

KLAM
51920

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STATE OF OREGON
WATER SUPPLY WELL REPORT
(as required by ORS 537.765)

JUL 22 1999 I.D. # L

Instructions for completing this report are on the last page of this form.

START CARD #
WATER RESOURCES DEPT
SALEM, OREGON

(1) OWNER: Well Number _____

Name Denis & Rose Babson
Address 1450 Waverley St.
City Palo Alto State Calif Zip 94301

(2) TYPE OF WORK Reporting Existing Well
 New Well Deepening Alteration (repair/recondition) Abandonment

(3) DRILL METHOD:
 Rotary Air Rotary Mud Cable Auger
 Other Undetermined

(4) PROPOSED USE:
 Domestic Community Industrial Irrigation oil & gas
 Thermal Injection Livestock Other exploration

(5) BORE HOLE CONSTRUCTION: > 2,056 ft
Special Construction approval Yes No Depth of Completed Well A ft.
Explosives used Yes No Type _____ Amount _____

HOLE			SEAL			
Diameter	From	To	Material	From	To	Sacks or pounds
<u>?</u>	<u>0</u>	<u>200</u>	<u>?</u>			
<u>20 in</u>	<u>200</u>	<u>380</u>				
<u>18 in</u>	<u>380</u>	<u>800</u>				
<u>*** continue in section 12 (next column) ***</u>						

How was seal placed: Method A B C D E
 Other _____
Backfill placed from _____ ft. to _____ ft. Material _____
Gravel placed from _____ ft. to _____ ft. Size of gravel _____

(6) CASING/LINER:

Diameter	From	To	Gauge	Steel	Plastic	Welded	Threaded
Casing: <u>17.5 in</u>	<u>0</u>	<u>200</u>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>breach</u>	<u>136</u>	<u>168</u>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Liner:				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Final location of shoe(s) _____

(7) PERFORATIONS/SCREENS:

From	To	Slot size	Number	Diameter	Tele/pipe size	Casing	Liner
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>
						<input type="checkbox"/>	<input type="checkbox"/>

(8) WELL TESTS: Minimum testing time is 1 hour

Yield gal/min	Drawdown	Drill stem at	Flowing Time
<u>3,733</u>	<u>62</u>	<u>?</u>	<u>3.75 hr</u>
<u>4,060</u>	<u>57</u>	<u>?</u>	<u>3.75 hr</u>

Temperature of water 71 to 80 Depth of Artesian Flow Found _____
Was a water analysis done? Yes By whom CH2M Hill
Did any strata contain water not suitable for intended use? Too little
 Salty Muddy Odor Colored Other _____
Depth of strata: _____

(9) LOCATION OF WELL by legal description:
County Klamath Latitude _____ Longitude _____
Township 39 N or (S) Range 12 (E) or W. WM.
Section 19 SW 1/4 of NE 1/4
Tax Lot 3800 Lot _____ Block _____ Subdivision _____
Street Address of Well (or nearest address) East Langell Valley Road
(3.7 miles east of Bonanza, north side of road)

(10) STATIC WATER LEVEL:
17 ft. below land surface. Date _____
Artesian pressure _____ lb. per square inch. Date _____

(11) WATER BEARING ZONES:
Depth at which water was first found 136 ?

From	To	Estimated Flow Rate	SWL
<u>136</u>	<u>168 ft</u>	<u>10%</u>	
<u>290</u>	<u>330</u>	<u>34%</u>	
<u>420</u>	<u>430</u>	<u>6%</u>	
<u>1,580</u>	<u>1,610</u>	<u>28%</u>	
<u>1,970</u>	<u>1,990</u>	<u>10%</u>	

(12) WELL LOG: > 2,056 ft 12%
Ground Elevation 4,127 ft

Material	From	To	SWL
Material Described by <u>CH2M Hill Using Video Camera</u> <u>& Downhole Geophysics</u>			
<u>Tuffaceous Sed Rocks & Tuff</u> (casing blocks view of geologic contact)	<u>0</u>	<u>?</u>	
<u>Basalt</u>	<u>?</u>	<u>430</u>	
<u>Tuffaceous Rocks, Basalt,</u> <u>and Andesite</u>	<u>430</u>	<u>2,056</u>	
<u>?</u>	<u>2,056</u>	<u>?</u>	
<u>Hole Obstructed at 2,056 ft</u> <u>1928 Reported Depth = 3,587 ft</u> <u>Other Reported Depth ≥ 5,000 ft</u>			
<u>Borehole (continued)</u>			
<u>17 inch</u>	<u>800</u>	<u>1,090</u>	
<u>15 inch</u>	<u>1,090</u>	<u>1,570</u>	
<u>14 inch</u>	<u>1,570</u>	<u>1,800</u>	
<u>13 inch</u>	<u>1,800</u>	<u>2,050</u>	

Date started Nov 1922 Completed 1940 ?

