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Big Rock Farms, Inc.
Tonya Smith
APN 217-271-005
Apps# 12565

Well Evaluation Report

Purpose

The purpose of this report is to evaluate the existing groundwater well potential for hydrologic connectivity and impact on nearby surface waters per the request of Humboldt County Planning Department. The groundwater well will be used for commercial cannabis irrigation and the County is requesting an impact assessment of this commercial use on hydrologic resources as required by CEQA.

Existing Permitted Groundwater Well

The existing permitted groundwater well was installed in October 2017 by Vics Well Drilling Inc. and was permitted by the Humboldt County Department of Health + Human Services - Land Use Program in July 2017 (Permit #17/-0031).

As stated in the Well Completion Report filed with CA Department of Water Resources (DWR), the well is located at lat/ long (40.2806880, -123.6390080) and the casing is 180 feet deep. The well bore depth was 185 feet and is characterized by water bearing strata between 125' and 165' below ground surface. Above and below the water bearing strata are hard claystone layers with no water present. At time of installation, the static water level of the well was 72' below ground surface. A pump test was conducted for a 6 hour duration and there was zero (0') drawdown of water levels with an estimated well yield of 35 gallons per minute.

Area Geology

The well is located in a Franciscan Formation geologic zone as mapped on the Redding, 1962 (GAM 11) of the California Geologic Atlas.

Area Hydrology and Surface Waters

The Blocksburg area receives approximately 50 - 65 inches on average of rain per year (PRISM Data).

Review of the DWR Well Completion Report Map Application online shows that there are no other registered wells in the vicinity within a 2000 feet of the existing well.

A field inspection was conducted by staff on October 20, 2023 to identify surface water sources in the well vicinity. Refer to the map (page 5) and schematic (page 6) that follow the well completion report below. The nearest existing surface water feature is a seasonal creek that is 350 ft horizontal distance from the existing well, and the bottom of creek channel elevation is approximately 80 ft above the water bearing strata as stated in the well completion report (see schematic, page 6).

Commercial Cannabis Water Use

The table below shows the proposed well water use for the commercial cannabis project - an estimated 200,000 gallons (0.61 acre-feet) per year.

MONTH	GALLONS
JAN	0
FEB	0
MAR	5,000
APR	10,000
MAY	15,000
JUN	19,000
JUL	32,000
AUG	35,000
SEP	42,000
OCT	35,000
NOV	0
DEC	0
TOTAL	193,000

Impact Assessment

In my professional opinion, the proposed use of the existing well for commercial cannabis is acceptable. The use of the well poses a minimal impact on existing water resources. The well and its proposed use exhibits a low probability for hydrologic connectivity or negative impact on adjacent surface water resources. The project will not substantially adversely affect an existing water or hydrologic resource.

State of California
Well Completion Report
 Form DWR 188 Submitted 1/3/2018
 WCR2018-000053

Owner's Well Number 1 Date Work Began 10/28/2017 Date Work Ended 10/29/2017
 Local Permit Agency Humboldt County Department of Health & Human Services - Land Use Program
 Secondary Permit Agency _____ Permit Number 17-0031 Permit Date 07/17/2017

Well Owner (must remain confidential pursuant to Water Code 13752)	Planned Use and Activity
Name <u>TONYA SMITH</u>	Activity <u>New Well</u>
Mailing Address <u>366 DEER PATH DRIVE</u>	Planned Use <u>Water Supply Irrigation - Agriculture</u>
City <u>GEYSERVILLE</u> State <u>CA</u> Zip <u>95441</u>	

