Application for a Permit to Use

Ground Water

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

SECTION 1: APPLICANT INFORMATION AND SIGNATURE

Applicant Information

NAME			PHONE (HM)
NA			
PHONE (WK)	CELL		FAX
ADDRESS			
CITY	STATE	ZIP	E-MAIL

Organization Information

NAME		PHONE	FAX
CRYSTAL CLEAR ENERGY, LLC		(541) 947-3636	(541) 947-3936
ADDRESS			CELL
220 NORTH "G" ST			
CITY	STATE	ZIP	E-MAIL
LAKEVIEW	OR	97630	

Agent Information – The agent is authorized to represent the applicant in all matters relating to this application.

AGENT / BUSINESS NAME		PHONE	FAX
ADDRESS			CELL
CITY	STATE	ZIP	E-MAIL

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Note: Attach multiple copies as needed

By my signature below I confirm that I understand:

- I am asking to use water specifically as described in this application.
- Evaluation of this application will be based on information provided in the application.
- I cannot use water legally until the Water Resources Department issues a permit.
- Oregon law requires that a permit be issued before beginning construction of any proposed well, unless the use is exempt. Acceptance of this application does not guarantee a permit will be issued.
- If I get a permit, I must not waste water.
- If development of the water use is not according to the terms of the permit, the permit can be cancelled.
- The water use must be compatible with local comprehensive land-use plans.
- Even if the Department issues a permit, I may have to stop using water to allow senior water-right holders to get water to which they are entitled.

I (we) affirm that the information contained in this application is true and accurate.

Charles K. Kelley	Charles K. Kelley	12/5/11
Applicant Signature	Print Name *and title if applicable*	Date
	541-947-3636	
Applicant Signature	Print Name *and title if applicable*	Date

For Department Use

App. No. G-17512 Permit No. _____ Date _____

SECTION 2: PROPERTY OWNERSHIP

Please indicate if you own all the lands associated with the project from which the water is to be diverted, conveyed, and used.

☐ Yes
- ☐ There are no encumbrances.
- ☐ This land is encumbered by easements, rights of way, roads or other encumbrances.

☒ No
- ☒ I have a recorded easement or written authorization permitting access.
- ☐ I do not currently have written authorization or easement permitting access.
- ☐ Written authorization or an easement is not necessary, because the only affected lands I do not own are state-owned submersible lands, and this application is for irrigation and/or domestic use only (ORS 274.040).
- ☐ Water is to be diverted, conveyed, and/or used only on federal lands.

List the names and mailing addresses of all affected landowners *(attach additional sheets if necessary)*.

Easements are obtained to public right-of-ways, the space heating provision is planned to be used within the Urban Growth Boundary of the Town of Lakeview.

SECTION 3: WELL DEVELOPMENT

		IF LESS THAN 1 MILE:	
WELL NO.	NAME OF NEAREST SURFACE WATER	DISTANCE TO NEAREST SURFACE WATER	ELEVATION CHANGE BETWEEN NEAREST SURFACE WATER AND WELL HEAD
1	Hammersley Creek	50 feet	10 feet

Please provide any information for your existing or proposed well(s) that you believe may be helpful in evaluating your application. For existing wells, describe any previous alteration(s) or repair(s) not documented in the attached well log or other materials *(attach additional sheets if necessary)*.

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SECTION 3: WELL DEVELOPMENT, CONTINUED

Source (aquifer), if known: _____

Total maximum rate requested: 1500 GPM (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

Complete the table below. If this is an existing well, the following information may be found on the applicable well log. *(If a well log is available, please submit it in addition to completing the table.)* If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner.

									PROPOSED USE			
OWNER'S WELL NAME OR NO.	PROPOSED	EXISTING	WELL ID (WELL TAG) NO.* OR WELL LOG ID**	FLOWING ARTESIAN	CASING DIAMETER	CASING INTERVALS (IN FEET)	PERFORATED OR SCREENED INTERVALS (IN FEET)	SEAL INTERVALS (IN FEET)	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	SOURCE AQUIFER***	TOTAL WELL DEPTH	WELL-SPECIFIC RATE (GPM)	ANNUAL VOLUME (ACRE-FEET)
Hammersley Well	☐	☒	LAKE 2326	☐	12"	+1-140	NA	0-140	8/13/11	igneous rock	685	1500	2420
Re-injection	☒	☐		☐	10"		Perforated 150-500			Igneous rock basalt	500'		
Re-injection	☒	☐		☐	10"		Perforated 150-500			Igneous rock basalt	500'		
Re-injection	☒	☐		☐	10"		Perforated 150-500			Igneous rock basalt	500'		
	☐	☐		☐									
	☐	☐		☐									

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Proposed wells are for Re-injection of the geothermal water. 3 sites are noted depending on found conditions, and ability to take the geothermal water into the same aquifer

* Licensed drillers are required to attach a Department-supplied Well Tag, with a unique Well ID or Well Tag Number to all new or newly altered wells. Landowners can request a Well ID for existing wells that do not have one. The Well ID is intended to serve as a unique identification number for each well.

** A well log ID (e.g. MARI 1234) is assigned by the Department to each log in the agency's well log database. A separate well log is required for each subsequent alteration of the well.

*** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

SECTION 3: WELL DEVELOPMENT, CONTINUED

Source (aquifer), if known: _____

Total maximum rate requested: 1500 GPM (each well will be evaluated at the maximum rate unless you indicate well-specific rates and annual volumes in the table below).

Complete the table below. If this is an existing well, the following information may be found on the applicable well log. *(If a well log is available, please submit it in addition to completing the table.)* If this is a proposed well, or well-modification, consider consulting with a licensed well driller, geologist, or certified water right examiner.

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										PROPOSED USE			
OWNER'S WELL NAME OR NO.	PROPOSED	EXISTING	WELL ID (WELL TAG) NO.* OR WELL LOG ID**	FLOWING ARTESIAN	CASING DIAMETER	CASING INTERVALS (IN FEET)	PERFORATED OR SCREENED INTERVALS (IN FEET)	SEAL INTERVALS (IN FEET)	MOST RECENT STATIC WATER LEVEL & DATE (IN FEET)	SOURCE AQUIFER***	TOTAL WELL DEPTH	WELL-SPECIFIC RATE (GPM)	ANNUAL VOLUME (ACRE-FEET)
Hammersley Well	☐	☒	LAKE 2326	☐	12"	+1-140	NA	0-140	8/13/11	igneous rock	685	1500	2420
	☐	☐		☐									
	☐	☐		☐									
	☐	☐		☐									
	☐	☐		☐									
	☐	☐		☐									
	☐	☐		☐									
	☐	☐		☐									

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*** Source aquifer examples: Troutdale Formation, gravel and sand, alluvium, basalt, bedrock, etc.

SECTION 4: WATER USE

USE	PERIOD OF USE	ANNUAL VOLUME (ACRE-FEET)
heating	year round	2420
power generation	year round	

Exempt Uses: Please note that 15,000 gallons per day for single or group **domestic** purposes and 5,000 gallons per day for a single **industrial or commercial** purpose are exempt from permitting requirements.

For irrigation use only:
Please indicate the number of primary and supplemental acres to be irrigated (*must match map*).

Primary: NA Acres Supplemental: NA Acres

List the Permit or Certificate number of the underlying primary water right(s): NA

Indicate the maximum total number of acre-feet you expect to use in an irrigation season: NA

- If the use is **municipal or quasi-municipal**, attach **Form M**
- If the use is **domestic**, indicate the number of households: NA

  If the use is **mining**, describe what is being mined and the method(s) of extraction: NA

SECTION 5: WATER MANAGEMENT

A. Diversion and Conveyance
What equipment will you use to pump water from your well(s)?

☒ Pump (give horsepower and type): _____

☐ Other means (describe): _____

Provide a description of the proposed means of diversion, construction, and operation of the diversion works and conveyance of water. _____

B. Application Method
What equipment and method of application will be used? (e.g., drip, wheel line, high-pressure sprinkler)
Water is not being applied to land.

C. Conservation
Please describe why the amount of water requested is needed and measures you propose to: prevent waste; measure the amount of water diverted; prevent damage to aquatic life and riparian habitat; prevent the discharge of contaminated water to a surface stream; prevent adverse impact to public uses of affected surface waters.
Water will be pumped from the ground through a power generation facility, and or a heat exchanger building and returned to the ground through a reinjection well resulting in a non consumptive use.

