

4/2014

IN-OFFICE BENEFICIAL USE EXAM REPORT

Permit No. 63-31149

Prepared by Angie Grimm

Date 8/8/2014

Same as permit Different than permit

Owner Name	☒	☐ _____
Owner Address	☒	☐ _____
Source	☒	☐ _____
Tributary	☒	☐ _____
POD	☒	☐ _____
POU	☒	☐ _____
Beneficial Use(s)	☒	☐ <u>Recommend 0.20 cfs (permitted rate) & 54.5 afa (see attached 63-31149 Volume Calculation Memo for additional information).</u>

Exam Fee Required for Permitted Rate \$50.00

Exam Fee Paid \$50.00

Overlaps ☒ No ☐ Yes, summarize No other uses from well. No other sources of water used for cooling system. Potable and landscaping water provided by United Water Idaho.

Amendment ☒ No ☐ Yes, summarize _____

Technical Confirmation Tools

ArcMap	☒	GPS	☒
Taxlot	☒	Photos	☒
Well Log	☒	Diagrams	☐
Other	☐ explain: _____		

Conditions/Comments POD GPS N43 36.311' W116 13.153'. UIC permit 63W169001 (current - expires 12/31/14). Well used for cooling system (production and disposal/injection of spent water) for one 32 unit building (two units combined into one). Recommend modify WB zone to 73 to 148 ft (per well log), ok shallow water use permitted (non-consumptive).

Exam Date Entered ☒

Draft License Created ☒

Shapes Updated ☒

State of Idaho
Department of Water Resources
63-31149 Beneficial Use Field Report Map



-  Point of Diversion
-  Place Of Use Boundary
-  Townships
-  PLS Sections
-  Quarter Quarters

0 0.0075 0.015 0.03 Miles



63-31149 Volume Calculation Memo
Beneficial Use Field Report
Angie Grimm, IDWR

Volume Calculations for Cooling Use:

V_R => est. time system operating annually:

Information submitted by the owner upon filing the original permit application (on existing building) indicates the area of livable space is 50,531 sq.ft., building is 4 stories, building is constructed for better energy efficiency, and the design temperature is ~68°F. It is reasonable to assume cooling system operates up to 24 hrs/day during months when avg. temp is above ~70°F. The closer the temperature is 70°F, the less time the cooling system would need to operate. Approximate system operates 0 hrs/day when the monthly avg. temp below ~60°F (Jan, Feb, March, Apr, Oct, Nov & Dec), 12 hrs/day when the monthly avg. temp between ~60°F and 70°F (May) and 24 hrs/day when avg. temp ~70°F or above (Jun, Jul, Aug & Sept).

Based on NOAA avg. temp. data (attached):

Avg. temp $\geq 70^\circ\text{F}$ = Jun, July, Aug & Sept = 122 days/yr $\times$ 24 hrs/day $\times$ 60 min/hr = 175,680 min/yr

Avg. temp $\sim 60^\circ\text{F}$ to 70°F = May = 31 days/yr $\times$ 12 hrs/day $\times$ 60 min/hr = 22,320 min/yr

$V_R = 0.20 \text{ cfs} \times 448.8 \text{ gpm/cfs} \times 198,000 \text{ min/yr} \times 1 \text{ af}/325,850 \text{ gal} = \mathbf{54.5 \text{ afa}}$ (this quantity relatively close to est. from "Residential Space Heating/Cooling Requirements for Cold or Geothermal Sources" excel worksheet attached)

$V_D = 0.20 \text{ cfs} \times 365 \text{ days/yr} \times 1.9835 = \mathbf{144.8 \text{ afa}}$

$V = \text{Smaller of } V_R \text{ and } V_D = 54.5 \text{ afa} < 144.8 \text{ afa} = \mathbf{\text{Recommend } 54.5 \text{ afa}}$

Monthly Mean Avg Temperature for Boise Area, ID (ThreadEx)