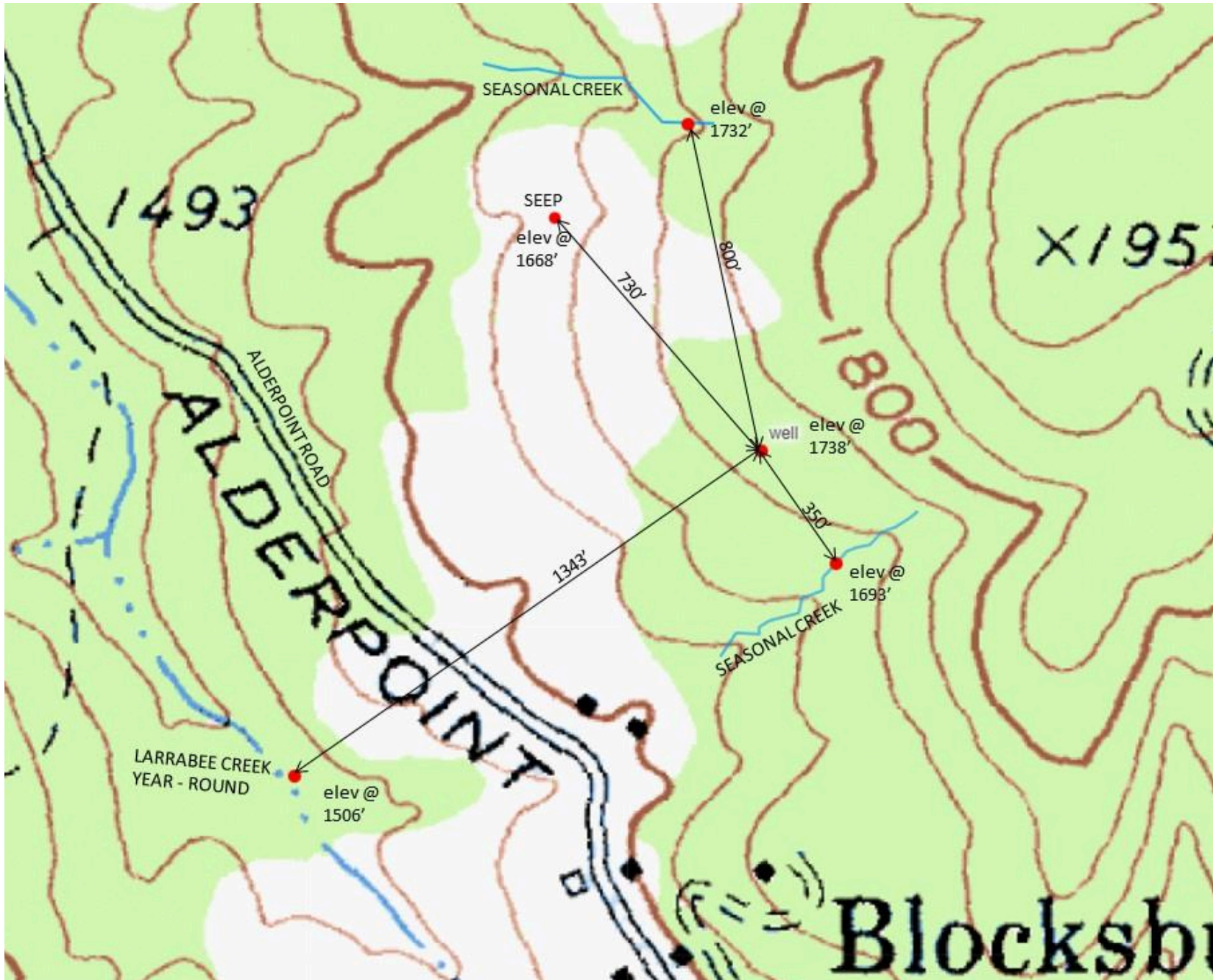
Well Location	
Address <u>28306 ALDTER POINT RD.</u>	APN <u>217-271-005</u>
City <u>BLOCKSBURG</u> Zip <u>95514</u> County <u>Humboldt</u>	Township <u>02 S</u>
Latitude _____ N Longitude _____ W	Range <u>05 E</u>
Deg. Min. Sec. Deg. Min. Sec.	Section <u>20</u>
Dec. Lat. <u>40.2806880</u> Dec. Long. <u>-123.6390080</u>	Baseline Meridian <u>Humboldt</u>
Vertical Datum _____ Horizontal Datum <u>WGS84</u>	Ground Surface Elevation <u>1743</u>
Location Accuracy _____ Location Determination Method _____	Elevation Accuracy <u>10 Ft</u>
	Elevation Determination Method <u>GPS</u>