SECTION 6: STORAGE OF GROUND WATER IN A RESERVOIR

If you would like to store ground water in a reservoir, complete this section (*if more than one reservoir, reproduce this section for each reservoir).*

Reservoir name: NA Acreage inundated by reservoir: NA

Use(s): NA

Volume of Reservoir (acre-feet): NA Dam height (feet, if excavated, write "zero"): NA

*Note: If the dam height is greater than or equal to 10.0' above land surface **AND** the reservoir will store 9.2 acre feet or more, engineered plans and specifications must be approved prior to storage of water.*

SECTION 7: USE OF STORED GROUND WATER FROM THE RESERVOIR

If you would like to use stored ground water from the reservoir, complete this section *(if more than one reservoir, reproduce this section for each reservoir).*

Annual volume (acre-feet): NA

USE OF STORED GROUND WATER	PERIOD OF USE
NA	

SECTION 8: PROJECT SCHEDULE

Date construction will begin: 1-1-2012

Date construction will be completed: 12-31-2017

Date beneficial water use will begin: 12-31-2017

SECTION 9: REMARKS

Use this space to clarify any information you have provided in the application *(attach additional sheets if necessary).*

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Land Use Information Form

Oregon Water Resources Department
725 Summer Street NE, Suite A
Salem, Oregon 97301-1266
(503) 986-0900
www.wrd.state.or.us

Applicant: Crystal Clear Energy LLC (First) _____ (Last)

Mailing Address: 220 NORTH "G" STREET

Lakeview (City) Oregon (State) 97630 (Zip) Daytime Phone: (541) 947-3636

A. Land and Location

Please include the following information for all tax lots where water will be diverted (taken from its source), conveyed (transported), and/or used or developed. Applicants for municipal use, or irrigation uses within irrigation districts may substitute existing and proposed service-area boundaries for the tax-lot information requested below.

Township	Range	Section	¼ ¼	Tax Lot #	Plan Designation (e.g., Rural Residential/RR-5)	Water to be:			Proposed Land Use:
39 S	20 E	3	SE SW			☒ Diverted	☐ Conveyed	☐ Used	
39 S	20 E	3	SW SW			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	4	All			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	9	ALL			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	10	S 1/2			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	10	NW 1/4			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	15	ALL			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	16	ALL			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	22	W1/2 NE1/4			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	22	W ½ SE 1/4			☐ Diverted	☐ Conveyed	☒ Used	
39 S	20 E	22	W 1/2			☐ Diverted	☐ Conveyed	☒ Used	

List all counties and cities where water is proposed to be diverted, conveyed, and/or used or developed:

Lake County, Town of Lakeview, Town of Lakeview Urban Growth Boundary

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B. Description of Proposed Use

Type of application to be filed with the Water Resources Department:
☒ Permit to Use or Store Water ☐ Water Right Transfer ☐ Permit Amendment or Ground Water Registration Modification
☐ Limited Water Use License ☐ Allocation of Conserved Water ☐ Exchange of Water

Source of water: ☐ Reservoir/Pond ☐ Ground Water ☐ Surface Water (name) _____

Estimated quantity of water needed: 2420 ☐ cubic feet per second ☐ gallons per minute ☒ acre-feet

Intended use of water: ☐ Irrigation ☒ Commercial ☒ Industrial ☐ Domestic for _____ household(s)
☐ Municipal ☐ Quasi-Municipal ☐ Instream ☐ Other _____

Briefly describe:

Water will be pumped from the ground then ran through a power generation plant, or a heat exchanger building where it will then be pumped back into the ground through a reinjection well. There will be no change in existing land use.

Note to applicant: If the Land Use Information Form cannot be completed while you wait, please have a local government representative sign the receipt at the bottom of the next page and include it with the application filed with the Water Resources Department.

See bottom of Page 3. ⟶

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For Local Government Use Only

The following section must be completed by a planning official from each county and city listed unless the project will be located entirely within the city limits. In that case, only the city planning agency must complete this form. This deals only with the local land-use plan. Do not include approval for activities such as building or grading permits.

Please check the appropriate box below and provide the requested information

☒ Land uses to be served by the proposed water uses (including proposed construction) are allowed outright or are not regulated by your comprehensive plan. Cite applicable ordinance section(s): LC20 Article 2.

☐ Land uses to be served by the proposed water uses (including proposed construction) involve discretionary land-use approvals as listed in the table below. (Please attach documentation of applicable land-use approvals which have already been obtained. Record of Action/land-use decision and accompanying findings are sufficient.) **If approvals have been obtained but all appeal periods have not ended, check "Being pursued."**

Type of Land-Use Approval Needed (e.g., plan amendments, rezones, conditional-use permits, etc.)	Cite Most Significant, Applicable Plan Policies & Ordinance Section References	Land-Use Approval:	
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued
		☐ Obtained ☐ Denied	☐ Being Pursued ☐ Not Being Pursued

Local governments are invited to express special land-use concerns or make recommendations to the Water Resources Department regarding this proposed use of water below, or on a separate sheet.

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Name: Damian Johnson Jr. Title: Planning Director

Signature: _____ Phone: (541) 947-6036 Date: 30 Nov 2011

Government Entity: Lake County

Note to local government representative: Please complete this form or sign the receipt below and return it to the applicant. If you sign the receipt, you will have 30 days from the Water Resources Department's notice date to return the completed Land Use Information Form or WRD may presume the land use associated with the proposed use of water is compatible with local comprehensive plans.

Receipt for Request for Land Use Information

Applicant name: _____

City or County: _____ Staff contact: _____

Signature: _____ Phone: _____ Date: _____

Herb Mosgar

From: Darryl Anderson <darryla@andersonengineering.com>
Sent: Thursday, December 08, 2011 2:17 PM
To: Herb Mosgar
Cc: Barb Thompson; chuck.kelley9@gmail.com; Don Liddycoat
Subject: FW: Crystal Clear Energy application G-17512
Attachments: GW_App_page _5.pdf; 2011-076 map.pdf

Herb

Attached is a revised application map, indicated the proposed re-injection well sites, and a revised page 5 clarifying the re-injection well construction. The two northerly re-injection well sites are our preferred sites. Depending on what is found in the drilling we may not have to use two or more sites. This will be determined after we have findings from initial drilling. The well(s) are proposed to re-inject the geothermal fluid back into the same aquifer far enough away to prevent heat interference.

The Hamersley well is the only production well to be used for the proposed application. This is an existing well in which we have attached with the original application the results of our pumping test.

Crystal Clear will also be forwarding an additional one hundred dollars for the application fee.

Thank you Please let me know if you need any other additional information

Darryl Anderson PE PLS
Anderson Engineering and Surveying Inc.

From: John Harms
Sent: Thursday, December 08, 2011 2:06 PM
To: Darryl Anderson
Subject: Crystal Clear Energy

Attachments

John Harms
Technician
Anderson Engineering & Surveying Inc.
P.O. Box 28, Lakeview, OR 97630
Office – (541) 947-4407
Fax – (541) 947-2321

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(HAMMERSLEY CANYON)

WATER WELL REPORT
STATE OF OREGON

Lake 1326

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State Well No. 39S/20E-3

Permit No. .....

(1) OWNER:
Name NORTHWEST GEOTHERMAL
Address 123 FLANDERS ST.
City PORTLAND State OR

(2) TYPE OF WORK (check):
New Well ☒ Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12.

(3) TYPE OF WELL:
Rotary Air ☒ Driven ☐
Rotary Mud ☐ Dug ☐
Cable ☐ Bored ☐

(4) PROPOSED USE (check):
Domestic ☐ Industrial ☐ Municipal ☐
Irrigation ☐ Test Well ☐ Other ☐
Thermal: Withdrawal ☒ Reinjection ☐

(5) CASING INSTALLED:
Steel ☒ Threaded ☐ Plastic ☐ Welded ☒
12" Diam. from +1 ft. to 140 ft. Gauge .250
..." Diam. from ..... ft. to ..... ft. Gauge .....

LINER INSTALLED:
..." Diam. from ..... ft. to ..... ft. Gauge .....

(6) PERFORATIONS:
Perforated? ☐ Yes ☒ No
Type of perforator used
Size of perforations in. by in.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.
..... perforations from ..... ft. to ..... ft.

