

STATE OF IDAHO
DEPARTMENT OF WATER RESOURCES
BENEFICIAL USE FIELD REPORT

A. GENERAL INFORMATION

Permit No: 63-34006
Exam Date: 09/23/2020

1. Current Owner:
GEO A WEITZ INC 16909 MARSING RD CALDWELL ID 83607
2. Accompanied by: Joe Weitz
Phone No: 208-880-3445
Address: Near 12783 Riverside Rd, Caldwell, ID 83607
Relationship to permit Holder: Same

3. **SOURCE:**
GROUND WATER

Method of Determination: Well log, site visit

B. OVERLAP REVIEW

1. Other water rights with the same place of use: NO Overlap

Water Right No.	Source	Purpose of Use	Basis

Comments: No overlap present

2. Other water rights with the same point-of-diversion: YES Overlap

Water Right No.	Source	Purpose of Use	Basis
63-3253	Groundwater	Irrigation	Decreed

Comments: 63-3253 diverts groundwater from the same well and authorizes a diversion rate of 1.92 cfs when combined with water from Wilder Irrigation District. This rate of 1.92 cfs is recommended as the combined use limit for both water rights.

C. DIVERSION AND DELIVERY SYSTEM

1. **LOCATION OF POINT(S) OF DIVERSION:**

GROUND WATER L2 (SW¼ NW¼), Sec. 31, Twp 03N, Rge 03W, B.M. CANYON County

Method of Determination: GPS located well at 43°33'22" N, 116°44'53" W during site visit.

PLACE OF USE: IRRIGATION

Twp	Rng	Sec	NE				NW				SW				SE				Totals
			NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	NE	NW	SW	SE	
03N	04W	25																1.0	1.0
03N	04W	36	8.0																8.0

Total Acres: 9.0

Method of Determination: Digital PLSS map, aerial imagery

3.

Delivery System Diagram Attached (required). Indicate all major components and distances between components.
☒ Indicate weir size/pipe as applicable.

☒

Map Attached Showing Location(s) of point(s) of diversion and place(s) of use (required). Scale must be 1:24,000 or greater.

☒

Aerial Photo Attached (required for irrigation of 10+ acres).

☒

Photo of Diversion and System Attached

4.

Well or Diversion ID No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
364634	US Motors - Holloshaft	40	1259995	Layne-Bowler	29345

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
n/a	n/a	n/a	n/a	n/a	n/a	n/a

2. Measurements: No measurements were taken during this field exam

E. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method: Sprinkler ratings

50 rows of vines, decreasing in length in triangle shape

1,600 ft line in full length row * 25 rows (to account for triangle shape) = 40,000 ft line total

2 ft spacing for sprinkler heads for 40,000 ft line = 20,000 heads total

20,000 heads * 0.26 GPH = 5,200 GPH

5,200 GPH / 60 min/hr = 87 GPM = **0.19 cfs**

Permit 0.20 cfs

B.U. Standard 0.18 cfs

B.U. Fee Paid \$100 → 0.21 to 1.00 cfs

Sprinkler Rate 0.19 cfs

License Recommendation 0.18 cfs

F. VOLUME CALCULATIONS

1. Volume Calculations for irrigation:

$V_{IR} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) = 9 \text{ acres} * 4.5 \text{ af/acre} = 40.5 \text{ af}$

$V_{DR} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation season}) \times 1.9835 = 0.18 \text{ cfs} * 260 \text{ days} * 1.9835 = 93 \text{ af}$

$V = \text{Smaller of } V_{IR} \text{ and } V_{DR} = 40.5 \text{ af}$

2. Volume Calculations for Other Uses: N/A

G. NARRATIVE/REMARKS/COMMENTS

This permit authorizes 0.20 cfs of groundwater for 10 acres of irrigation use in Canyon County. Proof of beneficial use for the permit was due on or before June 1, 2020, but proof was not submitted by this date and the permit lapsed. On June 15, 2020, the permit holder filed an acceptable proof of beneficial use. This resulted in the advancement of the priority date for the permit from November 4, 2014 to November 18, 2014. The field exam was conducted on September 23, 2020 by WRA Tyler Smith and was accompanied by Joe Weitz, the owner of permit holder company Geo A Weitz Inc.