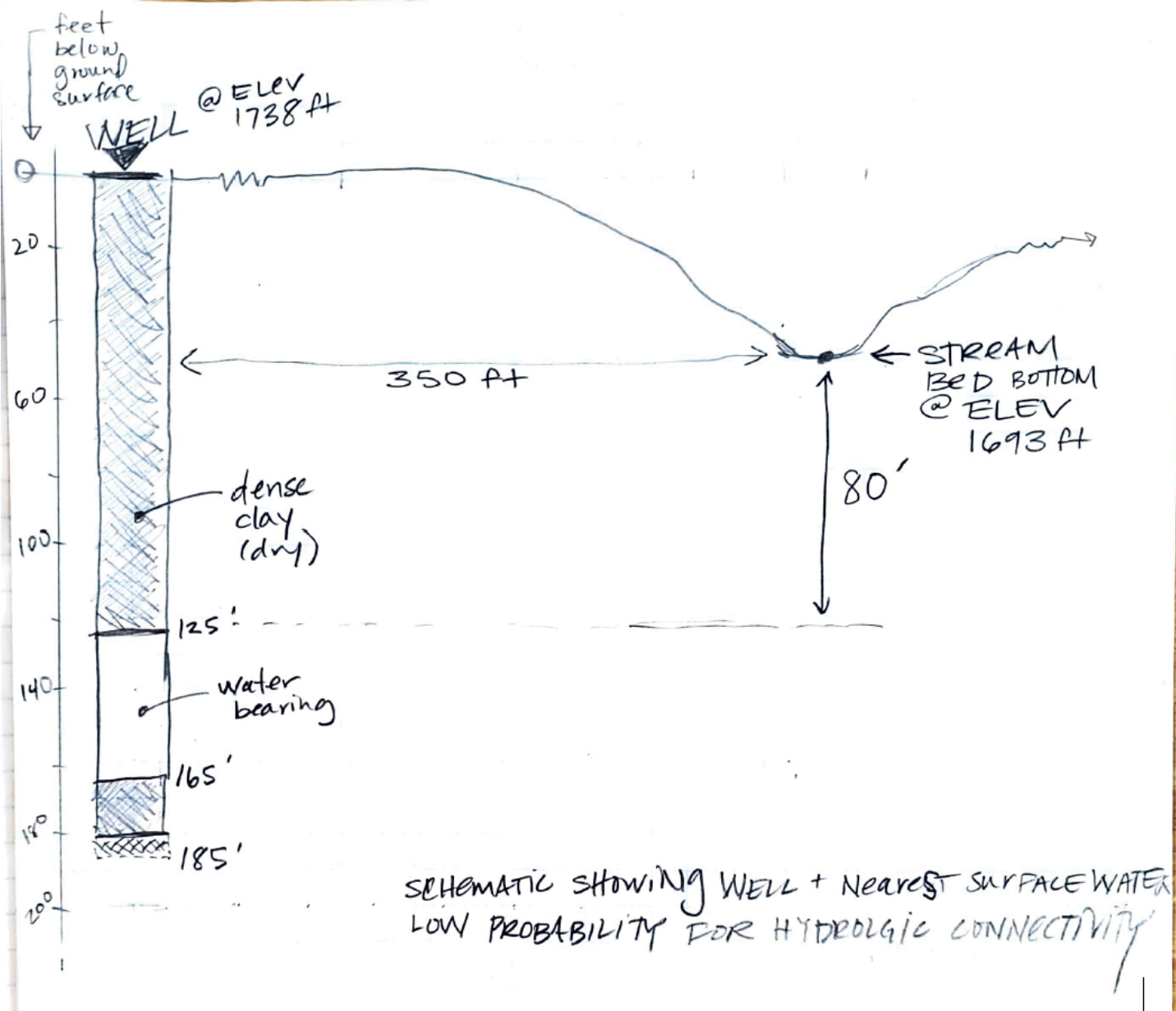
Borehole Information	
Orientation <u>Vertical</u> Specify _____	
Drilling Method <u>Downhole Rotary Hammer</u> Drilling Fluid <u>Air</u>	
Total Depth of Boring <u>185</u> Feet	
Total Depth of Completed Well <u>180</u> Feet	

Water Level and Yield of Completed Well	
Depth to first water <u>125</u> (Feet below surface)	
Depth to Static _____	
Water Level <u>72</u> (Feet) Date Measured <u>10/29/2017</u>	
Estimated Yield* <u>35</u> (GPM) Test Type <u>Air Lift</u>	
Test Length <u>6</u> (Hours) Total Drawdown <u>0</u> (feet)	
*May not be representative of a well's long term yield.	

Geologic Log - Lite					
Depth from Surface	Feet to Feet	Material Type	Material Color	Material Texture	Material Description
0	65	Sandstone	Brown	Dense	
65	125	Claystone	Blue	Hard	
125	155	Conglomerate	Blue	Water Bearing	
155	165	Clayey Gravel	Blue	Water Bearing	
165	185	Claystone	Blue	Hard	

AREA MAP OF HYDROLOGIC FEATURES





SCHEMATIC SHOWING WELL + NEAREST SURFACE WATER
PROFILES SHOW LOW PROBABILITY FOR HYDROLOGIC CONNECTIVITY