(unbonded) Water Well Constructor Certification:
I certify that the work I performed on the construction, alteration, or abandonment of this well is in compliance with Oregon water supply well construction standards. Materials used and information reported above are true to the best of my knowledge and belief. Based upon information from CH2M Hill
WWC Number _____

Signed Donald Alonidin OWRD Hydrogeologist Date 22 July 1999

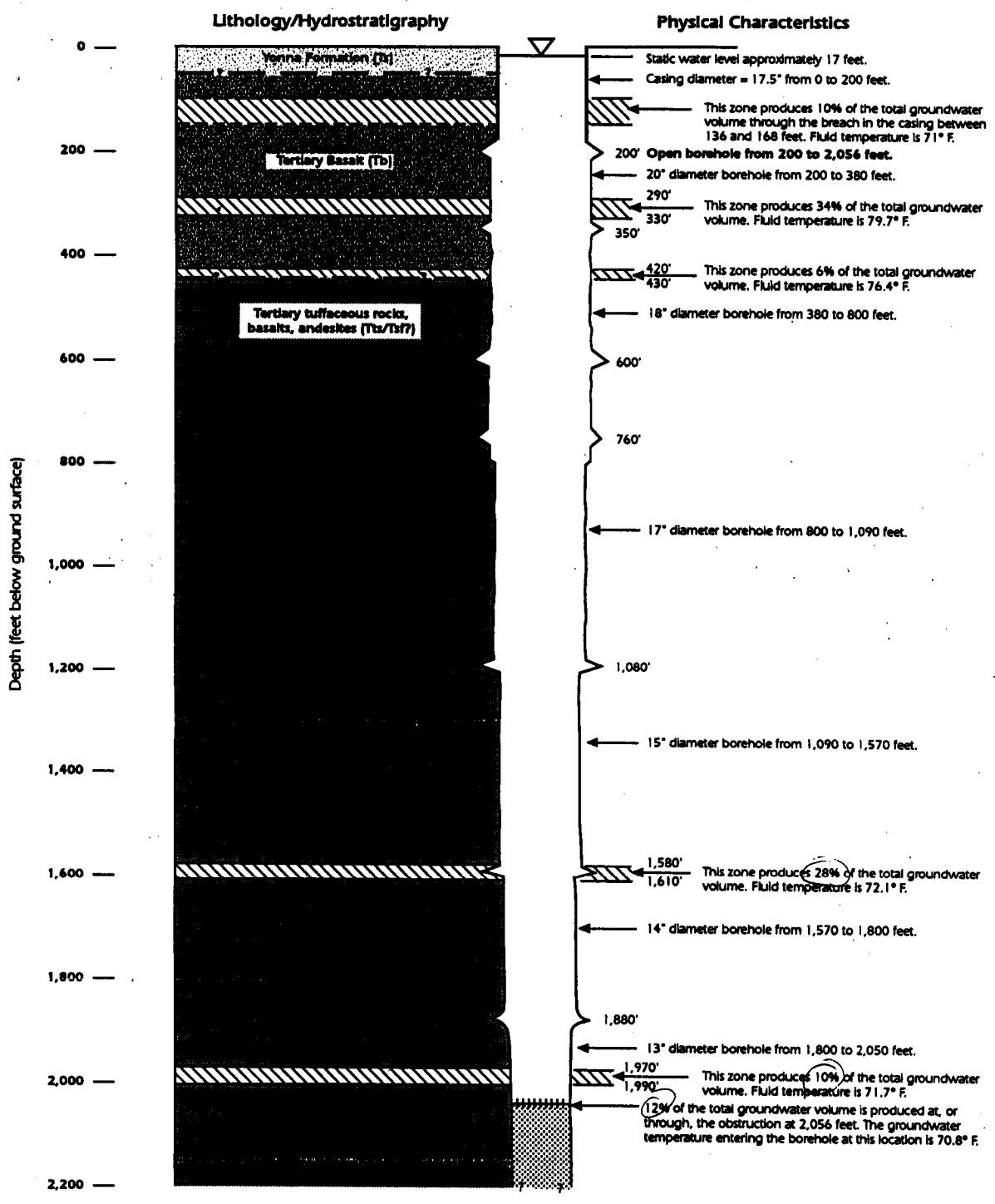
I accept responsibility for the construction, alteration, or abandonment work performed on this well during the construction dates reported above. All work performed during this time is in compliance with Oregon water supply well construction standards. This report is true to the best of my knowledge and belief.

WWC Number _____
Signed _____ Date _____

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Babson Well Diagrammatic Cross Section

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LEGEND

- Ts Tuffaceous sedimentary rocks and tuff (Pliocene and Miocene), AKA Yonna Formation - Semi-consolidated to well-consolidated mostly lacustrine tuffaceous sandstone, siltstone, mudstone, concretionary claystone, pumice, diatomite, air-fall and water-deposited vitric ash, palagonite tuff and tuff breccia, and fluvial sandstone and conglomerate. Palagonite tuff and breccia grade laterally into altered and unaltered basalt flows of unit Tb.
- Tb Basalt (Upper and Middle Miocene) - Basalt flow, flow breccia, basaltic peperite, minor andesite flows, and some interbeds of tuff and tuffaceous sedimentary rocks.
- Tts/Tsf This unit represents rocks that are indicated to occur beneath Tb in the project area but that could not be differentiated here. Ts: Moderately well indurated lacustrine tuff, palagonitic tuff, pumice, lesser siltstone, and sandstone and conglomerate. Tsf: Rhyolitic to dacitic bedded tuff, lapilli tuff, welded and nonwelded ash-flow tuff, and interbedded basalt and andesite flows.
- Groundwater production zone.

- 1,080' Large void or fracture zone and corresponding depth in feet.
- Lithologic contact.
- Hydrostratigraphic contact.

Note: Lithologic and hydrostratigraphic relationships are interpreted from borehole geophysics conducted by CH2M HILL, in April 1993 and the stratigraphic descriptions provided in the Geologic Map of Oregon (Walker and MacLeod, 1991).

Figure 5-2
Babson Well Assessment Summary
ENERGY STORAGE PARTNERS
LORELLA PUMPED STORAGE PROJECT
KLAMATH COUNTY, OREGON