Groundwater is diverted via a 12", 220 ft deep well ID #364634 with a 40 hp Layne-Bowler pump with a Holloshaft U.S. Motors motor to an 8" steel pipe. The 8" steel pipe goes west where it feeds into a 6" steel pipe going south to a second pumping station with a 50 hp pump. Water then flows north via an 8" pipe to a drip station with a third pump. From the drip station water is delivered via a 6" pipe to 20mm Toro BlueLine PC drip lines to the grape vines. Due to the multiple variables and pumps of the delivery system, a theoretical sprinkler rate was determined instead of a theoretical hp rate.

The POU has approximately 50 rows that decrease in length from east to west to form a triangle shape. The eastern most row is approximately 1,600 ft long and multiplying that by 25 rows (to account for the shorter rows and the triangle shape) gives 40,000 ft of total drip line. The drip line has 2' spacing, giving around 20,000 total "sprinkler heads". According to the specifications, the flow rate of the 2' spacing BlueLine is 0.26 gph, multiplied by 20,000 sprinklers gives a flow rate of 5,200 gph = 87 gpm = 0.19 cfs. The permit authorized 10 acres of irrigation, however only 9 acres were developed during the development period. The permit was conditioned for 0.02 cfs per acre, and that rate for the 9 acres is 0.18 cfs, which the system is capable of delivering and is therefore recommended for licensing.

The well used as the point of diversion for this permit overlaps water right 63-3253, which is combined with water from Wilder Irrigation District. 63-3253 was decreed at a rate of 1.92 cfs. The right's places of use do not overlap, and the permit holder stated that the field are not watered simultaneously. A combined diversion rate of 1.92 cfs is recommended for both rights given that the system does not divert for both water rights at the same time.

Have conditions of permit approval been met? ☒ Yes ☐ No

H. RECOMMENDATIONS**1. Recommended Amounts**

<u>Beneficial Use</u>	<u>Period of Use</u>	<u>Rate of Diversion</u>	<u>Annual Volume</u>
IRRIGATION	03/01 to 11/15	0.18 CFS	40.5 AF