(7) SCREENS:
Well screen installed? ☐ Yes ☒ No
Manufacturer's Name .....
Type ..... Model No. .....
Diam. ..... Slot Size ..... Set from ..... ft. to ..... ft.
Diam. ..... Slot Size ..... Set from ..... ft. to ..... ft.

(8) WELL TESTS:
Drawdown is amount water level is lowered below static level
Was a pump test made? ☒ Yes ☐ No If yes, by whom? AG CENTER
900 gal./min. with 7 ft. drawdown after 4 hrs.
" " " "
Air test gal./min. with drill stem at ft. hrs.
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow g.p.m.
Temperature of water 213 Depth artesian flow encountered ..... ft.

(9) CONSTRUCTION:
Special standards: Yes ☐ No ☒
Well seal—Material used NEAT CEMENT
Well sealed from land surface to 140 ft.
Diameter of well bore to bottom of seal 20 in.
Diameter of well bore below seal 12 in.
Number of sacks of cement used in well seal 7 YDS = 189 sacks
How was cement grout placed? METHOD D
GROUT PUMP
Was pump installed? NO Type ..... HP ..... Depth ..... ft.
Was a drive shoe used? ☐ Yes ☒ No Plugs ..... Size: location ..... ft.
Did any strata contain unusable water? ☐ Yes ☒ No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes ☒ No Size of gravel: .....
Gravel placed from ..... ft. to ..... ft.

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(10) LOCATION OF WELL:
County LAKE Driller's well number
SE ¼ NW ¼ Section 3 T. 39S R. 20E W.M.
Tax Lot # Lot Blk Subdivision
Address at well location: 1631 ft. E + 1506 S of N.W CORNER OF SEC. 3.

(11) WATER LEVEL: Completed well.
Depth at which water was first found 120 ft.
Static level 109 ft. below land surface. Date 3-19-81
Artesian pressure lbs. per square inch. Date

(12) WELL LOG:
Diameter of well below casing 12"
Depth drilled 685 ft. Depth of completed well 685 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata.

MATERIAL	From	To	SWL
BROWN SOIL & BLDRS	0	8	
BROWN LITHIC TUFF	8	30	
TUFF BRECCIA	30	40	
WHITE TUFF	40	50	
BASALT	50	60	
ANDESITE	60	80	
BROWN TUFF BRECCIA	80	90	
GREEN LITHIC TUFF	90	110	
ANDESITE	110	120	
GREEN LITHIC BRECCIA W/B	120	185	
GRN-RED BRN LITHIC "	185	230	
GREEN TUFF BRECCIA	230	280	
BASALT	280	345	
GREEN TUFF	345	360	110
GRN-GRAY LITHIC TUFF BRECCIA	360	600	
BASALT	600	615	
TUFF BRECCIA	615	640	
SINTER	640	670	
ANDESITE	670	685	

Work started 2-11 1981 Completed 3-19 1981
Date well drilling machine moved off of well 3-21 1981

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
[Signed] W. J. Williams (Drilling Machine Operator) Date 5-8, 1981
Drilling Machine Operator's License No. 864

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name AQUA IRRIGATION DRILLING INC (Person, firm or corporation) (Type or print)
Address P.O. Box 1310, KLAMATH FALLS, OR 97630
[Signed] W. D. Williams (Water Well Contractor)
Contractor's License No. 665 Date 5-8, 1981

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be mailed within 30 days from the date of well completion.

WATER RESOURCES DEPARTMENT,
SALEM, OREGON 97310

SP*12658-690

G-17512

LAKE COUNTY, OREGON 2011-001586
D-EASE
Cnt=1 Pgs=4 11/18/2011 02:50:19 PM
$20.00 $11.00 $15.00 $10.00 Total:$56.00
00001917201100015860040045
I, Stacie Geaney, County Clerk for Lake County, Oregon certify that the instrument identified herein was recorded in the Clerk records.
Stacie Geaney - County Clerk

GRANT OF PERMANENT EASEMENT

KNOW ALL MEN BY THESE PRESENTS that **JEAN SNIDER SCHADLER, Successor Trustee of the Snider Family Trust dated March 18, 1994**, grantor, in consideration of value received from **Crystal Clear Energy, LLC. an Oregon limited liability company**, grantee, does hereby grant, bargain, sell and convey unto grantee, its successors and assigns, a non-exclusive permanent easement for access and right-of-way purposes upon the real property described in Exhibit "A" attached hereto and incorporated herein.

The easement given herein is for road right-of-way and utility access purposes including pipelines and overhead wires. This easement shall be construed as a covenant running with the land for the benefit of the land of grantee described in Exhibit "B" attached hereto and incorporated herein and shall entitle grantee, its successors and assigns, to make any improvements, repairs and perform that

GH7512

maintenance and construction deemed necessary or desirable to enable grantee, its successors and assigns, to utilize such property for the purposes of ingress and egress to as well as provide utility access to the land of grantee described in Exhibit "B" attached hereto and incorporated herein from U.S. Highway 395.

WITNESS my hand and seal this 2nd day of November, 2011.

SNIDER FAMILY TRUST DATED MARCH 18, 1994

By: Jean Snider Schadler
Jean Snider Schadler, Successor Trustee

STATE OF OREGON)
)
County of Lake) ss.

On this 2nd day of November, 2011, personally appeared before me the above-named Jean Snider Schadler and acknowledged the foregoing instrument to be her voluntary act and deed.

OFFICIAL SEAL
JULIE A ALBERTSON
NOTARY PUBLIC - OREGON
COMMISSION NO. 455807
MY COMMISSION EXPIRES MARCH 11, 2015

Julie A Albertson
Notary Public for Oregon
My Commissions expires: 03-11-2015

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EXHIBIT "A"

LAKE COUNTY RECORDING NO

201100158 6

ANDERSON ENGINEERING AND SURVEYING, INC.

PROFESSIONAL ENGINEERS AND LAND SURVEYORS

17681 Hwy. 395, Lakeview, Oregon 97630
(541) 947-4407 Fax (541) 947-2321
www.andersonengineering.com

Easement from Snider Trust to Crystal Clear Energy

A parcel of land for an access and pipeline easement located in Sections 3 and 4, Township 39 South, Range 20 East, Willamette Meridian, Lake County, Oregon, more particularly described as follows:

Beginning at a point on the East right of way line of the Fremont Highway (U.S. 395), said point being the Northwest corner of a parcel of land described in Deed Volume 266 page 959 of Lake County Record of Deeds, said point also lies South 02°06'49.00" West, a distance of 4,013.52 feet from the Northwest corner of Section 3;

Thence North 77°04'06.00" East a distance of 803.98 feet to a point on the West margin of the Collins Pine Logging Road (formerly the American Forest Products Corporation Logging Road); thence North 30°44'45.00" West along the West margin of the Collins Pine Logging Road (formerly the American Forest Products Corporation Logging Road) a distance of 31.510; thence South 77°04'06.00" West a distance of 808.40 to a point on the East right-of-way line of the Fremont Highway; thence South 38°02'26.21" East a distance of 33.130 to the Point of Beginning;

Easement area contains 0.56 acres or 24,185.14 square feet more or less.

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LAKE COUNTY RECORDING NO.

EXHIBIT "B" 2011001586

Parcels 1, 2 and 3 of Partition Plat 1996-P-093, located in Sections 2, 3, 10 and 11 of Township 39 South, Range 20 East of the Willamette Meridian, as filed October 21, 1996.

LAKE COUNTY, OREGON 2011-001585
D-BSDEED
Cnt=1 Pgs=3 11/18/2011 02:48:05 PM
$15.00 $11.00 $15.00 $10.00 Total:$51.00

00001916201100015850030031

I, Stacie Geaney, County Clerk for Lake County, Oregon certify that the instrument identified herein was recorded in the Clerk records.

