, by any ing nonagricultural activities after it has been in oper eration, facility or expansion was not a nuisance at th visions of this section shall not apply when a nuisance t operation of an agricultural operation, agricultural fit	changed conditions in ation for more than one e time it began or was e results from the	
1+58	16-2620, v. 1		all be served by pressurized irrigation, managed and	maintained by the	t shall conform to the requirements of Kuna Rural Fire District as set forth in its 22 letter, including requirements for fire apparatus access, fire hydrants, and
			-		ntification.
		4881-5816-2620, v. 1			that certain Geotechnical Investigation prepared by Atlas Technical Consultants ed January 3, 2022.
				14. Developme Boise Proje	nt shall conform to the requirements of Nampa & Meridian Irrigation District and ect Board of Control.

ATTACHMENT A DEVELOPMENT AGREEMENT CONDITIONS THESE CONDITIONS TO BE ATTACHED TO

1. 1

4881-5816

Questions?

Michelle Barron

From:	Russ Johnson <randljohnson9901@gmail.com></randljohnson9901@gmail.com>
Sent:	Friday, September 6, 2024 10:40 AM
То:	Michelle Barron
Subject:	[External] Rebuttal Ltr - Johnson CR 2022-0005 6Sep24 (Continued Hearing)
Attachments:	Exhibit A - Johnson Ltr to CCBOCC CR 2022-0005 6Sep24.pptx; Ltr to CCBOCC Johnson
	CR 2022-0005 Rebuttal 6Sep24_20240906_0001.pdf

Good morning Michelle, please find attached my signed letter in response to the continued public hearing on case number CR 2022-0005 (Tanner Verhoeks) scheduled for 17 Sep 2024.

Sending with two files - one the PDF of the signed letter, the second a .ppt containing exhibit A. Trusting both reach you in good order.

Please advise if anything contained in either attachment is unclear or needs further clarity.

Thank you for your continued work on this case.

Russell Johnson 208.615.6336

Russell Johnson 9901 Dundee Ct Nampa, ID 83686

September 6, 2024

Canyon County Commissioners C/O Canyon County Development Services Attn: Michelle Barron, Case Planner 111 North 11th Ave, Suite 310 Caldwell, ID 83605-3522

Subj: Tanner Verhoeks Hearing – Case Number CR 2022-0005

Greetings Canyon County Commissioners:

The purpose of this letter is to convey several points of rebuttal & clarity to the most recent (& amended) request by Tanner Verhoeks for the conditional rezone of parcels R28963, R2891010, R2891011 and R28961 (~43.95 acres). This information is directly related to those items of concern noted by the County Commissioners during the February 8th (2024) public hearing as needing additional clarity

First, response times from Kuna Fire, EMS (Canyon County Paramedics or CCP), and law enforcement to the proposed area of development are often impacted by the activities of the Union Pacific Railroad, whose tracks (dual) run just west/northwest of Kuna and bisect Nampa – limiting Fire, CCP response, and law enforcement to the proposed development from the east and north (see exhibit A). These delays can last between 3-8 minutes depending on the length and speed of the trains. On an average day, between 20-26 trains transit these tracks and often block multiple crossing sites at the same time. Train traffic is expected to grow beyond 50 trains/day in the out years. Both Ada and Canyon County Highway districts have proposed future overpasses to mitigate transit times at key (railroad)crossing points but those remain decades away from reality. Currently, these at-grade crossing sites directly impact the response times of Kuna Fire, CCP, and Canyon County Sheriff deputies to the proposed development area.

Second, the proposed development overlays both the Ridenbaugh High Line Canal and the Fieselmann Lateral, both active and essential irrigation waterways with fast moving water, numerous gates, drops, and diversions. Per the current plat map, 16 of the 29 plots would border these waterways. A housing development near such waterways, regardless of mitigation efforts such as fences and warning signs, poses both a preventable and unnecessary risk to life. Of the 13 subdivisions the applicant listed in their initial application packet to the County, none of them overlay active canals or laterals in this manner. Idaho remains the #2 state in the nation for canal drowning fatalities among children 1-5, bested only by Florida. Should this subdivision ultimately be approved, we collectively fear that loss of life is inevitable.