Totals: 0.18 CFS 40.5 AF

2. Recommended Amendments

☐ Change P.D. as reflected above ☐ Add P.D. as reflected above ☒ None

☐ Change P.U. as reflected above ☐ Add P.U. as reflected above ☒ None

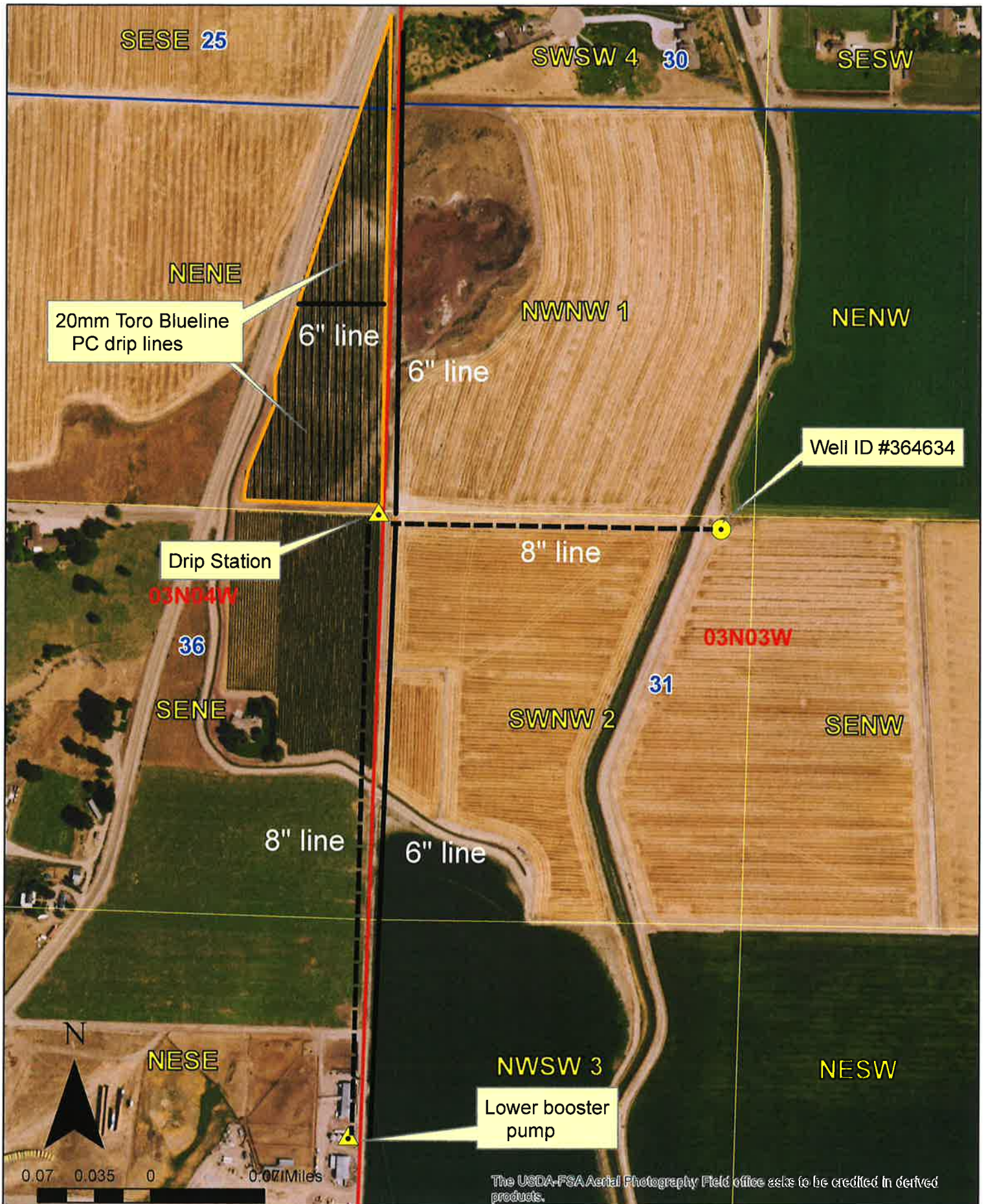
I. AUTHENTICATION

Tyler Smith - Water Resource Agent

Field Examiner's Name Tyler Smith Date 9/29/2020

Reviewer Patricia Inley Date 9-30-2020

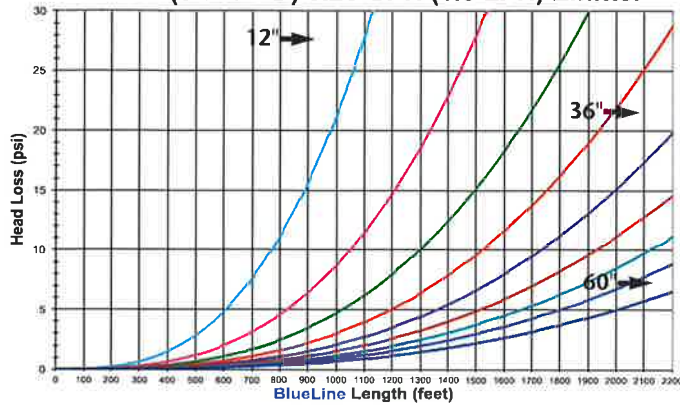
Delivery System Diagram 63-34006



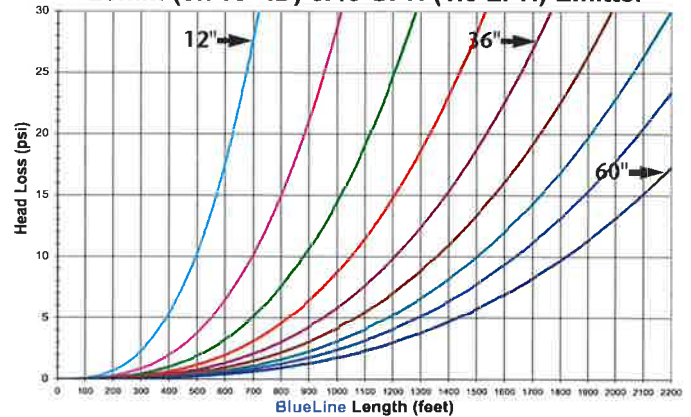
