List of studies being worked on

Michelle Barron

From: Michelle Tucker <michelle.tucker@nexus-env.com>

Sent: Monday, April 8, 2024 11:00 AM

To: Michelle Barron

Cc: Carl Anderson; David Stephens

Subject: RE: [External] Crimson Bridge Public Hearing **Attachments:** CBE Project Summary aerial 040824.pdf

Michelle,

Please see attached.

Michelle Tucker Environmental Specialist

Phone 208-756-7602

Email michelle.tucker@nexus-env.com **Web** www.nexus-env.com



From: Michelle Tucker

Sent: Monday, April 8, 2024 8:35 AM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Cc: Carl Anderson < Carl. Anderson@canyoncounty.id.gov>; David Stephens < david.precisionx@gmail.com>

Subject: RE: [External] Crimson Bridge Public Hearing

I will send this to you later today. Can you give me the address for the public hearing?

Michelle Tucker

Environmental Specialist

Phone 208-756-7602

Email michelle.tucker@nexus-env.com

Web www.nexus-env.com



From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Sunday, April 7, 2024 11:36 PM

To: Michelle Tucker < michelle.tucker@nexus-env.com>

Cc: Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; David Stephens <david.precisionx@gmail.com>

Subject: RE: [External] Crimson Bridge Public Hearing

Hello Michelle,

If you would like to provide me of an overview of the studies that you have been working on and the timeline of competition, I would love to add a little bit of information in my Staff Report about them. Unfortunately, we didn't open up a comment period, so new information would not be accepted at this time. You have the

opportunity to come to the hearing and present any information into the record that you have available as part of the public comment. I know that these are all very beneficial studies that the Planning and Zoning Commission would be interested in hearing about. You can bring any information that you have and ask if it could be accepted as a late exhibit the night of the hearing.

I look forward to a brief synopsis of what has been done.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Michelle Tucker < michelle.tucker@nexus-env.com >

Sent: Thursday, April 4, 2024 8:18 AM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Cc: Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; David Stephens <david.precisionx@gmail.com>

Subject: [External] Crimson Bridge Public Hearing

Hello Michelle,

I am sorry we have not been able to connect. Premier, with our support, has been working on providing studies for sound, traffic, and ground water for the hearing. My urgent question for you is what the updated deadline is to provide supportive materials for the hearing on the 18th.

I am available anytime to visit prior if you would like an update on the project and permitting activities.

All my best,

Michelle

Michelle Tucker Environmental Specialist Phone 208-756-7602

Email michelle.tucker@nexus-env.com
Web www.nexus-env.com



Crimson Bridge Project

Location: 14533 River Road, Caldwell, Idaho

Crimson Bridge Estates is being planned in two phases. Phase 1 is intended to excavate ponds and provide additional resources to enable the development of Phase 2 which is a low-density subdivision. No development is proposed in the floodway and no clearing of vegetation along the river is proposed.

Phase 1 - Gravel Excavation and Pond Development

Premier Aggregates is seeking a condition use permit (CUP) to excavate the ponds and extract gravel. It is anticipated that it will take one to three years to complete this phase. The proposed operating hours are Monday through Friday from 7 am to 7 pm. No business operations or excavation will be conducted on Saturday or Sunday. On-site crushing will be seasonal, and it is anticipated crushing will only occur 3-4 months out of the year. A Reclamation Plan, approved by Idaho Department of Lands, and a Stormwater Pollution Prevention Permit have been developed for this phase. Once the CUP is approved all other necessary permits will be acquired.

Phase 2 - Crimson Bridge Estates Subdivision

The subdivision plan is for approximately 14 lots on 53 acres. The final design includes private walking paths; native plants and landscaping; and improved conditions for the existing irrigation drains to alleviate sediment delivery to the river and erosional pressure to River Road. A conceptual subdivision plan is under development and will be pursued once the CUP is approved. Draft License Agreements are in place with District 2 who manage the drains.

Formal Studies Conducted

- WETLAND DELINEATION Nexus Environmental Consultants
- SOUND STUDY Mullins Acoustics
- TRAFFIC DISTRIBUTION REPORT and a TURN LANE WARRANT Kittlesons and Associates
- OFFICIAL SPECIES LIST FOR SPECIAL STATUS WILDLIFE AND FISHERIES US Fish and Wildlife Service
- SURFACE AND GROUNDWATER ANALYSIS Rocky Mountain Environmental and Nexus Environmental Consultants
- STORMWATER MANAGEMENT, DUST ABATEMENT AND DEWATERING PLAN Syman and Associates
- SITE PLANNING, DEVELOPMENT STANDARDS AND DESIGN— QRS Consulting, PE
- GEOTECHNICAL TESTING Site Consulting LLC
- CULTURAL AND HISTORICAL SURVEYS Jerry Jerems, Archeologist, Soil Scientist
- DRAINAGE DISTRICT 2 Encroachment Application, A-Team, PE
- TITLE RESEARCH First American Title
- PHASE II ENVIRONMENTAL SITE ASSESSMENT

Consultations to Date

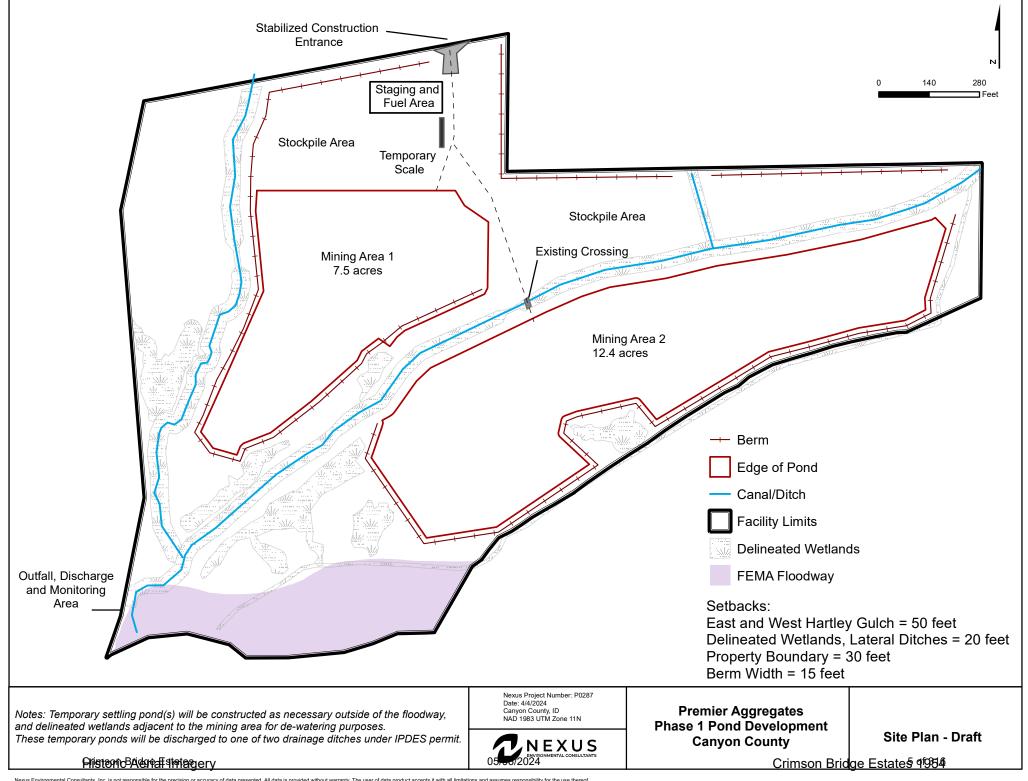
The consultations listed below include communication and permitting consideration for both phases of development as appropriate.

- DRAINAGE DISTRICT 2 East and West Hartley Gulch Allen Funkhouser, Drainage District Superintendent and Bryce Farris, Legal Representative
- CANYON COUNTY WATER COMPANY Flip Phillips, Agent and Dianne Foster, Secretary

- MIDDLETON MILL DITCH COMPANY Allen Funkhouser, Agent, and Bryce Farris, Legal Representative
- IDAHO TRANSPORTATION DEPARTMENT Niki Benyakhlef, Development Services Coordinator
- IDAHO DEPARTMENT OF FISH AND GAME Brandon Flack
- IDAHO DEPARTMENT OF WATER RESOURCES Katie Gibble
- US ARMY CORPS OF ENGINEERS Carolyn Smith
- Idaho Department of Environmental Quality Chase Cusack, Aaron Scheff
- IDAHO DEPARTMENT OF LANDS Mekayla Layne
- SOUTHWEST DISTRICT HEALTH Anthony Lee
- Canyon County Soil Conservation District, Mike Swartz
- Canyon County Floodplain Manager Stephanie Hailey
- Canyon County Highway District No. 4 Chris Hopper, PE
- Canyon County Development Services Michelle Barron
- CITY OF MIDDLETON, Planning and community development
- CITY OF CALDWELL PLANNING AND ZONING Robin Collings

Other Outreach:

- Neighborhood Meetings February 8, 2023; and January 31, 2024
- Susan Cottrell, 14499 Channel Road, Caldwell, Idaho 83607, 559-737-3044
- MARY JO NYBLAD, 14529 River Road, Caldwell, Idaho, site visit
- Bob Hannah, 22499 Channel Rd Caldwell Id 83607, site visit



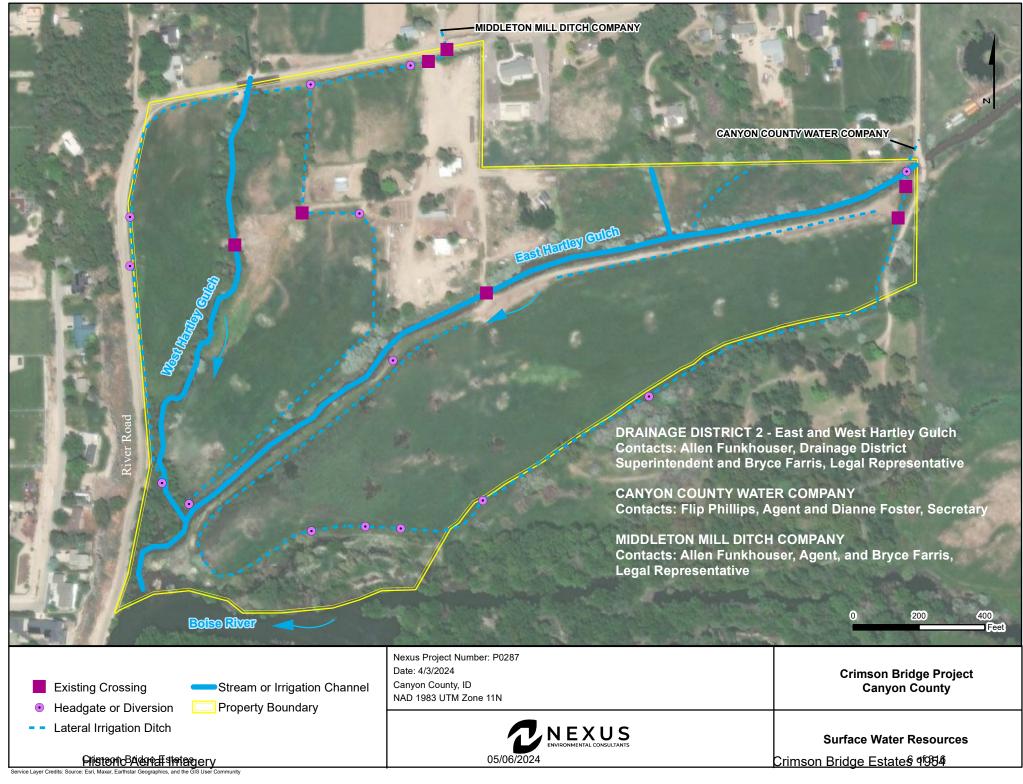


Exhibit provided 4/18/24 and 4/17/24

Michelle Barron

From: Jeffrey W. Bower <jeffbower@givenspursley.com>

Sent: Thursday, April 18, 2024 9:44 AM

To: Michelle Barron

Cc: Jon Brennan Ag Equity; Jim Herberd Ag Holding; Carl Anderson; 'Derek Kraft'; David

Stephens; Michelle Tucker; Kristen McNeill

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-

DMS.016623.0003.FID1052498]

Attachments: 24-0034-2_Tech_Memo_CrimsonBridge_GW_Impacts.pdf; Crimson Bridge Geotech.pdf

Follow Up Flag: Follow up Flag Status: Flagged

Hi Michelle:

As mentioned below, please find attached a technical memorandum from Patrick Naylor, P.E., P.G. with Rocky Mountain Environmental concluding that the dewatering the ponds during excavation will not impact area wells that are served from a hydraulically disconnected aquifer. I am also attaching the SITE Consulting's geotech report referenced in Rocky Mountain Environmental's memo.

Due to the file sizes, can you please confirm receipt? Did the link I sent you yesterday work?

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Jeffrey W. Bower

Sent: Wednesday, April 17, 2024 2:46 PM

To: Michelle Barron <Michelle.Barron@canyoncounty.id.gov>; Kristen McNeill <kristenmcneill@givenspursley.com> **Cc:** Jon Brennan Ag Equity <AgEquityLLC@gmail.com>; Jim Herberd Ag Holding <herbertj25@yahoo.com>; Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; 'Derek Kraft' <dkraft@premierllc.net>; David Stephens <david.precisionx@gmail.com>; Michelle Tucker <michelle.tucker@nexus-env.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle:

We are aware the record is closed for tomorrow's meeting but wanted to provide you with some of the additional materials based on our expectation that this matter will have a second meeting/hearing to address staff and agency comments we received in the staff report last week. I am including a link (https://file.ac/wmMQEUvyfSg/) to the following:

- 1. **Revised comment letter from Caldwell**. We have worked with Caldwell on this and are in full agreement with the requested conditions in the City's letter.
- 2. **Revised project site plan**. The site plan has been revised to include additional details and mitigation to account for agency comments and to address the findings in the attached wetland delineation and sound study. The site

plan has been revised to avoid all wetland areas identified in the delineation. We have also provided additional berming and specific crushing locations on the site plan to comply with the recommended mitigation in the sound study.

- 3. Wetland Delineation Report. Identifies onsite wetland areas. These will all be avoided based on the site plan.
- 4. **Noise study**. Concludes that with the recommended mitigation, noise levels generated by the proposal meet the EPA's noise standards.

We also are expecting a ground water study to be finalized today that will send over. The water study drafts we have reviewed indicate the dewatering of the ponds during excavation will <u>not</u> impact any of the surrounding wells.

Can you please confirm receipt of the 4 documents?

Thank you, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Tuesday, April 9, 2024 3:17 PM

To: Jeffrey W. Bower <<u>jeffbower@givenspursley.com</u>>; Kristen McNeill <<u>kristenmcneill@givenspursley.com</u>> **Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <david.precisionx@gmail.com>; Michelle Tucker <michelle.tucker@nexus-env.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

EXTERNAL

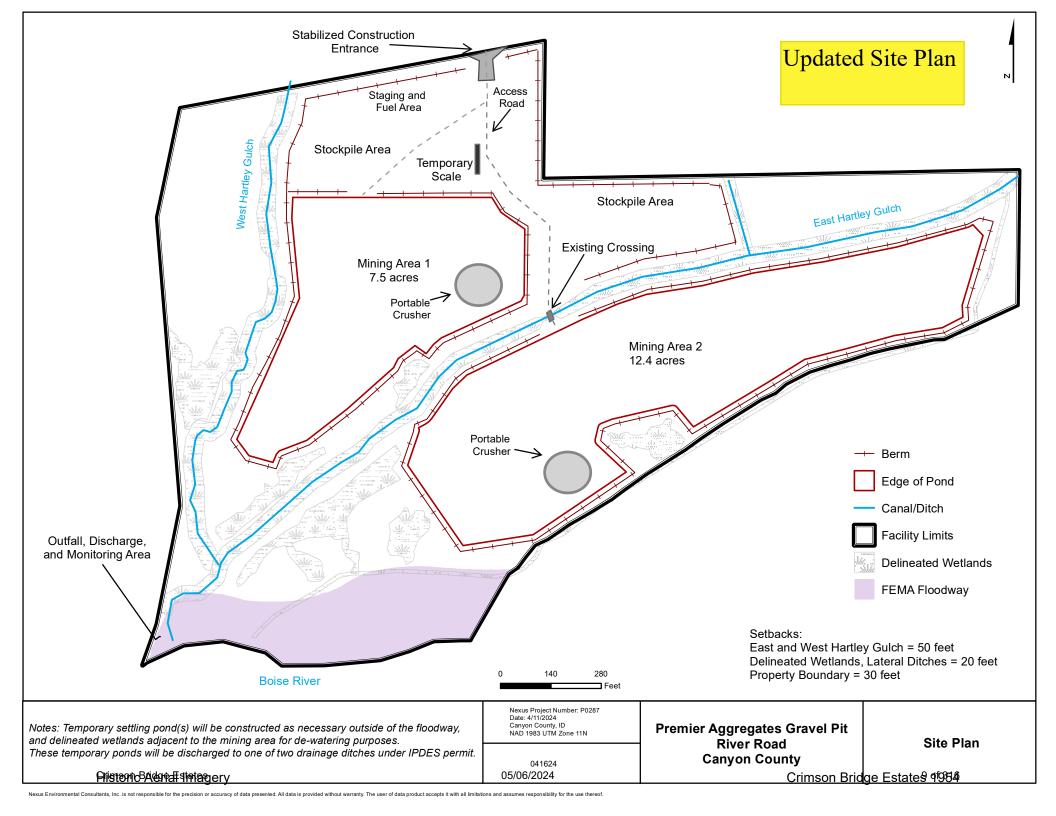
Hello All,

Just wanted to let you know that the Staff Report is out on the Canyon County page. My recommendation is to take testimony and table the hearing to a date certain so that the studies that you have had done, that were not ready by the deadline, can be looked at by the Commission and by the public with a new comment period being extended. I do recommend bringing the studies and additional information to the public hearing. I would also recommend reading it into the record as much as is feasible. Of course, I am not the decision makers, so it would be up to them if they wish to table the hearing or not.

The Staff Report can be found at https://www.canyoncounty.id.gov/land-hearings/ Then, scroll down to P & Z and find the tab for Ag Equity case on April 18th.

Thanks,

Michelle Barron
Principal Planner
Canyon County Development Services Department
111 N. 11th Ave., #310, Caldwell, ID 83605



TECHNICAL MEMORANDUM

To: David Stephens

Precision Excavation &

Construction Inc.

cc: Michelle Tucker, Nexus

Environmental

Subject: Preliminary Evaluation of

Impacts, Dewatering of Proposed Pits, Crimson Bridge Estates

From: Patrick Naylor, P.E., P.G. Rocky Mtn. Environmental Assoc.

Date: April 17, 2024

RMEA Project No.: 24-0034

Introduction

Patrick Naylor, P.E., P.G., Principal Hydrogeologist at Rocky Mountain Environmental Associates (RMEA) performed a preliminary evaluation of inspection of the potential impacts associated with dewatering of two aggregate source pits at the proposed Crimson Bridge Estates, located east and south of River Road, in the vicinity of Curtis Park, Caldwell, Idaho (Subject Property), as shown in Figure 1. The intent of this preliminary evaluation was to determine whether groundwater users from wells in the near vicinity of the proposed aggregate pits would be significantly impacted by dewatering of the pits during aggregate excavation.

This preliminary evaluation is intended to identify probable impacts, if any, to users of wells in close proximity to the proposed aggregate pits at the future Crimson Bridge Estates. This evaluation has been prepared to provide the Developer, Precision Excavation and Construction Inc., and its consultants with guidance for determining what may be needed for future characterization and potential mitigation.

Sources of information used in this evaluation have included review of well driller reports (well logs) in the vicinity of the proposed pits as obtained from the Idaho Department of Water Resources (IDWR) online database (https://idwr.idaho.gov/wells/find-a-well-map/); draft plan documents prepared for the Developer; a geotechnical report prepared by SITE Consulting LLC, Geotechnical Recommendations Proposed Crimson Bridge Subdivision 14533 River Road - Caldwell, Idaho; a report prepared jointly by the Idaho Water Resources Institute and the Idaho Department of Water Resources: Petrich, C.R., and Urban, S. M., 2004, Characterization of Ground Water Flow in the Lower Boise River Basin; and site location and boundary information provided by the Developer's consultant, Nexus Environmental Consultants. Preliminary estimates of impacts were prepared using methods presented in Driscoll, F. G., 1989, Groundwater and Wells: Johnson Filtration Systems, St. Paul, MN; and Anderson, K. E., 1993, Ground Water Handbook: National Groundwater Association, Dublin, OH.

Proposed Project Description

The Developer proposes to excavate two pits on the Subject Property, as shown in Figure 2. The pits would be used as sources of aggregate for construction. The Developer projects that the duration of aggregate extraction would be for approximately 30-36 months. Upon completion of aggregate extraction, the pits would be allowed to fill with groundwater and would be repurposed as visual amenities on the Subject Property, and areas outside the pond footprints would be developed as homesites. As a result of concerns about potential impacts to groundwater users in the vicinity of the Subject Property associated with this proposed development, particularly with regard to temporary dewatering of the pits during aggregate extraction, the Developer has requested RMEA to perform a preliminary evaluation of potential impacts to wells adjacent to the site as a result of pit dewatering.

Site Evaluation

<u>Pit Configurations.</u> Based on the site plan provided by the Developer, RMEA understands that there are two adjacent pits proposed as shown in Figure 2. The proposed West Pit is anticipated to have a footprint of approximately 15.6 acres, and the proposed East Pit is expected to have a footprint of 8 acres. Each pit is expected to have a maximum depth of 35 feet below the water table.

Geotechnical Conditions. The geotechnical evaluation prepared by SITE Consulting indicates that sand, gravel and cobbles are present onsite below a layer of sandy and silty surface soils which was determined to be from about three to six feet deep. Test pits extended to a maximum of about ten feet and did not define conditions below that depth. Groundwater was encountered at depths of three to ten feet in the test pits, with the variability of depth attributed to the different land surface elevations at the locations of the test pits rather than nonuniformity of groundwater elevation.

Subsurface Conditions. Based on information obtained from review of well driller reports (aka well logs) available from IDWR's online database, RMEA identified many wells in the vicinity of the Subject Property. For the purposes of this preliminary evaluation, RMEA confined its review to wells identified by IDWR to be within approximately 1/4 mile (approximately 1320 feet) of the outside footprints of the two pits. RMEA identified 70 wells located within this zone. The estimated locations of these wells are shown in Figure 2. Note that some well locations provided by IDWR represent multiple wells, which may not be at the exact locations shown in Figure 2. Also, locations of wells in Figure 2 are based on well locations shown on IDWR's website, which are not precise but rather approximations. A summary of selected relevant information about these wells, based on well log information, is provided in Table 1, with numbers shown for each well or group of wells in Figure 2 corresponding to numbers shown in Table 1. Well logs are also attached.

It should be noted that well logs are prepared by the drillers who drilled and constructed the wells. Drillers are not trained geologists or engineers and therefore are providing generalized descriptions of subsurface conditions on the basis of their understanding and experience, which



may or may not accurately describe the conditions. Often the driller is focused on the objectives of the well construction, typically meeting the water production needs of the intended well user, and he may not record conditions which are not perceived to be relevant to those needs. Therefore, caution is required in interpretation of well log data. Nonetheless, well logs can provide useful information in understanding subsurface conditions, especially when considered collectively.

The data extracted from the well logs were used to assess information about each well, including the depth of well production (screened or perforated interval or depth below casing bottom); the static water level in each well (as recorded on the well log on the date of completed construction); and the depth of the first significant confining layer below the anticipated maximum depth of pit excavation. The maximum pit depth is assumed to be no greater than 40 feet. Significant confining layers generally consist of either unfractured basalt (or "lava rock"), or clay. A confining layer was considered significant if it is at least four feet thick and is not documented to be fractured. In several instances, the top of the confining layer is less than 40 feet but extends to a depth of at least 44 feet or more, in which case Table 1 indicates the top of the confining layer to be 40 feet because of proposed pit excavation to that depth. The significance of this layer is that it represents a probable hydraulic barrier between the upper water-bearing zone from which water would be pumped for dewatering, and a lower water bearing zone or zones from which wells are producing water.

As shown in Table 1, 24 of the wells indicate static water levels (SWL) above 40 feet, which RMEA considered to be the maximum depth below the ground surface that would be dewatered. However, only one well, Well 1 in Table 1, is open to production from the anticipated zone of dewatering. All of the other wells with static water levels less than 40 feet deep are artesian and, in some instances, flowing artesian. Note that the term "artesian" means that the "static water level" is based on the pressure in the confined aquifer associated with the zone of production in the "open interval", and does not mean that dewatering down to 40 feet depth would affect the static water level in those artesian wells. Note also that an artesian well may or may not be flowing, but it is confined by an overlying layer that keeps the water-bearing zone pressurized and creates a hydraulic barrier between the pressurized layer and any overlying water-bearing zones.

RMEA also identified a significant hydraulic barrier layer between the zone of dewatering (above 40 feet below ground surface) and the production zone for each well, except for Well 1 Anderson (1993) indicates that, in situations where surface water bodies (streams, lakes, etc.) that are in direct hydraulic connection with the saturated zone of an unconfined aquifer, dewatering generally will not cause aquifer drawdown beyond the edge of the surface water body unless the rate of dewatering exceeds the rate at which surface water can be replenished, or the hydraulic conductivity of the porous medium through which the surface water body interacts with groundwater restricts discharge from the surface to the ground. Based on test pits and well logs, the shallow subsurface is generally coarse-grained and therefore of relatively high permeability. The lower Boise River and associated tributaries (such as East and West Hartley Gulch Creeks) are generally gaining reaches, indicating that groundwater is in direct hydraulic connection with surface water. It is further assumed that the Hill Canal is in hydraulic connection with groundwater when filled.



The proximity of losing reaches of year-round surface water channels on the east, south, and west sides of the proposed dewatered pits indicates that the extent of groundwater drawdown is unlikely to reach beyond these surface water bodies. Thus, drawdown is unlikely to extend beyond these channels in these three directions as a result of dewatering, unless flow in the East and/or West Hartley Gulch creeks declines due to extensive drought conditions of significant duration, or other large-scale groundwater pumping occurs in the immediate area. Therefore, only well 5 is likely to be impacted on these three sides. RMEA understands that this well is proposed for abandonment because it will be within the excavation footprint and therefore will be destroyed.

The radius of drawdown influence in the aquifer north of the proposed pits is unknown. It is likely that most of the flow into the dewatered pits will come from the east, south and north sides because of the year-round surface water seepage from the Boise River and the East and West Hartley Gulch creeks. Some groundwater flow from the north side into the pits is expected, but the radius of influence (distance from the point of discharge to the point of zero aquifer drawdown) is not known.

Determination of the radius of drawdown influence from dewatering under steady-state conditions was used by applying the method presented in Driscoll (1989):

$$Q = (K(H^2 - h^2)/(1055 \log R/r_e)$$

where

 $K = hydraulic conductivity in gpd/ft^2$

H = saturated thickness of the aquifer before pumping in ft

h = saturated thickness of the aquifer at the point of maximum drawdown in ft

 $R = radius \ of \ the \ cone \ of \ depression \ (aka \ radius \ of \ influence) \ in \ ft$

re = effective radius of the dewatered area or well in ft

A typical value of K in sands and gravels in 300 ft/day, which is equivalent to 2,244 gpd/ft². The aquifer saturated thickness H is approximately 35 ft, the thickness of aquifer drawdown in the unconfined gravel aquifer as a result of proposed dewatering. The saturated thickness of the unconfined aquifer at maximum drawdown (h) would occur at a drawdown of 35 ft (~40 ft depth below the ground surface), which is approximately the maximum depth of the proposed gravel pits and therefore the thickness of the unconfined gravel aquifer at the point of dewatering in the bottom of the pits would be approximately 0 ft.

The radius of the cone of depression, R, is unknown on the north side, but it is assumed that the North Canal, at approximately $\frac{1}{2}$ mile (2640 ft) is a reasonable approximation.

The effective radius r_e is estimated by the method of Driscoll when treating the pits as a single, rectangular-shaped excavation with vertical walls and a similar combined surface area as the proposed excavated pits, which in this case was approximated by a rectangle with the long side (a) = 1240 ft roughly parallel to the Boise River, and the short side (b) = 825 ft (a ratio of a/b of



< 1.5). The effective radius (r_e)of a "well" centered in this hypothetical rectangular pit is approximated by:

$$r_e = ((ab/\pi))^{0.5}$$

For a = 1240 ft and b = 825 ft, $r_e = 571$ ft from the <u>center</u> of the hypothetical rectangular pit.

The north side of the proposed pits represents approximately 30 percent of the perimeter. Solving for steady-state flowrate Q using the equation above and multiplying Q by 0.30, the maximum dewatering rate along the north side is estimated to be Q = 1175 gpm.

The depth of the water table at any distance (L) within the radius of influence is estimated using the methods of Driscoll (1989) and rearranging to solve for h:

$$h = ((H^2 - ((1055Q \text{ Log R/L})/K)^{0.5})$$

Other than Well 5 which is expected to be destroyed during construction, no wells are identified within the anticipated radius of influence between the dewatered excavations and the surface water bodies along the east, south, and west sides. Along the north side, at a distance of L = 1/8mile (660 ft), the aquifer thickness h estimated to be 18.2 ft. This estimated aquifer thickness would occur at 660 ft from the center of the theoretical rectangular pit, which would be roughly 250 ft from the north edge of the west pit. The projected drawdown at this distance would be 35 ft - 18.2 ft = 16.8 ft. For the most part, this drawdown would still be on the Subject Property; only Well 3 would be within this range on the north side. For L = 1000 ft, approximately 750 ft from the edge of the equivalent rectangle, h = 31.2 ft and drawdown = 35 ft – 31.2 ft = 3.8 ft. This probably would include the area of Well 2. Because Wells 2 and 3 are both identified as artesian (see Table 1), it is unlikely that the projected drawdown would have a noticeable effect on water levels in the wells because the drawdown would occur in the shallow unconfined aquifer, and probably would not significantly affect artesian conditions which occur in these wells. Well 1, which is the only well known to be open to the shallow unconfined aguifer, is approximately 1200 ft from the center of the hypothetical well used for estimating drawdown. At L = 1200 ft, the estimated aquifer thickness h = 32.2 ft, and the estimated drawdown would be 35 ft - 32.2 ft = 2.8 ft. Thus, the projected steady-state drawdown in Well 1 would be less than 3 ft.

These estimates project that steady-state drawdown in the vicinity of all but a few of the wells within $^{1}/_{2}$ mile of the edge of the pits would be minimal in the unconfined water table aquifer. Because all but one of these wells are producing from deeper, confined artesian aquifer zones, little if any drawdown at injurious levels is likely to occur in wells as a result of dewatering of the gravel pits. As noted previously, the exception is Well 1 which is producing from the unconfined water table aquifer, but given that Well 1 is about 900 ft from the northern edge of the west gravel pit, drawdown at that location is unlikely to be significant.

These calculations are based on limited data and include assumptions pertaining to important parameters, including hydraulic conductivity and radius of influence. Additional data would be



required for more definitive estimates of drawdown at the wells identified in Figure 2 and Table 1.

Conclusions

Because all but one of the wells evaluated are producing from hydraulically-separate zones (which appear to be separated from the shallow water table aquifer by a confining layer, and in many cases are artesian) below the depth of maximum projected excavation and dewatering, it appears unlikely that these wells would be significantly affected by dewatering of the unconfined, shallow water-bearing sands and gravels over the anticipated 30 to 36 months of dewatering. This is further supported by the artesian conditions which have an upward hydraulic gradient. It is likely that recharge to these confined zones is not from the Boise River, which is in direct hydraulic connection with the upper water table aquifer that would be dewatered in connection with gravel pit extraction. If recharge to the confined water-bearing zones is from the Boise River, it probably occurs far upstream and therefore would not be affected by dewatering at the Subject Property. The exception to this is Well 1, which extends to only 38 feet and produces from the shallow unconfined aquifer, but calculations suggest that drawdown at Well 1 would not be injurious.

After the aggregate extraction period, the need for dewatering will cease and dewatering for aggregate removal will be discontinued. The excavated areas will gradually fill with water, and eventually (over a period of a few weeks to a few months) the water level in the excavations will equilibrate with the water table. At this point, water levels in the shallow unconfined aquifer be approximately the same as water levels in the excavations, which will become ponds. Any aquifer impacts associated with dewatering of the excavations will return to pre-dewatered conditions. The Owner has indicated that the area around the ponds will be landscaped and will become amenities for a proposed subdivision development.

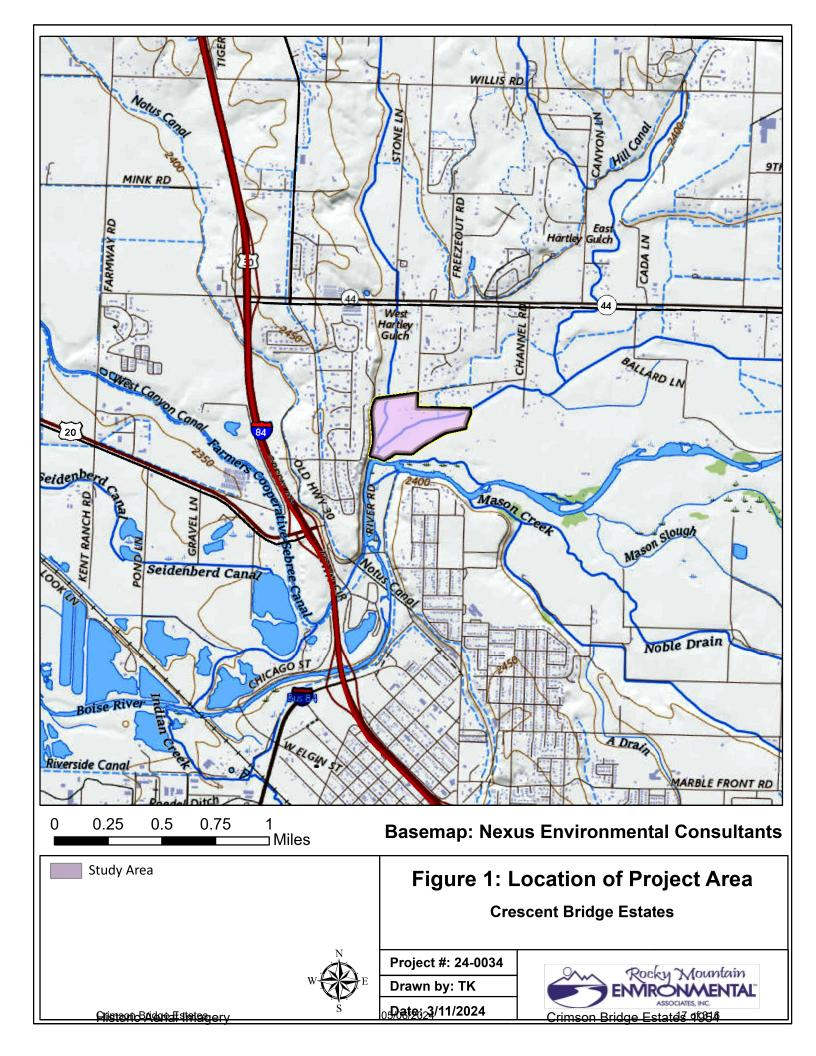
Limitations

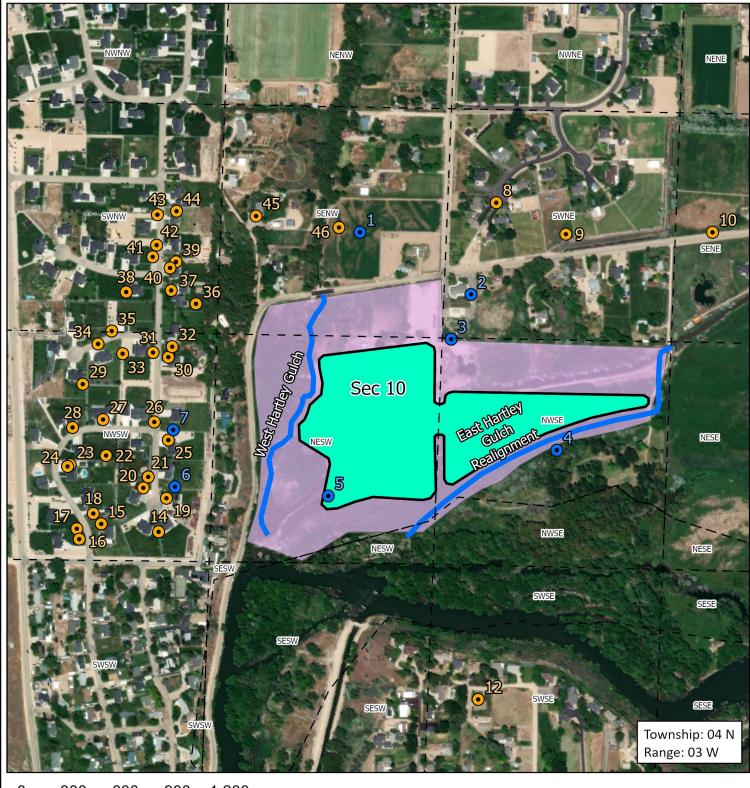
This Preliminary Evaluation has been completed with only limited data from the Subject Property, a limited subsurface investigation of soils beneath the site based on the shallow geotechnical investigation, and general information from well logs and regional reports. Without extensive, expensive, intrusive characterization of hydrogeologic conditions, which was beyond the scope of this assessment, no statement of greater scientific certainty can be made regarding latent subsurface hydrologic conditions on the Subject Property. The findings and conclusions of this report are not scientific certainties; rather, they are probabilities based on professional judgment concerning the significance of the data gathered during the course of this Evaluation and should not be used in whole or in part for anything other than the purposes stated herein.



Table 1 Crimson Bridge Estates Data from Wells Within 1/2 Mile of Proposed Gravel Pits

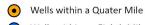
				2444 110111	**************************************	le of Proposed Gravel Pi			
								Depth to Top of 4+ ft Thick	
		W 11 ID		T . 15 . 1	T 0 I 1		CIVII	Confining Layer Below	N
Location ID	Owner	Well ID		-	Top Open Interval	Bottom Open Interval	SWL	Excavation (Min. 40 ft bgs)	Notes
1	Tim Nielsen	443683	38	38	38	38	15		Open bottom
	H. Thomas Powell	423403	92	99		99	4		Artesian
	Sean Hackett John E. Walker	844737	106	117	106	111	9		Artesian
	DougHoyt	347298 381170		172 115	142 102	142 112	68		Artesian; Open bottom Artesian
	Sunrise Fine Homes	381256		107	97	107	5 8		Artesian
	Sunrise Fine Homes	381456		118	108	118	7		Artesian
	Kirshner Homes	380481	182	196	183	193	2		Artesian
	Francis Musty	347295		180	160	190	90		Basalt/Clay 38-108
	Pat Wallace	382152		140		140	+1		Flowing Artesian
	Green Castle Homes	448404	223	223	211	221	82	72	
	Pioneer Homes Inc.	459355	177	188	177	187	72	40	
	Bob Harrison	406258		132	126	132	4		Artesian
	Garald "Gary" M Lies	418855	80	90	80	90	+2		Flowing Artesian
	David Hurley	377150		120		97	+3		Flowing Artesian; Open bottom
	Keystone Custom Homes	379024	117.6	128	118	128	6		Artesian
	LloydDKuck	361669		84	84	84	+8		Flowing Artesian; Open bottom
	Sunrise Fine Homes	376798		160		155	0		Artesian
	Sunrise Fine Homes	381157	182	188	183	188	2		Artesian
	Zach Puffe	475008		160	NA	NA	2		
	Keith Mertz	347819		152	138	148	139		
	Ed Lambert-Portner	296278			113	118	3		Artesian
	Holton Homes	295269		105	NA	NA	0		Artesian; Open bottom
	Gary Tuttle Construction Co	295355	183	184	NA NA	NA NA	NA		Open bottom
	Melvin Priest	293333		168	157	168	80		Artesian
NOT USED	IMEIMII LIIESt	29/833	108	108	15/	108	80	142	Altesiali
	Sunrise Homes	443129	201	209	204	209	74	00	Artesian
	Bruce Field Construction	444401	250	210		210	80		
	Tradition Custom Homes	446459		313		312	79		
	Green Castle Homes	446497		238	226		84	43 52	
	Green Castle Homes Green Castle Homes	448638	238 239	238	227	236 237	84		Artesian
		448588					85		
	Green Castle Homes Aaron Dickson		225	225 235	213	223			
	Waltman Homes	442201 446020	223 231	237	225 232	235 237	78 78	80	
	Green Castle Homes	443685	213 202	213 220	202 170	212 193	75 NA	42 60	
	Dewey Bowman	363434							
	Richard D. Rutledge	363513	150		NA	NA	72		Artesian; Open bottom
	Whitmire Homes	294474	178 147	200 155	NA	NA	80 70		Artesian; Open bottom
	Bart Gepner Waltman Homes	303640				152			Artesian
		447312	201	209	204	209	80		
	Green Castle Homes Green Castle Homes	444153 443643	201 180	255 190	175	255 190	80 74		Artesian
	Green Castle Homes Green Castle Homes		215	215		213			
		450868			203		72	64	
	Pioneer Homes	443709		475		435	120	40	
	Green Castle Homes Green Castle Homes	447736 447705		233 214		231	79		
			214	191	202	212	79 71		
	Hallmark Homes Green Castle Homes	440815 450964	181 241	241	181	191 239	70	45	
		450964		258	229				
	Woodhaven Properties Big Pine Construction	443645	251 285	258	253 286	258 291	68 74		Artesian
	Jack Falcon	448302		199	193	198	64		Artesian
	Green Castle Homes	440196		199			76		Artesian
	Douglas F. Miller	427599		59	189 NA	199 NA	NA		No Water
	Douglas F. Miller Douglas F. Miller	427599	153	153	148	153	72		
	Waltman Homes					153 267		40	
	-	447006 444994	257	268 201	257		75 80	77	
	Green Castle Homes Green Castle Homes		201		189	199		42	
	Pioneer Homes Inc.	442378		213	202	212	72		
	Pioneer Homes Inc. Pioneer Homes Inc.	447102 447671		227 242	216				Artesian Artesian
	Greencastle Homes of Idaho	44/6/1	242 242	242			89 70		
					49				
	Greencastle Homes	435103		153		152	64		
	DaveFarris H. B. Baravist	302688					50		
	H. R. Berquist	392366					26		Artesian
	Ben Shuey	306280		162			70		
	Fannie Mae	380900		163		161	+4		Flowing Artesian
	Fannie Mae	381475		55		. ^		Abandoned	
	John L. Jenkins	392198		50		50			Artesian
	Mill Right Custom Homes	389421	118			135	7		Artesian
	O. F. Coons	305452					6		Artesian; Open bottom
46h	Oral Kraus Tim Nielson	347297 301230		200		200	+5		Flowing Artesian
			152	158	152	157	25	ı 40	Artesian





0 300 600 900 1,200 Feet

Maxar



Wells within an Eighth MileApproximate Study Area

Pond

Stream/Canal



Figure 2: Wells Surrounding Project Area

Crimson Bridge Estates

Project #: 22-0164

Drawn by: TK

05Date:24/17/2024



Pristerno BAidar all states erv

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.

<u></u>	`-,						
1. WELL OWNER	Despend Replacement Replacement Pump Bailer Other Correspondent	\supset					
Name A/R Repouist		Static v	water (e)	vel 2 / efeet helow land s	aurface.	N.	
DI 7 11 11 11 1		Flowing	g? 🗀 '	Yes ☐ No G.P.M. flow	w <u></u>		
Address Et. CAROWELL LAPRO					<u>d</u>		—
Owner's Permit No.					Plug		
2. NATURE OF WORK	8.	WELL					
New well Deepened Replacement		□ Pum	p (□ Bailer □ Other Ce	mpressor	بـــــــــــــــــــــــــــــــــــــ	
☐ Abandoned (describe method of abandoning)				-			
	-	100 -	-/20	, 4 5	Approx		<u> </u>
3. PROPOSED USE		· · · · · · · · · · · · · · · · · · ·					
Domestic 🗆 Irrigation 🗆 Test 🗆 Other (specify type)	9.	LITHO	LOGIC	LOG 1	05371		
☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal			epth			Wat	ter
or injection		From				Yes	No
4. METHOD DRILLED	1	+	800			 '	X
🅦 Cable 🗆 Rotary 🗀 Dug 🗀 Other		13	18			+	×
	-	26				├	x
5. WELL CONSTRUCTION				Blue Chan		X	
						, x	<u> </u>
	' ├──					- X	-
Thickness Diameter From To	-				4.5	- 70	╁─
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Perforated?		+	 			+	
How perforated? ☐ Factory ☐ Knife ☐ Torch		 	 			+	
Size of perforation inches by inches		1					匚
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		 		· · · · · · · · · · · · · · · · · · ·		 -	├—
perforations feet fee		 		T=\ C=\ Z0\ 70\ 70\	<u> </u>	+	
perforationsfeetfee Well screen installed? □ Yes ☑ No	' ├─	+	 	- 10) 清 (馬達ま \	Wall	+	
		 		MU	- 51111	-	
Type Model No.				77.7			
Diameter Slot size Set from feet to fee	ī		\Box	MAR 28 I	1978	Ţ	<u> </u>
Diameter Slot size Set from feet to fee	t	ļ			*	'	ļ <u>.</u>
Gravel packed? Yes No Size of gravel	_	 	┼			 	├—
	*	+	 	Mearch Vorient	1 Onice	+	\vdash
· 		 				† <u></u>	
Sealing procedure used: ☐ Slurry pit ☐ Temporary surface							
casing	,					 	ļ
Overbore to seal dept	th	 	\longrightarrow			+	+
6. LOCATION OF WELL	<u>, </u>	\vdash				+	\vdash
69	-						
Sketch map location must agree with written location.	10.	Worl	le negretar	- 2-2.0 finishs		70	
	<u> </u>	*****	(Starter	1 A B D Illiano	<u> </u>		_
Subdivision Name	_ 11.	DRILL	ERS CE	ERTIFICATION			
E	l l						
	-	Firm N	ame 🏄	and Ocalin	Firm No.	<u> 34</u> 2	2
Lot No Block No.	*	* - -	4	BOUSE FIRE.	5 <i>et</i>		+ M
Bir order	~	Address	S	May Idoho	Date <u></u> ,	<u>2-7</u>	X
		Signed	hv (Fire	m Official)	JR24	/_	
COURTY CANYON	- i	O 13	D 7 (TO DEVILOR	<u>en</u>	
<u>SE ¼ NW ¼ Sec. 10</u> , T. <u>4</u> ® /S, R. <u>3</u> E	₽						
	-		(C	Jperator)			—

43

1. WELL TAG NO. D 0071744	12. STATIC WATER LEVEL and WELL TESTS:
Drilling Permit No. 971906 - 877943	Depth first water encountered (ft) 18 Static water level (ft) 15
Water right or injection well #	Water temp. (°F) 62 Bottom hole temp. (°F) 62
2. OWNER:	Describe access port 6" Well (a)
Name Tim & Shari NIE(SEN	Well test: Test method:
Address 14620 Clearwater Lane	Drawdown (feet) Discharge or Test duration (minutes) Pump Baller Air Flowing stession
City Coldwell State Id Zip 83607	25 30 30 0 0
3.WELL LOCATION:	
Twp. 04 North P or South Rge. 03 East or West	Water quality test or comments: Meun water
Sec. 10 1/4 SE 1/4 NW 1/4	13. LITHOLOGIC LOG and/or repairs or abandonment:
_	Dia. (6) (6) shandonment water temp.
Gov't Lot County Can you (Deg. and Decimal minutes)	10 0 4 Top soil
Lat. 43 42 ° 030 (Deg. and Decimal minutes)	4 (8 Brown Clay
Long. 16 41 0 165 (Deg. and Decimal minutes)	6 18 38 Sand & Cravel V
Address of Well Site 14620 Clearwater Lant.	
(City	
Lot Blk Sub. Name	
4. USE	
□ Domestic □ Municipal □ Monitor □ Irrigation □ Thermal □ Injection	
Other	
5. TYPE OF WORK: New well Replacement well Modify existing well	
Abandonment Other	
6. DRULL METHOD:	
Mair Rotary ☐ Mud Rotary ☐ Cable ☐ Other	
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (fts or ft') Ptacement method/procedure	
& Benjania 0 18 600 gry pour	
Described and the second secon	RECEIVED
8. CASING/LINER:	
Diameter From To (8) Gauge/ Malerial Casing Lines Threaded Welded	MAY 8 2 2016
(nominal) (n) 10 (v) Schedule	
0000	WATER RESOURCES WESTERN REGION
Was drive shoe used? N Shoe Depth(s) 33	
9. PERFORATIONS/SCREENS:	
Perforations Y Method	
Manufactured screen Y V N Type	
Method of installation	
From (ft) To (ft) Stot size Number/ft Diameter (nominal) Material Gauge or Schedule	Completed Depth (Measurable): 38
(Control and)	Date Started: 2/23/2016 Date Completed: 2/25/2016
	14. DRILLER'S CERTIFICATION:
	I/We certify that all minimum well construction standards were complied with at
Length of Headpipe Length of Tailpipe	the time the rig was removed.
Packer Y N Type	Company Name Latrot Well Dollingo. No. 741
10.FILTER PACK:	Principal Driller Alla Alo Date 5/1/2016
Filter Material From (ft) To (ft) Quantity (lbs or ft ²) Placement method	Principal Uniter August 1980
The resemble Trent in The County less of it Castalian indiano	*Driller Date
	*Operator II Date
AA TI CIANIS A DITTOLANI	
11. FLOWING ARTESIAN:	Operator I Date
Flowing Artesian? Y WN Artesian Pressure (PSIG)	* Signature of Principal Driller and rig operator are required.

	83576	1_
Form 238-7; 23 IDAHO DEPARTMENT OF WATER RESO	Office Use Only Well ID No. 40 258	
Form 238-7 DAHO DEPARTMENT OF WATER RESO WELL DRILLER'S REPORT		
1. WELL TAG NO. D D0041730	Twp RgeSec	_
DRILLING PERMIT NO.	12. WELL TESTS: Lat: : Long: :	:
Water Right or Injection Well No.	□ Pump □ Bailer Air □ Flowing Artesian	
2. OWNER, Freddie Smith		ne
Name 10 Bolo Harrison Address 2673 W. Crook Stone Court	30.40	w
City Meridian State Id Zip 83642		
3. LOCATION OF WELL by legal description:	Water Temp. Water Qualify test or comments: Two 15 Bottom hole temp PH 7.5)
You must provide address or Lot, Blk, Sub. or Directions to well.		25
Twp. 4 North 反 or South □ Rge. 3 East □ or West 反		Water
Rge. 5 East	Bore From To Remarks: Lithology Water Quality & Temperature	Y N
Gov't Lot County	10 0 2 top soil	
Lat: : Long: Creek Rd-	4 2 15 Brown clay	
[Give at least name of road + Distance to Road or Landmark) City	15 20 gravel & Sand 6 20 30 gravel & Sand	
Lt Blk Sub. Name Kiver Rd Estaks_	" 30 35 Sand	
	· 35 55 hard clay	
4. USE:	" 75 80 clay	
➤Domestic	" 80 85 blue clay	
,	" 85 88 Sand w/ day	<u>x</u>
5. TYPE OF WORK check all that apply (Replacement etc.) ➤ Rew Well	" 88 97 blue clay " 97 105 brown clay	
•	" 105 115 Sand	ر مر
6. DRILL METHOD: →Air Rotary □ Cable □ Mud Rotary □ Other	" 115 121 Clay	x
7. SEALING PROCEDURES	" 121 123 Sand 1 123 128 Clay	<u> </u>
Seal Material From To Weight / Volume Seal Placement Method	4 128 132 Sand	<u> </u>
Bentonile 0 20 600 # overbore		
Was drive shoe used? XOY □ N Shoe Depth(s)		
Was drive shoe seal tested? Was drive shoe seal tested? How?		
8. CASING/LINER:		-
Diameter From To Gauge Material Casing Liner Welded Threaded		
6" +2 126 20 Skel &		
	RECEIVED	
Length of Headpipe /O Length of Tailpipe		
Packer XTY □ N Type K. Packer ————————————————————————————————————	SEP 1 2 2005	
9. PERFORATIONS/SCREENS PACKER TYPE Perforation Method	WATER RESOURCES WESTERN REGION	
Screen Type & Method of Installation Johnson Washdown		
From To Slot Size Number Diameter Material Casing Liner	Completed Depth (Me	asurable)
126 132 .020 5" SS -	Date: Started <u>09.02:05</u> Completed <u>09.0</u>	6-05
	14. DRILLER'S CERTIFICATION	
10. FILTER PACK	I/We certify that all minimum well construction standards were complied with time the rig was remoyed.	at the
Filler Material From To Weight / Volume Placement Method		1157
	Company Name Idamson Pump & Dublem No Principal Driller Thira Campany Date 09-0 Date 09-0	10/ 10/
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Principal Driller Town Cannon On Date Of C	11.02
	Driller or Operator II Date 09-0	7.05
well cap	Operator I Date	
Pristem BAdespatishesery 05/06/2	Principal Driller and Rig Operator Required to 2024 Operator I must Make Signature of Triller of The Topical Control of The Topical Cont	

IDAHO DEPARTMENT OF WATER RESOURCES.

					Office Use C)nly		
OF WATER RESC					D No. 418	የጋጋ_		
er's report	Ī				cted by			
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	12. WELL		1	Lat:	: : Long		:	
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Td Zip 8 3 607						 		
Zip 8 3 60 7	\\\				D. H.			
	Water Temp.			<i></i>	Hotto	m hole tem	p	
II.	Water Qualit	y test or	comments: C	5000	delear e	010		
	no s	me/			Depth first Wa	iter Encour	ıter 🎸	2
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migation	67	69	Brack	ar				x
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(Replacement etc.)	74	80	Brici	lay	•			+
Other	1 80	90	Fire /	mec	Sand		+	Ľ
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					n standards were co	mplied with	ı at th	е
Placement Method	time the rig v				5.22			•
		_)	. /	111.11		_	- 1
r lacement inethod	Company Na	ame /	ecision	wa	ularilias	Firm No	<u>.5</u>	1
r lacement wethod			eDD (n	g m	Con Dat	9/	10	10
	Principal Dril	or I		~~	Dal	~ <i>-{/-1</i>		
RE:	Company Na Principal Dril and	ler \checkmark	7 7 12			7		
RE:	Principal Dril and Driller or Ope	•			_	re		
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The Pump Bailer FAIR Flowing Artesian Pumpy Boling Pumpy Boling	Wate Wate 13. I Bore Dia.	r Temp. r Qualit	Pump /min. y test or	Bailer Drawdox comments:	A Air	☐ Flowir Pumping Level	ng Artesian /// Bottom hole te	emp.	_
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Control of Well by legal description: must provide address or Lot Bit, Sub. or Directions to well.	Mate 13. L Bore Dia.	r Qualit SITHOL	y test or	comments:	(3000				
Mater Dually test or somments: Grood Clear Color Grood	Mate 13. L Bore Dia.	r Qualit SITHOL	y test or	comments:	(5000				_
must provide address or Lot. Bilk. Sub or Directors to well North X or South 2	13. L Bore Dia.	JTHOI	mel		リラアオノに	4 11 101 1	CALON	_	
Sept West	Bore Dia.	LITHOL				-			7
The search of th	Bore Dia.	т	-0410					,	_
Tres of Well Site	Dia.	From		-	-	-	-		\top
THE OF WORK check all that apply War Rotary Cable Municipal Other SEALING PROCEDURES Seas Maeitrid From To Suggest Multimore War Show used X N Shoe Depints Office shoe used X N Shoe Depints Office sh		L	L	_		•	Temperature	Y	\perp
City Caldwell (See 18 Sound 3 Growth Survey Company Name Standard Standar	10-		1-0	70p.	Soil				
BIK. Sub. Name USE: Competition Competi	* 44			Sand				15	4
USE: Momestic Municipal Monitor Irrigation Start Sant Sant				Some	9,91	raver_			+
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TYPE OF WORK check all that apply TYPE O		54	67	Bunc	lar.	Sand	Fred		_
TYPE OF WORK check all that apply New Well Modify Abandonment Other DRILL METHOD: Air Rotary Cable Mud Rotary Other SEALING PROCEDURES Seal Material From To Meight Volume Seal Placement Method I drive shoe used? Y N Shoe Depth Shoe I drive shoe seal lested? Y N How? CASING/LINER: The seal Placement Method The seal Placement Method seal Placeme		67					, , , , , , ,		
New Well Modify Abandonment Other DRILL METHOD:								+	-
DRILL METHOD: A fair Flotary Cable Mud Rotary Other SEALING PROCEDURES Seal Material From To Megint Volume Seal Placement Method PRECEIVED Adve shoe used? Y N Shoe Depth(s) Adve shoe seal tested? Y N How? CASING/LINER: WATER RESOURCES WESTERN REGION PERFORATIONS/SCREENS PACKER TYPE Oration Method Filter Material From To Story Street Method Filter Material From To Weight / Volume Placement Method Filter Material From To Weight / Volume Placement Method STATIC WATER LEVEL OR ARTESIAN PRESSURE: It holow encountered Artesian pressure Inb. It holow encountered To Describe access port or control devices: Principal Driller or Operator II Date Date D		74	80	Bric	lay				1
SEALING PROCEDURES Seal Material From To Kneghty Volume Seal Placement Method of the shoe used? Y N Shoe Depth(s) drive shoe seal tested? Y N How? CASING/LINER: WATER RESOURCES WESTERN REGION PERFORATIONS/SCREENS PACKER TYPE oration Method ser XY N Type 3- Ball ball ball ball ball ball ball ball		80	90	Fine	med	Sand		4	1
CASING/LINER: DEC 2 8 2007 CASING/LINER: DEC 2 8 2007 WATER RESOURCES WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGION DEC 2 8 2007 WATER RESOURCES WESTERN REGION WESTERN REGI				В) E ^ 1				+
CASING/LINER: DEC		-				EIVED			+
meter From To Gauge Material Casing Liner Welded Threaded WESTERN REGION To Solo Size Number Date Placement Method Sen Type State Started S					DEC 2	' 8 200 7			
per Oration Method gen Type & Method of Installation were Type & Method of Installation gen Type & Method of	, —	<u> </u>		V	VATER R	ESOURCES		+-	+
per Completed Depth		-			WESTER	IN REGION		+-	+
per FORATIONS/SCREENS PACKER TYPE oration Method een Type & Method of Installation from To Slot Size Number Diameter Material Casing Liner Completed Depth Date: Started 7/76/7 Completed Placement Method The Filter Material From To Weight / Volume Placement Method To Startic WATER LEVEL OR ARTESIAN PRESSURE: If below ground Artesian pressure Ib. The Describe access port or control devices: If below ground If Describe access port or control devices: The Describe access port or control devices:								+	+
PERFORATIONS/SCREENS PACKER TYPE oration Method pen Type & Method of Installation p									T
PERFORATIONS/SCREENS PACKER TYPE oration Method pen Type & Method of Installation pen To Slot Size Number Diameter Meterial pen To Slot Size Number Diameter Meterial pate: Started									I
oration Method sen Type & Method of Installation To Slot Size Number Diameter Material Casing Liner Completed Depth Date: Started To									\downarrow
oration Method sen Type & Method of Installation To Slot Size Number Diameter Material Casing Liner Completed Depth Date: Started 14. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. STATIC WATER LEVEL OR ARTESIAN PRESSURE: ft. below ground Artesian pressure Ib.		-	-						+
To Siot Size Number Diameter Meterial Casing Liner Completed Depth Date: Started Date:		 						+	+
Completed Depth Date: Started Date: Star	٠,	-						-	+
Date: Started 17/07 Completed 9/9/07	Cor	L npleted	Depth		9	off.		 Measura	⊥ abl
FILTER PACK Filter Material From To Weight / Volume Placement Method			•	9/7/	7		0/	10/	•
FILTER PACK Filter Material From To Weight / Volume Placement Method Placement Method Filter Material From To Weight / Volume Placement Method Company Name New Section Static Water Level OR ARTESIAN PRESSURE: ft. below ground Artesian pressure Ib. Ib. Describe access port or control devices: Date Dat				1/1/0		Complet	.ea //	110	_
Filter Material From To Weight / Volume Placement Method time the rig was removed. Company Name ** *PEC'S ** *Sion** *Level Control						a etandarda war	re complied	vith at th	ho
STATIC WATER LEVEL OR ARTESIAN PRESSURE: ft. below ground					onstructiof	i stanuatus Well	e compilea w	nın al II	ıe
ft. below ground Artesian pressure Ib. Describe access port or control devices: Date		-)		1/1/2011	. .	بر	_
ft. below ground Artesian pressure Ib. Describe access port or control devices: Date	Com	oany Na	ıme /	201510	TUG	(CPI)	Firm I	<u>برمح</u> .No	
ft. below ground Artesian pressurelb. and	Princ	ipal Dril	ler <u>(</u>	ID W	ans	ion	_Date _ 9 /	110	9/
th flow encounteredft. Describe access port or control devices:				<i>t</i>			7		_
	Drille	r or Ope	erator II				Date		—
Well Seal well lap		Compand Compan	Completed Date: Star 14. DRILLE I/We certify t time the rig v Company Na Principal Dril and Driller or Ope	Completed Depth Date: Started 14. DRILLER'S CE I/We certify that all m time the rig was removed. Principal Driller and Driller or Operator II	Completed Depth Date: Started Principal Driller Principal Driller	Completed Depth Date: Started Principal Driller Principal Driller	RECEIVED DEC 28 2007 WATER RESOURCES WESTERN REGION Completed Depth Date: Started J/fo7 Completed Iminimum well construction standards wer time the rig was removed. Company Name PEC Sign (walls) Principal Driller P	RECEIVED DEC 28 2007 WATER RESOURCES WESTERN REGION Completed Depth Date: Started 14. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied wtime the rig was removed. Company Name PEC'S COMPANY Firm Principal Driller Principal Driller Principal Driller Principal Driller Principal Driller Principal Driller Date Date Date Date Date Date	RECEIVED DEC 28 2007 WATER RESOURCES WESTERN REGION 14. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Company Name Precision (wall drilling) Principal Driller Date Principal Driller Date Date Date Date Date Date Date Date Date Date



IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

853675

1. WELL TAG NO. D 005 3224	12, ST	TATIC V	VATER	LEVEL and WELL JESTS:			
Drilling Permit No.	Depth	first wat	er encou	untered (ft) 22 Static	water level (ft)	4.4	CL
Water right or injection well #				Bottom hole te			_
2. OWNER: Thomas Powell				Sani Seal Line			
Name / Same)	Well to		aa port_		,		
		down (feel	Dis	charge or Tost duration	Test method: Pump Bailer	Air F	Flowing
Address 14499 Channel Rd. City Caldwell State Id. Zip 83607	Diawi		yie yie	eld (gpm) (minutes)		a	artesian
			_ / 2				П
3.WELL LOCATION:	Water		est or co	omments: 900d Cléa	- Color		
Twp. 9 North or South Rge. 3 East or West				and/or repairs or abando			
Sec. 10 Sw 1/4 Sw 1/4 NE 1/4	Bore	From	To	Remarks, lithology or descrip		w	ater
Parana	Dia. (in)	(ft)	(ft)	abandonment, wate		Υ	N
Gov't Lot County Curayous Lat43	10	0	.5	TOD 5011		†	4
Lat. 43 ° 41. 976 (Deg. and Decimal minutes)	10	5	13	Clay			1
Long (Deg. and Decimal minutes)	10-6	13	22	Clay mixed with	4gravel		7_
Address of Well Site 14499 Charges 1 Rd	6	22	28	grave!		1	<u> </u>
(Give at least name of road + Distance to Road or Landmark) City Ca/dcvc//	1	28	55	Brielay		┵	1
Lot Blk Sub. Name	1	55	60	Fine Silty 19	n Sund	1	
4. USE:	-	60	77	Hed Bricky	<u> </u>	+	K.
Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection	1	74	23	Blue Clay			1
Other		09	11	Bra Chy		+-	X
5. TYPE OF WORK:	<u> </u>	71	77	medjumine	June _	1	+
New well Replacement well Modify existing well		 	 	 			
Abandonment Other		-	 	 		+	+
6. DRILL METHOD: Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other			T			+	+
			<u> </u>	 	`	+	+
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure	ļ —					\top	\top
Hale Plug 0 18 450/bs 10 poirbore							
Bestonte Diversetruct 10"							
8. CASING/LINER:							
Diameter From To (fft) Gauge/ Material Casing Liner Threaded Welded						↓	
(Horrilla) (II) Scredule		ļ		RECEIV	<u> </u>		
6 1X 1X 130 3700 1			ļ	11011 0 0 00	····		
		 	 	NOV 2 8 20	Wg	┼	-
			 	WATER RESOU	RCFS	+	+
		 		WESTERN REC		+	+
Was drive shoe used? ✓ Y □ N Shoe Depth(s)				 		+	+
9. PERFORATIONS/SCREENS:			 			+-	+
Perforations Y YN Method						1 -	†
						1	
Manufactured screen XY \(\sum \) N Type \(\sum \) N Type							
Method of installation Wash Dic. Calve				<u></u>		<u> </u>	<u></u>
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Comple	eted Den	th (Meas	urable): 99	FF		
94 99 20 678/L 5.5.			مدام	1 / ~	10/	1/2	
	Date S		10	Date Comple	eted: ///	100	
				TIFICATION: imum well construction standa	ards were compl	ied with	at
Length of Headpipe		,	was rer		2,40 Were comp.	og mar	.
	Comp	any Na~	ومرتغ	C'Sign Isellda	ellen No	522	,
Packer XY \(\sqrt{N} \) Type \(\frac{7-Rib}{\}	Compa	ану мап	10110	pl Payron	ر: ۱۷۵. ۱۷۵ و مرسم	1	70
10.FILTER PACK:	*Princi	pal Drille	er <i>Lei</i> g	UN MUSTER	Date	<i>YZ</i> /	105
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller		//	/	Date	•	
	Dime						_
	*Opera	ator II			Date		
11. FLOWING ARTESIAN:	Opera	tor I			Date		
Flowing Artesian? TY N Artesian Pressure (PSIG)	·		Dringle	al Driller and rig operator ar			
· · · · · · · · · · · · · · · · · · ·	Jigili	utuse VI	THE CID	שו שוווכו מווע וואַ טשפומנטו או	. o i cyuli cu.		

Describe control device _



Form 238-7 3/95-C96

844737									
Inspect	Office Use Only Inspected by								
Twp_	Rge	ge Sec							
	1/4	1/4	1/4	ı					

1. DRILLING PE	ERMIT	NO		_	11.	WELI	L TES	TS:	Lat: :	Long:	 :	:
Other IDWR No. 1	D00474	13						Bailer	🛛 Air 🔲 Flo	wing Artesia	Ŋ	
2. OWNER:			_			l gal/min	. <u>D</u> r	rawdown	Pumping Level	Time		
Name SEAN & M	ELISS	HAC	KETT		50		_		105	1 HR		_
Address 14446 SI	LVER (REEK	RD.				+					_
City CALDWELL			State ID	Zip 83607	177.							_
3. LOCATION O	F WEI	L by k			Wat	er iemp	·		Bottom hole tem	np.		_
Sketch map location					wau	er Quan	ty test		GOOD CLEAR N			
N					12.	LITHO	LOG		oth first Water Enco escribe repairs or		nt)	_
	Tv	vp. <u>4</u>	North 🛛	or South					-		ŕ	
w X	$\mathbf{E} = \frac{\mathbf{R}_{1}}{\mathbf{S}_{2}}$	ge. <u>3</u>	_ East [_]	or West ⊠ 5 W 1/4 NE 1/4 40 acres 160 acres	Bore Dia	From	To	Remarks:Lit	bology, Water Quai	ity & Temp.	Y	N
	1 3	.c. <u>10</u>	10 acres	40 acres 160 acres		0	1	TOP SOIL		_		
s	Gov't	lot	County	CANYON	10"	1	8	HARD PAN TAN CLAY			_	\bowtie
	:	L	ong: :	:	10"	8	14	SAND		-	╁	\bowtie
Address of Well S					10"	14	16	TAN CLAY			-	\bowtie
			City CALDW		10"	16	18	GRAVEL		-	-	Θ
(Give at least name of road-	+ Distance to	Road or I	andmark)		6"	18	35	GRAVEL	<u> </u>		-(3)	Н
Lt. <u>8</u> Blk.	1	Sub	Name RIVEL	ROAD	6"	35	55	TAN CLAY			-14	
ESTATES SU			Name KI VIJ	KROAD	6"	55				_	_	M
4. USE:	DFL				1		76	SAND			_ X	
Domestic	□ Mun	icipal [☐ Monitor [7 Irrigation	6"	76	80	TAN CLAY			_ _	\boxtimes
☐ Thermal	Inject	tion [Other	IIIIgation	6"	80	85	BLUE CLA			_[]	\boxtimes
5. TYPE OF WO					6"	85	89	1	LUE CLAY STRIP	<u></u>	Δ	
New Well Me					6"	89	98	BLUE CLA				\bowtie
6. DRILL METH		7 Iouide			6"	98	105	BROWN CL	.AY			\boxtimes
☐ Air Rotary ☐		7 Mud	Rotary C Ot	her	6"	105	117	SAND			\Box	
7. SEALING PRO			Kotaly 🗀 Ot					BE(CEIVED		ŤÌ	
SEAL/FILTI			AMOUNT	METHOD							7-1	H
Material Material	From	To	Sacks or	METHOD		1		NO	A 6 5 5639		╌	
Makidi	TIOH	'0	Pounds			ļ		, , , , ,			╌	Н
BENTONITE	0	18	450	POUR		1		TAW	ER RESOURCES		╌┼╌┤	Н
						 		WE	ETERN REGION		-	Н
					<u> </u>						 ¦	-
Was drive shoe used	19 1 21 V		Shoe Denth(s)	D8							╀┤	H
Was drive shoe seal											╌	⊣
8. CASING/LINE		23 1 L			<u> </u>	-		<u> </u>	TICINI/	\ 	╌┤	Н
Diameter From To		Materia	al Casing Liner	Welded Threaded	<u> </u>			U	THOUS	11		\vdash
6" +2 98	250	STEE								<i>-</i>	_	
5" 96 106		STEE										
											_	Щ
											_	
Length of Headpipe			Length of Tail	oipe				1				
9. PERFORATIO		REEN	S			npleted				[easurable)		
	Method_				Date	: Starte	d <u>10/25</u>	5/2006	Comp	leted 10/26/2	006	
Screens Screens	Screen T	ype <u>johr</u>	<u>ison</u>		13.	DRILL	ER'S	CERTIFIC	ATION			
From To Slot Siz	. N.	anl Dian	neter Material	Casina Linas	1/We	certify	that all	l minimum wel	Il construction stan	dards were		
From To Slot Siz 106 111 020	e Numb	5"	meter Material SS	Casing Liner	com	plied wi	th at th	e time the rig	was removed.			
100 111 020		+	33		•	-		_				
		+			Firm	Name !	GEOR(GE POST WE	LL DRILLING	Firm N	o. <u>56</u>	3
	. J							11				
10. STATIC WAT	TER LE	EVEL (OR ARTESI	AN	Firm	Officia				Date 10)/27/2	2006
PRESSURE:						•			· D 1			
9ft. below ground			Artesian Press	sure 1b	Supe	ervisor o	г Орег		Dolls	Date_10)/27/2	2006
Depth flow encounter	ered 105	ft.		ss port or control				(Sign once if Fi	rm Official & Operat	tor)		
devices: WELL CAI				<u> </u>	Doto	10/27/2	በበፋ ፕ፡~	nc:9:18:41 AM				
					Date.	10/2//2	OOO IIII	IIV.7.10.41 /\IVI				

USE TYPEWRITER OR BALL POINT PEN

State of Idaho Department of Reclamation

WELL DRILLER'S REPORT

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

1. N.

							
1. WELL OWNER	7. V	VATER	LEVEL	-	,		
Name Francis Musty	_			Ca House	in ani	37 3 7 77	·
Name	S	tatic wa	ater leve	feet below land su	urface	. !	
Address P.O.Box 212 Parma, Idaho.		lowing	. □ Λ	es St No G.P.M. flow	<u>'</u>		
Address				° F. Quality <u>6-00</u> n pressurep.s.i.	<u> </u>		
Owner's Permit No				□ Valve □ Cap	□ Blug		
Owner St entitle 140.	<u></u>	, on the one		□ valve □ Cap	— Flug		
2. NATURE OF WORK	8. V	VELL T	EST DA	ATA .			
				•••			
■ New well □ Deepened □ Replacement] Pump		🗷 Bailer 🗆 Other	,		
	D	ischarge	G.P.M.	Draw Down	Hours P	umpec	
☐ Abandoned (describe method of abandoning)		7	·	15	7		
3. PROPOSED USE	<u> </u>				<u> </u>		
3. PROPOSED USE				•			
☑ Domestic ☐ Irrigation ☐ Test	9. I	LITHOL	.ÒGIC I	-OG			
	Hole	De	pth		·-··	W	ater
☐ Municipal ☐ Industrial ☐ Stock	Diam.		То	- Material			No
<u></u>	6	0	4	SANDY TOPSO	<i>i'</i>	 	>
4. METHOD DRILLED		51	380	SAND-GRAUC	L Mixet	,	\mathbf{x}
				BLACK LAVE !			X
☐ 🔁 Cable 🗆 Rotory 🗆 Dug 🗆 Other				BROWN CLAY			X
	:			SAND		\searrow	
5. WELL CONSTRUCTION.				SMALL A MOUN	17 OF	<u> </u>	
				WATER			
Diameter of hole inches Total depth feet		140	163	SANDY BROWN	1 CLAY	\perp	\geq
Casing schedule:		163	125	BLUNG CLBV	, ,		\bowtie
Thickness Diameter From To			181	BROWN CLA SAND STONE) <u>/</u>		<u>×</u>
inches feet fee	<u> </u>	181	120	SAND STONE	BROUN	\Rightarrow	ļ
		190		BROW N SAI	UP	ϫ	┵-
inches inches feet feet feet feet		<u> </u>		<u> </u>		+	↓ _
inches inches feet feet	Ļ	ļ .				 	ļ
Inches reer	 						
Was a packer or seal used? ☐ Yes 🗷 No						<u> </u>	
Perforated?		-	ļ <u> </u>			+	_
How perforated? ☐ Factory ☐ Knife ☐ Torch	<u> </u>						
Size of perforation inches by inches	} -	 			<u> </u>		┼
Number From To	\vdash			· · · · · · · · · · · · · · · · · · ·		+	+-
perforations feet feet	_	 				+	+
perforations feet feet					-	+ -	
perforations feet feet			 	· · · · · · · · · · · · · · · · · · ·		+	†
						1	\dagger
Well screen installed? ☐ Yes 🗷 No							
Manufacturer's name				•			
Type Model No feet to feet					·	<u> </u>	<u> </u>
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet				OCTT9	<u> 5</u>	<u> </u>	<u> </u>
Diameter Slot size Set from leet to leet to teet	ļ					<u> </u>	ļ
Gravel packed? ☐ Yes 🗷 No Size of gravel	<u> </u>		ļ			+-	—-
Placed from feet to feet						+-	┼
1000 1011		<u>-</u>				+	
Surface seal? ✓ Yes ✓ No To what depth ✓ 20 feet	\vdash		 	······································	·	┼	┼─-
Material used in seal Cement grout Republies Puddling clay	1.					+	\vdash
*	<u> </u>		ļ			+	
6. LOCATION OF WELL			<u> </u>			4	
Sketch map location must agree with written location.	10.						
N		lark sta	rtod De	2C115-69 finished	000.22	-4	9
		OIK Sta	1 100 92 4	C770 D 7 milanou			
	i						
	11. [DRILLE	R'S CE	RTIFICATION			
WE	T	his well	l was dri	illed under my supervisijon a	nd this report	is	
	t	rue to t	he best	of my knowledge. 🌙 🎉 🕟			
	1			γ), τ		_	
(03 1 s	1	<u> 4e 7</u>	ze1	R WELL DRIL	LING.	<u> </u>	<u>′_</u> Э
· ·							
County CANYON	1	OHE	DA	LE EORHO	 		
	A	ddress	,	A.		_	_
<u> </u>	<i> </i>	بيبدر	10h	& Migu TI	9N,10-	10	<u> </u>
PristericBAesee用stagery 05/0	6/2024	igned By		<u>Crimson Bridge Esta</u>	tes 1954		

STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

WELL DRILLER'S REPORT

 \mathcal{W}

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



1. WELL OWNER	7. WATER LEVEL						
Name _Pat Wallace	Static water level feet below land surface,						
Address <u>Channel Rd. Caldwell, Idaho</u>	Flowing? 🖈 Yes 🗆 No G.P.M. flow <u>5</u> Artesian closed-in pressure <u>2</u> p.s.i.						
Owner's Permit No.	Controlled by: 🖈 Valve 🗔 Cap 🔲 Plug Temperature OF. Quality Describe artesian or temperature zones below.						
2. NATURE OF WORK	8. WELL TEST DATA						
☑ New well ☐ Deepened ☐ Replacement	☐ Pump ☐ Bailer						
 Abandoned (describe abandonment procedures such as materials, plug depths, etc. in lithologic log) 	Discharge G.P.M. Pumping Level Hours P	umped					
	100 100' 1						
3. PROPOSED USE	At the state of th						
X Domestic Irrigation Test Municipal	9. LITHOLOGIC LOG 86303	9					
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other (specify type)	Bore Depth Diam. From To Material	Water Yes No					
	8 0 10' Sand & Clay	X					
4. METHOD DRILLED	8 10' 20' Sand & Gravel	<u> </u>					
🗶 Rotary 🖫 Air 🗆 Hydraulic 🗆 Reverse rotary	6 20' 30' Sand & Gravel 6 30' 90' Sand & Clay layers	<u> </u>					
☐ Cable ☐ Dug ☐ Other	6 30' 90' Sand & Clay layers 6 90' 116' Sand	- x					
E WELL CONCEDUCTION	6 116 120' Clay	×					
5. WELL CONSTRUCTION	6 120 140 Sand	- x -					
Casing schedule:		+					
Thickness Diameter From To							
inches 6 inches + feet feet feet feet feet							
inches inches feet feet		+					
inches feet feet		1 1					
Was casing drive shoe used?							
Was a packer or seal used? □ Yes 抠 No Perforated? □ Yes 抠 No							
How perforated? Factory Knife Torch		++-					
Size of perforation inches by inches		+ +-					
Number From To							
perforations feet feet feet							
perforations feet feet feet		+					
Well screen installed? ☐ Yes	Total Control of the	, 					
Manufacturer's name	Nation Title						
Type Model No Diameter Slot sizeSet from feet to feet							
Diameter Slot size Set from feet to feet	TOTAL PROPERTY OF THE PARTY OF	 					
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel	MEDITO IN	+ + -					
Placed from feet to feet Surface seal depth20 * Material used in seal: □ Cement grout							
Bentonite Puddling clay	MAR 26 1986						
Sealing procedure used: 🗆 Slurry pit 🗀 Temp. surface casing		+ +-					
✓ Overbore to seal depth Method of joining casing: □ Threaded ✓ Welded □ Solvent	Department of Water Resources						
Weld	of Argen Resoffices	 					
☐ Cemented between strata	1044						
Describe access port	10. Work started <u>11-21-85</u> finished <u>11-22-86</u>	6					
6. LOCATION OF WELL	11. DRILLERS CERTIFICATION QS						
Sketch map location must agree with written location.	I/We certify that all minimum well construction standa	ards were					
N Subdivision Name	complied with at the time the rig was removed.						
	Firm Nameill Doty Drilling & Pump Co.	12					
W = = = = = = = = = = = = = = = = = = =							
	Address Route 7 Box 311 Date 3-13-86	5					
Lot No Block No	Signed by (Firm Official)						
S	and						
County Cangon	(Operator) Bob Joh						
NE 1/2 SW 1/4 Sec. 10, T. 4 (D/S, R. 3 E/W)	(Specialist)						
,,							

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D <u>0070387</u>	12. S	TATIC V	VATER	LEVEL and WELL TESTS:		
Drilling Permit No. 971324 - 877 381	Depth	first wat	er encou	untered (ft) 182 Static water level (ft)	74	
Water right or injection well #	Water	temp. (°	F) 6	Bottom hole temp. (°F)		
2. OWNER: Suprese Homes				Soni Seal Well Cap		
Name	Wellt		 	Test method:		
Address P.O. BOX 414		/down (feet		charge or Test duration Rump Bailer		lowing
City Star State Fd. Zip 83669		180	· Y16	aid (gpm) (minutes)	" a	rtesian
3.WELL LOCATION:	1	20		0 160		
	Water	quality t	, t	omments:		
Twp. 9 North or South Rge. 3 East or West		-		and/or repairs or abandonment:		
Sec	Bore Dia.	From	То	Remarks, lithology or description of repairs or	Wi	ater
Gov't Lot County Conyon	(ln)	(ft)	(ft)	abandonment, water temp.	Y	N
Lat. 43 ° 4/1:743 (Deg. and Decimal minutes)	10	0	5	70p So21		
111.00 mg		5	12.	Cemented gravel	<u> </u>	
Long. 16 ° 41.333 (Deg. and Decimal minutes) Address of Well Site 27.304 Bigloon Way		12,	57	Blk solid Yava	ļ	
	10	5%	70	graves	 	
(Give at least name of road + Distance to Road or Landmark) City Caldwall		70	74	Red Cinders	 	
Lot. 16 Blk. 3 Sub. Name Taylor Ridge	-	100	07	Brack By Sand	 	-
4. USE:	 - - - - - - - - - 	97	125	By Clay & Sand	 	
Themal Injection	 	125	129	Fine Bry Sand	+	
Other		129	122	Shirk I Drachy	 	
5. TYPE OF WORK:		137	137	Fire Bre Sand	†	
New well Replacement well Modify existing well Abandonment Other		137	158	Bro Clay		
6. DRILL METHOD:		158	162	Fracture & Brig Blue clas	J	
Air Rotary Mud Rotary Cable Other				EFine Sand		
7. SEALING PROCEDURES:		162	174	Bre Clay		
Seal material From (tt) To (ft) Quaptity (lbs or ft') Placement method/procedure		174	182	Fracture & Bracky		
38 Best O 48 20 Bags Dry Pour		183	185	Tone Bra Sand		<u> </u>
	<u> </u>	185	187	Sandy Clay	ļ!	
8. CASING/LINER:		187	190	Fine Sand		
Diameter From To (ft) Gauge/ (nominal) (ft) To (ft) Schedule Material Casing Liner Threaded Welded	-	120	120	Sandy Braclay	<u> </u>	
6 +2 301-8'250 Steel 0 0 0		100	222	FIRE Bin Soud		
	 - - - - - - - - -	202	120	Line Sand (white)		
		SUM	101	pricesore (write)	-	<u> </u>
		-				<u> </u>
				DECEIVED		
Was drive shoe used? ☐ N Shoe Depth(s) 30/-8"				MEUEIVED		
9. PERFORATIONS/SCREENS:				NOV. o. c. oo.		
Perforations Y N Method				NUV 2 5 2015		
Manufactured screen Y \ \ \ N Type \ \ \ Solin Sor \				WATER RESOURCES		
Method of installation Wash DW Valve				WESTERN REGION		
					<u>l</u>	
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Comple	eted Dept	th (Measi	urable): 2094.		
204 209 12 6" Tele S.S.	Data S	tarted: /	11/10	3/15 Date Completed: ///8	1/1	 >
	h		SCEPT	TIFICATION:		
				imum well construction standards were complie	d with a	at
Length of Headpipe Length of Tailpipe	the tim	e the rig	was ren	noved.		
Packer TY N Type 3 Rob	Comp	any Nam	e Dre	ciSionWelldrilliago. No. 5	-22	
	·		10	110	101	
10.FILTER PACK:	*Princi	pal Drille	r <i>() ()</i>	William Date //	441	<u>ا</u>
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller	. [],]]	Kin	50 m Date //	121/1	/5
		Π			7	
	*Opera	ator II,	7	Date		
11. FLOWING ARTESIAN:	Operat	tor I		Date		
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Class	atura of	Dringin	al Driller and rig operator are required.		
	-21UH	usus C UI	· IIIIGIDA	ar princi ana ny operator ale regulet.		