Stacie Geaney - County Clerk

GRANTOR'S NAME AND ADDRESS:
Snider Family Trust
c/o Jean Snider Schadler, Trustee
17783 Highway 395
Lakeview, OR 97630

GRANTEE'S NAME AND ADDRESS:
Crystal Clear Energy, LLC
P. O. Box 711
Lakeview, OR 97630

AFTER RECORDING RETURN TO:
James C. Lynch
P. O. Box 351
Lakeview, OR 97630

SEND TAX STATEMENTS TO:
Crystal Clear Energy, LLC
P. O. Box 711
Lakeview, OR 97630

RECEIVED
DEC 07 2011
WATER RESOURCES DEPT
SALEM, OREGON

BARGAIN AND SALE DEED

KNOW ALL MEN BY THESE PRESENTS, That **Jean Snider Schadler, Trustee of the Snider Family Trust Dated March 18, 1994**, hereinafter called grantor, for the consideration hereinafter stated, does hereby grant, bargain, sell and convey unto **Crystal Clear Energy, LLC, an Oregon limited liability company**, hereinafter called grantee, and unto grantee's heirs, successors and assigns, all of that certain real property together with the tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining, situated in the County of Lake, State of Oregon, described as follows, to-wit:

SEE EXHIBIT "A" ATTACHED

SUBJECT TO all easements, reservations, restrictions and rights of way of record or apparent on the ground.

Tax Information: To be combined with Tax Lot Account No. 1000.

To Have and to Hold the same unto the said grantee and grantee's successors and assigns forever.

The true and actual consideration paid for this transfer, stated in terms of dollars, is $1.00. However, the actual consideration consists of other value given which is the whole of the consideration.

G-17512

LAKE COUNTY RECORDING NO.

2011001585

In construing this deed and where the context so requires, all grammatical changes shall be implied to make the provisions hereof apply equally to trusts and to individuals.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, AND SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS. BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195.301 AND 195.305 TO 195.336 AND SECTION 5 TO 11, CHAPTER 424, OREGON LAWS 2007, AND SECTION 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009.

In Witness Whereof, the grantor has executed this instrument this 18th day of November, 2011.

SNIDER FAMILY TRUST DATED MARCH 18, 1994

Jean Snider Schadler

By: Jean Snider Schadler, Trustee

STATE OF OREGON, County of Lake) ss.

This instrument was acknowledged before me on November 18th, 2011, by Jean Snider Schadler, Trustee of the Snider Family Trust Dated March 18, 1994.

OFFICIAL SEAL
JULIE A ALBERTSON
NOTARY PUBLIC - OREGON
COMMISSION NO. 455807
MY COMMISSION EXPIRES MARCH 11, 2015

Julie A Albertson

Notary Public for Oregon
My Commission Expires: 03-11-2015

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SALEM, OREGON

LAKE COUNTY RECORDING NO.

2011001585

ANDERSON ENGINEERING AND SURVEYING, INC.
PROFESSIONAL ENGINEERS AND LAND SURVEYORS
17681 Hwy. 395, Lakeview, Oregon 97630
(541) 947-4407 Fax (541) 947-2321
www.andersonengineering.com

Snider to Crystal Clear Energy (to be combined with Tax Lot 1000)

A parcel of land located in sections 4 and 3 of Township 39 South, Range 20 East, Willamette Meridian, Lake County, Oregon, more particularly described as follows:

Beginning at a point lying on the section line between sections 3 and 4, said point bears South 02°31'08.15" East, a distance of 1318.600 feet from the northwest corner of section 3, said point of beginning is also the point of beginning of a parcel described in Deed Volume 225 page 762 of Lake County Record of Deeds, thence North 02°31'08.15" West along the section line between sections 3 and 4, a distance of 24.359 to the north 1/16th corner common to sections 3 and 4; thence South 89°12'51.00" East a distance of 1362.670 to the northwest 1/16th of section 3; thence South 01°54'28.00" East a distance of 1329.427 to a the center west 1/16th of section 3; thence South 01°54'59.95" East a distance of 1295.435 to the southwest 1/16TH corner of section 3; thence South 01°55'00.00" East a distance of 1295.373 to the west 1/16TH common to sections 3 and 10; thence South 89°30'33.05" West along the south line of section 3, a distance of 416.298 to a 5/8 iron pin on the west margin of the Collins Pine Products logging road (formerly the American Forest Products Corporation logging road) ; Thence along the west margin of said logging road along the following courses:

North 25°05'18.82" West a distance of 712.245;

North 26°05'53.53" West a distance of 126.300 to a ½ iron pipe;

North 03°48'54.23" West a distance of 219.489 to a ½ iron pipe;

North 05°11'17.59" West a distance of 105.214;

North 15°20'53.53" West a distance of 238.400 to a ½ iron pipe;

North 30°44'45.98" West a distance of 237.830;

North 01°01'48.48" West a distance of 380.348;

North 00°24'18.57" East a distance of 94.466;

North 04°20'58.65" West a distance of 125.168;

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SALEM, OREGON

Thence leaving said west margin of Logging road and continuing North 10°39'27.70" West a distance of 285.540; thence North 23°01'02.06" West a distance of 99.190; thence North 35°14'26.95" West a distance of 517.254; thence North 27°54'53.62" West a distance of 357.987; thence North 17°31'12.59" West a distance of 427.677 ; thence North 19°25'14.67" West a distance of 288.400; thence North 88°08'46.57" East a distance of 288.380 to the Point of Beginning;

Parcel Contains 90.95 acres more or less.

EXHIBIT "A"

Dale C. Bugenig,
Consulting Hydrogeologist, LLC

Memo

To: Darryl Anderson, P.E.

From: Dale Bugenig, R.G.

CC:

Date: August 31, 2011

Re: Testing of the Hammersley Canyon Geothermal Well, Lakeview, Oregon, August 13 and 14, 2011.

Per your request, I assisted Anderson Engineering and Surveying, Inc. with an aquifer-stress (pumping) test of the geothermal well located in Hammersley Canyon north of Lakeview, Oregon. The test was conducted on behalf of the well owners, Chuck Kelly and Don Liddycoat. In addition, I was asked to analyze the data acquired from the test to evaluate aquifer properties necessary to assess the performance of the well under extended pumping conditions. This memorandum documents the testing conducted, the analysis of the test data and my conclusions drawn from the results.

BACKGROUND

The Hammersley Canyon Geothermal Well is located in the SE ¼, NW ¼ of Section 3, Township 39 South, Range 20 East (Willamette Meridian). It is situated north of Lakeview, Oregon in Hammersley Canyon, approximately 1,700 feet northeast of the mouth of the canyon (see Figure 1). The well was drilled to a depth of 685 feet in the spring of 1981. It penetrated a variety of igneous rocks ranging from tuff breccia to andesite and basalt lava flows. However, specific water-bearing zones are unknown. Information provided on the State of Oregon Water Well Report (Lake 2326, in Appendix) indicates the well was test pumped at the time of completion at a rate of 900 gallons per minute (gpm) for a period of four hours, with a drawdown of seven feet at the end of the test. The temperature of the water discharged from the well was reported as 213 degrees Fahrenheit (° F).

For this test, a line-shaft turbine test pump was installed in the well to a depth of 200 feet. Prior to installation of the test pump, seamless annealed stainless steel capillary tubing with a pressure vessel ("bomb") at the bottom was installed in the well to a depth of 300 feet. The capillary tubing was connected to a "bubbler" assembly charged with helium gas. The flow of gas required to keep the tubing and bomb fully charged was regulated with a micro-metering valve. This assembly facilitated measuring the piezometric head above the bomb orifice with a

G-17512

recording pressure transducer (data logger) and eliminated the issue of changes in water level associated with changes in water temperature. Well discharge temperature was measured with a digital thermometer inserted in the discharge pipe. The discharge was conveyed to an infiltration field west of the range front via approximately 2,500 feet of pipe. The pumping rate was regulated by a combination of engine speed and a valve was measured with a digital in-line flow meter.