0.710" (20mm) BlueLine® PC Dripline

Spacings: 12" 18" 24" 30" 36" 42" 48" 54" 60"

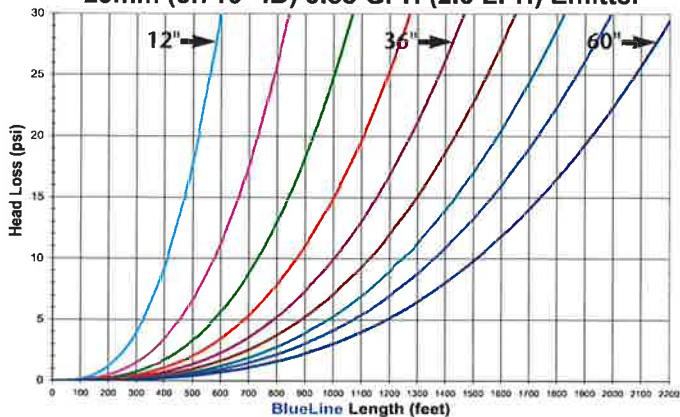
Head Loss v. Length with 0% Slope.
20mm (0.710" ID) 0.26 GPH (1.0 LPH) Emitter



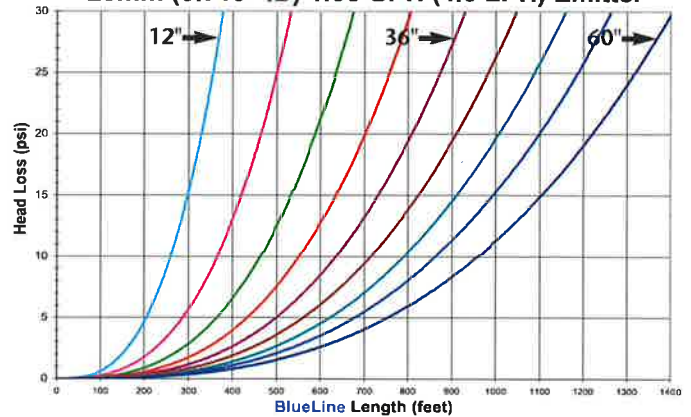
Head Loss v. Length with 0% Slope.
20mm (0.710" ID) 0.40 GPH (1.5 LPH) Emitter



Head Loss v. Length with 0% Slope.
20mm (0.710" ID) 0.53 GPH (2.0 LPH) Emitter



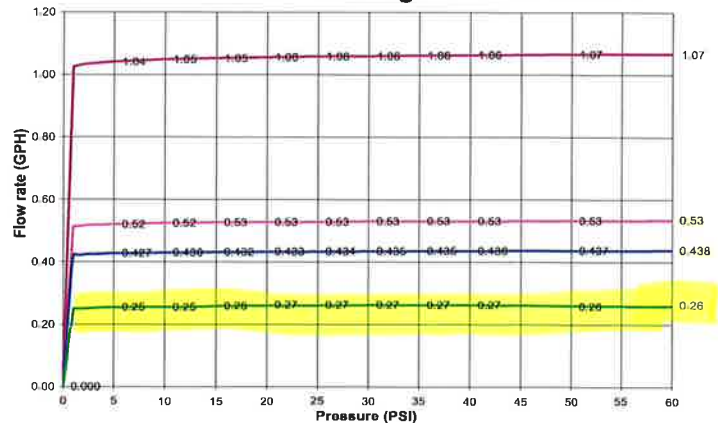
Head Loss v. Length with 0% Slope.
20mm (0.710" ID) 1.06 GPH (4.0 LPH) Emitter