Describe control device _

43

RECEIVED

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

SEP 2 2 2015

WATER RESOURCES WESTERN REGION

1. WELL TAG NO. D. 0070/66	12. STATIC WATER LEVEL and WELL TESTS:										
Drilling Permit No. 470358 -876415	. Depth first water encountered (ft) 462 Static water level (ft) 78										
Water right or injection well #	Wate	er temp. (^o	F) (Bottom hole temp. (°F)							
2. OWNER: Aaron Dickson	Desc	ribe acce	ss port	San Seal well Ca	حر						
Name	Well										
Address P. O. BOX 732	Dra		lowing rtesian								
City Mar Sincy State Td. Zip 83639		225 220 (ginutes)									
3.WELL LOCATION:	-	80	1//	a spis							
Twp. 4 North or South Rge. 3 East or West	- Wate	r quality t	est or co	omments:							
	13. LI	THOLOG	IC LOC	3 and/or repairs or abandonment:							
Sec1/4	Bore Dia.		To	Remarks, lithology or description of repairs or	W	ater					
Gov't Lot County <u>Corryon</u>	(in)	(ft)	(ft)	abandonment, water temp.	Υ	N					
Lat. 43 ° 4/: 745 (Deg. and Decimal minutes)	10	0	8	70P Soil	ļ						
Long. 1/6 ° 4/2 345 (Deg. and Decimal minutes)	-	18	40	Solid Lava							
Address of Well Site 22320 Bra 1000 Way	1	40	27	Fractured lava							
	(0	137	90	Blue / Braclax							
(Give at least name of road + Distance to Road or Landmark) City (City		01	70	Grave I	-						
Lot. 15 Blk. 3 Sub. Name Taylor Ridge		15/	80	Eng Rue Sand							
4. USE:		100	88	Sandyclax	***************************************						
Domestic Municipal Monitor Irrigation Thermal Injection Other		88	93	med Res Good 10/0 v							
		93	95	Fine Brasand							
5. TYPE OF WORK: ☐ New well ☐ Replacement well ☐ Modify existing well		95	96	Braclas							
Abandonment Other		96	10%	FineBrnSand							
6. DRILL METHOD:		102	108	Braclax							
Air Rotary Mud Rotary Cable Other		108	124	Fine Sandy clay	ļ						
7. SEALING PROCEDURES:		134	127	Braclay	<u> </u>	_					
Seal material From (ft) To (ft) Quantity (lbs or ft*) Placement method/procedure		12/	195	Sindy Clay							
48 but 0 61 29 bags Dry Pour		122	150	Blue & Braclay mixed							
	-	150	170	med Bra Sand 10 gpm							
8. CASING/LINER:		170	170	Bra Clas	\vdash						
Diameter From (nominal) (ft) To (ft) Schedule Material Casing Liner Threaded Welded		1772	154	Sordy Clar							
6 +2 223 250 Steel & 0 0 B		184	188	Dark Brachy							
		188	191	Fine Brn Sand							
		191	194	Braclas							
		194	212	Sandy Clay							
		212	215	Bricky							
Was drive shoe used? ☑Y ☐N Shoe Depth(s)		315	3/10	Fine By Sand							
9. PERFORATIONS/SCREENS:		200	373	1500 C/04							
Perforations		125	235	Fine fred Sandwhite							
Manufactured screen ☑Y ☐ N Type <u>Solution</u>											
Method of installation 1985 DN-Valve											
From (ft) To (ft) Slot size Number/ft Diameter Material Gauge or Schedule				222-51	11						
(nominal)	Comp	leted Dept	h (Measi	urable): 3.35 TT-	-						
27573515 6" Tele S.S.	Date S	Started:	8,	//8//5 Date Completed: 8/26	115	>					
				TIFICATION:							
		certify tha ne the rig		imum well construction standards were complie	d with a	at					
Length of Headpipe 5-8 Length of Tailpipe 0		•		, ,							
Packer X N Type 3-KiB	Comp	any Nam	410	cisionlessidealingco. No. 5	22						
10.FILTER PACK:	*Princ	ر elipal,Dgille	\mathcal{L}	Dellasser Date 8/	1291	115					
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method		////	11 / 1	7 /	1						
	*Drille	" 444	MO	Date							
	*Oper	rato(II ^L L		Date							
11. FLOWING ARTESIAN:	Onacc	atme !		Pala							
	Opera			Date							
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Sigr	nature of	Principa	al Driller and rig operator are required.							
Describe control device											



1. WELL TAG NO. D 0073048 Drilling Permit No. 974364 - 88042	12. STAT	TC WA	ATER	LEVEL ar	nd WELL TES	TS:				
Drilling Permit No. 974364 - 88042	Depth first water encountered (ft) 252 Static water level (ft) 78									
Water right or injection well #					Bottom ho				_	
2. OWNER: Lital +man Homes	Describe a	access	port s	Some	Seal L	well (Cap			
Name	Well test:					Test me	ethod:			
Address 14233 Silver Ridge Rd.	Drawdown	n (feet)		charge or ld (gpm)	Test duration (minutes)	Ритр	Bailer /		owing ealan	
City Coldwell State Id. Zip 83607	220	2		10	Ihr.		□ 4	3 (
3.WELL LOCATION:	160)	10	0	Ihra					
Twp. 4 North or South Rge. 3 East or West	•	-		mments: _						
Sec. 10 114 W 114 SW 114	Rom		_	1	epairs or abai			184-4		
~	Dia.	rom (ft)	To (ft)	Remark	s, lithology or des abandonment, s	icription of r water temp.	epairs or	Wat	N	
Gov't Lot County Control	(ln) 12 C	2	4	700	Sorl					
Lat. 43 0 4/5 787 (Deg. and Decimal minutes)	1 5		8	Hrd	Donéc	lax				
Long. 6 0 9/3 372 (Deg. and Decimal minutes)	1 8		14	Source	ix clas					
Address of Well Site 32337 By Loon Woy		4 2	3/	Cen	rested c					
(Give at least name of road + Distance to Road of Landmark) City Coloured City	10 2	3/ 5	13	BK	Lava 19	areq	rovel			
Lot 23 Blk. 2 Sub. Name To ylor Ridge	1 9	3 5	15	1310	elos		,			
4. USE:	16 4	5	<u>75</u>		ented c			-		
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection	1	25 7	92	Real	dyclas					
Other	9	3 /	135	Zmin	bered m	10 4-1	and			
5. TYPE OF WORK:	7:	38	14/	Fruch	wed Bl	Le E	200			
New well Replacement well Modify existing well Abandonment Other	14	11/	148	Clay			t Sand	-		
6. DRILL METHOD:	14	8/	'57	Brot	Clax		1000			
☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other	10	7/	58	Fras		Jue o		/		
7. SEALING PROCEDURES:			77.1	E 7-40	c Soud					
Seal material From (ft) To (ft) Quantity (ibs or ft [*]) Placement method/procedure	- 6	58/	01	1-100	Level !	STACI	121			
3/8 best 0 52 53 bags Dry Pour		72	/5	Bro	Chi	1700	care			
		-5/	182	1200	Bras	and				
8. CASING/LINER: Diameter From Type (a) Gauge/) Meladat Casing Lines Throughd Welded	18	32	25	Bri	Clay			9		
(nominal) (ft) Schedule Material Casing Liner threaded Welded	10	55/	194	Bin	clay &	Sand		-28		
6 +2 231-4"250 Steel 0 0		141	197	Bra	class				_	
	19	72	300	-	Bin So	ad				
	100	0 1	02		Clay	. 10	://			
	100	15 6	215	Cours	e Brn So	12 C.S.	11-1			
Was drive shoe used? ☐ Y ☐ N Shoe Depth(s)	12		217	Pour	50 65/4	× S1	en of			
9. PERFORATIONS/SCREENS:	2	17	214	Bres	Clay		<u> </u>			
	21	19 7	329	Cour	se Bin	Sand.	Sifty			
Perforations Y N Method	3.	19:	731	Bin	Clax					
Manufactured screen Y N Type SolmSon	3.	3/ 2	<u> 237</u>	med	IFME S	sad (c	<u>N2540</u>	2-		
Method of installation <u>LOOSA DN- Valve</u>									_	
From (R) To (R) Slot size Number/R Diameter (nominal) Material Gauge or Schedule	Completed	Depth	(Meast	urable):	237	44.				
232237 12 6" Tele SS	Date Starte	ed:	8-2	23-1	6 Date Co	mpleted:	8=21	2-/	6	
			CERI	IFICATIO						
					construction sta	andards we	ere complie	d with a	t	
Length of Headpipe 5 - 8 Length of Tailpipe	the time th	ne rig w	/as ren	noved.						
Packer PY N Type 3-Rib	Company	Name	De	050	r Welldi	28/130 C	o. No. <u> </u>	22		
10.FILTER PACK:	*Principal	Driller	Po	000	20 00	- / D	ate _	- 7-/	16	
Filter Material From (ft) To (ft) Quantity (lbs or ft²) Placement method	1 molpai	//11 2	77		Charce s		a	7.11	1./	
	*Driller	44	Цап	som			Date	1-/	d	
	*Operator	H)ate		/	
	, ,			East miles				_	/	
11. FLOWING ARTESIAN:	Operator i	_		RE	CEIV	ED	ate		/	
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Signatu	re of P	rincip	_	ind rig operato		ired.		/	
Describe control device	2/2024				SEP 21 2	016	ار ع ددا ه	/		
निांडाक्रां अविद्यानिवाक्षका 05/06	6/2024			WA'	mson Bridg TER RESOUR STERN REG	CES	rs qiyy4	/		

43

1. WELL TAG NO. D D0076934 Drilling Permit No. 976983 - 883040									12	STATIC I	MATE	OLEVEL ~	nd WELL TEST	re.			
Drilling	Permit I	No	1760	183 -	8831	040	2)St		level (fi	82'	
									\\/at	ertemp (oe Col	d	Bottom bole	tomp /0	E/		
2. OWN	IER:								Doe	ribe acce	ec port	6" Turtle	Bottom hole	s temp. (· /		
Name	Green	castle	Homes	S						test:	saa puit		<u>-</u>	Test m			
Addres	s P.O.	Box 2	13							wdown (fee		ischarge or	Test duration	Pump		A in	Flowing
City S	ar			Sta	te Idaho) 7	n 8366	9	110		. \	ield (gpm) GPM	(minutes) 1 HR.	-	_	Air	artesian
3.WELI				010			Р		— <u> </u>	<u>'</u>	30 (31-141	II FIK.			H	
					- 3	_	. —		— Wate	r quality	test or o	omments:			_	ш	П
1wp. <u></u>	No	rth 🔀	or Sou	th	Rge. U	Ea	st 📙 o	or West	13 1				repairs or aban	donmen	dr.		
Sec. 10			10 acres	_1/4 = 14 0 1	1/4 cres	180 acre	1/4		Bore		To		ks, lithology or des			\top	Water
Covitio		_	Cinnt, Ci	anyon N W					Dia. (in)	(6) (6) shandannant water term						Y	
43	· ——	0	41.784'	'N					10"	-		Top So					X
Lat. 1	16		1 334"	\/\		(Deg.	and Decin	nal minutes)		2		Sand &				\top	X
Long. <u>'</u>	-	22	3/8 Bic	Loon \	May	(Deg.	and Decin	nal minutes)		10	47	Lava R	ock				X
Address	of Well	Site <u>44</u>	טיים טוני	LOUIT	Coldin	الم			6"	47	72						X
(Give at least	name of road	+ Distance to	Road or Lands	City	Caldw	ell			_	72	98		Brown Clay				X
(Give at least name of road + Distance to Road or Landmark) Lot. 14 Blk. 3 Sub. Name Taylor Ridge Sub.										98			Clay w/ Sand			X	
4. USE:										160		Clay				\perp	Х
		Municip	al 🔲 N	Nonitor [Irrigation	n 🗖	Thermal	☐ Inject	tion	165		Tan Cla	ay				Х
Other									_	194	223	Sand				X	
5. TYPE									-	-	-	-				+	
				ell 🔲 M		ting wel	1		-	-	-	-					
			ther						_	+	-	-				+	
6. DRIL					П				-	 	-						+
				X Cable	☐ Oth	ner			-								_
7. SEAL	ING PF) Quantity	(lba as A3)	Diagon	nant math	al farment at the	_ —	-	+	-					+-
	entonit) lbs. 1				<u> </u>	+	-		DECELL	/ED		+	_
0,0 -			1.0	1100	7 100.	-	VCI DOI		\dashv	+			RECEIV	VED			+-
			1		1				_	+			AUG 0.0	0047		-	
8. CASI Diameter			Gauge/	r								1	AUG 03	201/			+
(nominal)	From (ft)		Schedule	Mate	rial			aded Weld		1		1	VATER RESO	LIBOES		+-	+
6"	1.5	210	.250	Steel		X						V .	WESTERN R	EGION		\top	
5"	206	211	.258	Steel			\boxtimes	X									
5"	221	223	.258	Steel			× [_
				01001													
						_											
Was driv	e shoe ι	ised? ≥	IY □	N Shoe D	epth(s) _	210'			_								
9. PERF	ORATI	ONS/SAC	REENS	:													
Perforati	ons 🔲	Y 🗵 N	Method	11					_								
Manufac	tured sc	reen 🗵	ΥΠN	Type Jol	nnson					-						\bot	
Method	of inetalls	tion Pu	illback	75					_	-		-				\bot	
			T	Diameter	T				5 -	<u></u>							
From (ft)	To (ft)	ļ	Number/f	(nominal)	Mate		Gauge	or Schedule	Comp	leted Dep	th (Meas	surable):	223'				
211	221	.015	10'	5"	Stainle	ess	304		Date	Started: Ju	ıl 18, 2	017	Date Com	_{niotod} .Jul	26, 20	117	
									17 St. 14 E			TIFICATIO		pieteu.			1000
													construction star	dards we	re comp	lied wit	h at
Length o	f Headni	ne 5'		Lend	th of Tails	nine 2.	1		the ti	ne the rig	was re	moved.					
Dacker i	ਹਾ v	N Tune	Rubbe	er K-Pa	cker	,,pc			— Comi	any Nam	, Den	nis Phip	ps Well Drilli	ng In 😞	. No 3	32	
									_			-111	11 _				47
10.FILT						- 1			*Princ	cipal Drille	er	1824	h	0	ate Jul	27, 20	17
	Material	Fror	m (ft) T	o (ft) Qu	antity (lbs o	rft³)	Placem	ent method	*Drille	ar .	- 1		10	n	lato		
	N/A								- Dillik	***************************************	AA	111/	/		ate	27 22	17
									*Ope	rator II	MA	N 44		D	ate Jul	21, 20	1/
11. FLO	WING A	RTESI	AN:	<u> </u>					ســـ Open	ator I	11.	Mes		ח	ate		
				tesian Pre	eeura /DG	:IC)			•								
					Joure (FC	,,,,,,			– * Sig	nature of	Princip	al Driller a	nd rig operator	are requi	ired.		
Describe	CONTROL	revice _							_								



1. WELL TAG NO. D D0071647										_ 12. STATIC WATER LEVEL and WELL TESTS:								
Drilling Permit No. 971 908 - 817465										Depth first water encountered (ft) Static water level (ft)								
											er temp	oe Co	odinered (it) Static v	rater rever (II)				
0.0110										Doe	cribe aco	oce nod	Bottom hole tem	p. (r)				
Name	Green	castle	Homes								i test:	ess pon			-			
	$P \cap$	Bay 2	12						_		wdown (fe	at) (Discharge or Test duration	st method: imp Bailer	Ala	Flowing		
City S	ar			Sta	_{ite} Idaho	7	_{rin} 83	669		95		o.,	yield (gpm) (minutes)		AIT 1	arteslan		
	LOCA					_ '	P —			. 33		742			H			
			0- 1	. =	- 3	_	. —			Wat	er quality	test or	comments:		ш	_		
- 10	NO	nn (X)	or Sout	N/V	Rge. 3 / 1/4 5	E; 3\A/	ast 📙	OF	West 🔀	13. L	-		G and/or repairs or abandons	ment:		_		
										Bon	Emiro				W	ater		
Govitto	t	C	ounty Ca	anyon						Dia (in)	(m)	(n)	abandonment, water to	amp.	Y	N		
Lat 43	`	0.4	1.7941	N		/Dec	and D	Arimal m	doutes	10			Top Soil			X		
100g 116 041.371'W (Dec. and Decimal minutes)											4	9				X		
Gov't Lot County Canyon Lat. 43 □ 41.794'N (Deg. and Decimal minutes) Long. 116 □ 41.371'W (Deg. and Decimal minutes) Address of Well Site 22396 Rams Horn Way											9		Gravel		\bot	X		
Caldwell										·	12		Lava Rock Brown Clay		-	X		
(Give at least name of road + Distance to Noad or Landmark) City Caldwell Toucker Birton Code											46		Cemented Gravel		-	X		
Lot 22 Bik. 3 Sub. Name Taylor Ridge Sub.											58		Brown Clay			X		
4. USE:											68		Sandy Brown Clay		+	 x		
☐ Other	estic L	J Municip	el ∐ M	lonitor L	_ Imigation		Them	nal 🗀	Injection	`	78		Fine Sand		+	X		
5. TYPE											85		Sandy Brown Clay			X		
			ement we	и Пм	odify existing	na we	ulf				112		Brown Clay			X		
Aban	donment	O	her			ng tre					139		Sand w/ Clay Streaks		Х			
6. DRIL	L METH	IOD:									151		Grey Clay			X		
X Air R	otary (☐ Mud I	Rotary	X Cable	☐ Othe	er				-	153 157		Fine Sand		X			
	7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (ibs or ft') Placement method/procedure												Sandy Brown Clay		1	X		
	material entonit			Quantity	(lbs or ft²)	Place	ment m	ethod/pn	ocedure		180		Sand w/ Clay Streaks		X	ļ.,		
3/0 0	entoriit	e U	45	1000) lbs. 10	U . C	vero	ore		-	197		Sandy Clay Coarse Sand		-	X		
										l	203	213	Coarse Sand		X	-		
8. CASI			Gauge/								+-	_			+	-		
Diameter (nominal)			Schedule	Mate			_		Welded		1	+			-	-		
6"	2	199	.250	Steel		X			×			+						
5"	197	202	.258	Steel			X		X				RECEIV	FD		1		
5"	212	213	.258	Steel			X		×									
													APR 15 2	nis				
1Alon driv	0.0000.		Y DN	l Chan D		199'		_	_		+	-	MIK 13 E	<u> </u>	1	<u> </u>		
					epui(s)					-	-	-	WATER RESOUR	CES		ļ		
			REENS:							_	+	┼	WESTERN REG	NON	+-			
			Method								1	-	-			 		
Manufac	tured sa	reen 🗵	Y 🔲 N	Type JOI	inson							1			-			
Method o	of installa	ation Pu	IIDack															
From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)	Materi	ed	Ga	uge or So	chedule	Com	pleted Der	wh /Man	euroble): 213'					
202	212	.020	10'	5"	Stainle	SS	304						surable).	Mar 14 20	116			
				 						-	Started: F			1: IVIAI 14, 20	710			
				 			┼						RTIFICATION: nimum well construction standard		مالالدة اسما	-4		
Length o	f Llandai	5'	l	1	th of Tailpi	1	 			the ti	me the rig	g was re	nimum wen construction standard emoved,	s were compi	led Will	at		
Lengin o	r neadpi	pe <u></u>	Rubbe	Leng	nn of Talipi cker	pe <u>'</u>				0		- Der	nnis Phipps Well Drilling I	n 37	32			
				. IVI G						Com	pany Nan	ne	201. /)	_	_			
10.FILT						. [_			*Prin	cipal Drill	er /	MM The	Date Mar	16, 20	16		
	Material	From	n (ft) To	o (ft) Qu	antity (lbs or	117)	Ptac	ement n	nethod	.Dull	er l	1	1m	Date Mar 16, 2016				
<u> </u>	N/A											A.						
										J *Op€	rator (1 🚅	110	/AUN	Date Mar 16, 2016				
11. FLO	WING A	RTESI	AN:							Oper	ator I		<u></u>	_ Date				
Flowing Artesian? Y X N Artesian Pressure (PSIG)									* 614	nature c	f Drice!	pal Driller and rig operator are i	mauierd .					
Describe	control	device 🖺		-						Olg	······································		her miner and till oberator gie i	edniian'				

1. WEL	L TAG I	10. D	007164	46						12.5	TATIC V	VATER	LEVEL and WELL TESTS:					
Drilling	Permit I	No. 97	186	4-	8 77	92	-/			Depth first water encountered (ft) Static water level (ft)								
							_				ctomn (⁰	E Cok	Rottom hole temp. (°E)	rei (it) _	-			
2. OWN	ER:									Desc	rihe acce	ee nort 6	Bottom hole temp. (°F)			_		
Name	Green	castle	Homes							- Desc - Well		33 POIL_	Test meth					
Addres	_s P.O.	Box 2	13							-	vdown (fee		scharge or Test duration		Alr F	lowing		
City S	ar			St	_{ate} idaho	,	in 83	669		150		. AH	eid (Sbut) (unuruses)		&	rtesian		
	LOCA									- 100		00.						
			on Coul	. —	n 3	_			atest 🖂	Wate	quality t	est or co	omments:		_	_		
c 10	140	INI EN	or Souli	114 NV	Rge. 3 V 1/4	รพ์	ası 🗀	. OF 1	AAGS! [V]	13. LI	THOLOG	IC LOG	and/or repairs or abandonment:	- 0000				
Sec			10 acres	1/4 -10	ucres 1/4	150 acr	1/4)		Bore Dia.	From	То	Remarks, lithology or description of repa	airs or	Wi	ster		
Gov't Lo	t	C	ounty Ca	nyon						(in)	(ft)	(ft) (ft) abandonment, water temp.						
Lat 43		o 4	1.829'	V	Way	(Dec	ı, and D	· ecimal m	inutes)	10"	0		Top Soil			X		
Long, 1	16	04	1.346'V	٧		(Dec	and D	ecimal m	inutes)		8		Brown Clay Clay w/Gravel		↓ —	X		
Address	of Well	Site 223	383 Big	Loon	Way		60		,		15		Lava Rock			X		
				Ci	, Caldw	ell				6"	39		Gravel		1	X		
City Caldwell Lot. 13 Bik. 3 Sub. Name Taylor Ridge Sub.											44		Brown Clay		-	X		
											51		Gravel	(0.0)	_	X		
4. USE: ☑ Domestic ☐ Municipal ☐ Monitor ☐ Imigation ☐ Thermal ☐ Injectio											63	76	Brown Clay			Х		
Othe		i wanicip	ei Ciwi	OI III OI			men	iidi Ļ	1 mjecno	"	76		Sand		Х			
5. TYPE		RK:									81		Sandy Clay w/ Sand		X			
X New	well [Replac	ement wel	I 🗆 N	Modify exist	ing w	ell				146		Brown Clay		igsquare	X		
☐ Aban	donment	☐ Ot	her							-	175		Sandy Clay			Х		
	L METH										178	190	Sand		X			
				☐ Cabi	• Ott	er_				-	-					-		
7. SEA	ING PR			LOugasia	(lbs or ft²)	Disco	ment m	athadian	2000	,	-				+	-		
	entonit		40	7	0 lbs. 1				Joseph	1	 							
			+-	1						1	1		RECEIVED					
8. CASI	NG/LIN	<u>'</u>						-		- I								
	From (fl)		Gauge/	Mai	erial (Casino	Liner 1	Threader	l Welded				FEB 2 4 2016					
(nominal)	2	178	.250			X			×									
5"							\boxtimes	_	X		 		WATER RESOURCES WESTERN REGION		\perp			
5	175	180	.258	Steel		=	_			-	 		TESTERN REGION					
										-	 				+			
															\vdash			
Was driv	e shoe L	sed? 🗵	Y 🗆 N	Shoe (Depth(s)	178	3'											
9. PERI	ORATIO	ONS/SC	REENS:												\Box			
Perforati	ons 🗖 '	Y X N	Method															
			Y 🔲 N		hnson		-											
Method				.,,,,,						·	ļ				1			
				Diamete	rl					;	l		100		Ш	l .		
From (ft)	To (ft)		Number/ft	(nomina) Mate		, 	uge or Sc	chedule		eted Dept							
180	190	.015	10'	5"	Stainle	255	304			Date S	Started: Fe	eb 15, 2	2016 Date Completed: Feb	18, 201	16			
				ļ			╄			14. D	RILLER'	S CERI	RFICATION:					
				<u> </u>									imum well construction standards were	complie	ed with a	at		
Length o	f Headpi	pe <u>5'</u>		Len	gth of Tail;	oipe 🗓	7"				ne the rig				_			
Packer	X Y	N Type	Rubbe	r K-Pa	acker					Comp	any Nam	e <u>Denr</u>	nis Phipps Well Drilling In Co. I	No. 332	2			
10.FILTER PACK:													Date			16		
Filter Material From (ft) To (ft) Quantity (ibs or ft ²) Placement method									nathod	1								
	N/A	_								Drille								
		_				\dashv				*Oper	ator II	-6-	Date Date	e <u>Feb 1</u>	19, 201	16		
11. FLO	WING 4	RTESI	AN:							_	itor i		Date					
				ecian D	pecura /PG	31G) =				•						_		
	lowing Artesian? Y N Artesian Pressure (PSIG)									* Signature of Principal Driller and rig operator are required.								
	- will of	501100								,								

63

1. WELL TAG NO. D D0086811	12. STATIC WATER LEVEL and WELL TESTS:								
Drilling Permit No. 394603	Don'th first water encountered (#) Static water level (#) 72'								
Water right or injection well #	Motor	tomp (0)		Bottom hole temp. (°F)					
2. OWNER:	Dogori	bo occor	20 004	6" Turtle Cap					
Name Pioneer Homes	Well to		ss port_						
Address 719 1st St. South B City Nampa State Idaho Zip 83651		down (feet	Dis	Scharge or Test duration Pump Bailer	۸: <u>.</u> F	lowing			
City Nampa State Idaho 7in 83651	120'	40WIT (1661)	60 G	aid (gpm) (minutes)	_	rtesian			
3.WELL LOCATION:	120		00 0		⊠ □				
	Water	quality te	est or co	omments:	ш	Ц			
Twp. 4 North ☑ or South ☐ Rge. 3 East ☐ or West ☒ Sec. 10				and/or repairs or abandonment:					
Sec. 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	Bore	From	To	Remarks, lithology or description of repairs or	W	ater			
Gov't Lot County Canyon	Dia. (in)	(in) (ft) (ft) abandonment, water temp.							
Gov't Lot	10"	0	2	Top Soil		X			
Long. 116 o41.343'W (Deg. and Decimal minutes)		2	4	Hard Pan		Х			
Address of Well Site 22414 Big Loon Way		4		Gravel		Х			
Caldwell	-	8 36		Lava Rock	-	X			
(Give at least name of road + Distance to Road or Landmark)	-	40		Red Cinders Tan Clay		X			
City Caldwell Lot, 12 Blk. 3 Sub. Name Taylor Ridge Sub.	6"	46		Sand & Gravel		X			
4. USE:	<u> </u>	61	4 4 4 7 7 7 7 7 7	Tan Sandy Clay		X			
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection ☐ Other		110		Tan Clay		X			
		129		Coarse Sand	X	<u> </u>			
5. TYPE OF WORK: New well Replacement well Modify existing well		136		Tan Clay		X			
Abandonment Other		152	164	Heaving Sand	X				
6. DRILL METHOD:		164		Sandy Clay		X			
☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other	12"	167		Blue Clay		Х			
7. SEALING PROCEDURES:	6"	174		Tan Clay		X			
Seal material From (ft) To (ft) Quantity (lbs or ft²) Placement method/procedure 3/8" Bentonite 0 40 1000 lbs 10" Overbore	-	175	188	Medium Coarse Sand	X				
1000 1001									
3/8" Bentonite 167 174 250 lbs. 12" Under Reamed	-			D = -					
8. CASING/LINER:	-			RECEIVED	-	-			
Diameter (nominal) From (ft) To (ft) Gauge/ Schedule Material Casing Liner Threaded Welded	_				_				
6" 2 176 .250 Steel 🗵 🗆 🗵				JUL 0 6 2020	1				
5" 165 177 .258 Steel									
				WATER RESOURCES WESTERN REGION					
				- THE GION					
The same shot about. Est I all to those beparits)			_						
9. PERFORATIONS/SCREENS:	-				-				
Perforations Y X N Method	-				-				
Manufactured screen X Y N Type Johnson					-				
Method of installation Washdown									
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	C	4	L /14	urable): 188'		-			
177 187 .016 10' 5" Stainless 304		ted Dept		urable).	20	_			
The state of the s	Date St	arted: Ju	iri 20, 2	2020 Date Completed: Jun 30, 20	20				
				TIFICATION:					
12' 7"		e the rig		imum well construction standards were complice noved.	ed with	at			
Length of Headpipe 12' Length of Tailpipe .7"		•			2				
Packer X Y □ N Type Rubber K-Packer	Compa	iny Nam	e DCIII	nis Phipps Well Drilling In Co. No. 33		_			
10.FILTER PACK:	*Princip	oal Drille	r)	Date Jul 2	, 2020				
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller		-,'						
N/A									
	*Operator II Date Jul 2, 2								
11. FLOWING ARTESIAN:	Operat	or I		Date					
Flowing Artesian? TY X N Artesian Pressure (PSIG)	·		D-: :						
Describe control device	Signa	acure of	Liucib	al Driller and rig operator are required					

1. WELL TAG NO. D 00077561								12. STATIC WATER LEVEL and WELL TESTS:								
Drilling Permit No. 885619								Depth first water encountered (ft) Static water level (ft)								
Water r	ight or inj	ection we	#					Motor	toma (0)	- Cold	Dattara hala	temp: (°F)				
2. OWN	ER:							Descri	be acces	ss port 6	5" Turtle Cap					
Name	Green	castle	Homes					Well to		A.S. S. S.		Test meth	nod:			
		Box 2						Draw	down (feet) Dis	charge or Test duration (minutes)	Pump E	Bailer /		Flowing artesian	
City St	ar			Star	te Idaho 2	_{Zip} 83669		150'		60 G	PM 1 HR.			Z Ĭ		
3.WELL	LOCA	TION:								П						
Twp. 4	No	rth 🗵	or South	n 🗆 🗆	Rge. 3	ast 🔲 or	West X	Water	quality t	est or co	omments:					
Sec. 10				1/4 NW	Rge. 3 E	1/4		13. LIT Bore	HOLOG	IC LOC	and/or repairs or aband	ionment:				
					res 160 ac	es		Dia.	From (ft)	To (ft)	Remarks, lithology or desc abandonment, wa		airs or	_	ater	
Gov't Lo	t	c	ounty Ca	nyon	 			(in) 10"	0		Top Soil			Υ	X	
Lat. 43	10	04	1.8441	<u> </u>	(Dei	g. and Decima	al minutes)	10	2		Sandy Clay				X	
Long. 1	16	04	1.365'V	<u>v</u>	(Deg	g. and Decima	l minutes)		10		Lava Rock			-	X	
Address	of Well	Site 223	897 Rar	ns Hor	n Way			6"	40	64	Gravel				X	
777		- Mariane In		City	Caldwell				64	118	Sandy Tan Clay				Х	
Lot 18	RI	, 2	Sub N	me Tay	lor Ridge S	Sub.			118		Tan Clay w/ Sand Str	eaks		Х		
4. USE:		··	_ 000.11	<u> </u>					161		Tan Clay				X	
		Municip	а Пм	onitor [] Irrigation	Thermal	☐ Injection		180		Tan Sandy Clay				Х	
Other									188		Medium Coarse Sand	1		X		
5. TYPE	OF WO	DRK:						-	214	215	Brown Clay				X	
New '	well [Replac	ement wel	I □ M	odify existing w	ell							_			
Aban			ner	-										-	1	
6. DRIL			Potoni I	T Cable	Other _										-	
				_ Cable										_	1	
7. SEAL Seal	material			Quantity	(lbs or ft ³) Plac	ement method	/procedure	,								
3/8" B	entonit		40		lbs. 10" (
8. CASI	NG/LIN	ER:						'			D.	~				
Diameter	From (ff)	To (ft)	Gauge/	Mate	rial Casing	Liner Threa	ded Welded				H E	CEL	VE.)		
(nominal)	2	202	.250	Steel	X											
5"	197	203	.258					-			M/	AY 18	2018		-	
	-														-	
5"	213	215	.258	Steel							WES	R RESOU TERN REC	RCES		-	
							1 🗆						JON			
Was driv	e shoe ι	used?	Y DN	Shoe D	epth(s) 202	<u>'</u>										
9. PERF	ORATI	ONS/SC	REENS:													
Perforati	ons 🔲	Y 🗷 N	Method													
Manufac	tured sc	reen 🔀	Y 🗆 N	Type Jol	nnson											
Method	of inetalls	ation Pu	llback	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,												
		1		Diameter		T				L	0451		_	<u> </u>	<u> </u>	
From (ft)	To (ft)		Number/ft	(nominal)	Material	<u> </u>	or Schedule	Comple	eted Dep	th (Meas						
203	213	.015	10'	5"	Stainless	304		Date S	tarted: A	pr 25, 2	2018 Date Com	_{pleted:} Feb	27, 20°	18		
								14. DI	RILLER'	S CER	TIFICATION:					
											imum well construction star	idards were	complie	d with	at	
Length o	f Headp	_{ipe} 5.8		Leng	th of Tailpipe	2'			e the rig					_		
Packer	X Y C] N Туре	Rubbe	r K-Pa	cker			Compa	any Nam	e Den	nis Phipps Well Drillin	ng In Co.	No. 33	<u> </u>		
10.FILT								*Princi	pal Drille	r)	MAL	Dat	_e Apr 3	0, 20	18	
Filte	Fror	n (ft) T	o (ft) Qu	antity (lbs or ft3)	Placeme	nt method			\rightarrow	M	Established Articles	(_		
	N/A	_						*Drille			7	Dat				
		_						*Opera	ator II 🏂	de		Dat	e Apr 3	0, 20	18	
44 510	MANING 4	DTEST	L L					<u>.</u>								
11. FLO					(00)0:			Opera	OI 1			Date				
_				esian Pre	ssure (PSIG)	-10-2-2-10		* Sign	ature of	Princip	al Driller and rig operator	are require	ed,			
Describe	control	device 🚆	Helion	minimus—with	07.57											

Form 238-7

\sim		_		~ .												
1. WELL TA	AG N	0. p D	00689	94	an ta	-			12. ST	ATIC W	ATER	LEVEL and WELL TESTS:				
Drilling Per	mit N	o. <u>71</u>	18	14-	8749	<u> </u>			Depth first water encountered (ft) Static water level (ft)							
									Water	temp. (°F	Cold	Bottom hole temp. (⁰ F)				
2. OWNER:	<u>:</u>						····									
Name Hal	Ilmar	rk Hon	nes (B	ryon Sta	ırner)				Well to	st:		Test method:				
A 41-1 24	498	N Str	okesb	errv Pl					Drawo	lown (feet)		charge or Test duration Pump Bailer		lowing irtesian		
City Merio	diain	l 		Stat	e Idaho Z	_{ip} 836	346		180'		60+	GPM 1 HR.	\boxtimes			
3.WELL LC	CAT	ION:														
Twp. 4	_ Nort	th 🗵 d	or Sou	th 🔲 🛚 F	kge. 3 Ea	ast 🔲	or V	Vest 🗵	Water	quality te	est or co	omments:				
_{Sec.} 10	_			1/4 NW	Rge. 3 Ea	1/4			13. LITI Bore	HOLOG	IC LOG	and/or repairs or abandonment:				
					es 160 acre	5			Dia.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Wa Y	ater		
Gov't Lot		C	ounty C	anyon					(in) 10"	0		Top Soil	+	X		
Lat. 43		04	1.908	IN.	(Deg	and De	cimal mir	nutes)		3		Hard Pan		$\frac{1}{X}$		
Long. 116		04	1.350	VV	(Deg	, and De	cimal mir	nutes)		6		Gravel		X		
Address of \	Well S	ite <u>224</u>	HO BI	g Loon v	vay	······································				17	£	Lava Rock		X		
(Give at least name	of road +	Distance to	Road or Land	City	Caldwell	***************************************	~~~~~~			36				X		
Lot. 9	_ Blk	3	_ Sub. I	_{Name} Tay	lor Ridge S	ub.			6"	40	45	Gravel		X		
4. USE:	-									45 50	50 65	Brown Clay	-	X		
▼ Domestic	al 🔲 l	Monitor [Irrigation	Therm	nal 🔲	Injection		65		Gravel Tan Clay		$\frac{X}{X}$				
Other					***************************************					69		Sandy Clay w/ Sand	+	+^		
5. TYPE OI				- II II NA	diffe aviation	. 11				98		Brown Clay	+^-	+		
Abandon	ment	Replac	ement w her		odify existing we	311				101		Sand	X	1		
6. DRILL M					***************************************					105		Brown Clay		X		
			Rotary	☐ Cable	Other					122	1	Sand	Х			
7. SEALING	G PR								4011	132		Tan Clay		X		
Seal mat					lbs or ft ³) Place			cedure	12" 6"	138		Blue Clay		X		
3/8" Ben									-0-	177 180		Brown Clay Sand	+	X		
3/8" Ben		L	1 14	8 250	lbs. 12" C	verb	ore		 	100	131	Janu	+^	+		
8. CASING	LINE	ER:	Gauge/	T							 		_	1		
Diameter (nominal) Fro			Schedule	·			-	Welded						1		
	1.5	178		Steel			Ц	×								
5" 1	76	181	.258	Steel		X		X								
												BECEIVED		-		
Was drive s	hoe u	sed? [X	av 🗆	N Shoe D	17	78'			-			RECEIVED				
9. PERFOR					JP11(0)							MAY 0 4 2015	+-	+		
Perforations											†	MAI U 4 ZUD	1	+		
Manufacture					nson							WATER RESOURCES		1		
Manufacture Method of ir	eu scr	een 🔀	r ∐1 ashdo	v rype <u>551</u> wn								WESTERN REGION				
ivietnod of ir	nstalla		·	15:	·					<u> </u>	<u></u>					
	o (ft)	Slot size	Number	(nonnia)	Material	Ga	uge or So	chedule	Compl	eted Dep	th (Meas					
181 1	191	.015	10'	5"	Stainless	304			-	tarted: A			 015			
												RTIFICATION:				
						1	***************************************		I/We c	ertify tha	at all mir	nimum well construction standards were comp	lied with	at		
Length of H	leadpi	pe _ 5'		Lenc	th of Tailpipe :	5"				ne the rig	•					
Packer X	Υ Π	N Type	_e Rubb	er K-Pa	cker				Comp	any Nam	ne <u>De</u> n	nis Phipps Well Drilling In Co. No. 3	32			
10.FILTER				***************************************						-		Aut Date Apr)15		
Filter Ma			m (ft)	To (ft) Qu	uantity (lbs or ft ³)	Pla	cement n	nethod		ipal Drille						
N//		-		- 1-7					*Drille	г		Date	***************************************			
14//		-						······································	*Open	ator II	Bon	Date	14, 20	15		
44 51 0120	INC 4	(DTEA:	A 51.		,			***************************************								
11. FLOW					,				Opera	tor I		Date				
Flowing Art	esian'	? ∐ Y	X N A	urtesian Pre	essure (PSIG)				* Sign	ature of	f Princi	pal Driller and rig operator are required.				
Describe co	ontrol	device_														

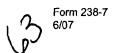


IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D D0078451	12 ST	ATIC W	ΔTFR	LEVEL and WELL TESTS:		
Drilling Permit No. 885722				intered (ft) Static water level (ft)	70'	
Water right or injection well #	Motor	tomp /0E	Cold	Bottom hole temp. (⁰ F)		
2. OWNER:	Descri	terrip. (r	6	"Turtle Cap		
Name Greencastle Homes			s port _			
Address P.O. Box 213	Well to	iown (feet)	Dis	charge or Test duration Pump Bailer	Air F	lowing
City Star State Idaho Zip 83669	100'	IOWIT (1861)	40 G	aid (dpm) (minutes)	^" ar	rtesian
3.WELL LOCATION:	100		40 G		_	
	Water	nuality te	et or co	omments:	_	ч
Twp. 4 North ⊠ or South ☐ Rge, 3 East ☐ or West ⊠		-		and/or repairs or abandonment:		
Sec. 10 NW 1/4 SW 1/4 SW 1/4 Secret	Bore	From	To	Remarks, lithology or description of repairs or	W	iter
Canvon	Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N
Gov't Lot County Canyon	10"	0	2	Top Soil		Х
Lat. 43		2	9	Cemented Gravel		Х
Address of Well Site 14837 Velvet Falls Way (Deg. and Decimal minutes)		9	40	Lava Rock		Х
Address of Well Site 14037 Vervet Falls VVay	6"	40		Sand & Gravel		Х
Give at least name of road + Distance to Road or Landmark) Taylor Ridge Sub		65		Sandy Clay		Х
Lot. 17 Blk. 2 Sub. Name Taylor Ridge Sub.		132		Grey Clay w/ Sand Streaks	X	
4. USE:	-	188		Fine Sand	X	
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection	\vdash	193 200		Clay w/ Sand Streaks	X	_
Other		214		Sand w/ Clay Streaks Sand	X	_
5. TYPE OF WORK:		240		Clay	 ^	X
New well Replacement well Modify existing well		240	241	Clay	 	<u> </u>
Abandonment Other					\vdash	_
6. DRILL METHOD: ☑ Air Rotary ☐ Mud Rotary ☑ Cable ☐ Other						
7. SEALING PROCEDURES:						
Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure				RECEIVED		
3/8" Bentonite 0 40 1000 lbs. 10" Overbore				HE O E		
				AUG 2 3 2018		
B. CASING/LINER:						
Diameter From (ft) To (ft) Gauge/ Material Casing Lines Threaded Wolded				WATER RESOURCES		
6" 1.5 229 .250 Steel				WESTERN REGION		
0 1.0 220 5.551					-	
<u> </u>	-				-	
5" 239 241 .258 Steel	-				_	
					-	
Was drive shoe used? X Y □ N Shoe Depth(s) 229'						
9. PERFORATIONS/SCREENS:						
Perforations Y X N Method						
Manufactured screen ☒ Y ☐ N Type Johnson						
Method of installation Pullback						
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Comple	ted Dept	h (Meas	urable): 241'		
229 239 .012 10' 5" Stainless 304	Data St	arted: Ap	or 30, 2	2018 Date Completed: May 18, 20	18	
	7.			TIFICATION:		
				imum well construction standards were complice	ed with	at
Length of Headpipe 5.8 Length of Tailpipe 2'	the tim	e the rig	was rer	noved.		
Packer N Type Rubber K-Packer	Compa	iny Name	_e Deni	nis Phipps Well Drilling In Co. No. 33	2	
10.FILTER PACK:				May Date May		18
	*Princi	pal Drille	r—/			
	*Driller			Date May	22, 20	18
N/A	*0.55	itor II	/	Date May		
	*Opera		4	Date		-
11. FLOWING ARTESIAN:	Operat	or I	8	Date		
Flowing Artesian? TY X N Artesian Pressure (PSIG)	* Sign:	ature of	Princin	al Driller and rig operator are required		

Describe control device

1. WELL TAG NO. D OOTT AT	12. STATIC WATER LEVEL and WELL TESTS:								
Drilling Permit No. 2011 11 11 11 11 11 11 11 11 11 11 11 11	Depth first water encountered (ft) Static water level (ft)								
Water right or injection well #	Water te	emp. ("f	<u> </u>	2.2 Bottom hole temp. (°F)		_			
2. OWNER: Woodhaver Properties	Describe	acces	s port_	Soar Seal well Cap					
Name	Well tes	t	12 42	Test method:					
Address 3784 N. Farlight Place	Drawdo	wn (feet)		charge or Test duration Pump Bailer (minutes)		lowing Intesian			
CityStateZipZipZipZipZipZipZip	12	_	10	10 Akisa 🗆 🗆 I	3				
3.WELL LOCATION:	200	2	190) /hr. 0 0 1					
Twp North or South Rge East or West	-	-		omments:					
Sec. 1/4 1/4 5W 1/4	13. LITH	OLOG	C LOG	and/or repairs or abandonment:		5			
	Dla.	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	\vdash	ater			
Gov't Lot County Carvon	(ln)	-	1	TOPSOIL	Y	N			
Lat. 43 0 4/29/4 (Deg. and Decimal minutes)		4	1/2	Ard Pan Egyavel	 				
Long. 16 0 41:389 (Deg. and Decimal minutes)		6	37	Blir Lava (Spird)	 	-			
Address of Well Site 27506 Bigloon leby		37	40	Sticky BM Clay					
(Give at least name of road + Distance to Road or Landmark) City Caldwell	165	10	44	Cemented oravel	\vdash				
Lot. 8 Blk. 3 Sub. Name Toylor R. Sec		14	18	Braclar.					
4. USE:	3	18	68	Bya Clar & oravel					
Domestic Municipal Monitor Trigation Thermal Injection		28	74	Stocky Braclar					
Other		14	89	Fine Bon Sand					
5. TYPE OF WORK:	1 2	99	<u>27</u>	Soudy clay		_			
New well Replacement well Modify existing well	-9	77	100	Bricky					
Abandonment Other		90	06	med Sand	_				
6. DRILL METHOD:		20	120	Braclax	<u> </u>				
Air Rotary		00	125	med Said	 				
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft') Placement method/procedure		24	190	Blue clay	-				
3/8 best 0 41 28 bass DIX Pour		80	182	Res Class	$\vdash \vdash$	-			
To Della Transfer Property		82	190	Final Lead Sond water		_			
8. CASING/LINER:		90	201	Brechy					
Diameter F. (8) To (8) Gauge/		01	720	Fractived Clay's Sand	_				
(domina) Scredule		70	24/	HEAVER BIN Show	-				
W 17 131 100 01 01		4/	145	Benclas		/			
	12	45	751	Fine Bin Sand					
	12	5/ 4	53	Buchy					
	1 7	5.3	198	Fre White Sund	_				
Was drive shoe used? Y N Shoe Depth(s) 25/	1			RECEIVED	\vdash	-			
9. PERFORATIONS/SCREENS:				RECEIVED	\vdash				
		_		MAD 0.0 2040					
Perforations Y N Method				MAR 0 8 2016					
Manufactured screen Y N Type				WATER RESOURCES					
Method of installation Wash DN- Valve				WESTERN REGION					
From (ft) To (ft) Stot size Number/ft Diameter (nominal) Material Gauge or Schedule	Complete	d Denth	Mosei	irable): 258ff.					
253 258 12 6" Tele S.S.			2 -/4	1 11	1/				
	Date Star		70	Date Completed: 2-2/	-16				
				TIFICATION: mum well construction standards were complie	، طائنہ اے	nt.			
Length of Headpipe 5-8 Length of Tallpipe	the time t				D WILLIE	aı			
	Company	Mama	Des	5 maleself stance of	-27	,			
Packer N Type 3-KiB		M	1100	5500 Weller 12 Co. No. 5	20	7/			
10.FILTER PACK:	*Principa	I Drive	160	Date A	14	16			
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller_	///	177	Date 2:	24-1	10			
		1	,		1	-			
	*Operato	1		Date					
11. FLOWING ARTESIAN:	Operator		100	Date		_			
Flowing Artesian? Y Artesian Pressure (PSIG)	* Cionata	tro es s	leina!-	al Driller and rig operator are required.		_			
Describe control device	อานูแสแ	-10 01 1	ancipi	a bimer and hy operator are required.					



1. WELL TAG NO. D 0055752	12. ST	TATIC W	ATER L	LEVEL and WELL TESTS: N/A				
Drilling Permit No. 909526-858097	Depth first water encountered (ft) Static water level (ft) No Water							
Water right or injection well # 63-w-0272-001				Bottom hole temp. (°F)				
2. OWNER: Doug-Miller								
Name	Well to			Test method:				
Address 22542 Big Loon way		down (feet)	Disc	charge or Test duration Pump Bailer (gpm) (minutes)		Flowing artesian		
City Caldwell State Id. Zip 83605								
3.WELL LOCATION:	14/-4							
Twp. 4 North 🖸 or South 🗌 Rge. 3 East 🗍 or West 😡				mments: and/or repairs or abandonment:				
Sec. 10 SE 1/4 SW 1/4 NW 1/4 180 acres 1/4	Bore	From	To	Remarks, lithology or description of repairs of		Water		
Gov't Lot County Canyon	Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N		
Lat. N43 0 41 9500 (Deg. and Decimal minutes)	10	0	3	Top soil		ブ		
Long 116 41. 3667 (Deg. and Decimal minutes)	1-	_ <u>3</u> _		Sandy clay				
Address of Well Site	-	11	18_	Sand/gravel — —		<u> </u>		
	6	18	38-		- -{	1		
(Give at least name of road + Distance to Road or Landmerk)	1	38 55		Brown Clay	_			
Lot. 7 Blk. 3 Sub. Name Taylor Ridge		- 33-	- 59	Sand/gravel -				
4. USE: ☐ Domestic ☐ Municipal ☐ Monitor ☐ Imgation ☐ Thermal ☐ Injection								
Other	ļ	ļ						
5. TYPE OF WORK:		 	<u> </u>	 				
New well	}	 			- -			
Abandonment Other		 -				-		
6. DRILL METHOD: ☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other		 	 					
7. SEALING PROCEDURES:								
Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure						→'		
Bentonite 0 38 /420# pour	ļ	 						
5/8 chip	\ -	 -						
8. CASING/LINER:	ļ 	ļ	- - -		-	-		
Diameter From (ft) To (ft) Gauge/ Schedule Material Casing Liner Threaded Welded	1	 -	† -			7		
6 +2 58 steel 250 🖼 🗆 🖼								
		 _	ļ <u>.</u>					
		 -		<u> </u>				
		 -	 -	 				
Was drive shoe used? ☑ Y ☐ N Shoe Depth(s)	}	 	RE	CEIVED	$\neg \dagger \neg$	+		
9. PERFORATIONS/SCREENS:	h	<u> </u>						
Perforations Y N Method		ļ	DE	C 1 4 2009				
Manufactured screen ☐ Y ☒ N Type	}	 	MATE	R RESOURCES				
Method of installation	<u> </u>	 		TERN REGION				
From (ft) To (ft) Slot size Number/ft Diameter Material Gauge or Schedule	·		٠					
Profit (it) To (it) Siot size Numberiti (nominal) Material Gauge of Schedule	Comp	leted Dep	th (Meas	surable): 5.9				
	Date S	Started:	11/1	7/09 Date Completed: 11/	20/09			
	14. D	RILLER	'S CER	TIFICATION: nimum well construction standards were co	nntiad wii	th at		
Laurette of Tallain		ne the ric			iipiied wii	ui at		
Length of Headpipe Length of Tailpipe	Comp	any Man	a Da	vis Well & Pump Co. No	101			
Packer Y X N Type								
10.FILTER PACK:	*Princ	cipal Drille	er	my Chu Date				
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Drifle	er		Date _				
	*Operator II Date							
								
11. FLOWING ARTESIAN:	Opera	ator I		Date				
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Sign	nature of	f Princip	oal Driller and rig operator are required.				
Describe control device								

Pristoric PA earla I state gery





1. WELL TAG NO. D 0055753	12. STATIC WATER LEVEL and WELL TESTS:									
Drilling Permit No.	Depth first water encountered (ft) 148 Static water level (ft) 72									
Water right or injection well #				Bottom hole						
2. OWNER: Doug Miller				well seal			_			
Name	Well to			well seal	Test method:					
Address 22542 Big Loon Way		down (feet		harge or Test duration (minutes)	Pump Bailer		Flowing artesian			
City_Caldwell State_Id. Zip_83605	10 40 2 Hrs.									
3.WELL LOCATION:				Z Hrs.						
Twp. 4 North ☑ or South ☐ Rge. 3 East ☐ or West ☐	Water	quality to	est or co	mments:						
Sec. 10 SE 1/4 SW 1/4 60 acres 1/4 60 acres 1/4		HOLOG	IC LOG	and/or repairs or aband	donment:					
	Bore Dia.	From (ft)	To (ft)	Remarks, lithology or descr abandonment, wa		Y	Vater			
Gov't Lot County <u>Canyon</u>	(in)		 			-	+ y -			
Lat. N43 0 41.9696 (Deg. and Decimal minutes) Long. W116 0 41.3493 (Deg. and Decimal minutes)	10	-0	3	Top soil			 \(\cdot \) \\ \			
Long. <u>W116</u> 0 41.3493 (Deg. and Decimal minutes)		11		Sandy clay		\neg	Ŷ			
Address of Well Sitesame		11		Sand/gravel			X			
(Give at least name of road + Distance to Road or Landmark)	6_	18 38	38 55	Lava Brown clay			X_			
Lot. 7 Blk. 3 Sub. Name Taylor Ridge		-55	71	Sand/gravel			<u> </u>			
4. USE:		71	76	Sand —			<u> </u>			
☑ Domestic ☐ Municipal ☐ Monitor ☐ Imgation ☐ Thermal ☐ Injection		76	133	Brown clay			X.			
Other		133	148	Blue clay		-+-				
5. TYPE OF WORK:		148	153	Sand/shale		x	+			
New well Replacement well Modify existing well Abandonment Other										
6. DRILL METHOD:										
☑ Air Rotary ☐ Mud Rotary ☐ Cable ☐ Other										
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft²) Placement method/procedure							+			
8 Bentonite										
8 CASING/LINER:										
Diameter From To (ft) Gauge/ Material Casing Lines Threaded Wolded		L								
		<u> </u>	ļ							
6 +2 146 250 steel		 	 -							
5 140 1\$3 250 SS		 	 			_	+			
			 				1			
<u> </u>		R	EC	EIVED						
Was drive shoe used? ☑ Y ☐ N Shoe Depth(s)146	ļ	<u> </u>								
9. PERFORATIONS/SCREENS:			DEC	1 4 2009						
Perforations Y X N Method		100	TED B	ESOURCES		-	-			
Manufactured screen ▼Y □ N Type Johnson ———————————————————————————————————	-	VV/ W	ESTER	N REGION			_			
Method of installation wash down		 	 				 			
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Comp	leted Dep	oth (Meas	urable): 153						
148 153 16 5 SS	Date S	Started: 1	11/27	3 / 0 9 Date Com	npleted:11/27	//00				
				TIFICATION:	piotou.] 1 Z. I	103				
	I/We d	certify tha	at all min	imum well construction star	ndards were com	plied with	h at			
Length of Headpipe Length of Tailpipe	the tin	ne the rig	g was rer	noved.						
Packer X Y □ N Type Fig. K	Comp	any Nan	ne <u>Da v</u>	<u>vis Well & Pu</u>	mp Co. No.	101				
10.FILTER PACK:	*Princ	inal Drill	er ('	My Our	Date 1	12 - 7	-09			
Filter Material From (ft) To (ft) Quantity (lbs or ft³) Placement method				· F						
	*Drille	r			Date					
	*Oper	ator II _			Date					
11. FLOWING ARTESIAN:										
Flowing Artesian? Y X N Artesian Pressure (PSIG)	Operator I Date Date									
	SIAL	nature of	Princin	al Driller and rid operator	ze required					

Describe control device

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1. WELL TAG NO. D D00/2000	12. S	TATIC V	VATER	LEVEL and WELL TESTS:			
Drilling Permit No. 973301 - \$79358	Depth first water encountered (ft) Static water level (ft) 80'						
Water right or injection well #	Water	temp. (0	F) Col	Bottom hole temp. (°F)			
2. OWNER:	Descri	be acce	ss port	Well Cap			
Name Greencastle Homes	Wellt			Test method:			
Address P.O. Box 213		down (fee		scharge or Test duration	Air F	Flowing	
City Star State ID Zip 83669			33 (iolo (gpiii) (iiiiilotes)	X	artesian	
3.WELL LOCATION:							
Twp. 4 North ■ or South ■ Rge. 3 East ■ or West ■	Water	quality t	est or c	omments:		_	
Sec. 10 1/4 SW 1/4 NW 1/4 160 acres 1/4 W 160 acres 1/4	13. LIT	HOLOG	IC LO	G and/or repairs or abandonment:			
	Bore Dia.	From	То	Remarks, lithology or description of repairs or	W	ater	
Gov't Lot County Canyon	(in)	(ft)	(ft)	abandonment, water temp.	Υ	N	
Lat. 43 • 41.994'N (Deg. and Decimal minutes) Long. 116 • 41.347'W (Deg. and Decimal minutes)	10"	1	2			X	
Long. 116 o41.347'W (Deg. and Decimal migutes)		7	7	Clay		X	
Address of Well Site 22566 Big Loon Way		12	12	Hard pan Clay	+-	X	
(Give at least name of road + Distance to Road or Landmark) City Caldwell Toulog Birder Code		17	21	Gravel		X	
Give at least name of road + Distance to Road or Landmark) Taylor Pidge Sub		21	42		+	^	
Lot. 6 Blk. 3 Sub. Name Taylor Ridge Sub.	6"	42	45	Brown Clay	+	X	
4. USE:		45	53		+	X	
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection ☐ Other		53	79	Gravel		X	
5. TYPE OF WORK:		79			Х		
New well Replacement well Modify existing well		81		Sand	X		
Abandonment Other		90		Brown Clay		Х	
6. DRILL METHOD:		98		Sand Streaks w/ Clay		Х	
■ Air Rotary	-	105		Brown Clay		X	
7. SEALING PROCEDURES:		123 133		Sand w/ Clay Streaks Clay w/ Sand	X	- V	
Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure 3/8" Bentonite 0 47 1100 lbs. 10" Overbore & Pour	-	151		Sand	X	X	
Troo ibs. To Overbore & Four		154		Brown Clay	+^	X	
		158		Sand	X	1	
8. CASING/LINER: Diameter Gample G		168		Clay	+	X	
(nominal) Profit (it) Schedule Material Casing Liner I hreaded Weided		175		Fine Sand		X	
6" +1 188 .250 Steel		182		Clay w/ Sand		X	
5" 184 189 .250 Steel 🔲 🗵 🖂		184		Fine Sand		X	
5" 199 201 .250 Steel		191	198	Sand	X		
		198	201	RECEIVED	X		
Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 188'				MEGLIVED	-		
9. PERFORATIONS/SCREENS:				FFB 1 7 2017	-		
				FEB 11 ZOII	+		
Perforations Y X N Method				WATER RESOURCES			
Manufactured screen Y N Type Johnson				WESTERN REGION			
Method of installation Pullback							
From (ft) To (ft) Slot size Number/ftt Diameter (nominal) Material Gauge or Schedule	Comple	ed Dent	h (Mase	urable).201'			
189 199 .012 10' 5" Stainless 304					6		
	33-1	arted: Ju					
				FIFICATION: imum well construction standards were complied	od with a	n+	
Length of Headpipe 5' Length of Tailpipe 2'		the rig			o with a	31	
Packer X Y N Type Rubber K-Packer	Compo	ou Name	Denr	nis Phipps Well Drilling In Co. No. 33	2		
				11 //			
10.FILTER PACK:	*Princip	al Drillei		Mult Date Jul 2	1, 2016	<u> </u>	
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller			Date			
N/A							
	*Operat	or II		Date			
11. FLOWING ARTESIAN:	Operato	or I		Date			
Flowing Artesian? Y X N Artesian Pressure (PSIG)	ture of t	Princin	al Driller and rig operator are required.				
Describe control device	O.y.ia	01 1	· ············	o.mer and hy operator are required.			

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1. WEI	L TAG	NO. D	200701	84					12 S	τατις ι	WATER	LEVEL and WELL TEST:	e.			
Drillin	g Permit	No. 9	70 SV	12-8	76590	ì			Depth			untered (ft) Stat		lavat 760	72'	
Water	right or ir	jection w	ell#		,	,	***************************************	*************	. Depti	tomm (E Col	d Bottom hole	uc water	iever (π) -`		
2. OW	NER:						***************************************		- VValei	iemp. (F) <u></u>	Bottom noie	temp. ("F	*)		
Name	Green	castle	Homes		···	·	·	**************************************			ss pon					
Addre	, P.O.	Box 2	13	·····	~		***************************************		- Well t	est: down (fee	T Di	scharge or Test duration	Test me			Flowing
				S+-	_{ite} Idaho	7in 83	3669		180'	***************************************	y y	ield (gpm) (minutes)	Pump	Bailer	A11	artesian
	L LOCA			Siz		Ζ:μ	· · · · · · · · · · · · · · · · · · ·	***************************************	. 100	***************************************	1007	GPM 1 HR.			N N	
					_ 3				Water	ouality t	est or c	omments:	· LJ	لبا	Ц	اسا
1wp	No	orth (X)	or Sout	h LLJ CIA	Rge. 3 /1/4 NV	East <u>L</u>	or	West 🔀	13 1 17			3 and/or repairs or aband		-		***************************************
Sec.			10 scres	1/4 300	1/4 1/4 160:	1/	4		Bore	From	To	Remarks, lithology or descr		***************************************	TV	Vater
Govit Le	nt .		Soundy Ca	nyon					Día. (in)	(ft)	(11)	abandonment, wa	ter temp.	spans or	Υ	I N
Lat 43	~	0 4	41.9971	V	·				10"	0	2	Top Soil	-	***************************************		⁺ x
Long 1	16	04	1.344'V	V	(D	ag and r	Jecimai n	nmutes)		2	22	1 1 1	WWW.	***************************************	****************	X
Addross	ne latali	Sit. 22	598 Bia	Loon \	Nay (D.	eg. and L	Jecimai n	ninutes)		22		Fractured Rock				X
Modies	OLANGII	Sile		0::	Caldwell				<u> </u>	24	41					X
(Give at leas	name of road	+ Distarice to	Road or Landm	will City	, <u>Caldwell</u> /lor Ridge		***************************************		6"	41	55	Sand w/ Clay		····		X
Lot. 5	B	k. 3	_ Sub. N	_{ame} <u>I ay</u>	/lor Ridge	Sub.				55 69	69 80	Gravel Sand w/ Clay	90000000000000000000000000000000000000			X
4. USE	:									80	88	Sand W Clay		-	$\frac{1}{x}$	X
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Inject ☐ Other] Injection	1	88		Tan Clay			+^	$\frac{1}{x}$				
5. TYPE OF WORK:					-	110		Sand			X	+^				
			omont we	i	odify existing v	.mii			***************************************	115		Sandy Clay	***************************************		+	+
Abar	donment		her	1 141	ouny existing v	VESI(160		Fine Sand	***************************************	***************************************	$+$ \mathbf{x}	
	L METH						**************************************			165		Sand w/ Clay		***************************************	$\frac{1}{x}$	+
			Rotary	☐ Cable	Other_					195	201	Clay	***************************************	***************************************	1	X
7. SEA	LING PE	ROCEDI	JRES:							201	213	Medium Coarse Sand		***************************************	Х	
	material				(ibs or ft ³) Pla			ocedure								
3/8" E	Bentonii	te 0	41	1100) lbs. 10"	Overt	oore						***************************************			
<u></u>	······································			<u> </u>				***************************************					·			
	NG/LIN				***************************************								×	***************************************		
(nominal)	From (ft)	To (ft)	Gauge/ Schedule	Mate	rial Casing	Liner	Threaded	d Welded		***************************************		REGEN	/ED			
6"	2	199	.250	Steel	×			×	·········				~~~			
5"	197	202	.258	Steel		X		×		**********	*****************		775	***************************************		-
5"	212	213	258			×		×					\$,000 4.00		+	+
						n						WATER HEST	URCE		+	†
		<u> </u>				_	L1					vveS refin H	<u>انان المحربايين</u>			1
			Y 🗆 N	Shoe De	epth(s)19	9.						The state of the s	**************************************			1
9. PERI	ORATI	ONS/SC	REENS:						***************************************		ware e					
			Method									NOW COMMENTS OF THE PROPERTY O		**************************************		
Manufac	tured sc	reen 🗵	Y 🔲 N	_{Type} Joł	nnson											<u> </u>
Method (of installa	ation Wa	ashdow	n												
From (ft)			Number/ft	Diameter	1.5-1-1-1	1					***************************************		~~~~~~~			<u> </u>
<u> </u>		 	Ļ	(nominal)	Material		iuge or Si	chedule		ted Dept	***************************************		***************************************			
202	212	.015	10'	5"	Stainless	304			Date St	_{arted;} Se	p 4, 20	Date Compl	_{eted} :Sep	10, 20	115	
		ļ										TIFICATION:		·····		-
Ĺ		<u> </u>							I/We ca	ertify that	t all mini	mum well construction stand	ards wer	e compli	ed with	at
Length o	f Headp	_{ipe} <u>5'</u>		Leng	th of Tailpipe	1'				e the rig						
Packer	XY	N Type	Rubbe	r K-Pa	cker				Compa	ny Name	_e Denr	nis Phipps Well Drilling	g In _{Co}	, No. 33	12	
	ER PAC									al Drille		Mate 11		ite Sep		15
Filte	r Material	Fror	n (ft) To	(ft) Qu	antity (lbs or ft ³)	Pla	cement n	nethod	Frinci	a Dine		The the tenth of tenth	Da	ite		-
	N/A	+							*Driller		7		Da	ite		
<u> </u>		\dashv							*Орега	tor II 🖊	ens	off Juneson	_ D=	_{ite} Sep	11, 20	15
11 510	MINO 4	DTEC	A A.I.				·		j		-	2				
Flowing Artesians TV RN Artesian Processor (DCIC)				Operat	or I	<u> مستور .</u>		Da	_{te} <u>Sep</u>	11, 40						
				esian Pre	ssure (PSIG)	Difficultivities and a second			* Signa	ture of	Principa	al Driller and rig operator a	re requir	red.		
Describe	control	device _			No											

43

1. WEL	LIAG	NO. D	700701	7	- 0			······	. 12. S	TATIC V	VATER	LEVEL and WELL TESTS:			
	rilling Permit No. 970542-876599 later right or injection well #							Depth first water encountered (ft) Static water level (ft) 72' Water temp. (°F) Cold Bottom hole temp. (°F)							
Water r	ight or in	ijection w	/ell #						Water	temp. (^c	F) Col	d Bottom hole temp. (°F	-		
2. OWN	ER:								Descr	be acce	ss port		,		
Name !	Green	castle	Homes	}	····			***************************************	Well t			Test me	ethod:	***************************************	
	_s <u>P.O.</u>	Box 2	213							down (fee	t) Di	scharge or Test duration	Bailer		Flowing
City St	ar			Sta	_{ate} Idaho	Zip 83	3669		180'		80+	GPM 1 HR.		X	artesiar
3.WELL						<i>,</i> —							ō		ö
Two 4	No	orth [X]	or Sout	ьΠ	Roe 3	ast [or	West 🖬	Water	quality t	est or c	omments:			
Sec 10				SW	Rge. 3 E	4/	. U.	14631 [53]	13. LIT	HOLOG	IC LO	3 and/or repairs or abandonment	t:		
OCU		-	10 acres	- 1/-7 40-2	icres 160 a	i es	4		Bore Dia.	From	To	Remarks, lithology or description of re	epairs or	Lv	Vater
Gov't Lo	t		County Ca	anyon					(In)	(ft)	(ft)		***************************************	Y	N
Lat. 43		0 4	41.997'	N	(De	g. and (Decimal r	ninutes)	10"	0		Top Soil	57000000000000000000000000000000000000		X
Long. 1	16	04	11.344'\	Ν	(De	o. and D	Decimal r	ninutesi	<u></u>	2 22		Sandy Clay Fractured Rock			X
Address	of Well	Site 22	598 Big	Loon \	Way				ļ	24	41	Lava Rock	***************************************		X
				City	y Caldwell			**********	6"	41	55	· · · · · · · · · · · · · · · · · · ·			X
Give stiess:	name of rosc	• Distance to	Road of Landin	Ta	vlor Ridge 1	Sub				55		Gravel Gravel		+	╁
		ık. <u></u>	Sub. N	lame	ylor Ridge	JUD.			***************************************	69	80	Sand w/ Clay	all albidishme are use a supply	-	╁
4. USE:		T Manadair	: D.		Imigation [1		~		80	88	Sand		 x	+
Other	esuc <u>L</u>	T Minurck	pai 🗀 IV	ionitor L		ı ınen	mai L	injection		88	110	Tan Clay	****		X
	5. TYPE OF WORK:								110				X	1	
			cement we	я Пм	lodify existing w	ell				115	160	Sandy Clay	M666-6000-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-		X
Aban	donmeni	<u> </u>	ther		·	***************************************				160		Fine Sand		Х	
6. DRIL	L MET	iOD:								165		Sand w/ Clay		Х	
X Air R	otary	☐ Mud	Rotary	☐ Cable	Other_	······································		······································		195		Clay	***************************************		X
7. SEAL				***************************************						201	213	Medium Coarse Sand	***************************************	X	<u> </u>
		te 0			(lbs or ft ³) Plac			rocedure					**************************************		
3/0 B	enton	ie O	41	1100	0 lbs. 10" (Jveri	oore		***************************************		***************************************				
<u></u>							···	***************************************		***************************************				+	+
8. CASI	NG/LIN	ER:	Gauge/	-								RECEIVED	***************************************		+
Diameter (nominal)			Schedule	Mate		Liner		d Welded						+	+
6"	2	199	.250	Steel	X	Ш		×				SEP 7 N 2048		1	1
5"	197	202	.258	Steel		X		X	eieraasibiinnaaan	***************************************				-	1
5"	212	213	.258	Steel		X		×				WATER RESOURCES	***************************************		
										************		WESTERN REGION			
L	,														
			ØY □ N		epth(s)						·				ļ
9. PERF	ORATI	ONS/S	CREENS	:									-	 	
			Method									W H H H H H H H H H H H H H H H H H H H			ــــ
Manufac	tured so	reen 🗷	IY 🗆 N	Type Joi	hnson	***************************************				***************************************			~~~~~~		┼
Method o	of install	_{ation} <u>W</u>	ashdow	/n					***************************************						
From (ft)	To (ft)	T	Number/ft	Diameter		T 6.	auge or S	chadula		wo.c		213'	······································		<u> </u>
202	212	.015	<u> </u>	(nominal)	Stainless	304	~	renedulo .		ted Dept		uraprej.	W7H0V00-0		
202	212	.013	10	J	otainess	304			Date St	arted: Se	p 4, 20	015 Date Completed: Sep	o 10, 20	15	
<u> </u>		 	 	ļ	ļ	 	**************		14. DR	ILLER'	S CER	TIFICATION:			
		<u> </u>		<u> </u>			-		I/We or	ertify tha e the rig	t all min	imum well construction standards wer	re complie	ed with	at
Length o	f Headp	ipe <u>2. </u>		Leng	of Tailpipe	i '				_					
Packer [MY [ји Тур	_e Rubbe	er K-Pa	cker				Compa	ny Nam	e neni	nis Phipps Well Drilling In Co). No. <u>33</u>	2	******
10.FILT									*Princi	oal Drille	r	Aktub / Land	_{ate} Sep	11, 20	115
Filter	Material	Fro	m (ft) T	o (ft) Qu	uantity (lbs or ft ³)	Pla	cement	method				777			-
	V/A	_				***************************************			*Driller		7		ate		-
	···								*Opera	tor II 👱	8000	mell mean Da	_{ate} Sep	11, 20	115
11. FLO	WING	APTECI	AN:		·	***************************************		·····]	·	2		ate Sep		
					,				Operat	UF 1	· / /.	Da	ite	,	
				esian Pre	essure (PSIG) _				* Signa	ature of	Princip	al Driller and rig operator are requi	red.		
Describe	control	device_													

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.

3. PROPOSED USE X Domestic Globalistia Stock Waste Disposal or Injection Globalistia Globalisti		Name DAUC Farris SHAN Johnson 215 E Hawaii Avc. Address Nampa TD 8365/ Drilling Permit No. 63-92-W-570 Water Right Permit No. 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.)	8. V	Static w Flowing Artesiar Controll Tempera WELL	g? n closed by: rature TEST D np ge G.P.M.	evel 50 feet below land Yes No G.P.I ed-in pressure p.s.i. : Valve Cap Oescribe artesian or temperature zone DATA Bailer Air	M. flow Plug		
4. METHOD DRILLED Rodary Air Auger Reverse rotary St. Auger Reverse rotary Rever	3.	☐ Domestic ☐ Irrigation ☐ Monitor ☐ Industrial ☐ Stock ☐ Waste Disposal or Injection ☐ Other (specify type)	Bore	De	epth		32740	_	nte <u>r</u>
A. METHOD DRILLED Rotary Air Auger Reverse rotary State S		Utner (specily type)		. From	То				No
Rotary Air Auger Reverse rotary Stable Multiple Auger Reverse rotary Reverse Reverse rotary Reverse r	4.	METHOD DRILLED	8					 	
S. WELL CONSTRUCTION Casing schedule: Size Concrete Other Male Concrete Other Concrete Concrete Other Concrete Con			H					\vdash	交
S. WELL CONSTRUCTION Casing schedule: X Steel Concrete Other Steel St								 	夕
S. WELL CONSTRUCTION Casing schedule: X Steel Concrete Other Thickness Thic				68	86	RIVE CLAU			<u>/</u>
Casing schedule: Steel Concrete Other Theseness Danmeer Danmeer Theseness Danmeer Theseness Danmeer Theseness Danmeer Theseness Danmeer Danmeer Theseness Danmeer Danmeer Theseness Danmeer				86	167	SAND+ CIAY Stre	AKS	\leq	
Theomose Diameter 1980 feet	5.	WELL CONSTRUCTION	<u> </u>	167	169	5And		人	
Thickness inches feet feet inches inches inches feet feet inches inches inches inches feet feet inches inches inches inches inches inches feet feet inches feet inches inche		Casing schedule: X Steel Concrete Other	<u> </u>		186				×
inches inches feet	ı	Thickness Diameter / from // (CTo)	1	186	 	<u> </u>		Щ	
Inches		inches inches + 15 feet /80 feet		 	 			 	
Was casing drive shoe used? Yes No No No No No No No No No N					 			 	
Was a packer or seal used? Yes No No How perforated? Factory Knife Torch Gun Size of perforation? Inches by Inches								$\overline{}$	
Perforated?									
How perforated? Factory Knife Torch Gun Size of perforation? Inches by Inches									_
Size of perforation? Inches by Inches Number From To Perforations feet feet feet perforations feet feet feet perforations feet feet feet feet perforations feet feet feet feet feet perforations feet feet feet feet perforations feet feet feet planeter Stot size feet for feet feet feet feet feet feet feet fee		•							
Number From To									
perforations feet feet feet well screen installed? X ves No Some manufacturer feet New feet No Manufacturer feet No Material used in seal: Cement grout Rent grout Sealing procedure used: Surry pit Noverbore to seal depth Method of joining casing: Noverbore to seal depth Method of joining casing: Noverbore to seal depth Method of joining casing: Threaded Welded Noverbore to Seal depth Noverbore to Seal depth Method of joining casing: Noverbore to seal depth Noverbore to Seal depth Method of joining casing: Noverbore to Seal depth Noverbore to Seal depth Method of joining casing: Noverbore to Seal depth Noverbore to Seal depth Method of joining casing: Noverbore to Seal depth Noverbore to Sea		Number From To							
Diameter Siot size Set from Tope Set from Tope Set from Tope Set from Tope Set from Siot size Set from S					-	ļ			
Well screen installed? X Yes No Manufacturer #242570X Type 55 Top Packer or Headpipe Bottom of Tailpipe Diameter Slot size Set from feet to feet Gravel packed? Yes No Size of gravel Placed from feet to feet Top Puddling clay Sealing procedure used: Surrap pit Hemp. surface casing Noverbore to seal depth Hemp. surface casing Noverbore to seal depth Solvent Weld Cemented between strata Describe access port 6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name County Carvyon			\longmapsto		+	 		<u> </u>	
Manufacturer #44500 Type 50 Top Packer or Headpipe			 		\longmapsto				
Bottom of Tailpipe Diameter Slot size 2000 Set from 1/2 feet to 85 feet Diameter Slot size Set from feet to feet Gravel packed? Yes No Size of gravel Placed from feet to feet Surface seal depth Material used in seal: Cement grout Bentonite 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 Describe access port Sketch map location must agree with written location. Subdivision Name Lot No. Block No. County CANVON Address of Well Site (give at least name of road) The strange of supervised to same of coad) Signed by Drilling Supervised and (Operator) Same Operator) Same Operator) Diameter Sitot size 2000 Set from 1/2 feet to 85 feet to fe		Well screen installed? A yes U No	\longmapsto			<u> </u>			
Bottom of Tailpipe Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet Gravel packed? Set from feet to feet Gravel packed? Yes No Size of gravel Flaced from feet to feet Teet Surface seal depth Material used in seal: Cement grout Sealing procedure used: Surry pit Temp, surface casing Overbore to seal depth Method of joining casing: Threaded Welded Solvent Weld Cemented between strata Describe access port 6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name Lot No. Block No. County CANNON Address of Well Site (give at least name of road) Signed by Drilling Supervisor. Signed by Drilling Supervisor. Signed by Drilling Supervisor. Same (Operator) Same		Manufacturer // 6 4 5 7 6 7 6 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	 	-	$\overline{}$				
Diameter 5 Slot size 2020 Set from 76 feet to 85 feet Diameter Slot size Set from feet to feet Gravel packed? Yes No Size of gravel Flaced from feet to Surface seal depth Material used in seal: Cement grout Bentonite Puddling clay Sealing procedure used: Slurry pit Sealing procedure used: Slurry pit Method of joining casing: Threaded Welded Solvent Weld Cemented between strata Describe access port 10. Describe access port 11. Sketch map location must agree with written location. Subdivision Name 12. Lot No. Block No. County CANYON Address of Well Site (give at least name of road) Give at least name of road) The strain of the first of the feet to feet feet to feet feet to									
Diameter Slot size Set from feet to feet Gravel packed? Yes No Size of gravel Placed from feet to feet Surface seal depth Material used in seal: Cement grout		- · · · · · · · · · · · · · · · · · · ·						$\overline{}$	
Diameter Slot size Set from feet to feet Gravel packed? Yes No Size of gravel Placed from feet to feet Surface seal depth Material used in seal: Cement grout		Diameter 5 Slot size .0000 Set from 176 feet to 185 feet			1				
Gravel packed?		Diameter Slot size Set from feet to feet				MP PETTON	273		
Surface seal depth		Gravel packed? ☐ Yes 🔼 No ☐ Size of gravel	لــــــــــــــــــــــــــــــــــــــ		$\overline{\Box}$	THE GETS WIT			
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 Work started 7/1/93 finished 7/16/93 6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name Lot No. Block No. County CANYON Address of Well Site (give at least name of road) SE 16 NN 16 Sec 10 Public Started Overbore to seal depth Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional		Placed fromfeet tofeet	$\widetilde{\square}$	<u> </u>	<u> </u>				
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 Work started 7/1/93 finished 7/16/93 6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name Lot No. Block No. County CANYON Address of Well Site (give at least name of road) SE 16 NN 16 Sec 10 Public Started Overbore to seal depth Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional Office Western Regional		10	····	1 1 1 1		MAC 7 C 20110	21/2	<u> </u>	
Sealing procedure used: Temp. surface casing Overbore to seal depth Method of joining casing: Solvent Weld Cemented between strata Overbore to seal depth Ov		Surface seal depth [10] Material used in seal: Cement grout		<i>}##</i>	ant	WAR 1 0 1353			
Temp. surface casing Method of joining casing: Threaded Welded Describe access port Work started Threaded Welded Oscillator Threaded Threaded Welded Oscillator Threaded				# # 823 M		Marin of Water Recovery			
Method of joining casing: Solvent Weld Cemented between strata Describe access port Mork started Mork started		☐ Temp surface casing ☐ Overbore to seal depth		1110		Western Regional Office	.C82		
Describe access port Describe access port		Method of ioining casing:		HUU	/ 0 9]	190 5			
Describe access port Work started 7/1/93 finished 7/16/93 6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name Lot No. County CANYON Address of Well Site (give at least name of road) SE 16 NW 16 See 10 The Total North County (Operator) Work started 7/1/93 finished 7/16/93 11. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name Phipps Drilling Firm No. 3// Address 70/5 M Gloch/in Date Signed by Drilling Supervisory and (Operator) Same						N-3-3			
6. LOCATION OF WELL Sketch map location must agree with written location. Subdivision Name Subdivision Name Lot No. County CANYON Address of Well Site (give at least name of road) T. A N X or S (Operator) 11. DRILLER'S CERTIFICATION I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Firm Name Phipps Drilling Firm No. Address 70/5 M G/och/M Date Signed by Drilling Supervisor and (Operator) Same		f	10.	Work s	tarted _	7/11/93 finished	7/16/9	<u>'3</u>	
Sketch map location must agree with written location. Subdivision Name			-1176-0	and the second lives	Winey States				_
Subdivision Name complied with at the time the rig was removed. Firm Name Phipps Drilling Firm No. 3// Address of Well Site (give at least name of road) T N X or S (Operator) Same	6.	LOCATION OF WELL	, 11. C	PRILLE	ir's Ci	ERTIFICATION			
Subdivision Name complied with at the time the rig was removed. Firm Name Phipps Drilling Firm No. 3// Address of Well Site (give at least name of road) T N X or S (Operator) Same		Sketch map location must agree with written location.		/We cr	ertify th	hat all minimum well construr	ction standa	rds w	ere
Address of Well Site County CANYON		N						/ U G	٠. ا
Address of Well Site County			1		_	~ , ,]
Address of Well Site Give at least name of road) SE 16 NW 16 Sec 10 P 3 N X or S (Operator) Address 2015 N Date Signed by Drilling Supervisory and (Operator) Same		w X' = E	i e			• •	10. <u>VII</u>		-
Address of Well Site		Lot No Block No		Addres	s 701	5 M Glochlin DATE	^ ,	//	<i>)</i>
Address of Well Site		County CANYON				1 //-	11/5	$ \leftarrow $	_
(give at least name of road) SE 1/4 NW 1/4 Sec 1/O P 3 N X or S (Operator) Same (Operator) Same		Address of Well Site	S	igned	by Dril	ling Supervisor	(144		- 1
SE ¼ NW ¼ Sec. 10 , R. 3 E □ or W 😿 (Operator) Same (If different than the Drilling Supervisor)		(give at least name of road)							· [
		5E 1/4 NW 1/4 Sec. 10 , R. 3 E 0 or W X			(Орғ		, Drilling Supe	rvisor)	_

Form 238-7 3/95-C96

870671-775968 IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

	(Office	Use O	nly	
nspec	ted by	у			
[wp_		Rge		_Sec_	
	1/4		1/4		1/4
_at:	_: '	:	Long:	:	:

1. DRILLING PERMIT NO D-0019-769	11.	WELL			-5-	
Other IDWR No.				☐ Bailer ☒ Air ☐ Flowin		
2. OWNER:		gal/min.	Dra	awdown Pumping Level	Time	
Name Keith Mertz	100		+	130' 2Hr	<u>'S</u>	
Address P.O. Box 1299						
City Caldwell State ID Zip 83606	l		ı	ł t	l	
3. LOCATION OF WELL by legal description:						
Sketch map location <u>must</u> agree with written location	Wate	Tamp		Bottom hole temp.		
N	Wate	a Temp er Ouali	ty test (or comments:		
	wate	a Quaii	iy tost t	Depth first Water Encounter	ered 9	
Twp. 4 North Or South	12 1	ITHO	HOG	IC LOG: (Describe repairs or aba		
W Rge. 3 East or West 🖂	14. 1	DITTIC	LOG	Te Doo. (Describe repairs of and	indominat,	
Sec. 10 1/4 SE 1/4 NE 1/4 10 acres 40 acres 160 acres	Wate	eг				
10 acres 40 acres 160 acres	Bore	From	То	Remarks: Lithology, Water Quality & T	Temp. Y N	
Gov't lotCounty Canyon	Dia		2'	Brown Top Soil		
	10"	2'	6'	Brown Clay	 -	
Lat: : Long: : :	10"	6'	9'	Brown Sand & Gravel		
Address of Well Site 14141 Channel Rd.						
City Middleton	10"	9'	18'	Brown Cobbles & Sand	—— X	
(Give at least name of road + Distance to Road or Landmark)	6"	18'	27'	Brown Cobbles & Sand		
Lt Blk Sub. Name	6"	27'	54'	Brown Clay W/Cracks	<u> </u> <u> </u>	
	6"	54'	61'	Brown Sand		
4. USE:	6"	61'	118'	Brown Clay W/Cracks	<u> </u>	
Domestic Municipal Monitor Irrigation	6"	118'	123'	Brown Sand		
☐ Thermal ☐ Injection ☐ Other	6"	123'	128'	Brown Clay		
5. TYPE OF WORK check all that apply (Replacement etc.)	6"	128'	135'	Brown Sand		
New Well ☐ Modify ☐ Abandonment ☐ Other	6"	135'	139'	Brown Clay		
6. DRILL METHOD	6"	139'	147'	Brown Sand		
	6"	147'	148'	Brown Clay		
7. SEALING PROCEDURES	6"	148'	152'	Brown Sand		
SEAL/FILTER PACK AMOUNT METHOD						
Material From To Sacks or						
Bentonite 0 18' 10S Overbore						
Dentointe 0 18 105						
**						
Was drive shoe used? ⊠ Y □ N Shoe Depth(s) 138'						
Was drive shoe seal tested? ☐ Y ☒ N How?			, ,			
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded				RECEIVED		
6" +2 138' .250 Steel	-	1				
		†		APR 1 9 2002		
				1 11 17 0 2002		
Total CIT-12- 18/ Total CT-Mate-			1	WATER RESOURCES WESTERN REGION		
Length of Headpipe Length of Tailpipe Length of Tailpipe				THE THE STATE OF T		
9. PERFORATIONS/SCREENS	<u> </u>	1				
☐ Perforations Method <u>wash in</u> ☐ Screens Screen Type <u>s.s.telescoping</u>	Cor	mplete	d Dept	h: 150 (Mea	isurable)	
☐ Screen Type <u>s.s.telescoping</u>		e: Starte			d <u>04/05/02</u>	
From To Slot Size Number Diameter Material Casing Liner				CERTIFICATION		
138' 148' .015 5" S.S.				Il minimum well construction standar	ds were	
				he time the rig was removed.		
				-		
	Firm	n Name	Down	Right Drilling & Pump	Firm No. <u>637</u>	
10. STATIC WATER LEVEL OR ARTESIAN					11 1 2	
PRESSURE:	Firn	n Offici	al	Ximo King	Date 4-6-02	
Flowft. below ground Artesian Pressure 3 lb				V () 2)		
Depth flow encountered 139 ft. Describe access port or control	Supervisor of Operator					
devices: Artesian Control				(Sign once if Firm Official & Operator)		





IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

Use Typewriter or Ballpoint Pen

Inspe			e Use	Only	
Twp_			₹ge	_Sec_	
Lat:	1/4 _. :	:	1/4 Long:	1/4 :	:
Air			Flowing	Artesian	

1. DRILLING PERMIT NO. DASA 141-2 - Other IDWR No. 03 97 W 0708 000	11. WELL	L TES	1	Lat: :	: Long:	:	<u>:</u>	
2. OWNEB: Name Ed Lambert Address 27/8 E. Chicago City Caldwell State Id. Zip 83605	Yield gal./	/min.	Drawdown	<u> </u>	mping Level	T	lime .	_
Name Ca Lampfet	75		 			16	R.	_
City A A WE // State Tol Zin 83/095			-					
State Lip & State	Water Tem	<u> </u>	-80		De# !-			
3. LOCATION OF WELL by legal description:	Water Quali	ت ــــــ itv test	or comments:	Tenn L	$\frac{1}{12}$ Bottom no	oie temp	<u>).</u>	
Sketch map location must agree with written location.	Frains	33	or comments.	Dopth fi	cet Water Engl		73	/
N	12. LITHO	DLOG	IC LOG: (De	scribe repai	rs or abando	ountered nment)		
Twp. 4 North or South Rige. 2 East or West Sec. O SE 1/4 North 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	Bore Dia. From	То	Remarks: Litho				Wa V	ater N
X Rge. 2 East or. West X	10 0	13	Clay Tol					├"
W E Sec. 10 SE 1/4 NR 1/4 1/4	11 3	1/2	2871d) S UH			X	<u> </u>
Gov't Lot County Canada 160 acres	11 10	14	lou				, A	┢
Lat: : Long: : :	1/10 1001		Sand +	Geaut	-/	_	v	┢
Address of Well Site Channel Ra, (14 mi, 50, of Intersection of Hwy 44 + Channel City Middle fon (Give at least name of road + Distance to Board or Landmark) Rg.	6 30	25	Zand .	GRAV	/e/		2	ऻ
Of Intersection of Hwy 44 + Change Kity Middleton	6 85	56		Blue				
(Give at least name of road + Distance to Head of Landmark)	6 56	61	Sand	-			X	
Lt BlkSub. Name	6 6/	70		an			Ĺ .	
	6 10	77		clay				
4. USE:	9 71	8/1	Jan Ch	24				L.
	4 87	100	Sand				x	<u> </u>
	9 1/2	100	Jan Cla	<u>y</u>				<u> </u>
5. TYPE OF WORK check all that apply (Replacement etc.) New Well □ Modify □ Abandonment □ Other □	6 105		Clau			─ ─	*	
X New Well ☐ Modify ☐ Abandonment ☐ Other 6. DRILL METHOD			Sund	·			V	
Air Rotary □ Cable □ Mud Rotary □ Other	7 7 29	7 0	52.02 77.57				^-	
,								
7. SEALING PROCEDURES				<u></u>				
SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or	H R	<u>- </u>	<u></u>					
Pounds	+		EIVED				\longrightarrow	—
Bentonite O 20' 500# QUERBORE		OV	1 2 4007	<u>. </u>				—
	1	91	2 1997	- R	ECEIVE	:n		
Was drive shoe used? X Y □ N Shoe Depth(s)	Depart	Dent of	Water Resources		COLIVE			
Was drive shoe seal tested? □Y ▼N How?			LAGIGE LYGGORICES	, NO	V - 7 19	למ		
8CASING/LINER:						- 1		
Diameter From To Gauge Material Casing Liner Welded Threaded			- DE	W/	NTER RESOURCE ESTERN REGIO	ES		
6" +2 1/0 250 Stee X =			750	DEIVE)]	
		_	OCT	2 0 400-			\rightarrow	
Length of Headpipe / D Length of Tailpipe	ACROF!	ME	001	2 9 199 7		\longrightarrow		
Length of HeadpipeLength of Tailpipe	000			RESOURCES				
☐ Perforations Method		1998	******	RN REGION		-+	\dashv	
X Screens Screen Type Houston	Completed	Depth	118	•		(Meas	urabl	
	Date: Start			Con	npleted_/0-		-97	7
From To Slot Size Number Diameter Material Casing Liner	<u> </u>							_
11.3 118 .020 5" 54.54.			CERTIFICA					
	I/We certify t the time the	hat all i	minimum well co	enstruction st	andards were	complie	ed wit	:h at
		1 ,		/	\ - #			_
40 CTATIO WATER LEVEL OF A THE CONTRACT	Firm Name	HUZO.	mson Hu	mp o L	<i>P<u>////</u></i> GFi	irm No	146	7 G
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	1.	M	: Ca	4. ·	\cdot			/
	Firm Official _	//pv	uam X	gams	12 Date /	9-2	<u>3-9</u>	17
Taxaa dalada ahad	and		Di It	Tinn	010-	n-r	12-1	ر کر
y werey frage	Supervisor of	r Opera		hg////	Date_A	<u>O TOC.</u>	<u>2</u>	<u>z</u> /

Form 2	238-7	
11/97	1	9082

	Of	fice	l lee Only	<u>. </u>					
Office Use Only Inspected by									
Twp		<u>.</u>	Rge	_Sec _					
	_ 1/4_		1/4	1/4					
Lat:	:	:	Long:	_:	:				
⊋ Ai	r		Flowing	Artesian					
			1		T				

1. WELL TAG NO. D DRILLING PERMIT NO. 63-99-63 0057-000 Other IDWR No.	11.	WELL	TES	STS: □ Bailer	Lat:	1/4 1/4 : : Long:	<u>:</u> :	
	<u>_</u>	/ield gal.		Drawdown	-	Pumping Level	Artesian	m e
2. OWNER: Name Hollon Homes Address 166299 Franklin Rd.		50		80		80	5	Hr.
Address 166299 Franklin Rd.	ļ		·					
City Nampa State 17) Zip 83687	<u> </u>			<u> </u>			<u> </u>	
		r Temp.				Bottom h	nole temp.	60
3. LOCATION OF WELL by legal description:	Water	r Quality	test or	comments:				
Sketch map location must agree with written location.	10	LITIE	1.001	10.100-		Depth first Water		<u> </u>
N The state of the	12.	LITHO	LOGI	C LOG: (De	scribe re	pairs or aband	onment)	Water
Two # North Ft or South [7]	Bore Dia.	From	То	Remarks: Litho	ology, Wat	er Quality & Tem	perature	YN
Twp. 4 North or South []	10	0	7	70P S	5.1	·		
W 1/4 Sec 10 1/4 SF 1/4 NF 1/4		15	(<	Hand The				一
Sec. 10 1/4 SE 1/4 N 1/4 SE 1/4 County County Congres 160 acres		2	15	Rin Ch	H4			
<u> </u>		15	18	Grand		md_		
S Address of Well Site 2220/ Channel Rd	1.6	18	46	11		K		7
City Cooldy 2011		18	80	Rin C			[
(Give at least name of road + Distance to Road or Landmark)		80	90	SANI	5 Fr	're		<u> </u>
LtBlkSub. Name		90	105	Blue	7184	·		
	<u> </u>	105		SAND		·		
4. USE:	<u> </u>	L	<u> </u>		<u></u>			
	<u> </u>	└						
☐ Thermal ☐ Injection ☐ Other	<u> </u>	 	<u></u>					
5. TYPE OF WORK check all that apply (Replacement etc.)		<u> </u>	ļ	<u> </u>		 .		
New Well Modify Abandonment Other		 						
6. DRILL METHOD	<u> </u>	ļ	Ь—-				<u>_</u>	
🗗 Air Rotary 🗆 Cable 🗆 Mud Rotary 🗆 Other	<u> </u>	 	<u> </u>	<u> </u>			 -i	_
	<u> </u>	ļ	 -	 			}	
7. SEALING PROCEDURES		├	 	 				
SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or		_		 				
1 Founds	-	 	 	 				
Benditer 0 18 400 Fail								
	 	 		 				-+
Was drive shoe used? BY \(\sigma\) N Shoe Denth(s) \(\frac{98}{28} \)	 	 	_	 				+
Was drive shoe used?		 				·	— —	+
8. CASING/LINER:	-	-		 			-	+
Diagneter From To Gauge Material Casing Liner Welded Threaded		_	<u> </u>			DEOE		
6 12 98 20 Star = = =	—	RE	CE	IVED		RECEI	AED!	
				1000	· · ·	EED 4 A		
		FE	B 2	3 1999		150 18	1999	\neg
Length of Headpipe Length of Tailpipe				MICH	OFTEN	WATER RESO	URCES	
9. PERFORATIONS/SCREENS		epartn	ent of	Maiar Decembes		WENTERN DO	GION	
Perforations Method				MAR	081	<u> </u>		
Screens Screen Type	Cor	npleted	D	epth 105			(Meas	urable)
	Dat	e: Sta	rted	1-28-9	9	Completed	1-28-	-99
From To Slot Size Number Diameter Material Casing Liner	L				<u>,</u>			
	13.			S CERTIFIC				•
					ruction stan	ndards were compli	ed with at	
	me an	ne me n	ig was r مر	removed.	19			
	Сотр	any Nar	ne T.	125)69	line	Firm	No. 5/2	7
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	···			1	7	,		
	Firm (Official	UL	- H	<u></u>	Date 2-/6	9- 99	,
Depth flow encounteredft. Describe access port or	and		1	- / -				
control devices: CAP		or Ope	rator		[Date		
		•					_	

Form 238-7 11/97 IDAHO DEPARTMENT OF WATI	ER RESOURCES Office Use Only
WELL DRILLER'S R	EPORT Inspected by
1. WELL TAG NO. D 8009368	RgeSec
DRILLING PERMIT NO 63 -99 W 0/47-000	11. WELL TESTS: Lat: : Long: : :
Other IDWR No.	Pump Bailer Air Blowing Artesian
2. OWNER:	Yield gal./min. Drawdown Pumping Level Time
2. OWNER: Name Gary tuffle Coast- Address 2203 V. Montana City Caldwell State Zip 83605	150 175 2hrs.
Address 2203 N. Montana	
City Caldwell State Zip 83605	
A LOCATION OF WELL by level decay de-	Water Temp. Bottom hole temp.
3. LOCATION OF WELL by legal description:	Water Quality test or comments: 900 d.C/ear Co/or.
Sketch map location must agree with written location.	Depth first Water Encounter 12. LITHOLOGIC LOG: (Describe repairs or abandonment) Water
<u></u>	Water
Twp. 7 North or South	Bore Dia. From To Remarks: Lithology, Water Quality & Temperature Y
W E Rge. 3 East or West & 1/4 1/4 1/4	100, 4 700 -0-1
Sec	664 33 Clay + gravel X
	63351 Hard Braclay
Lat:: Long: Shaddress of Well Site 19670 Rever	3676 HrcBrickay
Rd. Address of Well Site / BE City Ca/dwell	76 80 Saidy Clay x
(Give at least name of road + Distance to Road or Landmark)	8011 Hrd Bricher
Lt BikSub. Name	11/122 Saidy Clay, (Fracture) x
	12236 Hed Bracky
4. USE:	136137 Sand-med +
▲ Domestic □ Municipal □ Monitor □ Irrigation	1 Staffacture & Surgelay X
☐ Thermal ☐ Injection ☐ Other	18 180 ISTA Clay + Sand
5. TYPE OF WORK check all that apply (Replacement etc.)	Vin 175 Fractured Sandy Clax X
New Well Modify Abandonment Other	VOVES BYA Clay
Air Rotary Cable Mud Rotary Other	183189 med/Large Sand X
7. SEALING PROCEDURES	
SEAL/FILTER PACK AMOUNT METHOD Material From To Sacks or ounds	
Western Rent 0 18 10 overbore	
3/2	
70	
Was drive shoe used? □Y □ N Shoe Depth(s)	
Was drive shoe seal tested? □ Y□ N How?	
8. CASING/LINER:	RECEIVED
Diameter From To Gauge Material Casing Liner Welded Threaded	APP RECEIVED
6 7 56 1836 439 57267 0 0 18 0	
	Ospanine of Water RESOURCES WESTERN RESIDE
Length of Headpipe Length of Tailpipe	WESTERN REGION
9. PERFORATIONS/SCREENS MI	CROFIL NE COURSE
Perforations Method	THE U
Screens Screen Type	NC Inpeted Depth (Measurable)
From To Slot Size Number Diameter Material Casing Liner	Date: Stanted 3-17-99 Completed 3-17-99
	13. DRILLER'S CERTIFICATION
	I/We certify that all minimum well construction standards were complied with at
	the time the rig was removed.
NO Screed.	Company Name Precessor Gull Alexand Firm No 520
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Company Name Precessor Will Agree Firm No. 522 Firm Official Off Dausen Date 3-22-99
ft. below ground Artesian pressurelb.	Firm Official Vell Vausen Date 3-22-99
Depth flow encountered ft. Describe access port or	and
control devices: At the Stan well Cup	Driller or Operator Date
lowing 28 gpm	(Sign once if Firm Official & Operator) O WATER RESOURCES





Use Typewriter or Ball Point Pen

								
1 DRILLING PERMIT NO /03 -9(0-W) M7(0-100	11 \	VEI I	. TES	TS.	/			
1. DRILLING PERMIT NO. 63 - 96 - W- 0076 - 100 Other IDWR No. 8 viginal Permit 63-94-6-0403-000		□ Pi		□ Bailer ☑ A	ir 🗆 Flowing A	Artesian		
2. OWNER: 0 ' () '		'ield gal./	min.	Drawdown	Pumping Level_	T	ime	
Name Melun Frest	4	0		10-	165	1	h	<i>fa -</i>
Address 1405 Wilson								
City Caldulell State 12 Zip 83 605				<u> </u>	<u> </u>			
2 LOCATION OF WELL by local description.		r Temp		SS Bott	om hole temp. <u> グ</u>	<u>. J</u>		
3. LOCATION OF WELL by legal description:	Wate	r Qualit	ty test o	or comments:	001)			_
Sketch map location <u>must</u> agree with written location.	12	ITHO)I OG	iIC LOG: (Describe	reneire or shando	nment)		_
	Bore	$\overline{}$		 			Wa	ter [
Twp. 4 North 1 or South	Dia.	From	To		Water Quality & Temp	erature	Y	N.
Rge. 3 East □ or West Ø	10		142					
Sec. 10 , 10 acres 1/4 SW 1/4	6		168		CLAY			
Gov't Lot County_ Cancer	Q	100	160	While	SAND	 		H
S Address of Well Site 52/m2								\Box
Citv								
(Give at least name of road + Distance to Road or Landmark)								
LtBlkSub. Name	<u> </u>	<u> </u>	<u> </u>			·		
		ļ	ļ					
4. PROPOSED USE:		<u> </u>			ECEIVE	D		\vdash
Dornestic □ Municipal □ Monitor □ Irrigation □ Thermal □ Injection □ Other					MADOLL			\vdash
·		<u> </u>			74K U 4 1396			
5. TYPE OF WORK OLO ON Abandonment				Depart	mant -6 181			
6. DRILL METHOD					ment of Water Flesou	Ces		
☐ Mud Rotary ☐ Air Rotary 12 Cable ☐ Other	<u> </u>	ļ					L	ļ
7. SEALING PROCEDURES	<u> </u>						ļ	
SEAL/FILTER PACK AMOUNT METHOD				<u> </u>				\vdash
Material From To Sacks or Pounds				RECE	IVED			
1 541.65								
				MAR 0	1 1996			
	ļ				פאוופייבי			
Was drive shoe used? Y N Shoe Depth(s)				WESTER	SOURCES REGION			\square
Was drive shoe seal tested? Y I N How?	\vdash	 			·			
8. CASING/LINER: Diameter From To Gauge Material Casing Carrier Welded Threaded	<u> </u>		 					\vdash
6" 140 168 280 🕝 🗆								
				- 5	<u> </u>			
	<u> </u>		ļ	<u></u>	* 1			
Length of Headpipe 6 Length of Tailpipe D		<u> </u>			***	1 1		
9. PERFORATIONS/SCREENS		<u> </u>	-		AUG 2 1 1999	,		
Perforations Method Screen Type Joh 5 To N	Car	nniets:	l d Depth	168	a papa ar par at 101 de		surabl	
a occeen Type V O IL A C O VV		npieted e: Star	•		Completed 2			
From To Slot Size Number Diameter Material Casing Liner	Loan	J. J.a.			g. completed at.			
157 168 15 5" 0 0				CERTIFICATIO				
				minimum well constru s removed.	uction standards wer	e compli	ied wi	th at
	u 10 (II	10 1110	A A	_	. 74 * 4		40	^
	Firm I	Name_	يوبن	anulater i)	William Live	Firm No.	<u>ئر.</u>	<u>み</u>
10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:			R	On		2 -	15	- 9
ft. below ground Artesian pressurelb. Depth flow encounteredft. Describe access port or		Official		now 14a	Date_	<i>-</i>	<u>~ U</u>	
control devices: WELL CAP	and Super	n/ienr n	or Oper	ator	Date_			
	Supe	11901	" Ohei	(Sign once if Firm (

1. WELL TAG NO. D <u>0074463</u>	12. S	TATIC V	VATER	LEVEL and WELL, TESTS:				
Drilling Permit No. 974849 - 8809014	Depth first water encountered (ft) 159 Static water level (ft) 79							
Water right or injection well #	Water temp. (°F) 65 Bottom hole temp. (°F)							
2. OWNER: Tradition Custom Homes								
Name	Well test: Test method:							
Address 8454 Brookhaven Ple		down (feet		scharge or Test duration Pump Bailer eld (gpm) (minutes)		owing teslan		
City middlefon State Td. Zip 83644		500		50 3Ms. 0				
3.WELL LOCATION:		50	1/2	30 hr.				
Twp. 4 North or South Rge. 3 East or West	Water	quality t	est or co	omments:				
	13. LIT	HOLOG	IC LO	3 and/or repairs or abandonment:	Dec.			
Sec1/41/4	Bore Dia.	From	To	Remarks, lithology or description of repairs or	Wat	ter		
Gov't Lot County Carry Cor	(in)	(ft)	(ft)	abendonment, water temp.	Y	N		
Lat. 43 0 41:747 (Deg. and Decimal minutes)	1	0	4	107 5001	++			
Long. 16 0 41:431 (Deg. and Decimal minutes)	H-	8	11	Hrd Pan & grave!	+ 1			
Address of Well Site 22278 Kams Hanluay	1	11	18	Cemented gravel	+ +			
City Caldwell	H	18	41	Solid love				
(Give at least name of road + Distance to Hood or Landmark) Lot. 8 Blk. 3 Sub. Name Toylor Ridge	1	41	43	Hrd Red Cinders & class				
	16	43	51	Broken Broclas				
4. USE: Domestic Municipal Monitor Irrigation Thermal Injection	<u></u>	5/	74	Dork Brasand Clay	1			
Other	$\vdash \vdash$	74	77	Binclay	+			
5. TYPE OF WORK:	\vdash	7/	130	med Sand & Clay Strips				
New well Replacement well Modify existing well	\vdash	120	133	Brachy	+			
Abandonment Other		127	11/2	Course Sand	╅═			
6. DRILL METHOD: Air Rotary Mud Rotary Cable Other		140	ex-	med Brasand	+			
NG TO THE PROPERTY OF THE PROP		145	148	Buclay	+			
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft') Placement method/procedure		148	157	Pyn & Blue Cruy Solly Sou				
3/8 Bert O 47 34 bags Dry Pour		151	188	Fractured Binclar & Sand				
1		88	191	Bynclay	1			
8. CASING/LINER:		19/	193	Fractured Brickay	+			
Diameter From To (ft) Gauge/ Material Casing Liner Threaded Welded	 	4.3	795	Hrd Bm C/ay				
6 +2 3067"250 Steel 0 0 0	H	75	101	Silty Micky I. Sie Sous	+			
00000		101	214	Sticky Bro Clay				
		2/4	22/	med Silky Sand				
		221	385	heaving Sandy Clay				
		385	303	Fractured Mex! End		1		
Was drive shoe used? ☐Y ☐N Shoe Depth(s) 306-7		303	307	Hrd Bin Clay				
9. PERFORATIONS/SCREENS:		307	3/3	med white Sand				
Perforations Y N Method	⊢ <u>·</u>							
Manufactured screen Y N Type Solutson					1 1			
Method of installation Leash DN- Valve				100	1			
Fig. (b) To (b) States Attached Diameter Attached Common Schools				7/2/1				
(nominal)	Comple	ted Dept	h (Meas	~ /				
30731214 6" Tele S.S.	Date St	arted: /	11-9	Date Completed: //-/2	5-16	2		
				TIFICATION:	ومرافق ما المراس			
			t all mini was ren	imum well construction standards were compli- noved.	ad with at	Į.		
Length of Headpipe Length of Tailpipe		•			-22			
Packer Y N Type 3-R/8	Compa	iny Nam	HE	C.S. Son Weldrill Say Co. No. 3	266	7		
10.FILTER PACK:	*Princip	oal Drille	(Les	DO Careson Date	27-1	6		
Filter Material From (ft) To (ft) Quantity (ibs or ft ²) Placement method	*Driller		1 Ka	5 pu Date 11	-211	10		
			1100	Date Vt	-401			
	*Opera	tor II	4	Date		_		
11. FLOWING ARTESIAN:	Operat	or I	1	Date				
Flowing Artesian? Y N Artesian Pressure (PSIG)				RECEIVED al Driller and rig operator are required.		_		
	* Signa	iture of	Principa					
Describe control device	6/2024			Crimoon DEC at 1 2016 after				

Crimson Bridge Estates 1954



1. WELL TAG NO. D D0074423								12. S	TATIC V	VATER	LEVEL and WELL TESTS:					
Drilling Pe	Drilling Permit No. 97488-890945								Depth first water encountered (ft) Static water level (ft) 84'							
Water right										Water	temp. (F) Col	d Bottom hale temp (°E	-1	-	
2. OWNER	₹:									Descr	ihe acce	ss nort (d Bottom hole temp. (°F 5" Turtle Cap	′——		
Name Gr	reend	castle	Homes	S						. Well t		so port_	Test me			
Address F	P.O.	Box 2	13								down (feel) Di	scharge or Test duration		Air	Flowing
City Star				St	_{ate} Idah	0	_{Zin} 83	669		132'		44 0	eio (gpin) [(initiales)		_	artesian
3.WELL L							P			102		77	SPM 1 HR. 🗵	H		
			0		n 3	_				Water	guality t	est or c	omments:		_	Ц
Twp. 4	— NOI	nn 🗷	or Sou	tn ∐ N1\/	Kge. <u>∽</u> V	SIM	ast L	or '	West 🔀				and/or repairs or abandonment			
Sec. 10			10 acres	_1/4 14 9	1/4	180 5	1/4	4		Bore	From	То	Remarks, lithology or description of re			Nater
Gov't Lot		_	ount, C	anvon						Dia. (In)	(ft)	(ft)	abandonment, water temp.	-pane or	Y	N
43			41.734	'n				-		10"	0	2	Top Soil			X
116			1 457"	W		(De	g. and I.	Jecimal m	imutes)		2		Brown Clay			X
Gov't Lot County Canyon Lat. 43 ◦ 41.734'N (Deg. and Decimal minutes) Long. 116 ◦ 41.457'W (Deg. and Decimal minutes) Address of Well Site 22273 Rams Horn Way							inutes)		14		Gravel			X		
Address of Well Site EEET of Italia Florify Valy									19		Lava Rock			X		
(City Caldwell									48		Red Cinders			X		
Lot. 24 Blk. 2 Sub. Name Taylor Ridge Sub.										6"	52		Brown Clay			X
4. USE:										P	62 66		Coarse Sand		+-	X
☑ Domesti	ic 🔲	Municip	oal 🔲 il	/lonitor	🗌 Imigatio	on 🗀	Then	mal 🗀] Injection	-	75		Sand & Gravel Sandy Clay			X
Other										-	81		Sand		X	X
5. TYPE O										-	111		Brown Clay		+^	 x
⊠ New well											123		Sand		X	+^
6. DRILL METHOD:											131		Brown Clay		+^	 x
Air Rota			Rotary	X Cable	По	ther					142		Sand		X	+~
7. SEALIN			-	E Oubii					·		148		Sandy Brown Clay		+…	T X
			(ft) To (ft) Quantity	(lbs or ft ³)	Plac	ement n	nethod/pri	ocedure		175		Sand w/ Clay Streaks		X	+
3/8" Ben					0 lbs.						189		Brown Sandy Clay			X
											213	238	Sand		Х	
8. CASING	S/LINE	ER:								'						
Diameter		To (ft)	Gauge/	Mat	erial	Casino	Liner	Threaded	1 Welded							
(Transfer Real)	1.5	227	.250			X			×							
	\rightarrow	_								-					 	↓
	221	226	.258				×		×						+-	-
5" 2	236	238	.258	Steel			X		X				RECEI		+	-
1 1	- 1	1											RECEIVED) 		┼
Was drive s	hoe u	sed?	IY D	N Shoe D	Denth(s)	227'									+-	+
9. PERFOR													DEC 2-8-2016		+	+
Perforations													WATER		+	+
					hnson								WESTERN REGION		+-	1-
Manufacture	ed scr	een [X]	Y LIN	Туре ос	11113011								-5.0%	-	1	-
Method of in	nstalla	ition <u>- u</u>	IIIDack													
From (ft) T	o (ft)	Slot size	Number/f	t Diamete		erial	Ga	auge or Sc	chedule	Comple	ted Dept	h (Mane	238'			
226 2	236	.012	10'	5"	Stainl	ess	304							v 20 30	116	
							+				arted: No			V 30, 20	710	
				1	-		+-						FIFICATION: imum well construction standards wer		بالفائد والمسا	
Lameth of Li		5'	1		-117		<u> </u>			the tim	e the rig	was ren	innum wen construction standards wer noved.	e compii	ea wiin	at
Length of He	eaapıj	pe <u>-</u>	Rubb	Len	gth of Tai	Ipipe <u>4</u>	-			_		Denr	nis Phinns Well Drilling In	33	12	
Packer 🗵	ΥШ	N Type	IVUDD	51 17-1-5	ICKEI					Compa	iny Nam		nis Phipps Well Drilling In Co			
10.FILTER	PAC	K:								*Princi	al Drille		Alusa byz Da	ate Nov	30, 20	016
Filter Ma	terial	Fron	m (ft) T	io (ft) Q	uantity (lbs	or ft ³)	Pla	cement m	nethod	*Driller	11.	RA		ate Nov		
N/A	4) Driner		110				
	•									*Opera	tor II	11.	Da	ate Nov	30, 20	116
11. FLOW	NG A	RTESI	AN:							ı Operat	or 1		Da	ite		
Flowing Arte				tesian Da	assure /D	SIGV.				•						
Describe co			- 11 11		-00015 (F	J.U/_				* Signa	ture of	Princip	al Driller and rig operator are requi	red.		
- VOUING CU																

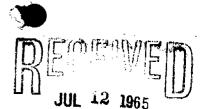
63

1. WELI	_ TAG N	10. D.D	007693	37					12 ST	ATIC W	/ATER	LEVEL and WELL TESTS:				
Drilling	Permit N	No	883	284					Depth first water accountered (#) Static water level (#) 84							
									Water	temn (⁰	E) Colo	Bottom hole temp. (°F)	-			
2. OWN	ER:		1						Descri	he arres	e nort 6	6" Turtle Cap				
Name (3reen	castle	Homes			31			Well to		o port_	Test method:		_		
Addres	, P.O.	Box 2	13							down (feet		scharge or Test duration Pump Bailor		Flowing		
City St	ar			Sta	_{te} Idaho	_{Zin} 83	3669		110'		33 G	eia (apm) (minutes)	/™ a	artesian		
3.WELL									110		000		<u> </u>	ö		
			C#		n 3	<u>-</u>	1 1	At1 50	Water	quality to	est or co	omments:				
1 Wp. 10	INO	TUI IAI O	or South	۵//	Rge. 3 /1/4 SV	East L	or v	vest 🗷	13, LIT	HOLOG	IC LO	G and/or repairs or abandonment:				
					1/4 <u>00</u>	acres 1/	4		Bore Dia.	From	То	Remarks, lithology or description of repairs or	W	ater		
Gov't Lo	t	C	ounty Ca	nyon					(in)	(ft)	(ft)	abandonment, water temp.	Υ	N		
Lat 43		0.4	ounty Ca 11.742'I 1.460'V	1	(1	l hns nad	– Jecimal m	inutes)	10"	0		Top Soil		X		
Long 1	16	04	1.460'V	٧			Decimal m			2		Gravel		X		
Addrose	of Wall	Site 223	311 Rar	ns Hor	n Way	og, and i	Jecillai III	iiiutes/	6"	24 52		Lava Rock Gravel	_	X		
riduress	01 11011	Oile		Cib	Caldwell				0	80		Sandy Clay	_	X		
(Gave at least name of road + Distance to Road or Landmark) Lot. 23 Blk. 2 Sub. Name Taylor Ridge Sub.									-	111		Sand	X	+^		
Lot. <u>43</u>	BI	k. <u>Z</u>	_ Sub. Na	ame I a	ioi Riuge	Sub.		_		115		Brown Clay	 ^`	X		
4. USE:					.		. –			122		Sand w/ Clay Streaks	X			
Other	estic	Municip	aı LIM	onitor L	Irrigation	iner	mai <u>L</u>	Injection		164	170	Dark Clay		X		
5. TYPE										170		Sand	Х			
			ement wel	і □м	odify existing	well				195		Brown Clay		Х		
Abandonment Other										218	239	Brown Sand	X			
6. DRIL				_										_		
				X Cable	☐ Other								₩	-		
7. SEAL	ING PR			T6	(II rd) D)		. 0. 1/		-				-	+		
	entonit					Over	nethod/pro	ocedure				RECEIVED	-	+		
0,0 2	OTTOTAL		- 02	1200	7 155. 10	OVCI	0010					BEOLIVE-				
O CACI	MO# IN											AUG 0.3 2017				
8. CASI Diameter	From (ft)		Gauge/			4 !	T									
(HORIHIAI)			Schedule	Mate			_	Welded				WATER RESOURCES WESTERN REGION				
6"	1.5	226	.250					×				WESTERN HEGION				
5"	222	227	.258	Steel		×		×								
5"	237	239	.258	Steel		×		X					-	-		
									-				-	-		
Was driv	e shoe i	ised? 🕱	IY DN	Shoe D	epth(s) 22	6'					-		-	-		
			REENS:		Φμ(0)								1	_		
			Method											_		
			Y N.		nson											
Method o	turea sci	Pu	illback	ype												
ivietnoa (ation :_ \	, and a	Two												
From (ft)	To (ft)	Slot size	Number/ft	Diameter (nominal)		G	auge or S	chedule	Comple	eted Dep	th (Meas	surable): 239'				
227	237	.012	10'	5"	Stainless	304	4		Data S	tarted: Ju	20, 2	2017 Date Completed: Jul 31, 201	7			
												TIFICATION:				
												nimum well construction standards were compli	ed with	at		
Length o	f Headoi	pe 4.9		Lena	th of Tailpipe	2'			the tim	e the rig	was rei	moved.				
Packer I	XIY F	N Type	Rubbe	r K-Pa	cker				Compa	anv Nam	_e Den	nis Phipps Well Drilling In Co. No. 33	2			
10.FILT				-						•		Date Jul 3		— 17		
	Material		n (ft) To	(ft) QL	antity (lbs or ft ³	Pi	acement n	nethod	*Princi	pal Drille	er	1 11/2				
		Fior	(14)	, (11)	entity (IDS OF IT	P1	acement n	ieu iou	*Drille		/	Date Jul 3	1, 201	17		
	V/A	-							*Opera	ator II	May	Date Jul 3	1, 201	17		
									Ž.	-	11	Date	_			
11. FLO									Opera	tor I <u> </u>	14	// // Date				
Flowing	Artesian'	? 🗆 Y	■ N Arte	esian Pre	ssure (PSIG			-	* Sign	ature of	Princip	pal Driller and rig operator are required.				
Describe	control	device 🗀			-				•							

1. WEL	L TAG	NO. D	0007693	33					12. S	TATIC V	VATER	LEVEL and WELL TEST:	S:			
Drilling	Drilling Permit No.															
Water	right or inj	jection we	ell #						Water temp. (°F) Cold Bottom hole temp. (°F) Describe access port 6" Turtle Cap							
	IER:								Descri	be acce	ss port	6" Turtle Cap	топира (1	/		
Name	Green	castle	Homes						Wellt		p		Test me			
Addres	P.O.	Box 2	13							down (feet		scharge or Test duration	Pump	Bailer	Air	Flowing
City S	tar			Sta	_{te} Idaho	_{Zin} 83	3669		110'		′ [y	ield (gpm) (minutes) GPM 1 HR.	X		-	artesian
	L LOCA			010		,p			110		30 (21 101 11 11111111111111111111111111111		H	H	
			or South		_{Вар} 3	Foot I	1	1A/aat [27]	Water	quality t	est or c	omments:	, 🗀			
1 Wp) 140	INI [V]	or South	N/v	Rge. 3 / 1/4 SV	⊏asi ∟	T Ot	vvest 🔼				G and/or repairs or aband	lonmen	t:		
									Bore Dia.	From	То	Remarks, lithology or descr			1	Water
Gov't Lo	nt	C	county Ca	nyon					(in)	(ft)	(ft)	abandonment, wa			Υ	N
Lat 43	^	0 4	11.756'	V	//	on and F	_ }	in deel	10"	0	2					X
Lan. 1	16	04	1.439'V	V	(L	reg. and L	Jecinai n	illiutes)		2	20					X
Gov't Lot								iinutes)		20	45	Lava Rock				X
Address	or vveii	Site	520 Ttal	110 1 101	Caldwell				6"	45	61					X
(Give at least	name of road	+ Distance to	Road or Landrns	irk) Uny	-					61	69	Sand & Gravel				Х
Lot. 19	BI	_{k.} 3	_ Sub. Na	_{ame} Ta	/lor Ridge	Sub.				69	84					Х
4. USE:										84		Sand			X	
			al 🔲 Mo	onitor [Imigation	Then	mal 🗀] Injection		106		Brown Clay				X
☐ Othe	r								-	120 168		Clay w/ Sand Streaks Clay			X	
5. TYPE OF WORK:									175		Clay w/ Sand				X	
X New	well [Replac	ement wel	І 🔲 М	odify existing	well				202		Sand			X	-
			her						-	223		Clay			+-^	+-
	L METH		D-4	- C-N-	TT 011					223	223	Clay			+	X
				ZI Cable	Other										-	-
	LING PF material			Ouantity	(lbs or ft³) Pla	rement n	nethod/or	ocedure							+	-
$\overline{}$	Bentonit			_) lbs. 10"			ocedule							+	+
		-	-	1											+	+
												RECEIVE	: D		+	+
8. CASI	NG/LIN		Gauge/												+	+
(nominal)	From (III)		Schedule	Mate		_		d Welded		-		AUG 0 3 201	7		1	+
6"	1.5	211	.250	Steel	X			X							+	
5"	208	213	.258	Steel		×	X					WATER RESOUR	CES			
5"	223	225	.258	Steel		X	×					WESTERN REGI			1	
			.=55			П										
						_		_								
Was driv	re shoe ι	ised? 🗵	Y 🗆 N	Shoe D	epth(s)	1'										
9. PERF	ORATI	ONS/SC	REENS:													
Perforati	ions 🔲	Y 🗷 N	Method									•				
Manufac	tured sc	reen 🗷	Y 🗆 N 1	_{Type} Jol	nnson										\bot	
Method	nf installa	ation Pu	llback	. —												-
	т	1		Diameter	1											
From (ft)			Number/ft	(nominal)	Material	Ga	auge or S	chedule	Comple	ted Dept	h (Meas	urable): 225'				
213	223	.012	10'	5"	Stainless	304	ļ		Date St	_{arted:} Ju	1 14, 2	017 Date Comp	lul.betel	20, 20	17	
											9-91	TIFICATION:	reteu.			-
												imum well construction stand	iards we	re compli	ied with	at
Length o	f Headni	ne 5'		Lena	th of Tailpipe	2.1				the rig						
Dooker		N. Tuna	Rubbe	r K-Pa	cker				Compo	ny Name	Deni	nis Phipps Well Drillin	a In 🚓	. N. 33	32	
												11/1				
10.FILT						Т.			*Princip	al Drille	r/	1 lung 1	Da	ate <u>Jul 2</u>	27, 201	17
	r Material	Fror	n (ft) To	(ft) Qu	antity (lbs or ft ³)	Pla	cement rr	nethod	*Driller		,	1	D	ate		
	N/A							7			1.14	117			7 20	17
									*Opera	tor II	10	W	Dr	ate Jul 2	.7, 20	1/
11. FLO	WING A	RTESIA	AN:			•			Operate	ori	ひん	Model	Dr.	ate		
				eian Dra	ssure (PSIG)				•	-						
	control				55015 (1 515)				* Signa	ture of	Princip	al Driller and rig operator a	ire requi	red.		