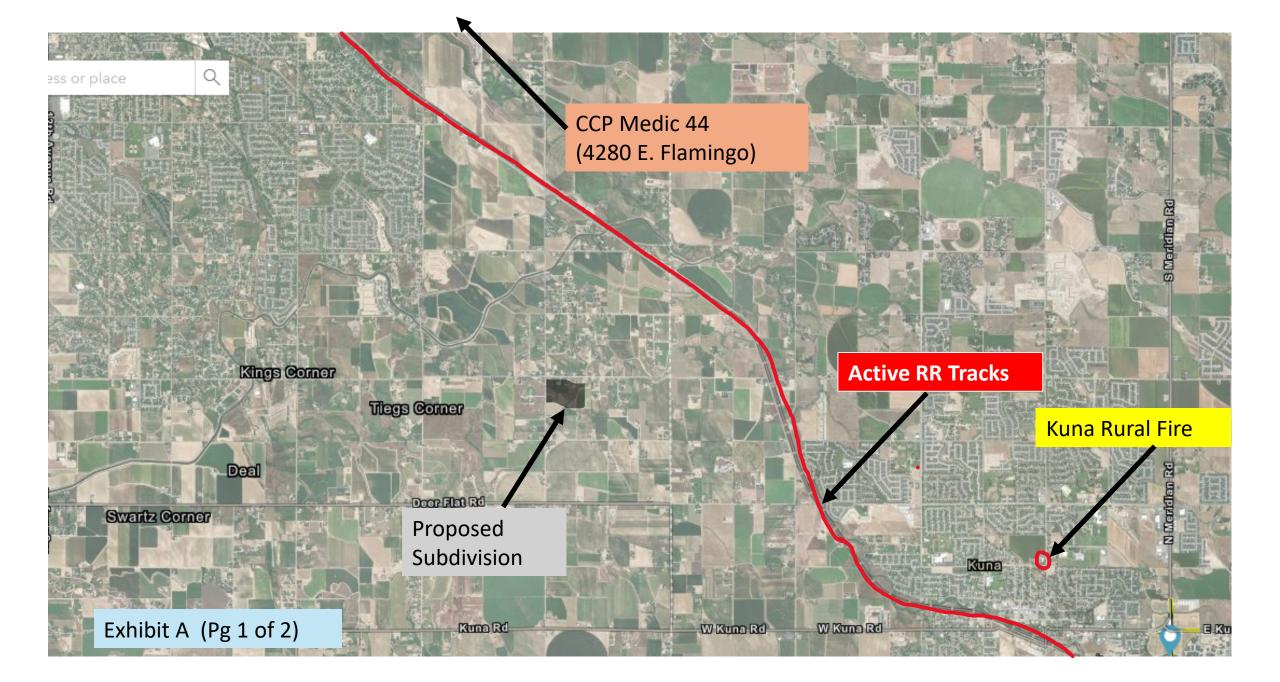
Lastly, the 'partnership' between the applicant and the Kuna School District (KSD) (as outlined in the most recent letters of support from KSD dated 5 May 2023 and 31 May 2024), constitute borderline bribery (among developers, including the applicant - and the KSD) and malfeasance on the part of the KSD Trustees. It's clear the applicant has 'bought' KSD's support for their rezone application despite the growing capacity and overcrowding issues across the school district. Despite the perceived 'innovativeness' of the 'partnership', it will likely not survive future legal challenges involving the SW Idaho Building Contractors Association, the City of Kuna, and the KSD. ('Disturbed:' Kuna School District rejects request to stop testifying against developments, Sydney Kidd - February 28, 2024. Kuna School District rejects request to stop testifying at meetings (boisedev.com) and Kuna's Catch-22: Housing shortage and over-capacity schools | Local News | idahopress.com

I appreciate your consideration and again ask you to deny this conditional rezone request by Tanner Verhoeks. The Canyon County Planning and Zoning Commission has now twice recommended denial of this application and done so with due diligence.

Sincerely,

Russell Johnson

Attached – Exhibit A (Map of UP Railway route in relation to proposed development)



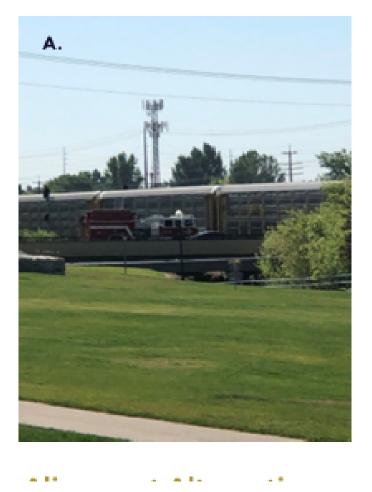
Existing and Future Conditions

Table i – Existing and Future Conditions

Existing Conditions (Before Project)

Safety

- Emergency Services response delays, at times blocking at-grade crossings depending on train length (Images A&B)
- Unsignalized intersection at Kuna Road and & Meridian Road/SH 69 with 17 reported crashes between January 2019- August 2023, including 1 Fatality and 2 Type A¹ crashes.
- Stop-controlled on north and south legs of intersection at King Road



Images A & B outline emergency services waiting on the train at an at-grade crossing.



Source: Meridian Road Extension Corridor Study (May 2024) Pgs vi-vii

Michelle Barron

From:	nikki rodriguez <niknik0821@gmail.com></niknik0821@gmail.com>
Sent:	Monday, September 9, 2024 9:45 AM
То:	Michelle Barron
Subject:	[External] Written testimony for CR2022-0020 and SD2022-0030

Good morning, Michelle,

I hope you had a good weekend! I wasn't sure if we were allowed to email our written testimony for the upcoming hearing for CR2022-0020 and SD2022-0030. Below is the testimony for the Benedetto family at 16670 Buckaroo Circle. If this isn't allowed please let me know and I can print and drop it off at the office.

Thank you! Nikki Benedetto

To whom it may concern,

In reference to Agricultural rezone proposal CR2022-0020 and SD2022-0030 I write this letter in deep opposition of this request for the following reasons:

-Wild Life in the area specifically Hawks, and other birds find sanctuary in the area. Daily we see hawks use our fence line to post and feed on what they find in the open field.

- There are already 817 active home listings in Caldwell as of 9/3/24 and 43 of these homes are brand new. Plenty to choose from on the existing market. This number will increase as building continues.

-The area is building at such a rapid rate that agricultural designated areas are disappearing. We live in this area specifically due to current zoning. There are currently 81 un developed properties for sale in Caldwell.

- The property has three homes/structure's and takes up a bit of the Mountain View the existing neighbors enjoy. Last year a massive tall steel structure was also built next to the existing home directly behind our home specifically and took up a good chuck of our Mountain View's. Future development behind Buckaroo Circle may completely eliminate the Mountain View diminishing our entire neighborhoods quality of life. Our neighborhood enjoys the 4th of July fireworks view, the sunrise, and the wildlife.

- Blocking the Mountain View detracts from property value and appeal which is a financial impact and burden the entire neighborhood would suffer.

Sincerely, Benedetto 16670 Buckaroo Circle