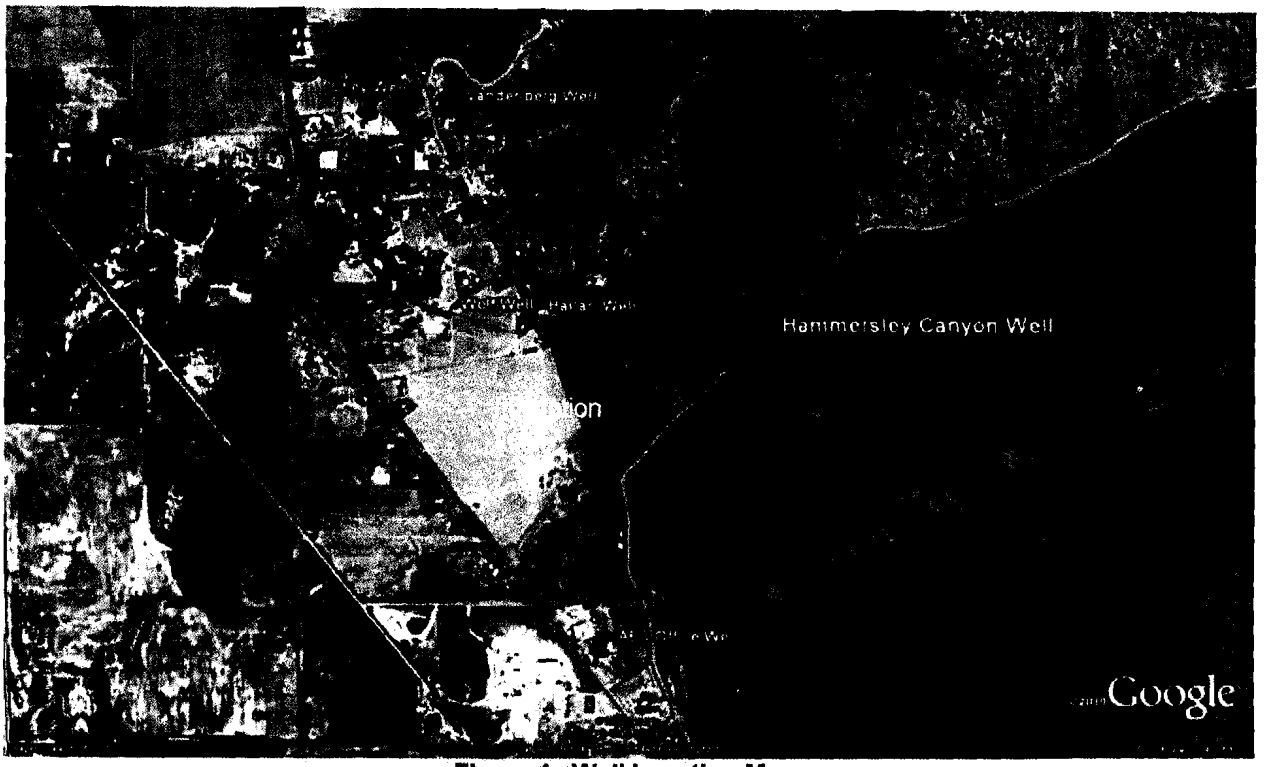


Figure 1. Well Location Map.

Monitoring Network

In addition to the pumped well, water level data were acquired from five observation wells. These are:

- Vandenberg Well – a residential geothermal well located approximately 3,500 feet north-northwest of the Hammersley Canyon geothermal well. Information from the State Well Report for this well indicates it penetrated geologic materials (a series of igneous rocks) similar to the pumped well. Due to limited access for capillary tubing, water levels in this well were measured manually with a water-level sounder.
- Utley (Greenhouse) Well – geothermal well located approximately 4,100 feet northwest of the pumped well. This well is located west of the range-front fault and derives geothermal water from basin-fill deposits. It was equipped with capillary tubing and data logger similar to the pumped well.

- Anderson Engineering & Surveying (AES) office well – a cold-water well located approximately 3,100 feet southwest of the pumped well. This well is situated west of the range-front fault and derives groundwater from alluvial deposits. Water levels in this well were measured manually with a water-level sounder.
- Harlan Well – residential cold-water well located approximately 2,100 feet west-northwest of the pumped well. It derives groundwater from basin-fill deposits west of the range-front fault. Water levels were measured manually using a water-level sounder.
- Wolf Well - residential cold-water well also located 1,900 feet west-northwest of the pumped well. It derives groundwater from basin-fill deposits west of the range-front fault. Water levels were measured manually using a water-level sounder.

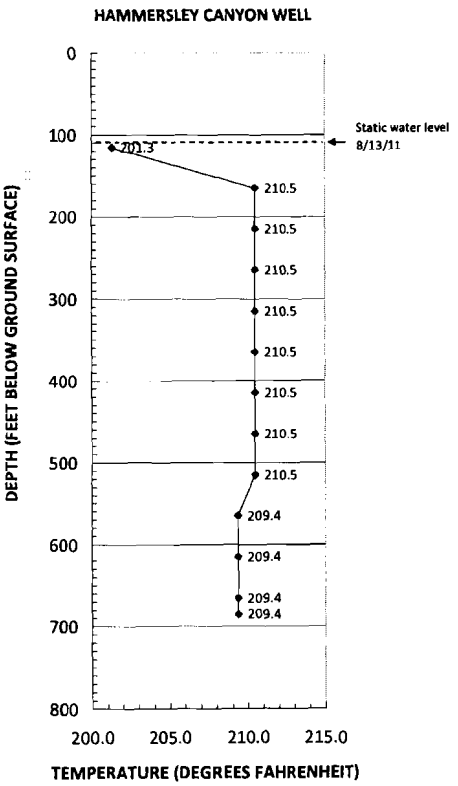
TESTING

Prior to the onset of testing, the pump was turned on for a few minutes to flush the discharge pipe, then shut down for recovery. The test is summarized below.

Testing commenced: 10:04 hours 8/13/11.

Pumping rates: approximately 720 gpm for the 56 minutes of the test, approximately 1,300 gpm for the next 1276 minutes, and approximately 1,500 gpm for the final hour of the test.

Temperature: Once the pumping rate was increased to 1,300 gpm, the temperature of the discharge was measured at 208° F. The in-line thermometer was damaged toward the end of the test and direct measurement of the discharge temperature when the pumping rate was increased to 1,500 gpm could not be made, but an temperature of 210° F was measured at the pump discharge head using a remote-sensing infrared thermometer. For comparison, a plot of a temperature survey of the well acquired April 28, 2011 is provided to the right. From the graph, it is apparent that the discharge temperature approached the maximum temperature measured in the temperature profile when the pumping rate was increased to 1,500 gpm.



Water-level data for the pumped well and the four observation wells are plotted in Figure 2, below. From Figure 2, it is obvious that the Vandenberg Well responded to pumping the Hammersley Canyon well. This was anticipated because this well appears to be completed in the same fractured-rock geologic environment as the pumped well and is aligned with the orientation of the range-front fault thought to influence the occurrence and movement of geothermal fluids in this area and which appears to be tapped by the Hammersley Well. No response was observed in the wells completed in the basin-fill deposits west of the range-front fault. Note that the data for the Utley Well were affected by instrumentation problems. The gas flow rate for the bubbler and capillary tubing increased inexplicably approximately 17 hours into the test. Given that the gas flow rate was regulated by a precise micro-metering valve, the possibly of tampering cannot be ruled out. Once the problem rectified as soon as it was noted. The Utley Well data during the first two-thirds of the test and following shut down of the pump indicated water levels in the Utley Well responded to some outside influence, but not the pumping of the Hammersley Canyon Well.