Depth first water encountered (fit)	1. WEL	L TAG	NO. D	000769	33				12. S	TATIC V	VATER	LEVEL and WELL TESTS:			
Water temp. (%) Cold Sotion hole same, (%) Sotion Sotion hole same, (%) Sotion hole same, (%) Sotion	Drilling	Drilling Permit No. 883732													
Describe access pon 6" Turtle Cap Describe access pon 6" Turtl	Water	right or in	jectlon w	ell #					Water	temn (F Col	d Bottom hole term (0E)			
Name	2. OW	NER:							Descr	ihe arce	es nort	6" Turtle Cap			
Address P.O. Box 213					3						oo port				
Surficial Surf	Addres	₃₅ P.O.	Box 2	13							n Di	scharge or Test duration	۸۰	Flowing	
3. Nert LoCATION:	City S	tar			St	ate Idaho	Zin 836	69			Y	(don) (mindes)		artesian	
Two.	. —								110		500		H	H	
Gov Lat County Carryon Case County Carryon Cose County Carryon Cose C				or Sout	ь П	Pag 3	East 🗖	or West 🖾	Water	quality t	est or c		_	_	
Gov Lat County Carryon Case County Carryon Cose County Carryon Cose C	Sac 10	<u> </u>		U 300	" NV	V 44 SV	Lasi 🔲	OI VVEST A	13. LIT	HOLOG	IC LO	G and/or repairs or abandonment:		7	
GOVI LD Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry Carry C	Sec.			10 acres	-1/4 -10	1/4 180 i	1/4		Bore				W	Vater	
Address of Vells Site 22.32 K RBITS HOTH Valy Cny Caldwell Core of state of the process of the	Gov't Lo	ot		County Ca	anyon				(in)			abandonment, water temp.	Υ	N	
Address of Vells Site 22.32 K RBITS HOTH Valy Cny Caldwell Core of state of the process of the	Lat. 43		0 4	41.756	N	(D	en and Dec	imal minutes)	10"					X	
Address of Vells Site 22.32 K RBITS HOTH Valy Cny Caldwell Core of state of the process of the	10ng 116 041.439'W (Dec and Decimal minutes)						en and Deci	imal minutes)							
Chy Calcidwell Chy Calci	Address	Address of Well Site 22320 Rams Horn Way						mar miniatos)	GII						
Lot. 19 8it. 3 Sub. Name aylof Kinge Sub.	7 (44)	Caldwell							0				-		
A USE: Domestic Municipal Monitor Irrigation Thermal Injection 106 120 8rown Clay X X X X X X X X X	(Cive at least name of road + Distance to Road or Landmark)						Cub		-				-		
A. USE: Domestic Municipal Monitor Irrigation Thermal Injection Other 120 Brown Clay X X 150 Domestic Municipal Monitor Modify existing well 120 Brown Clay X 150	Lot. 15	BI	k. <u>3</u>	_ Sub. N	lame 12	yioi Riage	Sub.				and the same of th		+v	+^	
Municipate Municipate Monitor Imagellon Thermal Injection Thermal Th			.				-						+^	+~	
168 175 Ciay	Othe	estic L	1 winuicit	oal LIN	lonitor [Imgation	_ Therma	I 🔲 Injection		120			+	+^-	
New well			20K.							168			 ^	T _X	
Abardonnent		New well □ Replacement well □ Modify existing well								175	202	Clay w/ Sand	X		
Alf Rotary	Aban	donment		her									X		
7. SEALING PROCEDURES:										223	225	Clay		X	
Sea material Specific (1) To (1) Quantity (8a or ft) Placement method/procedure 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2	X Air R	otary	☐ Mud	Rotary		Other_									
3/8" Bentonite 0 43 1000 lbs. 10" Overbore												No.			
RECEIVED RUGGIORNICH RECEIVED RUGGIORNICH RECEIVED RUGGIORNICH RUGGIORNICH RECEIVED RUGGIORNICH RUGGIORNICH RUGGIORNICH RUGGIORNICH RECEIVED RUGGIORNICH R															
S. CASING/LINER: Casing Liner Threaded Welded Casing Line Threaded Line Threaded Welded Casing Line Threaded Welded Line Threaded Wellet Line Threaded Line Threaded Wellet Line Threaded Wel	3/0 6	entonii	e u	43	100	Jibs. 10	Overbo	re					-	-	
S. CASING/LINER: Casing Liner Threaded Welded Casing Line Threaded Line Threaded Welded Casing Line Threaded Welded Line Threaded Wellet Line Threaded Line Threaded Wellet Line Threaded Wel	21 1200023	Education of the					-					BECEIVED	+	-	
Comming From (it) Col Schedule Material Casing Liter Thresded Wedded Casing Liter Casing Liter Thresded Wedded Casing Liter Casing Liter Casing Liter Thresded Wedded Casing Liter Casing L		-		Gaural I								11202112	-	-	
S	(nominel)	From (n)		Schedule		orial Casing	Liner Thr					AUG 0.3 2017	-		
Silvature Steel	6"	1.5	211	.250	Steel	×						Add o o Lon	1-	-	
S' 223 225 .258 Steel	5"	208	213	.258	Steel		×					WATER RESOURCES	1		
Was drive shoe used? Y N Shoe Depth(s) 211' 9. PERFORATIONS/SCREENS: Perforations Y N Method Manufactured screen Y N Type Johnson Method of installation Pullback From (t) To (t) Slot size Number/ft (nominal) Malerial Gauge or Schedule 213 223 .012 10' 5" Stainless 304 Length of Headpipe 5' Length of Tailpipe 2.1 Packer Y N Type Rubber K-Packer 10. Filter Material From (t) To (t) Quantity (iba or t²) Placement method N/A Date Started: Jul 14, 2017 11. FLOWING ARTESIAN: Principal Driller Operator I Date Signature of Principal Driller and fig operator are regulated. Signature of Principal Driller and fig operator are regulated.	5"	223	225	.258	Steel		X	× 🗆				WESTERN REGION	1		
Was drive shoe used? \(\text{Y} \) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		7-72			76	n	m i	пп							
Perforations Y N Method Manufactured screen Y N N Type Method of installation Pullback From (ft) To (ft) Slot sizs Number/fit (nominal) Material Gauge or Schedule 213 223 .012 10' 5" Stainless 304 Length of Headpipe 5' Length of Tailpipe 2.1 Packer Y N Type Rubber K-Packer 10.Filter Material From (ft) To (ft) Quantity (lbs or ft²) Placement method N/A Date Startes Jul 14, 2017 Date Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: NWe certify that all minimum well construction standards were complled with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Principal Driller Operator I Operator I Signature of Principal Driller and fig operator are regulared.			- I												
Perforations						epth(s)									
Manufactured screen															
Method of installation Pullback From (ft) To (ft) Slot size Number/fit Oliemeter (nominal) Material Gauge or Schedule 213 223 .012 10' 5" Stainless 304 Length of Headpipe 5' Length of Tailpipe 2.1 Packer Y N Type Rubber K-Packer Packer Y N Type Rubber K-Packer Defilter Material From (ft) To (ft) Quentity (ibs or ft²) Placement method N/A Date Started: Jul 14, 2017 Date Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Date Date Date Date Signature of Principal Driller and Tig operator are required.															
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule 213 223 .012 10' 5" Stainless 304 Date Started: Jul 14, 2017 Date Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: I/We certify that all minimum well construction standards were complied with at the time the rig was removed. 15. Packer Y N Type Rubber K-Packer Placement method Principal Driller Date 16. N/A					Type JO	nnson						<u> </u>	-	-	
Completed Depth (Measurable): 213 223 .012 10' 5" Stainless 304 Length of Headpipe 5' Length of Tailpipe 2.1 Packer Y N Type Rubber K-Packer Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Jul 27, 2017 N/A Description of the principal Driller Date Principal Driller Date *Principal Driller Date *Operator II Date Jul 27, 2017 Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Completed Depth (Measurable): 225' Date Started: Jul 14, 2017 Date Started: Jul 14, 2017 Date Started: Jul 14, 2017 Date One Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: I/We cartify that all minimum well construction standards were complied with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller *Principal Driller *Operator II *Operator II *Operator II *Signature of Principal Driller and Tig operator are regulated.	Method o	of installa	_{ition} Pu	liback					1				 		
213 223 .012 10' 5" Stainless 304 Date Started: Jul 14, 2017 Date Completed Depth (Measurable): Date Started: Jul 14, 2017 Date Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: I/We certify that all minimum well construction standards were complled with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Date Date 1. FLOWING ARTESIAN: Company Name Dennis Phipps Well Drilling In Co. No. 34 Principal Driller Date *Operator II Date *Signature of Principal Driller and fig operator are required.	From (ft)	To (ft)	Slot size	Number/ft		Malerial	Gauge	or Schedule	-			225'			
Date Started: Jul 14, 2017 Date Completed: Jul 20, 2017 14. DRILLER'S CERTIFICATION: I/We cartify that all minimum well construction standards were compiled with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Packer X					-			O O O G HOUGH				navie).			
I/We certify that all minimum well construction standards were complied with at the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Company Name Dennis Phipps Well Drilling In Co. No. 332 Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Date 1. FLOWING ARTESIAN: Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Operator II Date Signature of Principal Driller and fig operator are required.	210	220	.012	10	-	Statilless	304		Date St	arted: Ju	14, 20	Date Completed: Jul 20, 201	7		
the time the rig was removed. Company Name Dennis Phipps Well Drilling In Co. No. 332 Company Name Dennis Phipps Well Drilling In Co. No. 332 Company Name Dennis Phipps Well Drilling In Co. No. 332 Company Name Dennis Phipps Well Drilling In Co. No. 332 Principal Driller Date Operator II Date Jul 27, 2017 Placement method Operator II Date Signature of Principal Driller and dig operator are required.								11							
Company Name Dennis Phipps Well Drilling In Co. No. 332 O.Filter Pack: Filter Material From (ft) To (ft) Quentity (lbs or ft ³) Placement method Principal Driller Date			E)			L	<u> </u>		I/We ce	rtify that	all mini	mum well construction standards were complie	ed with a	at	
Filter Material From (ft) To (ft) Quentity (lbs or ft³) Placement method N/A 1. FLOWING ARTESIAN: To (ft) Quentity (lbs or ft³) Placement method Operator II Operator I Signature of Principal Driller And Tig operator are required.	Length of	f Headpi	pe <u>5</u>	Dubba	Leng	th of Tailpipe	2.1			•			_		
*Operator I Date Comparing Artesian? Y N Artesian Pressure (PSIG) Placement method	Packer [XY 🗆	N Type	Rubbe	r K-Pa	скег			Compa	ny Name	Denr	nis Phipps well Drilling In Co. No. 33	2		
*Operator I Date Comparing Artesian? Y N Artesian Pressure (PSIG) Placement method	0.FILTE	R PAC	K:						*Princin	al Driller	. ,	Nah Jul 2'	7, 201	7	
*Operator II Date Jul 27, 2017 1. FLOWING ARTESIAN: Operator I Date *Signature of Principal Driller and tig operator are required.	Filter	Material	Fron	n (ft) To	o (ft) Qu	entity (lbs or ft ³)	Placem	ent method				, Core			
1. FLOWING ARTESIAN: Operator I Signature of Principal Driller and tig operator are required.	1	V/A							*Driller		11	-1-1			
1. FLOWING ARTESIAN: Operator I Signature of Principal Driller and tig operator are required.									*Operat	or II	MA	Date Jul 27	7, 201	7	
lowing Artesian? Y X N Artesian Pressure (PSIG) Signature of Principal Driller and tig operator are required.	11. FLO	MING A	RTESIA	NI:					Onemi	i i	1/1	11/1/			
Signature of Principal Driller and tig operator are required.					neine De-	anura (DOIO)					M			_	
					Joidii Fie				* Signa	ture of F	Principa	il Driller and fig operator are required.			



O26407 WELL LOG AND REPORT TO THE STATE RECLAMATION ENGINEER OF IDAMONTHMENT OF RECLAMATION

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

Permit No.	<u> </u>	We	ii No	County Carryon	
Owner (Dewe	u //	33	man	Locate well in section
Address	PHI	Cal	deve	e l	
Driller /	Rich	Tr	roble	de	NW ¼NE ¼
Address	773	Cal	leve	U	Sec.
Well local	tion <u>//</u>	1/4 SN	/4 Sec. / C	T. 4 N/ R. 7 J/W	3 ^c
Size of dri	lled hole	31			sw¼se¼
			·····	Total depth of well 320	
Give dept	n to standin	g <u>water fro</u>	m the groun	ndWater temp°Fahr.	•
	-			.f.s. Drawdown wasfeet. Pump?	P Bail?
Size of pur	mp and mot	or used to r	nake test	Commences of	
Length of t	rime of test_	9	hours	minutes.	
If flowing	well, give	flow	c.f.s. or	g.p.m. and of shut off pressure	
If flowing	well, descrii	bed control	works	(TYPE AND SIZE OF VALVE	ETC.)
Water will	be used fo)r		Weight of casing per line	
Thickness o	of casing		Casing mo		
Diameter, l	ength and l	location of	asing	(STEEL, CONGRETE, V	
				(CASING 12" IN DIAMETER OR LESS, GIVE C CASING OVER 12" IN DIAMETER, GIVE C	E INSIDE DIAMETER; UTSIDE DIAMETER)
					
				CASING RECORD	
Diam. Casing	From Feet	To Feet	Length	Remarks—seals, g	routing, etc.
7-11	\bigcirc	17/	171		
11/1	160	202	42+		
-7	1 00	192072	10 2		
	<u> </u>				
	<u> </u>	· · · · · · · · · · · · · · · · · · ·	····		
Number ar	nd size of p	perforations	50	8 X 2 2 tocated 170 feet	to 193 feet from ground
					·
		•			/
Date of co	mmencemen	nt of well	3/2	Date of completion of we	6/20/15
		•	,	NWSW 5.10 4N 3N	usils
					(

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated
0	2	lite Soil	225	
2	3	heavy gravel		
3	42	Laba		
42	60	Cement gravel & Sound		
60	87	Site Clay	<u> </u>	
87	96	Blue Shalo		
96	163	lite Brow Sill	-,	
105	140	ble Sandy Clay		
140	168	sill	- ,	
68	1)5	Blue Drale	ges	
75_	220	Tite Clay streets of Silt & Sand	3.4	
· 				
		if more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

	MELL DRIFFER 3 21 VIEWEMI
This well was drilled under my superv	vision and the above information is complete, true and correct to the best of
my knowledge and belief.	Signed Real Inolland
	Ву
Dated 7/7 1963	License No.
	Well Driller's Helper

80\$6\$0

026389

WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

Dopartment	C)	heciamatio.
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Permit No		Well	Non	County Carry on		
I	D	RIV	ledo		Locate wel	l in section
Owner /	Cal	lwel	P			
Address	12.1	197	10	-h	NW1/4	NE1/4
Driller	0 ()	100	or the			,
Address	ara	wet	<u> </u>		1-1-1-1	
Well locati	on //	1/45 W 1/4	Sec. 10	, T. 4 N/K, R. 3 1/W	SW1/4	SE1/4
Size of dril	led hole	3"				
				Total depth of well./25		
Give depth	to standir	ng water from	n the groun	d_7_2		
On "Pumpi	ing Test"	delivery was.	<i>/UU</i> g.p.	m. ore.f.s. Drawdown was 7	feet.	
Size of pun	ip and mo	tor used to m	ake test	Commpresso		·
Length of ti				minutes.		
If flowing	well, give	flow	_c.f.s. or	g.p.m. and of shut off pressure		
_	-	bed control v				
-		or Dow	- /	(TYPE AND SIZE OF VALVE	· / /	<u> </u>
Water will	be used to	or/ye-orr		Weight of casing per line	gi 1001	· · · · · · · · · · · · · · · · · · ·
Thickness o	•		Casing ma	(STEEL, CONCRETE, 1	WOOD, ETC.)	
Diameter, I	ength and	location of co	ising 15	(CASING 12" IN DIAMETER OR LESS, GIV	E INCIDE DIAMETED.	
				(CASING 12" IN DIAMETER OR LESS, GIVE C CASING OVER 12" IN DIAMETER, GIVE C	OUTSIDE DIAMETER)	i
			-			
				CASING RECORD	·	
Diam.	From	То	Length	Remarks—seals, g	trouting sta	
Casing	Feet	Feet	rongm	nomuna—seuis, g	roomig, etc.	
F11	0	130	150	1		
2		100	730	<u>/</u>	——————————————————————————————————————	
						
		1				
						
Number an	nd size of	perforations		locatedfeet	to f	eet from ground
	••					ser nom ground
		-				
Date of		- تعالی الاست. الاست. الاستان ا	1/5	Date of completion of w	2/3/	1/2/
DEIE OF COI	nmenceme	ntotwell∠e⊃	75/	Date of completion of w	eli	
				NWSW 5.10 4N3W	/	usils.
•				7.		

63

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Cauing Perforated Ans. Yes or No
0	3	Hardkan		
3	57	Dense Lava rock		
51	56	gravel	26)
56	85	Hard orangened sandy Clay	Vola	ane
85	101	Hard Sandy Clay		
101	1/2	Hard Blue Clay		<u>s</u>
1/2	124	Blad Clay Seins Silt	200	
124	148	lite Sandy Clary	20	
148	156	pard Blue green clay	70	
156	177	STrocks Clay, Sell & Sand	8/2	
	,			
			<u> </u>	
<u></u>				
		If more space is required use Sheet No. 2		

WELL DRILLER'S STATEMENT

This well was drilled under my	supervision and th	e above information is true and correct to the best of my know-
ledge and belief.		Signed Relative Tolloe T
		Signed Care Care Care Care Care Care Care Care
		Ву
77 / CO	61	License No.

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

59506

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

		[1/4 1/4	
DRILLING PERMIT NO. 63-99-W-0889-000	11. WELL TEST	rs:	Lat: : Long:	: :
Other IDWR No.	Pump	Bailer	X Air Flowing Art	esian
2. OWNER:	Yield gal./min.	Drawdown	Pumping Level	Time
lame Whitmire Construction	150	160	160	4 hours
ddress 408 W. Cherry Lane	ļ	ļ		
ity <u>Meridian</u> State <u>ID</u> Zip <u>83642</u>				
LOCATION OF WELL by legal description:	Water Temp.		Bottom hole temp.	
sketch map location must agree with written location.	Water Quality test or	comments:		
Resolt map location must agree with written location.			Depth first Water Encounter	
N	12. LITHOLOG	IC LOG: (escribe repairs or abandonme	ent) Wat
Twp. 4 North X or South	Bore	To Remarks:	Litteria - Materia Overlita 8 Terran	
ERge. 3 East (or West X	Dia. From	10 Top So	Lithology, Water Quality & Tempe	erature Y
• Sec 10 1/4 NIM 1/4 SIM 1/4	10 10	46 Lava	<u> </u>	
Sec. 10 1/4 NW 1/4 SW 1/4 Gov't Lot County Ada 10 acres 160 acres	8 46	90 Sand &	Gravel	
	8 90		Clay Strips	X
s Address of Well Site 15197 Una Street, off	8 136		у	
	8 150	155 Sand		Х
Old Hwy 30 City Caldwell City Caldwell	8 155	175 Sandst	one	X
Sub. Name Mountain Gem Est	8 175	182 Brown	<u>Clay</u>	,
. USE:	8 182	197 Blue Cl	ay	
X Domestic Municipal Monitor Irrigation	8 197	200 vynite s	and	X
☐ Thermal ☐ Injection ☐ Other				
			No	
. TYPE OF WORK: check all that apply (Replacement etc.)		—· +—··-		
X New Well ☐ Modify ☐ Abandonment ☐ Other				
. DRILL METHOD:				
X Air Rotary Cable Mud Rotary Other				
. SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD		5505	N/ED	
. SEALING PROCEDURES:		RECE	IVED	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Pounds Sacks or Pounds				
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds				
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds		DEC 0	1 1999	
SEALING PROCEDURES: Seal/Filter Pack		DEC 0		
SEALING PROCEDURES: Seal/Filter Pack		DEC 0	1 1999	
Seal/Filter Pack Seal/Filter Pack Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air		DEC 0	1 1999	
Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Benfonite 0 20 400 lbs Pour Was drive shoe used? XY N Shoe Depth(s) 178 Was drive shoe seal tested? XY N How? Air		DEC 0	1 1999	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air CASING/LINER:		DEC 0 WATER B	† 1999 ESOURCES N REGION	
Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air CASING/LINER: Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X N		DEC 0 WATER B	1 1999	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air CASING/LINER:		DEC 0 WATER B	1 1999 ESOURCES N REGION RECEIVED	
SEALING PROCEDURES: Seal/Filter Pack	MOROFUMS	DEC 0 WATER R WESTER	† 1999 ESOURCES N REGION	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air CASING/LINER: Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X X N N How? Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X X N N How? Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X N N N N N N N N N N N N N N N N N N	WOSOFILME.	DEC 0 WATER R WESTER	T 1999 ESOURCES N REGION RECEIVED DEC 1 3 1999	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour //as drive shoe used? XY N Shoe Depth(s) 178 //as drive shoe seal tested? XY N How? Air CASING/LINER: iameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X X X ength of Headpipe Length of Tailpipe PERFORATIONS/SCREENS:	W CROF! ME	DEC 0 WATER R WESTER	1 1999 ESOURCES N REGION RECEIVED	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour //as drive shoe used? XY N Shoe Depth(s) 178 //as drive shoe seal tested? XY N How? Air CASING/LINER: iameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X X X ength of Headpipe Length of Tailpipe PERFORATIONS/SCREENS: Perforations Method	V CROFILM	DEC 0 WATER R WESTER	T 1999 ESOURCES N REGION RECEIVED DEC 1 3 1999	
SEALING PROCEDURES: Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air CASING/LINER: iameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X X X Bength of Headpipe Length of Tailpipe PERFORATIONS/SCREENS:	Completed Depth 2	DEC 0 WATER B WESTER Dec	1 1999 ESOURCES N REGION PLE C E I V E D DEC 1 3 1999 Dartment of Water Resources	S (Measurable
SEALING PROCEDURES: Seal/Filter Pack		DEC 0 WATER B WESTER Dec	T 1999 ESOURCES N REGION RECEIVED DEC 1 3 1999	S (Measurable
SEALING PROCEDURES: Seal/Filter Pack	Completed Depth 2 Date: Started 11/	DEC 0 WATER B WESTER Dec	PEC EIVED DEC 1 3 1999 Dartment of Water Resource:	S (Measurable
SEALING PROCEDURES: Seal/Filter Pack	Completed Depth 2 Date: Started 11/	DEC 0 WATER BY WESTER Dec	PEC ELVED DEC 1 3 1999 Dartment of Water Resources Completed 11/26/9	s (Measurable
SEALING PROCEDURES: Seal/Filter Pack	Completed Depth 2 Date: Started 11/	DEC 0 WATER R WESTER Dec 200 23/99 CERTIFICA inimum well const	PEC EIVED DEC 1 3 1999 Dartment of Water Resource:	s (Measurable
SEALING PROCEDURES: Seal/Filter Pack	Completed Depth 2 Date: Started 11/ 13. DRILLER'S I/We certify that all m the time the rig was re	DEC 0 WATER BY WESTER Dec 200 23/99 CERTIFICA inimum well constemoved.	ESOURCES N REGION RECEIVED DEC 1 3 1999 Deartment of Water Resources Completed 11/26/9 TION: ruction standards were compli	s (Measurable
SEALING PROCEDURES: Seal/Filter Pack	Completed Depth 2 Date: Started 11/ 13. DRILLER'S I/We certify that all m the time the rig was re	DEC 0 WATER BY WESTER Dec 200 23/99 CERTIFICA inimum well constemoved.	PEC ELVED DEC 1 3 1999 Dartment of Water Resources Completed 11/26/9	s (Measurable
Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Benfonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air B. CASING/LINER: Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X N N How? Perforations Method Screens Screen Type From To Slot Size Number Diameter Material Casing Liner O. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Completed Depth 2 Date: Started 11/ 13. DRILLER'S I/We certify that all m the time the rig was re	DEC 0 WATER BY WESTER Dec 200 23/99 CERTIFICA inimum well constemoved.	PEC ELVED DEC 1 3 1999 Dartment of Water Resource: Completed 11/26/9 TION: ruction standards were compliance.	s (Measurable
Seal/Filter Pack AMOUNT METHOD Material From To Sacks or Pounds Bentonite 0 20 400 lbs Pour Vas drive shoe used? XY N Shoe Depth(s) 178 Vas drive shoe seal tested? XY N How? Air B. CASING/LINER: Diameter From To Guage Material Casing Liner Welded Threaded 8 +2 178 250 Steel X N N How? Depth of Tailpipe Dept	Completed Depth 2 Date: Started 11/ 13. DRILLER'S I/We certify that all m the time the rig was re Company Name Tre	DEC 0 WATER BY WESTER Dec 200 23/99 CERTIFICA inimum well constemoved.	PECELVED DEC 1 3 1999 completed 11/26/9 TION: ruction standards were completed Drilling Firm N Date	s (Measurable 99 ied with at

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.

Pw

1.	WELL OWNER 454-3558	7. V	WATER					
	Name <u>BAVT</u> <u>GCPNEV</u> Address <u>22430</u> <u>RavTLRdge</u> <u>83605</u> Drilling Permit No. <u>63-92-C-1060-000</u>	, s			evel <u>70</u> feet below lan			
	Address 22430 Rarthadge 83605	▎▕			•	P.M. flow		
	63-91-C-1060-000	^			ed-in pressure p.s.i. : Valve Cap	i. Plug		
		T			°F. Quality	_		
	Water Right Permit No.				Describe artesian or temperature zone	ies below.		
2.	NATURE OF WORK	8. V	WELL T	TEST [DATA			
	New well □ Deepened □ Replacement	1	NELL I			☐ Other		
	☐ Well diameter increase ☐ Modification							
	☐ Abandoned (describe abandonment or modification procedures	D	Discharge			Hours P	Pumped	<u> </u>
	such as liners, screen, materials, plug depths, etc. in lithologic		50	<u>'</u>	130	7	<u></u>	
	log, section 9.)	-				 		
3.	PROPOSED USE							
_		9. L	LITHOL	_OGIC	LOG	08273	38	
	☐ Industrial ☐ Stock ☐ Waste Disposal or Injection	Bore		pth			⊤ Wε	ater
	☐ Other (specify type)	Diam.	From	То	Material		Yes	No
		76"	0	3	Fill			X
-	METHOD DRILLED	10"	1 25	25			 	X
	□ Rotary □ Air □ Auger □ Reverse rotary □ Cable □ Mud □ Other	10		50	SAND GVAVO	<u> </u>	+	
	☐ Cable ☐ Mud ☐ Other(backhoe, hydraulic, etc.)	6			CA'A RIUC	<u> </u>	 _ 	X
<u> </u>		-6	130	135	Brown Clay		X	
5.	WELL CONSTRUCTION	6	135	143			 	X
	Casing schedule: Steel □ Concrete □ Other		143	155		Quart		
	Thickness Diameter From feet 17 feet	6	1-12	171	SAND AND 9h	CAUCL	X	<u> </u>
	inches inches feet feet feet				,	<u></u>		
	inches inches feet feet	<u> </u>	 	 			\coprod	
	Was casing drive shoe used?		-	 			-	-
	Was a packer or seal used? ✓ Yes ✓ No Perforated? ✓ Yes ✓ No						†	<u> </u>
	Perforated? ☐ Yes No How perforated? ☐ Factory ☐ Knife ☐ Torch ☐ Gun				DECELV	1511		
	Size of perforation? inches by inches	<u> </u> !	 	<u> </u>		<u>C</u>		<u> </u>
l	Number From To	<u> </u>	 	 	DEC 2.3 1993		┼	
	perforationsfeetfeetfeet		<u> </u>		DEU 60 133/	2	<u> </u>	
	perforations feet feet				Department of Water Res	Seattle Seattl		
	Well screen installed? ★ Yes □ No		 	<u> </u>	Western Regional Off	ifice	 	-
	Manufacturer Jokeson Type 15 S10T \$\$. Top Packer or Headpipe	-	\vdash	 			 	
	Bottom of Tailpipe							h
	h male							Ĺ
	Diameter Slot size 15 Set from 140 feet to 152 feet Slot size Set from feet to 152 feet		├	 	RECEI	VED		-
	Diameter Slot size Set from feet to feet Gravel packed? □ Yes X No □ Size of gravel	-			i		 	
	Placed from feet to feet			fin	DEC 18	, 1992		
	۲-		₽^ c	* 1. A	A Popartment Wa	osar Regoutoes	\Box	<u> </u>
l	Surface seal depth Material used in seal: Cement grout Bentonite Puddling clay	\vdash	 	 - 	4.53.65	Acce	+	
l	Sealing procedure used:		<u> </u>	AUG	00-			
	☐ Temp. surface casing	·			1993			<u> </u>
	Method of joining casing: Threaded Welded Solvent Weld	<u>, </u>			<u> </u>			<u></u>
	□ Solvent Weld □ Cemented between strata	10.	ودت				,	•
	Describe access port	,	Work s	started	12-14-92 finished	1 12-1	16-9	72
		<u> </u>						
	LOCATION OF WELL	11. [DRILLF	<i>E</i> R'S C	CERTIFICATION			
l	Sketch map location must agree with written location.			-	that all minimum well constru		ards w	vere
l	Subdivision Name Rutledge RANCH	1			h at the time the rig was remo			
ŀ	RANCH	1	Firm N	ame 🏒	Kuie Firm	No. 41	<u> </u>	_
	Lot No Block No	ļ ,	^~dres	~ 81	5 W. Plymarth Date	12-1	7-8	77
	County CANYON		Auuroo.	š - // - -	man /	1/		^
ı	Address of Well Site 22430 Rutledge (give at least name of road)		Signed	by Dri	rilling Supervisor Muke	Knie		
	(give at least name of road)			1	and N_/D			
	NW 1/4 SW 1/4 Sec. 10, R. 3 E or W X			(Op	perator) Por Panas, (If different than the	Marina Sun	dans	
					(II dilierent trian trie	Norming Supe	∌FVISOI /)

W3

1. WELL TAG NO. D 0074594	12. STATIC WATER LEVEL and WELL TESTS:								
Drilling Permit No. 975760-881943	Depth first water encountered (ft) 186 Static water level (ft) 80								
Water right or injection well #				Bottom hole temp. (°F)					
2. OWNER: Woltman Homes	Descri	be acces	ss port ₄	Sant Seal Well Cap					
Name	Wellt	est.		Test method:					
Address 14233 Silver Kidge Rd.	Draw	down (feet		charge or Test duration Pump Bailer		lowing rtesian			
City Caldwell State Jd. zip 83607	de	20	10	10 / hr.					
3.WELL LOCATION:	1	10	1//	O VAr-					
Twp. 4 North or South Rge. 3 East or West				mments:		—			
Sec. 10 1/4 1/4 5 W 1/4 5 W 1/4	13. LIT		E .	and/or repairs or abandonment:	l w	ater			
	Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Y	N			
Gov't Lot County <u>Can you</u>	177	1		78 D Soil	Ť	سه			
Lat. 43 (Deg. and Decimal minutes)		6	17	Sand		سشع			
Long. (Deg. and Decimal minutes)		17	53	Blk Solid Lava		مسن			
Address of Well Site 22382 Rams Horn Way		53	55	Red Cinders		-			
Give at least name of road + Deterois to Road of Landmark)	16	55	58	grave!		2-			
Lot. 21 Blk. 2 Sub. Name Toylor Ridge	\vdash	58	6/	Bracky	-	مد			
4. USE:		6/	83	gravel		4			
☑ Domestic ☐ Municipal ☐ Monitor ☐ Imigation ☐ Thermal ☐ Injection	+	2000	138	BINClay & Sand	\vdash	4			
Other	+	3115	145	Strips of Bin Clay & So	new/	1			
5. TYPE OF WORK:		192	101	Strips of Bin Clay & Do Fractured Blue Clay	70				
New well Replacement well Modify existing well Abandonment Other	- -	101	13/	med Sond	1	-			
	-	131	198	Buclay & Sand					
6. DRILL METHOD: Air Rotary Mud Rotary Cable Other		198	201	Bracky					
		201	209		سسف				
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft') Placement method/procedure									
3/8 Best 0 47 35 bass Dry Pour									
					_				
8. CASING/LINER:					1				
Diameter From To (ft) Gauge/ Material Casing Liner Threaded Welded	-	4		RECEI	-	-			
(nominal) (n) Schedule Schedule				RECEIVED					
0 17 10 17 130 37CG				MAY OR -					
					 				
				WATER RESOURCES					
				WESTERN REGION					
Was drive shoe used? ⊠Y □ N Shoe Depth(s) 201-7/3									
9. PERFORATIONS/SCREENS:									
Perforations Y N Method					_				
Manufactured screen ØY □ N Type SohnSon	<u> </u>								
Method of installation / Jash DN- Valve	\vdash				-				
Diameter	1			2.51	1				
Prom (ii) 10 (ii) Slot size Number/ii (nominal) Material Gauge or Schedule			h (Meast						
204209 16 6" Yele S.S.	Date St	arted: c	3-28	7-17 Date Completed: 3-3/	-/7				
				TFICATION:					
				mum well construction standards were complie	d with a	at			
Length of Headpipe Length of Tailpipe	ine um	e une ng	was rem						
Packer Y N Type 3-Rib	Compa	ny Nam	rec	Sion Weller // Kngo. No. 5	1/	<u> </u>			
10.FILTER PACK:	*Princi	al Phile	0	DO MARCON Date of	9-1	ノフ			
Filter Material From (ft) To (ft) Quantity (lbs or ft²) Placement method	,	///	1427	otam II-	9-1	7			
	*Driller	4/1/9	1 YU	Date 4	1-1	1			
	*Opera	tor II	NULL	Ravon Date 4/	9/17				
44 EL OMANG ADTECIANA	•			Date					
11. FLOWING ARTESIAN:	Operat			Date					
Flowing Artesian? TY N Artesian Pressure (PSIG)	* Signa	iture of	Principa	al Driller and rig operator are required.					
Describe control device									

103

1. WEL	L TAG	NO. D	000718	26	(15)				12. S	TATIC V	VATER	LEVEL and WELL T	ESTS:				
Drilling	Permit I	No	177	708	-87	YME	5			i first wat	er enco	untered (ft)	Static w	ater leve	(ft) 8	30'	
Water	right or in	jection w	ell #						- Wate	r temp. (^c	F) Col	d Bottom	hole tem	D. (°F)			
2. OWN	IER:								Desc	be acce	ss port	d Bottom 6" Turtle Cap		p. (.)			
Name	Green	castle	Homes	3					. Well					st metho			
Addres	s P.O.	Box 2	13							vdown (fee		scharge or Test durat	ion D.	ımp Bail		Air	Flowing
City S	tar			Sta	_{te} Idaho	Zip 83	669		200	0.0		ield (gpm) (minutes GPM 6 HRS.)			X	artesian
	LOCA			_					. 5				년	5 6	i		ŏ
			or Sout	ь л і	Dag 3	Foct □	l or i	Afant IVI	Water	quality t	est or c	omments:					
Son 10		101 (2)	01 3001	", NW	Rge. 3	V	. 01	AAGS! IVI	13. LIT	HOLOG	IC LO	G and/or repairs or a	bandon	nent:			
Sec			TO nores	1/4 40 sc	704 160	80798	1		Bore Dia.	From	To	Remarks, lithology or	descriptio	n of repain	or	T	Water
Gov't Lo	it	С	county Ca	anyon					(in)	(ft)	(ft)	abandonme	mt, water te	нтр.		Y	N
Lat. 43		0.4	1.801	N	//	Dec. and D	- Jacimal m	iru dana).	10"	0		Top Soil					X
Long 1	16	۰4	1.471%	N	*	oog. and D		indes		5		Sandy Brown Cla	у				X
Address	of Mail	Site 223	346 Ra	ms Hor	n Way	reg. and D	CHILLIAN III	mutes)		9		Gravel w/ Sand					X
ruuless	Of THEIR	Oile		City	Caldwell				6"	17 49		Lava Rock					X
(Give at reset	name of road	• Uislance to	Road or Landin	T-	Caldwell	0.1			0	71	71					₩	X
Lot. ZU	BI	k, <u>3</u>	_ Sub. N	ame I ay	lor Ridge	Sub.				101		Sandy Brown Cla Sand	у			X	X
4. USE:			_	_		_				107		Sandy Brown Cla	v			 ^	T _X
☑ Dom ☐ Other	estic 🗀	Municip	al 🔲 M	onitor [] Irrigation	☐ Them	nal 🗀	Injection	·	114		Sand	<u>y</u>			├ _X	
_		DIK.								119		Sandy Brown Cla	v			 ^	 x
5. TYPE			ement we	II 🗆 M4	odify existing	umli				122		Sand	7			x	
Aban	donment	Ot	her	11 11000	way avenue	WGII				123		Sandy Brown Cla	V			<u> </u>	 x
6. DRIL										132		Sand w/ Clay	,			X	
			Rotary	X Cable	Other_					183	194	Clay w/ Sand Stre	eaks			X	
7. SEALING PROCEDURES:										194		Sand				X	
	material				ibsorit') Pla			ocedure		199		Brown Clay					X
3/8" B	entonit	e 0	45	1250	lbs. 10"	Overb	ore			203		Sand				X	
										205		Sandy Clay w/ Sa	nd Stre	aks		X	
8. CASI										245	255	Sandy Clay				<u> </u>	X
Diameter (nominal)	From (ft)	To (ft)	Gauge/ Schedule	Mater	rial Casir	ng Liner	Threaded	Welded									
6"	1.5		.250	Steel	×			×								-	+
												D	EA	6			-
									3			- 1	EU	EIV	E	-	+
						_							E C JUL				+
						_							JUL	0 6 20	16		_
Was driv	e shoe u	ised? 🗵	Y 🗆 N	Shoe De	epth(s)2()1'						W	ATER D		10		1
9. PERF	ORATIO	ONS/SC	REENS:									И	ATER RI ESTER	N DEC	ES		
Perforati	ons 🔲 '	Y X N	Method											TECH	14		
Manufac	tured scr	een 🗵	Y [] N	Type Cei	rta-Lock S	creen											
Method o	of inetalls	_{tion} Pu	llback	.,,,,,		-											
				Diameter		1		=				<u></u>					
From (ft)			Number/ft	(nominal)	Material	Ga	uge or Sc	hedule	Comple	eted Dept	h (Meas	urable): 255'					
175	255	.020	80'	4.5"	PVC	SDF	R17		Date S	tarted: Ap	or 20, 2	2016 Date (Completed	May 17	7. 20	16	
									100			TIFICATION:	Completed	1, ,			
												imum well construction	standard:	s were co	molie	d with	n at
Length o	f Headpi	pe N/A		Lenai	h of Tailpipe	N/A			the tim	e the rig	was ren	noved.					
Packer i	я У П	N Type	Rubbe	r K-Pac	cker				Compa	any Name	, Denr	nis Phipps-Well Di	rilling Ir	1 Co No	332	2	
10.FILT										war wil		Master					016
	Material	Fron	n (9) T	. /#\	antity (lbs or ft ³)	Di-			Princi	pal Drille	- H	MATHE THE	(C)	Date			
		7101	1 (11)	o (ft) Qui	anuty (ibs or it)	Plac	cement m	Herrido	*Driller	11	EN	200	- 19	_ Date N	/lay '	18, 2	016
	V/A	+				-			*Opera	1	1		177 <u> </u>	Date N			
11. FLO	WING A	RTESIA	AN:	- 1		1			Opera	-	7		.0	_ Date N			
				esian Pre	ssure (PSIG)				,								
	control (* Sign	ature of	Princip	al Driller and rig opera	ator are r	equired.			

1. WEL	L TAG I	NO. D	000717	46					42 6	TATICA	WATED	LEVEL and WELL TESTS:					
Drilling	Permit I	No. 9=	7198	3 -	27804	10						untered (ft) Static wa	stor lovel /#\	12	0'		
			and the second second		7					tamo (E Col	d Bottom hole temp	0c			—	
2. OWN	IER:								- Weich	iba acco	00 004	6" Turtle Cap	.()			_	
Name	Rafter	Bar V	(Jeff	Parker)							ss hour		4 43 1				
	P.O.			·					- Well t	vdown (fee	, Di	schome or Test duration	t method: no Bailer		Fic	oniwo	
				SH	_{ite} Idaho	70	8367	0	400		'/ yl	leld (gpm) (minutes)	'	Alr	art	eslan	
	L LOCA			312		_ ~			- 400		13 0	GPM 1 HR.					
				. —	_ 1	_	_		Water	quality (est or c	omments:		ш			
Twp. 1	No	曲区	or Sout	∄∐ ⊝\∧	Rge.	_ Ea:	st 🔀 c	r West 🗌	13 147	-		G and/or repairs or abandonm				_	
Sec. 10	,		10 acres	_1/4 	1/4	C 50 acres	1/4	r West □	Bore	From	To				Wat	er	
Govern			Gunh, G	em	1.				Dia. (in)	Dia. (6) (6)					Y		
43			6.292'	N					10"	0	5	Top Soil		_	一	X	
Lat. 1	16		0.4623	N		(Deg.	and Decin	nal minutes)		5	12			\top	\neg	X	
Long	****	51°	15 Mon	tour Re	1	(Deg. i	and Decim	al minutes)		12		Sandy Brown Clay				Х	
Address	or vveii :	Site <u>- 1</u>	10 111011	TODI TY	Fmmett				-	18		Hard Brown Clay			\Box	Х	
(Give at least	name of road	+ Distance to	Road or Landri	wo City	Emmett				·	30	36			_	4	Х	
									- 6"	36				\bot	4	X	
4. USE:	4. USE:									52 57	57				4	X	
⊠ Dom	estic 🗀	Municip	oal 🔲 M	Ionitor [] Imigation		Thermal	☐ Injectio	n 12"	67		Brown Clay		+	-	X	
Other									. •	71		Broken Rock		╬	\dashv	÷	
	OF W									73	<u> </u>	·	GPM)	+			
⊠ New L	weil L donment	J Replac	ement we her	ш ЦМ	odify existin	g well				420		Brown Clay	21 141/	+-^	+	X	
	L METH								-	443		Cemented Gravel w/ Clay	(15 GPN	n x	+		
			Rotary	☐ Cable	☐ Other	•						,	(10 01 11	7	-		
	ING PR				_										\top		
Seal	material	From	(ft) To (ft)					d/procedure	7						\Box		
	lentonit) lbs. 10]	ļ							
3/8" E	entonit	e 57	64	250	lbs. 12	" O\	/erbor	е	J						4		
8. CASI									-	-				+-	4		
(nominal)	From (ft)	To (ft)	Gauge/ Schedule	Mate	rial Ca	sing Li	iner Thre	aded Welded	-	1.		RECEIV	ED-	+-	-		
6"	2	73	.250	Steel		K			-			1,12021			+		
4.5"	15	135	SD17	PVC		3 1	X (3 □		-		APR 15 20	116	+	-		
	1				— г] [3 0				AII TO E	,,,,	+-	+		
												WATER RESOUR		+	+		
								. L				WESTERN REG	ION		\neg		
Was driv	re shoe u	ised?	d ∟ ∧	Shoe D	epth(s)	73'									寸		
9. PERI	ORATI	ONS/SC	REENS	:													
Perforati	ons 🔲	Y 🗵 N	Method											\bot	4		
Manufac	tured sa	reen 🗵	Y 🗆 N	Type Ce	rta-Lock	Slot	tted So	reens						\bot			
Method	of installa	ation Dr	op In						´					+	+		
From (ft)			Number/ft	Diameter	Managar			6 - 1 - 4 4 -	, 			4751					
- ' '	-			(TROTTHINES)				or Schedule		eted Dep							
135	435	.020	300'	4.5"	PVC		SDR1	/	Date S	tarted: M	ar 2, 2	016 Date Completed:	Mar 10, 20	016			
				ļ					14. DI	RILLER'	S CER	TIFICATION:			-		
L												imum well construction standards	were compli	ied wil	th at	1	
Length o	f Headpi	_{pe} 120	,	Leng	th of Tailpip	e <u>0</u>				e the rig							
Packer	□Y 🗵	N Туре	·						Comp	any Nam	e <u>Deni</u>	nis Phipps Well Drilling In	, Co. No. <u>33</u>	32		_	
10.FILT	ER PAC	K:							*Princ	ipal Drille	. 1	Must	_{Date} Mar	11, 2	016	3	
	r Material		m (ft) T	o (ft) Q	antity (lbs or fi	3	Placem	ent method								_	
	N/A	 	-			+			- *Drille			10	Date			_	
			_	\dashv		-			*Open	ator II	Do.	110	Date Mar	11, 2	016	3	
11. EL O	WING A	RTESI	ΔN·							tor I							
				tanian Da	essure (PSIC	<u>., —</u>							Date			_	
Describe				ωασιι Γ(t —	soure (FOIL	-/-			* Sign	ature of	Princip	al Driller and rig operator are re	quired.				
- COLUMN	الاللالالاست	ACIAILE.															



1. WELL TAG NO. D D00/1/45										12. 81	ATIC V	VATER	LEVEL and WELL TES	TS:				
Drilling	Drilling Permit No. 971932 -8 77989									Depth first water encountered (ft) Static water level (ft) 60'								
Water ri	ght or inj	ection w	ell #	_							Water	temp. (°	F) Cold	Bottom hol	e temp. (°	F)		
2. OWN	ER:										Descri	be acce	ss port 6	6" Turtle Cap	- tp. (,		
Name	Pione	er Horr	ies (Kristi S	Sant	ty)					Wellt				Test m	ethod:	_	
Addres	_s 2239	1 Ran	ns Ho	orn Wa	У							lown (feet	Dis	scharge or Test duration	Pump	Bailer		Flowing
City Ca	aldwel	l			State	_e Idaho	Zic	,83607	7		170'		37 G	eld (gpm) (minutes) SPM 1 HR.	×			artesian
3.WELL								<i>-</i>			1		- 0, 0	71111.	⊣ 📅	ä	Ħ	H
			C			3 3		. m	. 184	1001	Water	quality t	est or co	omments:		_	_	_
1 Wp. 10	NO	LOT (ŽI)	or S	(η ΛΛ/L	Rge. 3	Eas	it L.J. Of	vvest	X				and/or repairs or abar	ndonmen	t:		
Sec. 10			10 acr	1/4	40 acre	1/4	150 acres	_1/4			Bore	From	То	Remarks, lithology or des			T W	/ater
Gov't Lo		C	county	Canyo	n						Dia. (in)	(ft)	(ft)	abandonment, v	YN			
Lat 43			11.84	7'N			/Dag 4				10"	0		Top Soil				X
Long 11	16	04	1.43	3'W			(Deg. a	BING DOCKIE	as minutes,	,		3		Brown Clay				X
Address	-6104-114	Sau Sau	me				(Deg. a	and Decimi	al minutes))		10		Clay w/ Gravel				X
Address	or vveii a	Site <u></u>			 1	Caldwe	ш				011	27		Lava Rock			-	X
(Give at least o	name of road	• Ulstance to	Road or L	andmark)	City	Caldwe	-			_	6"	46		Brown Clay			↓	X
Lot. 19	Bii	ر <u>2</u>	_ Sub	. Name	ay	lor Ridg	je Su	ıb.				50 71	71	Gravel Sandy Brown Clay			-	X
4. USE:											-	106		Sand Sand			X	X
⊠ Dome	estic	Municip	al [Monitor		Irrigation	T	hermal	☐ Injec	ction	-	113		Sandy Clay			+^	X
Other										_		122		Brown Clay			-	Î
5. TYPE				tl	1	والمساورة والكالم						126		Sandy Clay			 	 x −
Aband	ven L Jonment	☐ Ot	emeni her	weii _	T IMO	dify existing	ig well					136		Clay			1	X
												151	162	Tan Clay				X
6. DRILL METHOD: ☑ Air Rotary ☑ Mud Rotary ☑ Cable ☐ Other									162	180	Sandy Clay			\top	X			
	7. SEALING PROCEDURES:								_		180	208	Sand			X		
Şeal	malerial	From	(ft) To	(ft) Quar		bs or ft')				9								
3/8" B	entonit	e 0	4	15 12	250	lbs. 10	<u>)" Ov</u>	erbore	2									
8. CASI															CEI	VF1		
Diameter (nominal)	From (ft)	To (ft)	Gauge		Aateri	i al Ca	ssing Lit	ner Threa	ded Wek	ded	\vdash			HE	<u>U L I</u>	V	1—	-
6"	2	198		Stee	ī) <u> </u>	3				A)	5 1 ac	2016	+	
5"	193	198		3 Stee				x C] 🗵	ส	\vdash	-		A	TR 13	2010	+	\vdash
	.100	130	.200	Olee										WAT	ER RES	JURCES	+	
				+-										WE	STERN	IEGION	-	
						'				J							+	+
Was driv	e shoe u	ısed? ⊠	Y [N Sho	e De	pth(s)	198'											1
9. PERF	ORATIO	ONS/SO	REE	4 5:														
Perforation	ons 🔲 '	Y 🗷 N	Meti	nod														
				N Type	Joh	nson				_								
Method c	ficetalls	ation Wi	ashd	own							\perp							ļ
		F		Dine	nter I													
From (ft)	To (ft)	Slot size	-	ernt (nomi	nal)	Materia			r Scheduk	е	Comple	ted Dept	h (Meas	urable): 208'				
198	208	.012	10)' 5'		Stainle	3S 3	304			Date St	erted: Fe	eb 25, 2	2016 Date Com	npleted:Ma	ar 7, 201	6	
														TIFICATION:	пристиц.			
											I/We ca	rtify that	t all m i ni	imum well construction sta-	ndards we	re compli	ed with	at
Length o	f Headpi	_{pe} 5'			engti	h of Tailpi	_{pe} .7"				the time	the rig	was ren	noved.		-		
Packer [ਸ਼ y □	N Type	Rub	ber K-	Pac	ker					Compa	ny Nam	_e Denr	nis Phipps Well Drilli	ing In _C	o. No. 33	2	
Packer ☑ Y ☐ N Type Rubber K-Packer						_	*Principal Driller Date Mar 8, 2016						6					
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method							"Princip	pal Drille	6									
N/A					_	*Driller	(1)	X D	P		_{late} Mar	8, 201	6					
<u> </u>	WM	-	-				+			Operator II Date Mar					_{ota} Mar	8, 2016		
											Opera		-			-812		
	LOWING ARTESIAN:						Operator I Date											
Flowing /	Artesian'	7 🗆 Y	XN	Artesian	Pres	ssure (PSI	G)				* Signs	turn of	Princip	al Driller and rig coerator		luna el l		

Describe control device



1. WELL TAG NO. D 00074695	12. S1	ATIC V	VATER	LEVEL and WELL TESTS:				
Drilling Permit No. 9762168 - 882325	Depth first water encountered (ft) Static water level (ft)							
Water right or injection well #	Water	temp. (⁰	_{F)} Colo	Bottom hole temp. (°F)				
2. OWNER:	Descri	he acces	ss nort 6	5" Turtle Cap				
Name Greencastle Homes	Wellte		,	Test method:				
Address P.O. Box 213		lown (feet		scharge or Test duration Ruma Bailes		Flowing		
City Star State Idaho Zip 83669	90'		41 G	aut (fibris) (mustres)		ertesian		
3.WELL LOCATION:			1	SPM 1 HR. 🛛 🖂 🖂	H	H		
	Water	quality to	est or co	omments:	_			
Twp. 4 North ⊠ or South ☐ Rge. 3 East ☐ or West ☒				and/or repairs or abandonment:				
Sec. 10 1/4 NW 1/4 SW 1	Bore	From	То	Remarks, lithology or description of repairs of	, v	/ater		
Gov't Lot County Canyon Lat. 43	Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N		
Lat 43 041.840'N (Can and Canada)	10"	0				X		
116 941.465'W (Dec. and Decimal minutes)		2		Sandy Brown Clay		X		
(Deg. and Decimal minutes)		20		Lava Rock		X		
Address of Well Site 223 5 (Caldwell	6"	63		Gravel	\bot	X		
(Give at least name of road - Distance to Road of Landmists) City Caldwell		68		Sandy Brown Clay		X		
Lot. 20 Blk. 2 Sub. Name Taylor Ridge Sub.		80		Brown Clay	— V	X		
4. USE:		115		Sand Sandy Clay	X			
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection		135		Brown Clay		X		
Other		142		Sandy Clay		 ^		
5. TYPE OF WORK:		157		Sand	X	+^		
⊠ New well		162		Sandy Clay	 ^	X		
6. DRILL METHOD:		194		Sand	X	 ^		
Air Rotary		198		Brown Clay	 	X		
7. SEALING PROCEDURES:		211		Sand	X	1		
Seal material From (ft) To (ft) Quantity (fbs or ft²) Placement method/procedure		231	233	Sandy Clay		X		
3/8" Bentonite 0 63 1250 lbs. 10" Overbore								
8. CASING/LINER:								
Diameter (nominal) From (ft) To (ft) Gauge/ Schedule Material Casing Liner Threaded Welded				RECEIVED		<u> </u>		
6" 2 222 .250 Steel					\bot	<u> </u>		
				JUN 0 2 2017				
	-					_		
5" 231 233 .258 Steel		-		WATER RESOURCES WESTERN REGION	+-	┼		
						+		
Was drive shoe used? ✓ Y ✓ N Shoe Depth(s) 233'					+	+		
9. PERFORATIONS/SCREENS:						_		
Perforations ☐ Y ☒ N Method			-			+		
Manufactured screen X Y N Type Johnson								
Method of installation Pullback					\neg			
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Comple	ted Dept	h /Measi	urable): 233'				
221 231 .015 10' 5" Stainless 304		arted: M	_		2017			
	70				2017	-		
				FIFICATION: imum well construction standards were com	nliad with	at		
Length of Headpipe 5' Length of Tailpipe 2.1		the rig			AICU WILLI	at		
Packer X Y N Type Rubber K-Packer	C	N	. Denr	nis Phipps Well Drilling In Co. No.	132			
	Compa	ny Name		11 /				
10.FILTER PACK:	*Princip	al Drille		Date Ma	y 31, 20)17		
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Driller	N	11	Date Ma	ıy 31, 20)17		
N/A		/	701					
	*Opera	tor II	71. 1	Date Ma				
11. FLOWING ARTESIAN:	operati	or I	27	Date Ma	y 31, 20	17		
Flowing Artesian? Y X N Artesian Pressure (PSIG)			Dutin	Control of the Contro				
Describe control device	algna	ure of	rnncip	al Driller and rig operator are required.				

1. WELL TAG NO. D D0074692	12. STATIC WATER LEVEL and WELL TESTS:	
Drilling Permit No. 0776130 - 882293	Depth first water encountered (ft) Static water level (ft))*
Water right or injection well #	Water temp (°F) Cold Bottom hole temp (°F)	
2. OWNER:		
Name Greencastle Homes	- Well test: Test method:	
Add P.O. Box 213	Drawdown (feet) Discharge or Test duration Burns Bailes Air	Flowing
City Star State Idaho Zip 83669	yield (gpm) (minutes) Funity Baller Air	artesian
3.WELL LOCATION:		H
		J
Twp. 4 North ▼ or South □ Rge. 3 East □ or West ▼ Sec. 10	13. LITHOLOGIC LOG and/or repairs or abandonment:	
1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4 1/4	Bore Dia. From To Remarks, lithology or description of repairs or	Water
Gov't Lot County Canyon	(in) (ft) (ft) abandonment, water temp.	Y N
Gov't Lot County Canyon Lat. 43	10" 0 2 Top Soil	X
Long, 116 041.460'W (Dec. and Decimal minutes)	2 10 Sandy Brown Clay 10 16 Sand & Gravel	X
Address of Well Site 14903 Velvet Falls Way	10 16 Sand & Gravel 16 48 Lava Rock	X
(Give at least name of road + Distance to Road or Landmark) Towlor Ridge Sub	48 58 Brown Clay	X
Lot. 15 Blk. 2 Sub. Name Taylor Ridge Sub.	58 67 Lava Rock	│ Â
	6" 67 90 Sandy Brown Clay	X
4. USE: ☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection	90 110 Proug Clay	X
Other Monitor inigation inermal injection	110 136 Clay W/ Sand Streaks	X
5. TYPE OF WORK:	136 143 Brown Clay	X
New well	143 145 Grey Clay	X
Abandonment Other	145 183 Brown Sandy Clay	Х
6. DRILL METHOD:		X
☑ Air Rotary	195 214 Sand	X
7. SEALING PROCEDURES: Seel material From (ft) To (ft) Quantity (lbs or ft²) Placement method/procedure	1	 ^
3/8" Bentonite 0 67 1400 lbs. 10" Overbore		
	RECEIVED	
8. CASING/LINER:		
Diameter From (8) To (6) Gauge/ Meterial Casing Lines Threaded Wolded	JUN 0 2 2017	
6" 1.5 202 .250 Steel	3011 8 2 2011	
	WATER RESOURCES	
5" 197 202 .258 Steel	WESTERN REGIÓN	_
5" 212 214 .258 Steel		-
Was drive shoe used? ✓ Y N Shoe Depth(s) 202'		
9. PERFORATIONS/SCREENS:		
Perforations Y X N Method		
Manufactured screen ☒ Y ☐ N Type Johnson		
Method of installation Pullback		
rolli (ii) 10 (ii) Slot size (Numberitt (nominal) Material Gauge of Schedule	Completed Depth (Measurable): 214'	
202 212 .015 10' 5" Stainless 304	Date Started: May 10, 2017 Date Completed: May 25, 2017	
	14. DRILLER'S CERTIFICATION:	
	I/We certify that all minimum well construction standards were complied w	ith at
Length of Headpipe 5.3 Length of Tailpipe 1.9	the time the rig was removed.	
Packer ☑ Y ☐ N Type Rubber K-Packer	Company Name Dennis Phipps Well Drilling In Co. No. 332	
10.FILTER PACK:	*Principal Drillep Mut Date May 31,	2017
Filter Material From (ft) To (ft) Quantity (fbs or ft ³) Placement method		
N/A	*Driller Date May 31,	
	*Operator II May 31,	2017
11. FLOWING ARTESIAN:	200 100 110	
	Operator I Date May 31,	
Flowing Artesian? Y X N Artesian Pressure (PSIG)	* Signature of Principal Driller and rig operator are required.	
Describe control device		

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IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

AUG 07 2017

1. WELL TAG NO. D <u>00768,58</u>	42 57	ATIC V	VATER I	WATER RE LEVEL and WELL TESTS: WESTERN		
Drilling Permit No. 882935				intered (ft) 234 Static water level (ft)	74	/
Water right or injection well #			F)		<u></u>	
2. OWNER: Big Pine Construction			-		100	>
			ss port _	Test method:	M.	
Address 1750 Soud Hollow Rd	Wellte	est: down (feet	Disc	charge or Test duration Pump Bailer		Flowing
2 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Draw		yie yie	eld (gpm) (minutes)	^'' a	artesian
	13	75 20	1	20 1/2 hr	Ш	Ц
3.WELL LOCATION:	نر فرک Water		est or co	omments:		
Twp North or South Rge East or West				and/or repairs or abandonment:		
Sec. 1/4 WW 1/4 SW 1/4	Bore	From	To	Remarks, lithology or description of repairs or	W	later
12.	Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N
Gov't Lot County Conty C	11	0	6	TODSOUL	 	
Lat. 73 (Deg. and Decimal minutes)	1	6	13	grave/		
Long. 16 91: 910 (Deg. and Decimal minutes)	1	13	49	Solid Blk lova		
Address of Well Site 1981/Velvet 1-01/5		79	46	Red Cigders	+	
(Give at least name of road + Distance to Road or Landmark)	10	76	50	SIN Clay	+	+
Lot. 16 Blk. 2 Sub. Name Taylor Ridge	1	28	70	Reachy	+	
4. USE:	 	70	122	Fine Silty Sand & Clay	,	-
Domestic Municipal Monitor Irrigation Thermal Injection		122	131	Sand Bin Clas		
Other		131	155	Fine Sound & Clay Strips		
5. TYPE OF WORK: New well Replacement well Modify existing well		155	163	Fine Brn Sand		
Abandonment Other		163	165	Bro & Blue Clay mixed	<u>/</u>	
6. DRILL METHOD:		165	178	(Fract) Blue Clay & Samo	4	
Air Rotary Mud Rotary Cable Other	-	18	100	Soudy Bracky		<u> -</u>
7. SEALING PROCEDURES:		156	204	med Colly Cond	-	
Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure 3/8/3-4-4-2-4-8-3-9-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6		204	212	Time Much Sand aclay	,	
78 BENT 0 10 37 BOGS DIY POUT		212	2/4	Bry Cho V		
		214	234	Fine SILLY Sand & Clas		
8. CASING/LINER: Diameter From T. (4) Gauge/ Metain Cooling Lines Throughd Welded		234	238	Fine Silly Sand		
(nominal) (ft) Schedule Waterial Casing Einer Threaded Wedden		238	339	BrnClby		<u> </u>
6 12 100 7 130 37661		239	243	Fine Silt Sand		1
		243	351	Sandy Bra Clay		1
		120	100	Courte The Sund of Char	+	+
	 -	181	282	RraClass		
Was drive shoe used? ☐ N Shoe Depth(s) 385-3"		385	29/	med white Sand		+
9. PERFORATIONS/SCREENS:		000	116	Miles affile son		
Perforations Y N Method						
Manufactured screen Y N Type Johnson						
	ļ		ļ		4	
Method of installation Wash Dive Valve		<u> </u>				
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Compl	eted Dep	oth (Meas	surable): 39/47.		
28629114 6" Tele S.S.	Date S	Started: 6	6/2	Date Completed: 6/39	~//>	>
			~-7	TIFICATION:	FF.	
	I/We o	ertify the	at all min	nimum well construction standards were comp	lied with	ı at
Length of Headpipe Length of Tailpipe	the tin	ne the ri	g was rei	moved.		
Packer PY N Type 3-Rib	Comp	any Nan	ne <i>Dic</i>	ciston wildrilling Co. No.	52	2
10.FILTER PACK:	·	ipal Drill	10	Date 7	10	1/2
	Princ	ipai Driii /	/1 9/17 /	1	10/	
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Drille	r	<i>[4][</i>	MSdru Date	1-8.	-/7
	*Oner	ator II	MILLE	Date 7	18/1°	7
					7	
11. FLOWING ARTESIAN:	Opera	itor!		Date		
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Sign	ature o	f Princip	oal Driller and rig operator are required.		
Describe control device Firstern Sadaral Integery 05/06/	/2024			Crimson Bridge Estation afrada		
Pristerio-Activitiagety	_027			Crimson Bridge Estates 1954		



1. WELL TAG NO. D D-0068801	12. ST	ATIC W	ATER	LEVEL and WELL TEST	S:			
Drilling Permit No. 968249 - 874308	Depth	first wate	r encou	ıntered (ft) 64' Sta	itic water	level (ft)	64'	
Water right or injection well #				Bottom hole				
2. OWNER: Jack Falcon						-		
Name Jack Falcon	Well to	st:			Test m	ethod:		
Address POBox 213	Drawo	lown (feet)		scharge or Test duration ald (gpm) (minutes)	Pump	Bailer	Air	Flowing artesian
City Star State Id Zip 83669	198'		60	180 Min			X	
3.WELL LOCATION:								
Twp. 04 North ☑ or South ☐ Rge. 03 East ☐ or West ☑		-		omments:				
Sec. 10 1/4 NW 1/4 SW 1/4 SW 1/4 1/4 SW 1/4	13. LIT			3 and/or repairs or aband				*** /
	Dia.	From (ft)	To (ft)	Remarks, lithology or desc abandonment, wa			Y	Water
Gov't Lot County	(in) 12"	0	12	Brown Clay				X
Lat. 43 0 41.9190 (Deg. and Decimal minutes)	10"	12	41	Basalt			_	X
Long. 116 41.4420 (Deg. and Decimal minutes)	10"	41	53					X
Address of Well Site 14882 Velvet Falls Way	6"	53		Sand & Gravel				X
(Give at least name of road + Distance to Road or Landmark)	6"	64					X	
Lot Blk Sub. Name	6" 6"	74		Brown Clay w/small s	sand st	reaks		X
4. USE:	6"	165 190		Gray Clay Brown Clay			_	X
▼ Domestic	6"	192		Brown Sand	************		Х	
Other	6"	198		Blue Clay				X
5. TYPE OF WORK: New well Replacement well Modify existing well								
Abandonment Other					***************************************	The symmetry and a second		
6. DRILL METHOD:						~~~~~		
■ Air Rotary								
7. SEALING PROCEDURES: Seal material From (ft) To (ft) Quantity (lbs or ft ³) Placement method/procedure								
Bentonite chip 0 40 1700 lbs Pour				RECEI	IVE	n		
Sometime of the trade label to date					VL	-L/		
8. CASING/LINER:				JAN 29	2015			
Diameter From (ft) To (ft) Gauge/ Material Casing Lines Threaded Welded								
				WATER RESC WESTERN R	DURCES	3		
6" +1.5 178 .250 Steel		<u> </u>			EGION			
		 						
Was drive shoe used? ✓ Y □ N Shoe Depth(s) 178'								
9. PERFORATIONS/SCREENS:					***************************************			
Perforations Y X N Method								
Manufactured screen ▼ Y □ N Type Johnson Stainless								
Method of installation Washdown			<u> </u>				_	
From (ft) To (ft) Slot size Number/ft Diameter Material Gauge or Schedule	C	_ t_ d D	M. (8 8	surable):198		***************************************		
193 198 .020 5" Stainless						1/20/2		
130 130 .020 3 Staniess	Construction of the Constr	tarted: 0			npleted:	1/20/20	U15	
				RTIFICATION: nimum well construction sta	ndarde v	wara com	ınliad w	ith at
Length of Headpipe 22' Length of Tailpipe 8"		e the rig			ndards v	ici e com	prica w	iurui
Packer Y N Type K-Pack	Comp	anu Nam	€Mol	eran Well Drilling, L	LC	Co No	641	
		•	5/					
10.FILTER PACK:	*Princ	ipal Drille		N V		Date <u>01</u>	121120	010
Filter Material From (ft) To (ft) Quantity (lbs or ft ³) Placement method	*Drille	r				Date		
		ator II						
	•	-	7.1					
11. FLOWING ARTESIAN:	Opera	itor I	CA	MUZEro	20	Date U1	121120	110
Flowing Artesian? TY N Artesian Pressure (PSIG)	* Sion	ature of	Princi	pal Driller and rig operato	r are rec	uired		