Specification:

	English Units	Metric Units
Hose Nominal ID:	0.710"	20mm
Hose Nominal Wall:	0.048"	1.14mm
Nominal Flow Rate (Q): @ 30 psi (2 bar)	0.26, 0.40, 0.53 & 1.06 GPH	1.0, 1.5, 2.0 & 4 LPH
Operating Pressure Range (P):	10 to 60 psi	0.69 to 4.14 Bar
Coefficient of Variation (Cv):	<3%	<3%
Barb Loss Factor (Kd):	0.27	0.27
Minimum Filtration:	120 mesh (125 microns) for 0.40, 0.53, 1.06 gph 150 mesh (105 microns) for 0.26 gph	120 mesh (125 microns) for 0.40, 0.53, 1.06 gph 150 mesh (105 microns) for 0.26 gph

BlueLine Emitter Discharge Rate vs. Pressure



©2016 The Toro Company

Micro-Irrigation Business

1588 N. Marshall Avenue, El Cajon, CA 92020-1523, USA

Tel: +1 (800) 333-8125 or +1 (619) 562-2950

Fax: +1 (800) 892-1822 or +1 (619) 258-9973

toro.com

AL100 05/16

TORO

Count on it.



26300 Sand Rd.
Parma, ID 83660

aquairr.com

Invoice

Date	Invoice #
4/1/2016	13885

Bill To:
Western Farms, Inc. 16909 Marsing Rd. Caldwell, ID 83605

Ship To:
Western Farms, Inc. 16909 Marsing Rd. Caldwell, ID 83605

Project	P.O. No.	Rep	Ship Date	Ship Via
			4/1/2016	CPU

Qty	Item	Description	U/M	Rate	Amount
42	BP71053-24	Toro BlueLine PC 20mm, .53gph, 24" spacing, 1000' roll	ca	97.59	4,098.78
Kasey Garrett 208-350-0563 Corby Garrett 208-250-7207		Total			\$4,098.78

027713 WELL LOG AND REPORT OF THE STATE RECLAMATION ENGINEER OF IDAHO

RECEIVED
FEB 5 1962
Department of Reclamation

Permit No. 680042 Well No. _____ County Canyon

Owner John Walker

Address Route 4, Caldwell

Driller Leonard Davis

Address 273 Davis Ave Nampa, Idaho

Well location 17 1/4 20 1/4 Sec. 21, T. 2 N. R. 2 W

Size of drilled hole 12 in

Locate well in section

NW 1/4	NE 1/4
SW 1/4	SE 1/4

Total depth of well 220 ft

Give depth to standing water from the ground 65 ft Water temp. _____ °Fahr.

On "Pumping Test" delivery was 775 g.p.m. or _____ c.f.s. Drawdown was _____ feet.

Size of pump and motor used to make test _____

Length of time of test _____ hours _____ minutes.

If flowing well, give flow _____ c.f.s. or _____ g.p.m. and of shut off pressure _____

If flowing well, described control works _____ (TYPE AND SIZE OF VALVE, ETC.)

Water will be used for irrigation Weight of casing per lineal foot 20

Thickness of casing 10 gauge Casing material Steel (STEEL, CONCRETE, WOOD, ETC.)