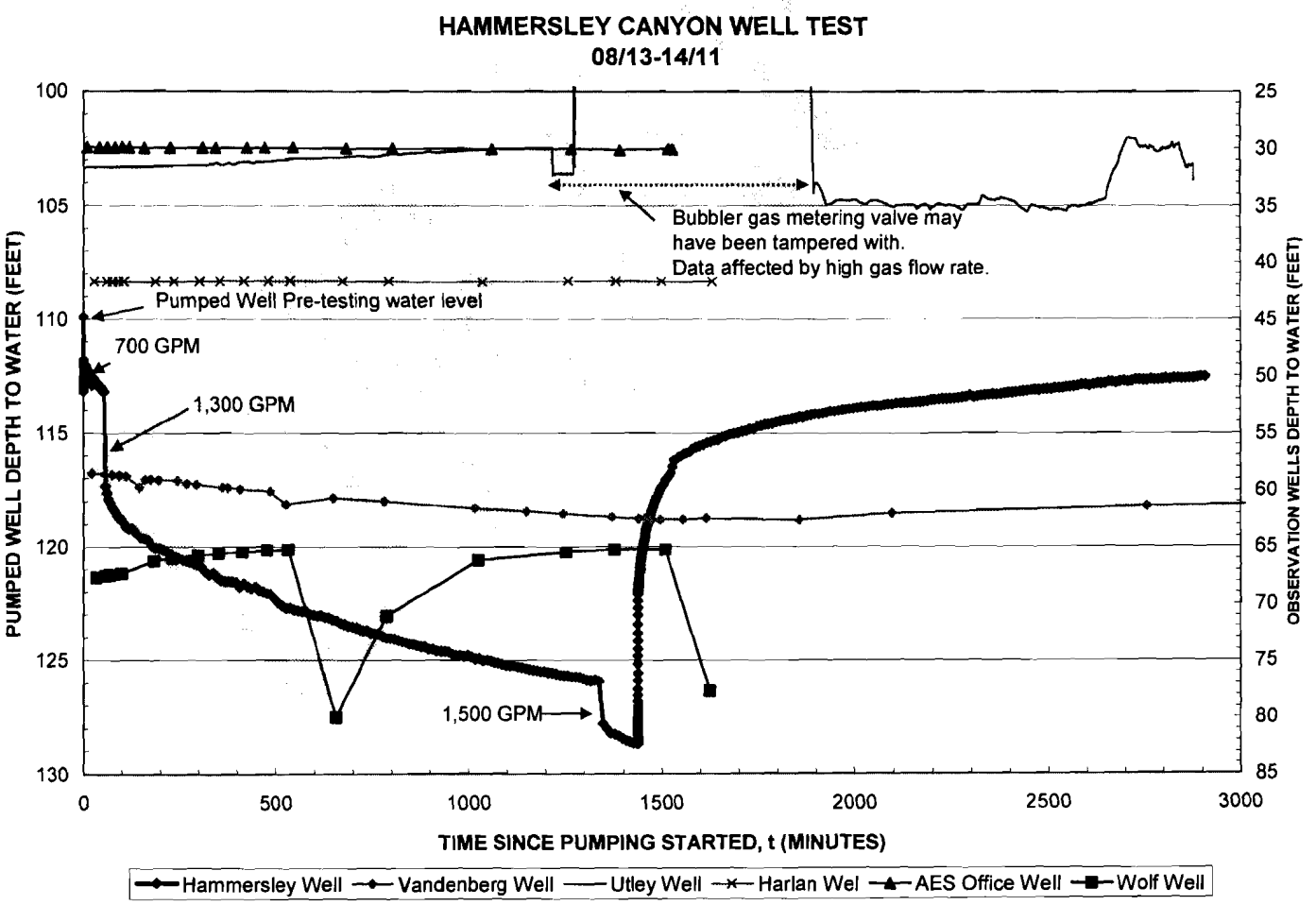


Figure 2. Water-Level Data for the Hammersley Canyon Geothermal Well Test.

DATA ANALYSIS

The data from the pumped well (Hammersley Canyon Well) and the observation well (Vandenberg Well) were analyzed to evaluate the hydraulic properties of the fractured-rock geothermal aquifer. Specifically, the data were analyzed using the computer program AQTESOLV Pro for Windows, version 4.5 (HydroSOLVE, 1996-2006), in particular, the method of Dougherty and Babu (1984). Dougherty and Babu derived an analytical solution for unsteady flow to a fully or partially penetrating, finite-diameter well with wellbore storage and wellbore skin in a homogeneous, isotropic confined aquifer. Moench (1988) extended the method to include anisotropy. AQTESOLV uses the principle of superposition in time to simulate variable-rate tests including recovery with the Dougherty-Babu solution. Note that this analytical solution was developed for porous media (*e.g.* sand and gravel) and the two wells analyzed are completed in fractured rock. Based on the quality of the analysis results, it appears as if the rocks are sufficiently fractured to behave as a porous medium. Attempts to analyze the data using methods specifically designed for fractured-rock aquifers did not improve on the solution.

The following series of figures (Figure 3 through 5) display the results of the analysis and compare the observed drawdown (symbols) to the theoretical drawdown (solid lines) in the pumped well and the Vandenberg observation well using a single set of aquifer properties.

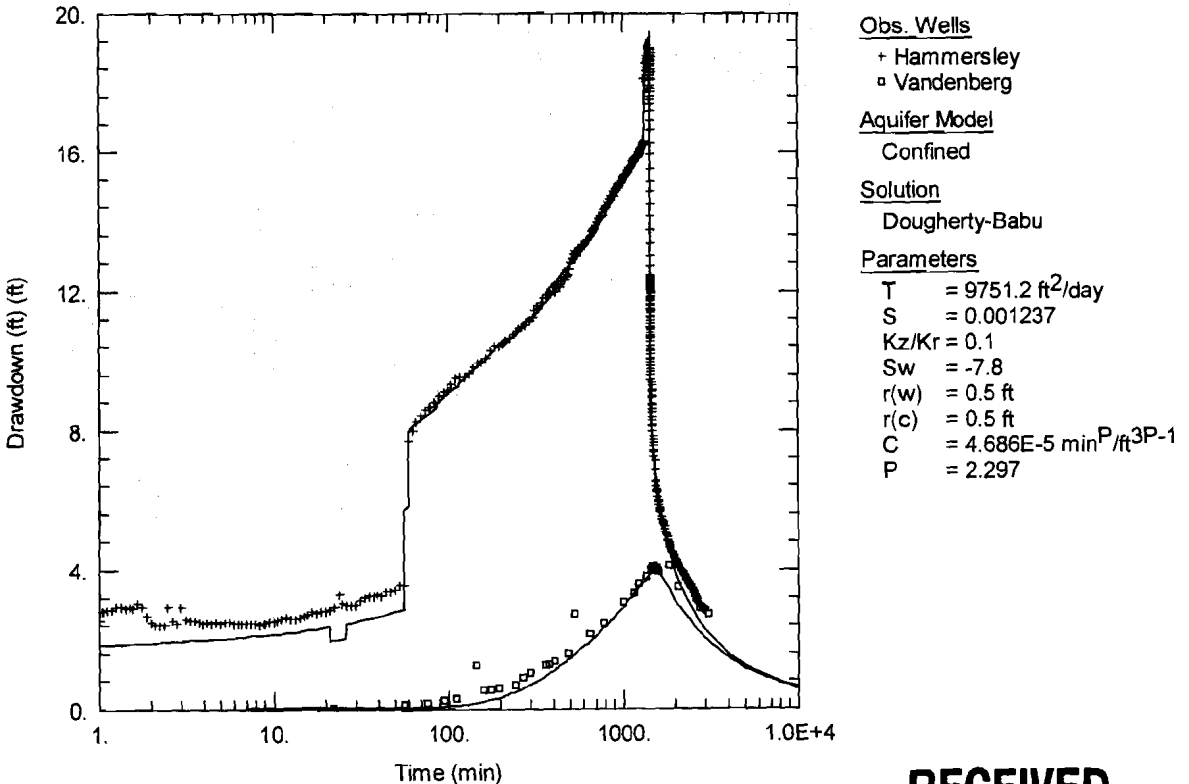


Figure 3. Semi-Log Plot of Drawdown versus Time.

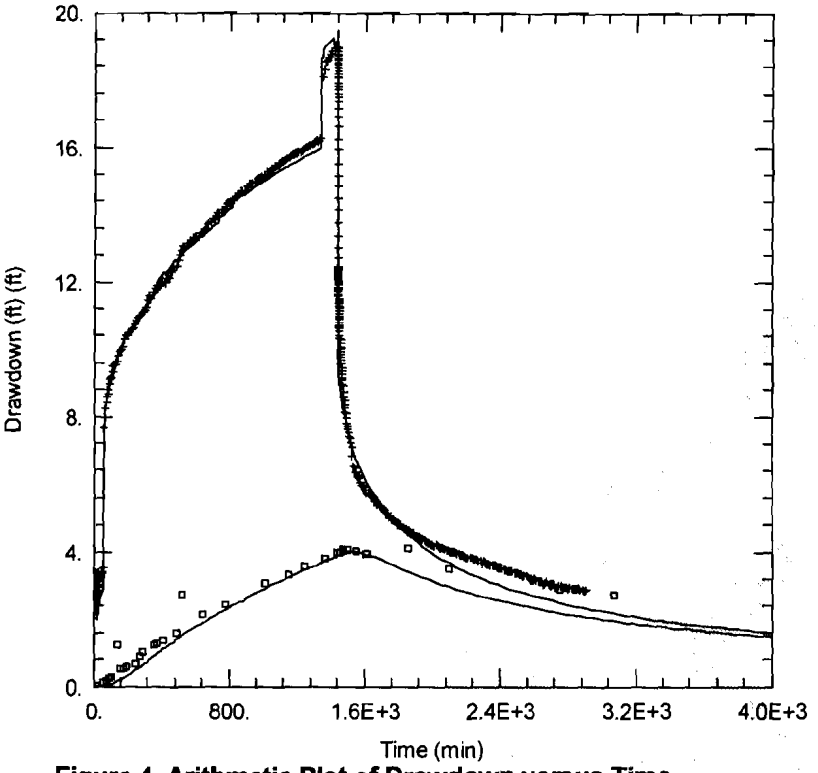


Figure 4. Arithmetic Plot of Drawdown versus Time.