Describe control device _

1. WEL	L TAG	NO. D	000703	349					12 S	TATIC V	VATER	LEVEL and WELL TESTS:						
Drilling	Permit	No	71341	e-87	7403				Depth first water encountered (ft) Static water level (ft) 76'									
					· · · · · · · · · · · · · · · · · · ·				Water temp. (°F) Cold Bottom hole temp. (°F)									
2. OWN	IER:								Water temp. (°F) Cold Bottom hole temp. (°F) Describe access port 6" Turtle Cap									
Name	Green	castle	Home	S					Wellt		20 pa., _		Fest met					
Addres	s P.O.	Box 2	13		_{ite} Idaho					Drawdown (feet) Discharge or Test duration								
City S	tar			Sta	_{ite} Idaho	Zip 8	3669		180'	yield (gpm) (minutes)								
3.WELI				- Commonweal									ō		\boxtimes			
_			or Sou	th [7]	Rge. 3	East F	٦ ؞. ٦	Mact V	Water	quality t	est or c	omments:			h			
soc 10) 	A G : (CO)	QI GOU	ີ,ທ SV	/	V.	7 OI	AAGSI IVI	13. LIT	HOLOG	IC LO	3 and/or repairs or abando	nment:					
									Bore Dia.	From	To	Remarks, lithology or descrip	tion of rep	****	V	/ater		
Gov't Lo	ıt		county C	anyon					(ln)	(ft)	(ft)	abandonment, water	rtemp.		Y	N		
Lat. 43		0.4	11.930	'N	(0	ea, and	— Decimal m	inutes)	10"	0		Top Soil	***************************************			X		
Long. 1	16	04	1.424"	W	(0	ea. and	Decimal m	inutes)		13		Sand & Gravel Lava Rock				X		
Address	of Well	Site 14	844 VE	ivet ha	is vvay			,	<u> </u>	38	46	Red Cinders				X		
				Cit	Caldwell		***************************************			46	54	Brown Clay w/ Gravel				│ Ŷ		
Give at least	name of road	+ Distunce to	Road or Land	norko Ta	ylor Ridge	Suh		***************************************	6"	54	67	Lava Rock			+	$\frac{1}{x}$		
		K. <u>=</u>	500, [vame	yioi i dage	Oub.				67	76	Sand & Gravel		iiriiniinininaanaasa		$+\hat{x}$		
4. USE:		7 Municir	.a. П.	tanitar F	☐ Irrigation	Tho	F	1 inination		76	100	Sandy Brown Clay			1	X		
Other		1 IAIST HOT	, I	NOMEON L			11101	injection	ŀ	100		Tan Clay				X		
5. TYPE	OF W	ORK:							12"	137		Blue Clay				X		
X New	well [Replac	ement we	ell 🔲 M	lodify existing	well				147		Blue Clay w/ Sand	was well as a second		X			
☐ Aban	donment		her				***********			156		Gray Clay		T-T-MODERAL MARKET		X		
6. DRIL										160 172		Gray Sandy Clay	**************************************	*		X		
				☐ Cable	Other_				***************************************	188		Gray Clay Brown Med Coarse Sar	-d		$+_{x}$	X		
7. SEAL	ING PF) Quantity	(the ne (th) Di	nom ont	method/pro	and ma		100	133	DIOWIT MED COAISE SAI	10		+^	┼		
	entoni					Over	~~~~	ocedure							+	+		
3/8" B	entonii	e 13	7 147			Over	*****************			w-n. n		**************************************		•		+		
8. CASI	***************************************								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		***************************************		N-76-160-100-1-1-1			1		
Diameter (nominal)			Gauge/	Mate	rial Caci	a Lines	Threaded	Moldad								1		
(nominal)	2	178	Schedule	Steel	×	· _		Weided ⊠				BECEIVE	<u> </u>					
		 											······································	·				
5"	171	189	258	Steel				X				DEC 11-2015		····	ļ	-		
			~~~~												<u> </u>	ļ		
											***************************************	WATER RESOURCE	<u> </u>			<del> </del> -		
Was driv	e shoe i	used? [≥	JY 🔲	V Shoe D	epth(s)	78'					***************************************	WESTERN REGIO	1.4	***************************************	-	-		
9. PERF									***************************************				<del></del>		-	+-		
Perforati														***************************************		†		
				Type Jo	hnson		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,									<u> </u>		
Method o	af inctall	wion Wi	ashdov	vn				***************************************										
***************************************		T	1	[ Discussion	T		***************************************		ļl		******				<u></u>			
From (ft)	To (ft)	ļ	Number/f	(nominal)	Matenai	G	auge or Sc	chedule	Comple	ted Dept	h (Meas	urable): 199'						
189	199	.015	10'	5"	Stainless	30	4		Date St	_{arted;} No	ov 16,	2015 Date Complet	Nov	18, 20	)15			
									***************************************			TIFICATION:	eu.	***************************************	······································			
									I/We ce	ertify that	t all mini	imum well construction standar	rds were	e compli	ed with	at		
Length o	f Headp	_{ipe} 17.7	,	Leng	th of Tailpipe	.7"				e the rig				•				
Packer I	XY [	N Type	Rubb	er K-Pa	cker				Compa	ny Name	_e Denr	nis Phipps Well Drilling	In Co.	No. 33	2			
10.FILT										oal Drille	**.	Mille		te Nov		15		
	Material		π (ft)	ro (ft) Qu	antity (lbs or ft ³ )	PI	acement m	ethod	Princi	oai uniie	·	V VIVI I I I	Dat	te <u></u>	,			
	N/A				, ( w. it )	1			*Driller				Dat	te				
<u> </u>	****				***************************************		***************************************		*Opera	tor II 🗴	T O Here-	aff in an	Dat	le Nov	19, 20	15		
44 5 0	Marking :	Inter:	L		·	<u> </u>	-			7	77	- >						
11. FLO									Operat	or I1	· //	7-1-	Dat	e Nov	15, ZU			
				tesian Pre	essure (PSIG)				* Signa	ture of	Princip	al Driller and rig operator are	requin	ed.				
Describe	control	device _						<del></del>				-	-					

1. WELL TAG NO. D. 074592	12. ST	TATIC W	ATER	LEVEL and WELL TESTS:						
Drilling Permit No.	Depth first water encountered (ft) 6 Static water level (ft) 75									
Water right or injection well #	Water	temp. (°I		Bottom hole temp. ( ⁰ F)	0					
2. OWNER: Livoltman Homes	Descri	be acces	s port_	Sont Seal Well Car	<u> </u>					
Name	Well test: Test method:									
Address 14233 Silver Ridge Rd	Drawe	down (feet)		charge or Test duration Pump Bailer A		lowing rtesian				
City Coldwell State Zip 83607	2	60	1	10 / lars. 0 0 8	Y					
3.WELL LOCATION:	1	30	1//	O /hr.						
Twp. 4 North or South Rge. 3 East or West				mments:						
Sec. 10 1/4 W 1/4 S W 1/4	13. LIT			and/or repairs or abandonment:	1AV-	iter				
TO BUTCS WO GLICES TOO BUTCS	Dia. (in)	From (ft)	To (ft)	Remarks, lithology or description of repairs or abandonment, water temp.	Y	N				
Gov't Lot County	77	0	6	TODSOSI.						
Lat(Deg. and Decimal minutes)	1	6	16	Sandy Clay						
Long (Deg. and Decimal minutes)		16	50	Solid Blk Lava						
Address of Well Site 19883 Dagger Folls luxy		50	52	Ked einders						
(Give at least name of road + Distance to Road or Landmark)	16	57	54	gravel						
Lot, // Blk. 2 Sub. Name Taylor Ridge		54	26	BinClay						
4. USE:		20	20	Prochi						
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection		20	102	Tenesal de la la la Se	SAC					
Other		102	162	Fruct Clave Esse Sugar	1					
5. TYPE OF WORK:  New well Replacement well Modify existing well		163	167	Binchi						
Abandonment Other		167	181	BIN Fine Sond						
6. DRILL METHOD:		181	196	Fract BM Clay & Fire So	ed.					
Air Rotary Mud Rotary Cable Other		196	217	Froct Bin Chy Fransas	24					
7. SEALING PROCEDURES:	1	117	130	Stocky Smiclay						
Seal material From (ft) To (ft) Quantity (lbs or ft') Placement method/procedure	1	2.30	154	Strips of Clay Much						
18 Bert 0 54 25 bags Dry Your		254	250	Sticky Binclay						
		758	<u> 268</u>	med / Fine Soud						
8. CASING/LINER:  Diameter From To (A) Gauge/ Motorial Cosing Lines Throughd Wolfed										
(nominal) (ft) Schedule Material Casing Life Tireaded Welder										
6 17 KE O ADOSTEET				AFCELLE						
				RECEIVED						
				MAD 22 ac						
				MAN 2 3 2017						
Was drive shoe used? XY ☐ N Shoe Depth(s) 257-5"				WATER RESOURCES						
9. PERFORATIONS/SCREENS:				WESTERN REGION						
Perforations  Y N Method										
Manufactured screen RY N Type SohnSon	$\vdash$									
Method of installation wash DN. Valve										
Diameter	-			2/7/1		$\dashv$				
Prom (it) 10 (it) Siot size Number/it (nominal) Material Sauge of Schedule	Comple	ted Depti	h (Measu		_					
257 267 14 6" Tele Sise	Date St	arted:	7-7	32-17 Date Completed: 2-3	7-1					
	14. DR	ILLER'S	S CERT	TFICATION:						
le de la		ertify that e the rig		mum well construction standards were complied	d with a	at				
Length of Headpipe 5 - 6 Length of Tailpipe			_							
Packer Y N Type 3-KiD	Compa	ny Name	Me	CS For fell drillen. No. 5	66	_				
10.FILTER PACK:	*Princip	oal Mile	de	Allansan Date 3-	-//-	-/7				
Filter Material From (ft) To (ft) Quantity (lbs or ft ³ ) Placement method			Kros	Date 3-	11-1	7				
	*Driller	4111	HAR	- 1	1-1-	7				
	*Opera	tof I	1,01/0	iel Ransow Date 3-	1-1	<u></u>				
11. FLOWING ARTESIAN:	Operato	orl		Date						
Flowing Artesian? Y N Artesian Pressure (PSIG)			Dele al-							
Describe control device	Signa	iture of I	rrincipa	il Driller and rig operator are required.						
AistemosAetafafafagery 05/0	06/2024			Crimson Bridge Estates 1954						



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

### RECEIVED

MAR 0 7 2017

1. WELL TAG NO. D D0074528										12. STATIC WATER LEVEL and WELL TESTS: CATER RESOURCES									
Drilling	Permit I	No. 9	7551	18 -	-C81	00	5			. Depth	first wat	er enco	Ountered (ft) Static wate	er level (fi)	1 10	3			
										Water	temp (	F) Col	ld Bottom hale temp	(0E)					
2. OWN	IER:									Water temp. (°F) Cold Bottom hole temp. (°F) Describe access port 6" Turtle Cap									
Name	Pione	er Hom	nes Inc.	(CC 5	)						Well test: Test method:								
Addres	، 719	1st St.	South	(Ste. B)	)					Draw	Drawdown (feet) Discharge or Test duration Burns Railes								
	ampa			Sta	_{te} Idaho		_{Zin} 83	651		180'		'у	rield (gpitt) (minutes)	_	Air	artesian			
	LOCA			0.a		4				100		75	GPM 1 HR.		N N				
					_ 3		-			Water	quality t	est or c	comments:			ш			
Twp. <u>-</u>	No	rth 🔀	or Sout	h []	Rge. 3	E	ast 📙	or	West 🔀				G and/or repairs or abandonme	nt.					
Sec.			10 acres	1/4 3VV	1/4	160 ac	1/4			Bore	From	То			1	Nater			
Coult Lo			Caunh, Ca	anvon						Dia. (in)	(ft)	(ft)		).	Y	N			
43	·L		12 002'	N						10"	0	2	Top Soil		X				
Lat. 1	16		1 375\	N		_ (Deg	g, and D	ecimal m	inutes)		2		Sandy Brown Clay			Х			
Gov't Lot											15		Lava Rock			X			
Address	of Well	Site 17	040 Da	ggerra	Coldwa	<u>- 11</u>				6"	55		Sand & Gravel			Х			
(Give at least	name of road	+ Distance to	Road or Landm	City	Caldwe	311					81		Sand w/ Clay		X				
Lot. 5	BI	_{k.} 2	Sub. N	ame Tay	/lor Rid	ge S	Sub.				92		Tan Clay			X			
4. USE:			_								107		Sandy Clay w/ Sand		X				
X Dom	estic 🗀	<b>M</b> unicip	al 🔲 M	onitor [	Irrigation		Thern	nal 🗀	Injection	ı	134		Brown Clay		-	Х			
Other											142 155		Sand w/ Clay		X				
	OF W										161		Sandy Brown Clay Sand			Х			
					odify existi	ing w	eli				170		Sandy Brown Clay		Х				
			her								178		Sand		X	X			
6. DRIL			Deten	Cable							192		Sandy Clay		<del>  ^</del>	+ x			
				☐ Cable	Oth	er					199		Sand		X	+^			
7. SEAL	ING PF			Quantity	(lbs or ft ³ )	Place	ement m	ethod/nr	ncedure	,	202		Sandy Brown Clay			X			
	entonit				) lbs. 1				ocedure .		211		Coarse White Sand		X	+^			
											226		Brown Clay			X			
8. CASI	NG/LIN	ED.		_l												-			
Diameter	From (ft)	To (ft)	Gauge/	Mate	rial C	ocina	Lines 1	Throndos	l Weided										
			Schedule			X	_	_											
6"	2	215	.250			_			×				DEAG						
5"	211	216	.258	Steel			X		X				RECEIVE	D					
5"	226	227	.258	Steel			X		×				1418						
													MAR 0 8 2017						
Mas driv	o shoe i	sed2 N	Y D	Shoe De	anth(e)	21	5'						WATER RECOURSE			ļ			
					spiri(s)					-			WATER RESOURCES WESTERN REGION	}	_				
			REENS:							-						-			
			Method												_	-			
Manufac	tured sci	reen 🗵	Y 🔲 N	Type JOI	inson											-			
Method (	of installa	ation Pu	illback																
From (ft)	To (ft)	Slot size	Number/ft	Diameter	Materi	ial	Gai	uge or So	hedule				227'						
216	226	.015	10'	(nominal)	Stainle		304				ted Dept		surable).						
210	220	.013	10		Stallile	33	304			Date S	tarted: Fe	b 28,	2017 Date Completed: N	lar 2, 20	17				
							-						TIFICATION:						
	l										ertify that e the rig		nimum well construction standards w	ere comp	lied with	at			
Length o	f Headpi	pe <u>5.7</u>	D 11	Leng	th of Tailp	ipe <u>·</u>	3"				_			0	20				
Packer	X Y 🗆	N Туре	Rubbe	r K-Pa	cker					Compa	iny Name	Den	nis Phipps Well Drilling In	ک. No. <u>3</u>	32				
10.FILT	ER PAC	K:								*Princi	oal Drille	r	Mart Has	Date Mar	3, 201	7			
Filte	Material	Fron	n (ft) To	o (ft) Qu	antity (lbs or	ft ³ )	Plac	ement m	ethod										
1	V/A	-				+				*Driller				Date					
<u> </u>			-			$\dashv$				*Operator II Date									
14 510	A/IAI/A	DTEO	A N.I.							<u>'</u>				Date Mar					
11. FLO										Operat	or I			Date <u>Ivial</u>	0, 201	-			
				esian Pre	ssure (PS	IG) _				* Signa	ture of	Princip	oal Driller and rig operator are req	uired.					
Describe	control (	device 🗀																	

1. WEL	L TAG	NO. D	D00746	93		_			12. S	TATIC V	VATER	LEVEL and WELL TESTS	3:				
Drilling	Permit	No. 🚣	1/1/21	45-	8811	50		Depth first water encountered (ft) Static water level (ft)									
Water	ight or in	jection w	ell #						Water	temp (0	F) Col	Bottom hole	temp ( ⁰ F)				
2. OWN	IER:								Water temp. (°F) Cold Bottom hole temp. (°F) Describe access port 6" Turtle Cap								
			nes Inc.						Well test: Test method:								
Addres	s 719	1st So	uth (Su	ite B)				-1000000	Drawdown (feet) Discharge or Test duration yield (gpm) (minutes) Pump Bailer							Flowing	
City N	ampa			Sta	_{ite} Idaho	Zip 83	3651		135'		41 0	SPM 1 HR.	-		Air	artesian	
3.WELL							_		135' 41 GPM 1 HR. 🗵 🗆 🗆								
Twp. 4	No	rth 🗵	or Sout	ь□	Rge. 3 / 1/4 NV	East [	l or	West X	Water	quality t	est or c	omments:					
Sec. 10				1/4 SW	/ _{1/4} NV	1 1/4	4	_		HOLOG	IC LO	and/or repairs or aband	onment:				
					cres 160	cres			Bore Dia.	From (ft)	To (ft)	Remarks, lithology or descri abandonment, wai	iption of rep	airs or		Vater	
Gov't Lo	t	C	county Ca	inyon			-		(in) 10"	0	1	Top Soil	iei temp.		Y	X	
Lat. 43	10	0 4	42.0121	<u> </u>	Way	eg. and C	Decimal m	inutes)	10	2		Sandy Brown Clay			+	$+\hat{x}$	
Long.	10	224	1.3/3 V	V	(D	eg. and C	Decimal m		15		Lava Rock			+	$\frac{1}{X}$		
Address	of Well	Site ZZt	o i o Big	Loon	vvay			6"	45	78	Gravel			+	X		
(Give at least	name of road	+ Distance to	Road or Landm	City	Caldwell				78		Sandy Brown Clay				Х		
Lot 4	BI	_{k.} 2	_ Sub. N	_{ame} Ta	ylor Ridge	Sub.				121		Sand w/ Clay Streaks			X		
4. USE:										138		Sand			X	-	
			oal 🔲 M	onitor [	Imigation [	] Then	mal 🗀	Injection	-	175		Sand w/ Clay Streaks Sand			X	-	
Other									-	189		Sandy Clay			<del>  ^</del>	X	
5. TYPE					odify existing v					201		Sand			+x	+^-	
Aban	donment	Ot	ther		oully existing \	veii				206		Brown Clay			+	T X	
6. DRIL										215	228	Sand			X	1	
			Rotary	X Cable	Other _					228		Snady Clay				Х	
7. SEALING PROCEDURES:										230		Sand			X		
	material entonil				(lbs or ft³) Pla			ocedure	-	240	242	Brown Clay				X	
3/0 0	entonii	e 0	45	1300	0 lbs.  10"	Overt	oore								-		
L				<u> </u>					-						+-	+	
8. CASI			Gauge/												+-		
(nominal)	From (ft)		Schedule	Mate				Welded							+	+	
6"	2	228	.250		×			×				RECEI	VED			1	
5"	224	230	.258	Steel		X		X									
5"	240	242	.258	Steel		X		X				JUN 02	2017				
															<del> </del>		
Was driv	e shoe ι	used?	Y 🗆 N	Shoe D	epth(s) 22	8'						WATER RESOL WESTERN RE	GION		-	-	
			REENS:						1				alol4		+	<del>                                     </del>	
			Method								-					_	
			Y DN.		nnson												
Method o	of inctall	sion Pu	llback	, Abe													
				Diameter												L.,	
From (ft)	To (ft)		Number/ft	(nominal)	Material		uge or So	chedule	Comple	ted Dept	h (Measi	urable): 242'					
230	240	.015	10'	5"	Stainless	304			Date St	arted: Ma	ay 12,	2017 Date Compl	_{eted} .May	24, 20	017		
		<u></u>										TELCATION:					
	L.,,,_,			<u> </u>					I/We ce	ertify that	all mini	mum well construction stand	ards were	compli	ied with	at	
Length o	f Headpi	pe <u>5.8</u>		Leng	th of Tailpipe	2.1				the rig							
Packer [	XY [	N Туре	Rubbe	r K-Pa	cker				Compa	ny Name	Denr	is Phipps/Well Drilling	g In Co. I	No. <u>33</u>	32		
10.FILTI									*Princir	al Drille		May	Nate Date	May	24, 20	)17	
Filter	Material	Fron	n (ft) To	(ft) Qu	antity (lbs or ft ³ )	Pla	cement m	ethod			- //	//					
1	V/A			$\neg$	······				*Driller	-	2/2/	Date					
									*Opera	tor II	ATTE	V N	Date	May	24, 20	)17	
11. FLO	WING A	RTESIA	AN:						Operate	or I	200	EN	Date	May	24, 20	17	
				esian Pre	ssure (PSIG)							15.11					
Describe					-				Signa	ture of I	-rincipa	al Driller and rig operator a	re require	d.			

1. WELI	L TAG I	40. D 0	0688	370			-A		<b>.</b>	12 6	FATIC V	VATED	IEVEL and MELL TERTS.						
Drilling	Permit I	No.	9	Qa	12	79 - 8		500	tu	12. STATIC WATER LEVEL and WELL TESTS:  Depth first water encountered (ft) 70'  Static water level (ft) 70'									
Water ri	aht or ini	ection we	all #							Mator	tomp (0	c Col	d Bottom hole ter	(0m)	(11)		*********		
2. OWN	ER: Gr	eenca	stle i	Home	s of	Idaho			***************************************				bottom note ter	η <b>Ρ</b> . ( Γ)	····				
Name (	Green	castle	Hom	es of	ldah	10			orthodoxida do la constantida de la constantida del constantida de la constantida de la constantida del constantida de la constantida del constantida		est metho	_4.							
Address	POE	ox 21	3			*****				Well to		F	lowing						
Cit. St	ar ar		10/110/110/10/10/10/10/10/10/10/10/10/10			te Id	: 8:	3669	***************************************	250'	down (feet	35 yi	eia (gpm) (minutes)	oump Bail		i a	nesian		
			·	·	_ Stat	16	Σιb			230	*****************	30				<u>*</u> ]			
3.WELL				_		U3				Water	quality t	est or c	omments:	استة لست	, ,		ш		
Twp. 04	No	rth 🗷	or S	outh 🔲	CLAC	Rge. 03 1/4 NV	East [	or	West 🗷				3 and/or repairs or abandor	······································	***********				
Sec. 10			10 acn	1/4	SVV	1/4 197	1,	4		Bore	From	To	Remarks, lithology or descripti	******************************	*	W	ater		
		_		 Canv	OD.					Dia. (in)	(tt)	(ft)	abandonment, water	temp.	5 GI	Y	N		
Gov't Lo		C	ounty IO OA	20	U	(D		_		12	0	16	Brown Clay				X		
Lat. 43	16		1 27	<u> </u>	***************************************	(D	eg. and	Decimal m	inutes)	10	16	<del></del>	Basalt		***************************************		X		
Long. L	10	226	1.37	00 3: 1	W	(D	eg. and	Decimal m	inutes)	10	34	42	Brown Clay	inilitrisiririsirimatrisirmasimalaaamuusaa			X		
Address	Address of Well Site 22649 Big Loon Way  City Caldwell											58	Sand & Gravel		***************************************		X		
Colon at lancel t	water of Ward	• Designers to	Road or L	Bridmark)	City	Caldwell				6	58		Brown Clay		*****************************		X		
										6	70		Brown Clay w/sand stre	aks	······································		X		
4. USE:			000	, , , <del>, , , , , , , , , , , , , , , , </del>		·				6	112		Gray Clay				X		
		l Municin	ai F	7 Monito	ır F	Irrigation [	7 The	mai F	l Injection	6	118		Fine Brown Sand	-		Χ	<u> </u>		
Other				***						6	121		Fine Sand w/clay streak	S		Х			
5. TYPE										6	140		Gray Clay		~~~~~		X		
▼ New \	veil [	Replac	ement	well	□м	odify existing	vell			6	157		Brown Clay				X		
☐ Aband	donment	Ot	her			<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>				6	161	1	Coarse Brown Sand			Х	<del> </del>		
6. DRILI										6	164	<u> </u>	Brown Clay		M1111000000	~~~	X		
ĭ Air Re	otary	Mud I	Rotary		Cable	Other _				6	192		Very Fine Sand	MATERIA CONTRACTOR CON		Х	<u> </u>		
7. SEAL										6	193		Brown Clay			X	X		
	material					lbs or ft ² ) Pia		method/pr	ocedure	6	229 232		Very Fine Sand Brown Clay	·		^_	X		
Benton	ille 3/4	<u> </u>		15	17	00 Pou	!			6	246		Fine Brown Sand	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		Х	^		
				<u> </u>				***************************************			240	200	FINE DIOWN Sand		//////////////////////////////////////		<b> </b>		
8. CASI	NG/LIN	ER:		<del></del>										<u> </u>			<del> </del>		
Diameter (nominal)	From (ft)	To (ft)	Gauge Schedu		Mater	rial Casin	g Liner	Threaded	Welded								├		
6	+1	242	.250	) Ste	el	回			×				DECENTE	<b>*</b>	***************************************		<del> </del>		
	_				***************************************								RECEIVED	<u> </u>			<del> </del>		
					VOHEAD************************************		П					<b></b>	IIII . O core				<del> </del>		
													<del>  JUN 1-2-2015                                    </del>	***************************************			<del> </del>		
L													WATER RESOURCES						
Was driv	e shoe ι	ised?	JY [	]N Sh	oe De	epth(s) 242'						***************************************	WESTERN REGION		*************				
9. PERF																			
Perforation	ons 🗖	YKN	Meth	nod															
Manufac	hirad eci	man IFI	v 🗀	l M Turk	Joh	nson Sta	nless	Steel	tto-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-ta-							- indication in the			
Method o	et in neutral	W:	ashd	OWN	<b>=</b>			~~~~~~~~~			******************************				ו•••••				
Method	or installe	ation	· · · · · · · · · · · · · · · · · · ·						***************************************			<u> </u>		ANTER-FEET-BLE-CO-CONTINUES			<u> </u>		
From (ft)	To (ft)	Slot size	Numb		imeter iminal)	Material	G	auge or S	chedule	Comple	eted Dept	th (Meas	_{urable):} 255'						
49	54	.018			5"	Stainless					tarted: 05			05/26/	/2015	;			
				$\neg \uparrow \neg$					***************************************					ea.					
				$\neg \dagger$	***************************************								TIFICATION: ilmum well construction standar	rds were cr	omolie	d with a	at		
Length o	f Waadai	na 8'8"	<u> </u>		Longi	th of Tailpipe	.8	darleisenminississississississi	COCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC		e the rig			40 11010 00	3111pino				
Packer [	neaup	L. T	K-P	acker	Leng	arorrampipe	-			Campa	mu klam	. Mel	eran Well Drilling, LLC	Co. No.	. 64°	1			
			, <u></u>				***************************************										_		
10.FILT			Т				•			Princi	pai Drille	r <b>)</b> //	in hun	Date !	06/10	/2015	<u> </u>		
Filter	Material	Fror	n (ft)	To (ft)	Ou	antity (lbs or ft ³ )	Pl	acement r	nethod	*Drillor		,	INAS CONTRACTOR OF THE CONTRAC	Date					
	V/A									Dimei	***************************************	***************************************	District Historia	vale_					
							T T			*Opera	itor II	······································	WPG-7100-7-500-7-11-11-11-11-11-11-11-11-11-11-11-11-1	Date_	managaryan-				
11. FLO	WING A	RTESI	AN:		······Àoc		<del></del>		L	Operat	or I. Dec	人	MUZeran	Date	06/10	0/201	5		
				Artonia	n Dre	ssure (PSIG)													
- mili A	a coatall	الساء ماليون	التتا	ra resid	at F183	99016 (LOIG)		***************************************	*//>	* Sign:	ature of	Princip	al Driller and rig operator are	: required.					



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

1. WELL TAG NO. D D0064499 Drilling Permit No								12. ST	ATIC W	/ATER I	LEVEL a	nd WELL	TESTS	<b>:</b>						
Drilling	Permit N	o. <u> </u>	020	3/0-1	<u> 3805</u>	900	)			Depth first water encountered (ft) Static water level (ft)										
										Water temp. (°F) Bottom hole temp. (°F)										
2. OWN	ER:														in noic	tomp. ( i	/			
Name (	3reenc	astle l	Homes	S						Well to		3 POIL			***************************************	Test m	othod:			
Address	, P.O. I	Box 21	13								lown (feet		charge or	Test du		Pump	Bailer	Air	Flov	wing
City St	ar			S	_{tate} Idah	) 7	in 830	369	***************************************	145'		35 G	ld (gpm)	1 HR.	tes)			×	-	sian
3.WELL			•				·'P			1.10	· · · · · · · · · · · · · · · · · · ·	- 00 0		111111		Ħ		Ö		j
			Ca	.45.	n 3			1	Mark 157	Water	quality te	est or co	mments:			_		E-mail		
1 wp. 10	NOI	17 C	or Sou	℡⊔	Rge. 3 N 1/4	Ε∂ Ν\Λ/	ast 🔲	or \	vest 🔀					repairs or		onmen	 t:			
Sec. 10			10 acres	$-\frac{1/4}{40}$	1/4	160 acr	1/4 es			Bore Dia.	From	То	Remai	rks, lithology	or descr	iption of r	epairs or	$\top$	Wate	:r
Gov't Lot		Co	ounty C	anyon						(in)	(ft)	(ft)		abandon	ment, wa	ter temp.		Y		N
Lat 43		o 4	2.045	'N		(Dec	and D	ecimal m	inutes)	10"	0		Top So							Х
Long 11	6	04	1.349'	W	May	(Dec	and D	acimal m	inutae)		2		Hard P						_	X
Address	of Mall S	226	26 Bi	g Loon	Way	(Deg	, and De	scana m	indes)		11 20		Lava R		· · · · · ·				_	X
/ ladicas	Of VVCII C	JICC			Caldw	ell				-	28	28 43	Gravel	Brown C	лау				-	X
(Give at least r	ame of road +	Distance to F	Road or Land	imark) T	ity Caldw	las C	٠b			6"	43		Gravel					+x	+	
Lot. 4	Blk	. 3	_ Sub. I	Name	aylor Ric	ige c	oub.				65		Brown					+^	+	X
4. USE:			. —.		<b>-</b>	,		. –		<u> </u>	85			Clay w/	Sand			+x		
☐ Other	estic 📙	Municipa	al 📙 l	Monitor	☐ Irrigation	n L	Thern	nal L	Injection		101		Brown					_		X
5. TYPE						······································		<del></del>			108		Blue C						$\top$	X
			ement w	ell 🗍	Modify exis	tina we	ell				109			Sandy C		Sand		X		***************************************
											119			Clay w/	Sand			X		
6. DRILI											134	140	Sand					X		
X Air Ro	otary [	☐ Mud F	Rotary	☐ Cab	le 🗌 Ot	her										·*·			_	
7. SEAL							***************************************												$\dashv$	
	_{material} entonite		(ft) To (f		ty (lbs or ft ³ ) 00 lbs.		<del>~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~</del>	ethod/pr	ocedure										+	
0,0 0	CITOTIO		+	, , , , ,	00 103.	10 (	JVCIL	)OIE		-									$\dashv$	
												<b> </b>							-	
8. CASI Diameter (nominal)	NG/LINE	≣R: 	Gauge/	Т		l.													$\dashv$	
			Schedule	ivi	aterial				d Welded			a	E C	FIV	= n			_	$\top$	
6"	2	139		Steel		×	Ц	Ц	X			4 5	print prof	Remo II V	eners been					
5"	135	147	.258	Steel			X		$\boxtimes$				\$ 1.92,3 #	<del>2 5 201</del>	2					
5"	152	153	.258	Steel			×		X				د خترب	. J 201	<u> </u>					
														ESOURC						
Was driv	e shoe u	sed? 😿	1 ∨ []	N Shoe	Depth(s)	139	1						VESTER	RN REGIO	N	· · · · · · · · · · · · · · · · · · ·			_	
9. PERF					Dopti (3)												***************************************		$\dashv$	
																*****			+	
Perforati					ohnson				<del></del>								***************************************			
Manufac	tured scr	een 🔀 ۱۸ <i>۱</i> ۰	1∐ Y Obdoe	N Type <u>u</u>	ohnson															
Method o	of installa	ation <u>v v</u>	251100																	
From (ft)	To (ft)	Slot size	Number	r/ft Diame		erial	Ga	auge or S	chedule	Comple	eted Den	th (Meas	urable).	153'						
147	152	.015	5'	5"		ess	304	ļ.				un 18, 2				lı	ın 19, 2	2013		
									***************************************			***************************************			ate Com	pleted:				
													TIFICAT	ION: Il construct	ion stan	ıdards w	ere com	nlied w	ith at	t
Length o	f Headni	ne 12.8	}		ngth of Tai	Inine .	7"	****				was rei		00/100 000			0.0 00	pilou III		•
Packer	ਹ ∨ r	N Tune	Rubb	per K-F	Packer	ibibe .	<u></u>		·	Comp	anv Marr	Den	nis Phi	pps Wel	Drilli	ng In ,	Co No S	332		
							· · ·			•	-		M	111	-		_		204	
10.FILT		····	T	T		_3.				*Princ	ipal Drille	er	1 Kee	MARIA			Date Ju	11 19, 2	201	<u> </u>
	r Material	Froi	m (ft)	To (ft)	Quantity (lbs	or ft")	Pla	cement	method	*Drille	r		,	0, 1			Date			
	N/A									*Open		B	MES				Date Ju	n 19. 1	201:	3
L										]		~~~		7						
11. FLO	WING A	ARTESI	AN:							Opera	tor I	<u>`</u> }≚	<del>دی.</del>	<u>/~</u>		!	Date <u>Ju</u>	n 19, 2	2013	<u> </u>
Flowing	Artesian	? 🗌 Y	X N A	Artesian I	Pressure (F	SIG)				* Sion	ature of	f Princir	al Drille	r and rig o	perator	are ren	uired			
Describe	control	device								2.3.										



## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

### WELL DRILLER'S REPORT

DEALL POINT REN IN

JUL 1 8 1988 te law requires that this report be filed wit within 30 days after the comple	1				··								
1. DepartmennerWater Resources	/.		TER LE'	vepartment o	of Water Resc	JUTCI	<b>es</b>						
Name BEN SHUEY		Static water level feet below land surface.  Flowing? □ Yes 🛣 No G.P.M. flow											
Address 604 N. 11TH AVE. CALDWELL, ID 83605	Artesian closed-in pressure p.s.i,												
Owner's Permit No. 63-88-2-73		Controlled by:											
	+				pelow.								
2. NATURE OF WORK	8.			T DATA									
☐XNew well ☐ Deepened ☐ Replacement ☐ Abandoned (describe abandonment procedures such as			·		Other								
materials, plug depths, etc. in lithologic log)		Discharg 60	rge G,P,M	M. Pumping Level	Hours Pun	mped	<u> </u>						
				120									
3. PROPOSED USE					<del>-</del>								
□ Domestic □ Irrigation □ Test □ Municipal	9	LITH	HOLOG	GIC LOG									
🗅 Industrial 🗆 Stock 🕒 Waste Disposal or Injection	Bore	e De	epth			Tw:	ater						
☐ Other (specify type)	Diam.	ı. From	n To	<del></del>			es No						
METHOD DRILLED	. <b>6</b>	0 35		ROCK CLAY		-	X						
□XRotary X□ Air □ Hydraulic □ Reverse rotary		45	63	SAND & GRAVEL		<del></del>	X						
☐ Cable ☐ Dug ☐ Other		63	90	SAND & CLAY LAYERS		X							
Li Cable Li Dug Li Catta		90	103	BLUE CLAY			X						
5. WELL CONSTRUCTION		103	109	SAND		X							
	<u> </u>	109	135	SAND W/ CLAY SEAMS	<u>i ——</u>	X_							
Casing schedule: ☑ Steel ☐ Concrete ☐ Other	<del></del>	135	145	CLAYSAND		X	X						
Thickness Diameter From To 1.250 inches 6 inches + 3 feet feet		14-	104	SANU		X	+_						
inches inches + 3 feet							1_						
inches inches feet /38 feet inches feet /38 feet				CASING UP 3'			<u></u>						
inches inches feet feet		<del>-</del>	-			<del></del>	1						
Was casing drive shoe used? ✓ Yes □ No	<u> </u>	+	1			<del></del>	1						
Was a packer or seal used? → Yes 😿 No	$\vdash$	ļ	+			<del></del>	+						
Perforated? ☐ Yes 및 No		+	+		<del></del>	<del></del>	+						
How perforated? ☐ Factory ☐ Knife ☐ Torch			<del> </del>		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		+_						
Size of perforation inches by inches			<u> </u>				<u></u>						
Number From To feet feet													
perforations feet feet		<u> </u>	<del></del> '	المرات ال	· - · · · · · · · · · · · ·	<del>-</del>	1						
perforations feet feet	<del></del>	<del></del> '	<del> </del> '		+	<del></del>	+						
Well screen installed? ☐ Yes ☐ No	<del></del>	+	<del> </del>	Department of Water		<del></del>	+						
Manufacturer's name Model No		<del> </del>	<del></del>	Western Regional			+-						
Type Model No							+_						
Diameter Slot size Set from feet to feet  Diameter Slot size Feet from feet to feet						(	L						
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel		Ī	$\Box$										
Placed from feet to feet	$\longmapsto$	<del>                                     </del>	+	<del>                                  </del>		·/	-						
Surface seal depth _35 Material used in seal:   Cement grout		<del> </del>	+			<del></del> -	+-						
						<del></del>	+						
Sealing procedure used:   Slurry pit □ Temp. surface casing  Overbore to seal depth						(=)							
Method of joining casing: ☐ Threaded □ Welded ☐ Solvent	$\overline{\longmapsto}$	<del></del>	$\prod$										
Weld	<del></del>	<del></del>	+	+		ــــــــ	-						
☐ Cemented between strata	10			<u> </u>									
Describe access port	10.		~rk star	rted 5/16/88 finished 5	5/17/88 _								
	<del></del>	-											
LOCATION OF WELL	( 11.			_	90								
Sketch map location must agree with written location.	1			y that all minimum well construc	ction standard	ds wr	ere'						
N	t		lied with	th at the time the rig was removed	ed.	-	,						
Subdivision Name	1	I	В	BILL DOTY DRILLING CO	O., INC.								
	(	Firm IN	Name	Firn	m Ńo	<u>42</u>	<u> </u>						
W E	(	Addre		ROUTE 7 BOX 311	* = /40 QQ								
Lot No Block No				LDWELL, ID. 83605 Date									
	(	Signed	d by (Fi	Firm Official) Sab Ja	t		_						
s ounty CANYON	(			and	7		_						
	(		(	(Operator) Sob bl	<del>_</del>	_							
SE 1/4 NW SERSON TO TO SERVICE TO 4 OVS, R.3 EWS	06/2024	4		Crimson Bridge Estate	74 nf08746		_						
Philiphic Action Titled Civ.				Onlingon bridge beach	29 1.00±								

Form 238-7 3/95-C96

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

	88	081		
Inspec	Off ited by	fice Use (	nly	
Twp	•	<b>Rge</b>	Sec	
• -	1/4	1/4		1/4
Lat:		Long:	:	- :

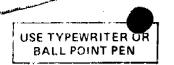
WELL DIKK					1/41/	4	1/4	
1. DRILLING PERMIT NO D -0030 -744	11 '	WELL	TES	rs.	Lat: : Lor	ng: :	:	
Other IDWR No.			ump		☐ Air ☐ Flowin	o Artesia	n	
2. OWNER:	Yield	gal/min_		awdown	Pumping Level	Time		$\Box$
Name Fannie Mae	100				140' 1 H	rs		$\Box$
Address 6206 N. Discovery Way Suite C.			<u> </u>		,			_
· · · · · · · · · · · · · · · · · · ·			<u> </u>					
City Boise State ID Zip 83713  3. LOCATION OF WELL by legal description:	Wate	r Temp	• ——	<del>,</del>	Bottom hole temp.			_
Sketch map location must agree with written location			-	or comments:	Nitrate 1.0 Iron .8 oth first Water Encounter	d		_
N		lness 5						_
	12. 1	LITHC	LUG	IC LOG: (I	Describe repairs or aba	indonme	nt)	
Twp. 4 North 🛛 or South 🗌	WY7 .							
W E Rge. 3 East ☐ or West ☒ Sec. 10 1/4 SE 1/4 NW 1/4 10 acres 160 acres	Wate Bore	er From	То	Demarke Lit	hology, Water Quality & 1	Temp I	Y	NT
Sec 10 1/4 SE 1/4 NW 1/4	Dia					remp.		17
10 acres 40 acres 160 acres	10"	0	2'	Brown Tops	soil			X
Covitalet County Conven	10"	2'	5'	Course Brow	wn Sand			$\bowtie$
S Gov't lot County Canyon	10"	5'	16'	Brown Sand	l & Gravel		$\boxtimes$	$\Box$
Lat: : : Long: : :	10"	16'	21'	Brown Clay				冈
Address of Well Site 14676 River Rd.	6"	21'	25'	Brown Clay				冈
City Caldwell	6"	25'	31'	Brown Sand	l Dirty		X	Ħ
(Give at least name of road + Distance to Road or Landmark)	6"	31'	34'	Brown Clay			П	XI.
Lt Bik Sub. Name	6"	34'	38'	Blue Clay			П	团
	6"	38'	46'	Brown Clay	· · · · · · · · · · · · · · · · · · ·		$\Box$	铽
4. USE:	6"	46'	60'	Brown Dirty	y Sand		X	וריו
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation	6"	60'	70'	Brown Sand		<del></del>		$\square$
☐ Thermal ☐ Injection ☐ Other	6"	70'	80'	Dirty Brown			X	H
5. TYPE OF WORK check all that apply (Replacement etc.)	6"	80'	92'	Brown Sand			ŕì	M
☐ New Well ☐ Modify ☐ Abandonment ☒ Other replace 4"	6"	92'	100'	Dirty Brown		· · · · · ·	$\forall$	M
6. DRILL METHOD D0009268	6"	100'	114'	Brown Clay			M	Ы
	6"	114'	118'	Brown Sand			W	鬥
7. SEALING PROCEDURES	6"	118'	151'		W/Cracks Sand		台	$\bowtie$
SEAL/FILTER PACK AMOUNT METHOD	6"	151'	156'	Brown clay			$\vdash$	<b>X</b>
Material From To Sacks or	6"	156'	162'	Brown Sand			X	M
Pounds Cooking Co. 1	6"	162'	163'	Brown Clay			M	
Bentonite 3' 21' 500#'s Overbore Cuttings 0 3' Overbore	6	102	103	Brown Clay		<del></del>	Ш	M
Cultings 0 3 Overboic	<del></del>			<del></del>	· · · · · · · · · · · · · · · · · · ·		╢	$\vdash$
	II				ECEIVED		닖	Ц
Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 155'	<u> </u>			n	ECEIVED	<u> </u>	닏	Ц
Was drive shoe seal tested? ☐ Y ☒ N How?					1441 0 0 0006		Ш	Ц
8. CASING/LINER:			,		JAN 28 2004		Щ	Ц
Diameter From To Gauge Material Casing Liner Welded Threaded  6" +2' 155' 250 Steel					WATER RESOURCES			
6" +2' 155' 250 Steel					WESTERN REGION			Ш
	$\vdash$						Щ	Ш
	<b></b>						$\Box$	
Length of Headpipe Length of Tailpipe		إ						
9. PERFORATIONS/SCREENS		npleted	-			surable)		ł
Perforations Method washin		: Starte			Completed	1 <u>01/21/0</u> 4	1	
Screen Type ss telescoping				CERTIFIC				
					ell construction standard	ds were		
From To Slot Size Number Diameter Material Casing Liner  156' 161' .020 5" SS □	comp	olied wi	th at th	e time the rig	was removed.			
130 101 .020	<b>5</b>	x r .		D. 14 D. 111	0 13	T1 3.T.	m	-
	Firm	Name .	Down !	Right Drilling	& Pum	Firm No	. <u>63</u>	1
	T''	oe .		Som as		D-4		
10. STATIC WATER LEVEL OR ARTESIAN	Firm	Officia	ــــــــــــــــــــــــــــــــــــــ	JUMIJITS	siyay	Date		
PRESSURE:	6		C:		• )	Det-		
Flowft, below ground Artesian Pressure 2 lb	Supe	rvisor o	r Uper		irm Official & Operator)	Date		
Depth flow encountered 156 ft. Describe access port or control				(Sign Once II I'	um Omoiai & Opciaioi)			
devices: Valve	Date:	1/21/200	04 Time	:6:05 PM				

Form 238-7 3/95-C96

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

810765										
	(	Office	Use O	nly						
Inspec	ted b	у								
Гwp _		_Rge		_Sec_						
	1/4		1/4		1/4					
Lat:	:	:	Long:	. :	:					

1. DRILLING PERMIT NO	11	WELL	TES	TS.	Lat: : :	Long: :	;	
Other IDWR No. Old 4" Well	11.			Bailer	☐ Air ☐ Flo	wing Artesia	łΠ	
	Yield	gal/min.		awdown	Pumping Level	Time		
2. OWNER:								$\Box$
Name Fannie Mae								
Address 6206 N. Discovery Way, Suite C								
City Boise State ID Zip 83713					Bottom hole tem	p		_ `
3. LOCATION OF WELL by legal description:	Wat	er Quali	ty test	or comments:				
Sketch map location <u>must</u> agree with written location				Dej	pth first Water Enco	untered		
N	12.	LITHO	LOG	IC LOG: (I	Describe repairs or	abandonme	ent)	
Twp. 4 North ⊠ or South □								
Page 3 Fast or West X	Wa					<u></u>		
W E Rge. 3 East ☐ or West ☒ Sec. 10 1/4 SE 1/4 NW 1/ 10 acres 160 acres 160 acres	Bore Dia	From	To	Remarks:Lit	hology, Water Quality	& Temp.	Y	N
Sec. 10 1/4 SE 1/4 NW 1/	4   188	† †					$\top$	
		1						
S Gov't lot County Canyon		1		<b></b>			┪	
Lat: : : Long: : :							┺	
Address of Well Site 14676 River Rd.	<b>—</b>	1	,	4" Well 55'	Deep 5' SWL		╁┤	Н
City Caldwell				L .	the top with Bentoni	ite	╬	╠┤
(Give at least name of road + Distance to Road or Landmark)	-	+		Timed over	Chips			H
I + Dile Suh Nome		<del> </del>		<del> </del>	Спрз		╌	H
Lt Blk Sub. Name	ļ	-	<b></b>	<u></u>			-	
4 TCE.	·	-				······································	-	
4. USE:  ☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation	<u> </u>				<del> </del>		-	
☐ Thermal ☐ Injection ☐ Other	-	ļ			·			Ш
5. TYPE OF WORK check all that apply (Replacement etc.)	·				,		<b>.</b>	
New Well Modify Abandonment Other	<u> </u>	<b>_</b>		<u> </u>			_	
6. DRILL METHOD	٠				ECEIVED	<b></b>	_ _	Ш
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other	<u> </u>	<b></b>				<i>-</i>		
7. SEALING PROCEDURES	ļ	,			FFD 1 7 2002		<u>↓</u>	Щ
SEAL/FILTER PACK AMOUNT METHOD	<u> </u>				FEB 17 2004			
Material From To Sacks or				W	ATER RESOURCES		- _	Ш
Pounds				<u> </u>	VESTERN REGION		_ _	Ш
Bentonite Chips 0 55' 350#'s Poured	L					,	_[_	
	L			<u> </u>				Ш
	l							
Was drive shoe used?  \[ Y \[ \] N Shoe Depth(s)					BECEIV	E D		
Was drive shoe seal tested? ☐ Y ☐ N How?								
8. CASING/LINER:					FEB 1 0 20	O.L		
Diameter From To Gauge Material Casing Liner Welded Threaded					1 LD 1 0 Z0	04"		
					WATER RESOUR WESTERN REG	CES		
					WESTERN REG	ON		
	\						$\Box$	
Length of Headpipe Length of Tailpipe							$oldsymbol{oldsymbol{oldsymbol{oldsymbol{\Box}}}$	
9. PERFORATIONS/SCREENS						(Measurab		
☐ Perforations Method	Dat	te: Starte	d <u>02/0</u>	4/04	Compl	eted <u>02/04/0</u>	)4	
☐ Screens Screen Type	13.	DRILI	ER'S	CERTIFIC	CATION			
	I/W	e certify	that al	ll minimum w	ell construction stan	dards were		
From To Slot Size Number Diameter Material Casing Liner	com	iplied wi	ith at tl	he time the rig	g was removed.			
				.~\				
	Fir	n Name	Down	Right Drilling	g & Pum	Firm N	o. <u>63</u>	37
				$\Lambda / / /$ .		. <b></b> -	سر.	,
10. STATIC WATER LEVEL OR ARTESIAN	Fir	n Officia	al	Munp	-Killeym	Date	1/	1-01
				· /	1 9 3			
PRESSURE: 5ft. below ground Artesian Pressure lb	Sup	ervisor o	or Ope			Date		
5ft. below ground     Artesian Pressure     Ib       Depth flow encountered     ft.     Describe access port or control				(Sign once if F	irm Official & Operator	τ)		
devices:	Dest	e: 2/6/200	4 Time	9:00 AM				
GC71000.	1,760	., (31 & UU)						



### State Department of Water Resources

## **WELL DRILLER'S REPORT**

JUL 19 1976

State law requires that this report be filed with the days after the completion or	: Direct : aband	or, <mark>Dep</mark> onment	artment of the		0 of Water Res	eri erre			
1. WELLOWNER Dohn Genkens	<u> </u>		LEVEL		OF WATER 1988	eurces.	 J		
Name of the same	c	tatic w	ater leve	el <u>5</u> feet below land s	urface	· · · /			
	į F	lowing	? 🗀 Y	′es 🗀 No G.P.M. flov	v		_		
Address Page 1	Temperature° F. Quality 6-72-6  Artesian closed-in pressurep.s.i.								
Owner's Permit No allwell Ldaks	Controlled by 🗆 Valve 🗀 Cap 🗀 Plug								
2. NATURE OF WORK	8. v	VELL T	EST DA	ATA					
🕱 New well 🗆 Deepened 🗆 Replacement		Pump		☐ Bailer	Congress	44	<del></del>		
☐ Abandoned (describe method of abandoning)		ischarge	G.P.M,	not Known		Pumped			
				74.7774					
3. PROPOSED USE	<u> </u>								
© Domestic □ Irrigation □ Test □ Other (specify type)	9. 1	LITHOI	LOGIC I	LOG	0417	<b>'11</b>			
☐ Municipal ☐ Industrial ☐ Stock ☐ Waste Disposal or	Hole Diam,	From	pth To	Material		Wa Yes	ter		
Injection	6"	0	12	Ten Soy'x Harly	3en		X		
4. METHOD DRILLED	6"	13	35	Sand		X	\ <u>,</u>		
ズ Cable ☐ Rotory ☐ Dug ☐ Other	Dre	35	35	Strates face			X		
		50		8 1 9		X			
5. WELL CONSTRUCTION	ļ	ļ	1	an Wellemple			ļ		
Diameter of hole inches Total depthfeet		<del>                                     </del>	<del> </del> -	openBetten	<del> </del>				
Casing schedule: 💢 Steel 🔲 Concrete									
Thickness From To 150 inches 1 inches + 1 feet 117 feet	<u> </u>						<u> </u>		
inches inches feet feet		-	<del> </del>		<del> </del>		<del> </del>		
inches inches feet feet							-		
inches feet feet									
was casing drive shoe used?   inches feet									
Was a packer or seal used?									
Perforated? ☐ Yes 🛱 No	<u> </u>	<del> </del>	<del> </del>	<u> </u>			<del> </del> -		
How perforated? ☐ Factory ☐ Knife ☐ Torch		_	<del> </del>	<del> </del>		+-			
Size of perforation inches by inches					·····		_		
Number From To perforations feet feet									
perforations feet feet		<u> </u>				_	ļ		
perforations feet feet	<u> </u>				<del></del>				
			<del> </del>				$\vdash$		
Well screen installed? ☐ Yes ☑ No					7		l		
Manufacturer's name Model No									
Diameter Slot size Set from feet to feet	<del></del>								
Diameter Slot size Set from feet to feet		<del></del>				_	<b>-</b> -		
						-+			
Gravel packed?									
Placed from feet to feet	·								
Surface seal depth. Material used in seal   Cement grout		<del></del>			<del></del>				
Puddling clay 🔲 Well cuttings			<del> </del>		<del></del>				
Seating procedure used   Sturry pit  Temporary surface cosing			i ——		<del></del>	++			
Overbore to seel depth			<u> </u>	<u> </u>					
S. LOCATION OF WELL	10.			- land	/				
6. LOCATION OF WELL	W	ork sta	rted 🎎	49 /76 finished	<u> 24312/1</u>	Z6			
Retch map location must agree with written location.					<del>//</del>				
(13)	H. D	RILLER	S CERT	IFICATION M					
Subdivision Name	_		A.	De 12.10 Du	<i>A</i>	25	8		
Subdivision Name	F	irm No. 12⊅⊿	M <b>e(D∕</b> <u>€ 4</u> .	THE PROPERTY OF THE	Firm	Not SUC	_		
Training Lot No Block No	A	Jマ.	Mas	Lisa Cellwell Dru	Le Date		_		
LOT NO ENOCK NO									
STATE OF THE PROPERTY OF THE P	S	igned by		Official) DanibWK	sel		_		
County Carry				orator) Lamen					
5 E 1 NW 1 Sec. 10 T.4 NO. R. 3			(Оре	rotor)	<u></u>		-		
A CONTRACT A Sec. 10									

Form 238-7 3/95-C96

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

(	81	8	7 <i>5</i>	[3	<b>&gt;</b>
Inspec			Use O	nly	
Twp	ica o	Rge		Sec	
	1/4		1/4		1/4
Lat:	_:	:	Long:	:	:

				1/41/41/4	1/4	·
1. <b>DRILLING PERMIT NO.</b> <u>-316-81</u>	11.	WELI	TES	TS:	- :	
Other IDWR No.			ump		an	
2. OWNER:	Yield			awdown Pumping Level Time	an	$\neg$
Name MILRIGHT CUSTOM HOMES	100		80	85 1 HR		╗
						7
Address 14131 HWY 44						
City CALDWELL State ID Zip 83607	Wate	er Temp	L	Bottom hole temp.		
3. LOCATION OF WELL by legal description:	Wate	er Quali	ty test	or comments:		
Sketch map location <u>must</u> agree with written location				Depth first Water Encountered 15		
N	12.	LITHO	LOG	GIC LOG: (Describe repairs or abandonme	ent)	
Twp. 4 North 🛛 or South 🗌				(Street to parts of abandoning	·,	
	Wat	er				
W E Rge. 3 East or West		From	To	Remarks: Lithology, Water Quality & Temp.	Y	N
Sec. 10 1/4 SE 1/4 NW 1/4 10 acres 160 acres	Dia	0		TOD GOT	<del>                                     </del>	<b>S</b> 4
10 acres 40 acres 160 acres	10		4	TOP SOIL	┸	$\boxtimes$
Gov't lot County CANYON	10	4	15	BROWN CLAY	_[	$\boxtimes$
	10	15	18	GRAVEL	$\propto$	
Lat: Long:	6	18	43	GRAVEL	$\square$	П
Address of Well Site SAME	6	43	67	BROWN CLAY & SAND STRIPS	ĬXĬ	
City	6	67	92	BLUE CLAY	ΤÌ	$\nabla$
(Give at least name of road + Distance to Road or Landmark)	6	92	115	BROWN SAND & CLAY STRIPS	X	$\vdash$
Lt Blk Sub. Name	6	115	122	BROWN CLAY	$\dashv$	M
	6	122	135	SAND	₩	M
4. USE:	<del></del>				$+\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!\!$	Н
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation		<del></del>			╬┈	Н
☐ Thermal ☐ Injection ☐ Other	<u> </u>					Ш
5. TYPE OF WORK check all that apply (Replacement etc.)					4_4	Ш
New Well ☐ Modify ☐ Abandonment ☐ Other						Ш
6. DRILL METHOD						
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other					]	
7. SEALING PROCEDURES					$\prod$	
SEAL/FILTER PACK AMOUNT METHOD					$\Box$	
Material From To Sacks or					T	П
Pounds					īĦ	П
Bentonite 0 18 550 POUR					ΤH	H
				ODICINAL	╌├┤	Н
				URIGHNAL	┿	$\vdash$
West-lim decree to D.V. D. M. Cl. D. (1/2) 110		-			╬	
Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) 118				· · · · · · · · · · · · · · · · · · ·	╬┈┤	Н
Was drive shoe seal tested? ⊠ Y □ N How? air	<b></b>			· · · · · · · · · · · · · · · · · · ·	+	Н
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded				RENE	-	$\square$
6" +2 118 250 STEEL \(\text{STEEL}\)				RECEIVED	_	
0 1-2 118 230 SIECH	<u> </u>					
	ldash	L		JUL 0 8 2004	.[_]	
	<u> </u>					
Length of Headpipe 9 Length of Tailpipe 0				WATER RESOURCES		
9. PERFORATIONS/SCREENS	Con	npleted	Depth	WESTERN RESOURCES 12 135 (Measurable)		
☐ Perforations Method	Date	: Starte	1 <u>6/30/</u>	2004 Completed <u>7/2/200</u>	4	_
Screens Screen Type cook & 6 wing k-packer     Screen Type cook & 6 wing k-packer     Screens Screen Type cook & 6 wing k-packer     Screen Type cook & 6 wing k-packer     Screens Screen Type cook & 6 wing k-packer     Screen Type co	13. I	DRILL	ER'S	CERTIFICATION		
				minimum well construction standards were		
From To Slot Size Number Diameter Material Casing Liner				e time the rig was removed.		
125 135 .015 5" S.S. $\square$	-			Č		
	Firm	Name (	<b>JEOR</b>	GE POST WELL DRILLING Firm No	o. 56	3
		_				
10 STATIC WATED I EVEL OR ADDRESSAN	Firm	Officia	ر ا	Date 7/6	5/200	)4
10. STATIC WATER LEVEL OR ARTESIAN				Obl Dana		<del></del>
PRESSURE:	Sune	rvisor o	r Oper:	ator Mill Date 7/6	5/200	)4
7ft. below ground Artesian Pressure 1b	~ upo			(Sign once if Firm Official & Operator)	الابتداد	, <del>,</del>
Depth flow encountered 122 ft. Describe access port or control				,		
devices: WELL CAP	Date:	7/5/2004	Time:9	2:25:59 AM		

## STATE OF IDAHO DEPARTMENT OF WATER RESOURCES

USE TYPEWRITER OR BALLPOINT PEN

## WELL DRILLER'S REPORT

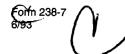
State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

1. WELL OWNER	7. WATER LEVEL										
Name O. F. COONS	Static water level feet below land surface.										
Address 5910 Homelale Rd	1	Flowir	ng? 🗆	Yes Mo G	i.P.M. flov	v					
				d-in pressure <u> </u>							
Owner's Permit No. 63-89-W-042	Temperature oF. Quality										
2. NATURE OF WORK	8. WELL TEST DATA										
New well Deepened Replacement	Pump 🗆 Bailer 🗶 Air 🗆 Other										
☐ Abandoned (describe abandonment procedures such as	1 4										
materials, plug depths, etc. in lithologic log)	D	ischarge	e. G.P.M	Pumping L	Hours Pumped						
	7	0		40							
3. PROPOSED USE											
→ Domestic □ Irrigation □ Test □ Municipal	9.	LITH	OLOGI	CLOG	,,	70000					
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection	Bore	Dep	th		<del></del>	70868	Wa	ter			
☐ Other (specify type)	Diam.	From	<del></del>		aterial	/	Yes	No			
4. METHOD DRILLED	<b></b>	9	7	Brown c	10:1	<u>/</u>	-	4			
→ Botary → Air □ Hydraulic □ Reverse rotary		7_	15	SANd - CO	NISK 91			-			
Rotary Air  Hydraulic  Reverse rotary  Cable  Dug  Other		15 20	40	Gravel-C SAND & GI		Smd	<u>ب</u> سه	┼			
		40	50	· · · · · · · · · · · · · · · · · · ·	clan			سا			
5. WELL CONSTRUCTION		50	60	SANty yel				<u></u>			
Casing schedule: Steel 🗆 Concrete 🗆 Other		70	70	Brown	colores		-				
Thickness Diameter From From 80 feet		8 U	85	Brown C	rion			-			
inches feet feet	h	85	90	Coarse 1	NATT	e JAnd		}			
inches inches feet fee											
Was casing drive shoe used? ✓ Yes □ No	·		<del></del>				-	-			
Was a packer or seal used? ☐ Yes ★ No				1949							
Perforated? ☐ Yes 🥦 No How perforated? ☐ Factory ☐ Knife ☐ Torch			J	1100			-	<del> </del>			
Size of perforation inches by inches			<del> </del>				<del> </del>	<u> </u>			
Number From To perforations feet feet			ļ					<u> </u>			
perforations feet feet						<u> </u>	┼─-				
perforations feet feet Well screen installed? □ Yes				Department	of Water R	esources					
Manufacturer's name	<del>                                     </del>	-			Regional (	Offic <b>e</b> ————		<del> </del>			
Manufacturer's name Model No.  Diameter Slot size Set from feet to feet											
Diameter Slot size Set from feet to feet				- File V	***************************************	TO STATE	<del> </del>	-			
Gravel packed?  Yes No Size of gravel											
Placed from feet to feet Surface seal depth 2.0 Material used in seal:   Cement grout					·		ļ	-			
☐ Bentonite	-			<u> </u>	R 28	1989		<u> </u>			
Sealing procedure used:  Slurry pit Temp. surface casing Verbore to seal depth	<u> </u>	<del>-</del> -	-			·····		1			
Method of joining casing: ☐ Threaded ☐ Welded ☐ Solvent			-	- Donartmi	ent of Wa	ter Resources					
Weld  Cemented between strata,	$\vdash$		<u> </u>	Debarring			<u> </u>	<u> </u>			
Describe access port SANITARY SEAL	10.	Wo	rk start	ed 3 -/7 -89	finished	3-17-1	19				
MACONEH MEN					- 111131104		<u> </u>				
6. LOCATION OF WELL	1 11.	DRIL	LERS	CERTIFICATION							
Sketch map location must agree with written location.  N JUN 1 0 1991			-	that all minimum we nat the time the righ			rds w	ere			
Subdivision Name	] }	-	- 7 S	COTT DRILLIN	10 C		_				
W 10 Green View Acres		Firm I	Varne_	5412 LAKE A	<u>√∄</u> Fi	irm No. <u>ろう</u>	-/_	_			
	1 4	Addre	ss 🖖 💹	CALDWELL, ID (208) 459-66	8300. 8 <u>6</u> D	ate		_			
Lot No. 5 Block No.				rm Official)			<u>,                                    </u>	,			
S.		Signed	ı byr(††i	rm Official) and	7'45 /	01-10-64	"	_			
County CANYON			(1	Operator)	1	+ 100					
NE 1/5 W 1/4 Sec. 10 , T. 4 N/A, R. 2 N/W.			,,		· / <b>V</b> -	<u></u>		_			

## 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 Capt-Kraus Oral Kraus	Size of drilled hole: 6" Total depth of well: 200' Standing water
Address RT. 1 Caldwoll , Ida.	level below ground: +5' Temp. Fahr. 55 ° Test delivery: 24 gpm orcfs Pump?   Bail
	or cfs Pump? K Bail
Owner's Permit No.	Size of pump and motor used to make test:
NATURE OF WORK (check): Replacement well X New well Deepened Abandoned	
Wet well beepened Abandoned	Length of time of test: 18 Hrs. Min.  Drawdown: 10' ft. Artesian pressure: ft
water is to be used for: Domestic use	above land surface 5' Give flow cfs
Water is to be used for: Domestic use  METHOD OF CONSTRUCTION: Rotary Cable v  Dug Other	or gpm. Shutoff pressure:
(explain)	Controlled by: Valve k Cap Plug No control Does well leak around casing?  Yes No X  DEPTH MATERIAL WATER  FROM TO YES OR NO
CASING SCHEDULE: Threaded	Yes No X
O "Diam. from ft. to 104 ft.	DEPTH MATERIAL WATER
"Diam. from ft. to ft.	FEET FEET
"Diam. from ft. to ft.  Thickness of casing: •250 Material:	0 1 0 1 70 7
Thickness of casing: -200 Material:	<u> </u>
Steel x concrete wood other	56 176 fine sand-silt poor clay ves
	198 200 Aalittle better sand water yes
(explain) PERFORATED? Yes No X Type of	
perforator used:	
Size of perforations: "by "	
perforations fromft. toft.	
perforations from ft. to ft.	
perforations from ft. to ft.  WAS SCREEN INSTALLED? Yes No X	
Manufacturer's name	
Type Model No.	
Manufacturer's name Type Model No. Diam. Slot size Set from ft. to ft. Diam. Slot size Set from ft. to ft.	
CONSTRUCTION: Well gravel packed? Yes	
No. x size of gravel Gravel placed from ft. to ft. Surface seal	
placed from ft. to ft. Surface seal provided? Yes No To what depth?	
ft. Material used in seal:	
Did any strata contain unusable water? Yes No. Type of water:	001186
Depth of strata ft. Method of sealing	
strata off:	
Surface casing used? Yes X No.	
Cemented in place? Yes No 🕱	
Locate well in section	
! ! !	
	Work started: 9/29/67
	Work finished: 10/4/67   Well Driller's Statement: This well was
Sec.	drilled under my supervision and this report
	is true to the best of my knowledge. Name: C.F.Baker & Son
<u>┣┺╼┡╼╾</u> ┩╼╼┩	
	Address: Box 41 Middleton, Ida.
	Signed by: Signed by: Date: 10/10/67
OCATION OF WELL: County Canyon	Date: 10/10/0/
SE 14 NW 14 Sec. 10 T. 4 4 N/8 R. 3 K/W	



# IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

Use Typewriter or Ball Point Pen

			A	$\alpha \alpha \alpha \alpha s$
1. DRILLING PERMIT NO. 63 - 93 - W - 0994 - 000	10. WELL	. TESTS:	.1.	08934
Other IDWR No.	□ Pu	ımp <b>⋉</b> Bailer	☐ Air ☐ Flowing	Artesian
2. OWNER: - 1 /-	Yield gal./r		Pumping Depth	Time
2. OWNER: Tim Nielson Name 14610 Kluen Rd, City Caldwell State Dzip 83605	23	125	125	IM.
Address 14610 Kluen Ha,	ļ			<del> </del>
City CA lawell State 11) Zip 8 3 605				<del></del>
3. LOCATION OF WELL by legal description:		of water Was a	water analysis done? Ye	ss □ No 🔀
Sketch map location must agree with written location.		y (odor, etc.)	WITA-	
N		Temperature	r/ ·	
	11 STAT	IC WATER LEVEL	. /	
North N or South	25 ft.		 th artesian flow found	·
T	Artesian pr	essuretb. De	scribe access port	
Sec. 10 , 1/4 5E 1/4 NW 1/4	Describe C			
Gov't Lot County CAnyon 160 acres		-		
S		LOGIC LOG: (Des	cribe repairs or abando	onment)
Address of Well Site In middleton	Bore _			<del></del>
	Dia. From	To Remarks: Litholo	gy, Water Quality & Tempe	erature GPM SWL
(Give at least Direction + Distance to Road or Landmark)	1,10		SOIL	X
Lot NoBlock NoSubd. Name	81		and_	
4. PROPOSED USE:			+ Gravel	
💢 Domestic 🗆 Municipal 🗀 Monitor 🗆 Irrigation			lay	<del>-  -   </del>
☐ Thermal ☐ Injection ☐ Other	1 50	59		<del>- +                                     </del>
5. TYPE OF WORK			ay,	<del>-                                     </del>
X New Well ☐ Modify or Repair ☐ Replacement ☐ Abandonment			nd ay	
6. DRILL METHOD	98		nd	
☐ Mud Rotary 💢 Air Rotary ☐ Cable ☐ Other	<del></del>		lay	
7. SEALING PROCEDURES	147	<del>(                                    </del>	and	
SEAL/FILTER PACK AMOUNT METHOD				
Material From To Sacks or Pounds				
Bentonite 3 18 4 OverBore			CEIVED	
	<del>    </del>	<del></del>	<del>V 2 9 1993 —</del>	
Was drive shoe seal tested? Yo No How?		Departi	nent of Waler Resources	
That dive shoe scal tooled. The Trip			<u> </u>	
8. CASING/LINER:		RE	CEIVED	
Diameter From To Guage Casting Liner Steel Plastic Welded Threaded			-n -n -40n-n	
6" +1 152 X" Steel X = X =		NOV	2 2 1993	363 200 3 4
	<del></del>		R RESOURCES	
	<del> -   </del>	WES	TERN REGION	<del>-                                    </del>
1/-1/-	<u> </u>		FFF	3 2 8 1994
	<del></del>		· i	3 2 8 <b>1</b> 994
Top Packer or HeadpipeBottom Tailpipe	ļ	0 17 00		2 2 2 3
9. PERFORATIONS/SCREENS	Date: Start	ed <u>9-27-93</u>	S Completed 7	-29-93
Fellorations Wethod	13. DRILL	ER'S CERTIFICA	TION.	
Screens Type 55 Material Fig K	I/We certify	that all minimum well c	onstruction standards we	re complied with at
From To Slot Size Number Diarmeter Tele/Pipe Casting Liner		rig was removed.		
157 157 .0020 - 5" 5" - X	Firm Name_	Phione 1	Drilling	Firm No. 3 ( /
773 77 1000	LIIII NAINO			_i iiii iyo. <u>.                                   </u>
	Firm Official	I habe to	The Plate	11/10/53
	and	1		7/
	Supervisor	or Operator	ame_Date	·

806314

Form 238-7 3/95-C96

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

	, ,		, ,		
		Office	Use O	nly	
Inspec	ted b	у			
Twp_		_Rge		_Sec_	
	_1/4		1/4		1/4
Lat:	;	:	Long:	:	-:

1. DRILLING PERMIT NO299 -41	11.	WELL	TES'	TS:	Lat: ; ;	Long: :	:
Other IDWR No.		F	ump	☐ Bailer	🛛 Air 🔲 Flo		an
2. OWNER:		gal/min.			Pumping Level 70	Time 30 Min.	<del></del>
Name David Hurley	50		10			30 Min.	
Address 14341 Channel Rd.	Flows	30gpm					
City Caldwell State ID Zip 83607	Wate	ет Тетр			Bottom hole tem	p	
3. LOCATION OF WELL by legal description: Sketch map location must agree with written location	Wate	er Quali	ty test	or comments:			
N N N N N N N N N N N N N N N N N N N					oth first Water Enco		
	12, 1	LITHO	LOG	IC LOG: (I	Describe repairs or	abandonm	ent)
Twp. 4 North or South	Wat	<b>0.</b> PP					
W		From	To	Remarks:Lit	hology, Water Quality	& Temp.	YN
Sec. 10 1/4 SW 1/4 NE 1/4	Dia	0	4				
10 acres 40 acres 160 acres	10	4	4 18	TOP SOIL GRAVEL	<del></del>		
S Gov't lot County Canyon	6	18	25	GRAVEL			-
Lat: : Long: : :	6	25	70		AY & SAND STR	TDQ	
Address of Well Site Same as ablove	6	70	85	BLUE CLA			
G:	6	85	94		AY & SAND STR	IPS	-1414
(Give at least name of road + Distance to Road or Landmark)	6	94	107	BROWN CI			-1714
Lt. Sub. Name	6	107	120	SAND			
					·-·		
4. USE:						-	
Domestic Municipal Monitor Irrigation							_
☐ Thermal ☐ Injection ☐ Other							
5. TYPE OF WORK check all that apply (Replacement etc.)				_			
New Well ☐ Modify ☐ Abandonment ☐ Other  6. DRILL METHOD							
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other							
7. SEALING PROCEDURES	<b></b>		$\sim$	1011	1 A 1		
SEAL/FILTER PACK AMOUNT METHOD			$\downarrow \downarrow \downarrow$	KILTI	VAL		
Material From To Sacks or	-						-   -
Bentonite 0 18 500 lbs pour					<del></del>		
0 18 300 10S 100a							-
	-						╼╄╼╌╬╌╌┨
Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) 97	-			<del></del>			╅╫╢
Was drive shoe seal tested? ⊠ Y □ N How? air				B	ECEIVED	)	╌┟╌╏
8. CASING/LINER:						-	+H
Diameter From To Gauge Material Casing Liner Welded Threaded			•	(	SFP 1 1 2003		
6" +3 97 250 STEEL ⊠ □ ⊠ □							
					ATER RESOURCES VESTERN REGION	5	
——————————————————————————————————————	<u> </u>				,23,211111101017		
Length of Headpipe Length of Tailpipe	<u></u>	لـــِــا		L			
9. PERFORATIONS/SCREENS		npleted				Aeasurable)	
☐ Perforations Method		: Starte				eted <u>8/26/20</u>	)03
☐ Screens Screen Type				CERTIFIC	ATION all construction stan	doeda wa	
From To Slot Size Number Diameter Material Casing Liner					was removed.	dards were	
	00111	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ui ui ui	e une ue xig	was tenio vea.		
	Firm	Name 9	<u> George</u>	Post Well Dr	illing	Firm N	o. <u>563</u>
				8-		<del></del> -	
10. STATIC WATER LEVEL OR ARTESIAN	Firm	Officia	1	1/1		Date <u>8/</u>	27/2003
PRESSURE:	_		_	Maria	Ch Si Thin	, _	
+3ft. below ground Artesian Pressure lb	Supe	TV1SOF O	r Oper	atof //OVII	rm Official & Operator		27/2003
Depth flow encountered 107 ft. Describe access port or control				(eign ougs if i.i.	im Omeiai & wperator	,	
devices: Well Cap	Date:	8/27/200	)3 Time	:3:29 PM			

6/02			NT OF WAT ILLER'S I	
4 WELLTON		うぐってっ		n <b>i</b>
<ol> <li>WELL TAG NO DRILLING PERMIT</li> </ol>			360-1	
Water Right or Injec			<u> </u>	<del></del> -
general supplies				
2. OWNER:		, ,	11	
	ystone C	ustom		
Address	defor	ic Ave	<del></del> / 9	36
City	10/0/01	8	State Z Zip	) <u>&gt;</u> e
3. LOCATION O	FWFII by legal	description		
You must provide ac			to well	
Twp	North 💢	Or	South	
Rge. 3	East	or	West 🗹	
Sec. 10		Stel 1/1	N(= 1/4	
	10 acres County	40 acres	16D acres	
Gov't Lot			:	_
Gov't Lot Lat: :	: Long	1: : :		KE
Lat: :	te 1437	8 5110	er Cree	ヘハ
Lat: : Address of Well Si	<u></u>	8 51/0	er Cree	
Lat: : Address of Well Si	Distance to Fload or Landmark)	City _C	er Cree	/
Lat: : Address of Well Si	Distance to Road or Landmark)	City _C	er Cree Paldweri Rd	
Lat: : Address of Well Si	Distance to Fload or Landmark)	City _C	er Cree Paldweri Rd	
Lat: : Address of Well Si	Distance to Fload or Landmark)	City _C	er Cree Paldweri Rd	
Lat: : Address of Well Si	Distance to Fload or Landmark)	City _C me <i>River</i>	r Cree Paldwern Rd □ Irrigation	

☐ Cable

`	URCES		Mall	Office Use ID No. 80	Only		
			1	ID NO. <u>O U</u>	1227		
1			inspe	ected by			
			IWP.	Rge	_Sec		ĺ
				1/4 1/4	1/-	4	
	12. WELL TESTS	· <del>-</del>	Lat:	: : Lon		<u>:</u>	
	☐ Pump	Bailer	D(A		Artesian		
	Yield gal./min.	Drawdowi	n	Pumping Level	7	ime	
	50	<del> </del>	<del>.</del>	_///	di	15.	
_							
-				<u> </u>	⊥		
	Water Temp			Bott	om hole ten	np	
	Water Quality test of	r comments: 🛚 💆	200	od Clear	Colo	<b>-</b>	
	no Sme	//		Depth first V	Vater Encou	inter 🌶	23
	13. LITHOLOGIC	LOG: (Descrit	ре гера	airs or abandonme	nt)		iter
	Dia. From To	Remarks: Li	ithology	, Water Quality & Ter	πperature	Y	N
	1004	TOP50	.1				+
	10 4 8	Clay		·			سع
	1068 19	Soud	CH	2. 3.			4-
	61934	Sand &	91	acel		X	
	13467	Bricka	4	-			سه
	67 77	Sand p	ysxe	cwith C	la.v	F	<b>\</b>
	77 79	Sand				ヤ	
	7981	Brn CI	lar	•		T.	سير
	8/84	Blue	cla	<u> </u>			سلر
	84117	Brack				1	سلر
	1/7/28	Sand				X	,
	128	Braci	24	_		1	メ
							<u> </u>
	-						
						<del>                                     </del>	_
				<del></del> -			
	· ·				_	$\vdash$	ļ —-
						<u> </u>	
				<del></del>		<b>†</b>	$\vdash$
		_					
		-		<del>-</del>			
		<del>                                     </del>				<del> </del>	
		p =	<u> </u>	IVED			
			U		<del></del>	<del> </del>	

### 7. SEALING PROCEDURES Seal Material Seal Placement Method erstern Bent 450/65 10" overbore Was drive shoe used? $\square$ N Shoe Depth(s) Was drive shoe seal tested? □Y 🗷N How?

☐ Mud Rotary

☐ Other

☐ Other

8. CASING/LINER:

6. DRILL METHOD: X Air Rotary

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded	
6 7	12 1	17-6	250	Steel			X		
			ا ما		. 🗆				
Length of Headpipe 5 Length of Tailpipe									
Packer	<b>2X</b> Y	□N T	уре	3-Ri6					

9. PER	FORATIO	NS/SCRE	ENS PA	CKERT	YPE		
	n Method _	_		_ /			
Screen Ty	pe & Metho	od of Instal	<u>ت</u>	duse	21 Ser	Puste	ack
From	To	Slot Size	Number	Diameter	Material	Casing	Liner
118	128	20	6"	/e/e	5.5		
					<del></del>		
O. FILT	ER PACK			·		•	

Filter Material	From	To	Weight / Valume	Placement Method
· · ·		_		

11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

Depth flow encountered	# Describe season must be season to be in a seas	
reptil flow encountered	ft. Describe access port or control devices:	
Sam.	Seal well enp	

14. DRILLER'S CERTIFICATION

Completed Depth

Date: Started

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

Company Name Precission well dis	1/1505 Firm No. 522
Principal Driller Jeff Aausm	Dato 10/30/02
and	_ Date / 0/ 0/0
Oriller or Operator II	Date

NOV 1 0 2003

WATER RESOURCES WESTERN REGION

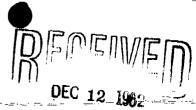
Completed

(Measurable)

05/06/2024

Operator !

Date Principal Driller and Rig Operator Required of State Operator I must have signature of Orthon Operator II. 024994



# WELL LOG AND REPORT OF THE 12 1962 STATE RECLAMATION ENGINEER OF IDAH Partment of Reclamation

Permit No.		Wel	l No	Count	y_CANYON_		Mark Control of Land Control of the	and the same party of the party of the party of the same of the sa
	LLOYD K					·	Locate w	ell in section
Address	CAULDWE	LL I	AHO.		<u>.</u>	· · · · · · · · · · · · · · · · · · ·		
Driller	GUY F D	ОТҰ				<del>-</del>	NW1/4	NE1/4
Address	BOX	<u> 18 HA</u>	STON,	IDAHO				
			_		N/ <b>//</b> , R3_			
Size of dril	led hole	<u> 4 2 m</u>			<del></del>	<u> </u>	SW1/4	SE 1/4
·		<del></del>	<del></del> -	Total	depth of well	<del>- 84</del>		
Give depth	ı to standin	g water fro	m the grou	nd <u>ART</u>	_Water temp,	°Fahr.		· · · · · · · · · · · · · · · · · · ·
						wn was		
								- 1221 - 1221
Length of t	ime of test_		hours	· · · · · · · · · · · · · · · · · · ·	_minutes.	·		
If flowing	well, give	flow	_c.f.s. or	g.p.m.	and of shut o	off pressure	4 lbs	<del></del>
If flowing v	well, describ	ed control	works	36 we]	Ll seal r	SIZE OF VALVE, E		<del></del>
Water will	be used fo	r—— <del>DOME</del> :	<del>STTC P</del>	TRPOSTS		asing per lineal		
Thickness c	of casing	ł IN	Casing m	aterialST	EEL			
Diameter. I	ength and I		•	4in,	) oto 62f	EL, CONGRETE, WO	OD, ETC.)	
, ·	<u>-</u>			(CASING CASIN		R OR LESS, GIVE I		₹;
	<del></del>			<u>-                                      </u>		<del> </del>		
	<u> </u>			CASII	NG RECORD		· · · · · · · · · · · · · · · · · · ·	
Diam. Casing	From Feet	To Feet	Length		Remo	arks—seals, gro	uting, etc.	
		· <u></u>	<u> </u>		<del></del>			
			· _			<del></del>	·	<del>_</del> .
		<u> </u>	<del></del>			· :	<del></del> .	<u>u.</u>
			- <del></del>		<del></del>		<del></del>	<u></u>
	<u></u>		<del>.</del>			·		
Number an	d size of p	erforations.	NONE		located	feet to.		feet from ground
				<u> </u>	<del></del>	<del></del> ,	i -	N-+ - 44E
				·· <u>-</u> · ·· ·			. seno	
Date of con	nmencemen	t of well	- 6 <b>-22-6</b>	2	Date of com	pletion of well.	6-22-62	
				Sint Al.	= <b>5</b> . 10 %	+1/ 3 W		. <i>n</i>
•				000 10 [	- 3,10	· , <del>-</del>		usds

63

924995

### WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ans. Yes or No	Casing Perforated Ins. Yes or No
2	2 II	TOP SOIL SAND @ GRAVEL	NO	
	22	HARD PAN	YES	NO
··-··	·			
22	46	YELLOW CLAY.		
46	84	BLUE SHALE.		
	84	BLUE SAND, FINE	YES	
				٠.
•				
	,			
· · · · ·				
	_	, , , , , , , , , , , , , , , , , , , ,		
	·	, , , , , , , , , , , , , , , , , , , ,		
		If more space is required use Sheet No. 2		

### WELL DRILLER'S STATEMENT

This well was drilled under my supervision	and the above information is true and correct to the best of my know-
ledge and belief.	
	Signed
	Ву
6-24-62 • 19	License No. <u>T</u> 86

27-222-1

Form 238-7 6/02

## IDAHC

	Office Use Only
D DEPARTMENT OF WATER RESOURCES	Well ID No. 80595
WELL DRILLER'S REPORT	Inspected by
29919	Twp RgeSec_
	1 1/4 1/4

WELL DUILLED 9 DEPORT		l l	mspecied by		
1. WELL TAG NO. D <u>0089919</u>			Twp Rge		_
DRILLING DEDUCT NO			1/4 1/4 _	1/4	
	12. WELL TESTS:		Lat: : : Long:	-: :	
Water Right or Injection Well No.		☐ Bailer	Æ∕Air ☐ Flowing Art		
2 OWNED.	Yield gal./min.	Drawdown			
2. OWNER: Name Surrise Fine Homes	150	Diawdown	Pumping Level  / 5 5	Time	
Name Surpise Fine Homes	130_	<del></del>	///	2 hrs	<u> </u>
Address 24799 Lansing Ln.		<u> </u>			
City Middleton State Id Zip 83644					
	Water Temp		Bottom	hole temp.	-
3. LOCATION OF WELL by legal description:	Water Quality test or o	comments: C	Good Clear Co		
You must provide address or Lot, Blk, Sub. or Directions to well.	Trans. daming tool of c				
Twp North To r South 🗆			Depth first Wate	er Encounter	50
Rge East \( \square \text{or} \text{West } \( \mathbb{E} \)	13. LITHOLOGIC L	.OG: (Describe	e repairs or abandonment)	1	Water
Sec. 10 Stu 1/4 NE 1/4 1/4	Bore From To	Remarke: Litt	nology, Water Quality & Tempe	erature Y	, N
Sec	Dia.			stature f	/ N
191' ' long' '	10 0 4	70P SO	<u>2/                                     </u>		14
Address of Well Site 22702 Clearwater Dr.	1064 19	Clar	-		4
City Caldwell	619 26	Sound!	gravel		- [ ` ]
	26 44	Clark	7 200 -	——- <u>`</u>	7
Lt. 2 Blk Sub. Name River Rd. ESt.	44 01	Sandy	alex		
<u></u>	سرمعر اربعر	Sorey	cray		<u>-ry</u>
	51 55	Brx cl	ay		_   1
4. USE:	5561	Sand	<del></del>		<u>- 1 1</u>
🗷 Dornestic 🗆 Municipal 🗀 Monitor 🗀 Irrigation	61 691	Brack	æj/		+
☐ Thermal ☐ Injection ☐ Other	6774	Sandy	Clar_		_X
	117491	Bra Cha			اسبار
5. TYPE OF WORK check all that apply (Replacement etc.)	9/1/8	Sandy	clas	- 人	- -
Mew Well □ Modify □ Abandonment □ Other			nclas		1
	122 /37	Sandy	Clark		F
6. DRILL METHOD:		Hrd Bra			12
Air Rotary 🗌 Cable 🗀 Mud Rotary 🗀 Other	140 151				7
	100101	Meas	ang	*	
7. SEALING PROCEDURES	157/60	400131°	rclay_	<u> </u>	
Seal Material From To Weight Volume Seal Placement Method					_
Cexester Best 0 18 500/65 10" overbore					
					_
Was drive shoe used?   ✓ □ N Shoe Depth(s)					
Was drive shoe seal tested? ☐ Y IN How?			· · · · · · · · · · · · · · · · · · ·		
8. CASING/LINER:					_
Diameter From To Gauge Material Casing Liner Welded Threaded					
6 72 194 250 Steel - X -					
		——————————————————————————————————————	ECEIVED		
Length of Headpipe 5 Length of Tailpipe 5		S	EP 12 2003		$\perp$
Packer ⊠Y □N Type 3-Rib					
	<del></del>	WA	TER RESOURCES	<u></u>	
9. PERFORATIONS/SCREENS PACKER TYPE	<del>                                     </del>		STERN REGION		4
Perforation Method					
Screen Type & Method of Installation Johnson Set Dull back					
From To Slot Size Number Diameter Material Casing Liner			: C - C1		
145 155 20 6" THE S.S. 0	Completed Depth _		60tt.	(Measu	rable)
	Data: Charles	2/21/0	7	2/25/1	03
	Date: Started	PAIL	Completed 8	JAJI	
	14. DRILLER'S CEF		,	, –	
10. FILTER PACK	I/We certify that all min	imum well cons	truction standards were comp	olied with at 1	the
Filter Material From To Weight / Volume Placement Method	time the rig was remove	red.	,		
	Company Nama	CISEIDA	(exil, Dino	Eirm No. Z	-22
	Oumpany Namer / U	5 77	dent & Land	rirm No.	1
1]. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Principal Driller ( 🗸	ell//	Cext/g Purp auxm_ Date	9/10	107
CLEUCY. below ground Artesian pressurelb.	and	71-4	Dale .	4.01	
Depth flow encountered ft. Describe access port or control devices:	Driller or Operator II		Date		
Depth flow encounteredft. Describe access port or control devices; Sam' Seal well Cap					
- Car	Operator I	Irinainal Deilla	DateDate _		

Pristonic BA dental states gery

05/06/2024

Principal Driller and Rig Operator Required.
Operator I musculative Stylhard Fedge British 1984

Form 238-7 6/02

## IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT	
1. WELL TAG NO. D 0030959	Twp RgeSec
DRILLING PERMIT NO.	1/4 1/4 1/4
Water Right or Injection Well No.	12. WELL TESTS: Lat: : Long: :
O OWALED.	☐ Pump ☐ Bailer Air ☐ Flowing Artesian
2. OWNER: Name Scarrise Fine Homes	Yield gal/min. Drawdown Pumping Level Time
Address 34799 Lansing Ln.	100 1111.
Name Scentise Fine Homes  Address 34799 Lansing Ln.  City Middleton State Id Zip 83644	
, and a second s	Water Temp Bottom hole temp.
3. LOCATION OF WELL by legal description:	Water Quality test or comments: Good Clear Color
You must provide address or Lot, Blk, Sub. or Directions to well.	
Twp North or South \(\bar{\bar{\bar{\bar{\bar{\bar{\bar{	13. LITHOLOGIC LOG: (Describe repairs or abandonment)  Water
Rge Fast or West #7 Sec, SLU-1/4 1/4 1/4	
Sec	Bore Prom To Remarks: Lithology, Water Quality & Temperature Y N
Lot	10 0 3 10D Soil
Address of Well Site 22689 Clearwater Dr.	136 Sand, X
City Cutoux//	16 10 Sandéclay
(Specificant name of road + Disjance to Road or Landmark)  Lt. Sub. Name Rever Rd FS4.	10 18 c/ax
Phase TT	6/829 Sand Egrave
7	1 29 58 1311 Clay
4. USE:	5873 Fine Sand & Clay X
Domestic ☐ Municipal ☐ Monitor ☐ Irrigation	13 30 Hickory X
☐ Thermal ☐ Injection ☐ Other	ob 109 15/4e C/ay
5. TYPE OF WORK check all that apply (Replacement etc.)	104/09 Spad & Clay Mixed X
New Well ☐ Modify ☐ Abandonment ☐ Other	12/143 Sandy Clay (Fractured) x
6. DRILL METHOD:	151174 Fine Silty Sand
Air Rotary □ Cable □ Mud Rotary □ Other	174182 Had Read law
7. SEALING PROCEDURES	182 188 med Sond
Seal Material From To Weight Volume Seal Placement Method	
Western Bent 0 18 45016s 10 overhore	
Was drive shoe used? XY \( \sum N \) Shoe Depth(s) \( \sum 182 \)	
Was drive shoe seal tested? XY L N How?	
8. CASING/LINER:	
Diameter From To Gauge Material Casing Liner Welded Threaded	
6 +2 182 250 Steet - 1	DEORIVED
	RECEIVED
	FFD 0.0 cock
Length of Headpipe Length of Tailpipe	FEB 0-3-2004
Packer XY □N Type <u>S~RiB</u>	WATER RESOURCES
9. PERFORATIONS/SCREENS PACKER TYPE	WESTERN REGION
Perforation Method	
Screen Type & Method of Installation Solution Work DV Usla	
From To Slot Size Number Diameter Material Casing Liner	laa'
183 188 20 6" Tele S.S	Completed Depth(Measurable)
	Date: Started 1-26-04 Completed 1-30-04
	14. DRILLER'S CERTIFICATION
10. FILTER PACK	I/We certify that all minimum well construction standards were complied with at the
Filter Material From To Weight / Volume Placement Method	time the rig was removed.
	Company Name Precision Collepant The Firm No. 572
	Only range of the state of the
~ /	Principal Driller Jacobson Date 31-09
ft. below ground Artesian pressurelb.	and Driller or Operator II Date
bebuil now encounteredit. Describe access nort of control devices:	Driller or Operator II Date Date
Son seal ax/1 Cap.	Operator I Date
Chimana Daidan Estata	Principal Driller and Rig Operator Required

Priston CPA earth and agery

05/06/2024

Operator I much macan ratio de Dans la 1974

Well ID No.

## USE TYPEWRITER OR BALL POINT PEN

## State of Idaho Department of Reclamation

## **WELL DRILLER'S REPORT**

and since

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

A -7/							
Name Name Name Name	7. W	ATER atic wa owing?	LEVEL	feet be	elow land surf G.P.M. flow	<b>Solution</b>	A COLOR
Address A G alany Cou	Ar	tesian (	closed-i	n pressure	p.s.i,		
Owner's Permit No.	<del> </del>		-	☐ Valve I	□ Cap □	Plug ————	
2. NATURE OF WORK	8. WI	ELL TE	EST DA	TA	<b>A</b> 4		
New well Deepened Replacement	L	Pump scharge (		☐ Bailer  Draw	A Other	Hours P	umped
☐ Abandoned (describe method of abandoning)		30		Compos		15	-{
3. PROPOSED USE							· · · · · · · · · · · · · · · · · · ·
Qomestic ☐ Irrigation ☐ Test	9. LI	THOL	ÓGIC L	.og			Water
☐ Municipal ☐ Industrial ☐ Stock	Diam.	From	To	M/h. to	Material	fo	Yes No
4. METHOD DRILLED	72	3	7	Whilal		va Long	
Cable	12	1.3.	26	Roben L	va-Gra	una	1 / 2
5. WELL CONSTRUCTION	B	26	<u>۸</u> ۶	My - rus	maje	uset	
Diameter of hole inches Total depth feet Casing schedule: Steel Concrete		53	61	Brown	Elmo		
Thickness Diameter From To 2.50 inches inches feet 142 feet		24	SI,	Frago	J. Coar	20 San	
inches inches feet feet feet feet		953	123	Clause	C.		
inches inches feet feet	7	22	145	1:70	n Ca		
inches   inches   feet   feet		45	1 68	Loy es les	Clary - S	iford DU	X
Perforated? ☐ Yes 🐧 No How perforated? ☐ Factory ☐ Knife ☐ Torch		168	132	Hay Blu	2 grston	cin	
Size of perforation inches by inches  Number From To							<del> </del>
perforations feet feet feet feet					· · · · · · · · · · · · · · · · · · ·	<del>-</del> :	
perforations feet feet					<del>.</del> .		
Well screen installed?   Yes No  Manufacturer's name				(	) <del>() 1                                  </del>		<del>                                     </del>
Type Model No Feet to feet					4100	<u></u>	
Diameter Slot size Set from feet to feet						<del></del>	<del></del>
Gravel packed?							
Surface seal? Yes  No To what depth  feet	<del>  </del>						
Material used in seal ☐ Cement grout ☐ Puddling clay							
6. LOCATION OF WELL	}			<u> </u>			<u> </u>
Sketch map location must agree with written location.  N  N  N  N  N  N  N  N  N  N  N  N  N	10. Wo	ork star	rted	7/15	finished	7/28	/7/
Feet Vista acres additions	TH	his well	was dri	RTIFICATION illed under my su of my knowledge	-	this report	is d
To Caldy Sec 10 T.4N R3W	A S	iller's or	Firm's I	Name Only	ek de	Num	ber
County CC 7 2 1 1007  *** ******************************	06/202 <b>5</b> ig	dress gned By	<u>ر</u> رغر (	Crimson I	Bridge Estate	8 // <del>&gt;</del>	/>

Form 238-7 3/95-C96

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

8	31	02	15	5	
Inspec			Use O	nly	
Twp .		Rge		Sec	
	1/4		1/4		1/4
Lat	-	:	Long:	:	<u>;</u>

				1/4 1/4 1/4 Long: : Long: :	_1/4	
1. DRILLING PERMIT NO	11.	WELL	TES		<del>`</del>	
Other IDWR No. D0030746				☐ Bailer 🛛 Air 🔲 Flowing Artesi	an	
2. OWNER:	Yield	gal/min.	Dr	awdown Pumping Level Time		-
Name Doug & Shawna Hoyt	100 25		+	90' 2 Hrs 20'	,	-
Address P O Box 631	23		+	120		-
City Kuna State ID Zip 83634	Wate	er Temp	<del></del>	Bottom hole temp.		
3. LOCATION OF WELL by legal description:	Wate	r Ouali	ty test	or comments: Iron .5, Nit 1.8, Hardness 5		-
Sketch map location must agree with written location		•	•	Depth first Water Encountered 13'		
N	12. 1	LITHO	LOG	IC LOG: (Describe repairs or abandonm	ent)	
Twp. 4 North Or South				•		
W Rge. 3 East or West 🛭	Wat					
W E Rge. 3 rast 1 or west 24	a 1	From	To	Remarks:Lithology, Water Quality & Temp.	Y	N
Sec. 10 1/4 SW 1/4 NE 1/4 10 Bores 40 Bores 160 Bores	10"	0'	2'	brown top soil	4	M
	10"	2'	13'	brown sandy clay	<del>-</del>	X
S Gov't lot County Canyon	10"	13'	19'	brown sand & gravel		
Lat: : : Long: : :	6"	19'	32'	brown sand & gravel	闵	H
Address of Well Site 14418 Silvercreek	6"	32'	40'	brown clay	-۲-1	X
City Middleton	6"	40'	42'	fine brown sand		H
City Middleton (Give at least name of road + Distance to Road or Landmark)	6"	42'	75'	brown clay w/sand strips	-	ΔÍ.
Lt. Blk. Sub. Name	6"	75	102'	brown clay		X
	6"	102'	115'	brown sand		
4. USE:					*	-
Domestic Municipal Monitor Inrigation	<b></b>		-	<u> </u>	-	H
☐ Thermal ☐ Injection ☐ Other	ļ				-	H
5. TYPE OF WORK check all that apply (Replacement etc.)					7-1	Н
New Well ☐ Modify ☐ Abandonment ☐ Other						H
6. DRILL METHOD					-	H
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other	<u> </u>					$\vdash$
7. SEALING PROCEDURES	<b> </b>				╅┤	Н
SEAL/FILTER PACK AMOUNT METHOD	<del></del>			<u> </u>	-	-
Material From To Sacks or	<b> </b>				╼┟╌┤	Н
Bentonite 3' 19' 600# overbore			<b></b>		╌┟╌┤	Н
Distribute 5 15 1000 Visiting	-			RECEIVED	<b></b>	
				- JEIVED	┪	Н
	ļ			FFR 0.0 ago.	+-	H
Was drive shoe used? ☑ Y ☐ N Shoe Depth(s) <u>98'</u>	-			1 20 0 9 2004	╌╁╌┤	H
Was drive shoe seal tested? ☐ Y ☒ N How?	-		<u> </u>	WATER RESOURCES WESTERN REGION	+	Н
8. CASING/LINER: Diameter From To Gauge Material Casing Liner Welded Threaded				WESTERN REGION		Н
6° +2' 98' 250 steel ⊠ □ ⊠ □	<del></del>		<b></b>			-
					-}	Н
	<b> </b>				┸	H
Toward CYY-3-2-1AI Food CT 11.1	-	<del> </del>	<del> </del>		-	
Length of Headpipe 14' Length of Tailpipe	1	n n l cé a d	I Danel	h: 114 (Measurable	لنلح	-
9. PERFORATIONS/SCREENS	9	npicaca e: Starte	-			
Perforations Method wash-in					<del>-</del>	
☑ Screen Type telescoping				CERTIFICATION  I minimum well construction standards were		
From To Slot Size Number Diameter Material Casing Liner				n minimum wen construction standards were the time the rig was removed.		
102' 112' .020 5" stst 🗆 🗆	CORIN	biica wi	ui at ti	he time the rig was removed.		
	Firm	Name	Down	Right Drilling & Pum Firm N	lo. 63	7
	* 1440	1991IV ,		//		
•	Firm	Officia	ıl >	Sawy King Date 2	J-2-	04
10. STATIC WATER LEVEL OR ARTESIAN	~ 14.11		··	Simo 2		
PRESSURE:	Surve	ervisor o	or Oner	rator Date_		
5ft, below ground Artesian Pressurelb	- up	485-974 1	Jpu	(Sign once if Firm Official & Operator)		
Depth flow encountered ft. Describe access port or control	_					
devices:	Date:	2/2/200	4 Time:	11:15 AM		

Form 238-7

## IDAHO DEPARTMENT OF WATER RESOURCES

		. 0	ffice	Use Q	nly		· _ ·	7
	Well	ID No		Sli	05	54	2	
	Inspe	ected b	οу _					
	Twp		Rg	e	Sec	<u> </u>		ŀ
		1/4 _		1/4 _		_1/	4	
	Lat:	:	:	Long:		:	:	
	<b>Æ</b> Ai	r	П	lowing Ar	tesia	in		-
wr	1	Pur	nping	Level			Time	
		10	25		/	17.	r	

WELL DRILLER'S REPOR	
1. WELL TAG NO. D 0030984	Twp RgeSec
DRILLING PERMIT NO.	12. WELL TESTS:
Water Right or Injection Well No.	12. WELL TESTS: Lat: : Long: : : ☐ Pump ☐ Bailer
2. OWNER:	Yield gal./min. Drawdown Pumping Level Time
Name Sunrise Fine Homes  Address 24799 Lansing Ln.  City Middle fon State Id Zip 83648	100 105 / Hr.
Address 24799 Lansing Ln.	
City Middle For State 2 Zip 8 36 98	What
3. LOCATION OF WELL by legal description:	Water TempBottom hole temp Water Quality test or comments: Good Clear (Nor
You must provide address or Lot, Blk, Sub. or Directions to well.	7 /
Twp North down or South ☐  Rge East ☐ or West down or We	Depth first Water Encounte 13. LITHOLOGIC LOG: (Describe repairs or abandonment)  Water
Sec. 10 , 5w 1/4 NE 1/4 1/4	Bore From To Remarker Lithelean Water Quality & Temperature V N
Gov't Lot County Cares 160 acres	Dia. From To Remarks: Lithology, Water Quality & Temperature Y N  O O 4 Jop Soil
Address of Well Site 14437 Clear Creek Dr.	1475and.
City Calde vell	7 10 Sand & Clay
Lt. Blk. Sub. Name River Rd. F5+.	10 16 Clar
Lt. Sub. Name XVPC 1907	6 16 28 Sand & grave / X
	1 38 36 Hrd Bricley X
4. USE:	12 45 Fine sand
Thermal	45 57 BINCLOY
	5766 Sandy Clay
5. TYPE OF WORK check all that apply (Replacement etc.)  ★ New Well	66 70 Clay X
	70 73 Med Sand, (Fractured) X
6. DRILL METHOD:	8897 Hrd Bracky X
À Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other	97 107 med Sand
7. SEALING PROCEDURES	
Seal Material From To Weight Volume Seal Placement Method	
wyo Bestante o 18 500lbs 10 overbore	
Was drive shoe used? N Shoe Depth(s)	
Was drive shoe seal tested? ★TY □ N How? ★T	
8. CASING/LINER:	
Diameter From To Gauge Material Casing Liner Welded Threaded	
6 12 97 250 Steel - x -	DECEIVED
	RECEIVED
Length of Headpipe 5 Length of Tailpipe	FEB 0 5 2004
Packer XY □N Type 3-R:6	
9. PERFORATIONS/SCREENS PACKER TYPE	WATER RESOURCES WESTERN REGION
Perforation Method	
Screen Type & Method of Installation Sours and Lesos & PN Valve	
From To Slot Size Number Diameter Material Casing Liner	Completed Depth(Measurable)
7/10/ 20 6 10/2 5.5.	2/1/04 2/5/04
	Date: Started 2/3/07  14. DRILLER'S CERTIFICATION
10. FILTER PACK	I/We certify that all minimum well construction standards were complied with at the
Filter Material From To Weight / Volume Ptacement Method	time the rig was removed.
	Company Name trecision well a pump Int Firm No 52
11 CTATIO WATER LEVEL OR ARTEGIAN RECEIVE	
11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:	Principal Driller Coff Clauson Date 4/5/04
Depth flow encountered ft Describe access port or control devices:	Driller or Operator II Date
Son Seal well Cap	Operator I Date
/	Principal Driller and Rig Operator Paguired

Phistoric BA destall stretagery

05/06/2024

Operator I must have Signatured por the Appendix H.

DEPART	MENTO	- WAIER	RESOURCES
WELL	DRILLE	R'S REI	PORT

1. WELL TAG NO. D  DRILLING PERMIT NO.					Inspe	ID No. ected by		9 740 Sec	0	
Water Right or Injection Well No.	12. V		ESTS:		Lat:	_ 1/4	1/4 _ : Long	1/- : :	4 :	
2. OWNER:  Name Scarrisc Fine Homes  Address 34779 famsing La.  City Middlefon State 7d Zip 83644		☐ F Yield gal.		□ Bailer □ Drawdo	Æ Ai wn		Flowing A	T	ime //\$,	
3. LOCATION OF WELL by legal description:  You must provide address or Lot, Blk, Sub. or Directions to well.  Twp. North or South Rge. Sub. North or South Rge. Sec. North or West All Sec. North or West All Sec. North or South Rge. Sec. North or West All Sec. North or West All Sec. North or West All Sec. North or Rge. Sub. Name Research or West All Sec. North or Research or Research or Research or Research or Research Resea	Wate		test or		ribe repa	irs or ab	ear Co epth first Wa	ater Encou	nter	70' ater N
5. TYPE OF WORK check all that apply (Replacement etc.)  New Well   Modify   Abandonment   Other    6. DRILL METHOD:		67 79 77 85 96 67	19 77 95 96 167 118	Mrc B med E Sano Hyd B Blue med E	rnci	ax	(Frac	reved.	* +	++
8. CASING/LINER:  Diameter From To Gauge Majerial Casing Liner Welded Threaded  Length of Headpipe Length of Tailpipe  Packer XY N Type 3 Liner  Perforation Method  Screen Type & Method of Installation Diameter Material Casing Liner  Liner Welded Threaded	L I	npleted	Depth	F	EB 2	3 200	ees	(Me	easura	ble
10. FILTER PACK  Filter Material From To Weight / Volume Placement Method  11. STATIC WATER LEVEL OR ARTESIAN PRESSURE:  ft. below ground Artesian pressure   b.	14. D I/We of time the Company and	RILLE certify the ne rig w	ed	RTIFICATIO nimum well co ved.	onstructio	n standa		nplied with		<b>4</b>

Pristonic BA earth after a gery

O5/06/2024 Operator I mc Have Go Have

Form 238-7 6/02

## IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT		Well ID No <u>&amp;</u> O9	
1. WELL TAG NO. D 0030764		Twp Rge	