Diameter, length and location of casing Cased to 176 ft
(CASING 12" IN DIAMETER OR LESS, GIVE INSIDE DIAMETER;
CASING OVER 12" IN DIAMETER, GIVE OUTSIDE DIAMETER)

CASING RECORD

Diam. Casing	From Feet	To Feet	Length	Remarks—seals, grouting, etc.
<u>12"</u>	<u>surface</u>	<u>176</u>	<u>176</u>	<u>Test report included with log.</u>

Number and size of perforations 1" x 1/2" located 40 feet to 93 feet from ground

Date of commencement of well _____ Date of completion of well _____

SNNW S. 31 3N 3W

027714

WELL LOG

From Feet	To Feet	Type of Material	Water-bearing Formation Ass. Yes or No	Casing Perforated Ass. Yes or No
Surface	4	Top soil		
4	20	Sandy soil		
20	28	Sand (fine - coarse)		
28	32	sand & cinders		
32	60	cinders (black)		
60	70	sand & cinders	yes	
70	88	sand & gravel	yes	
88	141	Fine - coarse sand	yes	
141	142	Hard yellow clay		
142	194	Sand (fine - coarse)		
164	205	clay (hard yellow)		
205	220	sandy clay shale - part clay	yes	

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 knowledge and belief.

Signed Leonard Davis

By Wilma Davis

Dated Feb 2, 19 62

License No. 100



Point of Diversion Comparison

State of Idaho
Department of Water Resources

Water right no. 63-34006

Beneficial Use Field Exam

TRS	BasinSequence	Owner	Source	NENE	NWNE	SWNE	SENE	NENW	NWNW	SWNW	SENW	NESW	NWSW	SWSW	SESW	NESE	NWSE	SWSE	SESE	TotalAcres
03N03W31	63-3253	BROOMHALL, ADEL; W	GROUND WATER							X										
03N03W31	63-34006	GEO A WEITZ INC	GROUND WATER							X										

 = this right
 = overlap

[illegible]

= this right
= overlap



Fig. 1 – View looking east. POU southern boundary to the left of the road. Drip station is seen in the foreground, the lower booster pump is out of view to the south, and the well is out of sight in the background.



Fig. 2 – View of POU from southern boundary looking north. There are roughly 50 rows of grapes being irrigated.



Fig. 3 – Well ID 364634
located at:

43° 33' 2" N

116° 45' 8" W



Fig. 4 – Well pump
info:

HP: 40

Volts: 220/440

Serial #: 1259995



Fig. 5 – Booster pump station south of POU located:

43° 33' 2" N

116° 45' 8" W



Fig. 6 – Booster pump info:

HP: 50

Volts: 230/460

Serial #: 124697

Make: Lincoln



Fig. 7 – Drip station and water filter system for POU located at:

43° 33' 22" N

116° 45' 9" W



Fig. 8 – The drip station has a Seametrics flow meter installed. Permit holder stated POU is always irrigated at 180 gpm from drip station for crop optimization.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region • 2735 W Airport Way • Boise ID 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348

Website: idwr.idaho.gov • Email: westerninfo@idwr.idaho.gov

BRAD LITTLE
Governor

GARY SPACKMAN
Director

September 9, 2020

COPY

GEO A WEITZ INC
16909 MARSING RD
CALDWELL, ID 83607

RE: Scheduling Field Exam for Water Right Permit No. 63-34006

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **this season**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes **0.20 CFS** of **GROUNDWATER** for **IRRIGATION** use. If **you have developed a beneficial use and still own the place of use property, please contact me at your earliest convenience to schedule an examination.**

If you did not develop a beneficial use of water under the permit during the beneficial use period, a license cannot be issued and the permit should be relinquished. If that use was developed, but have ceased using the water and you currently carry no interest in it, please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required).

If you did develop a beneficial use of water under the permit, but you no longer own the place of use property identified in the permit, please submit the enclosed Assignment of Permit form with the applicable \$25 processing fee.

Please contact me within the next thirty (30) days at (208) 334-2190 or tyler.smith@idwr.idaho.gov to either schedule an examination or submit a relinquishment or assignment form. If you no longer own the place of use property and/or do not respond to this letter, the department will work with the current property owner to issue a license or void the permit.

Sincerely,

Tyler Smith
Water Resource Agent

Enclosures: Relinquishment of Permit form
Assignment of Permit form
Proof Report and Map