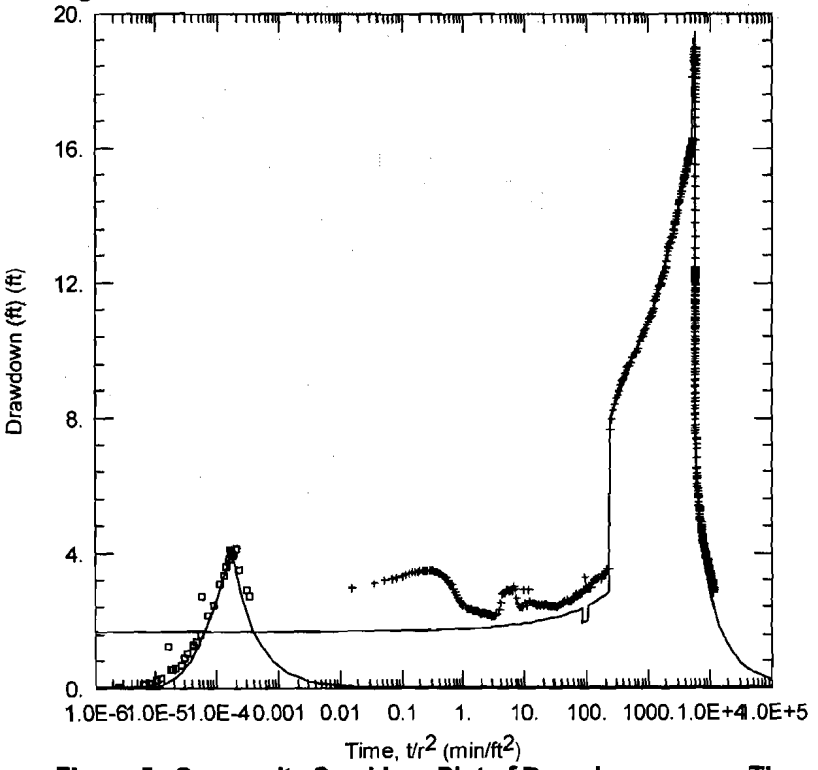


Figure 5. Composite Semi-Log Plot of Drawdown versus Time.

In summary,

- The analysis resulted in a reasonably good fit to the observed drawdown in both the pumped well (Hammersley Well) and the Vandenberg observation well using a single set of aquifer properties (transmissivity, T, and storage coefficient, S). Given that the observation well is located approximately 3,500 feet from the pumped well, the aquifer properties appear to be relatively uniform over a large area.
- The aquifer transmissivity, the overall ability of the aquifer to transmit groundwater, is approximately 9,800 feet^2/day (equivalent to approximately 73,000 gallons per day per foot width of aquifer under a unit hydraulic gradient).
- The dimensionless coefficient of storage is approximately 0.001, which is indicative of a semi-confined aquifer. Note that groundwater was reportedly first encountered at a depth of 120 feet below land surface and that the water level rose to approximately 109 feet below land surface, indicative of some degree of confinement.
- The well exhibits a rather large negative skin factor (Sw). A negative skin factor is indicative of enhanced permeability in the vicinity of the well bore.
- The data suggest an impermeable boundary located approximately 1,000 feet east or west of the Hammersley Well and the Vandenberg Well. The presence of the boundary is indicated by the increase of the slope of the plot of drawdown versus logarithm of time at approximately six hours into the test (Figure 3). The exact location of the boundary cannot be established due to a lack of additional observation wells located in the igneous rocks of the mountain block. The boundary is likely related to less fractured rocks that can be expected to be present away from a permeable "damage zone" typically associated with faults, or the displacement of permeable rocks against less permeable rocks along the fault.

PREDICTED WELL PERFORMANCE

The aquifer properties transmissivity and storage coefficient are necessary assess the long-term performance of the well. It must be acknowledged that the predicted performance of the well requires simplification of a fairly complex aquifer and that long-term performance may differ from the predictions, particularly if additional boundaries and areal changes in the properties of the aquifer manifest themselves after the well has been pumped for an extended period of time. For fractured rock aquifers, these kinds of variations should be anticipated and the actual long-term performance is often less than that predicted by a particular analysis. An additional degree of uncertainty is associated with the locations (depths) of the zone or zones that contribute the hot water to the well. The temperature log obtained April 28, 2011(see above) suggests a convective temperature gradient indicated by isothermal conditions in the borehole between depths of 170 and 510 feet. The suggestion is that production is derived from within this zone. As a consequence, it is recommended that the pumping level in the well not be drawn down below a depth of 170 feet until such time as production data indicate pumping from a deeper level is justified.

Long-term well performance was simulated using the "forward modeling" capabilities of AQTESOLV and the analytical model of Dougherty and Babu used to analyze the test data. The assumptions of the analytical simulation are listed below:

Pumping rates: 700; 1,000, and 1,300 gpm. Pumping is continuous for the simulation period.
Transmissivity, T: 9,751.2 feet^2/day.
Coefficient of storage, S: 0.001237 (dimensionless).

Ratio of vertical to horizontal hydraulic conductivity, Kz/Kr: 0.1. However, this is value is not essential to the analysis since the wells are assumed to fully penetrate the aquifer.
Wellbore skin Sw: -7.8.
Wellbore diameter, r(w): 0.5 ft (the diameter of the well bore below the casing is 12 inches).
Casing diameter, r(c): 0.5 ft (casing diameter is 12 inches).
Well loss coefficient, C: 4.686E-5 min^{P} / ft^{3P-1}.
Well loss exponent, P: 2.297 (dimensionless).
Discharge boundary located 1,000 feet east or west of the Hammersley Canyon Well and the Vandenberg Well.
All water discharged from the well is derived from storage in the aquifer. The well does not capture geothermal fluid flow and no recharge to the aquifer occurs during the simulation period.

The results of the simulation are illustrated in Figure 6.