DRILLING PERMIT NO.	40 1452 1 55000	1/4 1/4	,
Water Right or Injection Well No.	12. WELL TESTS:  ☐ Pump ☐ Bailer	Lat: : Long:	
2. OWNER:	Yield gal./mln. Drawd		Time
Name Kirshner Homes	70 20	) 195	2415
Address 14385 Silver Creek Rd City Caldwell State IZ Zip \$3665			
	Water Temp. 65	Bottom	hala taura de e
3. LOCATION OF WELL by legal description: You must provide address or Lot, Blk, Sub. or Directions to well.	Water Quality test or comments:		noie temp. & S
Twp North  or South  Rge East  or West  S		-	er Encounter 50
Rge Grat □ or West 🕱	13. LITHOLOGIC LOG: (Desc	ribe repairs or abandonment)	Water
Sec. 10, Sull 1/4 NE 1/4 West 1/4 Gov't Lot County 1/4 1/4	Bore Dia. From To Remarks:	Lithology, Water Quality & Tempe	erature Y N
Lat: : Long: · ·	10 65 5 Over	burdon	X
Address of Well Site 14385 Silver crock nd	10 5 18 Some	1	×
(Gitys at load name of road + Distance to Anat or Landingth)	6 18 36 920	2/	
Lt. 4 Blk. Sub. Name Phase II	136 50 clay		— <del>                                    </del>
	15389 Sand	y clay	\ \ \ \ \
4. USE:	37 110 to a	clay	
Monitor ☐ Irrigation ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection ☐ Other	110 112 5000	<u>a</u> /	
	112 140 Sand	ay clay	X
5. TYPE OF WORK check all that apply (Replacement etc.)	143 183 tan	clay	× ×
New Well ☐ Modify ☐ Abandonment ☐ Other	153 195 Sand		X
6. DRILL METHOD:	196 tun	clay	
☐ Air Rotary			<del></del>
7. SEALING PROCEDURES		-	
Seal Material From To Weight / Volume Seal Placement Method			
Denotor We D 18 105m/s Due bore			
Was drive shoe used? Y IN Shoe Depth(s) 182			<del></del>
Was drive shoe seal tested? ☐ Y ► N How?			
8. CASING/LINER:			
Diameter From To Gauge Material Casing Liner Welded Threaded	<u> </u>	RECEIVED	
6" +2 182 250 Steel 3 1 1		JAN 2 3 2004	
Length of Headpipe 7 Length of Tailpipe 2		WATER RESOURCES WESTERN REGION	
Packer DY DN Type K Packer			
9. PERFORATIONS/SCREENS PACKER TYPE			
Perforation Method			
Screen Type & Method of Installation John So.		<del></del>	
From To Slot Size Number Diameter Material Casing Liner	Completed Depth / 95		(Measurable)
	Date: Started /2 //1/	/1002 0 1111	
	14. DRILLER'S CERTIFICATIO		13/2004
10. FILTER PACK	I/We certify that all minimum well or		lied with at the
Filter Material From To Weight / Volume Placement Method	time the rig was removed.		
	Company Name Percision	- Loll Drilling Inc	Firm No. 522
	Principal Driller	ausa Date	1-20-04
ft. below ground Artesian pressure lb.	and / SC /		
Depth flow encountered 185 ft. Describe access port or control devices:	Driller or Operator	Malda Date 2	1/3/2001
Wall Car	Operator I	Date _	- · · · · · · · · · · · · · · · · · · ·
Chinacan Daiden Educac	Principal Drille	er and Rig Operator Required	OH @

Printence Add the Add

05/06/2024

Operator I must have signature of briller operator i

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

1. WELL TAG NO. D 007/9/4				LEVEL and WELL TESTS:				
Drilling Permit No		Depth first water encountered (ft) <u>180</u> Static water level (ft) <u>80</u>						
Water right or injection well #	Water temp. (°F) Bottom hole temp. (°F)							
2. OWNER: Bruce Field Construction	Descr	ibe acces	s port_	Son Seal Well Cap	<u> </u>			
Name	Well t	est:		Test method:				
Address 1403/ Silver Ridge Rd.		rdown (feet	yie yie	charge or Test duration   Pump Bailer / (minutes)		lowing rtesian		
City Caldwell State Id Zip 83607	d	<u>00                                   </u>	12		3			
3.WELL LOCATION:	1/2		1200	2 X Pelo				
Twp. 4 North or South Rge. 3 East or West				mments:		_		
Sec1/41/4	Bore	From	To	and/or repairs or abandonment:  Remarks, lithology or description of repairs or	Wi	ater		
_	Dia. (in)	(ft)	(ft)	abandonment, water temp.	Y	N		
Gov't Lot County <u>Can you</u> (Deg. and Decimal minutes)	12	0	5	TOP Soil				
11/2 2 2 21/		.5	7	Hrd Pan				
Long. 1/6 94/1.354 (Deg. and Decimal minutes)	7	7	//	gravel	<u> </u>			
Address of Well Site	10	11	51	Solid Blk lova				
(Give at least name of road + Designce to Road or Landmark)  City <u>Coldwell</u>	6	5/	72	gravel	_			
Lot. 17 Bik. 3 Sub. Name Taylor Kidge	-	72	19	Ked Cinders Fine Byn Sond				
4. USE:	<del></del>	88	90	Fractured Bin Clay				
Domestic Municipal Monitor Irrigation Thermal Injection		09	123	Fractared Brn Claya San	d			
Other		123	130	Fine Bin Soud		_		
5. TYPE OF WORK:  New well Replacement well Modify existing well		130	132	Braclay				
Abandonment Other		232	138	FineBraclay				
6. DRILL METHOD:		138	156	Braclay & Shad				
Air Rotary Mud Rotary Cable Other		156	163	Fracture & Ben & Blue Clay				
7. SEALING PROCEDURES:		112	170	w/Fine Sold				
Seal material From (ft) To (ft) Quantity (lbs or ft ⁻¹ ) Placement method/procedure		105	125	Fractured Brn Clay				
18 Best 0 47 26 bags Dry Pour		7.5	184	Binclay & Sand Fine Brh Sand				
	-	184	187	Soudy Briclay				
8. CASING/LINER: Diameter From True Gauge/ Material Cooley New Throaded World		187	191	Fine muck y Sand				
(nominal) (it) Schedule Material Casing Litter Infraded Welded		191	193	Sandy Bin Clay				
6 42 203 250 Steel 2 0 0 2		193	197	Fine Rin Soud	_			
		197	200	Emotored Clay				
		300		Hrd Braclay		_		
		203	310	Fine White Sand				
Was drive shoe used? ☐Y ☐ N Shoe Depth(s)								
9. PERFORATIONS/SCREENS:	-							
Perforations   Y   N Method								
Manufactured screen ☐Y ☐ N Type <u>Solutson</u>								
Method of installation								
From (ft) To (ft) Slot size Number/ft Diameter (nominal) Material Gauge or Schedule	Compl	eted Dept	th (Measi	urable): 210 f.f.				
205 210 12 6" Tele S.S.	Date S	started:	5-1	1-16 Date Completed: 5-13-	16			
				TIFICATION:	-			
	I/We o	ertify tha	t all mini	imum well construction standards were complie	d with a	at		
Length of Headpipe 6 - Length of Talipipe 0	the tin	ne the rig	was ren	noved.				
Packer V N Type 3-Rib	Comp	any Nam	eDIC	CISIOT LIVERONIFACO. NO. 5	32	2		
			10	DO anceson Date 6		- 1-		
10.FILTER PACK:    Filter Material   From (fit)   To (fit)   Quantity (lbs or ft ² )   Placement method	Princ	ipal Drille			10	170		
Filter Material From (ft) To (ft) Quantity (lbs or ft ² ) Placement method	*Drille	rk_v	11/0	<u> MS&amp;M</u> Date <u> </u>	-10	14		
	*Oper	ator I1	11	Date				
11. FLOWING ARTESIAN:	Opera	_						
	•	V.11 (V.2	20 100	HECEIV	ED			
Flowing Artesian? Y N Artesian Pressure (PSIG)	* Sigr	ature of	Princip	at Driller and rig operator are required.	140			
Describe control device				JUN 22 20	ilh			





Post Office Box 190537 - Boise, Idaho 83719

site.consulting.idaho@gmail.com - 208-440-6276

**David Stephens** Precision Excavation & Construction Inc. 9160 West Chinden Boulevard Meridian, Idaho 83646-5054

**January 2, 2023** File # 23796-A Page 1 of 28

Re: Geotechnical Recommendations

> Proposed Crimson Bridge Subdivision 14533 River Road - Caldwell, Idaho

### David:

As per your request, SITE has completed the testing and classification of all samples taken during the field exploration performed on July 14, 2022. This investigation was intended to determine the depth and quality of the onsite pitrun, (sand and gravel) and determine site suitability for construction of a residential subdivision. As requested, this report also contains soil testing and classification data for the purpose of onsite septic system design. It is noted that the test pits were excavated in randomly selected locations well before the provided Preliminary Plat was generated. Both engineering and sanitary classifications of each soil sampled are included in the test pit logs. The data indicates that the proposed subdivision and homes with onsite septic systems are feasible and that specification aggregate products can be generated from onsite an onsite source.

We appreciate this opportunity to be of service. We look forward to working with your design and construction team in the future. Should you have any questions or require additional information, please contact our office at your convenience.

Respectfully submitted: SITE Consulting, LLOSSIONAL

Bob J. Arnold, PE

Digital Signed by Bob J. Arnold, PE

Date:

01/03/2022



### FIELD INVESTIGATION

SITE observed the excavation of nine test pits at locations intended to provide full coverage of the subject property. This investigation was performed on property located at 14533 River Road in Caldwell, Idaho. The property is just north of the Boise River and the City of Caldwell's Curtis Park. Nine rural properties that front Channel Road are along the north property boundary. The following information was obtained from the Canyon County Assessor's records utilizing landprodata.com

#	Parcel Number	Address	Acres
1	R-3466800000	Boise River Road	7.09
2	E-3466701100	144533 River Road	49.74
		Total Acres	56.83

Near surface soils were generally similar in all test pits. Sand and silt soils are the most prevalent surface soil and typically extend from three to six feet deep. No clay soils were sampled. In TP-5 (10') and TP-8 & TP-9 (9.0') the overburden soils extend to the bottom of the test pit where sloughing soil prevented deeper excavation. Pitrun type sand and gravel was encountered below the above-described surface layer in TP-3 to TP-7 but not in TP-8 & TP-9. The encountered sand and gravel materials varied from fine gravel in TP-4 (max size 2") to large cobble (12") in test pit #5. Groundwater was encountered in all test pits at three to ten feet deep. This range is due to surface elevation differences and not a fluctuating groundwater surface.

Additional research was performed searching for well logs within the section where the subject property is located. Well logs for section 10, township 4 north, range 3 west were reviewed on the IDWR website. The well logs for the subject and two adjacent/nearby properties were located and have been included in the Appendix. These logs indicate that groundwater is very near the ground surface. The onsite well reported a small (5 gpm) artesian flow and the other two wells indicate the static groundwater is two and four feet deep. It can be assumed that groundwater on the subject property dictated by flow in the adjacent Boise River.



### **GEOTECHNICAL RECOMMENDATIONS**

### Site Work

Grubbing depths of up to 2 to 12 inches can be anticipated to remove most organic materials. Deeper roots may exist where large trees are or were present. Stripping depth is to be adjusted in the field at the time of construction.

Excavations caused by grubbing of ditches or over excavation of soft or wet areas are to be backfilled with structural fill. All subgrade soils present in the test pits can be used as structural fill on building lots and within the subgrade of onsite right of ways.

Compaction of any fill placed within building pads or right of ways must exceed 95% of the maximum dry density as determined by Standard Proctor testing. Structural fill must pass compaction testing and visual inspection for stability. Fill that passes compaction but is observed to rut or deflect under construction traffic is to be rejected. Ripping of compacted fill in yard areas after homes are completed and before fine grading is highly recommended.

### **Onsite Pavement Section**

A sample of the surface silt/sand was sent to a specialty soil lab for R-Value Testing. Based upon an R-Value result of R=8 and a traffic Index of TI=6, a pavement section of 2.5" / 4.0" /13.0" is recommended for all subdivision interior streets. Placement of granular structural fill in the subgrade of proposed roadways will reduce the needed pavement section. All materials and methods used for subdivision construction are to comply with ACCHD and / or ISPWC requirements.



### **Residential Foundation System**

Single-family residential structures may be supported on conventional, continuous, and isolated pad foundations founded upon the native soils or upon structural fill extending to these soils. Based upon proper placement and compaction of structural fill, bearing pressures of up to 1500 psf are allowed for foundations founded on the native soils or compacted structural fill. Crawlspaces or slab on grade floors are acceptable. If lot conditions are as described herein, lot specific geotechnical reports are not needed. If conditions on an individual lot are different or not address by these recommendations, a geotechnical engineer should be retained for lot specific recommendations.

### **Slab on Grade Concrete**

Care must be taken so that all excavations below both interior and exterior slab on grade concrete are properly backfilled in accordance with the structural fill recommendations. Trenches and wall backfill areas are to be filled in lifts and benched each lift so that fill is not placed against a vertical soil face greater than three feet tall. Areas of excessive yielding should be excavated and backfilled with structural fill. Any fill used to increase the elevation of slab on grade concrete should meet the requirement for structural fill. Slab on grade floors, sidewalks and pavements should be placed atop a mat of at least 0.5 feet of granular structural fill materials. Mat material should all pass a 3/4-inch sieve and should contain less than seven percent passing the # 200 sieve. ISPWC 3/4" base is acceptable.



### Storm Water

It is recommended that storm runoff be directed away from all open excavations and not be allowed to puddle on subgrade soils. Based upon the anticipated depth to groundwater and the existing soils, storm water can be directed to roadside swales or the planned pond system. For design, a percolation rate of P=6 in / hr. is recommended for this project. A drain time not exceeding twelve hours should also be used for design. Due to anticipated variation in subsurface soils, percolation rates are to be confirmed at the time of construction.

### **Inspection & Testing**

A qualified engineer or his representative should monitor fill placement to ensure the work is performed in accordance with these recommendations. Testing should be performed in accordance with ASTM Test Methods D3017-88 and D2922-91 (nuclear densometer) or other approved method. For mass filling testing shall be performed on each lift of compacted fill for each lot. Trench backfill and right of ways are to be tested to ISPWC requirements. It is noted that structural fill can pass compaction tests and still be unacceptable if pumping, rutting, or deflecting under vehicle or foot traffic.

### **General Comments**

Testing and inspection services are recommended herein. Proper quality control during construction is required to confirm materials and methods and thereby obtain a desirable finished product. Monitoring and testing should also be performed to verify suitability of materials used for structural fills and to confirm proper demolition, subgrade grubbing, subgrade stability, and proper placement and compaction of fills. Any deviations from the herein described subsurface conditions must be brought to the attention of this consultant.



### SEPTIC DESIGN RECOMMENDATIONS

As per your request, SITE has completed the testing and classification of all samples taken during the field exploration performed on 07/14/2022. This report contains soil testing and classification data for the purpose of onsite septic system design. Both engineering and sanitary classifications of each soil sampled are included in the test pit logs. As per the IDEQ - Technical Guidance Manual, the sanitary (USDA) classifications are based on scalping each sample on a #10 screen. The data indicates that an onsite septic system can be constructed where each test pit is located. It is assumed SWDH will require a confirmation test pit on each lot prior to construction of any onsite septic system.

### AGGREGATES SOURCE SUITABILITY

### General

Two random samples of the native pitrun were selected for laboratory testing. Sieve Analysis and Los Angeles Abrasion testing was performed. Test Results are in the Appendix. Results indicate the onsite pitrun materials can be used as subbase for onsite road construction. These materials also appear acceptable for production of specification base and subbase materials. Additional testing will/may be required depending upon the approval/jurisdictional agency.



### **APPENDIX**

**Preliminary Plat** 

**Aerial Photo (Test Pit Locations)** 

**Test Pit Logs (9 pages)** 

Soil Log Legend

**Aggregate Suitability Test Reports (4 pages)** 

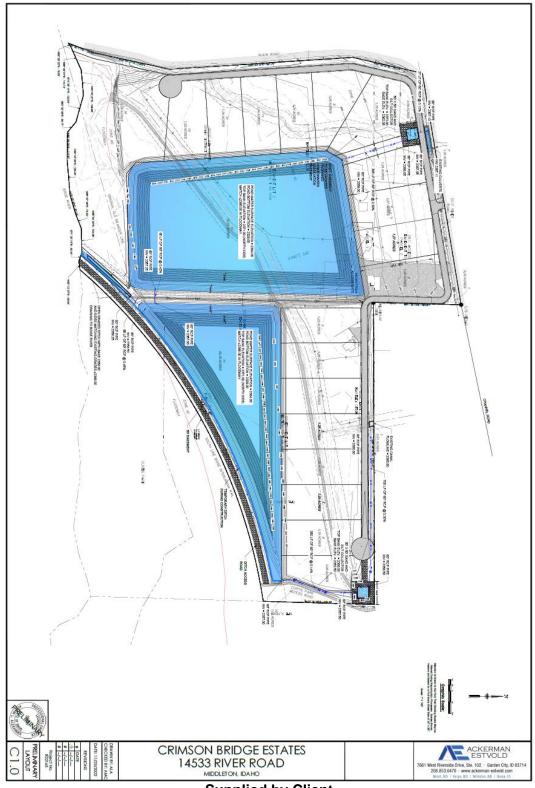
**R-Value Report** 

**Pavement Section Calcs** 

**IDWR Well Logs (3 pages)** 

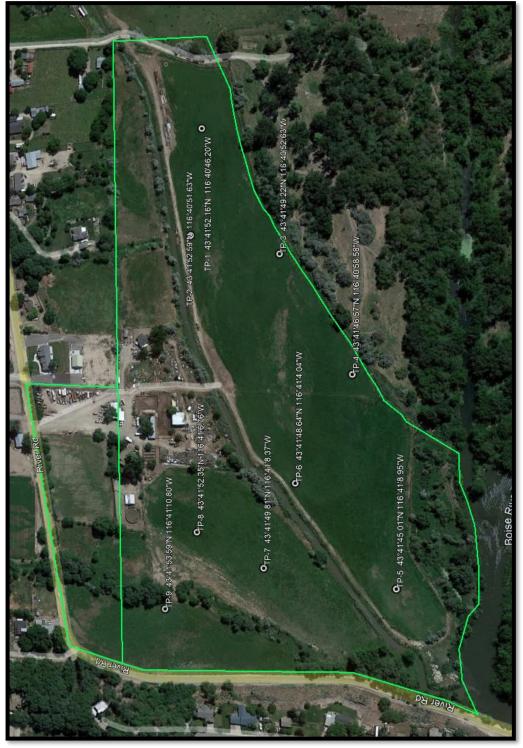


### PRELIMINARY PLAT





# AERIAL PHOTO with test pit locations



Google Earth & Handheld GPS



Test Pit:			TP-1					File #:		23796-A			
Client:	F	Precisi	on Exc	cavatio	n	Date	Date Excavated:			07/14/2022			
Project:	Crin	nson B	ridge :	Subdiv	rision	E	xcavat	ed By:		Client			
Location:		See L	ocatio.	n Map	ı		Logg	ed By:	В.	Arnold	, PE - S	SITE	
DEPTH	SOILS	DESCR	IPTION										
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-3.0		Grey to black, Dry to saturated, Silty, Sand (SM) 6-8" rootzone / organic layer											
	<mark>B-2 –</mark>	B-2 – SILTY LOAM											
2.0						100	95	84	72.4	27.8	29	6	
3.0	GRAVI	EL CON	TACT										
3.0-5.5	Pitrun,	Pitrun, (sand and gravel)											
5.5	Ground	dwater e	avation encount ell Instal	ered at 3	sloughing 3.0 feet	9							



Test Pit:			TP-2				File #:			23796-A			
Client:	F	Precisi	on Exc	cavatio	n	Date	Date Excavated:			07/14/2022			
Project:	Crin	nson B	ridge \$	Subdiv	ision	E	xcavat	ed By:		Client			
Location:		See L	.ocatio	n Map			Logg	ed By:	В.	Arnold	, PE - \$	SITE	
DEPTH	SOILS	SOILS DESCRIPTION											
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-4.0	6-8" ro R-Valu	Grey to black, Dry to saturated, Sandy, Silt (ML) 6-8" rootzone / organic layer R-Value Result R=8 B-2 – SILTY LOAM											
3.0					100	99	95	85	69.9	19.1	31	5	
4.0-6.0	,		Saturate		Silty, Sa	ınd (SM)	)						
5.0				100	98	88	75	55.5	28.7	22.2	NP	NP	
6.0	GRAVE	EL CON	ТАСТ										
6.0-7.5	Pitrun	(sand a	nd grave	el)									
7.5	Ground	Bottom of Excavation due to sloughing Groundwater encountered at 6.0 feet Monitoring Well Installed											



Test Pit:			TP-3			File #:			23796-A				
Client:	F	Precisi	on Exc	avatio	n	Date	Date Excavated:			07/14/2022			
Project:	Crim	son B	ridge S	Subdiv	ision	E	cavate	ed By:	Client				
Location:		See L	ocatio	n Map			Logge	ed By:	B. /	B. Arnold, PE - SITE			
DEPTH	SOILS	SOILS DESCRIPTION											
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-3.0	6-8" rc	Grey to black, Dry to saturated, Sandy, Silt (ML) 6-8" rootzone / organic layer  B-2 -SILTY LOAM											
2.0				100	99	98	88	72	51.3	14.4	NP	NP	
3.0-4.0	Brown		Silty, Sa	and (SM	)								
3.5				100	98	80	63	40	14.4	22.2	NP	NP	
4.0	GRAV	EL CON	TACT										
4.0-5.5	Pitrun,	, (sand a	and grav	rel)									
5.0	71	56	48	44	35	25	11	4	3.6	8.8	NP	NP	
5.5	Groun	Bottom of Excavation due to sloughing Groundwater encountered at 3.5 feet Monitoring Well Installed											



Test Pit:			TP-4			File #:				23796-A			
Client:	Precision Excavation						Date Excavated:			07/14/2022			
Project:	Crimson Bridge Subdivision						cavate	ed By:	Client				
Location:		See L	ocatio	n Map			Logge	ed By:	B. <i>I</i>	B. Arnold, PE - SITE			
DEPTH	SOILS	DESCR	IPTION										
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-2.0		Grey to black, Dry to saturated, Silty, Sand 6-8" rootzone / organic layer											
2.0-3.5		Brown, Wet, Sand (SP)  A-SAND											
3.0				100	95	82	58	36	12.2	18.8	NP	NP	
3.5	GRAV	EL CON	TACT										
3.57.0	Pitrun	, (sand a	and fine	gravel)									
6.0	56			100	95	82	58	36	12.2	18.8	NP	NP	
7.0	Groun	Bottom of Excavation due to sloughing Groundwater encountered at 4.0 feet Monitoring Well Installed											



Test Pit:			TP-5			File #:			23796-A				
Client:	Precision Excavation						Date Excavated:			07/14/2022			
Project:	Crim	son B	ridge S	Subdiv	ision	E	cavate	ed By:	Client				
Location:		See L	ocatio	n Map			Logge	ed By:	В. /	Arnold	, PE - S	SITE	
DEPTH	SOILS	SOILS DESCRIPTION											
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-5.0	8-12" r	Grey to black, Dry to saturated, Silty, Sand (SM) 8-12" rootzone / organic layer B1-Sandy Loam											
4.0					100	95	86	69	464	16.2	NP	NP	
5.0-10.0	Dark G		et to Sat	urated, S	Sandy, S	Silt (ML)							
6.0					100	99	96	93	89.6	26.2	38	8	
10.0	GRAVI	EL CON	TACT										
10.0-11.0	Pitrun,	(sand a	and fine	gravel)									
10.0	63	54	45	41	32	23	9	4	3.2	8.0	NP	NP	
11.0	Groun	Bottom of Excavation Limit of excavator Groundwater encountered at 10.0 feet Monitoring Well Installed											



Test Pit:			TP-6					File #:	23796-A			
Client:	Р	recisi	on Exc	avatio	n	Date Excavated:			07/14/2022			
Project:			ridge S					ed By:	Client			
Location:	<u> </u>		ocatio					ed By:	B. /		, PE - S	SITE
DEPTH	SOILS		RIPTION			<u> </u>	33-				,	
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-4.0	2-4" ro	Grey to black, Dry to saturated, Silty, Sand (SM) 2-4" rootzone / organic layer  A - SAND										
3.0				100	99	98	32	12	7.4	17.0	NP	NP
4.0	GRAVI	EL CON	ITACT									
4.0-7.0	Pitrun,	Pitrun, (sand and gravel)										
7.0	Ground	dwater	cavation encount ell Insta	tered at								



# **TEST PIT LOG**

Test Pit:			TP-7					File #:		237	96-A	
Client:	Р	recisi	on Exc	avatio	n	Date	Exca	/ated:	07/14/2022			
Project:	Crim	Crimson Bridge Subdivision				Ex	cavate	d By:	Client			
Location:	See Location Map				Logge	d By:	B. <i>A</i>	Arnold,	, PE - S	SITE		
DEPTH	SOILS	DESCR	RIPTION									
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-2.5	2-4" rc	Grey to black, Dry to saturated, Sandy, Silt (ML) 2-4" rootzone / organic layer  C-1 - SILT										
2.0					100	99	98	95	89.6	16	38	8
2.5-4.5	2-4" rc	Grey to black, Dry to saturated, Silty, Sand (SM) 2-4" rootzone / organic layer  A - SAND										
4.0					100	92	62	32	11.5	11.0	NP	NP
	Groun	dwater		due to tered at lled								



# **TEST PIT LOG**

Test Pit:			TP-8					File #:		237	96-A	
Client:	Р	recisi	on Exc	avatio	n	Date	Exca	/ated:	07/14/2022			
Project:	Crim	son B	ridge S	Subdiv	ision	Ex	cavate	d By:	Client			
Location:	See Location Map					Logged By:			Arnold	, PE - S	SITE	
DEPTH	SOILS	DESCR	RIPTION									
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI
0.0-3.5	2-4" ro	Grey to black, Dry to saturated, Sandy, Silt (ML) 2-4" rootzone / organic layer  C-1 - SILT										
2.5		100 99 98 96 92 91.8 17.6 46 16										
3.5-9.0	Brown		te, Wet	to Satur	ated, CI	ean, Co	arse, S <i>l</i>	AND (SW	/)			
5.0				100	91	75	58	28	8.0	8.1	NP	NP
9.0	Could Groun	Bottom of Excavation due to sloughing. Could feel/hear top of gravel with digger Groundwater encountered at 4.0 feet Monitoring Well Installed										



# **TEST PIT LOG**

Test Pit:	TP-9					File #:				23796-A			
Client:	Р	recisi	on Exc	avatio	n	Date	Date Excavated:			07/14/2022			
Project:	Crim	son B	ridge S	Subdiv	ision	Ex	Excavated By:			Client			
Location:	See Location Map					Logge	d By:	B. <i>A</i>	Arnold	, PE - S	SITE		
DEPTH	SOILS	DESCR	RIPTION										
(feet)	1.0"	3/4"	1/2"	3/8"	# 4	# 10	# 40	#100	#200	%M	LL	PI	
0.0-3.0	6-10" r	Grey to black, Dry to saturated, Sandy Silt (SM) 6-10" rootzone / organic layer B2-SILTY LOAM											
2.0					100	99	94	85	69.9	19.1	31	5	
3.0-6.0		Brown, Wet to Saturated, Silty, SAND (SM)  B1-SANDY LOAM											
5.0				100	95	81	67	48	28.8	8.1	NP	NP	
6.0-9.0	Brown	Brown to White, Wet to Saturated, Clean, Coarse, SAND (SW)											
9.0	Could Groun	not rea dwater	cavation ch grave encount ell Instal	el with d tered at	ligger								



## **SOIL LOG LEGEND**

#### **UNIFIED SOIL CLASSIFICATION SYSTEM**

(ASTM STANDARD TEST METHOD D 2487 FOR CLASSIFICATION OF SOIL FOR ENGINEERING PURPOSES)

M	AJOR DIVISION	S		TYPICAL DESCRIPTIONS
		<b>-</b> 0/ #200	GW	Well-graded gravel, gravel-sand mixture, little or no fines.
	GRAVEL & GRAVELLY	< 5% - #200	GP	Poorly graded gravel, gravel sand mixture, little or no fines
	SOILS <50% - #4	5-12% -#200	GM	Silty gravel, gravel-sand-silt mixtures
COARSE GRAINED		>12% - #200	GC	Clayey gravel, gravel-sand-clay mixtures
SOILS < 50% - #200	< 5% - #200	sw	Well-graded sand, gravelly sand, little or no fines.	
	SAND & SANDY	< 3 /6 - #200	SP	Poorly graded sand, gravelly sand, little or no fines
	SOILS ≥ 50% - # 4	>12% - #200	SM	Silty sand, sand-silt mixtures
		>12/0 - #200	sc	Clayey sand, sand-clay mixtures
	SILTS &	INORGANIC	ML	Inorganic silt and very fine sand, rock flour, silty or clayey fine sand or clayey silt with slight plasticity
FINE	CLAYS LL < 50%	INORGANIO	CL	Lean clay-low to medium plasticity, gravelly, sandy, or silty clay
GRAINED SOILS		ORGANIC	OL	Organic silt and organic silty clay of low plasticity
≥ 50% - #200	SILTS &	INORGANIC	МН	Elastic silt, micaceous or diatomaceous fine sand or silty soil.
	CLAYS LL <u>&gt; </u> 50%		СН	Fat clay - high plasticity
		ORGANIC	ОН	Organic clay-med. or high plasticity: organic silt
HIGH	LY ORGANIC S	OILS	PT	Peat, humus, swamp soil with high organic content



#### AGGREGATE SUITABILITY TEST RESULTS

David Stephens
Precision Excavation & Construction Inc.
9160 West Chinden Boulevard
Meridian, Idaho 83646-5054

December 28, 2022 Page 1 of 4 File 23796-B

Re: Laboratory Report

River Road Gravel Source

Caldwell, Idaho Sampled 07/14/2022

#### David:

As per your request, SITE has performed Sieve Analysis and Los Angles Abrasion testing on two random samples of the native pitrun sampled at your proposed River Road Gravel Pit. Results are as follows:

Τ.	

*			
SAMPLE DESCRIPTION	TP-4	TP-5	ISPWC Spec
SIEVE ANALYSIS			3" Spec
Sieve Size 3.0"		98	100
2.0"	100	80	
1.5"	82	76	
1.0"	71	63	
3/4"	56	54	
1/2"	48	45	
3/8"	44	41	
#4	35	32	25-60
#8	28	25	
# 16	20	19	
# 30	13	11	
# 50	7	6	
# 100	4	4	
# 200	3.6	3.2	0-12
L A ABRASION	·		
C-131-Percent Loss	27.9	28.3	<35
C-535-Percent Loss		23.3	<35

Tested in general accordance with ASTM Methods C-117, C-136, C-131, C-535

We appreciate this opportunity to be of service. Please contact our office if additional information or services are required.

Respectfully submitted, SITE Consulting, LLC

Bob J. Arnold, PE



#### AGGREGATE SUITABILITY TEST RESULTS

Pavement Engineering	Inc.									
Redding · Sacramento · San Luis Obis										
Concord • Santa Clarita Abrasion	Resista	nce by the	L.A. Rattle	r						
		TM C 131								
		Console No. 20074								
Project No.: 220021		Sample No.: 22571								
Project Name: 2022 Laboratory Testing		Material: <u>Grading A, #2</u> Lab No.: L222117								
Client: Site Consulting LLC			Lab No.:	<u>L222117</u>						
Sampled By / Date: Client / Tested By / Date: N. Trease / 8-8-2022										
rested by r bate. N. Hease 70-0-2022										
Grading	Number	f Spheres		Mass of	Chargo g					
A		2			Charge, q ) ± 25					
В	1	0		4584	± 25					
C D	8				± 20 ± 15					
U		,		2500	± 10					
Sieve Size			Mass of Indic Gra	ated Sizes, g						
Passing Retained on			Ola	uiiig						
		Α	В	С	D					
37.5 mm 25.0 mm 25.0 mm 19.0 mm		1250 ± 25 1250 ± 25								
19.0 mm 12.5 mm		1250 ± 25	2500 ± 10							
12.5 mm 9.5 mm		1250 ± 10	2500 ± 10							
9.5 mm 6.3 mm				2500 ± 10						
6.3 mm 4.75 mm 4.75 mm 2.36 mm				2500 ± 10	5000 ± 10					
Total		5000 ± 10	5000 ± 10	5000 ± 10	5000 ± 10					
After 100 Revolutions		Afte	r 500 Revolut	ions						
Beginning Weight		nning Weight	5010	10113						
#4 Sieve Retained		eve Retained	3061							
#12 Sieve Retained	#12 Si	eve Retained	3610							
Percent Loss ₁₀₀ :		Perce	ent Loss ₅₀₀ :	27	7.9					
Percent Loss = [(Mi - I	MA / MEI 40									
Percent Loss - [(Mi - i	wii) / wiij × 10		Cer	sig &	ong					
	Craig W. Long									
			Laborator	y Operations	Manager					
Serving California since 1987										
				www.paveme	ntengineering.com					
				www.paveme	niengineering.com					



#### AGGREGATE SUITABILITY TEST RESULTS

Redding • Sacramento • San Luis Obi Concord • Santa Clarita	Abrasion Resistance by the L.A. Rattler ASTM C 131										
Project No.: 220021 Project Name: 2022 Laboratory Testing Client: Site Consulting LLC Sampled By / Date: Client / Tested By / Date: N. Trease / 8-8-2022		Sample No.: 22572  Material: Grading A, #3  Lab No.: L222117									
Grading  A  B  C  D	Number of S 12 10 8 6	Spheres	Mass of Charge, q 5000 ± 25 4584 ± 25 3330 ± 20 2500 ± 15								
Sieve Size			Mass of Indic	ated Sizes, g							
			Grad	ding							
Passing Retained on	_	Α	В	С							
37.5 mm 25.0 mm 25.0 mm 19.0 mm 19.0 mm 12.5 mm 12.5 mm 9.5 mm 9.5 mm 6.3 mm 6.3 mm 4.75 mm 4.75 mm 2.36 mm	1	250 ± 25  250 ± 25  250 ± 10  250 ± 10	2500 ± 10 2500 ± 10	2500 ± 10 2500 ± 10	5000 ± 10						
Total	5	000 ± 10	5000 ± 10	5000 ± 10	5000 ± 10						
After 100 Revolutions Beginning Weight #4 Sieve Retained #12 Sieve Retained	Beginni #4 Sieve	Aftering Weight Retained Retained	500 Revoluti 5004 3065 3587	ions							
Percent Loss ₁₀₀ :		Perce	nt Loss ₅₀₀ :	28	.3						
Percent Loss = [(Mi - Mf) / Mi] × 100			(	Craig W. Long y Operations	1						
Serving California since 1987				www.pavemei	ntengineering.com						

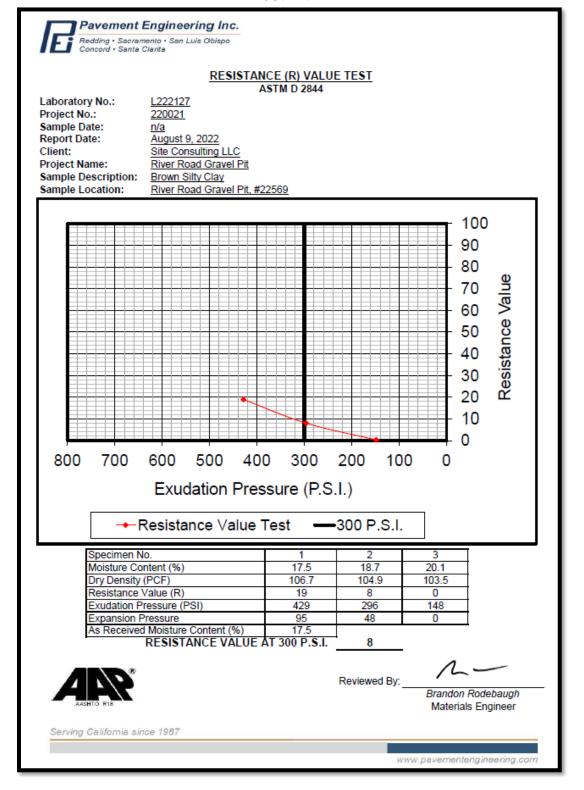


#### AGGREGATE SUITABILITY TEST RESULTS

Payama	ent Engineering	Ina		
	ent Engineering acramento • San Luis Ob			
Concord • Se	anta Clarita			
	Abrasior	n Resistance by the	L.A. Rattle	er .
		ASTM C535		
Project No			Sample No.:	
_	e: 2022 Laboratory Testing	l		Grading #2
	nt: Site Consulting LLC		Lab No.:	<u>L222117</u>
Sampled By / Date				
Tested By / Date	e: N. Trease / 8-8-2022			
Grad	ding	Number of Spheres		Mass of Charge, q
<u>01a0</u>		12		5000 ± 25
2		12		5000 ± 25
3	3	12		5000 ± 25
Sieve	Sizo		Mass of Indic	ested Sizes a
Olovo	Size		Grad	
Passing	Retained on			
		1	2	3
75 mm	63 mm	2500 ± 50		
63 mm	50 mm	2500 ± 50		
50 mm	37.5 mm	5000 ± 50	5000 ± 50	5000 - 05
37.5 mm 25.0 mm	25.0 mm 19.0 mm		5000 ± 25	5000 ± 25 5000 ± 25
25.0 11111	18.0 11111			3000 ± 23
i				
Total		10000 ± 100	10000 ± 75	10000 ± 50
	After 200 Revolutions	-	1000 Revolu	tions
Beginning Weigh		Beginning Weight		
#4 Sieve Retaine		#4 Sieve Retained	7575 7708	l
#12 Sieve Retaine	d	#12 Sieve Retained	1100	l
i				
i				
Percent Loss ₁₀₀	<b>)</b> :	Perce	ent Loss ₅₀₀ :	23.3
· ·			1	
	Percent Loss = [(Mi -	Mf) / Mi] × 100	G	aig Song
			000	and sound
		-		Craig W. Long
i			Laborator	ry Operations Manager
i				
i				
Serving California s	since 1987			
				www.pavementengineering.com



#### R-VALUE REPORT Test Pit #2





#### **PAVEMENT SECTION CALCS**

#### NAMPA DESIGN SECTION CALCULATIONS

(Based upon ITD method)

Project: Crimson Bridge File No.: 23796
River Road - Middleton Calc By: B. Arnold
Client: Precision Exavation Date: 01/02/23

### **Design Thickness Equation:**

T = (0.0384) (TI) (100-R) = GE (inches)

T= Design Thickness TI = Traffic Index = 6 By Agency
GE = Gravel Equivalent R = R-Value = 8 By Soils Test

GE= 21.2 Inches

#### ACHD ACP, 3/4" Road Base and Aggregate Subbase

Actual Thickness Equivalent Thickness

ACHD Asphalt Concrete Thickness = 2.5 Inches ACE = 5.5 Inches 3/4" Road Base Thickness Desired = 4.0 Inches RBE = 4.0 Inches

#### **Calculated Aggregate Subbase Thickness Equation:**

SB= 13.0 Inches

#### RECOMMENDED DESIGN SECTION

Asphaltic Concrete = 2.5 inches

3/4" Road Base = 4.0 inches

Aggregate Subbase = 13.0 inches



### IDWR WELL LOG Subject Property

Form 238-7 STATE C 9/82 DEPARTMENT OF N			SOUR	CES	U	SE TYPEWRIT		A
WELL DRILLE  State law requires that this report be filled wit within 30 days after the comple	h the C	irector	, Depar	rtment	of Water Resources	2	0	
1. WELL OWNER	7	WATE	BIEV	/EI			_	$\neg$
	l "							- 1
Name _Rat Wallace	1	Static	wateri ng? ≴	evel Yes	□ No G.P.M. fi	and surface. ow 5		_
AddressChannel Rd. Caldwell, Idaho		Artesi	an close	ed-lin pr	□ No G.P.M. fi essure 2 p.s.	i.		_ [
Owner's Permit No.		Temp	erature	y: X:	Valve (3: Cap OF. Quality	CJ Flug		_[
2. NATURE OF WORK	Temperature OF. Quality Describe antesian or temperature corner below.  8. WELL TEST DATA						$\dashv$	
© New well □ Deepened □ Replacement	١ "				ller ⊊l Air I	- Orber		- 1
Abendoned (describe abandonment procedures such as	<u> </u>							4
materials, plug depths, etc. in lithologic log)	١	100	G.P.M.	+	100*	Hours Pu	mp#d	
	$\vdash$			-				$\dashv$
3. PROPOSED USE							_	コ
X○ Domestic □ Irrigation □ Test □ Municipal     □ Industrial □ Stock □ Waste Disposal or Injection				C LOG		86303	,	_]
Other (specify type)		From			Material		Yes	
4 METHOD DOUL ED	8	.0	10!	San	d & Clay		X-	
4. METHOD DRILLED	8	10'	201	San	d & Gravel		×	$\dashv$
X Rotary X Air Hydraulic Reverse rotary Cable Dug Other	6	20'	90'		d & Clay layers		×	
2007 2004	6	90*	116'	San	d		x	
5. WELL CONSTRUCTION	6	116	140'	San	ď		×	×
Casing schedule: 80 Steel  Concrete  Other							-	$\rightarrow$
Thickness Diameter From To	$\vdash$							
inches inches feet feet inches inches feet feet	$\vdash$	_					$\vdash$	$\dashv$
inches inches feetfeet					_		1	-1
Was casing drive shoe used? ☑ Yes ☐ No								
Was a packer or seal used? ☐ Yes \$5 No Perforated? ☐ Yes \$5 No	$\vdash$						1	-
How perforated?   Factory   Knife   Torch  Size of perforation   inches by  inches	<b>—</b>							$\neg$
Size of perforation inches by inches								
Number				_			$\vdash$	-
	$\vdash$							$\neg$
perforations feet feet								
Well screen installed? ☐ Yes 🐒 No Manufacturer's name		_		_	\$45.00m	-		-
Type Model No	$\vdash$	-			Terri			-
Diameter Slot size Set from feet to feet Diameter Slot size Set from feet to feet	-	-						
Gravel packed? ☐ Yes ☐ No ☐ Size of gravel	1100	115-(1	25	W	500			-
Placed from feet to feet		100			5111	•		$\neg$
Surface seal depth 20 Material used in seal: ☐ Cement grout  ☐ Bentonite ☐ Puddling clay ☐	33		R 26	10.00	9			
Sealing procedure used: Sturry pit Temp, surface casing	$\vdash$		. 40	1986				-
	Dan	orten						
Method of joining casing: ☐ Threaded 🕏 Welded ☐ Solvent Weld		- conten	Ot IV	or Nes	ources a protective	11	-	-
☐ Cemented between strata	Ь,		_		1000	10.4		$\dashv$
Describe access port	10.	Wor	rk start	ed 11	-21-85finishe	d 11-22-86		
A LOCATION OF HELL	-	-	_	_			_	$\dashv$
6. LOCATION OF WELL	11.				FICATION 89		ule	[
Sketch map location must agree with written location.  N					I minimum well cont time the rig was rome		us we	
Subdivision Name		Firm N	(arfili	II Do	by Drilling & Pu	FIRM Side: 4	2	
w = = = = = = = = = = = = = = = = = = =								-
Lot No Block No		Addre	* Rout	e 7.	30x 311	Date 3=13-86		_
		Signed	by (Fi	rm Offi	clal)	139	7	-
County Cangar				and Operate	1) Bob / blo			-
NE x SW x Sec. 10 , T. 4 Ors, R. 3 @					7			
USE ADDITIONAL SHEETS IF NECESSARY F	ORWA	RD TH	E WHI	TE CO	PY TO THE DEPART	MENT		_



### **IDWR WELL LOG Across River Road to the north**

Form 238-7 IDAHO DEPARTMENT OF WATER RESO 6/02 WELL DRILLER'S REPORT		CES		Office Use Only Well ID No. 0977//	<u>/-</u>	
1. WELLTAG NO. D 00 30 76 4	•			Twp RgeSec		1
DRILLING PERMIT NO.	40.1	wer i		1/41/41/		
Water Right or Injection Well No.	12.1		TESTS: Pump	: Lat: : Long: :  □ Baller	-	_
2. OWNER:		Yield gal	and a	York Circumy Arestal	fime	$\neg$
Name Kirshner Homes		70		20 195 21	1,5	
Address 14385 Silver Creek Re City Coldwell State It Ip 83605	-					_
	Water	r Temp	10			
3. LOCATION OF WELL by legal description:				comments: 600 d	np. 6	2
You must provide address or Lot, Bik, Sub. or Directions to well.  Twp North ★ or South □  Rige East □ or West ★			,	Depth first Water Encou	mtor .	2
Rge. 3 East 1 or West X	13. L	ITHOI	.OGIC	LOG: (Describe repairs or abandonment)		ater
Sec. 10	Bore Dia.	From	To	Remarks: Lithology, Water Quality & Temperature	ΤŸ	N
Couny	10		5	Over burdon	÷.	×
Address of Well Site 143 85 Silver creek nd	10	5	18	Send	-	읈
Sign a local rates a mad + Grance to But or landonship	6	18	36	grave 1		×
Lt. 4 Bik. Sub. Name PA-SC II	1	36	50	clay		×
	H	Ø.	53	Sand	×	إلى
4. USE:	11	87	99 110	Sandy clay	-	5
≯Oomestic ☐ Municipal ☐ Monitor ☐ Irrigation		110	112		×	$\sim$
☐ Thermal ☐ Injection ☐ Other		1/2	140	South clay	1	X
5. TYPE OF WORK check all that apply (Replacement etc.)	/ _		143	sand they	×	
5. TYPE OF WORK check all that apply (Replacement etc.)  New Weil  Modify  Abandonment  Cther			153	tun clay		X.
	-	196	195	fun clay	X	-
6. DRILL METHOD:  ☐ Air Rotary □ Cable ☐ Mud Rotary □ Other ☐		11.		tas cont	-	$\sim$
					_	
7. SEALING PROCEDURES	$\vdash$					
Seal Material From To Weight / Volume Seal Pillicoment Method  Denn to we O 18 /OSa/S Aug   bore	$\vdash$	_	-			H
Dentonne O 18 105ats pre-bore						-
Was drive shoe used? MY □ N Shoe Depth(s) 182						
Was drive shoe seal tested?   Y MN How?	$\vdash$		+		_	
8. CASING/LINER:	$\vdash$	-		RECEIVED	-	
Diameter From To Gauge Material Casing Liner Welded Threaded						-
6" +2 182 250 5401 × 0 X				JAN 2 3 2004		
	-		+	WATER RESOURCES		_
Length of Headpipe 7 Length of Tailpipe 2		-	_	WESTERN REGION		-
Packer IV ON Type K Parker						
9. PERFORATION SCREENS PACKER TYPE		_				
Perforation Method	1		+		-	
Screen Type & Method of Installation Tc 4 5 5 5 5,  From To Skit Size Number Dismoter Material Casing Upon	$\vdash$		-+		-	$\dashv$
183 193 16 5" SS. 3	Com	pleted (	Depth _	/15 (Me	asurat	oie)
	Date	Start	ed /3	2 / 17 / 2 603 Completed 6/3/20	04	
10. FILTER PACK				RTIFICATION		
Filter Material From To Weight / Volume Placement Method	I/We of	ertify the	at all mir as remov	nimum well construction standards were complied with	at the	,
The state of the s		-	-		رسر	
	Compa	iny Ner	ne le	CCISION WOLL Drilling FAC Firm No.	5 3	بد
		al Drite	4	eff Clause Date 1-20	7-6	1
	and Driller	or Opey	ator II	J Halda Date 2/3/	1	,
Wall Cal			2-		200	1
	Operat	of I		Principal Driller and Rig Operator Required.	-	
EODWARD WATER COMMIT	775, 1411	TER C	Open	rator I must have signature of Driller/Operator II.		
FORWARD WHITE COPY 1	IO WA	IER R	ESOUP	HUES		



# IDWR WELL LOG North of property along River (Channel) Road

3 Form 238-7 IDAHO DEPARTMENT O	OF W	ATE	R RE	SOURCES 853679	5	
WELL DRILLI					,	
1. WELL TAG NO. D 0053224	43.6	FATIC II	VATER	I FUEL I WE'LL TECTO		
Drilling Permit No.				LEVEL and WELL JESTS: ntered (ft) _22 Static water level (ft)	411	
Water right or injection well #					175	-
2. OWNER: The was Powell		temp. (°		Bottom hole temp. (°F)		
Name / Same)			ss port_	Sani Seal Well Cap		
	Well		Disc	Test method:	. Flowin	no.
Address 14499 Channel R. City Calbrell State 26. 21 83607	Draw	down (fee	) yes	kd (gpm) (minutes) Fump Saley	anesis	an
			10	50		
3.WELL LOCATION:	Water	auglitut		mments: 9008 Clear Color		
Twp. Y North or South Rge. 3 East or West &	49 1 17	HOLOG	SECTOR	and/or repairs or abandonment:		-
Sec. 10 SCU 1/4 SCU 1/4 NE 1/4	Bore	From	To To	Remarks, lithology or description of repairs or	Water	_
0.	Dia.	(9)	(ft)	abandonment, water temp.	-	N
.1211 0 /	10	0	.5	70D Soll	1	_
Lat. 43 ° 71. 916 (Deg. and Decimal minutes)	10	5	13	Clay	1	-
Long. //6 • 40 • 955 (Deg. and Decimal minutes)	10-6	13	22	Clay Moved with grave!	P	2
Address of Well Site 17799 Cleaner 1 Rd	6	22	28	grave!	1	
(Divide these name of road - these conditions reached Contraction)— City Cal devel 11	1	28	55	BM Clay	1	
Lot Blk Sub. Name	1	5,5	60	Fine, Silly Byn Sund	1	-
4. USE:	+-	60	72	Hed Bricky	1	_
☑ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation ☐ Thermal ☐ Injection	1	64	23	Blue Clay	- K	_
Other	-	33	60	Cra Clay	X	-
5. TYPE OF WORK:	-	74	77	med fillette same	1	-
Modify existing well ☐ Replacement well ☐ Modify existing well ☐ Abandonment ☐ Other		_	_	<del></del>	<del>                                      </del>	$\neg$
		_			-	_
6. DRILL METHOD:  ☑ Air Rotary						_
7. SEALING PROCEDURES:	-		-		-	-
Soul material From (ft) To (ft) Quantity (bs or ft) Placement method/procedure  #6/6 Place 0 /8 450/6s 10 0000000000000000000000000000000000		-	-		-	_
10.00	_	-				_
7777						$\neg$
8. CASING/LINER: Diameter From To (t) Gauge Molecial Casing Liner Threaded Welded						
(nominal) (t) 10 (ti) Schedule Material Casing Unit Intraded Heldul				RECEIVED		
B IN IN NOU STEET						
		_	_	NOV 2 8 2008	-	_
			-	WATER RESOURCES	$\vdash$	-
		-	_	WESTERN REGION	-	_
Was drive shoe used? X Y □ N Shoe Depth(s) 82.44	_	-	-			$\neg$
9. PERFORATIONS/SCREENS:	-	_				$\neg$
Perforations DY N Method						
Menufactured screen XY N Type JULISON						
Manufactured screen RTY LINType SCHIISEN						
Method of installation Wash Dis Valve						_
From (ft) To (ft) Slot size Numberth Diameter Material Gauge or Schedule	Compi	eted Den	th (Meas	urable): 99ff.		
94 99 20 678/L S.S.		karted:	100	11/08 Date Completed: 10/X	108	
	14 0	DILLED	S CEN	TIFICATION:		_
	I/We o	certify the	st all mini	imum well construction standards were complie	d with at	
Length of Headpipe 6 12 Length of Talipipe 0	the tin	ne the rig	was ren	noved.		
Packer MY N Type 7-Rib	Comp	any Nan	olre	c'sion well doubles No. 5	22	
10.FILTER PACK:		and Francis	0	L'5: on Welldrillego. No. 5 De Marcoan David 19	19/2	ş
Filter Material From (t) To (t) Quantity (bs or th) Placement method	*Princ	pal Drill	* <del>49</del>	Date 19	1/4	-
Final medical Prioritics To (it) Colority (its or it.) Pracement method	*Drille			Date		
	*Open	ator II		Date		
11. FLOWING ARTESIAN:	Opera	tor I		Date		
Flowing Artesian? T Y X N Artesian Pressure (PSIG)				al Driller and rig operator are required.		
Describe control device	oign	ature of	e-micipa	er ormer and my operator are required.		
						_

#### **NOTHING FOLLOWS**

Wetland
Delineation
Report

# WETLAND DELINEATION REPORT CRIMSON BRIDGE ESTATES CANYON COUNTY, IDAHO

Prepared for:

#### Crimson Bridge Holdings, LLC 9160 West Chinden Boulevard Meridian, Idaho 83646

Prepared by:



# **Nexus Environmental Consultants, Inc.**

P.O. Box 18922 Reno, Nevada 89511

Nexus Project Number P0287

November 28, 2023

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#### **ACRONYMS AND ABBREVIATIONS**

**°F** Degrees Fahrenheit

**CFR** Code of Federal Regulations

FEMA Federal Emergency Management System

FIRM Federal Insurance Rate Map
GPS Global Positioning System

IDEQ Idaho Department of Environmental Quality
IDWR Idaho Department of Water Resources

MUS Map Unit Symbol

**Nexus** Nexus Environmental Consultants, Inc.

NHD National Hydrography Database

NRCS Natural Resources Conservation Service

NOAA National Oceanic and Atmospheric Administration

NWI National Wetland InventoryOHWM Ordinary High-Water MarkProject Crimson Bridge Estates Project

USACE United States Army Corps of Engineers
USFWS United States Fish and Wildlife Service

**USGS** United States Geologic Survey

### **REPORT SUMMARY**

This Wetland Delineation Report summarizes findings from a wetland delineation study completed by Nexus Environmental Consultants, Inc. (Nexus) on behalf of Crimson Bridge Holdings, LLC. The survey area is located on private property, approximately three miles west of Middleton, Idaho in Canyon County. The survey was completed by Nexus on October 4 and November 9, 2023, within a 54.4-acre survey area.

The results of this survey determined that 8.33 acres of palustrine emergent and riverine intermittent wetland occur in the survey area. These wetlands are the result of natural drainage patterns, streams and irrigation.

### 1.0 INTRODUCTION

The purpose of this delineation is to confirm wetland occurrence within the proposed Crimson Bridge Estates Project (Project). It is intended to provide information for an approved jurisdictional determination, and support Project approval and permitting by local, state, and federal authorities, including the United States Army Corps of Engineers (USACE), Walla Walla District.

#### 1.1 Contact Information

#### **Property Owner**

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#### **Property Owner's Agent**

Nexus Environmental Consultants, Inc. P.O. Box 18922 Reno, Nevada 89511

Michelle Tucker, Project Manager Kuna, Idaho 83634 Phone: 208-756-7602

Email: michelle.tucker@nexus-env.com

## 1.2 Survey Area Location

The survey area is located at 14533 River Road, Caldwell, Idaho in Canyon County (**Appendix A**). It can be accessed from Exit 26 on Interstate 84 to Old Highway 30. Turning south on Old Highway 30, travel 0.3 miles to the River Road intersection. Travel north for 0.9 miles on River Road. The subject property is on the south side of River Road, prior to the entrance to Curtis Park.

The survey area is located on private property in Township 4 North, Range 3 West East, Section 10, Boise Meridian. Latitude and longitude in decimal degrees of the center point of the survey area are latitude 43.697811, and longitude -116.683162 Decimal Degrees. It is comprised of approximately 54.4 acres of agricultural and private residential property adjacent to the Boise River.

### 2.0 METHODS

Prior to conducting field surveys, publicly available data for the survey area was reviewed and consolidated. Much of this information was also considered during field surveys on digital tablets. This includes the following resources:

- United States Fish and Wildlife Service (USFWS), National Wetland Inventory (NWI) (USFWS, 2023);
- United States Geologic Survey (USGS) topographic maps (USGS, 1955, 2023);
- Natural Resources Conservation Service (NRCS) Web Soil Survey for Canyon County (NRCS, 2023);
- USGS National Hydrography Dataset (NHD) (USGS, 2017);
- Idaho Department of Water Resources (IDWR), Water Rights Search (IDWR, 2023);
- Idaho Department of Environmental Quality (IDEQ), Final 2022 §305(b) Integrated Report (IDEQ, 2022);
- Federal Emergency Management Agency (FEMA) Floodplain Maps (FEMA, 2019);
- National Weather Service climatological data for Boise, Idaho (National Oceanic and Atmospheric Administration [NOAA], 2023);
- Google Earth Aerial Imagery (Google Earth, 2003-2023);
- Preliminary Site Survey (A Team Land Consultants, 2022); and
- ESRI Basemap Aerial Imagery (ESRI, 2023).

#### 2.1 Data Collection

Field surveys were completed by Nexus Environmental Consultants, Inc. (Nexus) on October 4 and November 9, 2023. Mapping was completed using sub-meter Global Positioning System (GPS) data generated in the field. Data points and polygons were further analyzed using Google Earth imagery within ArcGIS to help determine the connection between the photo signature on the aerial imagery and the ground condition of the site.

Findings from field surveys are provided in **Appendix B** and **Table 2** in Section 4.0 of this report. Datasheets (**Appendix C**), representative photographs (**Appendix D**) and supplementary information (**Appendix E**), are also provided to support the confirmation of the photographic signature, topographic condition, and wetland occurrence findings.

#### 2.2 Stream Channel Delineation

Streams and irrigation channels, as defined by the ordinary high water mark (OHWM), were field-verified and assessed for presence of water, and followed to their connection with a persistent water body, or termination. Identification of the OHWM was conducted using the appropriate physical characteristics, as defined in 33 Code of Federal Regulations (CFR) § 328.3(e) and 33 CFR § 329.11(a)(1) including the natural line impressed on the bank, shelving, changes in the

character of soil and vegetation, and localized topographic features. All water channels encountered in the field, including irrigation canals, were compared to NWI, NHD, IDWR, and IDEQ data to better inform their potential derivation and contribution to the natural hydrology of the survey area, (**Appendix B**).

#### 2.3 Wetland Delineation

Potential wetlands were inspected in accordance with the 1987 USACE's Wetland Delineation Manual (USACE, 1987) and the Regional Supplement for the Arid West (USACE, 2008). Wetland Determination Data Forms are provided in **Appendix C**.

Surveys included walking the site and determining the dominant vegetation in both wet and dry sites (**Appendix E, Figure 3**). If vegetative cover clearly indicated upland vegetation and lack of hydrology, no soil pits were dug. Wet areas that were not associated with a defined drainage or out-of-channel were evaluated with matched pairs of data points. At least one soil pit was established within the wetland boundary and one outside. The wetland boundary was delineated based on the surface expression of vegetation and hydrology, once hydric soils were confirmed, or additional test pits were dug, as necessary. Surveyors walked the boundaries of wetland areas with GPS units once their distinguishing characteristics, such as dominant vegetation and geographic position, were confirmed. Digital imagery was further considered for determining wetland boundaries once the three-parameter wetland criteria was established for each site.

Wetland sites associated with a water channel were walked with GPS units where accessible. Some areas were heavily vegetated with riparian trees and shrubs that made access difficult. These GPS boundaries were transcribed to aerial imagery and digitized. Adjacent wetland associated with each channel was further determined by averaging cross sections from aerial imagery at five representative sites along the channel. In most cases the water channels have a clearly defined top of bank or berm that separates the channel from the floodplain. Test pits were not dug in wetland areas if they were clearly within the channel's OHWM or top of bank. These areas were considered stream adjacent wetland.

The survey area was considered problematic for hydrophytic vegetation based on its location in a floodplain, grazing and mowing practices, and conversion of upland to irrigated pasture and crop land. It represents a managed plant community that has been cleared, seeded and plowed for grazing and hay production. At the time of survey, the fields had been mowed and several test pits dug that created small depressional areas where irrigation water could collect. Reference sites adjacent to the mowed portions of the property, and knowledge of common agricultural species seeded in the region were used to assist in plant identification, especially for grasses.

The survey area was considered problematic for induced hydric soil indicators. It lies in the floodplain of the Boise River and is subject to flood irrigation which would likely result in relic hydric soil indicators, or lacking indicators due to sediment deposition from frequent flooding. Historic aerial imagery was relied upon to determine the extent of flooding throughout the property from the imagery available.

The survey area was considered problematic for hydrology due to flood irrigation and agricultural practices. Plant species present are predominantly facultative grasses and forbs which can be influenced by flooding within one growing season. By definition, a facultative rating indicates a plant species is equally likely to occur in wetlands and non-wetlands (USACE, 2012). As such, historic aerial imagery from Google Earth was used to better understand local topography and irrigation influence, particularly imagery from drier years. These images provide insight into the

extent of irrigation water and naturally drier areas when irrigation was not in use, or seasonal limitations to the effective use of irrigation occurred (**Appendix E**, **Figure 4**).

Ecological Site Descriptions from the NRCS were also considered to better understand the vegetation and soil characteristics that would naturally occur in the survey area if irrigation was not occurring (**Appendix E, Figure 5**).

Numerous outbuildings and parking areas occupy the central portion of the property and lack vegetation. These areas were not considered further by the survey team.

### 2.4 Reporting

Nexus prepared this report in accordance with the USACE, Walla Walla District Guidance for Aquatic Resource Delineation Reports (USACE, 2019). The results of the wetland delineation are shown in **Appendix B**. A summary of the wetland resources identified within the Project area is provided in **Table 2** in Section 4.0 of this report.

### 3.0 EXISTING CONDITIONS

## 3.1 Landscape Setting

The survey area is located along the Boise River in an agricultural and residential setting. Elevation in the survey area ranges from 2,363 to 2,375 feet above mean sea level. The property is in the floodplain of the Boise River and based on historic imagery was converted to irrigated pasture, cattle grazing, and crop land prior to 1954 (**Appendix E, Figure 3**). Riparian habitat is restricted to a narrow stringer on the river's edge and adjacent to larger streams and irrigation channels

# 3.2 Survey Weather and Precipitation

Weather data for the survey area is derived from the NOAA for the Boise Air Terminal. The period of record for monthly average temperature and precipitation is 2000 to 2023. The NWS reports the average temperature for August is 76.5 degrees Fahrenheit (°F) and 66.7°F for September. The average precipitation for August is 0.41 inches and 0.96 inches for September (NOAA, 2023). Temperature and precipitation data were not available for October at the time of this reporting.

During September 2023, the average temperature in the Bosie area was 76.8°F, and 68.2°F for September. Precipitation averages were 2.51 inches and 0.45 inches respectively (NOAA, 2023). Temperatures during the 2023 field surveys were consistent with the climate summaries provided by the NOAA for the period of record. Precipitation was much higher than normal with a much wetter summer than in recent years. **Table 1** provides the average monthly temperature and precipitation data available for the year preceding the field surveys (2021 through 2022).

Table 1 Weather Data for Boise, Idaho

Month	Temp	erature (°F)		Precipitation (inches)			
Month	Mean for POR	2021	2022	Mean for POR	2021	2022	
January	32.0	36.4	28.9	1.28	1.24	1.08	
February	36.9	35.1	33	0.98	1.62	0.08	
March	44.9	44.8	45.6	1.44	0.95	0.39	
April	50.8	51.8	46.7	1.18	0.96	1.15	
May	60.0	59.5	55.5	1.41	0.77	2.46	
June	68.8	75.9	67.3	0.66	0.71	1.03	
July	78.9	83.8	80.7	0.19	0.91	Т	
August	76.5	74.4	81.9	0.29	0.19	0.09	
September	66.7	66.5	71.2	0.41	0.37	0.24	
October	53.4	54.9	56.8	0.96	1.95	0.88	
November	40.2	44.4	34.2	1.17	1.05	2.22	
December	32.0	34.1	29.2	1.59	1.54	2	
Annual Average	53.6	55.1	52.6	11.48	12.26	11.62	

Source: NOAA, 2023

POR = Period of Record – 2000-2023

An above normal snowpack during the 2022 and 2023 winter yielded a high spring water supply with above normal reservoir storage across Idaho. Warmer than normal temperatures during May drove rapid snowmelt. In August, precipitation was more than twice the normal average. Tropical

storms brought unprecedented rain making August in the Boise area the highest precipitation on record (NOAA, 2023). September temperatures were somewhat warmer than average (two degrees) extending the growing season later into fall. As such, surveys were conducted in October, while the growing season was still occurring, with near normal precipitation.

### 4.0 AQUATIC RESOURCE FINDINGS

Field surveys indicate that approximately 8.3 acres of wetland occur in the survey area. These wetlands are considered palustrine, emergent, persistent, and seasonally or temporarily flooded by the USFWS NWI (Cowardin et al., 1979). In some areas of the northern portion of the survey area, these wetlands may also be represented as riverine intermittent, stream. The headwaters of two streams originate at the county line and account for 2.3 stream miles of intermittent and ephemeral channel. Approximately 0.4 miles of side channel, runoff, or irrigation ditches also occur. The results of these findings are shown **Appendix B** and **Table 2**.

Table 2 Aquatic Resources Delineated in the Survey Area

	Aquatic R	esources Clas	ssification	² Aquatic Resource	³ Aquatic Resource
Aquatic Resource Name	¹ Cowardin	Loc	cation	Area	Length (Ditches and Streams)
	Classification	Latitude	Longitude	(acres)	(linear feet)
Wetland 01	PEM1A	43.696876	-116.681957	0.27	-
Wetland 02	PEM1A	43.696033	-116.684495	0.26	-
Wetland 03	d 03 PEM1C 43.696179 -116.		-116.685477	0.91	-
Wetland 04	PEM1C	43.697326	-116.684623	0.12	-
Wetland 05	PEM1C	43.696433	-116.685958	0.33	-
Wetland 06	PEM1C	43.697177	-116.686818	0.64	-
Wetland 07	PEM1A	43.698683	-116.678320	0.62	
East Hartley Gu	R4SBCx	44.916375	-116.169321	0.04	215.3
	Adjacent W	/etland (averaç	ge width = 8 feet)	0.09	-
Mill Slough	R4SBCx	44.918305	-116.170046	1.30	2,752.4
	Adjacent We	etland (average	e width = 12 feet)	1.48	-
West Hartley Gulch	PEM1K	PEM1K 44.899933 -116.164458		0.50	1,440.1
Adjacent Wetland (average width = 18 feet)				1.17	-
Main Lateral	PEM1K	44.899933	-116.164458	0.31	2,710.0
	Adja	0.31	-		
			Total	8.33	7,117.8

¹ PEM1A = Palustrine, Emergent, Persistent, Temporarily Flooded PEM1C = Palustrine, Emergent, Persistent, Seasonally Flooded; PEM1K = Palustrine, Emergent, Persistent, Artificially Flooded. R4SBCx = Riverine, Intermittent, Streambed, excavated. ²NWI, NHD, and IDWR stream data were field-verified and digitized, assessed for presence of water, and followed to their connection with a persistent water body, or termination.

# 4.1 Non-Jurisdictional Aquatic Resources

All delineated aquatic resources (e.g. rivers, streams, ditches, canals, and wetlands) are depicted in **Appendix B** and summarized in **Table 2**. Per Walla Walla Regulatory District Guidance for Aquatic Resource Reports (USACE, 2019), only the USACE determines the jurisdictional status of each aquatic resource. No assumptions regarding jurisdictional status have been made by the survey team.

# 4.2 Vegetation

Dominant upland vegetation in the survey area is comprised of forbs and grasses. These are a mix of native and seeded species suitable for agricultural production. Upland areas were

³Average width of stream channel used to calculate resource size. See text below in Section 4.3 for further descriptions.

commonly inhabited by western wheatgrass (*Pascopyrum smithii*), white clover (*Trifolium repens*), alfalfa (*Medicago sativa*), and kochia (*Bassia prostrata*). Due to the season, most grasses had completed flowering and had been mowed.

Wetland vegetation is predominantly facultative wet tufted hairgrass (*Deschampsia cespitosa*) and reed canarygrass (*Phalaris arundinacea*). Some obligate vegetation occurs in the stream channels and some depressional areas such as cattails (*Typha latifolia*), Nebraska sedge (*Carex nebrascensis*) and common spikerush (*Eleocharis palustris*).

Transitional areas between upland and wetland commonly host curly dock (*Rumex crispus*), rough cocklebur (*Xanthium strumarium*), white clover, foxtail barley (*Hordeum jubatum*) and western wheatgrass. Other perennial grass species are likely present during the growing season but have cured or reached the end of their vegetative cycle for the year.

Noxious and invasive weed species observed at site include spotted knapweed (*Centaurea stoebe*), Canada thistle (*Cirsium arvense*), cheatgrass (*Bromus tectorum*), and nodding thistle (*Carduus nutans*).

A complete list of plants encountered in the survey area is provided in Table 3.

Table 3 Plants Encountered During Field Surveys

Species	¹WMVC	Common Name
Kochia sp.	Not Listed	Kochia
Bromus tectorum	Not Listed	Cheatgrass
Carex nebrascensis	OBL	Nebraska sedge
Carex microptera	FAC	Small wing sedge
Carduus nutans	FACU	Nodding thistle
Chenopodium album	FACU	Lambs quarter
Chicorium intybus	FACU	Chicory
Cirsium arvense	FAC	Canada thistle
Cirsium vulgare	FACU	Bull thistle
Conium maculatum	F	Poison hemlock
Deschampsia cespitosa	FACW	Tufted hairgrass
Dipsacus sp.	FAC	Teasel
Elaeagnus angustifolia	FAC	Russian olive
Hordeum jubatum	FAC	Foxtail barley
Juncus arcticus	FACW	Baltic rush
Lolium perenne	FAC	Perennial rye
Medicago sativa	UPL	Alfalfa
Pascopyrum smithii	FAC	Western wheatgrass
Phalaris arundinacea	FACW	Reed canarygrass
Phleum pratense	FAC	Timothy
Poa pratensis	FAC	Kentucky bluegrass
Polygonum persicaria	FACW	Lady's thumb
Rumex crispus	FAC	Curly dock
Salix nigra	OBL	Black willow
Solidago canadensis	Not Listed	Canada goldenrod
Taraxacum officinale	FACU	Common dandelion
Trifolium repens	FACU	White clover
Typha latifolia	OBL	Cattail

Species	¹ WMVC	Common Name
Verbascum thaspsus	FACU	Common mullein
Xanthium strumarium	FAC	Rough cocklebur

¹Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (WMVC) Wetland Plant List (2020).

OBL = Obligate

FACW = Facultative Wet

FAC = Facultative

FACU = Facultative Upland

### 4.3 Hydrology

The Bureau of Reclamation and the USACE manage three upstream dams on the Boise River that provide irrigation water storage and flood control to Ada and Canyon counties. The survey area is within the Boise River Flood Control District #10. According to FEMA, most of the property lies in Flood Zone AE with predetermined base flood elevations (2,368.0 to 2,369.4 feet) (**Appendix E, Figure 6**). Flood Zone A aligns with the northwest corner of the property and West Hartley Gulch. No base flood elevations are determined for this Flood Zone A. The remainder of the survey area is in Flood Zone X with a two percent annual chance of flood hazard at depths of less than one foot. The southwestern corner of the survey area lies in a regulatory floodway of the Boise River (FEMA, 2019). The flood insurance rate map (FIRM) is provided in **Appendix E, Figure 6**.

The survey area is in in the Lower Boise Watershed (Hydrologic Unit Code 17050114). It includes the East Hartley Gulch and Mill Slough-Boise River Subwatersheds. The NHD indicates that two unnamed perennial streams flow through the survey area (**Appendix E, Figure 7**). Topographic maps and IDEQ data indicate that the westernmost channel is named West Hartley Gulch and flows south toward the Boise River. Mill Slough flows west, centrally through the property. Both channels are considered perennial streams by the NHD and the IDEQ. A third artificial channel is identified by the NHD, East Hartley Gulch which terminates at Mill Slough. Review of historic topographic data indicates that East Hartley Gulch was associated with a natural stream channel prior to development of private land and the existing irrigation network. All three of these channels flow south and southwest toward the Boise River (USGS, 2023).

According to the IDWR, the Middleton Irrigation Association, Middleton Mill Ditch Company and Canyon County Water Company provide surface water rights to the property (IDWR, 2023). Drainage Ditch Company #2 manages water use and ditch maintenance. The season of use is from March to November each year with water derived from Willow Slough and the Boise River. Numerous headgates, culverts, surface pipes, and small lateral ditches convey irrigation water across the property. Irrigation is by flooding; no pivots or pumps are present (**Appendix B**). Of the smaller lateral ditches on site, one irrigation channel flows from a Mill Slough headgate in the northeast corner of the property along the southern boundary terminating at the Boise River. This is the only lateral channel that supports a consistent channel and bank.

The USFWS NWI indicates that two riverine channels flow through the property, connecting to the Boise River in the southwest corner. One freshwater emergent wetland channel is indicated and aligns with the East Hartley Gulch channel (**Appendix E, Figure 8**). Limited wetland fringe is associated with all three of the primary channels in the survey area. These channels are incised and have steep banks which prevent flooding access over the top of bank in most areas. **Table 2** summarizes the streams, irrigation channels and wetlands that occur in the survey area.

#### 4.4 Soils

The Soil Survey Geographic Database and the NRCS Web Soil Survey were used to identify mapped soils in the survey area. The Canyon County Soil Survey (ID655) indicates that the survey area is considered prime farmland if irrigated (NRCS, 2023). Soils are predominantly Mollisols and Entisols comprised of fine to coarse loam.

According to the NRCS, there are eight mapped soils in the survey area (**Appendix E, Figure 9**). Of these, one mapped soil is considered partially hydric (90 percent). Mapped soils are composed of one or more map unit components or soil types. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform (**Table 4**) (NRCS, 2023).

Table 4 NRCS Soil Map Units Present in the Survey Area

MUS	Map Unit Name	Acres	Percent	Hydric Rating Percent	Ecological Site Description
Ch	Chance fine sandy loam	3.3	6.2	90	R011XY019ID
DrA	Draper loam, 0 to 1 percent slopes	0.5	8.0	0	R011XY001ID
DrB	Draper loam, 1 to 3 percent slopes	0.2	0.3	0	R011XY001ID
FaA	Falk fine sandy loam, 0 to 2 percent slopes	7.3	13.7	5	R011XY004ID
MvA	Moulton loam, 0 to 1 percent slopes	30.0	56.6	0	R011XY001ID
No	Notus soils	9.7	18.4	0	R011XY016OR
PhC	Power silt loam, 3 to 7 percent slopes	0.5	0.9	0	R011XY001ID
Тс	Terrace escarpments	1.6	3.0	0	N/A
	Totals for Area of Interest	53.1	100.0%		

Source: NRCS, 2023 MUS = Map Unit Symbol

Four ecological site descriptions are defined by the NRCS for the soil and vegetation associations that would naturally occur in the survey area (**Appendix E, Figure 9**). These descriptions rely on physiography, climate, soil, and water features to summarize ecological dynamics and vegetation states.

Ecological site descriptions for the survey area indicate that without irrigation 90.8 percent of the survey area would support upland communities with Wyoming big sagebrush (*Artemisia tridentata sub species. Wyomingensis*), fourwing saltbush (*Atriplex canescens*) and with an understory of bluebunch wheatgrass (*Pseudoroegneria spicata*) and Thurber's needlegrass (*Eriocoma thurberiana*) (NRCS, 2023). In the southwest corner of the survey area, the survey area ecosite is described as generally occurring on sloping to nearly level stream valleys and dominated by grasses (*Poa* species) and sedges (*Carex* species) with scattered shrubs. The site usually occurs within a complex of wetland and meadows.

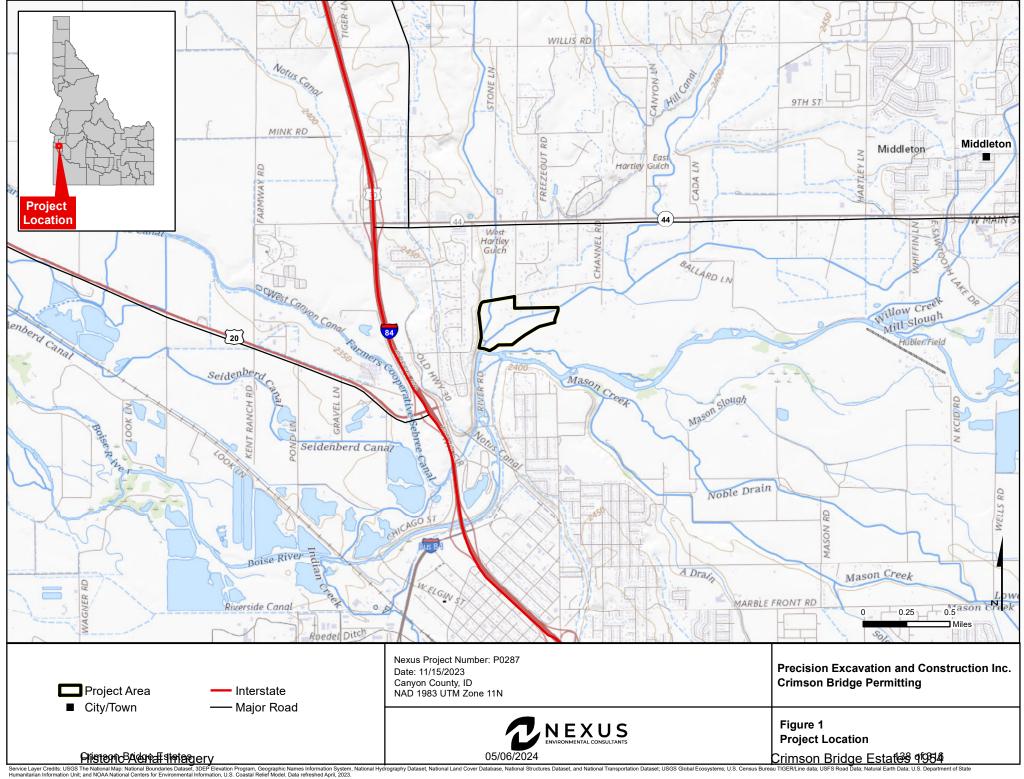
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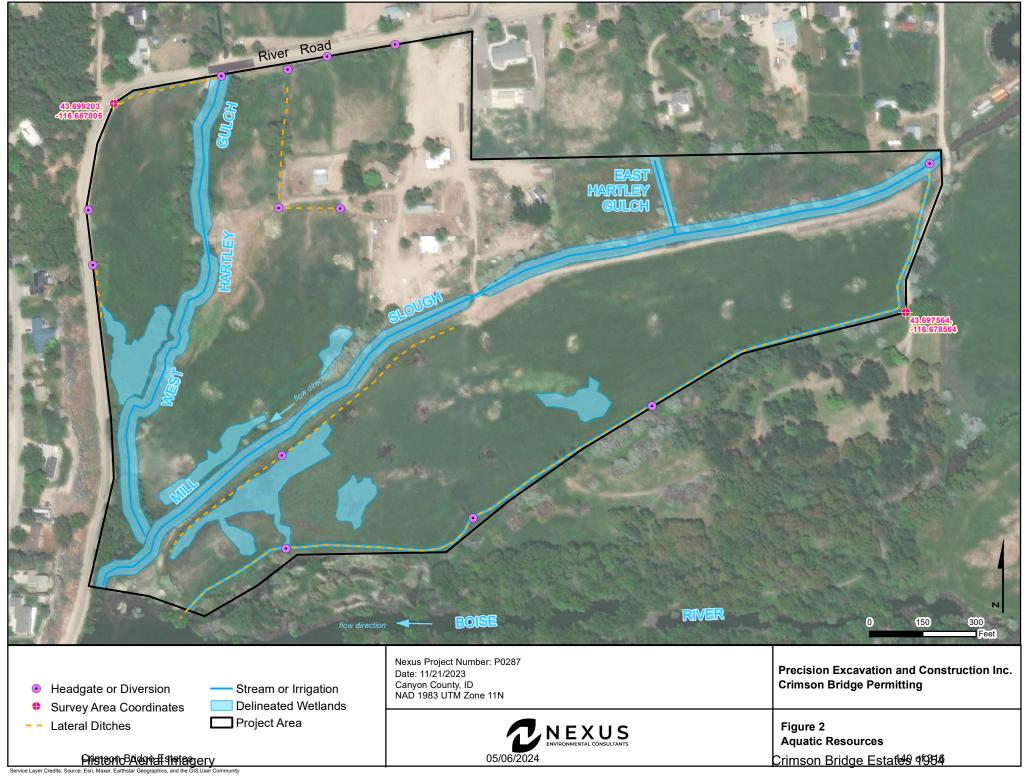
# **APPENDIX A**

# **Location Map**



# **APPENDIX B**

# **Aquatic Resource Map**



# **APPENDIX C**

# **Wetland Determination Data Forms**

# U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyor	1	Sampling Date:	10/04/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C03U
Investigator(s): Nexus - MT		Section, 1	Γownship, R	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.):		Local relief (co	oncave, con	vex, none):	Slop	oe (%):
Subregion (LRR): LRR B Lat: 43.698094			Long:	-116.678662	Datum:	NAD83
Soil Map Unit Name: Moulton Loam 0 to 1 % Slopes	3			NWI classif	cation: N/A	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes <u>x</u>	No (If no, exp	olain in Remarks.)	
Are Vegetation , Soil , or Hydrology	significantly of	disturbed? A	re "Normal (	Circumstances" present?	Yes x No	)
Are Vegetation x , Soil x , or Hydrology X	naturally prol	blematic? (I	f needed, ex	kplain any answers in Rei	marks.)	
SUMMARY OF FINDINGS – Attach site r	nap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes	No X	Is the	Sampled A	Area		
	No X	within	n a Wetland	? Yes	No X	
Wetland Hydrology Present? Yes	No X					
Remarks: The survey area is in the floodplain of the Boise Riv	er in a historic	riparian area t	hat has bee	n grazed for at least 50 y	ears.	
VEGETATION – Use scientific names of	•					
Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:	
1.				Number of Dominant S	Species That	
2				Are OBL, FACW, or F.	AC:	1 (A)
3. 4.				Total Number of Domi Across All Strata:	•	1 (B)
Sapling/Shrub Stratum (Plot size:		=Total Cover		Percent of Dominant S Are OBL, FACW, or F.	•	0.0% (A/B)
1.	′			, ,		` ´
2.				Prevalence Index wo	rksheet:	
3				Total % Cover of		ply by:
4				OBL species 0		0
5		=Total Cover		FACW species 9		<u>0</u> 270
Herb Stratum (Plot size: 15' )		10101 00101		FACU species 1		40
1. Pascopyrum smithii	85	Yes	FAC	UPL species 0	x 5 =	0
2. Trifolium repens	10	No	FACU	Column Totals: 10	00 (A) 3	B10 (B)
3. Plantago lanceolata	5	No	FAC	Prevalence Index	= B/A = 3.10	!
4						
5.				Hydrophytic Vegetat		
6. 7.				X Dominance Test in Prevalence Index		
7. 8.				l <del></del>	aptations ¹ (Provide s	supportina
·	100	=Total Cover		l — ' '	s or on a separate s	
Woody Vine Stratum (Plot size:	)			Problematic Hydro	ophytic Vegetation ¹	(Explain)
1				¹ Indicators of hydric so be present, unless dis		
		=Total Cover		Hydrophytic		-
% Bare Ground in Herb Stratum 0 %	Cover of Bioti	c Crust		Vegetation Present? Yes	No X	
Remarks:				1		
Pasture recently mowed. Reference grass used to	identify PASM	Liqule round	ed not iagg	ed		
. asiaro recently morrou. Reference grass used to	only i AOIVI		za, not jagge			

SOIL Sampling Point: C03U

Profile Desc Depth	ription: (Describe to Matrix	o the depth		<b>iment th</b> x Featur		tor or c	onfirm the a	absence o	f indicators	.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textu	ure		Remarks	
0-18	10YR 3/2	100					Loar		Sandy, o		
0.10	10111 0/2						Loui	<u></u>	oundy, c	··· y	
			_								
1 _{T. m. c.} C-C-			Dadwaad Matrix C					21	ian. DI -Da	an Liminau M—I	A - Amis a
	ncentration, D=Deple					oated Sa				re Lining, M=l matic Hydric	
-	ndicators: (Applical	Die to all Lr								-	Solis :
Histosol			Sandy Red Stripped M						Muck (A9) <b>(L</b> Muck (A10) <b>(</b>		
Black His	ipedon (A2)		Loamy Mu							lasses (F12)	(I DD D)
	` '		Loamy Gle				,		ced Vertic (F	, ,	(LKK D)
	n Sulfide (A4) Layers (A5) <b>(LRR C</b> )		Depleted N	-			·		arent Materi	•	
	ck (A9) <b>(LRR D)</b>	1	Redox Dar	,	,		•			Surface (F2	D)
	Below Dark Surface	(A11)	Depleted D						(Explain in F		-)
	rk Surface (A12)	(/ ( ) )	Redox Dep				•		(Explain iii i	(ornanto)	
	ucky Mineral (S1)		rtodox Bop	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	o (i o)						
	leyed Matrix (S4)	³ Indicators	s of hydrophytic v	egetatio	n and we	tland hv	drology mus	t be prese	nt. unless dis	sturbed or pro	blematic.
	.ayer (if observed):		, , ,			Ť			•	<u> </u>	
Type:	ayer (ii observed).										
Depth (in	ches).		_				Hydric So	il Present	>	Yes	No X
							,		-		<u> </u>
Remarks: Root zone to	5 inches										
11001 20110 10	o moneo.										
HYDROLO	GY										
Wetland Hyd	Irology Indicators:										
Primary Indic	ators (minimum of or	e is require	d; check all that a	ipply)				Secondary	/ Indicators (	minimum of t	wo required)
Surface \	Water (A1)		Salt Crust	(B11)				Water	Marks (B1)	(Riverine)	
High Wat	ter Table (A2)		Biotic Crus	t (B12)			·	Sedim	ent Deposits	s (B2) <b>(Riveri</b>	ne)
Saturatio	,		Aquatic Inv				•		eposits (B3)		
	arks (B1) (Nonriverir		Hydrogen						age Patterns	,	
	t Deposits (B2) (Non		Oxidized R			_	oots (C3)		eason Water		
	osits (B3) (Nonriveri	ne)	Presence of		,	,	(00)		sh Burrows (		(00)
	Soil Cracks (B6)	(D.7)	Recent Iron			lled Soil	s (C6)			on Aerial Ima	gery (C9)
	n Visible on Aerial In	nagery (B7)	Thin Muck				!		w Aquitard (	•	
	ained Leaves (B9)		Other (Exp	iain in F	emarks)		1	FAC-I	Neutral Test	(D5)	
Field Observ				D " "							
Surface Water					nches): _						
Water Table   Saturation Pr		<u> </u>			nches):		Wetland	Lludrolog	v Brocont?	Voc	No. V
		·—	No <u>x</u>	Depth (i	nches).		vvetianu	пуштою	y Present?	165	No X
(includes cap	orded Data (stream	nauge mon	itoring well serial	nhotos	previous	sinspec	tions) if ava	ilable.			
20001001100	aca bata (stream (	,yo, 111011		p.10103	, p. o vious	opco	, n ava				
Remarks:											
	d pasture. Below clos	sed headgat	te. No surface wa	ter conn	ection.						

# U.S. Army Corps of Engineers WETLAND DETERMINATION DATA SHEET – Arid West Region

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

OMB Control #: 0710-0024, Exp: 11/30/2024 Requirement Control Symbol EXEMPT: (Authority: AR 335-15, paragraph 5-2a)

Project/Site: Crimson Bridge Estates		City/County: Canyo	n	Sampling Date:	10/04/23
Applicant/Owner: Crimson Bridge Holdings			State: ID	Sampling Point:	C06U
Investigator(s): Nexus - MT	s	Section, Township, F	Range: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pastur	e Local	relief (concave, cor	nvex, none): None	Slop	e (%):0
Subregion (LRR):         LRR B         Lat:         43.698094		Long:	-116.678662	Datum:	NAD83
Soil Map Unit Name: Moulton Loam 0 to 1 % Slopes			NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of year	? Yes <u>x</u>	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	gnificantly distur	bed? Are "Normal	Circumstances" present?	Yes X No	
Are Vegetation $X$ , Soil $x$ , or Hydrology $x$ n	aturally problema	atic? (If needed, e	explain any answers in Rer	narks.)	
SUMMARY OF FINDINGS – Attach site ma	o showing sa	ampling point le	ocations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes No	X	Is the Sampled	Area		
Hydric Soil Present? Yes No	Х	within a Wetlan	d? Yes	No X	
Wetland Hydrology Present? Yes No	X				
Remarks: The survey area is in the floodplain of the Boise River i	n a historic ripari	an area that has bee	en grazed for at least 50 ve	ears.	
,	·		3		
VEGETATION – Use scientific names of pl	ants.				
Tree Stratum (Plot size: )		minant Indicator ecies? Status	Dominance Test wor	kehoot:	
1	70 COVEL Spi	ecles! Status	Number of Dominant S		
2.			Are OBL, FACW, or FA	•	1 (A)
3			Total Number of Domi	nant Species	
4		10	Across All Strata:		2 (B)
Sapling/Shrub Stratum (Plot size: )	= 1 Ota	al Cover	Percent of Dominant S Are OBL, FACW, or FA	•	.0% (A/B)
1			7410 052,171000,0117	.c. <u></u>	. <u>070</u> (70B)
2.			Prevalence Index wo	rksheet:	
3			Total % Cover of:		ply by:
4.			OBL species 0		0
5		al Cover	FACW species 0 FAC species 60		<u>0</u> 80
Herb Stratum (Plot size: 15' )			FACU species 15		30 30
1. Pascopyrum smithii	60	Yes FAC	UPL species 0	x 5 =	0
2. Trifolium repens	15	Yes FACU	Column Totals: 75	``/	40 (B)
3. 4.			Prevalence Index =	= B/A = <u>3.20</u>	
5.			Hydrophytic Vegetati	on Indicators:	
6.			Dominance Test is		
7.			Prevalence Index		
8				aptations ¹ (Provide s s or on a separate s	
Woody Vine Stratum (Plot size: )	75 =Tota	al Cover		s or on a separate s ophytic Vegetation ¹	,
1			¹ Indicators of hydric so		` '
2.			be present, unless dist		
	=Tota	al Cover	Hydrophytic		
W Born Oromadia Horb Ob. 1		1	Vegetation		
	over of Biotic Cru		Present? Yes	No X	_
Remarks:  No hydrology. Considered problematic vegetation					
, 3,					

SOIL Sampling Point: C06U

Profile Description: (Describe to the depth	needed to docu	ıment tl	ne indica	tor or c	onfirm the absence	of indicators.)
Depth Matrix	Redo	x Featur	es			
(inches) Color (moist) %	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10 10YR 3/2 100					Sandy	Loam
10-18 10YR 3/1 100	_				Sandy	Loam
						_
¹ Type: C=Concentration, D=Depletion, RM=R	educed Matrix, C	S=Cove	ered or Co	oated S	and Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR	Rs, unless othe	rwise n	oted.)		Indicator	rs for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Red	dox (S5)			1 cm	Muck (A9) (LRR C)
Histic Epipedon (A2)	Stripped M	latrix (Se	3)		2 cm	Muck (A10) (LRR B)
Black Histic (A3)	Loamy Mu	cky Min	eral (F1)		Iron-l	Manganese Masses (F12) (LRR D)
Hydrogen Sulfide (A4)	Loamy Gle	yed Ma	trix (F2)		Redu	iced Vertic (F18)
Stratified Layers (A5) (LRR C)	Depleted N	-	-		Red	Parent Material (F21)
1 cm Muck (A9) (LRR D)	Redox Dar				Very	Shallow Dark Surface (F22)
Depleted Below Dark Surface (A11)	Depleted [	Oark Sur	face (F7)		Othe	r (Explain in Remarks)
Thick Dark Surface (A12)	Redox Dep	oression	s (F8)			
Sandy Mucky Mineral (S1)						
Sandy Gleyed Matrix (S4) ³ Indicators	of hydrophytic v	egetatio	n and we	tland hy	drology must be prese	ent, unless disturbed or problematic.
Restrictive Layer (if observed):						
Type:	_					
Depth (inches):	_				Hydric Soil Present	t? Yes No X
Remarks:						
Dry compacted soil						
, ,						
LIVEROLOGY						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one is required						ry Indicators (minimum of two required)
Surface Water (A1)	Salt Crust	• •				er Marks (B1) (Riverine)
High Water Table (A2)	Biotic Crus		(540)			ment Deposits (B2) (Riverine)
Saturation (A3)	Aquatic Inv					Deposits (B3) (Riverine)
Water Marks (B1) (Nonriverine) Sediment Deposits (B2) (Nonriverine)	Hydrogen Oxidized F					nage Patterns (B10) Season Water Table (C2)
Drift Deposits (B3) (Nonriverine)	Presence			-	· · ·	fish Burrows (C8)
Surface Soil Cracks (B6)	Recent Iro		,	,		ration Visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7)	Thin Muck			ica coii	` '	ow Aquitard (D3)
Water-Stained Leaves (B9)	Other (Exp					Neutral Test (D5)
Field Observations:			,			( - /
Surface Water Present? Yes	No	Depth (i	nches).			
Water Table Present? Yes		Depth (i	· -			
Saturation Present? Yes		Depth (i	_		Wetland Hydrolog	gy Present? Yes No X
(includes capillary fringe)		r (1	/			<u> </u>
Describe Recorded Data (stream gauge, moni	toring well, aeria	l photos	, previous	inspec		
						See Attached Imagery Binder
Remarks:						

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/County: Canyo	on	Sampling Date: 10/04/23
Applicant/Owner: Crimson Bridge Holdings			State: ID	Sampling Point: C06W
Investigator(s): Nexus - MT	;	Section, Township, F	Range: T4N R3W Section	n 10
Landform (hillside, terrace, etc.):			nvex, none): none	Slope (%): 0
Subregion (LRR): LRR B Lat: 43.698		•	-116.678662	Datum: NAD83
Soil Map Unit Name: Moulton Loam 0 to 1 % Slo	ppes			ication: N/A
Are climatic / hydrologic conditions on the site type		? Yes x		
Are Vegetation , Soil , or Hydrology	•			
Are Vegetation x , Soil X , or Hydrology			explain any answers in Re	
SUMMARY OF FINDINGS – Attach si	<u></u>		•	,
Hydrophytic Vegetation Present? Yes x Hydric Soil Present? Yes x Wetland Hydrology Present? Yes X Remarks:	No No	Is the Sampled within a Wetlan		No
The survey area is in the floodplain of the Boise	River in a historic ripar	an area that has be	en grazed for at least 50 y	ears.
VEGETATION – Use scientific names	of plants.			
Tree Stratum (Plot size:		minant Indicator ecies? Status	Dominance Test wor	rksheet:
1. 2.			Number of Dominant Are OBL, FACW, or F	•
3. 4.			Total Number of Dom Across All Strata:	inant Species 1 (B)
Sapling/Shrub Stratum (Plot size:1.		al Cover	Percent of Dominant S Are OBL, FACW, or F	•
2.			Prevalence Index wo	orksheet:
3.			Total % Cover of	f: Multiply by:
4			'	) x 1 = 0
5		-1.0		$\frac{0}{0}$ $\times 2 = \frac{0}{0}$
Herb Stratum (Plot size: 15'	=100	al Cover		x 3 = 270 $x 4 = 20$
Herb Stratum (Plot size: 15'  1. Pascopyrum smithii	, 85	Yes FAC		$\frac{3}{2} = \frac{x^4 - \frac{20}{20}}{x^5 - \frac{20}{20}}$
Trifolium repens	5	No FACU		5 (A) 290 (B)
3. Plantago lanceolata	5	No FAC	Prevalence Index	``
4.				
5.			Hydrophytic Vegetat	ion Indicators:
6			X Dominance Test i	s >50%
7			Prevalence Index	
8			· · ·	aptations ¹ (Provide supporting
W 1 1/2 01 1 (D) 1		al Cover		(s or on a separate sheet)
Woody Vine Stratum (Plot size:				ophytic Vegetation ¹ (Explain)
1. 2.				oil and wetland hydrology must sturbed or problematic.
<u> </u>	=Tota	al Cover	Hydrophytic	turbed of problematio.
% Bare Ground in Herb Stratum 0	% Cover of Biotic Cru	ust	Vegetation	<u>X</u> No
Remarks: Dominated by pasture grass. No FACW or OBL				

SOIL Sampling Point: C06W

Profile Desc Depth	cription: (Describe to Matrix	o the dep		<b>ment t</b> l Featui		itor or c	onfirm the absence o	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-10	10YR 3/2	100	Color (molet)		-71		Sandy	Loam	
			EVD 5/6						
10-18	10YR 3/1	98	5YR 5/6	2	<u>C</u>	PL_	Sandy	Loam	
									_
¹Type: C=Co	oncentration, D=Deple	etion. RM=	Reduced Matrix. C	S=Cove	ered or C	oated S	and Grains. ² Loca	ation: PL=Pore Lining, M=	:Matrix.
	Indicators: (Applical							s for Problematic Hydric	
Histosol			x Sandy Red					Muck (A9) (LRR C)	
	pipedon (A2)		Stripped Ma					Muck (A10) (LRR B)	
Black Hi			Loamy Muc		-			Manganese Masses (F12)	(LRR D)
— Hydroge	n Sulfide (A4)		Loamy Gle	-			Redu	ced Vertic (F18)	
Stratified	d Layers (A5) (LRR C	)	Depleted M	atrix (F	3)		Red I	Parent Material (F21)	
1 cm Mu	ıck (A9) <b>(LRR D)</b>		Redox Dark	Surfa	ce (F6)		Very	Shallow Dark Surface (F2	2)
Depleted	d Below Dark Surface	(A11)	Depleted D	ark Sur	face (F7)	)	Other	r (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Dep	ression	ıs (F8)				
Sandy M	lucky Mineral (S1)								
Sandy G	Gleyed Matrix (S4)	³ Indicato	ors of hydrophytic ve	getatio	n and we	tland hy	drology must be prese	ent, unless disturbed or pro	oblematic.
Restrictive I	Layer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Present	? Yes X	No
Very faint po	re lining. Slightly depr	essional a	area where sedimer	t may r	nave depo	osited di	uring high irrigation or	rain.	
HYDROLO	GY								
_	drology Indicators:								
	cators (minimum of or	ie is requi						y Indicators (minimum of	two required)
x Surface	` ,		Salt Crust (					r Marks (B1) (Riverine)	in a)
	iter Table (A2)		Biotic Crust		ton (P12)			ment Deposits (B2) (River	ine)
Saturation	larks (B1) <b>(Nonriverir</b>	20)	Aquatic Inv Hydrogen S					Deposits (B3) <b>(Riverine)</b> age Patterns (B10)	
	nt Deposits (B2) <b>(Non</b>		x Oxidized R					Season Water Table (C2)	
	posits (B3) (Nonriveri		Presence o			-	· · · · · · · · · · · · · · · · · · ·	fish Burrows (C8)	
	Soil Cracks (B6)	-,	Recent Iron					ation Visible on Aerial Ima	agery (C9)
	on Visible on Aerial Im	nagery (B7					` ' —	ow Aquitard (D3)	<b>3</b> , ( ,
Water-S	tained Leaves (B9)		Other (Expl	ain in F	Remarks)		FAC-	Neutral Test (D5)	
Field Obser	vations:								
Surface Wat	er Present? Yes	sx_	No [	Depth (i	nches):				
Water Table		<u> </u>	No x	Depth (i	nches):				
Saturation P	resent? Yes	S X	No [	Depth (i	nches):	0	Wetland Hydrolog	gy Present? Yes X	No
(includes car									_
Describe Re	corded Data (stream (	gauge, mo	onitoring well, aerial	photos	, previous	s inspec	tions), if available:	See attached imagery bin	der
Remarks:									
	ed pasture. No surfac	e water co	onnection but appea	rs to be	e an area	where i	rrigaiton water collects	S.	

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyon		Sampling Date:	10/04/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C07U
Investigator(s): Nexus - MT		Section, 7	Γownship, Ra	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture		Local relief (co	oncave, conv	rex, none): none	Slop	e (%): <u>o</u>
Subregion (LRR): <u>LRR B</u> Lat: <u>43.696831</u>			Long: -1	16.682214	Datum:	NAD83
Soil Map Unit Name: Moulton Loam				NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time of	year?	Yes x	No (If no, exp	olain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	significantly o	disturbed? A	re "Normal C	Circumstances" present?	Yes x No	