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2000	34.1	41.6	43.4	54.3	59.7	68.6	76.0	75.9	63.0	52.2	32.7	31.0	52.7
2001	27.2	33.8	45.8	48.1	61.4	67.3	74.3	78.7	68.4	53.5	44.0	30.7	52.8
2002	31.5	34.0	40.7	50.5	59.1	69.6	79.6	70.9	65.1	49.4	40.6	37.3	52.4
2003	38.7	36.9	46.4	49.4	58.7	69.7	80.5	77.3	66.7	58.0	37.7	37.2	54.8
2004	28.4	34.9	48.2	53.8	58.7	69.3	78.0	74.9	63.6	53.5	38.2	35.4	53.1
2005	32.8	36.8	45.7	50.5	59.4	64.4	78.3	76.7	63.3	53.7	37.5	29.5	52.4
2006	36.4	34.7	42.3	51.7	61.0	71.0	81.5	74.0	65.4	51.2	43.3	31.7	53.7
2007	29.2	38.9	48.3	51.7	62.5	70.5	83.1	75.5	64.7	52.0	40.9	32.4	54.1
2008	29.0	36.0	40.8	46.6	60.5	67.1	77.6	75.9	66.1	53.5	43.6	31.5	52.4
2009	31.3	36.9	41.6	50.6	61.6	67.8	78.5	75.1	70.6	48.5	41.4	26.7	52.6
2010	37.4	40.3	44.7	48.8	53.6	66.3	75.8	73.9	67.6	57.0	38.9	35.0	53.3
2011	31.7	35.5	44.1	46.2	55.5	64.3	75.6	78.4	71.4	54.6	40.0	31.3	52.4
2012	34.8	38.4	47.1	54.7	58.9	67.3	81.3	78.5	68.6	53.2	44.6	35.9	55.3
2013	19.6	35.5	45.1	49.9	61.0	69.9	81.5	78.2	66.6	50.2	39.7	23.9	51.8
2014	30.5	39.1	45.7	50.5	60.7	67.3	81.0	M	M	M	M	M	53.5
Mean	31.5	36.9	44.7	50.5	59.5	68.0	78.8	76.0	66.5	52.9	40.2	32.1	53.1
Max	38.7 2003	41.6 2000	48.3 2007	54.7 2012	62.5 2007	71.0 2006	83.1 2007	78.7 2001	71.4 2011	58.0 2003	44.6 2012	37.3 2002	55.3
Min	19.6 2013	33.8 2001	40.7 2002	46.2 2011	53.6 2010	64.3 2011	74.3 2001	70.9 2002	63.0 2000	48.5 2009	32.7 2000	23.9 2013	51.8

RESIDENTIAL SPACE HEATING/COOLING REQUIREMENTS FOR COLD OR GEOTHERMAL SOURCES

Worksheet created by Cindy Hodges, 11/93.

Data entered by: Angie Grimm
Exam Date: 10/23/13
File No: 63-31149
Computations for: Cooling of residential condominiums

REQUIRED DATA:

Area of livable floor space, ft² (A) 50531 (WR permit app)
2 story? (N=1, Y=2) 4 (WR permit app)
House efficiency factor (e) * 0.44 (WR permit app)
Inside design temperature (Ti) 68 (WR permit app)
Average outside temperature (To) ** 80
Source temperature, degrees F (S) 56 (avg. for area)
Heating/cooling days per season (D) 153 (~ based on Boise area avg temp data)
Hours/day system operates (H) 18 (avg - system operation est. 12 to 24 hrs/day)

CALCULATED DATA:

DESIGN HEAT LOAD (BTU/hr required)
Formula: $E = [e \times (T_i - T_o)] A$
Applies factor of 0.8 for two-story dwelling

E = 213,443 BTU/hour

TEMPERATURE DROP ACROSS SYSTEM
Formula: $T_s = 0.3 \times [S - T_i]$

T_s = 3.6 degrees F

FLOW RATE REQUIRED (at given source temperature)
Formula: $Q = E / (500 \times T_s) \times 448.8$

Q = 0.26 cfs

DIVERTED VOLUME OVER SEASON
Formula: $V_{div} = Q \times D \times H / 24 \times 1.9835$

V_{div} = 60.1 AFA

* e values are as follows:

- 0.28 Best energy efficiency - extra insulation, caulked and weatherstripped, with storm windows and doors
- 0.44 Better energy efficiency - standard insulation, caulked and weatherstripped, with storm windows and/or doors
- 0.67 Average residence - standard insulation, no weatherproofing but with storm windows or double panes
- 1.11 Poor energy efficiency - minimal insulation, no weatherproofing or storm windows (older homes, shops or greenhouses)

** Suggested average outside temperatures:

WINTER

- 4 deg F Boise
- 6 deg F Grand View
- 8 deg F Cascade

SUMMER

- 80 deg F Boise
- 90 deg F Grand View
- 70 deg F Cascade

AVERAGE TEMPERATURE CALCULATION:

4 DEG MIN + 80 DEG HIGH / 2 =

42 DEG AVERAGE YEAR ROUND TEMP.

Mountain Home Office
Rt. 3 Box 610-D
Mountain Home, Idaho 83647
208 587-9055
FAX 208 587-9816

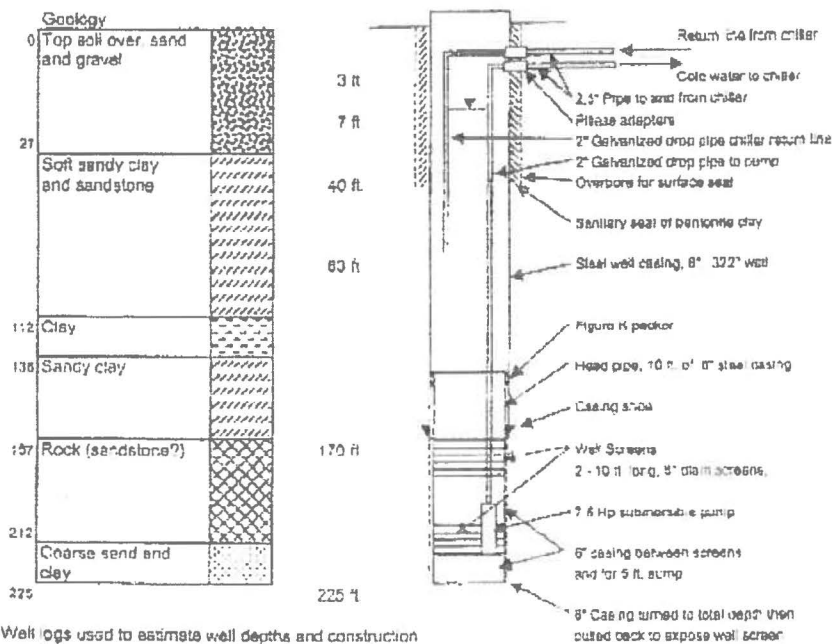


Boise Office
2769 S. Cole Road
Boise, Idaho 83709
208 362-2900
FAX 208 362-9723

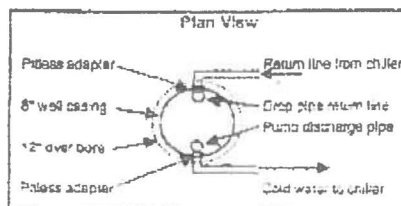
Well Construction Details

For Jon Cortez

Description 8" x 6" cooling system well, 60 to 80 gpm, 225 ft. deep



Well logs used to estimate well depths and construction
Parkview Apartments



Not to Scale

Well design and estimate by

Chuck Feast
Hiddleston Drilling and Pump Co. Inc.
3/23/01



4/2011

IDAHO DEPARTMENT OF WATER RESOURCES
FIELD EXAMINERS
WELL INSPECTION FORM

1. IDENTIFICATION # D0020128 (Tag #, etc.)

OTHER APPLICABLE # WR 63-31149 VIC PERMIT 63W169001 (Water right #, etc.)