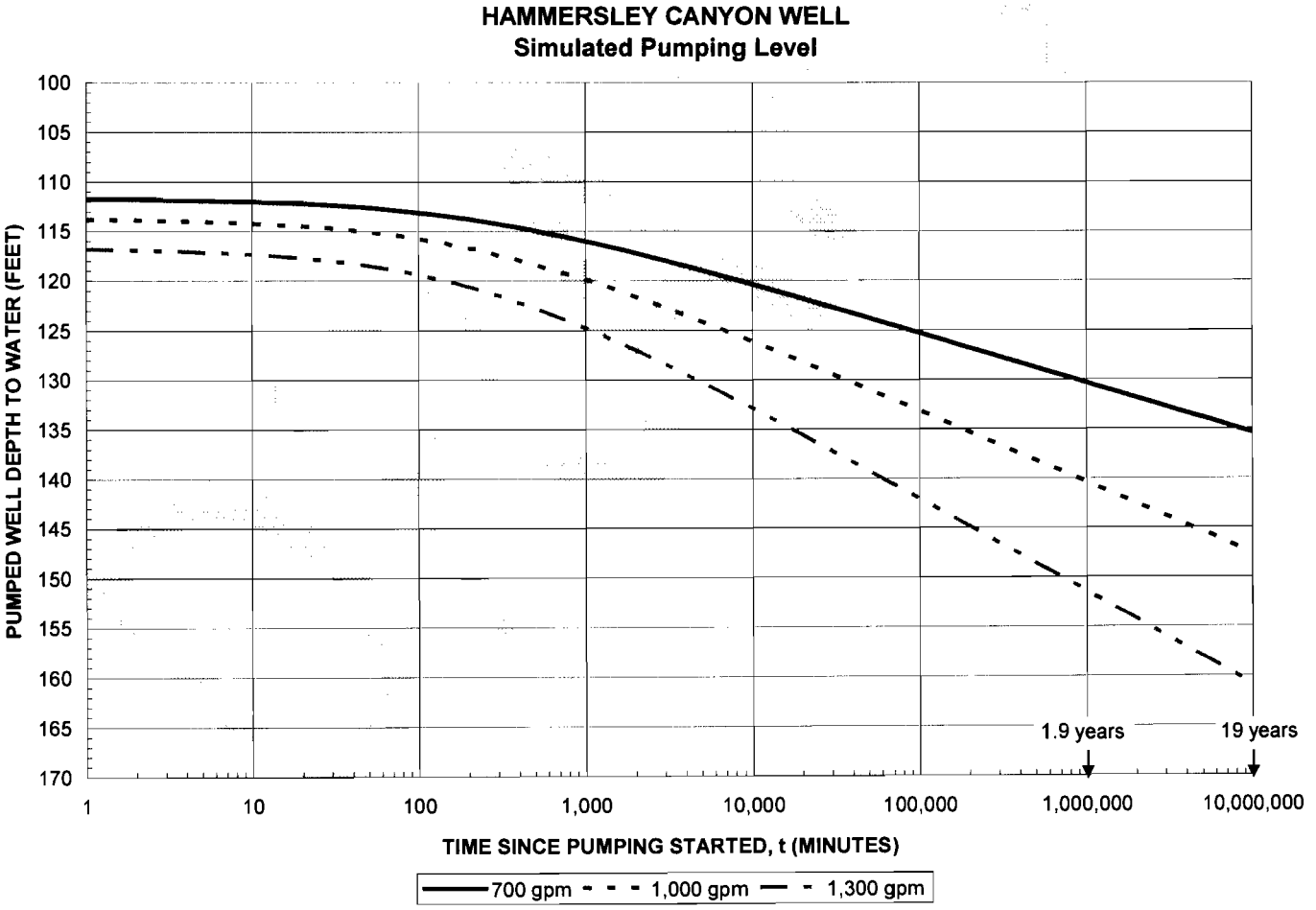


Figure 6. Simulated Drawdown in the Hammersley Canyon Geothermal Well.

The performance of the well at other pumping rates can be approximated by interpolating between the plots for the three simulated pumping rates. From Figure 6, a pumping rate of 700 gpm appears to be sustainable, even in the event an additional boundary is intercepted, which would effectively double the slope of the graph. Pumping at a rate of 1,300 gpm may not be sustainable if a second boundary is encountered and if it turns out significant water production is derived from the aquifer starting at a depth of 170 feet below land surface.

LIMITATIONS

The analyses provided in this memorandum were accomplished by a professional geologist with experience in the analysis of aquifer-stress test data. As is the case for any analysis of a complex natural system, this analysis required a certain amount of professional judgment by the analyst. The analysis of aquifer-stress test data and predicting the future performance of a well also requires simplification of a complex natural hydrogeologic system. Consequently, it should be understood that the actual performance of the well that is the subject of this memorandum may vary from the simulated performance provided herein, and, in fact, divergence from predicted performance should be expected. Therefore, no warranty as to the accuracy of the predictions is expressed or implied, other than the analyses was performed consistent with acceptable analytical methods commonly in use by the profession.

APPENDIX

WATER WELL REPORT
STATE OF OREGON

John 3326 C

RECEIVED
MAY 11 1981
WATER RESOURCES DEPT.
SALEM, OREGON

State Well No. 39S/20E-3
Permit No.

(1) OWNER:
Name NORTHWEST GEOTHERMAL
Address 143 FLANDERS ST.
City PORTLAND State OR

(2) TYPE OF WORK (check):
New Well X Deepening ☐ Reconditioning ☐ Abandon ☐
If abandonment, describe material and procedure in Item 12

(3) TYPE OF WELL: Rotary Air X, Rotary Mud ☐, Driven ☐, Dug ☐, Bored ☐

(4) PROPOSED USE (check): Domestic ☐, Industrial ☐, Municipal ☐, Irrigation ☐, Test Well ☐, Other ☐, Thermal ☐, Injection ☐

(5) CASING INSTALLED: Steel X, Threaded ☐, Plastic ☐, Welded X
12 "Diam. from +1 ft. to 140 ft. Gauge .250
"Diam. from ft. to ft. Gauge

LINER INSTALLED:
"Diam. from ft. to ft. Gauge

(6) PERFORATIONS: Perforated? ☐ Yes X No
Type of perforator used
Size of perforations in by
perforations from ft. to ft.
perforations from ft. to ft.
perforated from ft. to ft.

(7) SCREENS: Well screen installed? ☐ Yes X No
Manufacturer's Name
Type Model No.
Diam. Slot Size Set from ft. to ft.
Diam. Slot Size Set from ft. to ft.

(8) WELL TESTS: Drawdown is amount water level is lowered below static level
Was a pump test made? X Yes ☐ No If yes, by whom? AG CENTER
9 GPM with 7 ft. drawdown after 4 hrs.
Air test gal./min. with drill stem at ft. hrs.
Bailer test gal./min. with ft. drawdown after hrs.
Artesian flow G.P.M.
Temperature of water 213 Depth artesian flow encountered ft.

(9) CONSTRUCTION: Special standards Yes ☐ No X
Well seal—Material used NEAT CEMENT
Well sealed from land surface to 140 ft.
Diameter of well bore to bottom of seal 12 in.
Diameter of well bore below seal 12
Number of sacks of cement used in well 175 189 lbs.
How was cement grout placed? METHOD D
GRAVITY FULL TO 8
Was pump installed? NO Type HP Depth ft.
Was a drive shoe used? ☐ Yes X No Plugs Size/location ft.
Did any drilling fluids escape to surface? ☐ Yes X No
Type of Water? depth of strata
Method of sealing strata off
Was well gravel packed? ☐ Yes X No Size of gravel
Gravel placed from ft. to ft.

(10) LOCATION OF WELL:
County LAKE Owner's well number
SE ¼ NW ¼ Section 3 T. 39S R. 20E W.M.
Tax Lot # Lot Blk Subdivision
Address of well location 1681 ft. E + 1586.5 ft. N. of W. corner of Sec. 3.

(11) WATER LEVEL: Completed well.
Depth at which water was first found (rotary) 120 ft.
Static level 109 ft. below land surface Date 3-19-81
Artesian pressure lbs. per square inch. Date

(12) WELL LOG: Diameter of well below casing 12 "
Depth drilled 685 ft. Depth of completed well 685 ft.
Formation: Describe color, texture, grain size and structure of materials; and show thickness and nature of each stratum and aquifer penetrated, with at least one entry for each change of formation. Report each change in position of Static Water Level and indicate principal water-bearing strata

MATERIAL	From	To	SWL
SOIL/BOULDERS/BASALT	0	8	
BASALT LITHIC TUFF	8	30	
TUFF BRECCIA	30	40	
WHITE TUFF	40	50	
BASALT	50	60	
ANDESITE	60	80	
BASALT TUFF BRECCIA	80	90	
GREEN LITHIC TUFF	90	110	
ANDESITE	110	120	
GREEN LITHIC BRECCIA	120	185	
GRAY-RED BRN LITHIC	185	230	
GREEN TUFF BRECCIA	230	270	
BASALT	270	345	
GREEN TUFF	345	360	110
GRN-GRAY LITHIC TUFF BRECCIA	360	600	
BASALT	600	615	
TUFF BRECCIA	615	640	
SILTSTONE	640	670	
ANDESITE	670	685	

Work started 4-11 1981 Completed 5-19 1981
Date well drilling machine removed off of well 5-21 1981

Drilling Machine Operator's Certification:
This well was constructed under my direct supervision. Materials used and information reported above are true to my best knowledge and belief.
Signed (Drilling Machine Operator) Date 5-8, 1981
Drilling Machine Operator's License No. 864

Water Well Contractor's Certification:
This well was drilled under my jurisdiction and this report is true to the best of my knowledge and belief.
Name AQUA IRRIGATION DRILLING INC. (Person, firm or corporation) (Type or print)
Address P.O. BOX 1319, KLAMATH FALLS, OR 97601
Signed (Water Well Contractor)
Contractor's License No. 665 Date 5-8, 1981

NOTICE TO WATER WELL CONTRACTOR
The original and first copy of this report are to be filed with the

WATER RESOURCES DEPARTMENT
SALEM, OREGON 97310
within 30 days from the date of well completion.

ID# 12864-000

RECEIVED
DEC 07 2011
WATER RESOURCES DEPT
SALEM, OREGON