Are Vegetation x , Soil x , or Hydrology x	naturally prob	olematic? (	If needed, ex	plain any answers in Rer	marks.)	·
SUMMARY OF FINDINGS – Attach site ma	ap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes x No	0	Is the	Sampled A	rea		
	о <u>х</u>		n a Wetland		No X	
Wetland Hydrology Present? Yes No	х					
Remarks:						
The survey area is in the floodplain of the Boise River	in a historic	riparian area t	that has beer	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of p		D	la di a da a			
<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:	
1				Number of Dominant S	Species That	
2				Are OBL, FACW, or FA	AC:	2 (A)
3.				Total Number of Domi	•	o (D)
4		=Total Cover		Across All Strata:		2 (B)
Sapling/Shrub Stratum (Plot size:		- Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	).0% (A/B)
1	,			7.10 022, 17.011, 0.17		(1 4 2 )
2.				Prevalence Index wo	rksheet:	
3				Total % Cover of:	: Multi	oly by:
4				OBL species 0		0
5		=Total Cover		FACW species 0 FAC species 70		<u>0</u> 10
<u>Herb Stratum</u> (Plot size: 15' )		- Total Cover		FACU species 35		40
1. Pascopyrum smithii	40	Yes	FAC	UPL species 0		0
2. Trifolium repens	15	No	FACU	Column Totals: 10	05 (A) 3	50 (B)
3. Taraxacum officinale	20	No	FACU	Prevalence Index :	= B/A = <u>3.33</u>	
4. Hordeum jubatum	30	Yes	FAC	Lludronbutio Vonetati	ion Indicatons.	
5 6.				Hydrophytic Vegetati X Dominance Test is		
7.				Prevalence Index		
8.					aptations ¹ (Provide s	supporting
	105	=Total Cover		data in Remark	s or on a separate s	heet)
Woody Vine Stratum (Plot size:	)			Problematic Hydro	ophytic Vegetation ¹	(Explain)
1				¹ Indicators of hydric so		
2	<del></del> .	=Total Cover		be present, unless dist	urbed or problemat	ic.
		, 5.31 00101		Hydrophytic Vegetation		
% Bare Ground in Herb Stratum 0 % 0	Cover of Bioti	c Crust		Present? Yes	No	=
Remarks:						

SOIL Sampling Point: C07U

Profile Desc Depth	ription: (Describe to Matrix	o the depti		<b>ıment tl</b> x Featur		tor or c	onfirm the absence	of indicators.	.)	
(inches)	Color (moist)	%	Color (moist)	% / Catai	Type ¹	Loc ²	Texture		Remarks	
0-6	10YR 3/2	100	00.0. (0.0.)				Sandy	· -	Loam	
6-18	10YR 4/2	100	_							
0-10	10114 4/2	100					Sandy		Loam	
							1			
¹ Type: C=Cd	oncentration, D=Deple	etion, RM=I	Reduced Matrix, C	S=Cove	ered or C	oated S			e Lining, M=M	
-	Indicators: (Applical	ble to all L	RRs, unless othe	rwise n	oted.)		Indicato	ors for Probler	matic Hydric S	Soils ³ :
Histosol	(A1)		Sandy Red					n Muck (A9) <b>(L</b>		
	pipedon (A2)		Stripped M	•	•			n Muck (A10) (		
Black His	` '		Loamy Mu	-				•	lasses (F12) <b>(L</b>	.RR D)
	n Sulfide (A4)		Loamy Gle	•	, ,			uced Vertic (F	-	
	Layers (A5) (LRR C)	)	Depleted N	•	•			Parent Materi	, ,	
	ck (A9) (LRR D)	(0.4.4)	Redox Dar						Surface (F22)	
	Below Dark Surface	(A11)	Depleted D				Oth	er (Explain in F	Remarks)	
	ark Surface (A12) lucky Mineral (S1)		Redox Dep	pression	S (F8)					
	ileyed Matrix (S4)	³ Indicator	s of hydronhytic v	enetatio	n and we	tland hy	drology must be pres	ent unless dis	sturbed or prob	lematic
	_ayer (if observed):	marcator	o or my dropmy do v	ogotatio	ii ana wa	Tana ny	arology made 20 proc	John, armood are	Adibod of prob	iomatio.
Type:	Layer (ii observeu).									
Depth (ir	nches).						Hydric Soil Preser	nt?	Yes	No_x
Remarks:	· -									
rtomanto.										
HYDROLO										
_	drology Indicators:						0 1	1 1 6 7		
	cators (minimum of or	ie is require						-	minimum of tw	o required)
	Water (A1) ter Table (A2)		Salt Crust Biotic Crus					er Marks (B1)	(Riverine) s (B2) (Riverin	0)
Saturatio			Aquatic Inv		tes (R13)			Deposits (B3)		e)
	arks (B1) <b>(Nonriveri</b> r	ne)	Hydrogen					nage Patterns		
	nt Deposits (B2) (Non		x Oxidized R					-Season Water		
	oosits (B3) (Nonriveri	-	Presence of			_		yfish Burrows (		
	Soil Cracks (B6)		Recent Iro	n Reduc	tion in Ti	lled Soil		•	on Aerial Imag	ery (C9)
Inundation	on Visible on Aerial In	nagery (B7)	) Thin Muck	Surface	(C7)		Sha	llow Aquitard (	D3)	
Water-S	tained Leaves (B9)		Other (Exp	lain in F	Remarks)		FAC	C-Neutral Test	(D5)	
Field Obser	vations:									
Surface Water	er Present? Yes	·	No <u>x</u>	Depth (i	nches):					
Water Table	Present? Yes	<u> </u>	No x	Depth (i	nches):					
Saturation Pr	resent? Yes	<u> </u>	No x	Depth (i	nches):		Wetland Hydrolo	gy Present?	Yes	No x
(includes cap	_ · · · · · · · · · · · · · · · · · · ·					_				
	corded Data (stream (	gauge, mor	nitoring well, aerial	l photos	, previous	s inspec	tions), if available:			
	d aerial image binder									
Remarks:										
Elood irriga										
riood iiriga	ated pasture									

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	ınty: Canyon	ı	Sampling Date:	10/04/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C09U
Investigator(s): Nexus - MT		Section,	Township, Ra	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.):	ıre	 Local relief (c	oncave, conv	/ex, none): None	Slop	e (%): 0
Subregion (LRR):         LRR B         Lat: 43.695913			Long:	116.684321	Datum:	NAD83
Soil Map Unit Name: Chance fine sandy loam				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time of	f year?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation , Soil , or Hydrology	significantly of	disturbed? A	Are "Normal (	Circumstances" present?	Yes ^X No	
Are Vegetation x , Soil X , or Hydrology X	naturally prol	blematic? (	If needed, ex	plain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showin	ıg samplin	g point lo	cations, transects,	important feat	ures, etc.
	o x		e Sampled A n a Wetland		No_X	
Remarks: The survey area is in the floodplain of the Boise River		riparian area	that has beel	n grazed for at least 50 ye	∍ars.	
VEGETATION – Use scientific names of p						
<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worl	ksheet:	
1.	70 0010.	орос.ос.		Number of Dominant S		
2.				Are OBL, FACW, or FA	•	1 (A)
3.				Total Number of Domir	•	. (5)
4.		=Total Cover		Across All Strata:		<u>1</u> (B)
Sapling/Shrub Stratum (Plot size:	)	- Total Covel		Percent of Dominant S Are OBL, FACW, or FA	•	0.0% (A/B)
2.				Prevalence Index wo	rksheet:	
3				Total % Cover of:	Multi	oly by:
4				OBL species 0		0
5		=Total Cover		FACW species 0 FAC species 95		<u>0</u> 85
Herb Stratum (Plot size: 15' )		- Total Covel		FACU species 15		60 60
1. Pascopyrum smithii	60	Yes	FAC	UPL species 0		0
2. Trifolium repens	5	No	FACU	Column Totals: 11	0 (A) 3	45 (B)
3. Euthamia graminifolia	20	No	FAC	Prevalence Index =	= B/A = <u>3.14</u>	
4. Plantago lanceolata	15	No No	FAC			
5. <u>Chicorium intybus</u> 6.	10	No	FACU	Hydrophytic Vegetati X Dominance Test is		
7				Prevalence Index i		
8.					aptations¹ (Provide s	supporting
	110	=Total Cover		data in Remarks	s or on a separate s	heet)
Woody Vine Stratum (Plot size:	)			Problematic Hydro	phytic Vegetation ¹	(Explain)
1. 2.				¹ Indicators of hydric so be present, unless dist		
		=Total Cover		Hydrophytic Vegetation	·	<u>.                                    </u>
	Cover of Bioti	c Crust	_	Present? Yes_	No	-
Remarks: No hydrology or soils Considered problematic vegetat	tion. No oblig	ate or FACW	present.			

SOIL Sampling Point: C09U

Profile Desc Depth	ription: (Describe t Matrix	o the depth		<b>ıment th</b> x Featur		itor or c	onfirm the absence	of indicators.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rem	arks
0-17	10YR 3/2	100	()				Sandy	Loa	
			_						
¹ Type: C=Co	oncentration, D=Depl	etion, RM=F	Reduced Matrix, C	S=Cove	ered or C	oated S		ation: PL=Pore Linin	
-	ndicators: (Applica	ble to all Li	RRs, unless othe	rwise n	oted.)		Indicato	rs for Problematic H	lydric Soils³:
Histosol	(A1)		Sandy Red					Muck (A9) (LRR C)	
	ipedon (A2)		Stripped M					Muck (A10) (LRR B	•
Black His	` '		Loamy Mu					Manganese Masses	(F12) <b>(LRR D)</b>
	n Sulfide (A4)		Loamy Gle					uced Vertic (F18)	
	Layers (A5) (LRR C	)	Depleted N	•	•			Parent Material (F21	,
	ck (A9) (LRR D)	(0.4.4)	Redox Dar					Shallow Dark Surface	
	Below Dark Surface	(A11)	Depleted D				Otne	r (Explain in Remark	s)
	rk Surface (A12) ucky Mineral (S1)		Redox Dep	pression	s (F8)				
	leyed Matrix (S4)	³ Indicator	s of hydronhytic y	enetatio	n and we	tland hy	drology must be prese	ent unless disturbed	or problematic
		maioator	o or riyaropriyao v	ogotatio	ii ana we	lana ny	arology must be press	ont, amoss distarbed	or problematio.
Type:	.ayer (if observed):								
Depth (ir	iches).		<del>_</del>				Hydric Soil Presen	t? Yes	No X
Remarks: Dry soil, com	pacted.								
HYDROLO	GY								
	drology Indicators:								
	ators (minimum of or	ne is require					· ·	ry Indicators (minimu	
	Water (A1)		Salt Crust					er Marks (B1) (Riveri	
High vva Saturatio	ter Table (A2)		Biotic Crus		too (D12)			ment Deposits (B2) (	
	arks (B1) <b>(Nonriveri</b> i	10)	Aquatic Inv Hydrogen					Deposits (B3) (River nage Patterns (B10)	iiie)
	t Deposits (B2) <b>(Non</b>		Oxidized R		-			Season Water Table	(C2)
	osits (B3) (Nonriveri		Presence	•		_	` ' — '	fish Burrows (C8)	(0=)
	Soil Cracks (B6)	,	Recent Iro		,	,		ration Visible on Aeri	al Imagery (C9)
	on Visible on Aerial In	nagery (B7)						low Aquitard (D3)	
Water-St	ained Leaves (B9)		Other (Exp	lain in F	Remarks)		FAC-	-Neutral Test (D5)	
Field Observ	/ations:		<del></del>						
Surface Water	er Present? Yes	s	No x	Depth (i	nches):				
Water Table	Present? Yes	<u> </u>			nches):				
Saturation Pr		·	No x	Depth (i	nches):		Wetland Hydrolo	gy Present? Yes	No X
(includes cap	_ · · · · ·								
Describe Red	corded Data (stream	gauge, mon	nitoring well, aeria	l photos	, previous	s inspec	tions), if available:	See attached imager	y binder
Remarks:									
Irrigated past	ure. Tire tracks indica	ate commor	n use area by veh	icles.					

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimsor	n Bridge Esta	tes		City/Cou	nty: Canyon		Sampling	g Date:	10/04/23	
Applicant/Owner:	Crimson Bri	dge Holdings			-	State: ID	Sampling	, Point:	C09W	
Investigator(s): Nexu	ıs - MT	-		Section, 1	Γownship, Ra	ange: T4N R3W Se	ection 10	•		
Landform (hillside, te		Pasture				vex, none): none		Slope	e (%): o	
Subregion (LRR):	-			,		116.684491			NAD83	_
Soil Map Unit Name:		•					assification: N//	•		
Are climatic / hydrolo			for this time of	f vear?	Yes x					
Are Vegetation	_			-				-		
Are Vegetation x			_			plain any answers i			—	
SUMMARY OF I	<u> </u>		<del></del>				•	nt featu	ıres, etc	c.
Hydrophytic Vegeta Hydric Soil Present Wetland Hydrology Remarks: The survey area is	ntion Present? ? Present?	Yes x Yes x Yes x	No No No	Is the	Sampled A	rea ? Yes_	X No			
VEGETATION -	Use scier	ntific names of	plants.							
Tree Stratum	(Plot sizo:	,	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test	t workshoot:			
1.	-	)		Species?	Status	Number of Domir	nant Species Tha		2 (4)	
2.						Are OBL, FACW,			3 (A)	
4.						Total Number of l Across All Strata:			3 (B)	١
Sapling/Shrub Strat	<u>tum</u> (Pl	lot size:		=Total Cover		Percent of Domin Are OBL, FACW,	•		.0% (A/	B)
2						Prevalence Inde	x worksheet:			
2						Total % Cov	er of:	Multip	ıly by:	
4.						OBL species	15 x 1	=1	5	
5						FACW species _	30 x 2		0	
	(D)	4=1		=Total Cover		FAC species	25 x 3			
Herb Stratum	(Plot size:	15')	_	NI-	<b>540</b>	FACU species	0 x 4			
<ol> <li>Pascopyrum sm</li> <li>Typha latifolia</li> </ol>	וותווו		5	No Yes	FAC OBL	UPL species Column Totals:	0 x 5		0 50 (B)	
3. Carex micropter	~		<u>15</u> 20	Yes Yes	FAC	_	$\frac{70}{\text{dex} = B/A} =$		50 (B)	
Juncus balticus			30	Yes	FACW	i revalence in		2.14		
					.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Hydrophytic Veg	getation Indicat	ors:		
C						X Dominance T	_			
7.						X Prevalence I	ndex is ≤3.0 ¹			
8.						Morphologica	al Adaptations¹ (l	Provide s	upporting	
			70	=Total Cover		data in Re	marks or on a se	eparate sl	neet)	
Woody Vine Stratur	<u>m</u> (Pl	lot size:	_)			Problematic	Hydrophytic Veg	jetation ¹ (	Explain)	
1.						¹ Indicators of hyd				t
2			<del>-</del>	=Total Cover		be present, unles	s disturbed or pi	robiematio	3.	_
% Bare Ground in F	Herb Stratum	0 %	Cover of Bioti			Hydrophytic Vegetation Present?	Yes x I	No		
Remarks:	.5.5 5		. 55,5i 0i bi0ti		_		. 30 <u>^</u>			_
Nomano.										

SOIL Sampling Point: C09W

Profile Desc Depth	ription: (Describe t Matrix	to the depti		<b>iment th</b> x Featur		ator or c	onfirm the abser	nce of indicators	s.)	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-19	7.5YR 4/2	80	5YR 5/6	20	C	PL/M	Sandy		Loam	
0-13	7.511(4/2		311(3/0			I L/IVI	Garidy		Loam	
							-			
						' <u></u>				
							-			
			_							
¹ Type: C=Co	oncentration, D=Depl	etion RM=F	Reduced Matrix C	S=Cove	ered or C	coated S	and Grains 2	Location: PI =Pr	ore Lining, M=Ma	trix
	ndicators: (Applica					oalca o			ematic Hydric Sc	
Histosol		DIO 10 UII 2	x Sandy Red					cm Muck (A9) (	-	
	ipedon (A2)		Stripped M					2 cm Muck (A10)		
Black His			Loamy Mu						(=:(; =) Masses (F12) <b>(LF</b>	RR D)
	n Sulfide (A4)		Loamy Gle					Reduced Vertic (F		
	Layers (A5) (LRR C	3)	Depleted N	-				Red Parent Mate	•	
	ck (A9) <b>(LRR D)</b>	,	Redox Dar	•	•			ery Shallow Dar	, ,	
	Below Dark Surface	e (A11)	Depleted D			)		Other (Explain in		
	rk Surface (A12)	( )	Redox Dep			,			,	
	ucky Mineral (S1)				( - /					
	leyed Matrix (S4)	³ Indicator	s of hydrophytic ve	egetatio	n and we	etland hy	drology must be p	resent, unless d	isturbed or proble	ematic.
Restrictive L	.ayer (if observed):									
Type:	,									
Depth (ir	iches):						Hydric Soil Pre	sent?	Yes X	No
HYDROLO	GY									
Wetland Hyd	drology Indicators:									
	ators (minimum of o	ne is require					<u>Seco</u>	ndary Indicators	(minimum of two	required)
	Water (A1)		Salt Crust					Vater Marks (B1)		
	ter Table (A2)		Biotic Crus						ts (B2) (Riverine	)
Saturation	` '		Aquatic Inv					Orift Deposits (B3		
	arks (B1) (Nonriveri		Hydrogen S					Orainage Patterns		
	t Deposits (B2) (Non		x Oxidized R			-		Ory-Season Wate		
	osits (B3) <b>(Nonriver</b> Soil Cracks (B6)	ille)	Presence of Recent Iron			` '		Crayfish Burrows	on Aerial Image	ny (CO)
	on Visible on Aerial Ir	magery (R7)				illeu Soli		Shallow Aquitard	•	ry (C9)
	ained Leaves (B9)	nagery (br)	Other (Exp			١		FAC-Neutral Test	• ,	
Field Observ					.comanto)		<del></del> -	710 11041141 1001	. (20)	
Surface Water		c	No. v	Denth (i	nches):					
Water Table		s <u></u>			nches):					
Saturation Pr				Depth (i			Wetland Hydr	ology Present?	Yes X	No
(includes cap				-						
	corded Data (stream	gauge, mor	nitoring well, aerial	photos.	previou	s inspec	tions), if available:	:		
	aerial image binder	- 0 /	<i>5</i> ,				,.			
Remarks:	<del>-</del>									
Depressional	area near headgate									

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyon	1	Sampling D	ate: 10/04/23
Applicant/Owner: Crimson Bridge Holdings			, <u> </u>	State: ID	Sampling P	
Investigator(s): Nexus - MT		Section, 7		ange: T4N R3W Section		
Landform (hillside, terrace, etc.): Pastu				/ex, none): None		Slope (%): 0
Subregion (LRR): LRR B Lat: 43.69592		,		116.685135		m: NAD83
Soil Map Unit Name: Chance fine sandy loam			<u> </u>	NWI classific		
Are climatic / hydrologic conditions on the site typical for	or this time of	f vear?	Ves y	No (If no, expl		<u> </u>
Are Vegetation , Soil , or Hydrology		-		Circumstances" present?		•
Are Vegetation x , Soil x , or Hydrology X				cplain any answers in Rem		
SUMMARY OF FINDINGS – Attach site ma					•	eatures etc
	o		Sampled A		Na V	
	о <u>х</u> о х	Withi	n a Wetland	? Yes	No X	
<del></del>	<u> </u>					
Remarks:  The survey area is in the floodplain of the Boise River	in a historic	riparian area t	that has beer	n grazed for at least 50 ye	ars.	
, , , , , , , , , , , , , , , , , , ,				· ·		
VEGETATION – Use scientific names of p	lants.					
·	Absolute	Dominant	Indicator			
Tree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test work	sheet:	
1. 2.				Number of Dominant S Are OBL, FACW, or FA	•	1 (A)
3. 4.				Total Number of Domir Across All Strata:	ant Species	1 (B)
		=Total Cover		Percent of Dominant S	pecies That	
Sapling/Shrub Stratum (Plot size:	)			Are OBL, FACW, or FA		100.0% (A/B)
1						
2				Prevalence Index wor		
3				Total % Cover of:		Multiply by:
4				OBL species	x1=_	
5		-Total Cavar		FACW species	x2= x3=	
Herb Stratum (Plot size: 15' )		=Total Cover		FAC species  FACU species	x 3 x 4 =	
Herb Stratum (Plot size: 15' )  1. Pascopyrum smithii	80	Yes	FAC	UPL species	x 4 = _ x 5 =	<del></del>
Trifolium repens	5	No	FACU	Column Totals:	(A)	(B)
3. Euthamia graminifolia	5	No	FAC	Prevalence Index =	`` _	(B)
Plantago lanceolata	15	No	FAC	Trevalence index =	D/A -	
				Hydrophytic Vegetation	on Indicators:	
6				X Dominance Test is		
7.				Prevalence Index i		
8.				Morphological Ada		ide supporting
	105	=Total Cover		data in Remarks		
Woody Vine Stratum (Plot size:				Problematic Hydro	phytic Vegetat	ion ¹ (Explain)
1.				¹ Indicators of hydric so	il and wetland	hvdrology must
2.				be present, unless dist		
		=Total Cover		Hydrophytic	·	
	_			Vegetation		
% Bare Ground in Herb Stratum 0 % 0	Cover of Bioti	c Crust	_	Present? Yes_	X No_	
Remarks:  No hydrology. Considered problematic vegetation						
110 Hydrology. Considered problematic vegetation						

SOIL Sampling Point: C10U

Depth	Matrix	-		ox Featu		itoi oi t	commirm the absence of	indicators.)
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 3/2	100	Color (molot)		.,,,,		Sandy	Loam
0-10	10110 3/2	100					Sanuy	Loain
1		<del>_</del>					2.	
	oncentration, D=D					oated S		tion: PL=Pore Lining, M=Matrix.
-	Indicators: (Appl	icable to all L						s for Problematic Hydric Soils ³ :
Histosol			Sandy Re					Muck (A9) (LRR C)
	pipedon (A2)		Stripped	-	-			Muck (A10) (LRR B)
Black Hi			Loamy M	-				Manganese Masses (F12) (LRR D)
	n Sulfide (A4)		Loamy G	-				ced Vertic (F18)
	Layers (A5) (LRI	R C)	Depleted					Parent Material (F21)
	ck (A9) <b>(LRR D)</b>		Redox Da		` '			Shallow Dark Surface (F22)
	Below Dark Surf	ace (A11)	Depleted			)	Other	(Explain in Remarks)
	ark Surface (A12)		Redox De	epression	ıs (F8)			
	lucky Mineral (S1)	_						
Sandy G	leyed Matrix (S4)	Indicato	rs of hydrophytic	vegetatio	n and we	tland h	ydrology must be prese	nt, unless disturbed or problematic.
	_ayer (if observe	d):						
Type:			<u></u>					
Depth (ir	nches):						Hydric Soil Present	? Yes No X
Remarks:								
Dry soil, com	pacted							
HYDROLO	GY							
Wetland Hy	drology Indicator	rs:						
Primary India	cators (minimum o	f one is requir	ed; check all that	apply)			<u>Secondar</u>	y Indicators (minimum of two required)
Surface	Water (A1)		Salt Crus	t (B11)			Wate	r Marks (B1) <b>(Riverine)</b>
High Wa	ter Table (A2)		Biotic Cru	ıst (B12)			Sedir	nent Deposits (B2) (Riverine)
Saturation	on (A3)		Aquatic Ir	vertebra	tes (B13)		Drift [	Deposits (B3) (Riverine)
Water M	arks (B1) <b>(Nonriv</b>	erine)	Hydroger	Sulfide	Odor (C1	)	Drain	age Patterns (B10)
Sedimer	nt Deposits (B2) (N	Nonriverine)	Oxidized	Rhizosph	neres on I	_iving R	Roots (C3) Dry-S	Season Water Table (C2)
Drift Dep	osits (B3) (Nonri	verine)	Presence	of Redu	ced Iron (	(C4)	Crayf	ish Burrows (C8)
Surface	Soil Cracks (B6)		Recent In	on Reduc	ction in Ti	lled Soi	ls (C6) Satur	ation Visible on Aerial Imagery (C9)
Inundation	on Visible on Aeria	al Imagery (B7	)Thin Muc	k Surface	e (C7)		Shalle	ow Aquitard (D3)
Water-S	tained Leaves (B9	9)	Other (Ex	plain in F	Remarks)		FAC-	Neutral Test (D5)
Field Obser	vations:							
Surface Wat	er Present?	Yes	No x	Depth (i	nches):			
Water Table	Present?	Yes	No x		nches):			
Saturation P	resent?	Yes	No <u>x</u>	Depth (i	nches):		Wetland Hydrolog	y Present? Yes No X
(includes cap	oillary fringe)							
Describe Re	corded Data (strea	am gauge, mo	nitoring well, aeri	al photos	, previous	s insped	ctions), if available:	See attached imagery binder
Remarks:	tura.							
Irrigated pas	ıuıe							

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyon	l	Sampling Date:	10/04/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C10W
Investigator(s): Nexus - MT		Section,	Γownship, Ra	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture		 Local relief (c	oncave, conv	vex, none): none	Slop	e (%):o
Subregion (LRR): LRR B Lat: 43.695905			Long:1	116.685222	Datum:	NAD83
Soil Map Unit Name: Chance fine sandy loam				NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	or this time of	year?	Yes <u>x</u>	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly of	disturbed? A	re "Normal (	Circumstances" present?	Yes x No	
Are Vegetation x , Soil x , or Hydrology x	naturally prob	olematic? (	If needed, ex	plain any answers in Rer	narks.)	
SUMMARY OF FINDINGS – Attach site m	ap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydric Soil Present? Yes x N	o o		e Sampled A n a Wetland		No	
The survey area is in the floodplain of the Boise River	r in a historic	riparian area	that has beer	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of p	olants.					
<u>Tree Stratum</u> (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	ksheet:	
1.				Number of Dominant S	Species That	
2.				Are OBL, FACW, or FA	AC:	2 (A)
3. 4.				Total Number of Domin Across All Strata:	•	2 (B)
Sapling/Shrub Stratum (Plot size:1.		=Total Cover		Percent of Dominant S Are OBL, FACW, or FA		).0% (A/B
2.				Prevalence Index wo	rksheet:	
3.				Total % Cover of:	Multi	oly by:
4				OBL species 0		0
5		=Total Cover		FACW species 0 FAC species 90		0 70
Herb Stratum (Plot size: 15' )		10101 00101		FACU species 5		20
1. Pascopyrum smithii	60	Yes	FAC	UPL species 0	x 5 =	0
2. Trifolium repens	5	No	FACU	Column Totals: 95	`` /	90 (B)
3. Carex microptera	20	Yes	FAC	Prevalence Index =	= B/A = <u>3.05</u>	
Plantago lanceolata     5.	10	No	FAC	Hydrophytic Vegetati	ion Indicators:	
5				X Dominance Test is		
7.				Prevalence Index	is ≤3.0 ¹	
8					aptations ¹ (Provide s	
		=Total Cover			s or on a separate s	•
Woody Vine Stratum (Plot size:1.	,				ophytic Vegetation ¹	,
2.				¹ Indicators of hydric so be present, unless dist		
% Bare Ground in Herb Stratum 0 % 0	Cover of Bioti	=Total Cover		Hydrophytic Vegetation Present? Yes	x No_	
Remarks:				-		_

SOIL Sampling Point: C10W

Depth	Matrix		Redo	ox Featur	<u>es</u>					
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Text	ure	Remarks	
0-14	7.5YR 4/2	<u>70</u>	5YR 5/6	3 0	С	М	San	dy	Loam	
(inches)         Color (moist)         %         Color (moist)         %           0-14         7.5YR 4/2         70         5YR 5/6         3 0	-									
	e: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand G									
				- —			-			
	-			- —						
T C-C-			- Dadwaad Matrix	00-0				21 +	Ol —Dana Linina M—	Maduis
						oaled S	and Grains.		PL=Pore Lining, M= Problematic Hydric	
-		ubio to un i			•				(A9) <b>(LRR C)</b>	000
									(A10) <b>(LRR B)</b>	
Black His			Loamy M	-	-				nese Masses (F12)	(I RR D)
	n Sulfide (A4)		Loamy Gl	-				Reduced Ve		(LIKIT D)
	Layers (A5) (LRR	C)	Depleted	-					Material (F21)	
	ck (A9) (LRR D)	<b>O</b> ,	Redox Da	`	,				w Dark Surface (F2	2)
	Below Dark Surface	re (A11)	Depleted		, ,	)			ain in Remarks)	-)
	rk Surface (A12)	<i>(</i> ( ( ( ) )	Redox De			,		Other (Explic	an in remarks)	
	Sandy Mucky Mineral (S1)		ROGOX BO	,p10001011	3 (1 0)					
	leyed Matrix (S4)	³ Indicato	ors of hydrophytic	vegetatio	n and we	etland hy	drology mus	st be present, unl	ess disturbed or pro	blematic.
	- )									
estrictive I	aver (if observed	١-								
	ayer (if observed	):								
Type: _ Depth (in Remarks:			<u>_</u>				Hydric So	il Present?	Yes X	No
Type:	ches):						Hydric So	il Present?	Yes X	No
Type: _ Depth (in Remarks: Very faint co	oncentrations on ro						Hydric So	oil Present?	Yes X	No
Type:	oncentrations on ro	ots, moist.					Hydric So			
Type:	GY  Irology Indicators ators (minimum of	ots, moist.					Hydric So	Secondary Indic	ators (minimum of t	
Type:	GY Irology Indicators ators (minimum of Water (A1)	ots, moist.	Salt Crust	t (B11)			Hydric So	Secondary Indic	ators (minimum of t s (B1) <b>(Riverine)</b>	wo require
Type: Depth (in Remarks: Very faint co	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2)	ots, moist.	Salt Crust Biotic Cru	t (B11) ıst (B12)	(D40)		Hydric So	Secondary Indic Water Mark: Sediment D	ators (minimum of t s (B1) (Riverine) eposits (B2) (River	wo require
Type: Depth (in Remarks: Very faint co	GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3)	ots, moist. : one is requi	Salt Crust Biotic Cru Aquatic Ir	t (B11) ıst (B12) nvertebra			Hydric So	Secondary Indic Water Mark Sediment D	ators (minimum of t s (B1) (Riverine) eposits (B2) (River ts (B3) (Riverine)	wo require
Type: Depth (in Remarks: Very faint con YDROLO Vetland Hydron Surface Vetland Water Mater	GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) (Nonrive	ots, moist. : one is requir	Salt Crust Biotic Cru Aquatic Ir Hydrogen	t (B11) ust (B12) nvertebrat n Sulfide (	Odor (C1	)		Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa	ators (minimum of to s (B1) (Riverine) eposits (B2) (Riverine) ts (B3) (Riverine) atterns (B10)	wo require
Type: Depth (in Remarks: Very faint converted by Primary Indication Surface Nation Water Managerian Sedimen Sedimen (in Sedimen)	GY Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) (Nonrive t Deposits (B2) (No	ots, moist. : one is requirence)	Salt Crusi Biotic Cru Aquatic Ir Hydrogen X Oxidized	t (B11) ust (B12) nvertebrat n Sulfide ( Rhizosph	Odor (C1 neres on	) Living R		Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa	ators (minimum of to s (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2)	wo require
Type:	GY Irology Indicators ators (minimum of Nater (A1) ter Table (A2) n (A3) arks (B1) (Nonrive t Deposits (B2) (No	ots, moist. : one is requirence)	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence	t (B11) ust (B12) nvertebrain Sulfide ( Rhizosph	Odor (C1 neres on ced Iron	) Living R (C4)	oots (C3)	Secondary Indic Water Market Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bu	ators (minimum of to s (B1) (Riverine) eposits (B2) (Riverine) ts (B3) (Riverine) atterns (B10) Water Table (C2) rrows (C8)	wo require
Type: Depth (in Remarks: Very faint or Very faint or Vetland Hydrox Surface Very Saturatio Water Marks Sedimen Drift Dep Surface S	GY Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive to Deposits (B2) (Nonrive Soil Cracks (B6)	ots, moist.  : one is requirence) porriverine) erine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro	t (B11) ust (B12) nvertebrai n Sulfide ( Rhizosph of Reduction Reduction	Odor (C1 neres on ced Iron ction in T	) Living R (C4)	oots (C3)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui	ators (minimum of to some some some some some some some som	wo require
Type: Depth (in Remarks: Very faint control of the properties	GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nonsits (B3) (Nonrive Soil Cracks (B6) in Visible on Aerial	ots, moist.  : one is requirence) porriverine) erine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro Thin Mucl	t (B11) ust (B12) nvertebrai n Sulfide ( Rhizosph of Reduc on Reduc k Surface	Odor (C1 neres on ced Iron ction in T	) Living R (C4) illed Soil	oots (C3)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui Saturation V	ators (minimum of to some (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imaginater (D3)	wo require
Type: Depth (in Remarks: Very faint converted by the proof of th	GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nonsits (B3) (Nonrive Coil Cracks (B6) in Visible on Aerial ained Leaves (B9)	ots, moist.  : one is requirence) porriverine) erine)	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro	t (B11) ust (B12) nvertebrai n Sulfide ( Rhizosph of Reduc on Reduc k Surface	Odor (C1 neres on ced Iron ction in T	) Living R (C4) illed Soil	oots (C3)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui	ators (minimum of to some (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imaginater (D3)	wo require
Type:	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) n (A3) arks (B1) (Nonrive t Deposits (B2) (No osits (B3) (Nonrive Soil Cracks (B6) on Visible on Aerial ained Leaves (B9) vations:	cots, moist.  cone is required in the cone is required	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro Thin Mucl Other (Ex	t (B11) ust (B12) nvertebrat Sulfide ( Rhizosph of Reduct on Reduct K Surface splain in F	Odor (C1 neres on ced Iron ction in T e (C7) Remarks)	) Living R (C4) illed Soil	oots (C3)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui Saturation V	ators (minimum of to some (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imaginater (D3)	wo require
Type: Depth (in Remarks: Very faint or	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) (Nonrive to Deposits (B2) (Norive Soil Cracks (B6) in Visible on Aerial ained Leaves (B9) in the present?	rine) porriverine) erine) Imagery (B	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro Thin Mucl Other (Ex	t (B11) ust (B12) nvertebrat Sulfide ( Rhizosph of Reduct on Reduct k Surface cplain in F	Odor (C1 neres on ced Iron ction in T e (C7) Remarks)	) Living R (C4) illed Soil	oots (C3)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui Saturation V	ators (minimum of to some (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imaginater (D3)	wo require
Type: Depth (in Remarks: Very faint or Very faint or Vetland Hydromary Indic Surface Vater Massedimen Drift Dep Surface Surface Vater Table Vater Table	GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nosits (B3) (Nonrive Soil Cracks (B6) in Visible on Aerial ained Leaves (B9) vations:  er Present?  Present?  Y	rine) prine) prine) Imagery (B7	Salt Crusi Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro Thin Mucl Other (Ex	t (B11) ust (B12) nvertebrai Sulfide ( Rhizosph of Reduct on Reduct k Surface cplain in F	Odor (C1 neres on ced Iron ction in T e (C7) Remarks) nches):	) Living R (C4) illed Soil	oots (C3) s (C6)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui Saturation V Shallow Aqu FAC-Neutra	ators (minimum of to so (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Ima	wo requir
Type: Depth (in Remarks: Very faint co  YDROLO  Yetland Hyd Saturatio Water Ma Sedimen Drift Dep Surface S Inundatio Water-St Sield Observ Surface Water Vater Table In Saturation Pr	GY  Irology Indicators ators (minimum of Water (A1) ter Table (A2) in (A3) arks (B1) (Nonrive to Deposits (B2) (Nosits (B3) (Nonrive to Deposits (B4) (Nonrive to Deposits (B4	rine) porriverine) erine) Imagery (B	Salt Crust Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Iro Thin Mucl Other (Ex	t (B11) ust (B12) nvertebrat Sulfide ( Rhizosph of Reduct on Reduct k Surface cplain in F	Odor (C1 neres on ced Iron ction in T e (C7) Remarks) nches):	) Living R (C4) illed Soil	oots (C3) s (C6)	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bui Saturation V Shallow Aqu FAC-Neutra	ators (minimum of to some (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) (risible on Aerial Imaginater (D3)	wo requir
Type: Depth (in Remarks: Very faint control of the property of the prope	GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nosits (B3) (Nonrive Soil Cracks (B6) in Visible on Aerial ained Leaves (B9) vations:  er Present?  Present?  yesent?  yillary fringe)	rine) prine) Imagery (Bi	Salt Crusi Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Ir Thin Mucl Other (Ex  No x No x No x	t (B11) ust (B12) uvertebrai a Sulfide ( Rhizosph of Reduc on Reduc k Surface cplain in F  Depth (i Depth (i	Odor (C1 neres on ced Iron ction in T e (C7) Remarks) nches): nches):	) Living R (C4) illed Soil	oots (C3) s (C6) Wetland	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bu Saturation V Shallow Aqu FAC-Neutra	ators (minimum of to so (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Ima	wo requir
Type: Depth (in Remarks: Very faint co  YDROLO  Vetland Hyd  Primary Indic Surface \ High Wat Saturatio Water Ma Sedimen Drift Dep Surface S Inundatio Water-St  Field Observ Surface Water Vater Table   Saturation Princludes cap Describe Rec	GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nosits (B3) (Nonrive Soil Cracks (B6) in Visible on Aerial ained Leaves (B9)  Vations:  er Present?  Present?  Yesent?	cots, moist.  cone is required in particles in gauge, moist.	Salt Crusi Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Ir Thin Mucl Other (Ex  No x No x No x	t (B11) ust (B12) uvertebrai a Sulfide ( Rhizosph of Reduc on Reduc k Surface cplain in F  Depth (i Depth (i	Odor (C1 neres on ced Iron ction in T e (C7) Remarks) nches): nches):	) Living R (C4) illed Soil	oots (C3) s (C6) Wetland	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bu Saturation V Shallow Aqu FAC-Neutra	ators (minimum of to so (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Ima	wo requir
Type: Depth (in Remarks: Very faint co  YDROLO  Vetland Hyd  Primary Indic Surface \ High Wat Saturatio Water Ma Sedimen Drift Dep Surface S Inundatio Water-St  Field Observ Surface Water Vater Table   Saturation Princludes cap Describe Rec	GY  Irology Indicators ators (minimum of Nater (A1) ter Table (A2) in (A3) arks (B1) (Nonrive t Deposits (B2) (Nosits (B3) (Nonrive Soil Cracks (B6) in Visible on Aerial ained Leaves (B9) vations:  er Present?  Present?  yesent?  yillary fringe)	cots, moist.  cone is required in particles in gauge, moist.	Salt Crusi Biotic Cru Aquatic Ir Hydrogen X Oxidized Presence Recent Ir Thin Mucl Other (Ex  No x No x No x	t (B11) ust (B12) uvertebrai a Sulfide ( Rhizosph of Reduc on Reduc k Surface cplain in F  Depth (i Depth (i	Odor (C1 neres on ced Iron ction in T e (C7) Remarks) nches): nches):	) Living R (C4) illed Soil	oots (C3) s (C6) Wetland	Secondary Indic Water Mark: Sediment D Drift Deposi Drainage Pa Dry-Season Crayfish Bu Saturation V Shallow Aqu FAC-Neutra	ators (minimum of to so (B1) (Riverine) eposits (B2) (Riverine) atterns (B10) Water Table (C2) rrows (C8) /isible on Aerial Ima	wo requii

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyor	Sampling Date:	10/04/23		
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C12W	
Investigator(s): Nexus - MT		Section, Township, Range: T4N R3W Section 10					
Landform (hillside, terrace, etc.): Pasture		Local relief (co	oncave, con	vex, none): none	Slop	e (%):o	
Subregion (LRR): <u>LRR B</u> Lat: <u>43.696169</u>			Long: -	116.685475	Datum:	NAD83	
Soil Map Unit Name: Falk fine sandy loam, 0 to 2 per	cent slopes			NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical f	for this time of	f year?	Yes <u>x</u>	No (If no, exp	lain in Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly	disturbed? A	re "Normal (	Circumstances" present?	Yes x No		
Are Vegetation x , Soil x , or Hydrology x	naturally prol	blematic? (I	f needed, ex	oplain any answers in Rer	marks.)		
SUMMARY OF FINDINGS – Attach site m	ap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.	
	lo		Sampled A				
	lo	withii	n a Wetland	? Yes <u>x</u>	No		
Remarks:							
The survey area is in the floodplain of the Boise Rive	r in a historic	riparian area t	hat has bee	n grazed for at least 50 ye	ears.		
VEGETATION – Use scientific names of	olants.						
	Absolute	Dominant	Indicator				
Tree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test work			
1. 2.				Number of Dominant S Are OBL, FACW, or FA	•	1 (A)	
3. 4.				Total Number of Domin Across All Strata:	•	1 (B)	
		=Total Cover		Percent of Dominant S	•		
Sapling/Shrub Stratum (Plot size:1.	_)			Are OBL, FACW, or FA	AC: 100	0.0% (A/B)	
2.				Prevalence Index wo	rksheet:		
3.				Total % Cover of:	Multi	ply by:	
4.				OBL species 0	x 1 =	0	
5				FACW species 95		90	
(5)		=Total Cover		FAC species 15		45	
Herb Stratum (Plot size: 15' )	E	No	FAC	FACU species 0		0	
Hordeum jubatum     Dactylis glomerata	5	No No	FAC FAC	UPL species 0 Column Totals: 11		0 35 (B)	
Phalaris arundinacea	95	Yes	FACW	Prevalence Index =			
Xanthium strumarium	5	No	FAC	1 Tovalonice index	2.14		
5.				Hydrophytic Vegetati	ion Indicators:		
6.				X Dominance Test is			
7.				X Prevalence Index	is ≤3.0 ¹		
8.				Morphological Ada	aptations ¹ (Provide s	supporting	
	110	=Total Cover		data in Remarks	s or on a separate s	sheet)	
Woody Vine Stratum (Plot size:	)			Problematic Hydro	phytic Vegetation ¹	(Explain)	
1.				¹ Indicators of hydric so	oil and wetland hydr	ology must	
2				be present, unless dist	urbed or problemat	ic.	
		=Total Cover		Hydrophytic			
% Bare Ground in Herb Stratum 0 %	Cover of Bioti	c Crust	<u> </u>	Vegetation Present? Yes	x No	<b>-</b>	
Remarks:							
In area where Boise River may access and irrigation	outlet.						

SOIL Sampling Point: C12W

Profile Desc Depth	ription: (Describe t Matrix	o the dept				itor or c	onfirm the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)			Loc ²	Texture	Remarks
0-20	7.5YR 4/2	80	5YR 5/6					Loam
0 20	7.011(4/2		0111070	20 C M Sandy L  20 C M Sandy L  3, CS=Covered or Coated Sand Grains.  2Location: PL=Pore Line Cherwise noted.)  Redox (S5)  4 Matrix (S6)  Mucky Mineral (F1)  Gleyed Matrix (F2)  Matrix (F3)  Red Parent Material (F3)		Louin		
			_	' <u></u> ,	·			
¹Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, C	S=Cove	ered or C	oated S	and Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.
	Indicators: (Application							rs for Problematic Hydric Soils ³ :
Histosol			x Sandy Red		•			
	pipedon (A2)							
Black His			Loamy Mu	cky Mine	eral (F1)		Iron-	Manganese Masses (F12) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gle	yed Mat	rix (F2)		Redu	uced Vertic (F18)
Stratified	l Layers (A5) (LRR C	)	Depleted N	/latrix (F	3)		Red	Parent Material (F21)
1 cm Mu	ck (A9) (LRR D)		Redox Dar	k Surfac	e (F6)		Very	Shallow Dark Surface (F22)
Depleted	l Below Dark Surface	(A11)	Depleted [	ark Sur	face (F7)	)	Othe	r (Explain in Remarks)
Thick Da	rk Surface (A12)		Redox De	oression	s (F8)			
Sandy M	lucky Mineral (S1)							
Sandy G	leyed Matrix (S4)	³ Indicator	s of hydrophytic v	egetatio	n and we	tland hy	drology must be prese	ent, unless disturbed or problematic.
Restrictive L	_ayer (if observed):							
Type:								
Depth (ir	nches):		<u></u>				Hydric Soil Present	t? Yes <u>x</u> No
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
	cators (minimum of or	ne is require						ry Indicators (minimum of two required)
	Water (A1)		Salt Crust					er Marks (B1) (Riverine)
	ter Table (A2)		Biotic Crus		(5.40)			ment Deposits (B2) (Riverine)
Saturation	` '	>	Aquatic Inv		, ,			Deposits (B3) (Riverine)
	arks (B1) (Nonriverii	-	Hydrogen		-			nage Patterns (B10)
	nt Deposits (B2) <b>(Non</b> posits (B3) <b>(Nonriveri</b>		Oxidized F			-	· · · — ·	Season Water Table (C2) fish Burrows (C8)
	Soil Cracks (B6)	116)	Recent Iro		,	` '		ration Visible on Aerial Imagery (C9)
	on Visible on Aerial In	nagery (B7						low Aquitard (D3)
	tained Leaves (B9)		Other (Exp		. ,			-Neutral Test (D5)
Field Observ	vations:							· , ,
	er Present? Yes	3	No x	Depth (ii	nches):			
Ouriace Wate					nches):			
Water Table	Present? Yes	3	No x					
		s			nches):	8	Wetland Hydrolog	gy Present? Yes x No
Water Table	resent? Yes				nches):	8	Wetland Hydrolog	gy Present? Yes x No No
Water Table Saturation Pr (includes cap	resent? Yes	S X	No	Depth (ii		_		gy Present? Yes x No
Water Table Saturation Pr (includes cap Describe Rec	resent? Yes oillary fringe)	S X	No	Depth (ii		_		gy Present? Yes <u>x</u> No
Water Table Saturation Pr (includes cap Describe Rec	resent? Yes billary fringe) corded Data (stream	S X	No	Depth (ii		_		gy Present? Yes <u>x</u> No
Water Table Saturation Pr (includes cap Describe Red See attached	resent? Yes billary fringe) corded Data (stream	S X	No	Depth (ii		_		gy Present? Yes <u>x</u> No

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyor	Sampling Date:	10/04/23	
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C35U
Investigator(s): Nexus - MT		Section,	Γownship, R	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture		Local relief (co	oncave, conv	/ex, none): none	Slop	e (%):o
Subregion (LRR):         LRR B         Lat: 43.698273			Long: -	116.684924	Datum:	NAD83
Soil Map Unit Name: Falk fine sandy loam, 0 to 2 per	cent slopes			NWI classifi	cation: N/A	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes <u>x</u>	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly	disturbed? A	re "Normal (	Circumstances" present?	Yes x No	
Are Vegetation <u>x</u> , Soil <u>x</u> , or Hydrology <u>x</u>	naturally prol	blematic? (	f needed, ex	xplain any answers in Rer	narks.)	
SUMMARY OF FINDINGS – Attach site m	nap showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes	No <u>x</u>	Is the	Sampled A	irea		
	No <u>x</u>	withi	n a Wetland	? Yes	No X	
	No <u>x</u>					
Remarks:  The survey area is in the floodplain of the Boise Rive	er in a historic	riparian area t	hat has bee	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of	plants.					
Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test wor	kahaati	
1	70 COVEI	Species:	Status	Number of Dominant S		
2.				Are OBL, FACW, or F	•	1 (A)
3.				Total Number of Domi	nant Species	
4				Across All Strata:		2 (B)
Sapling/Shrub Stratum (Plot size:		=Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	.0% (A/B)
1.						
2.				Prevalence Index wo		
3				Total % Cover of: OBL species 0		ply by: 0
5.				OBL species 0 FACW species 5		10
		=Total Cover		FAC species 45		35
Herb Stratum (Plot size: 15' )				FACU species 50	0 x 4 = 2	.00
1. Phleum pratense	50	Yes	FACU	UPL species 0		0
2. Dactylis glomerata	40	Yes	FAC	Column Totals: 10	``	45 (B)
Phalaris arundinacea     Hordeum jubatum	5 5	No No	FACW FAC	Prevalence Index :	= B/A = <u>3.45</u>	
5.	- <u> </u>		1710	Hydrophytic Vegetati	ion Indicators:	
6.				Dominance Test is	s >50%	
7				Prevalence Index		
8	<del></del>			l <del></del>	aptations ¹ (Provide s	
Woody Vine Stratum (Plot size:	100	=Total Cover			s or on a separate s ophytic Vegetation ¹	,
Woody Vine Stratum (Plot size:	_)			¹ Indicators of hydric so		
2.				be present, unless dist		
		=Total Cover		Hydrophytic		
W.B. 0 11 11 10: :	0 (5)	0 1		Vegetation		
<del></del>	Cover of Bioti	c Crust		Present? Yes_	No <u>x</u>	_
Remarks: Pasture grass. Likely used to house horse and cattle						
g. accmong acca to notice and outlier	•					

SOIL Sampling Point: C35U

Profile Desc	cription: (Describe	to the depth	needed to doc	ument tl	ne indica	tor or c	onfirm the ab	sence of i	ndicators.)
Depth	Matrix		Redo	x Featur	es				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	<u>e</u>	Remarks
0-8	10YR 4/3						Sandy	/	Loam
-									
-									
¹ Type: C=C	oncentration, D=Dep	etion. RM=F	Reduced Matrix.	CS=Cove	ered or C	pated S	and Grains.	² Locatio	n: PL=Pore Lining, M=Matrix.
	Indicators: (Applica								or Problematic Hydric Soils ³ :
Histosol			Sandy Re						ick (A9) (LRR C)
	pipedon (A2)		Stripped N	. ,					ick (A10) <b>(LRR B)</b>
	istic (A3)		Loamy Mu						nganese Masses (F12) (LRR D)
	en Sulfide (A4)		Loamy Gl	-					d Vertic (F18)
	d Layers (A5) (LRR C	;)	 Depleted	-					ent Material (F21)
	uck (A9) (LRR D)		Redox Da	-	-			Very Sha	allow Dark Surface (F22)
Deplete	d Below Dark Surface	e (A11)	Depleted					Other (E	xplain in Remarks)
	ark Surface (A12)		Redox De	pression	s (F8)				
Sandy N	Mucky Mineral (S1)								
Sandy G	Gleyed Matrix (S4)	³ Indicators	s of hydrophytic v	/egetatio	n and we	tland hy	drology must	be present,	unless disturbed or problematic.
Restrictive	Layer (if observed):								
Type:									
Depth (i	nches):		<u></u>				Hydric Soil	Present?	Yes No x
Remarks:						<u> </u>			
Compacted	access route. Dry soi	ls							
HYDROLC	OGY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of o	ne is require	d; check all that	apply)			<u>S</u>	Secondary Ir	ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)				Water M	larks (B1) <b>(Riverine)</b>
High Wa	ater Table (A2)		Biotic Cru	st (B12)				Sedimer	nt Deposits (B2) (Riverine)
Saturation	` '		Aquatic In	vertebra	tes (B13)		_		posits (B3) (Riverine)
	larks (B1) <b>(Nonriveri</b>	•	Hydrogen				_		e Patterns (B10)
	nt Deposits (B2) (Nor		Oxidized I				oots (C3)		son Water Table (C2)
	posits (B3) (Nonriver	ine)	Presence		,	,	_		Burrows (C8)
	Soil Cracks (B6)	,	Recent Iro			led Soil	s (C6)		on Visible on Aerial Imagery (C9)
	on Visible on Aerial I	nagery (B7)							Aquitard (D3)
Water-S	stained Leaves (B9)		Other (Ex	plain in F	Remarks)		_	FAC-Ne	utral Test (D5)
Field Obser									
Surface Wat			No x	Depth (i	· -				
Water Table			No x	Depth (i	_			hadaat :	Duna - 1140 - Va - 11
Saturation P		s	No <u>x</u>	Depth (i	nches):_		Wetland F	lydrology I	Present? Yes No x
•	pillary fringe) corded Data (stream	aouac mar	itoring wall as ==	d photo-	province	inono	tions) if avail-	ablo:	
	corded Data (stream d aerial image binder	yauye, mon	morning well, aeria	ai priotos	, previous	, iiishec	uonaj, n avalla	aDIC.	
Remarks:	a aonai illiage billuel								
Flood irrigat	ted with overland pipe	and small o	litch diversions.						

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	City/County: Canyon			10/04/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C36U
Investigator(s): Nexus - MT		Section,	Гownship, R	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture		 Local relief (c	oncave, con	/ex, none): none	Slop	e (%):o
Subregion (LRR): <u>LRR B</u> Lat: <u>43.697967</u>			Long: -	116.684356	Datum:	NAD83
Soil Map Unit Name: Falk fine sandy loam, 0 to 2 per	cent slopes			NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation , Soil , or Hydrology	significantly of	disturbed? A	Are "Normal (	Circumstances" present?	Yes x No	1
Are Vegetation x , Soil x , or Hydrology x	naturally pro	blematic? (	If needed, ex	cplain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site m	ap showin	ıg samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydric Soil Present? Yes x	lo x		Sampled A		No_x_	
Remarks: The survey area is in the floodplain of the Boise Rive		riparian area	that has bee	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of	•	<u> </u>		T		
Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worl	ksheet:	
1.				Number of Dominant S	Species That	
2				Are OBL, FACW, or FA	<del></del>	1 (A)
3.	· ——			Total Number of Domir	•	0 (B)
4.		=Total Cover		Across All Strata:  Percent of Dominant S		2(B)
Sapling/Shrub Stratum (Plot size:1.				Are OBL, FACW, or FA	•	.0% (A/B)
2.	<u> </u>			Prevalence Index wo	rksheet:	
3.				Total % Cover of:	Multi	ply by:
4				OBL species 0	x 1 =	0
5				FACW species 0		0
(5)		=Total Cover		FAC species 25		75
Herb Stratum (Plot size: 15' )	20	V	FACU	FACU species 20		30
Phleum pratense     Pascopyrum smithii	20	Yes Yes	FACU FAC	UPL species 10 Column Totals: 55		50 :05 (B)
Malva neglecta	10	No	UPL	Prevalence Index =	`` /	``
Xanthium strumarium	5	No	FAC	T TOVAIONOO INGOX		
5.	·			Hydrophytic Vegetati	on Indicators:	
6.				Dominance Test is	s >50%	
7.				Prevalence Index i	is ≤3.0 ¹	
8				·	ptations¹ (Provide s	
	55	=Total Cover			s or on a separate s	,
Woody Vine Stratum (Plot size:	_)			<del></del>	phytic Vegetation ¹	` ' '
1				¹ Indicators of hydric so be present, unless dist		
		=Total Cover		Hydrophytic Vegetation	·	
	Cover of Bioti	c Crust		Present? Yes_	No <u>x</u>	_
Remarks: Near larger development test pit.						

SOIL Sampling Point: C36U

Profile Desc	cription: (Describe to	the depti	n needed to docu	ument th	ne indica	tor or c	onfirm the absence	of indicators.)
Depth	Matrix		Redo	x Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/2	100					Sandy	Loam
4-24	10YR 3/3	100					Sandy	Loam
24-28	10YR 3/2	95	7.5YR 5*6	5		PL/M	Loamy/Clayey	Faint
¹ Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, C	CS=Cove	ered or Co	oated S	and Grains. ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applicat	ole to all Li	RRs, unless othe	erwise n	oted.)		Indicato	rs for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy Red	dox (S5)			1 cm	n Muck (A9) (LRR C)
Histic E	pipedon (A2)		Stripped M	latrix (S6	3)		2 cm	n Muck (A10) <b>(LRR B)</b>
Black Hi	istic (A3)		Loamy Mu	cky Mine	eral (F1)		<u> </u>	-Manganese Masses (F12) (LRR D)
Hydroge	en Sulfide (A4)		Loamy Gle	eyed Mat	trix (F2)		Red	uced Vertic (F18)
Stratified	d Layers (A5) <b>(LRR C)</b>	)	Depleted N	-	-		Red	Parent Material (F21)
1 cm Mu	uck (A9) (LRR D)		x Redox Da	rk Surfac	e (F6)		Very	Shallow Dark Surface (F22)
Deplete	d Below Dark Surface	(A11)	Depleted [	Dark Sur	face (F7)		Othe	er (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox De	pression	s (F8)			
	/lucky Mineral (S1)							
Sandy G	Gleyed Matrix (S4)	³Indicator	s of hydrophytic v	egetatio	n and we	tland hy	drology must be pres	ent, unless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			<u> </u>					
Depth (i	nches):						Hydric Soil Presen	t? Yes <u>x</u> No
Remarks:								
Very faint re	dox at depth. Likely re	mnant bas	ed on veg cover a	ınd geog	raphic po	stion.		
LIVEROL C	201							
HYDROLC								
_	drology Indicators:							
-	cators (minimum of on	e is require					<u> </u>	ry Indicators (minimum of two required)
	Water (A1)		Salt Crust	. ,				er Marks (B1) (Riverine)
	ater Table (A2)		Biotic Crus		(D40)			ment Deposits (B2) (Riverine)
Saturation	` '	\	Aquatic In					Deposits (B3) (Riverine)
	larks (B1) <b>(Nonriverir</b> nt Deposits (B2) <b>(Non</b> i	-	Hydrogen Oxidized F					nage Patterns (B10) Season Water Table (C2)
	posits (B3) <b>(Nonriveri</b>		Presence			_	· · · —	fish Burrows (C8)
	Soil Cracks (B6)	110)	Recent Iro					ration Visible on Aerial Imagery (C9)
	on Visible on Aerial Im	nagery (B7)				ica con	· · ·	low Aquitard (D3)
	stained Leaves (B9)	lagory (Dr)	Other (Exp					-Neutral Test (D5)
Field Obser	. ,						<del></del> ```	
Surface Wat			No x	Depth (i	nches).			
Water Table				Depth (i	· -			
Saturation P				Depth (i	_		Wetland Hydrolo	gy Present? Yes No x
	pillary fringe)			L-3. (1	/			<u> </u>
•	corded Data (stream o	gauge, mor	nitoring well, aeria	l photos	, previous	inspec	tions), if available:	
	d aerial image binder							
Remarks:								
Upland area	a adjacent to house. F	lood irrigat	ed by overland pip	oe.				

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyor	1	Sampling Date:	11/09/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C37U
Investigator(s): Nexus - MT		Section,	Гownship, R	ange: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture		 Local relief (c	oncave, con	vex, none): none	Slop	e (%):o
Subregion (LRR): LRR B Lat: 43.697435			Long: -	116.684342	Datum:	NAD83
Soil Map Unit Name: Moulton				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical	for this time of	f year?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly	disturbed? A	Are "Normal (	Circumstances" present?	Yes x No	·
Are Vegetation x , Soil x , or Hydrology x	='		If needed, ex	xplain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site m	ap showin	ıg samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydric Soil Present? Yes N	lo x lo x		e Sampled A		Nox	
Remarks: The survey area is in the floodplain of the Boise Rive		riparian area	that has bee	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of				_		
Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worl	ksheet:	
1.				Number of Dominant S	Species That	
2	. <u></u>			Are OBL, FACW, or FA	AC:	1 (A)
3.				Total Number of Domin	•	
4		=Total Cover		Across All Strata:		3 (B)
Sapling/Shrub Stratum (Plot size:1.		- Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	.3% (A/B)
2.				Prevalence Index wo	rksheet:	
3				Total % Cover of:	Multir	ply by:
4.				OBL species 0		0
5.	· ——	=Total Cover		FACW species 0 FAC species 20		<u>0</u> 30
Herb Stratum (Plot size: 15' )		- Folai Covei		FACU species 35		40
1. Kochia	15	Yes	UPL	UPL species 15		75
2. Cirsium vulgare	35	Yes	FACU	Column Totals: 70		75 (B)
3. Pascopyrum smithii	20	Yes	FAC	Prevalence Index =	= B/A = 3.93	
4						
5				Hydrophytic Vegetati		
6.				Dominance Test is		
7. 8.				Prevalence Index	เร ≤3.0 aptations¹ (Provide s	supporting
o	70	=Total Cover		· · ·	s or on a separate s	
Woody Vine Stratum (Plot size:		10101 00101			pphytic Vegetation ¹	,
1.	- '			¹ Indicators of hydric so	. ,	` ' '
2				be present, unless dist	urbed or problemati	ic.
% Bare Ground in Herb Stratum 0 %	Cover of Bioti	=Total Cover		Hydrophytic Vegetation Present? Yes	Nox	
Remarks:				<u> </u>	<u> </u>	_
Scabby areas with numerous thistles						

SOIL Sampling Point: C37U

Profile Desc Depth	ription: (Describe to Matrix	o the depth		<b>ıment th</b> x Featur		tor or c	confirm the	absence o	of indicators.)		
(inches)	Color (moist)	%	Color (moist)	% / Catar	Type ¹	Loc ²	Text	ure		Remarks	
0-12			Color (Illoist)		Турс						
0-12	10YR 3/3	100					San	uy		Loam	
							-				
¹ Type: C=Cc	ncentration, D=Depl	etion RM=F	Reduced Matrix C	S=Cove	ered or C	nated S	and Grains	² l oca	tion: PL=Pore	Lining M=N	//atrix
	ndicators: (Applica					oated o	and Oranis.		s for Problem		
Histosol		DIC to all El	Sandy Red						Muck (A9) <b>(LF</b>	-	
	ipedon (A2)		Stripped M						Muck (A10) <b>(L</b>		
Black His			Loamy Mu	•	,				ласк (, tто) <b>(=</b> Лanganese Ма		LRR D)
	n Sulfide (A4)		Loamy Gle	-					ced Vertic (F1		
	Layers (A5) (LRR C	3)	Depleted N	•	, ,				Parent Materia	•	
	ck (A9) <b>(LRR D)</b>	,	Redox Dar	•	•				Shallow Dark S	,	<u>'</u> )
	Below Dark Surface	(A11)	Depleted D			)			(Explain in Re	,	,
	rk Surface (A12)	,	Redox Dep							,	
	ucky Mineral (S1)				, ,						
Sandy G	leyed Matrix (S4)	³ Indicator	s of hydrophytic v	egetatio	n and we	tland hy	drology mus	st be prese	nt, unless dist	urbed or prol	olematic.
Restrictive L	.ayer (if observed):										
Type:	,										
Depth (in	ches):		_				Hydric So	il Present	?	Yes	No x
HYDROLO	GY		,								<del>,</del>
Wetland Hyd	Irology Indicators:										
Primary Indic	ators (minimum of o	ne is require	ed; check all that a	apply)				Secondar	y Indicators (m	ninimum of tw	vo required)
Surface \	Nater (A1)		Salt Crust	(B11)				Water	r Marks (B1) <b>(I</b>	Riverine)	
High Wa	ter Table (A2)		Biotic Crus	t (B12)				x Sedin	nent Deposits	(B2) (Riverii	1e)
Saturatio			Aquatic In\						Deposits (B3) (		
	arks (B1) (Nonriveri		Hydrogen		,	,			age Patterns (		
	t Deposits (B2) (Nor		Oxidized R			_	oots (C3)		eason Water		
	osits (B3) (Nonriver	ine)	Presence of			,	- (00)		ish Burrows (C		
	Soil Cracks (B6)	magan, (D7)	Recent Iro			lled Soil	IS (C6)		ation Visible o		jery (C9)
	on Visible on Aerial Ir ained Leaves (B9)	nagery (b7)	Thin Muck Other (Exp						ow Aquitard (D Neutral Test (I	-	
	( )		Other (Exp	naiii iii i	(emarks)				Neutral Test (L		
Field Observ		•	No. v	Donth (i	nahaa\.						
Surface Water Water Table					nches): _ nches):						
Saturation Pr				Depth (i	_		Wetland	l Hydrolog	y Present?	Yes y	No
(includes cap		<u> </u>	<u> </u>	Depui (i			- Wolland	rryurolog	, y 1 1000mt.	100 <u>x</u>	
	corded Data (stream	gauge, mor	nitoring well, aeria	photos	previous	s inspec	tions). if ava	ilable:			
	aerial image binder	3 3 ,	3 ,	'	, I	'	,,				
Remarks:	<u> </u>										
Leeward si	de of Mill Slough. Ad	jacent to de	pressional wetlan	d area.	Flood irri	gation w	ater collects	s here.			

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Coun	ty: Canyon		Sampling Date:	11/09/23
Applicant/Owner: Crimson Bridge Holdings				State: ID	Sampling Point:	C38W
Investigator(s): Nexus - MT		Section, To	ownship, Rai	nge: T4N R3W Section	10	
Landform (hillside, terrace, etc.): Pasture	Loca	al relief (cor	ncave, conve	ex, none): none	Slop	e (%): <u>o</u>
Subregion (LRR): LRR B Lat: 43.69743			Long: <u>-1</u>	16.68446	Datum:	NAD83
Soil Map Unit Name: Moulton				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of yea	ar? Y	es x	No (If no, expl	ain in Remarks.)	
Are Vegetation, Soil, or Hydrologysig	ınificantly distu	ırbed? Ar	e "Normal C	ircumstances" present?	Yes <u>x</u> No	
Are Vegetation $\underline{x}$ , Soil $\underline{x}$ , or Hydrology $\underline{x}$ na	turally problem	natic? (If	needed, exp	olain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site map	showing s	ampling	point loc	ations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes x No		Is the	Sampled Ar	ea		
Hydric Soil Present? Yes x No		within	a Wetland?	Yes x	No	
Wetland Hydrology Present? Yes x No						
Remarks: The survey area is in the floodplain of the Boise River in	a historic ripar	rian area th	at has been	grazed for at least 50 ve	ears	
The carry, also is in the necapitality, the Bolse Fatter in	a motorio ripai	nan aroa ar	at nao boon	grazou for at loadt oo ye	aro.	
VEGETATION – Use scientific names of pla	nts.					
			Indicator	Deminance Test worl	rahaati.	
Tree Stratum (Plot size:) 1	% Cover Sp	pecies?	Status	Dominance Test work		
2.				Number of Dominant S Are OBL, FACW, or FA	•	1 (A)
3.				Total Number of Domir	nant Species	
4				Across All Strata:		1 (B)
Sapling/Shrub Stratum (Plot size: )	=Tot	tal Cover		Percent of Dominant S Are OBL, FACW, or FA	•	).0% (A/B)
1				Ale OBL, LACW, OLLA	100	7.0 76 (A/B)
2.				Prevalence Index wor	rksheet:	
3.				Total % Cover of:	Multip	oly by:
4.				OBL species 0		0
5		tal Cover		FACW species 90 FAC species 15		80 15
Herb Stratum (Plot size: 15' )		iai oovei		FACU species 0		0
Phalaris arundinacea	90	Yes	FACW	UPL species 0	x 5 =	0
2. Rumex crispus	15	No	FAC	Column Totals: 10	5 (A) 2	25 (B)
3				Prevalence Index =	= B/A = <u>2.14</u>	
4				Hydrophytic Vegetati	on Indicators:	
5. 6.				X Dominance Test is		
7.				X Prevalence Index i	s ≤3.0 ¹	
8					ptations¹ (Provide s	
	105 =Tot	tal Cover			s or on a separate s	•
Woody Vine Stratum (Plot size:)					phytic Vegetation ¹	` ' '
1. 2.	<del></del>			¹ Indicators of hydric so be present, unless dist		
	=Tot	tal Cover		Hydrophytic		
				Vegetation		
<del></del>	ver of Biotic Cr	ust	_	Present? Yes_	<u>x</u> No	-
Remarks: Heavy canary reed grass						
ricary canaly reed glass						

SOIL Sampling Point: C38W

	ription: (Describe to Matrix	o the dept		<b>ment th</b> Featur		ator or c	onfirm the absence	of indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-12	7.5YR 4/2	85	5YR 5/6	15	C	PL	Sandy	Loam
								-
12-20	7.5YR 4/2	90	5YR 5/6	10	<u>C</u>	PL/M	Sandy	Loam
			_					
¹Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, C	S=Cove	ered or C	coated S	and Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators: (Applicat	ole to all L	RRs, unless othe	rwise n	oted.)			rs for Problematic Hydric Soils ³ :
Histosol	(A1)		x Sandy Red	ox (S5)			1 cm	Muck (A9) (LRR C)
Histic Ep	ipedon (A2)		Stripped M	atrix (S6	3)		2 cm	Muck (A10) (LRR B)
Black His	stic (A3)		Loamy Mud	cky Mine	eral (F1)		Iron-l	Manganese Masses (F12) (LRR D)
Hydroge	n Sulfide (A4)		Loamy Gle	yed Mat	trix (F2)		Redu	iced Vertic (F18)
Stratified	Layers (A5) (LRR C)	)	Depleted M	latrix (F	3)		Red	Parent Material (F21)
	ck (A9) <b>(LRR D)</b>		Redox Dar	k Surfac	e (F6)		Very	Shallow Dark Surface (F22)
	Below Dark Surface	(A11)	Depleted D			)	Othe	r (Explain in Remarks)
	rk Surface (A12)		Redox Dep	ression	s (F8)			
	ucky Mineral (S1)	2						
	leyed Matrix (S4)	Indicato	rs of hydrophytic ve	egetatio	n and we	etland hy	drology must be prese	ent, unless disturbed or problematic.
Restrictive L	ayer (if observed):							
Type:			<u></u>					
Depth (in	iches):						Hydric Soil Present	t? Yes <u>x</u> No
Moist soil, ad	ljacent to ditch							
HYDROLO	GY							
Wetland Hyd	drology Indicators:							
	ators (minimum of on	e is requir						ry Indicators (minimum of two required)
	Water (A1)		Salt Crust (					er Marks (B1) (Riverine)
	ter Table (A2)		Biotic Crus	, ,	oo (D12)	`		ment Deposits (B2) (Riverine)
Saturatio	on (A3) arks (B1) <b>(Nonriverir</b>	) )	Aquatic Inv Hydrogen S					Deposits (B3) <b>(Riverine)</b> nage Patterns (B10)
	t Deposits (B2) <b>(Non</b>	•	x Oxidized R					Season Water Table (C2)
	osits (B3) (Nonriveri		Presence of			_	` ' — '	fish Burrows (C8)
	Soil Cracks (B6)	,	Recent Iron					ration Visible on Aerial Imagery (C9)
	on Visible on Aerial Im	nagery (B7					· · · —	ow Aquitard (D3)
	ained Leaves (B9)		Other (Exp			)		Neutral Test (D5)
Field Observ	vations:							
Surface Water	er Present? Yes	;	No x I	Depth (ii	nches):			
Water Table		<u> </u>			nches):			
Saturation Pr	resent? Yes	; <u> </u>	No x	Depth (ii	nches):		Wetland Hydrolog	gy Present? Yes x No
(includes cap	illary fringe)							
	corded Data (stream o	gauge, mo	nitoring well, aerial	photos,	previou	s inspec	tions), if available:	
	l aerial image binder							
Remarks:								
Leeward si	de of Mill Slough. Irriç	gation wate	er collects here in c	lepressi	onal are	a.		

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates		City/Cou	nty: Canyon	1	Sampling Date:	11/09/23	
Applicant/Owner: Crimson Bridge Holdings		State: ID Sampling Point:					
Investigator(s): Nexus - MT		Section, 7	Γownship, Ra	ange: T4N R3W Section	10		
Landform (hillside, terrace, etc.): Pasture	L	ocal relief (co	oncave, con\	vex, none): none	Slop	e (%): <u>o</u>	
Subregion (LRR): <u>LRR B</u> Lat: <u>43.697650</u>			Long: <u>-</u>	116.686634	Datum:	NAD83	
Soil Map Unit Name: Notus				NWI classifi	cation: N/A		
Are climatic / hydrologic conditions on the site typical fo	or this time of	year?	Yes <u>x</u>	No (If no, exp	lain in Remarks.)		
Are Vegetation, Soil, or Hydrology	significantly di	isturbed? A	re "Normal (	Circumstances" present?	Yes x No		
Are Vegetation <u>x</u> , Soil <u>x</u> , or Hydrology <u>x</u>	naturally probl	lematic? (I	If needed, ex	oplain any answers in Rer	narks.)		
SUMMARY OF FINDINGS – Attach site ma	ap showing	g samplin	g point lo	cations, transects,	important feat	ures, etc.	
Hydrophytic Vegetation Present? Yes No	о х	Is the	Sampled A	rea			
	0		n a Wetland		No x		
Wetland Hydrology Present? Yes No	o <u>x</u>						
Remarks:	· !·· - blataria ri	!! oroo 1	44				
The survey area is in the floodplain of the Boise River	in a historic ii	parıan area ι	that has been	n grazed for at least 50 ye	ears.		
VEGETATION – Use scientific names of p	lants.						
7101	Absolute	Dominant	Indicator	Τ			
Tree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test wor			
1. 2.				Number of Dominant S Are OBL, FACW, or FA	•	1 (A)	
3. 4.				Total Number of Domi Across All Strata:	•	2 (B)	
20 11 101 1 01 1 (Plataine		Total Cover		Percent of Dominant S	pecies That	```	
Sapling/Shrub Stratum (Plot size:1.	)			Are OBL, FACW, or FA	AC: 50	.0% (A/B)	
1. 2.				Prevalence Index wo	rksheet:		
3.				Total % Cover of		ply by:	
4.				OBL species 0	x 1 =	0	
5		=		FACW species 0		0	
Herb Stratum (Plot size: 15' )	=	Total Cover		FAC species 40 FACU species 50		20	
1. Trifolium repens	50	Yes	FACU	UPL species 19		75	
2. Pascopyrum smithii	40	Yes	FAC	Column Totals: 10		95 (B)	
3. Medicago sativa	15	No	UPL	Prevalence Index :	= B/A = 3.76		
4							
5				Hydrophytic Vegetat			
6				Dominance Test is Prevalence Index			
7 8.					is ≤3.0 aptations¹ (Provide :	supporting	
	105 =	Total Cover		l — · · · ·	s or on a separate s		
Woody Vine Stratum (Plot size:	)			Problematic Hydro	phytic Vegetation ¹	(Explain)	
1				¹ Indicators of hydric so be present, unless dis			
	=	Total Cover		Hydrophytic			
% Bare Ground in Herb Stratum 0 % C	Cover of Biotic	: Crust		Vegetation Present? Yes	Nox		
Remarks:				-		_	
Agricultural crop, recently inundated by headgate accito a persistent wetland.	dentally left or	pen from adja	acent proper	ty for many days. Transit	onal area adjacent		

SOIL Sampling Point: C44U

Profile Desc Depth	ription: (Describe to Matrix	to the depti		<b>ment tl</b> Featur		itor or c	onfirm the absenc	e of indicators.	)		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-18	10YR 3/3	98	7.5YR 4/6	2			Sandy	_	Loam		
0 10	10111070		7.011( 4/0				Carray	_	Louin		
								_			
		· <u> </u>									
¹Type: C=Co	oncentration, D=Dep	etion, RM=F	Reduced Matrix, C	S=Cove	ered or C	oated S	and Grains. ² Lo	cation: PL=Por	e Lining, M=Matrix.		
	ndicators: (Applica								natic Hydric Soils		
Histosol	,		x Sandy Red					cm Muck (A9) (L	-		
	ipedon (A2)			Stripped Matrix (S6)				2 cm Muck (A10) (LRR B)			
Black His	stic (A3)		Loamy Muc	cky Min	eral (F1)		Iron-Manganese Masses (F12) (LRR D)				
Hydroge	n Sulfide (A4)		Loamy Gle	yed Ma	trix (F2)		Reduced Vertic (F18)				
Stratified	Layers (A5) (LRR C	;)	Depleted M	latrix (F	3)		Red Parent Material (F21)				
1 cm Mu	ck (A9) (LRR D)		Redox Darl	k Surfac	ce (F6)		Very Shallow Dark Surface (F22)				
Depleted	Below Dark Surface	e (A11)	Depleted D	ark Sur	face (F7)	)	Other (Explain in Remarks)				
Thick Da	rk Surface (A12)		Redox Dep	ression	s (F8)						
Sandy M	ucky Mineral (S1)										
Sandy G	leyed Matrix (S4)	³ Indicator	s of hydrophytic ve	egetatio	n and we	tland hy	drology must be pre	esent, unless dis	turbed or problema	ıtic.	
Restrictive L	ayer (if observed):										
Type:			<u> </u>								
Depth (in	iches):		_				Hydric Soil Prese	ent?	Yes x No		
Remarks: Very faint.											
HYDROLO	GY										
Wetland Hyd	drology Indicators:										
Primary Indic	ators (minimum of o	ne is require					Secon	<u>dary Indicators (ı</u>	minimum of two rec	<u>quired)</u>	
	Water (A1)		Salt Crust (					ater Marks (B1)			
	ter Table (A2)		Biotic Crus	. ,	t (D40)				(B2) (Riverine)		
x Saturatio			Aquatic Inv					ift Deposits (B3)			
	arks (B1) (Nonriveri	•	Hydrogen S			•		ainage Patterns	` '		
	t Deposits (B2) (Nor osits (B3) (Nonriver		Oxidized R Presence of			_	· · · —	y-Season Water ayfish Burrows (			
	Soil Cracks (B6)	ilie)	Recent Iron			` '		-	on Aerial Imagery (	C9)	
	on Visible on Aerial Ir	magery (B7)						allow Aquitard (I		00)	
	ained Leaves (B9)		Other (Exp		, ,			C-Neutral Test (	,		
Field Observ	vations:								` '		
Surface Water		s	No x [	Depth (i	nches):						
Water Table		s			nches):						
Saturation Present? Yes No x Depth (inches):							Wetland Hydro	logy Present?	Yes_ No	х	
(includes cap	illary fringe)										
Describe Red	corded Data (stream	gauge, mor	nitoring well, aerial	photos	, previous	s inspec	tions), if available:				
	aerial image binder										
Remarks:											
Agricultural p	roduction crop. Floo	a irrigated b	ut supports upland	specie	S.						

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates	City/Cou	nty: Canyon		Sampling Date:	11/09/23	
Applicant/Owner: Crimson Bridge Holdings			State: ID	Sampling Point:	C45W	
Investigator(s): Nexus - MT	Township, Ra	ange: T4N R3W Section	10			
Landform (hillside, terrace, etc.): Pasture	L	ocal relief (co	oncave, conv	vex, none): none	Slop	e (%):o
Subregion (LRR): LRR B Lat: 43.697435			Long: -	116.684342	Datum:	NAD83
Soil Map Unit Name: Notus				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of	year?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrologysi	gnificantly di	sturbed? A	re "Normal (	Circumstances" present?	Yes x No	
Are Vegetation $x$ , Soil $x$ , or Hydrology $x$ no	aturally probl	ematic? (I	f needed, ex	plain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site ma	p showing	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes x No			Sampled A			
<del></del>		withir	n a Wetland	? Yes <u>x</u>	No	
Wetland Hydrology Present? Yes x No  Remarks:						
The survey area is in the floodplain of the Boise River in	n a historic ri	parian area t	hat has beei	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of pl	ants.					
	Absolute	Dominant	Indicator			
Tree Stratum (Plot size:)	% Cover	Species?	Status	Dominance Test work	(sheet:	
1. 2.				Number of Dominant S Are OBL, FACW, or FA	•	2 (A)
3. 4.				Total Number of Domir Across All Strata:	•	2 (B)
Sapling/Shrub Stratum (Plot size: )	=	Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	D.0% (A/B)
1				AIE OBL, I ACW, OI I A	100	0.070 (A/D)
2.				Prevalence Index wor	rksheet:	
3.				Total % Cover of:	<u>Multi</u>	ply by:
4				OBL species 0		0
5		Total Cover		FACW species 90 FAC species 0		0
Herb Stratum (Plot size: 15' )		Total Cover		FAC species 0		0
Deschampsia cespitosa	50	Yes	FACW	UPL species 0		0
2. Phalaris arundinacea	40	Yes	FACW	Column Totals: 90	) (A) 1	80 (B)
3				Prevalence Index =	= B/A = <u>2.00</u>	
4						
5 6.				Hydrophytic Vegetati X Dominance Test is		
_				X Prevalence Index i		
8.					aptations¹ (Provide s	supporting
	90 =	Total Cover			s or on a separate s	
Woody Vine Stratum (Plot size:)				Problematic Hydro	phytic Vegetation ¹	(Explain)
1				¹ Indicators of hydric so be present, unless dist		
	=	Total Cover		Hydrophytic		
% Bare Ground in Herb Stratum 0 % Co	over of Biotic	Crust		Vegetation Present? Yes	x No	
Remarks:		-		<del>-</del>		_
Scabby areas with numerous thistles.						

SOIL Sampling Point: C45W

Profile Desc Depth	ription: (Describe t Matrix	o the dept		ı <b>ment th</b> k Featur		itor or c	onfirm the absence	of indicators.)			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks			
0-18	10YR 4/2	90	7.5YR 4/6	10			Loamy/Clayey	- tomaine			
0 10	1011( 4/2		7.011( 4/0				Loumy/Olayoy				
			_								
¹Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, C	S=Cove	ered or C	oated S	and Grains. ² Loca	ation: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applical	ble to all L	RRs, unless othe	rwise n	oted.)		Indicator	rs for Problematic Hydric Soils ³ :			
Histosol	(A1)		Sandy Red	lox (S5)			1 cm	Muck (A9) (LRR C)			
Histic Ep	pipedon (A2)		Stripped M	atrix (S6	3)		2 cm	Muck (A10) (LRR B)			
Black His	stic (A3)		Loamy Mu	cky Mine	eral (F1)		Iron-Manganese Masses (F12) (LRR D)				
Hydroge	n Sulfide (A4)		Loamy Gle	yed Ma	trix (F2)		Reduced Vertic (F18)				
Stratified	Layers (A5) (LRR C	)	x Depleted M	1atrix (F	3)		Red Parent Material (F21)				
	ck (A9) <b>(LRR D)</b>		Redox Dar				Very Shallow Dark Surface (F22)				
	l Below Dark Surface	(A11)	Depleted D			)	Other (Explain in Remarks)				
	rk Surface (A12)		Redox Dep	ression	s (F8)						
	lucky Mineral (S1)	3									
Sandy G	leyed Matrix (S4)	[°] Indicato	rs of hydrophytic ve	egetatio	n and we	tland hy	drology must be prese	ent, unless disturbed or problematic.			
	_ayer (if observed):										
Type:											
Depth (ir	nches):						Hydric Soil Present	t? Yes <u>x</u> No			
Came as O-A	6. Fine sediment on s	urrace inc	ny deposited by line	gation.							
HYDROLO											
_	drology Indicators:										
-	cators (minimum of or	ne is requir						ry Indicators (minimum of two required)			
	Water (A1)		Salt Crust  Biotic Crus					er Marks (B1) (Riverine)			
x Saturation	ter Table (A2)		Aquatic Inv	, ,	tes (R13)			ment Deposits (B2) <b>(Riverine)</b> Deposits (B3) <b>(Riverine)</b>			
	arks (B1) <b>(Nonriveri</b> r	ne)	Hydrogen S					nage Patterns (B10)			
	it Deposits (B2) (Non		Oxidized R			•		Season Water Table (C2)			
	oosits (B3) (Nonriveri		Presence of			-		fish Burrows (C8)			
	Soil Cracks (B6)		Recent Iro					ration Visible on Aerial Imagery (C9)			
Inundation	on Visible on Aerial In	nagery (B7	') Thin Muck	Surface	(C7)		Shall	low Aquitard (D3)			
Water-S	tained Leaves (B9)		x Other (Exp	lain in F	Remarks)		FAC-	-Neutral Test (D5)			
Field Obser	vations:										
Surface Water	er Present? Yes	s	No x	Depth (i	nches):						
Water Table		3			nches):						
								gy Present? Yes x No			
(includes cap	<u> </u>										
	corded Data (stream	gauge, mo	nitoring well, aerial	photos	, previous	s inspec	tions), if available:				
See attached Remarks:	d aerial image binder										
	the pasture near the	creek whe	ere irrigation water	collects.	In Octob	per this a	area was completely flo	ooded from a headgate that was			
								oodod nom a nodagato that was			
ieir obeii oii a	adjacent property. Le	eward side	of West Hartley G				er flows against berm.	<u> </u>			

See ERDC/EL TR-08-28; the proponent agency is CECW-CO-R

Project/Site: Crimson Bridge Estates	City/Cou	nty: Canyor	ı	Sampling Date:	11/09/23	
Applicant/Owner: Crimson Bridge Holdings			State: ID	Sampling Point:	C46W	
Investigator(s): Nexus - MT	ownship, Ra	ange: T4N R3W Section	10			
Landform (hillside, terrace, etc.): Pasture		Local relief (co	oncave, con	/ex, none): none	Slop	e (%):o
Subregion (LRR):         LRR B         Lat:         43.697435			Long: -	116.684342	Datum:	NAD83
Soil Map Unit Name: Notus				NWI classific	cation: N/A	
Are climatic / hydrologic conditions on the site typical for	this time of	f year?	Yes x	No (If no, exp	lain in Remarks.)	
Are Vegetation, Soil, or Hydrologys	ignificantly o	disturbed? A	re "Normal (	Circumstances" present?	Yes x No	
Are Vegetation $x$ , Soil $x$ , or Hydrology $x$ n	aturally prol	blematic? (I	f needed, ex	plain any answers in Ren	narks.)	
SUMMARY OF FINDINGS – Attach site ma	p showin	g samplin	g point lo	cations, transects,	important feat	ures, etc.
Hydrophytic Vegetation Present? Yes x No			Sampled A		No	
Hydric Soil Present? Yes x No  Wetland Hydrology Present? Yes x No		Within	n a Wetland	? Yes <u>x</u>	No	
Remarks:						
The survey area is in the floodplain of the Boise River in	n a historic	riparian area t	hat has bee	n grazed for at least 50 ye	ears.	
VEGETATION – Use scientific names of pl	ants.					
Tree Stratum (Plot size: )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worl	ksheet:	
1				Number of Dominant S Are OBL, FACW, or FA	•	2 (A)
2.       3.				Total Number of Domir	nant Species	`` ′
4		-Tatal Causan		Across All Strata:		2 (B)
Sapling/Shrub Stratum (Plot size:)		=Total Cover		Percent of Dominant S Are OBL, FACW, or FA	•	0.0% (A/B)
1				Prevalence Index wo	rksheet:	
3.				Total % Cover of:		ply by:
4.				OBL species 0	x 1 =	0
5				FACW species10	0 x 2 = 2	00
	:	=Total Cover		FAC species 5		15
Herb Stratum (Plot size: 15' )	60	Yes	FACW	FACU species 0 UPL species 0		0
Deschampsia cespitosa     Phalaris arundinacea	40	Yes	FACW	Column Totals: 10		0 :15 (B)
3. Rumex crispus	5	No	FAC	Prevalence Index =		
4.						
5.				Hydrophytic Vegetati	on Indicators:	
6				X Dominance Test is		
7				X Prevalence Index i		
8				l ——	ptations ¹ (Provide s	
Manda Nina Chatana (Diataina	105	=Total Cover			s or on a separate s	,
Woody Vine Stratum (Plot size:)				<del></del>	phytic Vegetation ¹	
1 2.				¹ Indicators of hydric so be present, unless dist		
		=Total Cover		Hydrophytic	,	
% Bare Ground in Herb Stratum 0 % C	over of Bioti	c Crust		Vegetation Present? Yes	x No	
Remarks:			_	. 1000111. 169_		=
Scabby areas with numerous thistles						

SOIL Sampling Point: C46W

Profile Desc	ription: (Describe t	o the depth	needed to docu	ıment ti	ne indica	tor or c	onfirm the a	absence o	f indicators.)	
Depth	Matrix	Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textu	ıre	Remarks	
0-18	10YR 4/2	90	7.5YR 4/6	10			Loamy/C	Clayey		
								-		
							-			
							- <u>-</u>			
¹ Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, C	S=Cove	ered or Co	oated S	and Grains.	² Loca	tion: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applical	ole to all LR	Rs, unless othe	rwise n	oted.)			Indicators	s for Problematic Hydric Soils ³ :	
Histosol	(A1)		Sandy Red	dox (S5)			_	1 cm	Muck (A9) <b>(LRR C)</b>	
Histic Ep	pipedon (A2)		Stripped M	latrix (S6	6)		2 cm Muck (A10) (LRR B)			
Black His	stic (A3)		Loamy Mu	cky Min	eral (F1)		Iron-Manganese Masses (F12) (LRR D)			
Hydroge	n Sulfide (A4)		Loamy Gle	eyed Ma	trix (F2)		Reduced Vertic (F18)			
Stratified	Layers (A5) (LRR C	)	x Depleted M	√atrix (F	3)		Red Parent Material (F21)			
1 cm Mu	ick (A9) (LRR D)		Redox Dar	rk Surfac	ce (F6)		Very Shallow Dark Surface (F22)			
Depleted	d Below Dark Surface	(A11)	Depleted D	วark Sur	face (F7)		-	Other	(Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Dep	pression	s (F8)					
Sandy M	lucky Mineral (S1)									
Sandy G	leyed Matrix (S4)	³ Indicators	of hydrophytic v	egetatio	n and we	tland hy	drology mus	t be prese	nt, unless disturbed or problematic.	
Restrictive I	Layer (if observed):									
Type:						1				
Depth (ir	nches):		<b>-</b> -				Hydric Soi	il Present	? Yes <u>x</u> No	
Remarks:										
HYDROLO	GY									
Wetland Hyd	drology Indicators:		· <u></u> -				<del></del>			
Primary Indic	cators (minimum of or	<u>ie is required</u>	ا; check all that ع	apply)				Secondar	y Indicators (minimum of two required)	
	Water (A1)		Salt Crust	. ,			-		Marks (B1) (Riverine)	
	iter Table (A2)		Biotic Crus				-		nent Deposits (B2) (Riverine)	
x Saturation			Aquatic Inv				-		Deposits (B3) (Riverine)	
	arks (B1) (Nonriverin		Hydrogen S			. (20)		age Patterns (B10)		
	nt Deposits (B2) (Non			Oxidized Rhizospheres on Living Roof					eason Water Table (C2)	
	oosits (B3) (Nonriveri	ne)	Presence of		•	,	(00)		ish Burrows (C8)	
	Soil Cracks (B6)	(D7)		Recent Iron Reduction in Tilled Soils (C6)					ation Visible on Aerial Imagery (C9)	
	on Visible on Aerial In	nagery (b/)		_Thin Muck Surface (C7) Other (Explain in Remarks)					ow Aquitard (D3)	
	tained Leaves (B9)		X Other (Exp	ilain in r	(emarks)		<del>.</del>	FAC-I	Neutral Test (D5)	
Field Obser				<b>-</b> 4. /:						
Surface Wate				Depth (ii	· -					
Water Table Present? Yes No x Depth (inches):  Saturation Present? Yes x No Depth (inches): 8							Wetland Hydrology Present? Yes x No			
		s <u>X</u>	No	Берит (п	ncnes _j	8	Welianu	Hyurolog	y Present? Yes x No	
(includes cap	corded Data (stream o	gauge moni	toring well aeria	l nhotos	previous	inspec	tions) if avai	ilahla:		
	d aerial image binder	Jauge, mom	.Offing Won, Gona.	трпосос,	, provious	) IIIopoo	,110113 ₎ , 11 ava.	liabic.		
Remarks:	radia illage zile.									
At the end of the pasture near the creek where irrigaiton water collects. In October this area was completely flooded from a headgate that was left										
	open on adjacent property.									

#### **APPENDIX D**

#### **Representative Photos**



































































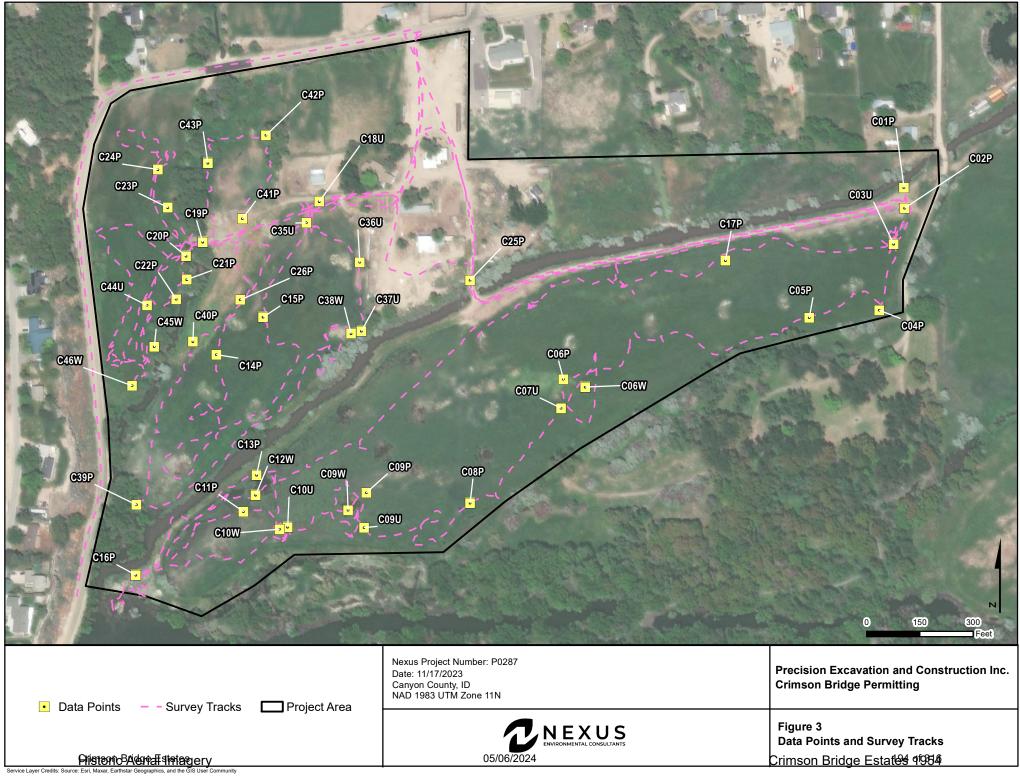




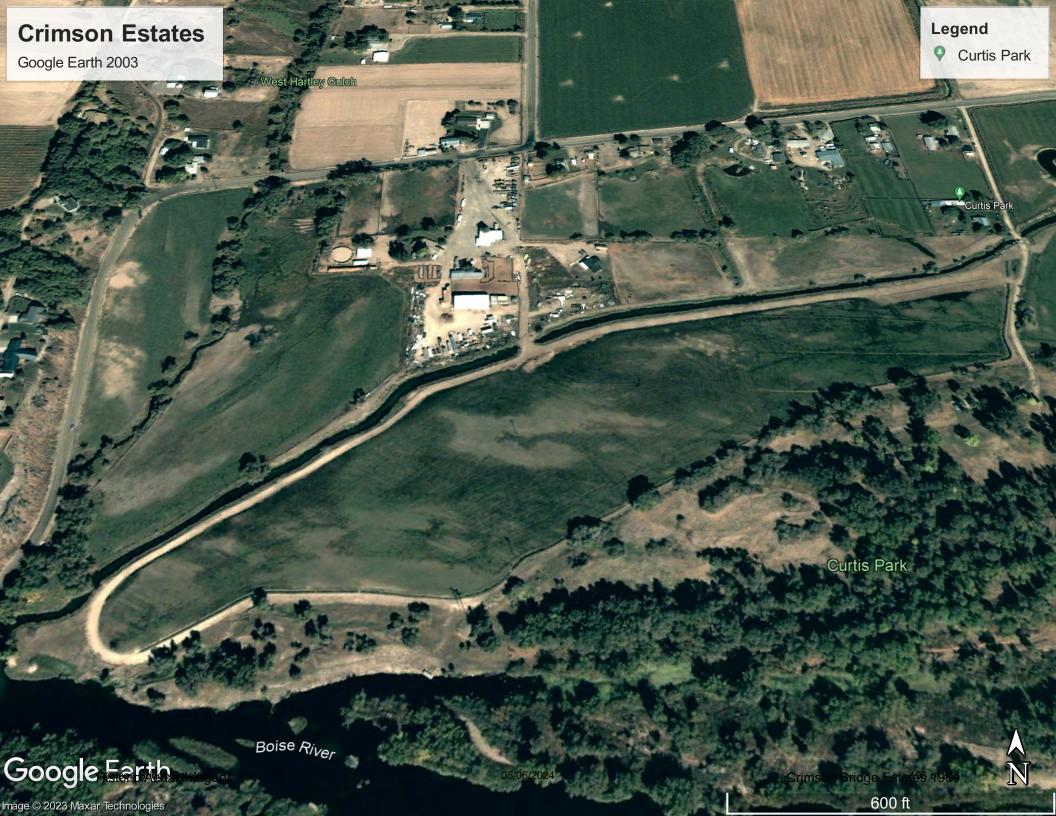


## **APPENDIX E**

## **Supplementary Information**

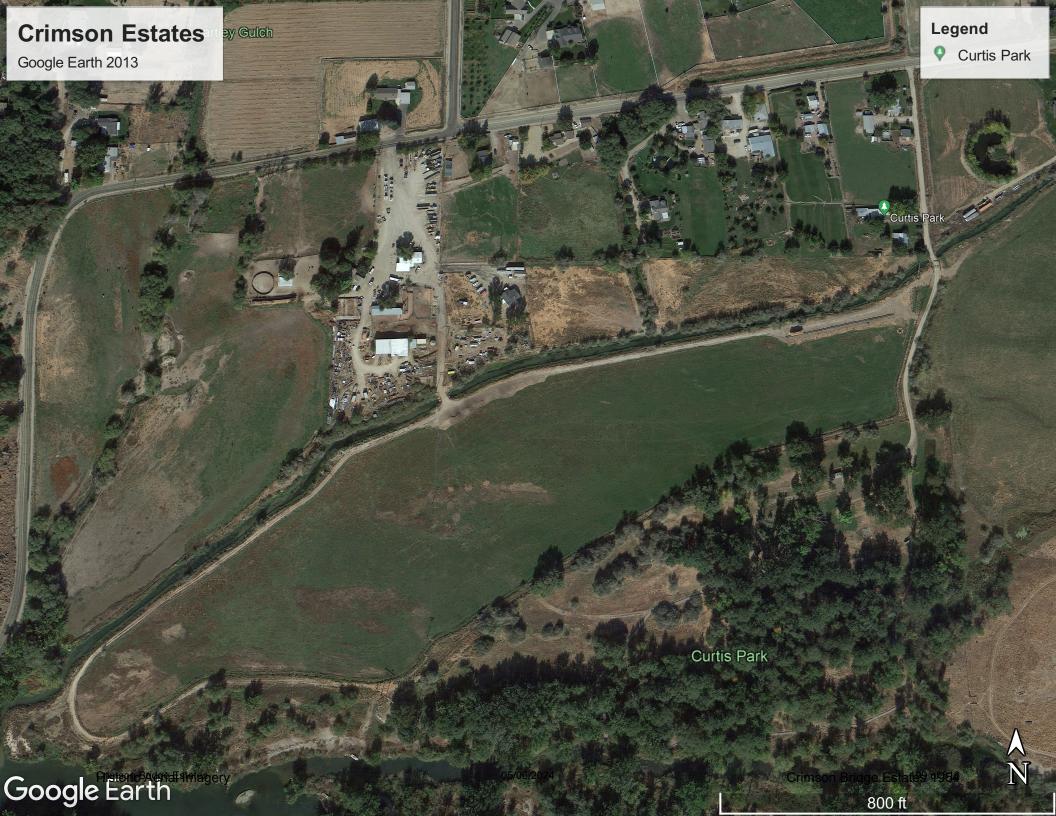












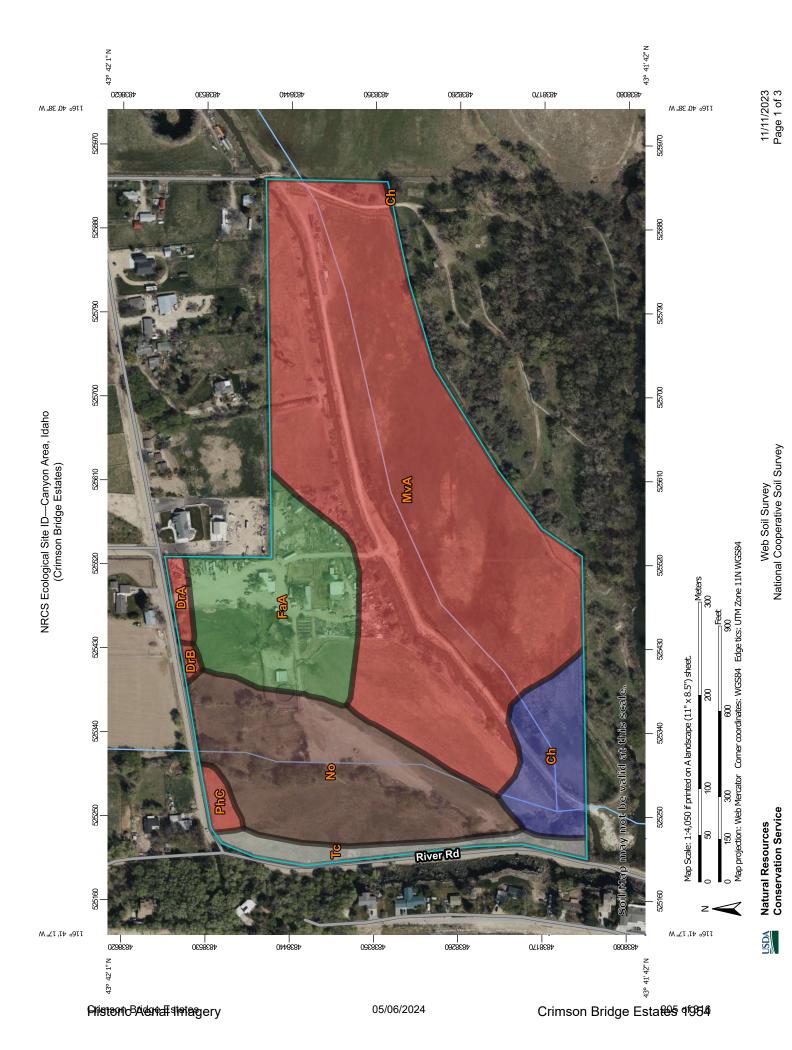












Web Soil Survey

# NRCS Ecological Site ID—Canyon Area, Idaho (Crimson Bridge Estates)

#### This product is generated from the USDA-NRCS certified data as distance and area. A projection that preserves area, such as the Maps from the Web Soil Survey are based on the Web Mercator contrasting soils that could have been shown at a more detailed Date(s) aerial images were photographed: Apr 19, 2021—Apr misunderstanding of the detail of mapping and accuracy of soil The orthophoto or other base map on which the soil lines were Enlargement of maps beyond the scale of mapping can cause compiled and digitized probably differs from the background projection, which preserves direction and shape but distorts Soil map units are labeled (as space allows) for map scales imagery displayed on these maps. As a result, some minor Source of Map: Natural Resources Conservation Service Albers equal-area conic projection, should be used if more line placement. The maps do not show the small areas of The soil surveys that comprise your AOI were mapped at Please rely on the bar scale on each map sheet for map accurate calculations of distance or area are required. Coordinate System: Web Mercator (EPSG:3857) MAP INFORMATION Warning: Soil Map may not be valid at this scale. shifting of map unit boundaries may be evident Survey Area Data: Version 20, Aug 31, 2023 Canyon Area, Idaho of the version date(s) listed below. Web Soil Survey URL: Soil Survey Area: 1:50,000 or larger. measurements. 1:20,000 scale. Aerial Photography Major Roads Local Roads **US Routes** Background MAP LEGEND Not rated or not available Not rated or not available Not rated or not available Area of Interest (AOI) Streams and Canals Interstate Highways R011XY0160R R011XY0160R R011XY0160R R011XY004ID R011XY004ID R011XY019ID R011XY004ID R011XY019ID R011XY001ID R011XY001ID R011XY001ID R011XY019ID Soil Rating Polygons Area of Interest (AOI) Soil Rating Points Soil Rating Lines Rails Water Features **Transportation** ŧ

## **NRCS Ecological Site ID**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ch	Chance fine sandy loam	R011XY019ID	3.3	6.2%
DrA	Draper loam, 0 to 1 percent slopes	R011XY001ID	0.5	0.8%
DrB	Draper loam, 1 to 3 percent slopes	R011XY001ID	0.2	0.3%
FaA	Falk fine sandy loam, 0 to 2 percent slopes	R011XY004ID	7.3	13.7%
MvA	Moulton loam, 0 to 1 percent slopes	R011XY001ID	30.0	56.6%
No	Notus soils	R011XY016OR	9.7	18.4%
PhC	Power silt loam, 3 to 7 percent slopes	R011XY001ID	0.5	0.9%
Тс	Terrace escarpments		1.6	3.0%
Totals for Area of Inter	est	53.1	100.0%	

#### **Description**

An "ecological site ID" is the symbol assigned to a specific ecological site. An "ecological site" is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. For example, the hydrology of the site is influenced by development of the soil and plant community. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

## Rating Options

Aggregation Method: Dominant Condition Component Percent Cutoff: None Specified

Tie-break Rule: Lower



## Ecological site R011XY001ID Loamy 8-12 PZ

Last updated: 10/30/2018 Accessed: 11/12/2023

#### **General information**

**Provisional**. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.



Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

#### Classification relationships

Artemisia wyomingensis/ Agropyron spicatum HT in "Hironaka, M., M.A. Fosberg, A. H. Winward. 1983. Sagebrush- Grass Habitat Types of Southern Idaho. University of Idaho. Moscow, Idaho. Bulletin Number 35".

#### **Ecological site concept**

This ecological site meets the NESH 2014 requirements for PROVISIONAL. A provisional ecological site is established after ecological site concepts are developed and an initial state-and-transition model is drafted. Following quality control and quality assurance reviews of the ecological site concepts, an identification number and name for the provisional ecological site are entered into ESIS. A provisional ecological site may include literature reviews, land use history information, some soils data, legacy data, ocular estimates for canopy and/or species composition by weight, and even some line-point intercept information. A provisional ecological site does not meet the NESH 2014 standards for an Approved ESD, but does provide the conceptual framework of soil-site correlation for the development of the ESD.

#### **Associated sites**

R011XY004ID	Shallow Loamy 8-12 PZ	
R011XY007ID	Gravelly 10-12 PZ	

R011XY008ID	South Slope 10-12 PZ
R011XY009ID	Silty 7-10 PZ KRLA2/ACHY
R011XY010ID	Calcareous Loam 7-10 PZ ATCO-PIDE4/ACHY-ACTH7
R011XY011ID	Sand 8-12 PZ ARTRT/ACHY
R011XY014ID	Sandy Loam 8-12 PZ ARTRW8/ACHY-HECOC8
R011XY015ID	Loamy Bottom 8-14 PZ ARTRT/LECI4

#### Similar sites

R011XY004ID	Shallow Loamy 8-12 PZ
-------------	-----------------------

Table 1. Dominant plant species

Tree	Not specified