2. OWNER PARKVIEW EAST CONDOMINIUM ASSN Phone (208) 336-1097

Address 3100 CRESCENT RIM DR. #305 City BOISE

State ID Zip 83706 Email _____

3. WELL LOCATION (GPS required in Degrees Decimal Minutes – use PLS if GPS not available)

Lat. N 43° 36.311' Long. W 116° 13.153

Twp 3N Rge 2E Sec 9 ¼ SW ¼ SE

4. WELL CONSTRUCTION ☒ Well log attached ☐ Well log not found

Any obvious construction problems that may be a source for contamination or waste? ☐ Yes ☒ No

If yes, describe below &/or see attached (list any that apply): ☐ Photos ☐ Diagram ☐ Other

5. HYDROLOGIC INFORMATION

Static water if measured _____ ft. Water temperature if measured _____ °F

Flowing artesian ☐ Yes ☐ No Pressure if measured _____ psi

NOTES NO MEASUREMENTS (WL OR TEMP.) TAKEN DURING INSPECTION.

✓ VERIFIED WITH OWNER WELL USED FOR COOLING SYSTEM (PRODUCTION AND DISPOSAL/INJECTION OF SPENT WATER) FOR ONE 32 UNIT (2 UNITS COMBINED INTO ONE) BUILDING.

INSPECTED BY ANGIE GRIMM DATE 10/23/13

IDAHO DEPARTMENT OF WATER RESOURCES
WELL DRILLER'S REPORT

Office Use Only
Inspected by _____
Twp _____ Rge _____ Sec _____
1/4 1/4 1/4
Lat: : : Long: : :
768370

1. DRILLING PERMIT NO. - - - - -

Other IDWR No. D0020128

2. OWNER:

Name Parkview East Condominium Association

Address 3100 Crescent Rim Dr. #305

City Boise State ID Zip 83706

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location

N

W

 E
Twp. 3 North X or South ☐
Rge. 2 East X or West ☐
Sec. 9 1/4 SW 1/4 SE 1/4
10 acres 40 acres 160 acres

S

Gov't lot _____ County Ada

Lat: : : Long: : : :

Address of Well Site 3100 Crescent Rim Dr.

City Boise

(Give at least name of road + Distance to Road or Landmark)

Lt. _____ Blk. _____ Sub. Name _____

4. USE:

- ☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection X Other Cooling

5. TYPE OF WORK check all that apply (Replacement etc.)

X New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD

X Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/FILTER PACK		AMOUNT		METHOD
Material	From	To	Sacks or Pounds	
Cement Grout	0	73	32sacks	Tremie
Natural Sand	73	148		Collapse

Was drive shoe used? X Y ☐ N Shoe Depth(s) 98' 38'

Was drive shoe seal tested? ☐ Y X N How? _____

8. CASING/LINER:

Diameter	From	To	Gauge	Material	Casing	Liner	Welded	Threaded
12.750	0	40	375	Steel	X	☐	X	☐
8.625	+2	98	322	Steel	X		X	☐
6.625	98	103	250	Steel		X	X	☐
6.625	113	133	250	Steel	X		X	☐
6.625	143	148	250	Steel		X	X	☐

Length of Headpipe 15' Length of Tailpipe 5'

9. PERFORATIONS/SCREENS

☐ Perforations Method _____
X Screens Screen Type Johnson

From	To	Slot Size	Number	Diameter	Material	Casing	Liner
103	113	020		6"	SS	X	☐
133	143	025		6"	SS	X	☐
						☐	☐

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

21ft. below ground

Artesian Pressure _____ lb

Depth flow encountered _____ Describe access port or control devices: _____

11. WELL TESTS:

☐ Pump ☐ Bailor X Air ☐ Flowing Artesian

Yield gal/min.	Drawdown	Pumping Level	Time
150			1hr

Water Temp. _____ Bottom hole temp. _____

Water Quality test or comments: _____

Depth first Water Encountered 70'

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Water					Y	N
Bore Dia	From	To	Remarks: Lithology, Water Quality & Temp.			
12	0	15	Large gravel		X	
12	15	30	Cobblestone		X	
12	30	40	Orange sand		X	
8	40	65	Orange sand		X	
8	65	70	Blue sand		X	
8	70	90	Brown sand (coarse)	X		
8	90	140	Gray sand	X		
8	140	144	Gray sand w/sandstone	X		
8	144	148	Sandstone		X	