Shrub	(1) Artemisia tridentata ssp. wyomingensis
Herbaceous	<ul><li>(1) Pseudoroegneria spicata ssp. spicata</li><li>(2) Achnatherum thurberianum</li></ul>

#### Physiographic features

This site occurs on nearly level to rolling plains, terraces, fans, ridges and valley floors. Slopes range from 1 to 30 percent. Elevations range from 2500 to 5000 feet (762-1515 meters). It occurs on all aspects.

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Terrace (3) Fan
Flooding frequency	None
Ponding frequency	None
Elevation	2,500–5,000 ft
Slope	1–30%
Aspect	N, S, W

#### **Climatic features**

MLRA 11 is part of Idaho's Snake River Plain. The elevation ranges from 2,077 to 7,549 feet, with a mean of 3,992 feet. Most of the precipitation falls as rain in the fall, winter and spring. Very little precipitation occurs during the summer months. In general this MLRA receives more sun than the U.S. average during the summer, but less than average during the winter.

The average annual precipitation is 10.01 inches (based on 10 long term climate stations located throughout the MLRA), with minimum and maximum values of 8.38 and 11.62 inches, respectively.

The average annual temperature ranges from 38° to 65° Fahrenheit. With a maximum average temperature of 65 degrees F. and a minimum average of 38 degrees F. The frost free interval ranges from 139 to 165 days and the freeze free interval ranges from 168 to 196 days.

Table 3. Representative climatic features

Frost-free period (average)	165 days
Freeze-free period (average)	196 days
Precipitation total (average)	12 in

#### Influencing water features

This site is not influenced by adjacent wetlands, streams or run on.

#### Soil features

The soils supporting this site have medium textured surfaces that may be gravelly. They are generally moderately deep, but can be shallow over fractured basalt or fractured duripan. They also can be deep. The subsoil is loam to clay loam over basalt or fractured duripan. The soil is well drained with moderately slow to rapid permeability. Runoff is moderately slow to moderately high and erosion hazard is slight to moderate.

Table 4. Representative soil features

Parent material	(1) Alluvium–sandstone (2) Colluvium–limestone and sandstone
Surface texture	<ul><li>(1) Very gravelly sandy loam</li><li>(2) Stony loam</li><li>(3) Very stony sandy clay loam</li></ul>
Drainage class	Well drained to somewhat excessively drained
Permeability class	Rapid
Soil depth	8–60 in
Surface fragment cover <=3"	0–20%
Surface fragment cover >3"	0–30%
Available water capacity (0-40in)	0.4–8.3 in
Calcium carbonate equivalent (0-40in)	0–15%
Electrical conductivity (0-40in)	0–8 mmhos/cm
Sodium adsorption ratio (0-40in)	0–15
Soil reaction (1:1 water) (0-40in)	6.1–9
Subsurface fragment volume <=3" (Depth not specified)	0–40%
Subsurface fragment volume >3" (Depth not specified)	0–35%

#### **Ecological dynamics**

The dominant visual aspect of this site is Wyoming big sagebrush with an understory of bluebunch wheatgrass and Thurber's needlegrass. Composition by weight is approximately 45 to 55 percent grasses, 10 to 20 percent forbs, and 25 to 35 percent shrubs.

During the last few thousand years, this site has evolved in a semi-arid climate characterized by dry summers and cold, moist winters. Herbivory has historically occurred on this site at low levels of utilization. Herbivores include mule deer, pronghorn antelope, lagomorphs and small rodents and Rocky Mountain elk in severe winters.

Fire has historically occurred on the site at intervals of 50-70 years.

The Historic Climax Plant Community (HCPC), the Reference State (State 1), moves through many phases depending on the natural and man-made forces that impact the community over time. State 1, described later, indicates some of these phases. The Reference Plant Community Phase is Phase 1.1. This plant community is Crimson Bridge Estates 1954

dominated by bluebunch wheatgrass and Thurber's needlegrass in the understory and Wyoming big sagebrush in the overstory. Subdominant species include Sandberg bluegrass, bottlebrush squirreltail, arrowleaf balsamroot, and tapertip hawksbeard. There is a large variety of other grasses, forbs and shrubs that can occur in minor amounts. The plant species composition of Phase 1.1 is listed later under "Reference Plant Community Phase Plant Species Composition".

Total annual production is 700 pounds per acre (784 kilograms per hectare) in a normal year. Production in a favorable year is 900 pounds per acre (1008 kilograms per hectare). Production in an unfavorable year is 400 pounds per acre (448 kilograms per hectare). Structurally, cool season deep rooted perennial bunchgrasses are very dominant, followed by tall shrubs being more dominant than perennial forbs while shallow rooted bunchgrasses are subdominant.

#### **FUNCTION:**

This site is suited for livestock grazing in the spring, early summer, and fall. There are few limitations to grazing. The distance to water may be a problem in some areas. Usually this site is often the key area in a management program.

The site provides winter and spring range for mule deer. It has some value for sage grouse brood rearing.

The site has limited value for recreation but does provide some hunting, hiking, photography opportunities, and offroad vehicle use.

Due to gentle slopes and relatively low production, this site can easily be degraded from improper livestock management. A mixed stand of shrubs and perennial grasses is necessary to reach the potential of the site.

Impacts on the Plant Community.

#### Influence of fire:

In the absence of normal fire frequency, Wyoming big sagebrush can gradually increase on the site. Grasses and forbs decrease as shrubs increase. With the continued absence of fire, Wyoming big sagebrush can displace most of the primary understory species.

When fires become more frequent than historic levels (50-70 years), Wyoming big sagebrush is reduced significantly. Rabbitbrush can increase slightly. With continued short fire frequency, Wyoming big sagebrush can be completely eliminated along with many of the desirable understory species such as bluebunch wheatgrass, Indian ricegrass and Thurber's needlegrass. These species may be replaced by Sandberg bluegrass and bulbous bluegrass along with a variety of annual and perennial forbs including noxious and invasive plants. Cheatgrass will invade the site. These fine fuels will increase the fire frequency.

Influence of improper grazing management:

Season-long grazing and/or excessive utilization can be very detrimental to this site. This type of management leads to reduced vigor of the bunchgrasses. With reduced vigor, recruitment of these species declines. As these species decline, the plant community becomes susceptible to increase in Wyoming big sagebrush and noxious and invasive plants.

Continued improper grazing management influences fire frequency by increasing fine fuels. If cheatgrass and/or medusahead increase due to improper grazing management and they become co-dominant with Sandberg bluegrass and other annuals, fires become more frequent.

Proper grazing management that addresses frequency, duration, and intensity of grazing can also keep fine fuels from developing, thereby reducing fire frequency. This can lead to gradual increases in Wyoming big sagebrush. A planned grazing system can be developed to intentionally accumulate fine fuels in preparation for a prescribed burn. Any brush management should be carefully planned, as a reduction in shrubs without a suitable understory of Crimson Bridge Estated 1954

perennial grasses, can increase cheatgrass and/or medusahead which can lead to more frequent fire intervals.

Weather influences:

Above normal precipitation in March, April and May can dramatically increase total annual production of the plant community. These weather patterns can also increase viable seed production of desirable species to provide for recruitment. Likewise, below normal precipitation during these spring months can significantly reduce total annual production and be detrimental to viable seed production. Overall plant composition is normally not affected when perennials have good vigor.

Below normal temperatures in the spring can have an adverse impact on total production regardless of the precipitation. An early, hard freeze can occasionally kill some plants.

Prolonged drought adversely affects this plant community in several ways. Vigor, recruitment, and production are usually reduced. Mortality can occur. Prolonged drought can lead to a reduction in fire frequency.

Influence of Insects and disease:

Outbreaks can affect vegetation health. The sagebrush defoliator moth (Aroga websterii) causes mortality in relatively small patches. It seldom kills the entire stand. Mormon cricket and grasshopper outbreaks occur periodically. Outbreaks seldom cause plant mortality since defoliation of the plant occurs only once during the year of the outbreak.

Influence of noxious and invasive plants:

Many of these species add to the fine-fuel component and lead to increased fire frequency. Annual and perennial invasive species compete with desirable plants for moisture and nutrients. The result is reduced production and change in composition of the understory.

Influence of wildlife:

Big game animals use this site in the spring, summer, and fall and in moderate winters. Their numbers are seldom high enough to adversely affect the plant community.

Watershed:

Decreased infiltration and increased runoff occur with an increase in Wyoming big sagebrush. Desired understory species can be reduced. This composition change can affect nutrient and water cycles. Increased runoff also causes sheet and rill erosion. Abnormally short fire frequency also gives the same results, but to a lesser degree. The long term effect is a transition to a different state.

Plant Community and Sequence:

Transition pathways between common vegetation states and phases:

State 1.

Phase 1.1 to 1.2. Develops with improper grazing management.

Phase 1.1 to 1.3. Develops with fire.

Phase 1.2 to 1.1. Develops with prescribed grazing.

Phase 1.3 to 1.1. Develops with prescribed grazing and no fire.

State 1, Phase 1.2 to State 2. Develops through fire and improper grazing management. The site has crossed the threshold. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

State 1, Phase 1.3 to State 2. Develops through frequent fire and/or continued improper grazing management. The site has crossed the threshold. It is generally not economically feasible to move this state back to State 1 with accelerated practices. Pristeric Acust বাণাঞ্চery

05/06/2024

State 2 to State 3: Is a result of rangeland seeding.

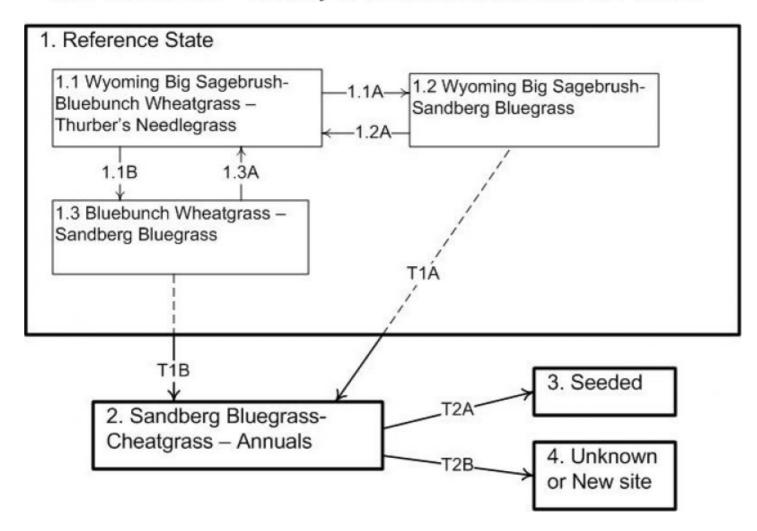
State 2 to unknown site. Excessive soil loss and changes in the hydrologic cycle caused by continued improper grazing management and/or frequent fire cause this state to cross a threshold and retrogress to a new site with reduced potential. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

#### **Practice Limitations:**

There are no physical limitations to prevent seeding of this site. Proper seedbed preparation is critical on this site. There is a high chance of seeding failure during unfavorable moisture years. There are no physical limitations for brush management on this site, but careful planning is necessary. Removal of Wyoming big sagebrush can result in a significant invasion of cheatgrass.

#### State and transition model

## R011XY001ID - Loamy 8-12 ARTRW8/PSSPS-ACTH7



State 1 Reference State

# Community 1.1 Reference Plant Community (HCPC)



Figure 4. State 1

The HCPC has Wyoming big sagebrush in the overstory with bluebunch wheatgrass dominating the understory. Thurber's needlegrass is the subdominant grass. Other significant species include Sandberg bluegrass, bottlebrush squirreltail, and arrowleaf balsamroot. There can be a variety of other grasses, forbs and shrubs in minor amounts. Natural fire frequency is 50-70 years.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	220	350	450
Shrub/Vine	120	225	275
Forb	60	125	175
Total	400	700	900

Figure 6. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	15	25	30	25	0	0	0	5	0	0

# Community 1.2 Wyoming Big Sagebrush - Sandberg Bluegrass

This plant community is dominated by Wyoming big sagebrush with reduced amounts of bluebunch wheatgrass. Sandberg bluegrass and bottlebrush squirreltail has increased in the understory. Thurber's needlegrass gradually decreases. There is a reduced amount of Indian ricegrass and perennial grasses. All deep-rooted perennial bunchgrasses are typically in low vigor. Wyoming big sagebrush has increased. This state has developed due to improper grazing management. Some cheatgrass may have invaded the site.

Figure 7. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	15	25	30	25	0	0	0	5	0	0

# Community 1.3 Bluebunch Wheatgrass- Sandberg Bluegrass

This plant community is dominated by bluebunch wheatgrass and Sandberg bluegrass. Some Thurber's needlegrass may be lost due to fire. Some Indian ricegrass or foxtail wheatgrass may be present. Bottlebrush squirreltail has increased. Forbs remain about in the same proportion as Plant Community A. Very little Wyoming big sagebrush is present due to wildfire, but some rabbitbrush and horsebrush are present due to sprouting. Some Priston Bridge Fig. 4954

cheatgrass has invaded the site. This plant community is the result of wildfire.

Figure 8. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	15	25	30	25	0	0	0	5	0	0

#### State 2 Sandberg Bluegrass - Annuals

# Community 2.1 Sandberg Bluegrass- Annuals

This plant community is dominated by Sandberg bluegrass, cheatgrass, and other annuals. Root sprouting shrubs such as rabbitbrush and horsebrush can be present, dependent upon, how frequent, fire has occurred. Some soil loss has occurred. This state has developed due to frequent fires or improper grazing management from Phase C State 1 and fire and improper grazing management from Phase B State 1. The site has crossed the threshold. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

Figure 9. Plant community growth curve (percent production by month). ID0511, BRTE-ANNUALS. State 2.

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	15	25	40	5	0	0	5	5	5	0

#### State 3 Seeded

# Community 3.1 Seeded

This plant community is dominated by seeded species. The seeding may be introduced species or natives to mimic the HCPC.

#### State 4 Unknown or New Site

#### Community 4.1 Unknown or New Site

This plant community has gone over the threshold to a new site. Site potential has been reduced. Significant soil loss has occurred. Infiltration has been reduced and run-off has become more rapid. This state has developed due to continued improper grazing management and/or frequent fires. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

#### Additional community tables

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)			
Grass/Grasslike								
1	Grass/Grasslike			220–450				
	bluebunch wheatgrass	PSSPS	Pseudoroegneria spicata ssp. spicata	100–225	_			
	Thurber's neकारिकालिका	ACTH7 gery	Achnatherum thurberianum 05/06/2024 Crir	8–180 nson Bridge Estatel প্	- 954			

			Chuma va aluma aida -	05.45	
	squirreltail	ELEL5	Elymus elymoides	25–45	
	thickspike wheatgrass	ELLA3	Elymus lanceolatus	0–45	_
	Sandberg bluegrass	POSE	Poa secunda	25–45	-
	Indian ricegrass	ACHY	Achnatherum hymenoides	0–20	_
	needle and thread	HECO26	Hesperostipa comata	0–20	-
	basin wildrye	LECI4	Leymus cinereus	0–20	_
	foxtail wheatgrass	PSSA2	×Pseudelymus saxicola	0–5	_
Forb	•	-			
2	Forbs			60–175	
	arrowleaf balsamroot	BASA3	Balsamorhiza sagittata	10–25	_
	tapertip hawksbeard	CRAC2	Crepis acuminata	1–25	_
	little larkspur	DEBI	Delphinium bicolor	0–5	
	fleabane	ERIGE2	Erigeron	0–5	
	buckwheat	ERIOG	Eriogonum	0–5	_
	desert biscuitroot	LOFO	Lomatium foeniculaceum	0–5	_
	desertparsley	LOMAT	Lomatium	0–5	_
	lupine	LUPIN	Lupinus	0–5	_
	oblongleaf bluebells	МЕОВ	Mertensia oblongifolia	0–5	_
	beardtongue	PENST	Penstemon	0–5	-
	spiny phlox	PHHO	Phlox hoodii	0–5	_
	longleaf phlox	PHLO2	Phlox longifolia	0–5	_
	scarlet globemallow	SPCO	Sphaeralcea coccinea	0–5	_
	foothill deathcamas	ZIPA2	Zigadenus paniculatus	0–5	_
	common yarrow	ACMI2	Achillea millefolium	0–5	-
	tapertip onion	ALAC4	Allium acuminatum	0–5	-
	onion	ALLIU	Allium	0–5	-
	pussytoes	ANTEN	Antennaria	0–5	_
	aster	ASTER	Aster	0–5	_
	milkvetch	ASTRA	Astragalus	0–5	-
	Hooker's balsamroot	ВАНО	Balsamorhiza hookeri	0–5	-
	pincushion	CHAEN	Chaenactis	0–5	-
Shru	b/Vine				
3	Shrub			120–275	
	Wyoming big ARTRW8 sagebrush		Artemisia tridentata ssp. wyomingensis	100–225	_
	yellow rabbitbrush	CHVIV4	Chrysothamnus viscidiflorus ssp. viscidiflorus var. viscidiflorus	0–20	_
	basin big sagebrush	ARTRT	Artemisia tridentata ssp. tridentata	0–20	

yellow rappilprusri	CUAIO	Crirysotriaminus viscidinorus	U-10	_
rubber rabbitbrush	ERNA10	Ericameria nauseosa	0–10	-
spiny hopsage	GRSP	Grayia spinosa	0–10	ı
threetip sagebrush	ARTR4	Artemisia tripartita	0–10	1
broom snakeweed	GUSA2	Gutierrezia sarothrae	0–5	1
plains pricklypear	OPPO	Opuntia polyacantha	0–5	1
antelope bitterbrush	PUTR2	Purshia tridentata	0–5	I
spineless horsebrush	TECA2	Tetradymia canescens	0–5	_

### **Animal community**

Wildlife Interpretations.

Animal Community – Wildlife Interpretations

This rangeland ecological site provides diverse habitat for many native wildlife species. Large herbivore use of this ecological site is dominated by mule deer and pronghorn antelope. Important seasonal habitat is provided for resident and migratory animals including western toad, sagebrush lizard, western rattlesnake, shrews, bats, jackrabbits, ground squirrels, mice, coyote, red fox, badger, sage-grouse, Ferruginous hawk, prairie falcon, horned lark, and western meadowlark. Encroachment of noxious and invasive plant species (cheatgrass, Rush skeleton weed, and knapweed) can replace native plant species which provide critical feed, brood-rearing, and nesting cover for a variety of native wildlife. Area sensitive species include pygmy rabbit, burrowing owl, Great Basin ground squirrel, long-nosed snake, groundsnake, Great Basin collared lizard, and Townsend pocket gopher. Water features are sparse provided by seasonal streams, artificial water catchments, and springs.

State 1 Phase 1.1 - Wyoming Big Sagebrush/ Bluebunch Wheatgrass/ Thurber's Needlegrass Reference Plant Community (RPC): This plant community provides a diversity of grasses, forbs, and shrubs, used by native insect communities that assist in pollination. The reptile and amphibian community is represented by leopard lizard, short horned lizard, sagebrush lizard, western skink, western rattlesnake, and western toad. Amphibians are associated with springs and isolated water bodies adjacent to this plant community. Spring developments that capture all available water would preclude the use of these sites by amphibians. Native shrub-steppe obligate avian species include the Brewer's sparrow, sage sparrow, sage thrasher and sage-grouse. Critical habitat (brood-rearing and winter cover) for sage-grouse is provided by this diverse plant community. The plant community supports seasonal needs of large mammals (mule deer and antelope) providing food and cover. Wyoming big sagebrush is preferred browse for wild ungulates. A diverse small mammal population including golden-mantled ground squirrels, chipmunks, and yellow-bellied marmots would utilize this plant community.

State 1 Phase 1.2 - Wyoming Big Sagebrush/ Sandberg Bluegrass Plant Community: This plant community is the result of improper grazing management. An increase in canopy cover of sagebrush contributes to a sparse herbaceous understory. Grasses, forbs, and shrubs, are used by native insects that assist in pollination but the reduced herbaceous understory results in lower diversity and numbers of insects which will reduce reptile diversity and populations. Reduced herbaceous understory is a key factor in limiting the use of this plant community by avian species. Key shrub-steppe obligate avian species include Brewer's sparrow, sage sparrow, sage thrasher, and sage-grouse. Critical habitat (brood-rearing and winter cover) for sage grouse is limited due to a less diverse herbaceous plant community. The plant community supports seasonal needs of large mammals (mule deer and antelope) providing food and cover. Wyoming big sagebrush is preferred browse for wild ungulates. A diverse small mammal population including golden-mantled ground squirrels, chipmunks, and yellow-bellied marmots would utilize this plant community.

State 1 Phase 1.3 - Bluebunch Wheatgrass/ Sandberg Bluegrass/ Bottlebrush Squirreltail Plant Community: This plant community is the result of frequent fire. The plant community, dominated by herbaceous vegetation with little or no sagebrush provides less vertical structure and limits use by shrub obligate animals. Insect diversity would be reduced but a native forb plant community would still support select pollinators. Reptile use, including short horned lizard, sagebrush lizard, and western rattlesnakes would be limited or excluded due to the absence of sagebrush. The dominance of herbaceous vegetation with little sagebrush canopy cover would prevent use of these areas for Priston Bridge Hands and the same plants are safety of the same plants. Crimson Bridge Estated 1954

nesting by Brewer's sparrow, sage sparrow, sage thrasher, and sage-grouse. This plant community provides limited brood-rearing habitat for sage-grouse if sagebrush cover is nearby. The site is not suitable as winter or nesting cover for sage grouse. The herbaceous vegetation improves habitat for grassland avian species (horned lark and western meadowlark). Large mammal (mule deer and antelope) forage use would be seasonal but the site would offer little thermal and young of year cover. Small mammal diversity would be reduced with an increase in hunting success by predators.

State 2 - Sandberg Bluegrass/ Cheatgrass and Annual Plant Community: This plant community is the result of continued improper grazing management and/or frequent fire. The loss of the native shrub and herbaceous plant community would not support a diverse insect community. The reduced forb component in the plant community would support a very limited population of pollinators. Most native reptilian species are not supported with food, water, or cover. This plant community does not support the habitat requirements for sage-grouse, sage thrasher, Brewer's sparrow, or sage sparrow. Diversity of grassland avian species is reduced due to poor cover and food. Birds of prey including hawks and falcons may range throughout these areas looking for prey species. Large mammals may utilize the herbaceous vegetation in the early part of the year when the invasive annuals (cheatgrass) are more palatable. At other times of the year large mammals would not regularly utilize these areas due to poor food and cover conditions. The reduction of insect population and diversity would reduce suitability of the site for bats. The populations of small mammals would be dominated by open grassland species like the Columbian ground squirrel.

State 3 - Range Seeding Plant Community: The seeding mixture (native or non-native) determines the animal species that utilize this site. A diverse seed mixture of grasses and forbs would provide similar habitat conditions as in the herbaceous plant community described in State 1 phase 1.3. A diverse seed mixture of grasses, forbs, and shrubs would provide similar habitat conditions as described in State 1 phase 1.1 or 1.2. A monoculture of non-native grass species would not support diverse populations of insects, reptiles, avians, mammals, or sagebrush obligate species. Grassland animal species including western meadowlark, horned lark, savannah sparrow, deer mouse, and kangaroo rat would utilize this site for nesting. Birds of prey including hawks and falcons may range throughout this community looking for prey species.

Grazing Interpretations.

There are few limitations to grazing. The site is suited for grazing in the spring, early summer and fall for livestock. The distance to water may be a problem in some areas and water developments may be necessary. Hauling water is also an option. This site is often the key area in a management program.

Estimated initial stocking rate will be determined with the landowner or decision-maker. They will be based on the inventory which includes species, composition, similarity index, production, past use history, season of use and seasonal preference. Calculations used to determine estimated initial stocking rate will be based on forage preference ratings

#### Hydrological functions

The soils in this site are generally in hydrologic group B or C.

#### Recreational uses

This site has limited recreational opportunities. Some hunting, hiking, horseback riding and off-road vehicle use do occur. Early spring flowers offer some opportunities for photography.

### **Wood products**

None

#### Other products

None

#### Inventory data references

Information presented here has been derived from NRCS clipping and other inventory data. Also, field knowledge of range-trained personnel was used. Those involved in developing this site description include;

Dave Franzen, co-owner, Intermountain Rangeland Consultants, LLC

Jacy Gibbs, co-owner, Intermountain Rangeland Consultants, LLC

Jim Cornwell, Range Management Specialist, IASCD

Brendan Brazee, State Rangeland Management Specialist, NRCS, Idaho

Lee Brooks, Range Management Specialist, IASCD

## Type locality

Location 1: Payette County, ID		
Township/Range/Section	T3 R7 S22	
General legal description	3 S 7 E NW ¼, SW ¼, Sec. 22 2 S 6 E NW ¼, NE ¼, Sec. 13 Field Offices. Meridian, ID Caldwell, ID Mountain Home, ID Marsing, ID Payette, ID Weiser, ID Emmett, ID	

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#### **Contributors**

Dave Franzen DLF

#### **Approval**

Kendra Moseley, 10/30/2018

#### Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	Dave Franzen and Jacy Gibbs
	Idaho BLM

Contact for lead author	Brendan Brazee, State Rangeland Management Specialsist USDA-NRCS 9173 W. Barnes Drive, Suite C Boise, ID 83709
Date	03/27/2007
Approved by	Brendan Brazee
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

#### **Indicators**

- 1. **Number and extent of rills:** Rills rarely occur on this site. If they do occur they are most likely to be on slopes greater than 15% and immediately following wildfire but remain short (<3 feet) and shallow (<1 inch), generally equating to the distance of burned shrub patches. When present, gravels on the surface reduce erosion.
- 2. Presence of water flow patterns: Water-Flow Patterns rarely occur on this site. On slopes greater than 15% a few water flow patterns may be present, but they are short and disconnected, disrupted by cool season perennial grasses and tall shrubs and are not extensive. After wildfires, water-flow patterns may be longer (2-4 ft. generally the distance of shrub canopies that were burned) on slopes >15% where they may initiate from burned shrub patches if fire intensity is high enough to burn the duff and all woody material.
- 3. **Number and height of erosional pedestals or terracettes:** Pedestals and/or Terracettes are rare to nonexistent on this site. In areas susceptible to wind and on slopes greater than 15% where flow patterns and/or rills are present, a few pedestals and terracettes may be expected after a wildfire, but these should be less than ½ inch and should not expose roots.
- 4. Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground): Bare ground ranges from 5 20% cover (top layer cover data). Bare areas should be small and scattered across the site; harvester ant mounds and small mammal burrows may cause isolated patches to exceed 5 ft. in diameter. Playettes (slickspots) are common and can range in size from 2 to 30 feet, and may be connected.
- 5. Number of gullies and erosion associated with gullies: Gullies do not occur on this site.
- 6. **Extent of wind scoured, blowouts and/or depositional areas:** Wind-Scoured, Blowouts, and/or Deposition Areas are usually not present. In rare occasions scouring may be associated with harvester ant discs or rodent burrows. After one growing season post-fire, herbaceous cover should be sufficient to protect the site from wind erosion.
- 7. Amount of litter movement (describe size and distance expected to travel): Fine litter in the interspaces may move up to 2 feet or further following a significant run-off event. Coarse litter generally does not move.
- 8. Soil surface (top few mm) resistance to erosion (stability values are averages most sites will show a range of values): Soil surface stability values should be >4. Soil disturbances associated with rodent burrows and ant mounds will create values near largery

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9.	Soil surface structure and SOM content (include type of structure and A-horizon color and thickness): The surface horizon is typically 2 to 7 inches thick. Structure typically includes weak thin and moderately thick platy, weak fine and moderate fine granular, and weak fine to medium sub-angular blocky. Soil organic matter (SOM) ranges from 0.5 to 4 percent.			
10.	Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff: Plant Community Composition and Distribution Relative to Infiltration: Deeprooted perennial bunchgrasses and shrubs are distributed to catch snow, slow run-off, and increase infiltration.			
11.	Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): Compaction Layer: not present.			
12.	Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):			
	Dominant: Dominant: cool season deep-rooted perennial bunchgrasses; >>			
	Subdominant: shrubs (non-sprouting); >			
	Minor: shallow rooted perennial grasses; =			
	Minor: forbs; >			
	Trace: native annual grasses  After fire			
	Dominant: cool season deep-rooted perennial bunchgrasses, >>			
	Minor: shallow rooted grasses; >=			
	Minor: perennial forbs; >			
	Trace: shrubs (non-sprouting); =			
	Trace: native annual grasses			
	Additional: Biological soil crusts should cover most interspaces among perennial plants and be common under shrubs except after wildfires, when they will be consumed under shrubs and other plants, but should remain in interspaces.			
	Sub-dominant:			
	Other:			
	Additional:			
13.	Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Wyoming big sagebrush may show some dead branches as plants age and experience insect defoliation or snow molds. Dead centers may occur in bunchgrasses.			
14.	Average percent litter cover (%) and depth ( in): Total litter cover will be 30 - 40 percent to a depth of <0.1. Under			

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mature shrubs litter is greater than 0.5 inches.

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- 15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):** Annual Production is 700 lbs. per acre in a year with normal precipitation and temperatures. Low and high production years should yield 400 and 900 lbs/ac. Perennial grasses produce 45-55 percent of the total, forbs 10-20 percent, and shrubs 25-35 percent.
- 16. Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site: This includes species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, these species are NOT expected in the reference state for the ecological site: cheatgrass, burr buttercup, spotted and diffuse knapweed, Russian knapweed, scotch thistle, Canada thistle, among others.
- 17. **Perennial plant reproductive capability:** All functional groups have the potential to reproduce in normal or above normal years.



# Ecological site R011XY004ID Shallow Loamy 8-12 PZ

Last updated: 4/06/2020 Accessed: 11/12/2023

#### **General information**

**Provisional**. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

#### **MLRA** notes

Major Land Resource Area (MLRA): 011X-Snake River Plains

Major Land Resource Area (MLRA): 011X - Snake River Plains

Precipitation or Climate Zone: 8-12" P.Z.

#### Classification relationships

Artemisia wyomingensis/ Agropyron spicatum HT in "Hironaka, M., M.A. Fosberg, A. H. Winward. 1983. Sagebrush- Grass Habitat Types of Southern Idaho. University of Idaho. Moscow, Idaho. Bulletin Number 35".

Land Resource Region: B (Northwest Wheat and Range)

MLRA: 11 (Snake River Plains)

EPA Eco Region: Level III (Snake River Plain)

#### **Ecological site concept**

Site does not receive additional moisture

Soils are:

Not saline or saline sodic

Shallow to moderately deep, with >35% coarse fragments (by volume) with a mixture of fragment sizes <3" and >3", skeletal

not strongly or violently effervescent in the surface mineral 10"

Textures range from silt loam to silty clay loam in the surface mineral 4"

Slope is <30%

Clay content is =<35% in surface mineral 4"

Site does not have an argillic horizon with >35% clay

### **Associated sites**

R011XY001ID	Loamy 8-12 PZ	
R011XY007ID	Gravelly 10-12 PZ	
R011XY008ID	South Slope 10-12 PZ	
R011XY009ID	Silty 7-10 PZ KRLA2/ACHY	
R011XY010ID	Calcareous Loam 7-10 PZ ATCO-PIDE4/ACHY-ACTH7	
R011XY011ID	Sand 8-12 PZ ARTRT/ACHY	
R011XY014ID	Sandy Loam 8-12 PZ ARTRW8/ACHY-HECOC8	
	Loamy Bottom 8-14 PZ ARTRT/LECI4	
<del>निर्णिकिमिन्दिनिष्यिनिष्य</del> िन्दि विश्वास्त्र भारतीय प्रतिप्र प्रतिप्रकार प्रति प्रतिप्रकार प्रतिप्रका		

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#### Similar sites

R011XY001ID	Loamy 8-12 PZ
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Table 1. Dominant plant species

Tree	Not specified
Shrub	(1) Artemisia tridentata ssp. wyomingensis
Herbaceous	(1) Pseudoroegneria spicata ssp. spicata

# Physiographic features

This site occurs on nearly level to hilly slopes that range from 1 to 25 percent and occurs on all aspects. Elevation ranges from 2300 to 4500 feet (700-1370 meters).

Table 2. Representative physiographic features

Landforms	(1) Lava plain (2) Terrace (3) Butte
Flooding frequency	None
Ponding frequency	None
Elevation	2,300–4,500 ft
Slope	1–25%
Aspect	Aspect is not a significant factor

#### Climatic features

MLRA 11 is part of Idaho's Snake River Plain. The elevation ranges from 2,077 to 7,549 feet, with a mean of 3,992 feet. Most of the precipitation falls as rain in the fall, winter and spring. Very little precipitation occurs during the summer months. In general this MLRA receives more sun than the U.S. average during the summer, but less than average during the winter.

The average annual precipitation is 10.01 inches (based on 10 long term climate stations located throughout the MLRA), with minimum and maximum values of 8.38 and 11.62 inches, respectively.

The average annual temperature ranges from 38° to 65° Fahrenheit. With a maximum average temperature of 65 degrees F. and a minimum average of 38 degrees F. The frost free interval ranges from 139 to 165 days and the freeze free interval ranges from 168 to 196 days.

Table 3. Representative climatic features

Frost-free period (average)	165 days
Freeze-free period (average)	196 days
Precipitation total (average)	12 in

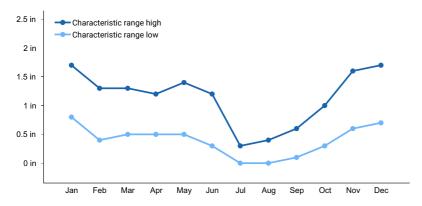


Figure 1. Monthly precipitation range

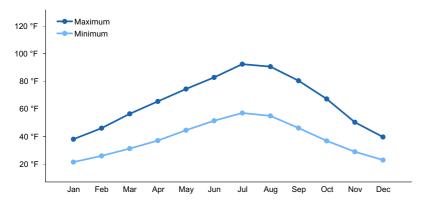


Figure 2. Monthly average minimum and maximum temperature

## Influencing water features

This site is not influenced by adjacent wetlands, streams or run on.

#### Soil features

The soils on this site are characterized by shallow or moderately deep depth to hardpan or bedrock. They are well drained, with very slow to moderate permeability and very low to low available water holding capacity (AWC). Runoff is low to very high. The erosion hazard is slight to severe by water and slight to severe by wind. The surface texture is generally loamy with surface stones in some areas. These soils are characterized by a xeric or aridic soil moisture regime that borders on xeric. Soil temperature regime is either mesic or frigid.

Table 4. Representative soil features

Parent material	(1) Loess-basalt
Surface texture	(1) Extremely stony silt loam (2) Very cobbly silty clay loam (3) Cobbly loam
Drainage class	Well drained
Permeability class	Very slow to moderate
Soil depth	8–31 in
Surface fragment cover <=3"	0–20%
Surface fragment cover >3"	0–30%
Available water capacity (0-40in)	0.9–4.4 in
Calcium carbonate equivalent (0-40in)	0–10%
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Sodium adsorption ratio (0-40in)	0–15
Subsurface fragment volume <=3" (Depth not specified)	0–34%
Subsurface fragment volume >3" (Depth not specified)	0–60%

## **Ecological dynamics**

**Ecological Dynamics of the Site:** 

The dominant visual aspect of this site is Wyoming big sagebrush with bluebunch wheatgrass in the understory. Composition by weight is approximately 50 to 65 percent grasses, 10 to 20 percent forbs and 20 to 30 percent shrubs.

During the last few thousand years, this site has evolved in an arid climate characterized by dry summers and cold, wet winters. Herbivory has historically occurred on this site at low levels of utilization. Herbivores include mule deer, pronghorn antelope, lagomorphs and small rodents.

Fire has historically occurred on the site at intervals of 50-70 years.

The Historic Climax Plant Community (HCPC) moves through many phases depending on the natural and manmade forces that impact the community over time. State 1, described later, indicates some of these phases. The HCPC is Phase 1.1. This plant community is dominated by bluebunch wheatgrass in the understory and Wyoming big sagebrush in the overstory. Subdominant species include Sandberg bluegrass, bottlebrush squirreltail, Thurber's needlegrass, Indian ricegrass, arrowleaf balsamroot, and tapertip hawksbeard. There is a large variety of other grasses, forbs, and shrubs that can occur in minor amounts. The plant species composition of Phase 1.1 is listed later under "HCPC Plant Species Composition".

Total annual production is 450 pounds per acre (504 kilograms per hectare) in a normal year. Production in a favorable year is 650 pounds per acre (728 kilograms per hectare). Production in an unfavorable year is 250 pounds per acre (280 kilograms per hectare). Structurally, cool season deep rooted perennial bunchgrasses are very dominant, followed by tall shrubs being more dominant than perennial forbs while shallow rooted bunchgrasses are subdominant.

#### **FUNCTION:**

This site is suited for livestock grazing in the spring and fall. There are few limitations to grazing. The distance to water may be a problem in some areas.

The site provides winter and spring range for mule deer and pronghorn antelope. It has some value as brood rearing areas for sage grouse.

The site has limited value for recreation but does provide some hunting, hiking, photography opportunities, and off-road vehicle use.

Due to gentle slopes and relatively low production, this site can easily be degraded from improper livestock management. A mixed stand of shrubs and perennial grasses is necessary to reach the potential of the site.

Impacts on the Plant Community.

Influence of fire:

In the absence of normal fire frequency, Wyoming big sagebrush can gradually increase on the site. Grasses and forbs decrease as shrubs increase. With the continued absence of fire, Wyoming big sagebrush can displace most Priston Bridgery 05/06/2024 Crimson Bridge Estales 1954

of the primary understory species.

When fires become more frequent than historic levels (50-70 years), Wyoming big sagebrush is reduced significantly. Rabbitbrush can increase slightly. With continued short fire frequency, Wyoming big sagebrush can be completely eliminated along with many of the desirable understory species such as bluebunch wheatgrass, Indian ricegrass, and Thurber's needlegrass. These species may be replaced by Sandberg bluegrass and bulbous bluegrass along with a variety of annual and perennial forbs including noxious and invasive species. Cheatgrass will invade the site. These fine fuels will increase the fire frequency.

Influence of improper grazing management:

Season-long grazing and/or excessive utilization can be very detrimental to this site. This type of management leads to reduced vigor of the bunchgrasses. With reduced vigor, recruitment of these species declines. As these species decline, the plant community becomes susceptible to increase in Wyoming big sagebrush and noxious and invasive plants.

Continued improper grazing management influences fire frequency by increasing fine fuels that carry fires. As cheatgrass increases and becomes co-dominant with Sandberg bluegrass and other annuals, fires become more frequent.

Proper grazing management that addresses frequency, duration, and intensity of grazing can also keep fine fuels from developing, thereby reducing fire frequency. This can lead to gradual increases in Wyoming big sagebrush. A planned grazing system can be developed to intentionally accumulate fine fuels in preparation for a prescribed burn. Any brush management should be carefully planned, as a reduction in shrubs without a suitable understory of perennial grasses, can increase cheatgrass which leads to more frequent fire intervals.

#### Weather influences:

Above normal precipitation in March, April, and May can dramatically increase total annual production of the plant community. These weather patterns can also increase viable seed production of desirable species to provide for recruitment. Likewise, below normal precipitation during these spring months can significantly reduce total annual production and be detrimental to viable seed production. Overall plant composition is normally not affected when perennials have good vigor.

Below normal temperatures in the spring can have an adverse impact on total production regardless of precipitation. An early, hard freeze can occasionally kill some plants.

Prolonged drought adversely affects this plant community in several ways. Vigor, recruitment, and production are usually reduced. Mortality can occur. Prolonged drought can lead to a reduction in fire frequency.

Influence of Insects and disease:

Outbreaks can affect vegetation health. The sagebrush defoliator moth (Aroga websterii) causes mortality in relatively small patches. It seldom kills the entire stand. Mormon cricket and grasshopper outbreaks occur periodically. Outbreaks seldom cause plant mortality since defoliation of the plant occurs only once during the year of the outbreak.

Influence of noxious and invasive plants:

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Many of these species add to the fine-fuel component and lead to increased fire frequency. Perennial and annual invasive species compete with desirable plants for moisture and nutrients. The result is reduced production and change in composition of the understory.

Influence of wildlife:

Big game animals use this site in the spring and fall and in moderate winters. Their numbers are seldom high enough to adversely affect the plant community.

#### Watershed:

Decreased infiltration and increased runoff occur with an increase in Wyoming big sagebrush. Desired understory species can be reduced. This composition change can affect nutrient and water cycles. Increased runoff also causes sheet and rill erosion. Abnormally short fire frequency also gives the same results, but to a lesser degree. The long term effect is a transition to a different state.

#### Plant Community and Sequence:

Transition pathways between common vegetation states and phases:

#### State 1.

Phase 1.1 to 1.2. Develops with improper grazing management.

Phase 1.1 to 1.3. Develops with fire.

Phase 1.2 to 1.1. Develops with prescribed grazing.

Phase 1.3 to 1.1. Develops with prescribed grazing and no fire.

State 1 Phase 1.3 to State 2. Develops through frequent fire or continued improper grazing management. The site has crossed the threshold. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

State 2 to State 3: Is a result of rangeland seeding.

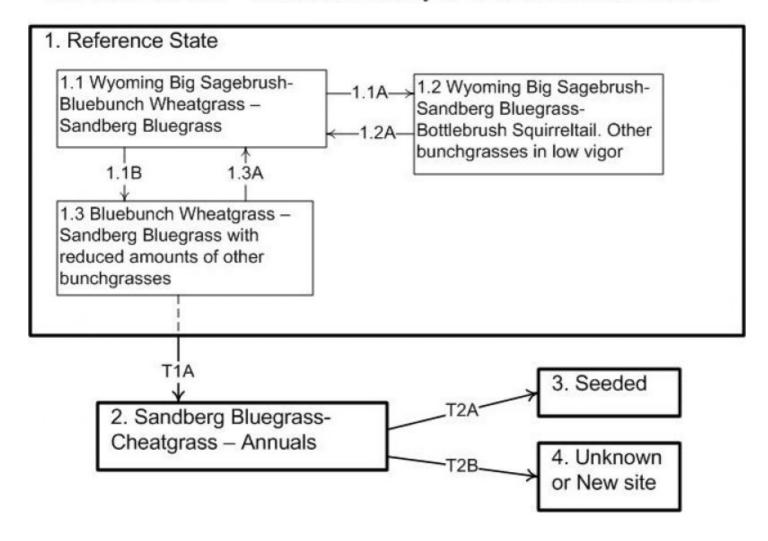
State 2 to unknown site. Excessive soil loss and changes in the hydrologic cycle caused by continued improper grazing management and/or frequent fire cause this state to cross a threshold and retrogress to a new site with reduced potential. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

#### **Practice Limitations:**

There are no physical limitations to prevent seeding of this site. Proper seedbed preparation is critical on this site. There is a high chance of seeding failure during unfavorable moisture years. There are no physical limitations for brush management on this site, but careful planning is necessary. Removal of Wyoming big sagebrush without a suitable understory of perennial grasses, can result in a significant invasion of cheatgrass.

#### State and transition model

# R011XY004ID - Shallow Loamy 8-12 ARTRW8/PSSPS



State 1
Reference State

# Community 1.1 Reference Plant Community (HCPC)

The HCPC has Wyoming big sagebrush in the overstory with bluebunch wheatgrass dominating the understory. Subdominant species include Sandberg bluegrass, bottlebrush squirreltail, Thurber's needlegrass, Indian ricegrass, arrowleaf balsamroot, and tapertip hawksbeard. There is a large variety of other grasses, forbs and shrubs that can occur in minor amounts. Natural fire frequency is 50-70 years.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	150	270	390
Shrub/Vine	60	110	160
Forb	40	70	100
Total	250	450	650

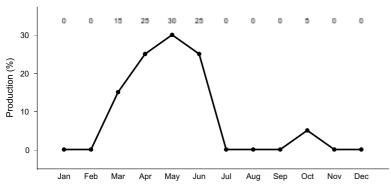


Figure 4. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

# Community 1.2 Wyoming Big Sagebrush - Low Vigor Bunchgrasses

This plant community is dominated by Wyoming big sagebrush with reduced amounts of bluebunch wheatgrass. Sandberg bluegrass and bottlebrush squirreltail has increased in the understory. Thurber's needlegrass gradually decreases. There is a reduced amount of Indian ricegrass and other perennial grasses. All deep-rooted bunchgrasses are typically in low vigor. Wyoming big sagebrush has increased. This state has developed due to improper grazing management. Some cheatgrass may have invaded the site.

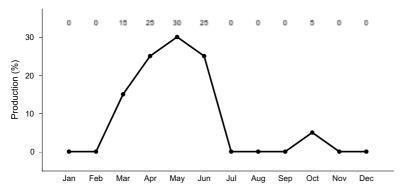


Figure 5. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

# Community 1.3 Bluebunch Wheatgrass - Sandberg Bluegrass

This plant community is dominated by bluebunch wheatgrass and Sandberg bluegrass. Some Thurber's needlegrass may be lost due to fire. Some Indian ricegrass may be present. Bottlebrush squirreltail has increased. Forbs remain about in the same proportion as Plant Community A. Very little Wyoming sagebrush is present due to wildfire, but some rabbitbrush is present due to sprouting. Some cheatgrass has invaded the site. This plant community is the result of wildfire.

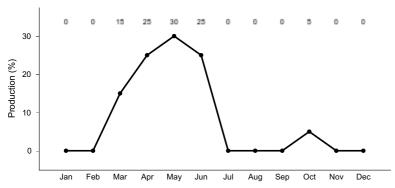


Figure 6. Plant community growth curve (percent production by month). ID0505, ARTRW8 -PSSPS . State 1.

# State 2 Sandberg Bluegrass - Annuals

# Community 2.1 Sandberg Bluegrass - Annuals

This plant community is dominated by Sandberg bluegrass, cheatgrass and other annuals. Root sprouting shrubs such as rabbitbrush can be present, dependent upon, how frequent, fire has occurred. Some soil loss has occurred. This state has developed due to frequent fires or improper grazing management. The site has crossed the threshold. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

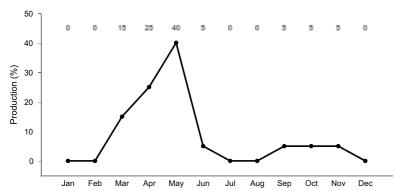


Figure 7. Plant community growth curve (percent production by month). ID0511, BRTE-ANNUALS. State 2.

## State 3 Seeded

# Community 3.1 Seeded

This plant community is dominated by seeded species. The seeding may be introduced species or natives to mimic the HCPC.

# State 4 Unknown or New Site

# Community 4.1 Unknown or New Site

This plant community has gone over the threshold to a new site. Site potential has been reduced. Significant soil loss has occurred. Infiltration has been reduced and run-off has become more rapid. This state has developed due to continued improper grazing management and/or frequent fires. It is generally not economically feasible to move this state back to State 1 with accelerated practices.

#### Additional community tables

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass	/Grasslike				
1	Grass/Grasslike			150–390	
	bluebunch wheatgrass	PSSPS	Pseudoroegneria spicata ssp. spicata	60–160	_
	Sandberg bluegrass	POSE	Poa secunda	20–50	_
	Thurber's needlegrass	ACTH7	Achnatherum thurberianum	15–40	_
	squirreltail	ELEL5	Elymus elymoides	15–35	_
	Indian ricegrass	ACHY	Achnatherum hymenoides	10–30	_
	thickspike wheatgrass	ELLA3	Elymus lanceolatus	0–15	_
	needle and thread	HECO26	Hesperostipa comata	0–15	_
	basin wildrye	LECI4	Leymus cinereus	0–10	_
	sedge	CAREX	Carex	0–10	_
	prairie Junegrass	KOMA	Koeleria macrantha	0–5	_
Forb		•			
2	Forbs			40–100	
	arrowleaf balsamroot	BASA3	Balsamorhiza sagittata	10–26	_
	tapertip hawksbeard	CRAC2	Crepis acuminata	10–25	_
	lupine	LUPIN	Lupinus	5–15	_
	spiny phlox	PHHO	Phlox hoodii	1–15	_
	longleaf phlox	PHLO2	Phlox longifolia	1–15	_
	desertparsley	LOMAT	Lomatium	0–10	_
	milkvetch	ASTRA	Astragalus	1–10	_
	Hooker's balsamroot	ВАНО	Balsamorhiza hookeri	0–10	_
	onion	ALLIU	Allium	0–5	_
	pussytoes	ANTEN	Antennaria	0–5	_
	aster	ASTER	Aster	0–5	_
	fleabane	ERIGE2	Erigeron	0–5	_
	buckwheat	ERIOG	Eriogonum	0–5	_
	curlycup gumweed	GRSQ	Grindelia squarrosa	0–5	_
	Henderson's biscuitroot	LOHE2	Lomatium hendersonii	0–5	_
	scarlet globemallow	SPCO	Sphaeralcea coccinea	0–5	_
	beardtongue	PENST	Penstemon	0–5	_
Shrub	/Vine	•			
3	Shrub			60–160	
	Wyoming big sagebrush	ARTRW8	Artemisia tridentata ssp. wyomingensis	60–150	-
	yellow rabbitbrush	CHVI8	Chrysothamnus viscidiflorus	1–20	
	spiny hopsage	GRSP	Grayia spinosa	0–10	_
	broom snakeweed	GUSA2	Gutierrezia sarothrae	0–10	_
	shadscale saltbush	ATCO	Atriplex confertifolia	0–10	_
	plains pricklypear	OPPO	Opuntia polyacantha	0–5	_

#### **Animal community**

Wildlife Interpretations.

Animal Community – Wildlife Interpretations

This rangeland ecological site provides diverse habitat for many native wildlife species. Large herbivore use of this ecological site is dominated by mule deer and pronghorn antelope. Important seasonal habitat is provided for resident and migratory animals including western toad, sagebrush lizard, western rattlesnake, shrews, bats, jackrabbits, ground squirrels, mice, coyote, red fox, badger, sage-grouse, Ferruginous hawk, prairie falcon, horned lark, and western meadowlark. Changes in the plant community composition can reduce the number and diversity of wildlife species in the area. Area sensitive species include pygmy rabbit, burrowing owl, Great Basin ground squirrel, long-nosed snake, groundsnake, Great Basin collared lizard, and Townsend pocket gopher. With reduced shrub cover, shrub obligate avian and mammal species become rare including sage-grouse, brewer's sparrow, sage sparrow, sage thrasher, and pygmy rabbits. Encroachment of noxious and invasive plant species (cheatgrass, Rush skeleton weed, and knapweed) can replace native plant species which provide critical feed, brood-rearing, and nesting cover for a variety of native wildlife. Water features are sparse provided by seasonal streams, artificial water catchments, and springs.

State 1 Phase 1.1 - Wyoming Big Sagebrush/ Bluebunch Wheatgrass/ Sandberg Bluegrass Reference Plant Community (RPC): This plant community provides a diversity of grasses, forbs, and shrubs used by native insect communities that assist in pollination. The reptile and amphibian community is represented by leopard lizard, short horned lizard, sagebrush lizard, western skink, western rattlesnake, and western toad. Amphibians are associated with springs and isolated water bodies adjacent to this plant community. Spring developments that capture all available water would preclude the use of these sites by amphibians. Native shrub-steppe obligate avian species include the Brewer's sparrow, sage sparrow, sage thrasher, and sage-grouse. Critical habitat (brood-rearing, nesting areas and winter cover) for sage-grouse is provided by this diverse plant community. The plant community supports seasonal needs of large mammals (mule deer and antelope) providing food and cover. Wyoming big sagebrush is preferred browse for wild ungulates. A diverse small mammal population including golden-mantled ground squirrels, chipmunks, yellow-bellied marmots, and pygmy rabbits would utilize this plant community.

State 1 Phase 1.2 - Wyoming Big Sagebrush/ Sandberg Bluegrass/ Bottlebrush Squirreltail Plant Community: This plant community is the result of improper grazing management. An increase in canopy cover of sagebrush contributes to a sparse herbaceous understory. Grasses, forbs, and shrubs, are used by native insects that assist in pollination but the reduced herbaceous understory results in lower populations of insects. The reduced diversity and population of insects would reduce reptile diversity. Reduced herbaceous understory is a key factor in limiting the use of this plant community by avian species. Key shrub-steppe obligates avian species including Brewer's sparrow, sage sparrow, sage thrasher, and sage-grouse are still supported in the plant community but populations may be reduced. Critical habitat (brood-rearing, nesting areas, winter cover) for sage-grouse is limited due to a less diverse herbaceous plant community. The plant community supports seasonal needs of large mammals (mule deer and antelope) providing food, thermal cover, and young of year cover. Wyoming big sagebrush is preferred browse for wild ungulates. A diverse small mammal population including golden-mantled ground squirrels, chipmunks, yellow-bellied marmots, and pygmy rabbits would utilize this plant community.

State 1 Phase 1.3 - Bluebunch Wheatgrass/ Sandberg Bluegrass Plant Community: This plant community is the result of frequent fire. The plant community, dominated by herbaceous vegetation with little or no sagebrush provides less vertical structure and limits use by shrub obligate animals. Insect diversity would be reduced but a diverse native forb plant community would still support select pollinators. Reptile use, including short horned lizard, sagebrush lizard, and western rattlesnakes, would be limited or excluded due to the absence of sagebrush. The dominance of herbaceous vegetation with little sagebrush canopy cover would prevent use of these areas for nesting by Brewer's sparrow, sage sparrow, sage thrasher, and sage-grouse. This plant community provides broodrearing habitat for sage-grouse when sagebrush cover is nearby. The site does not provide suitable winter or nesting cover for sage grouse. The herbaceous vegetation improves habitat for grassland avian species (horned lark and western meadowlark). Large mammal (mule deer and antelope) use for foraging would be seasonal but the site would offer little thermal and young of year cover. Antelope use may increase with the reduction of shrub cover. Small mammal diversity would be reduced with an increase in predator hunting success. The plant community would not provide suitable habitat for pygmy rabbits.

continued improper grazing management and/or frequent fire. The loss of the native shrub and herbaceous plant community would not support a diverse insect community. The reduced forb component in the plant community would support a very limited population of pollinators. An increase in grasshopper population may occur. Forb production would be limited to invasive plants and annuals. Most native reptilian species are not supported with food, water, or cover. This plant community does not support the habitat requirements for sage-grouse, sage thrasher, Brewer's sparrow, or sage sparrow. Diversity of grassland avian species is reduced due to poor cover and food. Birds of prey including hawks and falcons may range throughout these areas looking for prey species. Large mammals may utilize the herbaceous vegetation in the early part of the year when the invasive annuals (cheatgrass) are more palatable. At other times of the year large mammals would not regularly utilize these areas due to poor food and cover conditions. Predator hunting success would increase and as a result, small mammal populations may decrease. The populations of small mammals would be dominated by open grassland species like the Columbian ground squirrel.

State 3 - Range Seeding Plant Community: The seeding mixture (native or non-native) determines the animal species that utilize this site. A diverse seed mixture of grasses and forbs would provide similar habitat conditions as in the herbaceous plant community described in State 1 phase 1.3. A diverse seed mixture of grasses, forbs and shrubs would provide similar habitat conditions as described in State 1 phase 1.1 or 1.2. A monoculture of non-native grass species would not support diverse populations of insects, reptiles, avians, mammals, or sagebrush obligate species. Grassland animal species including western meadowlark, horned lark, savannah sparrow, deer mouse, kangaroo rat, and elk would utilize this site for nesting and/or foraging. Birds of prey including hawks and falcons may range throughout this community looking for prey species.

Grazing Interpretations.

This site is best suited for grazing by livestock in the spring and fall. There are few limitations to grazing. The distance to water may be a problem in some areas.

Estimated initial stocking rate will be determined with the landowner or decision-maker. They will be based on the inventory which includes species, composition, similarity index, production, past use history, season of use and seasonal preference. Calculations used to determine estimated initial stocking rate will be based on forage preference ratings.

## **Hydrological functions**

The soils in this site are in hydrologic group C. When hydrologic conditions of the vegetative cover is good, natural erosion hazard is slight.

#### Recreational uses

This site has very little recreational value. Some use may occur with off-road vehicles. Some value exists for hunting, hiking, photography and sightseeing of wildlife.

### **Wood products**

None

## Other products

None

#### Inventory data references

Information presented here has been derived from NRCS clipping and other inventory data. Also, field knowledge of range-trained personnel was used. Those involved in developing this site description include:

Dave Franzen, co-owner, Intermountain Rangeland Consultants, LLC

Jacy Gibbs, co-owner, Intermountain Rangeland Consultants, LLC

Jim Cornwell, Range Management Specialist, IASCD

Brendan Brazee State Rangeland Management Specialist 2012 RCS, Idaho

Leah Juarros, Resource Soil Scientist, NRCS, Idaho Lee Brooks, Range Management Specialist, IASCD

#### Other references

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#### **Contributors**

Dave Franzen DLF

#### **Approval**

Kendra Moseley, 4/06/2020

## Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	Dave Franzen and Jacy Gibbs.
Contact for lead author	Brendan Brazee, State RMS, USDA-NRCS 9173 W. Barnes, Suite C Boise, ID 83709
Date	03/28/2007
Approved by	Kendra Moseley
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

#### **Indicators**

1. **Number and extent of rills:** Rills: rarely occur on this site. If they do occur they are most likely to be on slopes greater than 15% and immediately following wildfire. Stones, when present on the surface, reduce erosion in some areas.

3.	<b>Number and height of erosional pedestals or terracettes:</b> Pedestals and/or Terracettes: are rare on this site. In areas of greater than 15% slopes where flow patterns and/or rills are present a few pedestals and terracettes may be expected.
4.	Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground): Bare Ground:expected to range from 30-40 percent.
5.	Number of gullies and erosion associated with gullies: Gullies: do not occur on this site.
6.	<b>Extent of wind scoured, blowouts and/or depositional areas:</b> Wind-Scoured, Blowouts, and/or Deposition Areas: usually not present. Immediately following wildfire some soil movement may occur on lighter textured soils.
7.	Amount of litter movement (describe size and distance expected to travel): Litter Movement: fine litter in the interspaces may move up to 2 feet or further following a significant run-off event. Coarse litter generally does not move.
8.	Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values): Soil Surface Resistance to Erosion: values should range from 4 to 6.
9.	Soil surface structure and SOM content (include type of structure and A-horizon color and thickness): Soil Surface Loss or Degradation: the A or A1 horizon is typically 1 to 8 inches thick.  Structure ranges from weak fine or very fine granular to weak very thin or thin, or strong thick play. Soil organic matter (SOM) ranges from 0.5 to 3 percent.
10.	Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff: Plant Community Composition and Distribution Relative to Infiltration: Bunchgrasses, especially deep-rooted perennials, slow run-off and increase infiltration. Shrubs accumulate snow in the interspaces. Terracettes provide a favorable micro-site for vegetation establishment, which further increases infiltration.
11.	Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site): Compaction Layer: not present.
12.	Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):

Dominant: Functional/Structural Groups: cool season deep-rooted perennial bunchgrasses >>tall shrubs> perennial

05/06/2024

When they do occur, they are short, disrupted by cool season perennial grasses and tall shrubs and are not extensive.

	Sub-dominant:
	Other:
	Additional:
13.	Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence): Plant Mortality/ Decadence: Wyoming big sagebrush will become decadent in the absence of fire and ungulate grazing. Grass and forb mortality will occur as tall shrubs increase.
14.	Average percent litter cover (%) and depth (in): Litter Amount: annual litter cover in the interspaces will be 5-10 percent to a depth of <0.1" Under the mature shrubs litter is greater than 0.5 inches. Fine litter can accumulate on the terracettes.
15.	<b>Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):</b> Annual Production: 450 lbs. per acre in a year with normal precipitation and temperatures. Perennial grasses produce 50-65 percent of the total, forbs 10-20 percent, and shrubs 20-30 percent.
16.	Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site: Invasive Plants: cheatgrass, bulbous bluegrass, rush skeletonweed, scotch thistle, medusahead, spotted and diffuse knapweed, Russian thistle, annual kochia, and halogeton.
17.	Perennial plant reproductive capability: Reproductive Capability of Perennial Plants: all functional groups have the potential to reproduce in favorable years.



# Ecological site R011XY016OR Sandy 8-11 PZ

Accessed: 11/12/2023

#### **General information**

**Provisional**. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.



Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

#### **Associated sites**

R011XY034OR	Sandy North Slopes 8-11 PZ Sandy North Slopes 8-11 PZ
R011XY020OR	South Slopes 8-11 PZ South Slopes 8-11 PZ
R011XY012OR	Silty 8-11 PZ Silty 8-11 PZ

#### Similar sites

R011XY034OR	Sandy North Slopes 8-11 PZ Sandy North 8-11 PZ (north aspect, higher production)
R011XY012OR	Silty 8-11 PZ Silty 8-11 PZ (silty to fsl surface, different composition - beardless wheatgrass dominant)

Table 1. Dominant plant species

Tree	Not specified

Shrub	(1) Atriplex canescens (2) Artemisia tridentata ssp. wyomingensis
Herbaceous	(1) Hesperostipa comata (2) Poa secunda

## Physiographic features

This site occurs on low elevation terraces in the Malheur, Owyhee and adjacent Snake River drainage. Slopes typically range from 0 to 12%. Elevations vary from 2,100 to 3,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Terrace
Elevation	2,100–3,000 ft
Slope	0–12%
Aspect	Aspect is not a significant factor

#### **Climatic features**

The annual precipitation ranges from 8 to 11 inches, most of which occurs in the form of rain during the months of December through April. The soil temperature regime is mesic with a mean air temperature of 53 degrees F. Temperature extremes range from 110 to -10 degrees F. The frost free period ranges from 150 to 190 days. The optimum growth period for plant growth is late March through June.

Table 3. Representative climatic features

Frost-free period (average)	190 days
Freeze-free period (average)	0 days
Precipitation total (average)	11 in

## Influencing water features

#### Soil features

The soils of this site are typically deep and well to somewhat excessively drained. Typically the surface layer is a fine sandy loam to a loamy fine sand. The subsoil is a loamy sand to sand 15 to 40 inches thick. Depth to lacustrine, alluvial or tuffaceous sediments ranges from 40 to greater than 60 inches. An indurate pan may be present. Permeability is moderately rapid to rapid. The available water holding capacity (AWC) is about 4 to 6 inches for the profile. The erosion potential, both wind and water, is severe.

Table 4. Representative soil features

Surface texture	(1) Fine sandy loam (2) Loamy fine sand
Family particle size	(1) Sandy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderately rapid to rapid
Soil depth	40–60 in
Available water capacity (0-40in)	4–6 in

#### **Ecological dynamics**

The potential native plant community is dominated by four-wing saltbush and needle and thread. Wyoming big sagebrush, Indian ricegrass and Thurber's needlegrass are prominent. Sandberg bluegrass, a variety of forbs and other shrubs are present. Vegetative composition of the community is approximately 80 percent grasses, 5 percent forbs and 15 percent shrubs. The approximate ground cover is 60 to 70 percent (basal and crown).

#### Range in Characteristics:

Variability in plant composition on this site results from variations in soil surface texture. Four-wing saltbush and needle and thread increase on loamy sand surfaces. Indian ricegrass increases on coarse sandy surfaces. Thurber's needlegrass increases on fine sandy loam surfaces. Antelope bitterbrush occurs over gravels. Production increases at the upper end of the precipitation zone.

Fourwing saltbush and Wyoming Sagebrush are the dominant shrubs.

#### Response to Disturbance:

When the condition of the site deteriorates as a result of over grazing four-wing saltbush, needle and thread and Indian ricegrass decrease. Wyoming big sagebrush, rabbitbrush, broom snakeweed and sand dropseed increase. Cheatgrass invades along with other annuals and biennial weeds. Bare ground increases. With fire and continued disturbance fourwing saltbush sagebrush is severely impacted. Rabbitbrush increases slightly and annuals and noxious biennial forbs continue to invade. Under deteriorated conditions excessive wind erosion in the bare soil interspaces reduces the site potential. Small migration dunes, blowouts and hummocks develop. Water erosion increases with excessive erosion most pronounced in drainage areas where deep incised gulley's form.

States: ARTRW/BRTE-bare ground; BRTE/biennial forbs-bare ground (following fire on degraded range)

#### State and transition model

#### **Ecosystem states**

Historic Climax Plant Community

#### State 1 submodel, plant communities

1.1. Historic Climax Plant Community	

# State 1 Historic Climax Plant Community

# **Community 1.1 Historic Climax Plant Community**

The potential native plant community is dominated by four-wing saltbush and needle and thread. Wyoming big sagebrush, Indian ricegrass and Thurber's needlegrass are prominent. Sandberg bluegrass, a variety of forbs and other shrubs are present. Vegetative composition of the community is approximately 80 percent grasses, 5 percent forbs and 15 percent shrubs. The approximate ground cover is 60 to 70 percent (basal and crown).

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	400	560	800
Shrub/Vine	75	105	150
Forb	25	35	50
Total	500	700	1000

# Additional community tables

Table 6. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass	/Grasslike				
1	Dominant, perennial, de	ep rooted	bunchgrass	420–560	
	needle and thread	HECO26	Hesperostipa comata	420–560	_
2	Sub-dominant, perennia	l, deep-ro	oted bunchgrass	70–140	
	Indian ricegrass	ACHY	Achnatherum hymenoides	35–70	_
	Thurber's needlegrass	ACTH7	Achnatherum thurberianum	35–70	_
4	Sub-dominant, perennia	l, shallow	-rooted grass	14–35	
	Sandberg bluegrass	POSE	Poa secunda	14–35	_
5	Other perennial grasses			15–90	
	squirreltail	ELEL5	Elymus elymoides	5–14	_
	thickspike wheatgrass	ELLA3	Elymus lanceolatus	5–14	_
	basin wildrye	LECI4	Leymus cinereus	5–14	_
	beardless wheatgrass	PSSPI	Pseudoroegneria spicata ssp. inermis	0–14	-
	sand dropseed	SPCR	Sporobolus cryptandrus	0–10	_
	foxtail wheatgrass	PSSA2	×Pseudelymus saxicola	0–10	_
Forb					
8	Dominant, perennial for	b		31–55	
	arrowleaf balsamroot	BASA3	Balsamorhiza sagittata	14–21	_
	buckwheat	ERIOG	Eriogonum	7–14	_
	phlox	PHLOX	Phlox	5–10	_
	fleabane	ERIGE2	Erigeron	5–10	_
9	Other forbs			12–55	
	milkvetch	ASTRA	Astragalus	3–7	_
	common yarrow	ACMI2	Achillea millefolium	3–7	_
	desertparsley	LOMAT	Lomatium	3–7	_
	lupine	LUPIN	Lupinus	3–7	_
	plains pricklypear	ОРРО	Opuntia polyacantha	0–7	_
	showy penstemon	PESP3	Penstemon spectabilis	0–4	_
	scarlet globemallow	SPCO	Sphaeralcea coccinea	0–4	_
	deathcamas	ZIGAD	Zigadenus	0–4	_
	onion	ALLIU	Allium	0–4	_
	common woolly supilewells/idenals similaryery	ERLA6	Eriophyllum lanatum 05/06/2024	0–4 Crimson Bridge Esta <del>tes</del> s	- 1954

Shru	Shrub/Vine				
11	Dominant shrubs			49–105	
	fourwing saltbush	ATCA2	Atriplex canescens	35–70	_
15	Other shrubs	-		12–28	
	basin big sagebrush	ARTRT	Artemisia tridentata ssp. tridentata	3–7	_
	rubber rabbitbrush	ERNA10	Ericameria nauseosa	3–7	_
	spiny hopsage	GRSP	Grayia spinosa	3–7	_
	broom snakeweed	GUSA2	Gutierrezia sarothrae	0–7	_
	winterfat	KRLA2	Krascheninnikovia lanata	0–7	_
	antelope bitterbrush	PUTR2	Purshia tridentata	0–7	_
	littleleaf horsebrush	TEGL	Tetradymia glabrata	0–7	_

## **Animal community**

Livestock Grazing:

This site is suitable for livestock grazing use in the late winter, spring, and fall under a planned grazing system. Use should be postponed until the soils are firm enough to prevent trampling damage and soil compaction. Grazing management should be keyed to four wing saltbush, needle and thread and Thurber's needlegrass. Deferred grazing or rest is recommended at least once every three years.

Native Wildlife Associated with the Potential Climax Community:

This site is commonly used by pronghorn antelope, mule deer, rabbits, rodents, upland birds and various predators. Antelope and mule deer make excellent use of the site for winter and spring forage.

## **Hydrological functions**

The soils of this site are subject to both wind and water erosion. When the hydrologic cover is high they have high wind erosion resistance, low runoff potential and high infiltration rates. Hydrologic cover is high when needle and thread, Thurber's needlegrass and other deep rooted bunchgrass components is greater than 70 percent of potential.

#### **Contributors**

T. Bloomer, E.Petersen, A.Bahn T.Bloomer, E.Petersen, A.Bahn

## Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production



# Ecological site R011XY019ID Meadow DECA18-CANE2

Last updated: 4/06/2020 Accessed: 11/12/2023

#### **General information**

**Provisional**. A provisional ecological site description has undergone quality control and quality assurance review. It contains a working state and transition model and enough information to identify the ecological site.

#### **MLRA** notes

Major Land Resource Area (MLRA): 011X-Snake River Plains

Major Land Resource Area (MLRA): 011X - Snake River Plains

Precipitation or Climate Zone: Additional moisture site

#### Classification relationships

Land Resource Region: B (Northwest Wheat and Range)

MLRA: 11 (Snake River Plains)

EPA Eco Region: Level III (Snake River Plain)

#### **Ecological site concept**

Site does receive additional moisture

Soils are:

Not saline or saline sodic

Somewhat poorly drained, with fluctuating water table from surface to 20-40"

Moderately deep to very deep, with <35% coarse fragments (by volume). Not skeletal

not strongly or violently effervescent in the surface mineral 10"

Textures range from silty clay loam to clay in the surface mineral 4"

Slope is <30%

Clay content is =>35% in surface mineral 4"

#### **Associated sites**

R011XY015ID	Loamy Bottom 8-14 PZ ARTRT/LECI4
R011XY020ID	Dry Meadow POSE-PHAL2

#### Similar sites

R011XY020ID	Dry Meadow POSE-PHAL2
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#### Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

#### Physiographic features

This site generally occurs on gently sloping to nearly level stream valleys and high mountain valleys on flood plains with slopes of 0 to 4 percent. It also occurs around localized seeps and springs. This site is frequently dissected by old stream courses, oxbows, and potholes. The surface is generally not flat but slightly undulating with small depressions and high spots. Elevations range between 2000-5000 feet (600-1550 meters).

Table 2. Representative physiographic features

Landforms	(1) Hill
Flooding duration	Very brief (4 to 48 hours) to brief (2 to 7 days)
Flooding frequency	Occasional
Ponding duration	Very brief (4 to 48 hours) to brief (2 to 7 days)
Ponding frequency	Occasional
Elevation	2,000–5,000 ft
Slope	0–4%
Ponding depth	2–6 in
Water table depth	0–40 in
Aspect	Aspect is not a significant factor

#### Climatic features

MLRA 11 is part of Idaho's Snake River Plain. The elevation ranges from 2,077 to 7,549 feet, with a mean of 3,992 feet. Most of the precipitation falls as rain in the fall, winter and spring. Very little precipitation occurs during the summer months. In general this MLRA receives more sun than the U.S. average during the summer, but less than average during the winter.

The average annual precipitation is 10.01 inches (based on 10 long term climate stations located throughout the MLRA), with minimum and maximum values of 8.38 and 11.62 inches, respectively.

The average annual temperature ranges from 38° to 65° Fahrenheit. With a maximum average temperature of 65 degrees F. and a minimum average of 38 degrees F. The frost free interval ranges from 139 to 165 days and the freeze free interval ranges from 168 to 196 days.

Table 3. Representative climatic features

Frost-free period (average)	165 days
Freeze-free period (average)	196 days
Precipitation total (average)	12 in

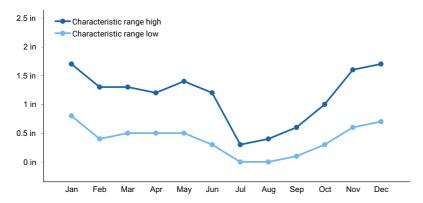


Figure 1. Monthly precipitation range

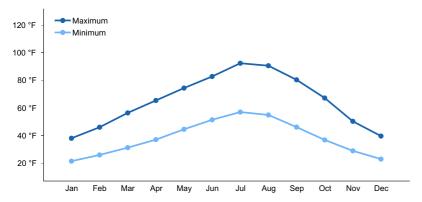


Figure 2. Monthly average minimum and maximum temperature

### Influencing water features

The meadow site is influenced by additional water from either adjacent streams through seasonal flooding, water table, seeps or springs, or from run-on from adjacent sites. The site may include the following wetlands and stream types.

#### Soil features

Soils on this site are mainly clays, clay loams, or silty clay loams over 20 inches (50 cm.), moderately deep to deep, alluvial in origin, and may be somewhat stony or gravelly. The soils range from slightly alkaline to slightly acid in pH. The available water holding capacity (AWC) is moderate to high and is supplemented by upward capillary movement from the shallow water table. The effective rooting depth is limited by the water table.

Erosion hazard is slight, however, the peaty and high organic soils tend to hummock severely from trampling. These soils are susceptible to gully formation which intercepts normal overflow patterns and results in site degradation. The soils are somewhat poorly drained and have a water table at or near the surface at the beginning of the growing season and down to a depth of 20-40 inches by the end of the growing season. Flooding occurs occasionally during snowmelt and just after snowmelt. Ponding can occur in small depressional areas during this time period. The plant community is dependent on nearly saturated soils during a major portion of the growing season. The water table is influenced by seasonal flooding, stream flows, seeps or springs, or from run-on from adjacent sites. Soil characteristics, flooding, and water table can vary across the complex of meadow sites.

Soil Series Correlated to this Ecological Site -

No data

#### **Ecological dynamics**

The dominant visual aspect of this site is grass and sedges with scattered forbs and shrubs. The dominant plant community has tufted hairgrass, Nebraska sedge and other Carex species as major components. The site usually occurs within a complex of wetland sites. The soil surface of the site is typically slightly undulating causing small depressions and high spots with variable soil moisture regimes. The plant communities found on these areas are sites within the complex. The dominant species in these included plant communities are as follows:

- 1. Marsh site. Deeper depressions with the water table at or near the surface or slightly above the surface for the entire growing season. This site is dominated by broadleaf cattail, hardstem bulrush, and common threesquare.
- 2. Wet Meadow site. Shallow to depression areas with the water table at or near the surface for the entire growing season. This site is dominated by Carex spp. and Junus spp.
- 3. Dry Meadow site. Slightly higher areas that are drier during the growing season and the water table is > 40 inches deep by the end of the growing season. The plant community is dominated by Nevada bluegrass and alpine timothy.

Composition by weight is 80-90 percent grasses and grass-like, 5-15 percent forbs, and 0-10 percent shrubs. The depressional plant communities are inclusions and may have sedges and rushes making up nearly 100 percent of the community.

During the last few thousand years, this site has evolved in a semi-arid climate characterized by dry summers and cold, wet winters. The site has evolved on deep alluvial soils that are saturated to the surface in the beginning of the growing season and move down to about 20 – 40 inches deep by the end of the growing season. Herbivory has historically occurred on this site at low levels of utilization. Herbivores include pronghorn antelope, mule deer, moose, and Rocky Mountain elk.

Fire has had some influence on the development of the site. Wildfires can occur mid-summer to early fall and are more likely to happen following consecutive drought years. When fires do occur they are usually a result of an adjacent site burning.

The conditions for the plant community of this site are highly variable due to a wide variation of soils, duration and frequency of flooding, water table fluctuations, air and soil temperatures, and competition between mostly rhizomatous plants. These conditions can vary within the site at a given location. At any one point within the site, one species can occupy nearly 100 percent of a small area. Another point nearby, may have another species fully occupying that area. Due to these situations, the plant community in this ESD is written broadly.

The soils within any complex of meadow sites are highly variable. Factors that affect the determination of the site include depth to water table at end of growing season, micro-topography, and drainage class. Depth to water table and micro-topography are measurable features. Determination of drainage class requires the use of soil interpretation tables. Other interpretive factors that may be used for site determination are the frequency and duration of flooding and the depth, frequency, and duration of ponding.

Micro-topography is a feature that has a dramatic affect on depth to water table and the resulting plant communities. A few inches of change in surface elevation changes species composition and/ or production. Slightly undulating topography is common in meadow complexes, therefore, more than one site should be expected.

An infinite number of combinations of factors that influence the ecology of potential plant communities exist. For practical purposes, four (4) plant communities where the depth to the water table drives the vegetative composition have been described. They are:

- Dry meadow Water table at >40" at end of growing season
- Meadow Water table at 20-40" at end of growing season
- Wet meadow Water table at 10-20" at end of growing season
- Marsh Water at surface to <10" at end of growing season</li>

Most wetland species have a wide range of tolerance for variations in soil moisture. Most species occur in more than one site, although most are dominant on just one site.

The Historic Climax Plant Community (HCPC), the Reference State (State 1), moves through many phases depending on the natural and man-made forces that impact the community over time. State 1, described later, indicates some of these phases. The Reference Plant Community Phase is Phase A. This plant community is dominated by tufted hairgrass and Nebraska sedge. There are a wide variety of grasses and grass-like species and forbs that may occur in minor amounts. Some of these species may be dominant in small areas due to soil and water variations as stated above. Willows and shrubby cinquefoil can occur in small amounts. The plant species composition of Phase A is listed later under "Reference Plant community Phase Plant Species Composition".

The total annual production is 3600 pounds per acre (4032 kilograms per hectare) in a normal year. Production in a favorable year is 4500 pounds per acre (5040 kilograms per hectare). Production in an unfavorable year is 2500 pounds per acre (2800 kilograms per hectare). Structurally, cool season deep-rooted perennial grasses and sedges are very dominant, followed by perennial forbs being more dominant than shrubs.

#### **FUNCTION:**

This site is suitable for big game and livestock grazing in the late spring, summer, and fall. Wet soils can limit grazing opportunities, particularly early in the year.

This site can be used for hiking, access to fishing, hunting, viewing wildlife and plants, and horseback riding. The wet soils can limit access. Motorized vehicles can be very detrimental to the site especially when soils are saturated to the surface.

Due to the deep soils, fertility, inherent high productivity, rhizomatous plants, and relatively flat slopes, the site is fairly resistant to disturbances that can potentially degrade it. Site degradation is usually the result of lowering of the water table. This can occur with down cutting of adjacent stream channels or significant run-off following prolonged drought. This can result from on-site improper grazing or off-site conditions in the upper watershed. Once adjacent streams down-cut, concentrated flows lower the water table.

Impacts on the Plant Community:

Influence of fire:

This site usually does not burn from wildfire. If a fire occurs, it usually does not adversely affect the plant community. Most plants including shrubs sprout back with sufficient moisture and during the next growing season.

Influence of improper grazing management:

Season-long grazing and/or excessive utilization can be very detrimental to this site. The grasses in the plant community will decline in the stand and sedges, rushes, and forbs will increase.

Continued improper grazing management will result in a stand of forbs and Kentucky bluegrass with sedges and rushes. The reduced ability of the community to withstand seasonal flooding is reduced and down cutting of adjacent streams can result or initiation of headcuts can occur. This down cutting will lower the water table and thus reduce the potential of the site

Proper grazing management that addresses frequency, duration, and intensity of grazing can maintain the integrity of the plant community and the water table on which it is dependent.

Weather influences:

Because of the deep soils, the influence of the water table, seasonal flooding and run-on, the production of this site changes little during wet or dry precipitation years. The overall plant production can be adversely influenced with prolonged drought. Overall plant composition is normally not affected when perennials have good vigor.

Below normal temperatures in the spring can have an adverse impact on total production regardless of the precipitation. An early, hard freeze can occasionally kill some plants.

Influence of Insects and disease:

Periodic disease and insect outbreaks can affect vegetation health. Mormon cricket and grasshopper outbreaks occur periodically. Outbreaks seldom cause plant mortality since defoliation of the plant occurs only once during the year of the outbreak. An outbreak of a particular insect is usually influenced by weather but no specific data for this site is available.

Influence of noxious and invasive plants:

Annual and perennial invasive species can compete with desirable plants for moisture and nutrients. The result is reduced production and change in composition of the plant community. The plants on this site are very competitive against potential invasive species.

#### Influence of wildlife:

This site is important for many species of mammals for food and life cycles. The site is primarily used in the late spring, summer, and fall by big game. Many birds use the site for food, nesting, or brood raising in the late spring, summer, and fall. Sage grouse use the site for brood rearing and forage.

Total numbers are seldom high enough to adversely affect the plant community.

#### Watershed:

The largest threat to degradation of this site is the lowering of the water table. Off-site conditions can affect the gradient of adjacent stream channels that can affect the water table. If the perennial grass and sedge cover is depleted, down cutting can be accelerated within the site. High run-off events from the adjacent uplands can severely damage or change the normal stream channel on the site. As the water table is lowered, productive potential is lost. Eventually the water table is below the root zone of the adapted perennial grasses and grass-like sedges and rushes. These are ultimately replaced by perennial forbs and shallow rooted grasses. Extreme down cutting and lowering of the water table can move the site across the threshold to a new, less productive site. Severe down-cutting can result in a plant community that resembles an upland site.

Plant Community and Sequence:

Transition pathways between common vegetation states and phases:

State 1.

Phase A to B. Develops with improper grazing management.

Phase B to A. Results from prescribed grazing.

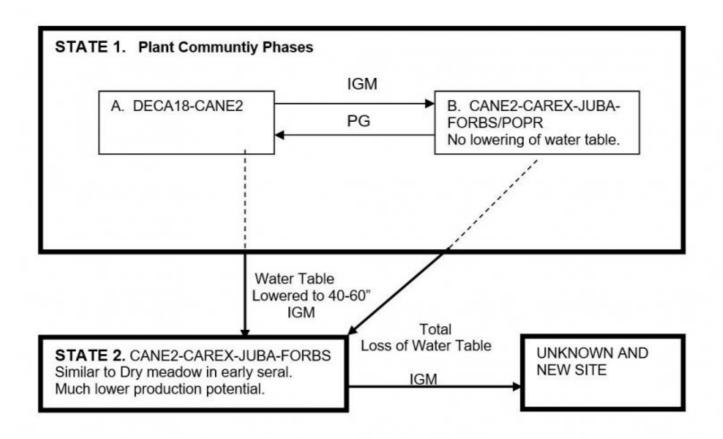
State 1 Phase A or B to State 2. Develops through permanently lowering the late growing season water table to 40 to 60 inches. This can occur with continued improper grazing management. It may also occur with proper grazing on the site, but channel erosion may continue if poor off-site conditions cause frequent and/or severe flooding. The site has crossed the threshold. This state cannot be returned to State 1 without raising the water table. This might be done over time using structures or bio-engineering practices, but the plant community may take many years to approach the plant community in State 1.

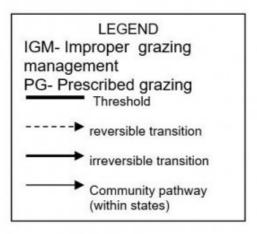
State 2 to unknown site. Results from permanently losing the water table in the soil profile through down cutting of the stream channel. The site crosses the threshold and retrogresses to a new site with reduced potential due to significant loss of available soil moisture from the loss of the water table. It occurs with continued improper grazing management or repeated significant run-off events. This state cannot be returned to State 1 without raising the water table. This might be done over time using structures or bio-engineering practices, but the plant community may take many years to approach the plant community in State 1.

#### **Practice Limitations:**

There are moderate to severe seeding limitations on this site due to difficulty in preparing an adequate seedbed. Elimination of existing vegetation prior to planting is difficult in wet seasons and high water table periods. Grade stabilization structures may be needed to prevent further down-cutting of the channel. Other options for rehabilitation may include application of fertilizer, prescribed grazing, and off-site livestock water development. Fencing of the site for better livestock control might also be a consideration.

#### State and transition model





#### PLANT LEGEND STATES 1 & 2

DECA18- Tufted Hairgrass CANE2 - Nebraska Sedge

CAREX - Sedges JUBA - Baltic Rush

POPR - Kentucky Bluegrass

State 1 Phase A

# Community 1.1 State 1 Phase A

Reference Plant Community Phase. This plant community has tufted hairgrass and Nebraska sedge as codominants in the herbaceous layer. There are a wide variety of grasses and grass-like species and forbs that may occur in minor amounts. Some of these species may be dominant in small areas due to soil and water variations as stated in the "Ecological Dynamics of the Site". Willows and shrubby cinquefoil can occur in small amounts.

Table 4. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	0%

Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	90-95%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	0%

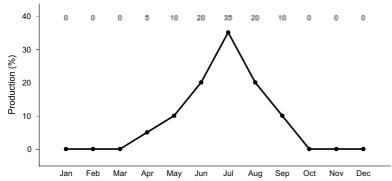


Figure 3. Plant community growth curve (percent production by month). ID0414, MEADOW. State 1.

# State 2 State 1 Phase B

# Community 2.1 State 1 Phase B

This plant community is dominated by Nebraska sedge and other sedges and Baltic rush. Forbs have increased in the community and Kentucky bluegrass may have invaded. This phase has developed due to improper grazing management. The water table has not been lowered from that of Phase A.

Table 5. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	0%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	90-95%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	0%

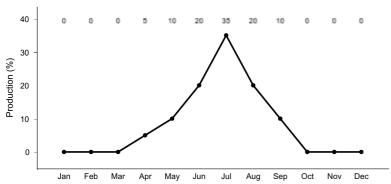


Figure 4. Plant community growth curve (percent production by month). ID0414, MEADOW. State 1.

# State 3 State 2

# Community 3.1 State 2

This plant community is dominated by Nebraska sedge and other sedges and Baltic rush but the overall production potential of the site is much lower than State 1. There is an increase in forbs and grasses that require less soil moisture. Kentucky bluegrass, redtop bentgrass, and meadow foxtail may have invaded the community. This state developed due to continued improper grazing management and a permanent lowering of the water table from 20-40 inches to 40-60 inches below the surface. This state can be similar to Dry Meadow in early seral state. The site has crossed the threshold. This state cannot be returned to State 1 without raising the water table. This might be done over time using structures or bio-engineering practices, but the plant community may take many years to approach the plant community in State 1.

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	0%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	90-95%
Litter Surface fragments >0.25" and <=3"	90-95%
Surface fragments >0.25" and <=3"	0%
Surface fragments >0.25" and <=3" Surface fragments >3"	0%

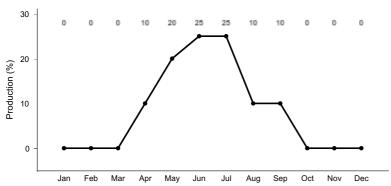


Figure 5. Plant community growth curve (percent production by month). ID0415, DRY MEADOW - early to mid seral. State 2.

# State 4 State 3

# Community 4.1 State 3

Unknown new site: This plant community has gone over the threshold to a new site. Site potential has been reduced. Significant loss of available soil moisture has occurred due to the loss of the water table. Some soil loss from the surface has occurred. This state has developed due to continued improper grazing management and loss of the water table. The new site may be similar to upland sites such as Loamy Bottom other loamy sites in early seral state. This state cannot be returned to State 1 without raising the water table. This might be done over time using structures or bio-engineering practices, but the plant community may take many years to approach the plant community in State 1.

# Additional community tables

#### **Animal community**

Wildlife Interpretations.

Animal Community – Wildlife Interpretations

This meadow ecological site provides diverse habitat for wetland and upland wildlife species. The seasonal hydrology results in abundant forage attracting invertebrate and vertebrate animals to this ecological site. Important seasonal habitat is provided for over 80% of adjacent rangeland resident and migratory animals including western toad, western rattlesnake, shrews, bats, jackrabbits, ground squirrels, mice, coyote, red fox, badger, sage-grouse, Ferruginous hawk, prairie falcon, horned lark, and western meadowlark. Large herbivore use of this ecological site includes mule deer, pronghorn antelope, and elk. Native reptiles and amphibians are reliant on these meadow sites throughout the year. Open water is seasonal, only being provided by seasonal runoff, ponding, seasonal high water table, and natural springs.

State 1 Phase 1.1 –Tufted Hairgrass/ Nebraska Sedge Reference Plant Community (RPC): The RPC provides a diversity of grasses and forbs used by native insect communities who assist in pollination of the plant community. The insects are food for the many predator species utilizing the site. The reptile and amphibian community is represented by leopard lizard, western skink, rubber boa, western rattlesnake, western toad, boreal chorus frog, and northern leopard frog. A diverse amphibian population is a key indicator of good ecological health on this site. Loss of hydrology will limit or exclude amphibians from this ecological site. Water loving birds including ducks, geese, cranes, and shorebirds may utilize the available habitat for nesting and feeding. Sage-grouse utilize the meadows as summer and fall brood-rearing habitat. Isolated patches of woody vegetation add horizontal and vertical structure for nesting and roosting sites for resident and migratory avian species. Bird species can include warbling vireo, black-capped chickadee, MacGillivray's warbler, fox sparrow, song sparrow, and long-billed curlew. The plant community supports seasonal (spring, summer and fall) forage needs of antelope, mule deer, and elk. The dominant plant community is preferred forage for the ungulates utilizing the site. Limited thermal cover for ungulates is provided by isolated patches of woody vegetation within the plant community. A diverse small mammal population including deer mouse, montane vole, and western jumping mouse may utilize available habitat on a Crimson Bridge Estates 1954

seasonal basis.

State 1 Phase 1.2- Nebraska Sedge/ Sedges/ Baltic Rush/ Forbs/ Kentucky Bluegrass Plant Community: This plant community is the result of improper grazing management. The new plant communitywould have similar insect diversity and populations to the reference plant community or possibly greater with the increase in forbs. With the hydrologic conditions similar to Phase 1.1, and proper management similar amphibian habitat would be available and prey species would be abundant. Continued improper grazing management would reduce the value of habitat for reptiles and amphibians. The plant community provides summer and fall brood-rearing habitat for sage-grouse when sagebrush cover is nearby. Large mammal (antelope, mule deer, and elk) use would be seasonal. The dominant plant community provides reduced amounts of quality forage for ungulates. Small mammal populations and diversity would be reduced under an improper grazing management scenario, reducing vertical structure and increasing vulnerability to predators.

State 2 – Nebraska Sedge/ Sedges/ Baltic Rush/Forbs/Grasses Plant Community: This state developed due to continued improper grazing management and a permanent lowering of the water table. Loss of historic hydrology has reduced the habitat value for many animals present in State 1. Pollinators would be supported by forbs requiring less moisture than plants in State 1. The loss of historic hydrology will limit or exclude use of the site by amphibians and many reptiles. Suitable habitat cover for the northern leopard frog, a species of concern, would not be provided. With improper grazing management the loss of vertical and horizontal structure would reduce diversity and populations of all species of birds. The site would be more suitable for killdeer, western meadowlark, and horned lark. Birds of prey (northern harrier and Cooper's hawk) may range throughout these areas looking for prey species. With continued improper grazing management forage for ungulates would be available for a shorter duration in the summer and fall. Small mammal populations and diversity would be reduced under an improper grazing management scenario reducing vertical structure and increasing vulnerability to predators.

Grazing Interpretations.

This site is best suited for livestock grazing in the late spring, summer, and fall. Wet soils can limit grazing opportunities, particularly in the late spring.

Estimated initial stocking rate will be determined with the landowner or decision-maker. They will be based on the inventory, past use history and type, condition of vegetation, production, season of use, and seasonal preference. Calculations used to determine estimated initial stocking rate will be based on forage preference ratings.

#### **Hydrological functions**

Soils in this site are generally grouped in hydrologic group D. When hydrologic condition of the vegetative cover is good, natural erosion hazard is slight.

#### Recreational uses

This site presents an aesthetically pleasing view of lush vegetation consisting primarily of grasses and grass-like plants. When livestock or big game are grazing or browsing on the site it presents a pleasant pastoral panorama. Hikers and fisherman often traverse the edges of this site. Picnickers and campers frequent the site in late summer and early fall as sometime adjacent shaded wooded areas become less pleasant on cool days. Vehicular use can be very detrimental to this site, especially during wet weather and high water table conditions.

#### **Wood products**

None

#### Other products

None

#### Field Offices

Meridian, ID

Caldwell, ID

Mountain Home, ID

Marsing, ID

Payette, ID

Weiser, ID

Emmett, ID

Gooding, ID

Twin Falls, ID

Jerome, ID

Shoshone, ID

Burley, ID

Rupert, ID

#### Inventory data references

Information presented here has been derived from NRCS clipping and other inventory data. Also, field knowledge of range-trained personnel was used. Those involved in developing this site description include:

Dave Franzen, co-owner, Intermountain Rangeland Consultants, LLC

Jacy Gibbs, co-owner, Intermountain Rangeland Consultants, LLC

Jim Cornwell, Range Management Specialist, IASCD

Dan Ogle, Plant Materials Specialist, Acting State Rangeland Management Specialist, NRCS, Idaho

Brendan Brazee, State Rangeland Management Specialist, NRCS, Idaho

Chris Hoag, Wetland Plant Ecologist, NRCS, Idaho

Leah Juarros, Resource Soil Scientist, NRCS, Idaho

Lee Brooks, Range Management Specialist, IASCD

#### Other references

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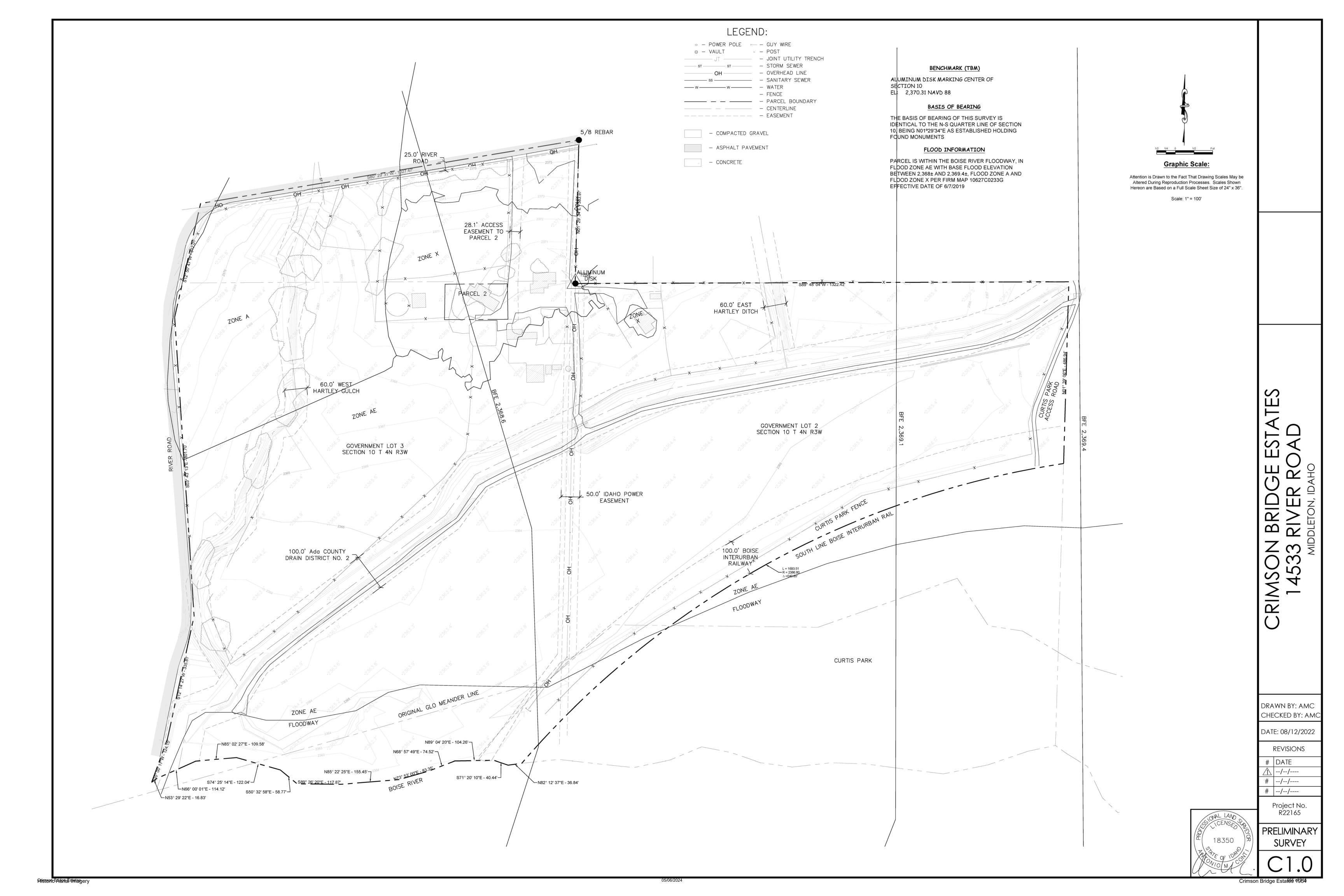
#### **Approval**

Kendra Moseley, 4/06/2020

#### Rangeland health reference sheet

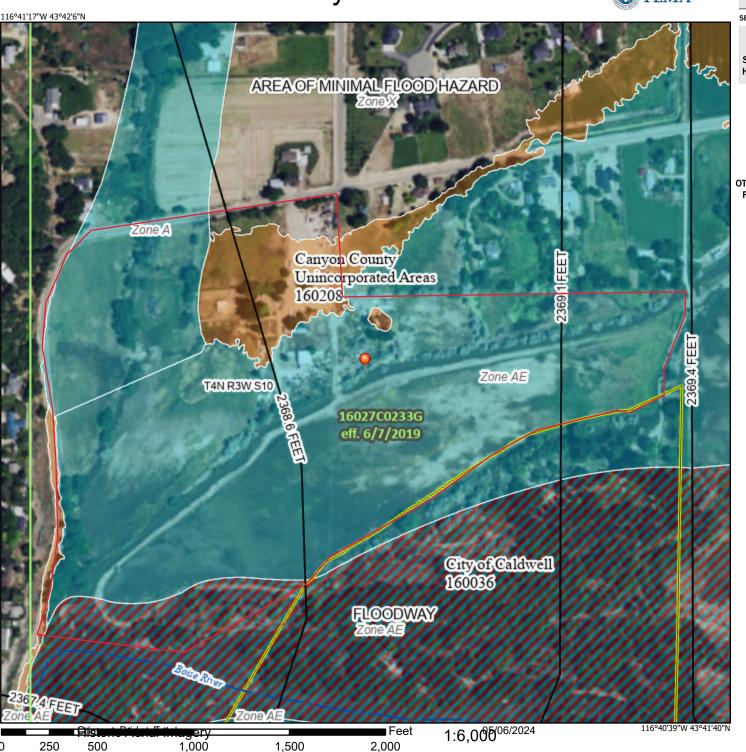
Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	Dave Franzen and Jacy Gibbs Intermountain Range Consultants 17700 Fargo Rd. Wilder, ID 83676



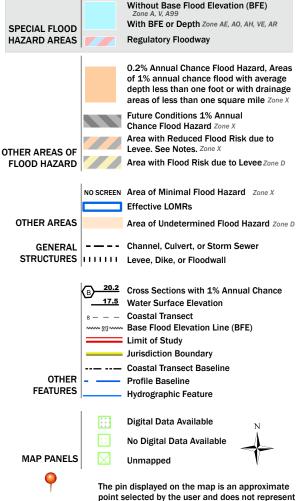
## National Flood Hazard Layer FIRMette





#### Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

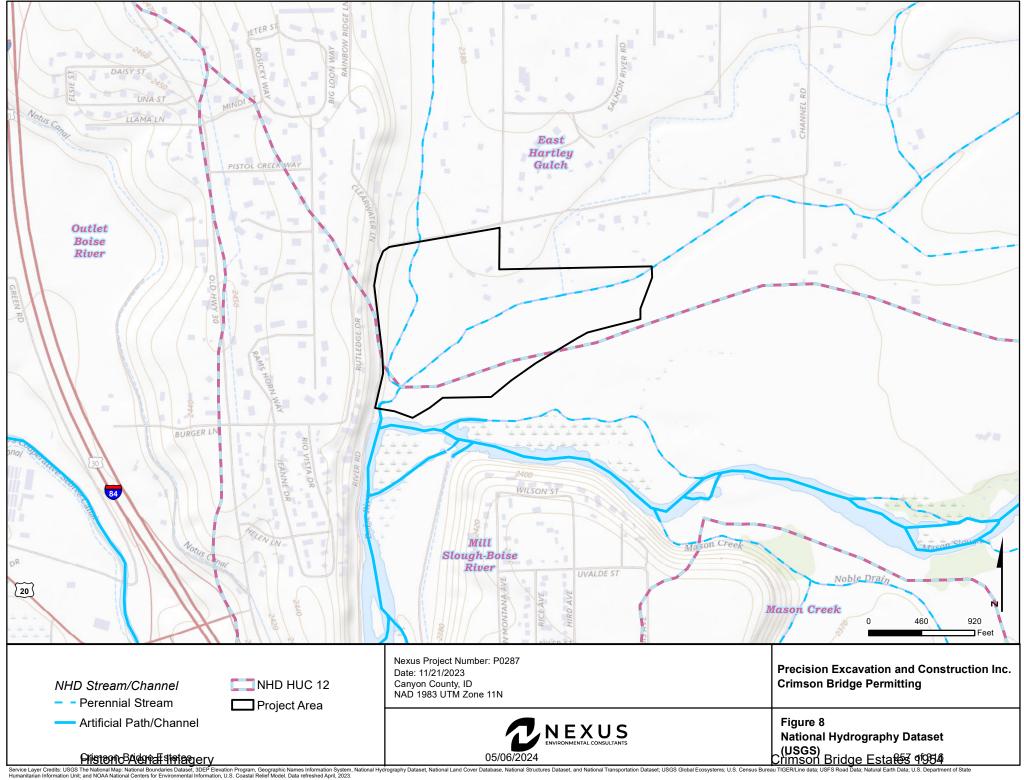


This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

an authoritative property location.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 11/10/2023 at 4:17 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

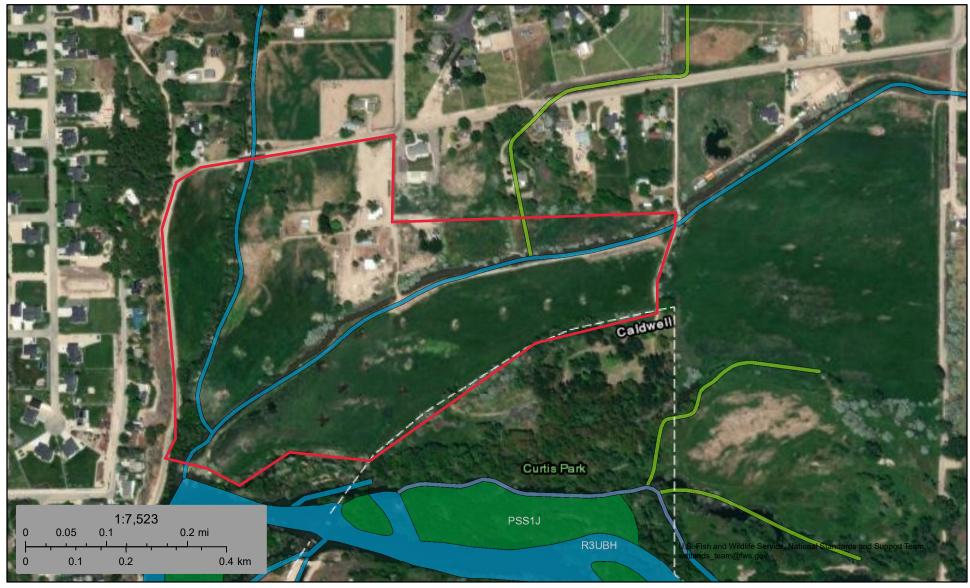
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for undirective and principles and the used for regulatory purposes.



#### U.S. Fish and Wildlife Service

## **National Wetlands Inventory**

## Crimson Bridge Estates



November 13, 2023

#### Wetlands

Estuarine and Marine Deepwater

Estuarine and Marine Wetland <del>Pristente Adaptal গাণান্ত</del>

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Freshwater Pond

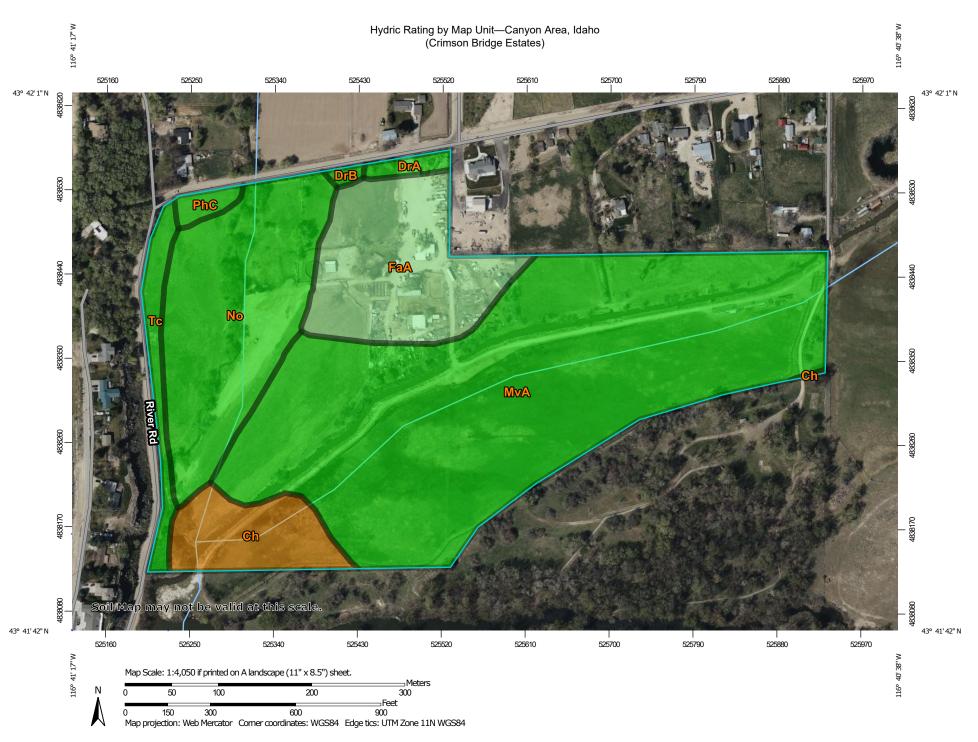
05/06/2024

Lake

Other

Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.



#### MAP LEGEND

#### Area of Interest (AOI) Transportation Area of Interest (AOI) Rails Soils Interstate Highways Soil Rating Polygons US Routes Hydric (100%) Major Roads Hydric (66 to 99%) Local Roads $\sim$ Hydric (33 to 65%) Background Hydric (1 to 32%) Aerial Photography Not Hydric (0%) Not rated or not available Soil Rating Lines Hydric (100%) Hydric (66 to 99%) Hydric (33 to 65%) Hydric (1 to 32%) Not Hydric (0%) Not rated or not available **Soil Rating Points** Hydric (100%) Hydric (66 to 99%) Hydric (33 to 65%) Hydric (1 to 32%) Not Hydric (0%) Not rated or not available **Water Features** Streams and Canals

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 19, Sep 2, 2022

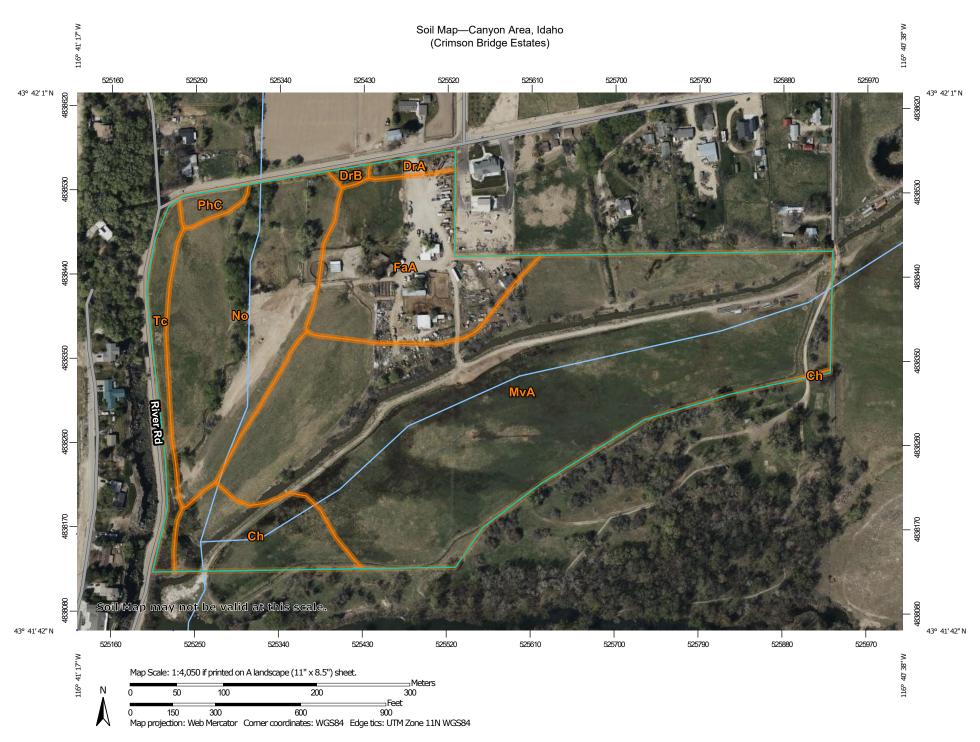
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 19, 2021—Apr 21, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## **Hydric Rating by Map Unit**

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Ch	Chance fine sandy loam	90	3.3	6.2%
DrA	Draper loam, 0 to 1 percent slopes	0	0.5	0.8%
DrB	Draper loam, 1 to 3 percent slopes	0	0.2	0.3%
FaA	Falk fine sandy loam, 0 to 2 percent slopes	5	7.3	13.7%
MvA	Moulton loam, 0 to 1 percent slopes	0	30.0	56.6%
No	Notus soils	0	9.7	18.4%
PhC	Power silt loam, 3 to 7 percent slopes	0	0.5	0.9%
Тс	Terrace escarpments	0	1.6	3.0%
Totals for Area of Interest			53.1	100.0%



#### MAP LEGEND

#### Area of Interest (AOI)

Area of Interest (AOI)

#### Soils

Soil Map Unit Polygons



Soil Map Unit Lines



#### **Special Point Features**

Blowout

Borrow Pit 

* Clay Spot

Closed Depression

Gravel Pit

**Gravelly Spot** 

Landfill ۵

Lava Flow Marsh or swamp

Mine or Quarry

Miscellaneous Water

Perennial Water

Rock Outcrop

Saline Spot

Sandy Spot Severely Eroded Spot 0

Sinkhole ٥

Slide or Slip

Sodic Spot

â Stony Spot

00 Very Stony Spot

Spoil Area

Wet Spot Other

Special Line Features

#### Water Features

Δ

Streams and Canals

#### Transportation

Rails ---

Interstate Highways

**US Routes** Major Roads

Local Roads

#### Background

Aerial Photography

#### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20.000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

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Soil Survey Area: Canyon Area, Idaho Survey Area Data: Version 19, Sep 2, 2022

Soil map units are labeled (as space allows) for map scales 1:50.000 or larger.

Date(s) aerial images were photographed: Apr 19, 2021—Apr 21. 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Soil Map—Canyon Area, Idaho Crimson Bridge Estates

## **Map Unit Legend**

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI				
Ch	Chance fine sandy loam	3.3	6.2%				
DrA	Draper loam, 0 to 1 percent slopes	0.5	0.8%				
DrB	Draper loam, 1 to 3 percent slopes	0.2	0.3%				
FaA	Falk fine sandy loam, 0 to 2 percent slopes	7.3	13.7%				
MvA	Moulton loam, 0 to 1 percent slopes	30.0	56.6%				
No	Notus soils	9.7	18.4%				
PhC	Power silt loam, 3 to 7 percent slopes	0.5	0.9%				
Тс	Terrace escarpments	1.6	3.0%				
Totals for Area of Interest		53.1	100.0%				

#### **Description**

This rating indicates the percentage of map units that meets the criteria for hydric soils. Map units are composed of one or more map unit components or soil types, each of which is rated as hydric soil or not hydric. Map units that are made up dominantly of hydric soils may have small areas of minor nonhydric components in the higher positions on the landform, and map units that are made up dominantly of nonhydric soils may have small areas of minor hydric components in the lower positions on the landform. Each map unit is rated based on its respective components and the percentage of each component within the map unit.

The thematic map is color coded based on the composition of hydric components. The five color classes are separated as 100 percent hydric components, 66 to 99 percent hydric components, 33 to 65 percent hydric components, 1 to 32 percent hydric components, and less than one percent hydric components.

In Web Soil Survey, the Summary by Map Unit table that is displayed below the map pane contains a column named 'Rating'. In this column the percentage of each map unit that is classified as hydric is displayed.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). Under natural conditions, these soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

#### References:

Federal Register. July 13, 1994. Changes in hydric soils of the United States.

Federal Register. September 18, 2002. Hydric soils of the United States.



Hurt, G.W., and L.M. Vasilas, editors. Version 6.0, 2006. Field indicators of hydric soils in the United States.

Soil Survey Division Staff. 1993. Soil survey manual. Soil Conservation Service. U.S. Department of Agriculture Handbook 18.

Soil Survey Staff. 1999. Soil taxonomy: A basic system of soil classification for making and interpreting soil surveys. 2nd edition. Natural Resources Conservation Service. U.S. Department of Agriculture Handbook 436.

Soil Survey Staff. 2006. Keys to soil taxonomy. 10th edition. U.S. Department of Agriculture, Natural Resources Conservation Service.

#### **Rating Options**

Aggregation Method: Percent Present

Component Percent Cutoff: None Specified

Tie-break Rule: Lower





project #4107

April 15, 2024

Derek Kraft, Connor MacMahon **Premier Aggregates LLC** 779 E. State Street Eagle, ID 83616

Subject: Middleton Gravel Pit

Noise Study

#### Gentlemen:

As requested, I have performed noise measurements and analysis associated with a gravel mining / crushing operation planned in the Middleton area.

The address of the parcel to be mined is 14533 River Road, Caldwell, ID. One home on the same level as the parcel is at the bend at 14676 River Road. There is another home directly across from the driveway of this parcel, at 14529 River Road, plus a home adjacent to this site's driveway at 14499 River Road. There are several homes on the bluff overlooking the proposed gravel pit, sitting roughly 70 feet in elevation above the site. Noise was measured at two of these homes (22286 and 22430 Rutledge Lane).

#### **NOISE LIMITS**

Mullins Acoustics did not find a Canyon County noise ordinance or a defined CUP condition with applicable sound level limits. A noise ordinance defines what that community determines is "reasonable".

The City of Caldwell has an ordinance which defines night hours (11 pm to 7 am) as periods, ".... during which loud or offensive noise will be considered a disturbance...". That ordinance does not define numerical limits or list other technical requirements. That code appears to be directed at amplified sound that is audible inside residential structures at night. Most local codes (Boise, Ada County, Nampa, Meridian, etc) are similar. Very few jurisdictions in Idaho have well-defined numerical noise limits as part of their municipal codes. Most ordinances, if one is present at all, are these subjective "nuisance" codes. Gravel mining operations will not occur during nighttime hours.

Assessing potential noise impacts becomes more complicated when there is no defined numerical target. Any ordinance that is based on nuisance or audibility is inherently subjective and much more difficult to apply, and is difficult to legally defend. Where there is not an expressed numerical target, it is common to fall back to the sample limits described in the EPA Model Noise Ordinance.

The Model Noise Ordinance from 1973 is often used as the basis for codes and ordinances nationwide. The typical limits for noise impinging on residences are 50 dBA during nighttime hours and 60 dBA during daytime hours (7 am to 10 pm). The gravel mining operations will be daytime only, so the appropriate limit under the EPA standard at any home would therefore be **60 dBA**.

#### **EQUIPMENT NOISE**

Two currently operating gravel pits were visited to measure noise emissions from the same equipment that will eventually be used at this River Road site. To summarize the data, normal equipment operations will create an equipment sound level of **76 dBA at 140 feet**, averaged over a typical hour. That includes all component noises: a direct view from an elevation slightly above the trailer-mounted generator, the fairly constant sound from crushers / screens and the conveyors, and intermittent noises from trucks and loaders moving around the site. The genset is the single loudest piece of equipment and runs steadily. The crushers also run steadily when in active use. This information was used to predict the sound levels that are expected at different relevant distances.

#### **NEAREST HOMES**

In this case, the east facade of closest home on the bluff (22430 Rutledge Lane) is ~790 feet from the noise monitor location, and most are further away (up to ~1500 feet). This point was chosen as a representative spot and the likely closest edge of the extraction area (see sketch). Crushing equipment can be located further away to the east. The dominant noise is from steadily operating crushers, conveyers, and especially the generator. These elements will be more perceptible than the lower level intermittent noises from excavators and loaders, which is more like typical construction site noise. There are also homes to the immediate east of the site entry, with the nearest at 14499 River Road and a distance of about 550 feet from the nearest potential crusher location. To the east and southeast of the extraction area is Curtis Park.

Short-term "spot" measurements and live observations were made concurrently along Rutledge Lane. On the afternoon of Thursday March 28 the average existing ambient sound level at homes on the bluff was 49-50 dBA. Homes on the bluff are exposed to fairly steady traffic noise from I-84, which is 1800 feet from the corner of Burger Lane and Rutledge Lane, near one of the spot measurements locations.

During the spot measurements at all sites, there were numerous distant gunshots that were plainly audible. Investigation showed that the Caldwell Shotgun Complex operates a shotgun-only range located about 5400 feet to the southwest, across the freeway. The loudest single intermittent noise events observed near homes were these distant gunshots. Momentary gunshot levels typically measured 55-63 dBA with some at 67 dBA, but each event only lasts a fraction of a second. These levels are roughly equivalent in magnitude to a car door slamming from about 20-25 feet away. During the spot measurements, the shots did not raise the observed average ambient levels caused by traffic noise versus periods without any gunshots.

The noise monitor placed on the gravel pit site logged sound levels for forty-eight consecutive hours, from Thursday afternoon to Saturday afternoon. The hourly level

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during the daytime hours was Leq 50-52 dBA (Leq can be considered the functional "average" level for the hour). That includes noise from local traffic on River Road. For clarity, the chart shows only the daytime hours on Friday, during the hours of planned operation between 7 am and 7 pm. Data is on file for all hours measured. Noise levels logged during the nighttime hours were never less than Leq 45 dB during the 2 am hour, and most hours were similar to data from daytime hours. The background noise level in this area is dominated by freeway traffic. There is not a significant variation in noise levels between the day and night background environment.

A spot measurement made on Wednesday afternoon at the monitoring site was Leq 49 during the 2 pm hour without any noteworthy local traffic on River Road, and essentially agrees with the monitor data. The lower elevation of this site shields it partially from highway noise and some gunshot noise, so the ambient noise on the "flat" is slightly quieter than on the bluff – in the absence of local traffic on River Road. Local traffic on River Road was about 350 feet from the monitor position, and local traffic often contributed more sound to the average than the distant highway during certain hours.

Based on the data using the monitor location as a reference, we anticipate the following gravel pit sound levels:

		north		south
address	distance (ft)	crusher	distance	crusher
14676 River Road	775	61 dBA	1360	56 dBA
14499 River Road*	550	64 dBA	935	60 dBA
22430 Rutledge Lane	790	61 dBA	1230	57 dBA

Distances listed are relative to the closest potential locations of the crusher, as shown on the attached aerial diagram. There are two potential crusher locations, called north and south on the attached site plan. North is closer to the homes, and south is further away.

Compare these values to the Model Noise Ordinance that allows 60 dBA on average at homes during daytime hours. As can be seen, the more distant (south) crusher location is preferable overall, since it yields fully compliant sound levels. The closer north location puts predicted levels at the nearest homes at slightly over the target of 60 dBA.

The basic distance or setback to meet 60 dBA at homes is ~900 feet, based on equipment sound data taken at other sites. When the crushers and generator are placed at least 900 feet from the nearest homes, the 60 dBA target will be met without any further mitigating action.

*For the closest home on the same side at 14499 River Road, the distance from equipment is at a minimum, meaning that predicted sound levels are somewhat higher. However, it will be feasible to add local noise barriers to protect that home, in the form of gravel piles or conex containers used as barriers and placed close to the common property line with that parcel. Barriers or berms need to ne at least as high as the crushers and/or generator, roughly 12 feet. Berms or barriers as mitigation will not be feasible or applicable to homes on the bluff, and may not be feasible to protect 14676 River Road. The required property line barrier would extend along the River Road frontage from the driveway plus approximately 150 feet southward around the curve,

totaling roughly 800 linear feet of barrier. Noise barriers have the most effect when placed fairly close to either the noise source or a noise receiver location. They are least effective when occurring in the middle, since sound can diffract or bend around a barrier.

This degree of change for 14676 River Road is about ten decibels louder than the current ambient noise, which would usually be considered a "significant change", even though it meets the target. At a predicted level of 61 dBA, the excess of one decibel would be considered as a "very minor" exceedance of the 60 dBA goal in most cases, and that difference would not normally be perceptible. It is also possible that the levels will be slightly lower than predicted.

A level of 64 dBA would exceed the defined limit of 60 dBA during daytime hours at the immediately adjacent homes fronting along River Road, and would be perceptibly louder than 60 dBA. This exceedance can be mitigated by placing the crusher equipment further away on the site, and possibly by other means as described below.

When looking at the attached chart showing ambient logged sound levels, it is necessary to define and explain certain terms regarding sound levels. The chart shows the L10 (10% level), Leq (average), and L90 (90% level) for each hour. See the Appendix for definitions.

#### **MITIGATION**

Because the analysis shows an increase above the pre-existing background noise levels, some mitigation measures are appropriate. Some relatively easy actions can be taken to reduce the local noise footprint of the gravel mining operation on nearby homes. These include:

- 1. Place the crushers and generator as far away from homes as is practical, with a recommended distance of 900 feet. The south crusher location meets that criterion and needs no additional mitigation. A distance of 900 feet yields a predicted level of 60 dBA at all nearby homes. It is easier to transport raw materials farther on the site than it is to build a very high barrier or to implement other mitigation measures that will effectively protect elevated homes on the bluff, or even nearby homes on the flat along River Road. The north location will need additional mitigation to yield a predicted level of 60 dBA.
- 2. Orient the generator pointed to the east, aimed away from homes. The 750 KW diesel generator that powers the other apparatus is the noisiest single piece of equipment in the operation. Currently the doors to the semi trailer containing the generator are locked back flush along the side of the trailer. If they can be secured in a position of about 45° or 90° from the long axis of the trailer, they would tend to channel generator noise in the opposite direction. The generator noise could then be reduced by up to 5 dB at homes simply by aiming the genset trailer eastward, plus the attenuation provided by additional distance.
- 3. The crushers have an essentially omni-directional noise pattern. In addition to more distance, using intervening barriers are the only available options to reduce their noise at any given location.

4. Use stockpiles of gravel and soil as berms to protect the closest homes along River Road, located at the same general elevation. Shipping containers (Conex) have also been successfully used as portable temporary noise barriers around particularly noisy equipment. Standard shipping containers are readily available, not very expensive, and can be moved around a site as needed.

#### CONCLUSIONS

- The design noise goal is 60 dBA at homes based on the EPA Model Noise Ordinance for daytime hours at residences. This is the best option in the absence of an applicable local noise code.
- A level of 60 dBA can be achieved at homes on the bluff if the crushers and genset are placed at least 900 feet from the homes. If quieter equipment or partial enclosures of the noisiest apparatus can be used (which may not be practical) distances can become much closer to homes without added adverse effects.
- A level of 60 dBA can be achieved at 14676 River Road without any mitigation if the crushers are placed ~900 feet away from the house. For the "north" crusher position, the distance is ~775 feet and the resulting level is 61 dBA. 61 dBA versus 60 dBA is not a perceptible difference. At 14499 River Road, some on-site noise barriers are needed to meet 60 dBA, because of the reduced distance.
- The use of barriers (such as berms, gravel piles, or shipping containers) would further reduce equipment noise at all homes. Any noise barrier must fully block the direct line-of-sight between the tops of the crushers or generator and windows facing the gravel pit in any home of interest.

Let me know if there are questions about this information.

Sincerely,

Earl Mullins, PE

Le mein

attached: annotated site map, 24-hour ambient chart, appendix, parcel plan

#### **APPENDIX**

#### <u>dBA</u> (A-weighted sound level)

A-weighting is the standard way to measure sound for judging loudness and annoyance. Humans hear different frequencies better than others. It takes a much higher level of very low frequency sound (thunder, bass guitar, rumble) to sound equally as loud as a high frequency sound (cymbals, whistles, turbines, squeals). The "A" weighting filter on the sound meter applies a correction factor to certain frequencies that corresponds to perceived loudness. Two sources like a diesel railroad locomotive and a cymbal, both measuring 80 dBA, will sound comparably loud despite the radical difference in frequency content.

#### decibel (dB)

Sound is simply fluctuating air pressure. The human ear can detect changes in air pressure over a huge range -- a ratio of trillions to one -- between the threshold of hearing and the onset of pain. A scale with the same dynamic range as your ear you could weigh a both single human hair and a skyscraper using the same device. The decibel mathematically compresses the range using logarithms, rather than describing the actual sound pressure measured for each noise. Sound levels expressed in decibels are similar to earthquake values using the Richter scale. An earthquake measuring 6.0 releases ten times as much energy as a 5.0 quake, and 100 times as much as a 4.0 event. Similarly, a sound level increase of ten decibels requires ten times the sound intensity -- but is perceived as being only twice as loud.

#### Loudness

Changes (either increase or decreases) in loudness are generally judged as follows:

+ 1 dB measurable using a quality sound meter, but not perceptible

+ 3 dB possibly noticeable if you are actively listening or expecting a change

+ 5 dB noticeable without prompting

+ 10 dB twice as loud as the original sound

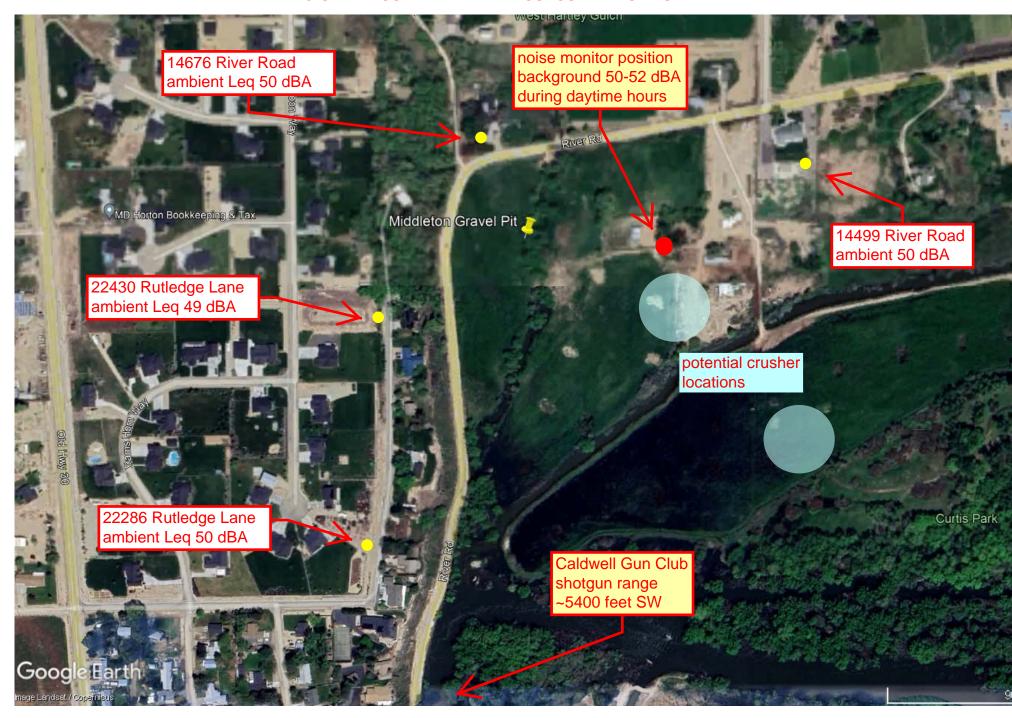
#### Leg (Equivalent Level)

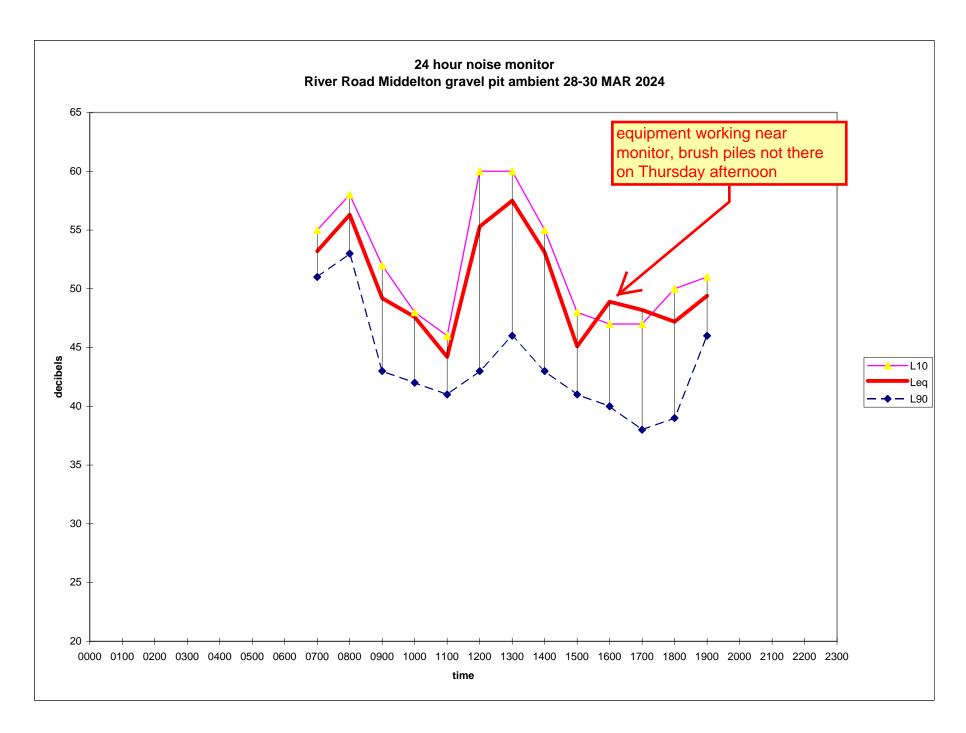
Leq is a quantity routinely used in environmental noise analysis. Since noise typically varies over time, an overall descriptor is needed. The Leq is determined by summing the total sound energy each second, then dividing the total energy by the total time. While not mathematically correct, think of Leq as the "average" sound level that occurred during the measurement period.

#### <u>Lnn</u> (Percentile Level)

Quantities like L10 or L90 are often used to describe the noise environment. L10 is simply the level during the loudest 10% of the measurement period. In an hour-long measurement, L10 is the level exceed for six minutes. L90 is a comparable quantity, where the sound is louder for 90% of the period, or louder for 54 minutes out of the hour. L10 is usually considered to be the highest recurring noise level, excluding unusual or exceptional events. L90 is often considered to the noise "floor". There might be a few moments during the hour when no noise events are occurring and the environment is very still. That situation would be slightly quieter than the L90 level, and is called the Lmin (minimum). The loudest momentary sound is the Lmax (maximum) and usually tracks well with the L01 (highest 1% level).

#### NOISE MEASUREMENT AND ASSESSMENT SITES

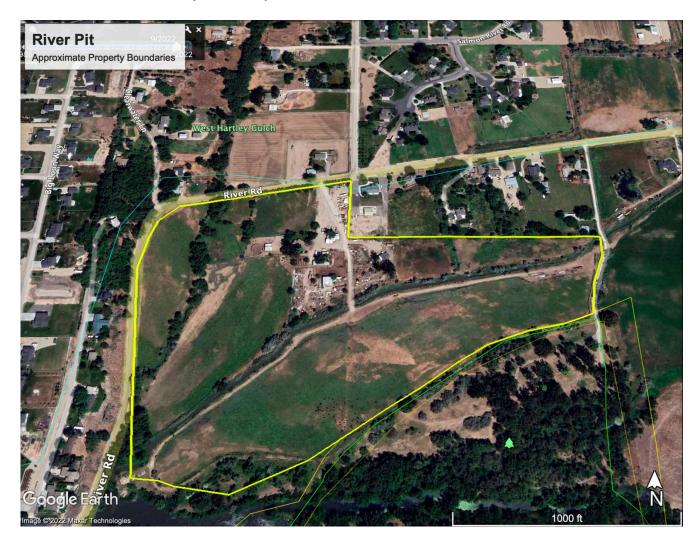




## **Mineral Extraction Reclamation Plan** for

## Operator: Premier, LLC DBA Premier Aggregates Owner: Crimson Bridge Holdings, LLC

Canyon County Parcel Numbers R34668 & R34667011





## JAROM WAGONER Mayor

208.455.3011 (f) 208.455.3003

#### City Hall

411 Blaine Street Caldwell, Idaho 83605

#### Post Office Box

P.O. Box 1179 Caldwell, Idaho 83606

For a list of the City Council members, visit: **Website** www.cityofcaldwell.org

# CITY OF Caldwell, Idaho

City of Caldwell updated letter

Original Response: April 21, 2023 Updated Response: April 17, 2024

Michelle Barron Case Planner Canyon County Development Services Dept. 111 North 11th Ave. Ste. 340 Caldwell, Idaho 83605

Re: Jeff Bower / Kristen McNeil

Mineral Extraction Use – CU2023-0004 14533 River Road Caldwell, Idaho

Dear Ms. Barron,

Our office received a public agency notification back in April of 2023 regarding the conditional use application for mineral extraction use on the property located at 14533 River Road in Caldwell, Idaho.

This parcel is not within the City of Caldwell's Area of City Impact but is contiguous to the City of Caldwell incorporated area and is contiguous to the City of Caldwell's Area of City Impact.



#### Zoning Map Legend:

Light Grey = Low Density Residential Light Red = Service Commercial



#### **Comprehensive Plan Map Legend:**

Light Orange = Low Density Residential Medium Orange = Residential Estates Red = Commercial and Service Green = Environmentally Sensitive Grey = Public

Although this is not in the City of Caldwell's Area of City Impact, the city had concerns about having mineral extraction use next to residential zones. These concerns resulted in a letter dated April 21, 2023, indicating the city's opposition to the proposed land use.

Since that time, we have had the opportunity to further discuss the intent behind the mineral extraction project and the long-term plans for the site. Based on the new information, the city's position on the approval of the conditional use permit is neutral. However, if the County should choose to approve the conditional use permit for mineral extraction, the city would request the following conditions of approval.

- 1. The conditional use permit approvals for mineral extraction be limited to a maximum of 2.5 years, at such time either the residential development occurs or the required reclamation plan that would be implemented.
- 2. The applicant provides a permanent easement to the city for access into Curtis Park for the public, to include widening, resurfacing and drainage.
- 3. The hours of operation for crushing and gravel extraction be limited to 7:00 am 7:00 pm, Monday through Friday, with no operations occurring on weekends.
- 4. No blasting be conducted as part of this conditional use permit.
- 5. Berming is put into place to help mitigate noise to the surrounding residential properties.
- 6. On site excavation equipment utilized white noise alarms to reduce noise generation.
- 7. A mobile crusher is utilized to provide additional sound mitigation and to reduce the equipment and hauling on site.
- 8. The applicant will take precautions to mitigate fugitive dust becoming airborne.

Sincerely,

Robin Collins

| Discra-Robin Collins, o=Caldwell Planning and Zoning, ou=Director, email=rcollins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins@citoplins.

**Robin Collins** Director City of Caldwell Planning and Zoning Department

Flood Dist #10

### **BOISE RIVER FLOOD CONTROL DISTRICT #10**

PO Box 140396 Garden City, Idaho 83714-0396



April 23, 2024

Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605 Attention Michelle Barron, Principal Planner Michelle.Barron@canyoncounty.id.gov

RE: Crimson Bridge Development – 14533 River Road, Caldwell, Idaho

Dear Ms. Barron,

Flood Control District 10 is supportive in water quality benefits to the Boise River. The above referenced project intends to construct a pond for purposes of allowing the Hartley Drain to flow into the pond for purposes of allowing sediment to be collected and removed from the pond. The collection of sediment in the pond will discharge cleaner water to the Boise River. Water quality improvements to the Boise River will provide better maintenance opportunities as well as improved environmental conditions.

There have been a lot of efforts to provide better irrigation and drainage practices which will result in less sediment discharge to the Boise River.

Should you have any questions or comments, please do not hesitate to contact me.

Regards,

Mark Zirschky District Manager

Boise River Flood Control District 10

208-861-2766

#### **Michelle Barron**

From: Michelle Tucker <michelle.tucker@nexus-env.com>

**Sent:** Monday, April 8, 2024 11:00 AM

To: Michelle Barron

**Cc:** Carl Anderson; David Stephens

**Subject:** RE: [External] Crimson Bridge Public Hearing **Attachments:** CBE Project Summary aerial 040824.pdf

Michelle,

Please see attached.

Michelle Tucker Environmental Specialist

Phone 208-756-7602

**Email** michelle.tucker@nexus-env.com **Web** www.nexus-env.com



From: Michelle Tucker

Sent: Monday, April 8, 2024 8:35 AM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Cc: Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; David Stephens <david.precisionx@gmail.com>

Subject: RE: [External] Crimson Bridge Public Hearing

I will send this to you later today. Can you give me the address for the public hearing?

#### Michelle Tucker

**Environmental Specialist** 

**Phone** 208-756-7602

Email michelle.tucker@nexus-env.com

Web www.nexus-env.com



From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Sunday, April 7, 2024 11:36 PM

To: Michelle Tucker <michelle.tucker@nexus-env.com>

Cc: Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; David Stephens <david.precisionx@gmail.com>

Subject: RE: [External] Crimson Bridge Public Hearing

Hello Michelle,

If you would like to provide me of an overview of the studies that you have been working on and the timeline of competition, I would love to add a little bit of information in my Staff Report about them. Unfortunately, we didn't open up a comment period, so new information would not be accepted at this time. You have the

opportunity to come to the hearing and present any information into the record that you have available as part of the public comment. I know that these are all very beneficial studies that the Planning and Zoning Commission would be interested in hearing about. You can bring any information that you have and ask if it could be accepted as a late exhibit the night of the hearing.

I look forward to a brief synopsis of what has been done.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Michelle Tucker < michelle.tucker@nexus-env.com >

Sent: Thursday, April 4, 2024 8:18 AM

**To:** Michelle Barron < <u>Michelle.Barron@canyoncounty.id.gov</u>>

Cc: Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; David Stephens <david.precisionx@gmail.com>

Subject: [External] Crimson Bridge Public Hearing

Hello Michelle,

I am sorry we have not been able to connect. Premier, with our support, has been working on providing studies for sound, traffic, and ground water for the hearing. My urgent question for you is what the updated deadline is to provide supportive materials for the hearing on the 18th.

I am available anytime to visit prior if you would like an update on the project and permitting activities.

All my best,

Michelle

Michelle Tucker Environmental Specialist Phone 208-756-7602

Email michelle.tucker@nexus-env.com
Web www.nexus-env.com



#### **Crimson Bridge Project**

Location: 14533 River Road, Caldwell, Idaho

Crimson Bridge Estates is being planned in two phases. Phase 1 is intended to excavate ponds and provide additional resources to enable the development of Phase 2 which is a low-density subdivision. No development is proposed in the floodway and no clearing of vegetation along the river is proposed.

#### Phase 1 - Gravel Excavation and Pond Development

Premier Aggregates is seeking a condition use permit (CUP) to excavate the ponds and extract gravel. It is anticipated that it will take one to three years to complete this phase. The proposed operating hours are Monday through Friday from 7 am to 7 pm. No business operations or excavation will be conducted on Saturday or Sunday. On-site crushing will be seasonal, and it is anticipated crushing will only occur 3-4 months out of the year. A Reclamation Plan, approved by Idaho Department of Lands, and a Stormwater Pollution Prevention Permit have been developed for this phase. Once the CUP is approved all other necessary permits will be acquired.

#### Phase 2 - Crimson Bridge Estates Subdivision

The subdivision plan is for approximately 14 lots on 53 acres. The final design includes private walking paths; native plants and landscaping; and improved conditions for the existing irrigation drains to alleviate sediment delivery to the river and erosional pressure to River Road. A conceptual subdivision plan is under development and will be pursued once the CUP is approved. Draft License Agreements are in place with District 2 who manage the drains.

#### **Formal Studies Conducted**

- WETLAND DELINEATION Nexus Environmental Consultants
- SOUND STUDY Mullins Acoustics
- TRAFFIC DISTRIBUTION REPORT and a TURN LANE WARRANT Kittlesons and Associates
- OFFICIAL SPECIES LIST FOR SPECIAL STATUS WILDLIFE AND FISHERIES US Fish and Wildlife Service
- SURFACE AND GROUNDWATER ANALYSIS Rocky Mountain Environmental and Nexus Environmental Consultants
- Stormwater Management, Dust Abatement and Dewatering Plan Syman and Associates
- SITE PLANNING, DEVELOPMENT STANDARDS AND DESIGN— QRS Consulting, PE
- GEOTECHNICAL TESTING Site Consulting LLC
- Cultural and Historical Surveys Jerry Jerems, Archeologist, Soil Scientist
- DRAINAGE DISTRICT 2 Encroachment Application, A-Team, PE
- TITLE RESEARCH First American Title
- PHASE II ENVIRONMENTAL SITE ASSESSMENT

#### **Consultations to Date**

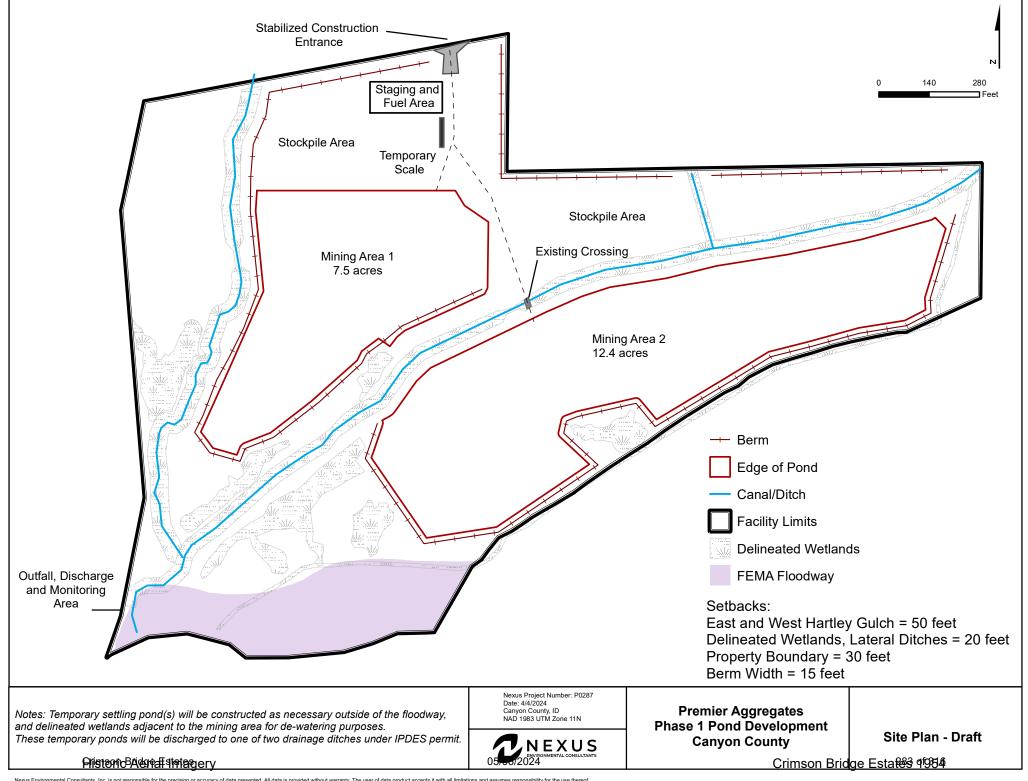
The consultations listed below include communication and permitting consideration for both phases of development as appropriate.

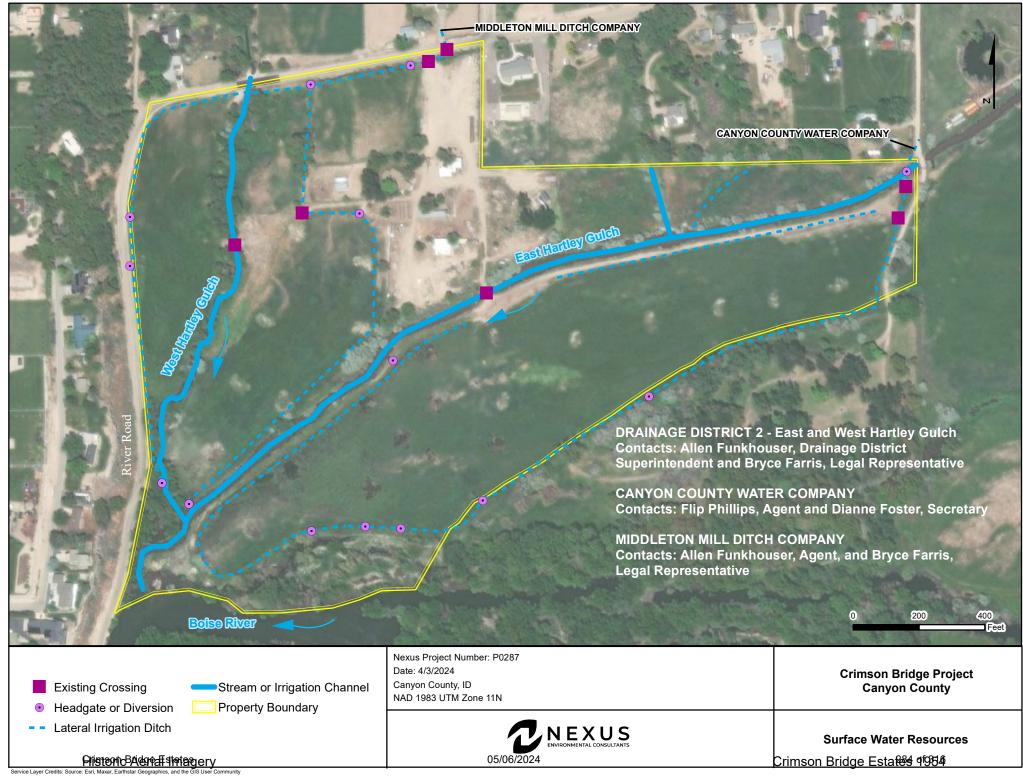
- DRAINAGE DISTRICT 2 East and West Hartley Gulch Allen Funkhouser, Drainage District Superintendent and Bryce Farris, Legal Representative
- CANYON COUNTY WATER COMPANY Flip Phillips, Agent and Dianne Foster, Secretary

- MIDDLETON MILL DITCH COMPANY Allen Funkhouser, Agent, and Bryce Farris, Legal Representative
- IDAHO TRANSPORTATION DEPARTMENT Niki Benyakhlef, Development Services Coordinator
- IDAHO DEPARTMENT OF FISH AND GAME Brandon Flack
- IDAHO DEPARTMENT OF WATER RESOURCES Katie Gibble
- US ARMY CORPS OF ENGINEERS Carolyn Smith
- IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY Chase Cusack, Aaron Scheff
- IDAHO DEPARTMENT OF LANDS Mekayla Layne
- SOUTHWEST DISTRICT HEALTH Anthony Lee
- Canyon County Soil Conservation District, Mike Swartz
- Canyon County Floodplain Manager Stephanie Hailey
- Canyon County Highway District No. 4 Chris Hopper, PE
- Canyon County Development Services Michelle Barron
- CITY OF MIDDLETON, Planning and community development
- CITY OF CALDWELL PLANNING AND ZONING Robin Collings

#### Other Outreach:

- Neighborhood Meetings February 8, 2023; and January 31, 2024
- Susan Cottrell, 14499 Channel Road, Caldwell, Idaho 83607, 559-737-3044
- MARY JO NYBLAD, 14529 River Road, Caldwell, Idaho, site visit
- Bob Hannah, 22499 Channel Rd Caldwell Id 83607, site visit





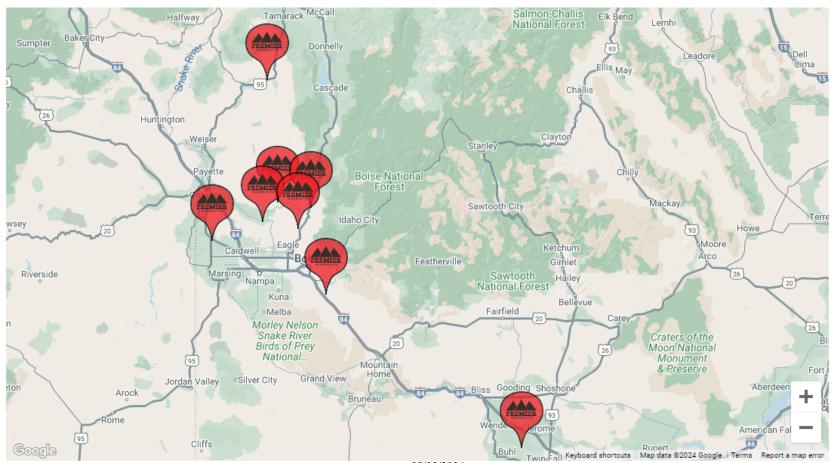
# Conditional Use Permit

Canyon County Planning and Zoning Commission April 18, 2024

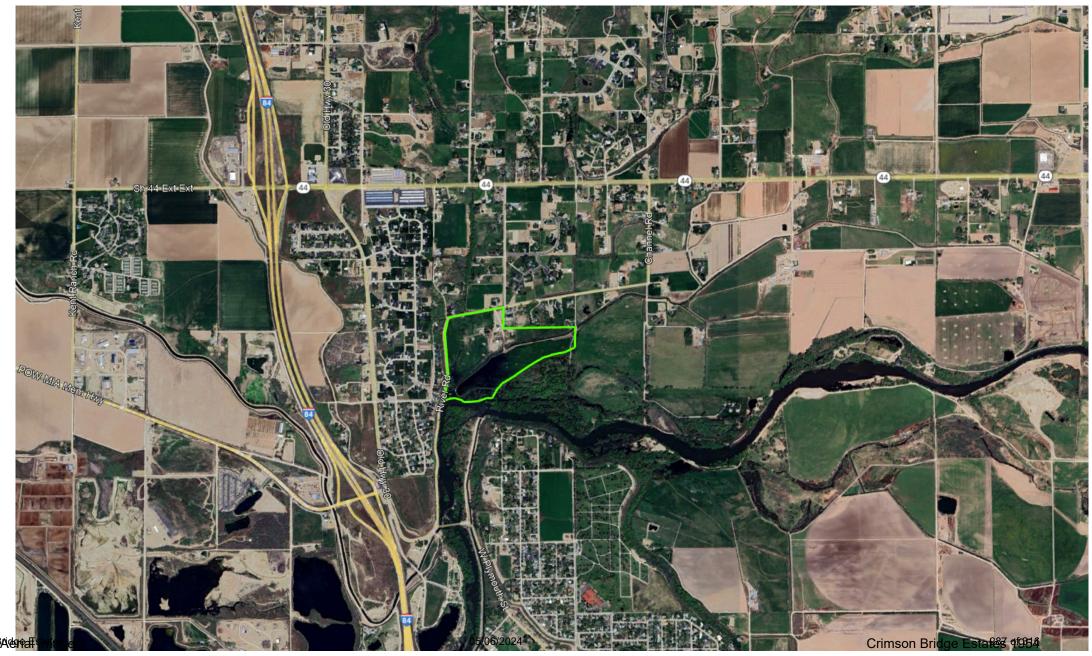
**Applicant: Premier Aggregates** 

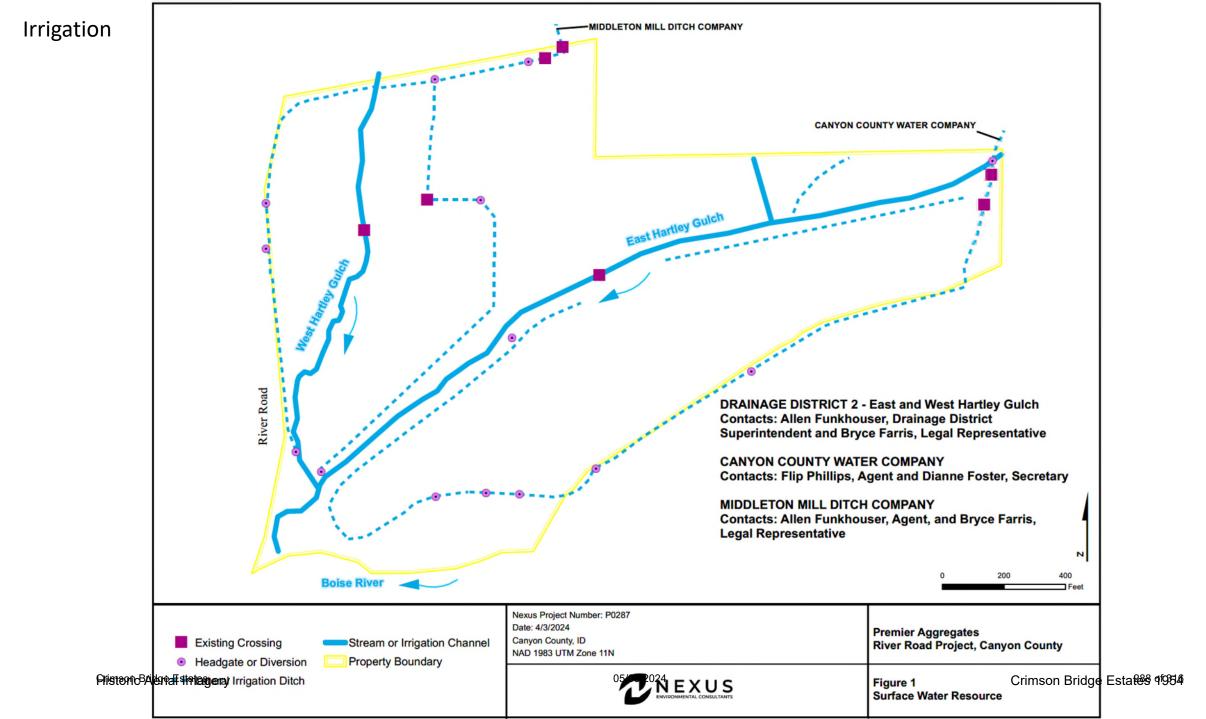




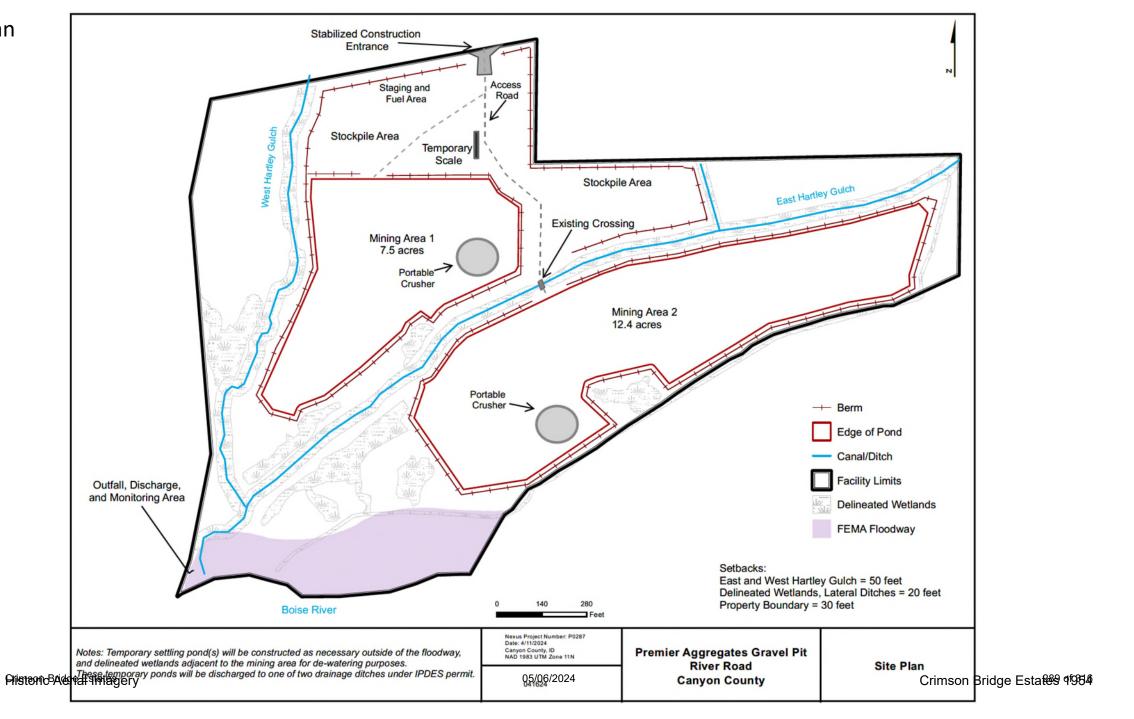


## Vicinity Map





## Site Plan



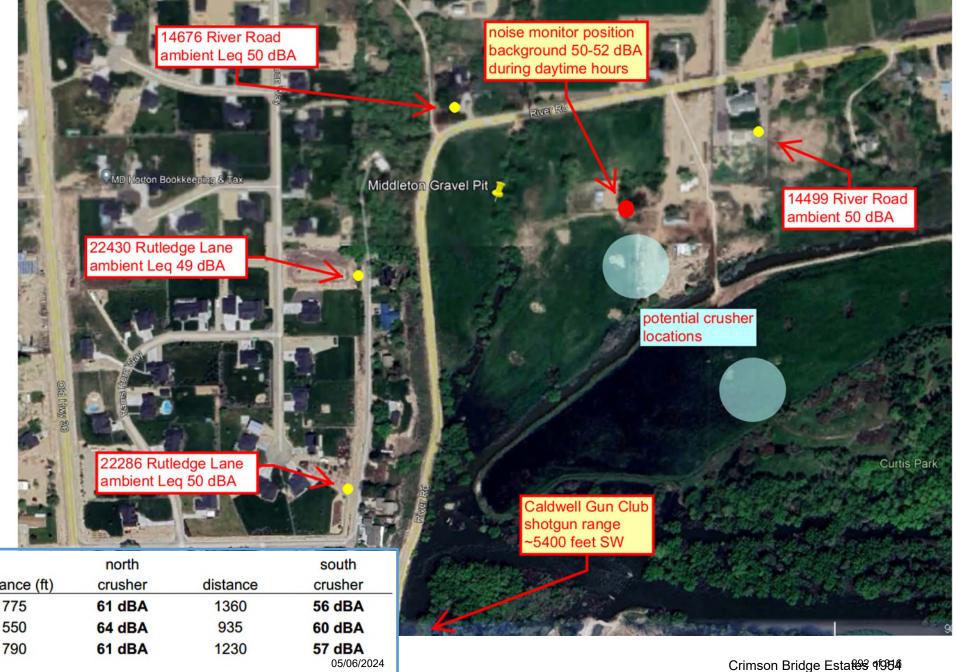
Google Earth & Handheld GPS

Geotechnical Services / Soil Testing & Inspection Services

# **Haul Route**



## Sound Levels



	north			south
address	distance (ft)	crusher	distance	crusher
14676 River Road	775	61 dBA	1360	56 dBA
14499 River Road*	550	64 dBA	935	60 dBA
22430 Rutledge Lane পিড়াঙ্গাঔপঞ্চিকীৰ্বাণীঞ্ছery	790	61 dBA	1230	<b>57 dBA</b> 05/06/2024

# Reclamation







# Reclamation

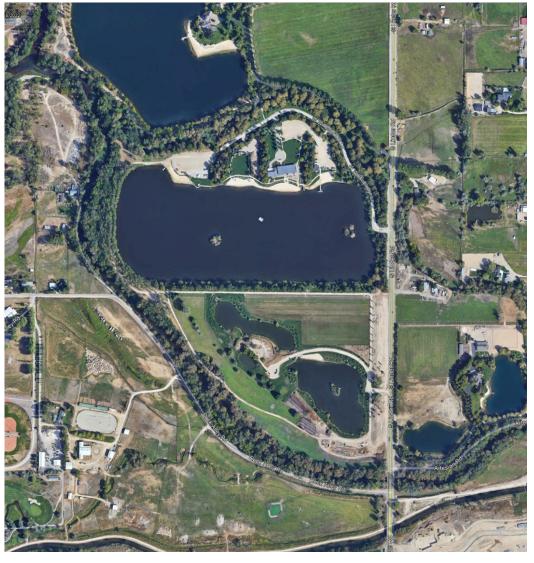




2003 2020

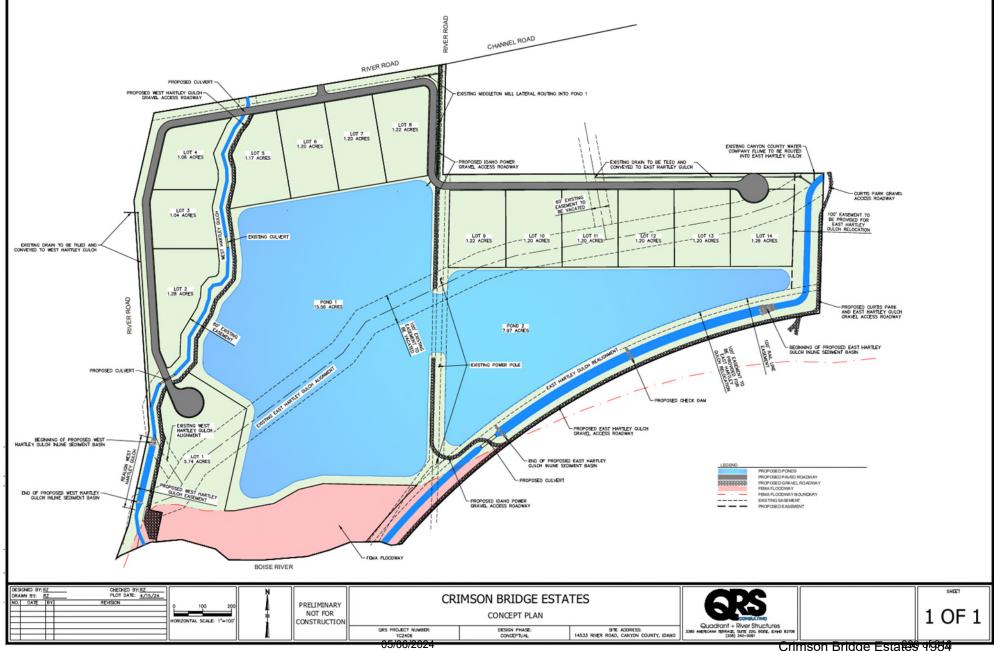
## Reclamation





2006 2022

## Future Development



### Late Exhibits

- 1. Revised CUP Site plan
- 2. Subdivision Conceptual Plan
- 3. Mullins Acoustics Noise Study
- 4. Rocky Mountain Environmental Water Technical Memorandum
- 5. SITE Consultants, LLC Geotechnical Analysis
- 6. City of Caldwell comments

# Premier LLC Letter to Neighbors

#### **Michelle Barron**

From: Resource Development <RDTeam@premierllc.net>

**Sent:** Monday, April 29, 2024 5:34 PM

**Subject:** [External] CU2023-004 Ag Equity Supplemental Information

Attachments: Letter to Neighbors (CU2023-0004)_18327566_4.pdf

Follow Up Flag: Follow up Flag Status: Flagged

Greetings,

Please see the attached letter for supplemental information relating to CU2023-004.

Thank You,

**Premier Aggregates** 



April 29, 2024

Dear Neighbor:

As you know, we are in the process of applying for a Conditional Use Permit (CUP) with Canyon County for a 2.5 year mineral extraction use. At an April 18, 2024 public meeting, the Canyon County Planning and Zoning Commission voted to continue the hearing on the CUP to a date uncertain. Subsequently, we have been notified by Canyon County planning staff the continued hearing has been set for <u>June 20, 2024</u>. Canyon County planning staff further indicated the deadline for additional written comments is <u>May 2, 2024</u>.

You are receiving this letter via email based on either: (1) providing prior written comment via email to Canyon County on the CUP; or (2) providing your email address at one of the two prior neighborhood meetings. Since holding our second neighborhood meeting in February of 2024, we have engaged with multiple consultants and experts to prepare studies and analyze the proposed use to address comments and questions from the community. These studies took some time, but have all been provided to Canyon County in anticipation of the next hearing and can be reviewed and downloaded here:

https://www.canyoncounty.id.gov/land-hearings/ - First click on the "Planning and Zoning Commission" file, then scroll down to CU2023-0004 listed on June 20, 2024.

These additional reports and studies include, but are not limited to: (i) a sound study from Mullins Acoustics; (ii) a technical memorandum from Rocky Mountain Environmental Associates, Inc. regarding area groundwater; (iii) a geotechnical report from Site Consulting LLC; (iv) a wetland delineation report from Nexus Environmental Consultants; and (v) a biological survey from Nexus Environmental Consultants. There is also a conceptual plan for the anticipated future residential development that will utilize the reclaimed ponds and some additional agency comments.

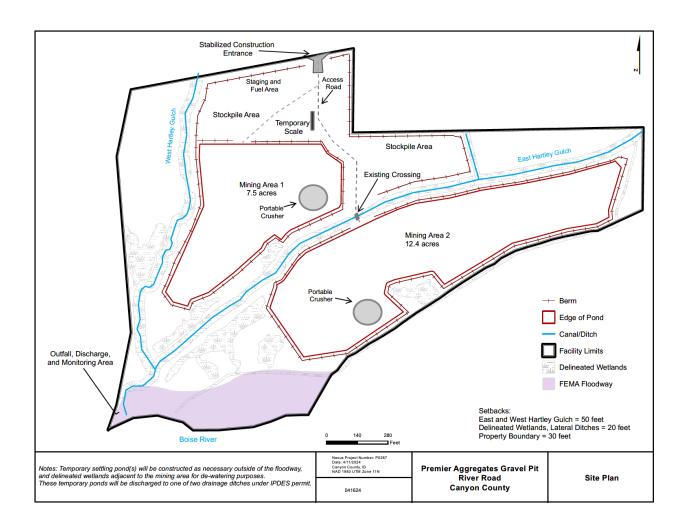
Also available is an updated site plan for the project, which was prepared to incorporate the recommendations and data collected by the abovementioned studies. For convenience, we are also attaching the current site plan. If you have any problems accessing these studies, please contact me directly at <a href="mailto:RDTeam@premierllc.net">RDTeam@premierllc.net</a> and we will get you a copy.

We want to apologize for the need to continue the April 18 hearing and assure you we have been working diligently to revise our plan in order to best address feedback from the community and our consultants. We appreciate any questions you may have and welcome an opportunity to visit further regarding this project. Please reach out with any additional comments or questions.

Sincerely,

**Premier Aggregates** 

CC: Michelle Baron michelle.barron@canyoncounty.id.gov
Carl Anderson carl.anderson@canyoncounty.id.gov
David Stephens david.precisionx@gmail.com



#### **Michelle Barron**

**From:** Jeffrey W. Bower <jeffbower@givenspursley.com>

Sent: Wednesday, May 1, 2024 4:57 PM

To: Michelle Barron

Cc: Jon Brennan Ag Equity; Jim Herberd Ag Holding; Carl Anderson; 'Derek Kraft'; David

Stephens; Michelle Tucker; Kristen McNeill

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-

DMS.016623.0003.FID1052498]

Attachments: NE-CRIM_TOPO with Contours.pdf; 24.04.15 Concept Plan - Crimson.pdf

Thank you, Michelle.

Based on the below, we sent out a short email to the folks that received our April 29, 2024 letter regarding the extended comment deadline. We reiterated our commitment to working with interested parties to discuss the project and plans.

Attached are documents that we request you include in the file for our application. First is a topo map. Second, is the development concept plan for Phase 2 of the project.

We do not have any other materials that we intend to provide from the applicant at this time. We will continue to work to try and get comments from applicable agencies, namely ITD.

Please let us know if you have any questions on the materials provided or would like to discuss.

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Wednesday, May 1, 2024 10:35 AM

To: Jeffrey W. Bower < jeffbower@givenspursley.com>

**Cc:** Jon Brennan Ag Equity <AgEquityLLC@gmail.com>; Jim Herberd Ag Holding <herbertj25@yahoo.com>; Carl Anderson <Carl.Anderson@canyoncounty.id.gov>; 'Derek Kraft' <dkraft@premierllc.net>; David Stephens <david.precisionx@gmail.com>; Michelle Tucker <michelle.tucker@nexus-env.com>; Kristen McNeill <kristenmcneill@givenspursley.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Jeff,

After speaking with you yesterday, I told you I would verify the June 10th deadline date for materials.

June 10, 2024 will be the deadline for public or agency comment and any additional materials from the applicant, including any PowerPoint or presentation materials. When our office provides notice for the upcoming hearing, we are going to add information for the public to look at the updated documentation on the website.

Let me know if you have questions.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

**From:** Jeffrey W. Bower < jeffbower@givenspursley.com >

Sent: Tuesday, April 30, 2024 2:34 PM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

**Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <<u>david.precisionx@gmail.com</u>>; Michelle Tucker <<u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill <kristenmcneill@givenspursley.com>

**Subject:** RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Michelle: We are all struggling to keep up with the changing procedures and processes throughout this application. We were accused of failing to be transparent with the public at our last meeting. We prepared yesterday's letter to help address that issue. We literally copied your email below from April 19, which I have highlighted for your reference.

Your email below also contains inconsistencies. First is says the applicant has a May 2nd deadline and then it goes on to say "June 10, 2024 is also the materials deadline for applicant". Can you please clarify?

With respect to your question, I do not know if you have all additional information from all of the parties involved. From the applicant's perspective the bulk of the additional information is in. The final element we are working on is a topo map as requested by the Commission at the April hearing. We will have this in to you by the May 2nd deadline. As it relates to other parties involved, they may still be planning to file comments or other materials.

We will send out an update to our letter notifying the public they have until <u>June 10th</u> to comment. Before we do, can you please confirm that is correct?

Thank you, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260

#### jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Tuesday, April 30, 2024 2:12 PM

To: Jeffrey W. Bower < jeffbower@givenspursley.com>

**Cc:** Jon Brennan Ag Equity < <u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding < <u>herbertj25@yahoo.com</u>>; Carl Anderson < <u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' < <u>dkraft@premierllc.net</u>>; David Stephens < <u>david.precisionx@gmail.com</u>>; Michelle Tucker < <u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Good Morning Jeff,

I received the letter that Premier sent out to the neighbors. There is a little bit of incorrect information on the letter. The May 2nd deadline was for the applicant to get any additional information to me so that I can get it all out on the website for the re-noticing period. The deadline for comments from the public will be June 10, 2024. Our hearing procedures were recently updated and the deadline for the public comment has been changed for this hearing. June 10, 2024 is also the materials deadline for applicant. That means, I will need your presentation on that date as well.

Do I have all of the additional information from all of the parties involved? They seem to still be trickling in. Again, that cut off date will be May 2nd for additional materials from the applicant. That will allow time to put all of the materials on the website and allow the public to make comment on the new evidence.

Let me know if you have any questions.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

**From:** Jeffrey W. Bower < jeffbower@givenspursley.com>

Sent: Wednesday, April 24, 2024 10:37 AM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

**Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <<u>david.precisionx@gmail.com</u>>; Michelle Tucker <<u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill <kristenmcneill@givenspursley.com>

**Subject:** RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle: Thanks again for the update below. We want to be proactive in getting the additional information out to those that came to the continued hearing. Could you send us the sign in sheets so that we can also let interested parties know how to find the information and about the deadline for providing comments?

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Friday, April 19, 2024 5:23 PM

To: Jeffrey W. Bower < jeffbower@givenspursley.com>

**Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <<u>david.precisionx@gmail.com</u>>; Michelle Tucker <<u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill <<u>kristenmcneill@givenspursley.com</u>>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC

#### **EXTERNAL**

Jeff and team,

I have posted the additional information that you have provided to me out on the website. We are going to schedule the next hearing for June 20, 2024. The deadline for any additional comments will be May 2, 2024. If you have anything else to turn in, it will need to be by that date. Do you have other items that are pending? I would need to know right away, so that we can back the hearing up some for noticing purposes.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Jeffrey W. Bower < jeffbower@givenspursley.com>

Sent: Thursday, April 18, 2024 2:21 PM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

**Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <<u>david.precisionx@gmail.com</u>>; Michelle Tucker <<u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill

<kristenmcneill@givenspursley.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC

Thanks, Michelle. If the matter is continued will the comment period be re-opened? We would hope it would be both for staff and the commission, but also for the public.

Thank you, Jeff

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Thursday, April 18, 2024 2:17 PM

To: Jeffrey W. Bower < jeffbower@givenspursley.com >

**Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <<u>david.precisionx@gmail.com</u>>; Michelle Tucker <<u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill

<kristenmcneill@givenspursley.com>

**Subject:** RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Jeff,

I have been able to download all of the files. That being said, these were submitted after the deadline for comments, so you would need to speak to them at the public hearing and request that the hearing body enter them in as late exhibits. It is a lot of information to digest. I don't even have the time to look over them, so please make sure to mention them in your presentation tonight.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

**From:** Jeffrey W. Bower < jeffbower@givenspursley.com >

Sent: Thursday, April 18, 2024 9:44 AM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

**Cc:** Jon Brennan Ag Equity < <u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding < <u>herbertj25@yahoo.com</u>>; Carl Anderson < <u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' < <u>dkraft@premierllc.net</u>>; David Stephens < <u>david.precisionx@gmail.com</u>>; Michelle Tucker < <u>michelle.tucker@nexus-env.com</u>>; Kristen McNeill

<kristenmcneill@givenspursley.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle:

As mentioned below, please find attached a technical memorandum from Patrick Naylor, P.E., P.G. with Rocky Mountain Environmental concluding that the dewatering the ponds during excavation will not impact area wells that are served from a hydraulically disconnected aquifer. I am also attaching the SITE Consulting's geotech report referenced in Rocky Mountain Environmental's memo.

Due to the file sizes, can you please confirm receipt? Did the link I sent you yesterday work?

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Jeffrey W. Bower

Sent: Wednesday, April 17, 2024 2:46 PM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >; Kristen McNeill < kristenmcneill@givenspursley.com > Cc: Jon Brennan Ag Equity < AgEquityLLC@gmail.com >; Jim Herberd Ag Holding < herbertj25@yahoo.com >; Carl Anderson@canyoncounty.id.gov >; 'Derek Kraft' < herbertj25@yahoo.com >; David Stephens < david.precisionx@gmail.com >; Michelle Tucker < michelle.tucker@nexus-env.com >

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### Hi Michelle:

We are aware the record is closed for tomorrow's meeting but wanted to provide you with some of the additional materials based on our expectation that this matter will have a second meeting/hearing to address staff and agency comments we received in the staff report last week. I am including a link (https://file.ac/wmMQEUvyfSg/) to the following:

- 1. **Revised comment letter from Caldwell**. We have worked with Caldwell on this and are in full agreement with the requested conditions in the City's letter.
- Revised project site plan. The site plan has been revised to include additional details and mitigation to account
  for agency comments and to address the findings in the attached wetland delineation and sound study. The site
  plan has been revised to avoid all wetland areas identified in the delineation. We have also provided additional
  berming and specific crushing locations on the site plan to comply with the recommended mitigation in the
  sound study.
- 3. Wetland Delineation Report. Identifies onsite wetland areas. These will all be avoided based on the site plan.
- 4. **Noise study**. Concludes that with the recommended mitigation, noise levels generated by the proposal meet the EPA's noise standards.

We also are expecting a ground water study to be finalized today that will send over. The water study drafts we have reviewed indicate the dewatering of the ponds during excavation will <u>not</u> impact any of the surrounding wells.

Can you please confirm receipt of the 4 documents?

Thank you, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Tuesday, April 9, 2024 3:17 PM

**To:** Jeffrey W. Bower <<u>jeffbower@givenspursley.com</u>>; Kristen McNeill <<u>kristenmcneill@givenspursley.com</u>> **Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <david.precisionx@gmail.com>; Michelle Tucker <michelle.tucker@nexus-env.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Hello All,

Just wanted to let you know that the Staff Report is out on the Canyon County page. My recommendation is to take testimony and table the hearing to a date certain so that the studies that you have had done, that were not ready by the deadline, can be looked at by the Commission and by the public with a new comment period being extended. I do recommend bringing the studies and additional information to the public hearing. I would also recommend reading it into the record as much as is feasible. Of course, I am not the decision makers, so it would be up to them if they wish to table the hearing or not.

The Staff Report can be found at <a href="https://www.canyoncounty.id.gov/land-hearings/">https://www.canyoncounty.id.gov/land-hearings/</a> Then, scroll down to P & Z and find the tab for Ag Equity case on April 18th.

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: Michelle.Barron@canyoncounty.id.gov

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

**From:** Jeffrey W. Bower < <u>jeffbower@givenspursley.com</u>>

Sent: Monday, April 8, 2024 1:34 PM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >; Kristen McNeill < kristenmcneill@givenspursley.com > Cc: Jon Brennan Ag Equity < AgEquityLLC@gmail.com >; Jim Herberd Ag Holding < herbertj25@yahoo.com >; Carl Anderson@canyoncounty.id.gov >; 'Derek Kraft' < herbertj25@yahoo.com >; David Stephens < herbertj25@yahoo.com >; Michelle Tucker < herbertj25@yahoo.com >; David Stephens < herbertj25@yahoo.com >; Michelle Tucker < herbertj25@yahoo.com >; David Stephens < herbertj25@yahoo.com >; Michelle Tucker < herbertj25@yahoo.com >; David Stephens < herbertj25@

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle: That is correct. Thanks for checking. Feel free to give me a call any time if you have further questions or want to discuss.

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Monday, April 8, 2024 1:31 PM

**To:** Jeffrey W. Bower <<u>jeffbower@givenspursley.com</u>>; Kristen McNeill <<u>kristenmcneill@givenspursley.com</u>> **Cc:** Jon Brennan Ag Equity <<u>AgEquityLLC@gmail.com</u>>; Jim Herberd Ag Holding <<u>herbertj25@yahoo.com</u>>; Carl Anderson <<u>Carl.Anderson@canyoncounty.id.gov</u>>; 'Derek Kraft' <<u>dkraft@premierllc.net</u>>; David Stephens <david.precisionx@gmail.com>; Michelle Tucker <michelle.tucker@nexus-env.com>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Jeff,

In this supplemental narrative, it states that business operation hours are proposed from 7 am to 5 pm, does that mean hauling?

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: Michelle.Barron@canyoncounty.id.gov

Website: <a href="https://www.canyoncounty.id.gov">www.canyoncounty.id.gov</a>

From: Jeffrey W. Bower < jeffbower@givenspursley.com>

Sent: Thursday, March 28, 2024 4:58 PM

To: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >; Kristen McNeill < kristenmcneill@givenspursley.com > Cc: Jon Brennan Ag Equity < AgEquityLLC@gmail.com >; Jim Herberd Ag Holding < herbertj25@yahoo.com >; Carl Anderson@canyoncounty.id.gov >; 'Derek Kraft' < herbertj25@yahoo.com >; David Stephens < david.precisionx@gmail.com >; Michelle Tucker < michelle.tucker@nexus-env.com >

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle: Please see attached.

Thank you, Jeff Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Thursday, March 28, 2024 12:46 PM

**To:** Jeffrey W. Bower < <a href="mailto:leftbower@givenspursley.com">! Kristen McNeill < <a href="mailto:kristenmcneill@givenspursley.com">kristen McNeill < a href="mailto:kristenmcneill@givenspursley.com">kristenmcneill@givenspursley.com</a>>; Carl Anderson@canyoncounty.id.gov</a>>; 'Derek Kraft' < <a href="mailto:kraft@premierlic.net">kraft < a href="mailto:kr

<<u>david.precisionx@gmail.com</u>>

**Subject:** FW: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

#### Good Afternoon Everyone!

Just a reminder that today is the deadline day for additional information. I would really love to have the answers to the questions that I had posed. They are very important to help determine if the criteria can be met for a Conditional Use Permit. If someone could please respond to these today, I would appreciate it.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Michelle Barron

Sent: Friday, March 15, 2024 3:48 PM

**To:** 'Jeffrey W. Bower' < <u>jeffbower@givenspursley.com</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < <u>agequityllc@gmail.com</u>>; 'Herbertj25@yahoo.com' < <u>Herbertj25@yahoo.com</u>>; Carl

Anderson <Carl.Anderson@canyoncounty.id.gov>; Derek Kraft <dkraft@premierllc.net>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Jeff,

Thanks for letting me know. If you team could please get me the answers to the questions that I had previously posed by me along with the new neighborhood meeting. I have the Neighborhood Meeting info and sign in sheet that was sent to me, but still need those answers to help make the findings for the criteria for a Conditional Use Permit. I will need this information no later than the 28th of March.

Thanks for working with me to change the date.

Michelle Barron Principal Planner

Canyon County Development Services Department

111 N. 11th Ave., #310, Caldwell, ID 83605

Direct Line: 208-455-6033

DSD Office Phone: 208-454-7458

Email: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

**From:** Jeffrey W. Bower < <u>jeffbower@givenspursley.com</u>>

Sent: Friday, March 15, 2024 2:14 PM

**To:** Michelle Barron < <u>Michelle.Barron@canyoncounty.id.gov</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < <u>agequityllc@gmail.com</u>>; 'Herbertj25@yahoo.com' < <u>Herbertj25@yahoo.com</u>>; Carl

Anderson < Carl. Anderson@canyoncounty.id.gov>; Derek Kraft < dkraft@premierllc.net>

**Subject:** RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle:

I just spoke with Carl in your office and he asked that we respond to confirm that April 18th works for the applicant, which it does.

Thank you, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Monday, March 11, 2024 5:02 PM

**To:** Jeffrey W. Bower < <u>jeffbower@givenspursley.com</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < <u>agequityllc@gmail.com</u>>; 'Herbertj25@yahoo.com' < <u>Herbertj25@yahoo.com</u>>; Carl

Anderson <Carl.Anderson@canyoncounty.id.gov>; Derek Kraft <dkraft@premierllc.net>

Subject: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

Jeff,

I am going to need to postpone the hearing in front of the Planning and Zoning Commission for Case CU2023-0004. I have been out of the office with a family emergency for the last 2 weeks. I was unable to perform a site visit and complete the Staff Report in time for posting. Please accept my apologies. I have rescheduled

the hearing for April 18, 2024. That is the earliest possible date that is available. We will re-notice to make sure everyone knows that it has been rescheduled.

I have still not received the answers to the bullet list of questions that are below. I need to have that information by April 3rd so that I can add it to the file. At this point, I do not have the evidence needed to meet the required criteria. I heard from Michelle Tucker of Nexus Environmental that she has been in contact with the 2 irrigation districts and the Drain District. Any information regarding approvals or agreements with those entities would be helpful as well.

Thank you in advance,

Michelle Barron Principal Planner Canyon County Development Services Department 111 N. 11th Ave., #310, Caldwell, ID 83605

Direct Line: 208-455-6033

DSD Office Phone: 208-454-7458

Email: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Jeffrey W. Bower < jeffbower@givenspursley.com >

Sent: Wednesday, February 21, 2024 2:48 PM

**To:** Michelle Barron < <u>Michelle.Barron@canyoncounty.id.gov</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < <u>agequityllc@gmail.com</u>>; 'Herbertj25@yahoo.com' < <u>Herbertj25@yahoo.com</u>>; Carl

Anderson < Carl. Anderson@canyoncounty.id.gov >; Derek Kraft < dkraft@premierllc.net >

SubjectAt thi: RE: [External] CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

Hi Michelle:

The neighborhood meeting was completed.

Attached is the final notice and the sign in sheet.

We will provide the info requested below shortly.

Thanks, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260 jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov >

Sent: Wednesday, February 21, 2024 2:33 PM

To: Jeffrey W. Bower < jeffbower@givenspursley.com >; Kristen McNeill < kristenmcneill@givenspursley.com >

Cc: 'agequityllc@gmail.com' <agequityllc@gmail.com>; 'Herbertj25@yahoo.com' <Herbertj25@yahoo.com>; Carl

Anderson < <u>Carl.Anderson@canyoncounty.id.gov</u>>; Derek Kraft < <u>dkraft@premierllc.net</u>>

Subject: RE: [External] RE: CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### **EXTERNAL**

#### Good afternoon,

Just checking on this to make sure that the new neighborhood meeting has been completed. I will need that documentation soon. Our deadline for comments on this application is March 2nd. I would like to have that information for the file. Also checking on answers to the bullet points below that I had sent on January 18, 2024.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

From: Jeffrey W. Bower < jeffbower@givenspursley.com>

Sent: Thursday, January 25, 2024 12:37 PM

**To:** Michelle Barron < <u>Michelle.Barron@canyoncounty.id.gov</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < <u>agequityllc@gmail.com</u>>; 'Herbertj25@yahoo.com' < <u>Herbertj25@yahoo.com</u>>; Carl

Anderson < Carl. Anderson@canyoncounty.id.gov >; Derek Kraft < dkraft@premierllc.net >

Subject: [External] RE: CU2023-0004 Ag Equity Holdings LLC [GP-DMS.016623.0003.FID1052498]

#### Hi Michelle:

We are planning to address your first bullet point below by holding a second neighborhood meeting. Because this a second meeting, the County's form notice is not perfectly on point. Could you please review and approve the attached notice we have prepared from the form, but with modifications recognizing the application has already been filed? We are holping to send this out tomorrow and hold the second neighborhood meeting on Monday the 5th or Tuesday the 6th.

We will also need an updated mailing list.

Thank you, Jeff

Jeff Bower GIVENS PURSLEY LLP 601 W Bannock St, Boise, ID 83702 208-388-1260

#### jeffbower@givenspursley.com

From: Michelle Barron < Michelle.Barron@canyoncounty.id.gov>

Sent: Thursday, January 18, 2024 3:50 PM

**To:** Jeffrey W. Bower < <u>jeffbower@givenspursley.com</u>>; Kristen McNeill < <u>kristenmcneill@givenspursley.com</u>> **Cc:** 'agequityllc@gmail.com' < agequityllc@gmail.com'; 'Herbertj25@yahoo.com' < Herbertj25@yahoo.com'; Carl

Anderson < Carl. Anderson@canyoncounty.id.gov > Subject: CU2023-0004 Ag Equity Holdings LLC

#### **EXTERNAL**

#### Good Afternoon,

As I was working through my Staff Report and FCOs, I have noticed that there is some missing information that I would need to make findings for this case.

- There is an issue with the notice for the required neighborhood meeting. In the meeting details, under property description it states "The applicant is proposing to dig 2 ponds for future development, approximately 12 to 15 lots." The project summary states: "2 proposed ponds to fill areas for future lots (approximately 12-15), excess material will be hauled/removed from the site." Those descriptions do not translate to the actual purpose of the application, which is a long-term mineral extraction. A new neighborhood meeting will need to be held with the actual purpose for the conditional use permit application.
- The site plan/letter of intent will need to be updated to show how long/how often crushing will occur and the location of the crusher. Will the crusher be watered to mitigate dust?
- Will there be blasting?
- Is the home on R34667011 going to be removed? Is the building on R34668 going to be removed?
- What kind of noise mitigation would be put in place for the neighboring property for the scale? It appears to be placed very near a residence.
- Will the berms be landscaped so as not to create a zoning violation for weeds/debris?
- Explanation of the discharge area and settling pond that is very near the floodway. (see letter from Development Services Floodplain Manager Stephanie Hailey)
- Do you have a crossing agreement from the Middleton Mill Ditch Co?

We need to postpone the scheduled hearing for February 1, 2024. At the very least, the neighborhood meeting needs to be corrected. The other items will make the application more complete and will provide evidence to support findings.

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: Michelle.Barron@canyoncounty.id.gov

Website: www.canyoncounty.id.gov

Office Hours:

Monday, Tuesday, Thursday and Friday 8am – 5pm

Wednesday 1pm – 5pm

**We will not be closed during lunch hour **