RECEIVED

JUN 13 2001

WATER RESOURCES
WESTERN REGION

Completed Depth: 148' (Measurable)

Date: Started 05/11/01 Completed 05/16/01

13. DRILLER'S CERTIFICATION

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

Firm Name Hiddleston & Son, Inc --Boise

Firm No. 35

Firm Official

Date 6/7/01

Supervisor or Operator

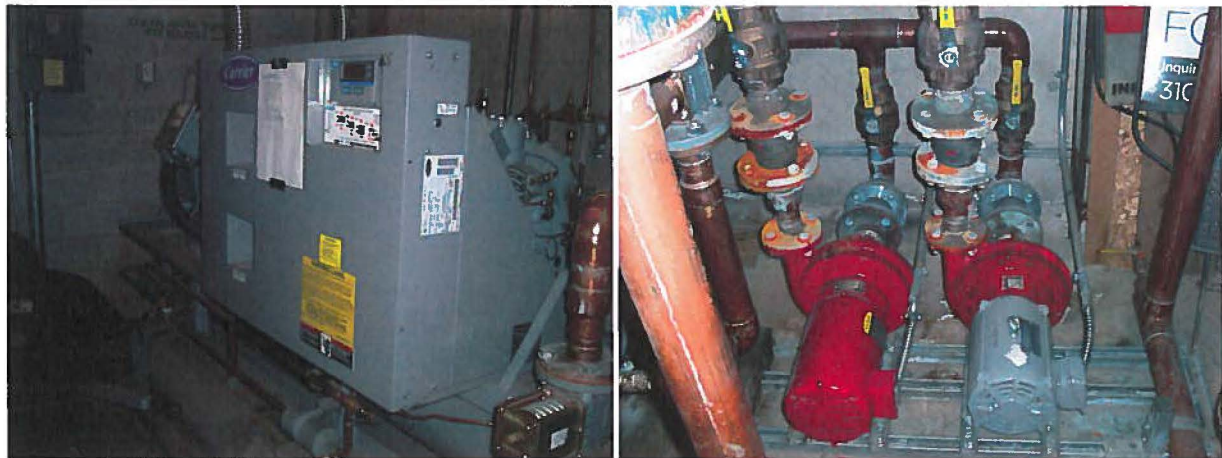
Date 6/7/01

(Sign once if Firm Official & Operator)

63-31149 Beneficial Use Field Report Photos



63-31149 Exam 10/23/2013: POD-production and injection well facing east.



63-31149 Exam 10/23/2013: Cooling system and boosters (5 hp each) inside utility room in garage area of condominium building.



State of Idaho

DEPARTMENT OF WATER RESOURCES

Western Region, 2735 Airport Way • Boise, Idaho 83705-5082

Phone: (208) 334-2190 • Fax: (208) 334-2348 • Web Site: www.idwr.idaho.gov

October 3, 2013

C. L. "BUTCH" OTTER
Governor

GARY SPACKMAN
Director

PARKVIEW EAST CONDOMINIUM ASSN
C/O DIANE MYKHEGARD
3100 CRESCENT RIM #408
BOISE ID 83706

RE: Scheduling Field Exam for Water Right Permit No. 63-31149

Dear Permit Holder:

We are planning to conduct water right examinations in the vicinity of the above-referenced permit **during the weeks of 10/23/13 to 11/8/13**. An examination is needed to verify the water use in order to issue a water right license.

The above-referenced permit authorizes cooling use of ground water for a 32 unit condominium complex. **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 or if you did develop that use, but subsequently abandoned it, a license cannot be issued. Please relinquish the permit by submitting the enclosed Relinquishment of Permit form (no fee required). The permit will be voided if beneficial use under the permit was not developed or was developed, but is now abandoned and you do not relinquish the permit.

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 to either schedule an examination, submit a relinquishment, or submit an assignment. 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.

Please call me at 208-334-2190 if you have any questions. I appreciate your attention in this matter and I look forward to hearing from you.

Sincerely,

Angela M. Grimm, P.G.
Water Resource Agent, Sr.

Enclosure(s): Relinquishment of Permit form
Assignment of Permit form