

SCANLAN ENGINEERING

Groundwater and Environmental Engineering

December 19, 2001

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WATER RESOURCES
WESTERN REGION

Steve Lester
Water Right Supervisor
Western Region
Idaho Department of Water Resources
2735 Airport Way
Boise, ID 83705

Subject: Application for Transfer of Water Right License 67-7598

Dear Steve:

This letter provides a response to item No. 4 in your letter of September 7, 2001 addressed to Tamarack Energy Partnership.

Clarification of Wells. There are currently 3 operable wells at the facility. Water is also obtained from the river and from a spring. The wells are described below and driller's reports are enclosed.

- Tamarack Energy Well No. 1 is located in the SENW Section 30. This 575-foot deep well has been the point of diversion for license 67-7598 since 1982. The well supplies (1) the Tamarack Energy power plant, and (2) the Evergreen Forest Products mill, main office, planer building, and three company homes. Water from this well has been used in the mill and other buildings since 1983. The well has been a public water system source since about 1986.
- Tamarack Energy Well No. 2 is located in the SENW Section 30, approximately 20 feet north of Well No. 1. The well was drilled in 2001 as a replacement for (and supplement to) Well No. 1. Well No. 2 will supply the same uses as Well No. 1.
- The Scale House Well is used for sprinkling the log deck. The well is located in the NENW of Section 30. An original driller's report for the well is not available, but a repair report dated June 28, 1982 is enclosed. The repair consisted of cleaning out the well and setting 8-inch perforated liner to 238 feet. The well reportedly produced 250 gpm by air-lift pumping following the work.

A future well is contemplated in the SENW, northeast of the mill building.

Clarification of Water Rights. The three groundwater rights for the facility are described below.

67-7274. Use of water under license 67-7274 occurs at the log deck. The license authorizes diversion of 0.690 cfs from May 15 to October 15 for industrial use. Point of diversion is

described as a well located in the NWNW of Section 30 (Scale House Well). The actual location of this well appears to be a few feet into the NENW of Section 30. Tamarack Mills (dba Evergreen Forests) will submit an amended adjudication claim to show the correct location for this well. The claim will also be amended to show place of use in the NWNW, SWNW and SENW Section 30, as the log deck extends over a larger area than originally licensed.

67-7598. License 67-7598 authorizes diversion of 0.70 cfs for industrial use. Point of diversion is Tamarack Energy Well No. 1. The transfer application that was submitted earlier this year proposed correcting the place of use and point of diversion (change from SESW to SENW). The water was initially used in the Tamarack Energy co-generation facility. Since 1983, water from Tamarack Energy Well No. 1 has also been used at the Evergreen Forest Products mill, main office, and planer. The well has also supplied the three houses on the Company Property since about that time. The houses are located in the NESW Section 30. Therefore, Tamarack will submit a revised transfer application to also include the NESW of Section 30 as a place of use.

67-8037. Permit 67-8037 authorizes diversion of 3.0 cfs for industrial use (sprinkling log decks) from a groundwater source. Place of use is in the NWNW, SWNW and SENW Section 30, and period of use is April 1 to November 1. The application listed two points of diversion in the SWNW but referenced the "same well as 67-7274". We propose that the permit be amended to include four diversion points. These diversion points would be Tamarack Wells 1 and 2 (SENW Section 30), the Scale House Well (NENW Section 30) and a future well located northeast of the mill in the SENW Section 30.

For additional clarification purposes, I have enclosed an annotated aerial photo of the Tamarack Energy and Evergreen Forest Products site. The photo shows the locations of the existing wells, proposed well (67-8037) and various places of use.

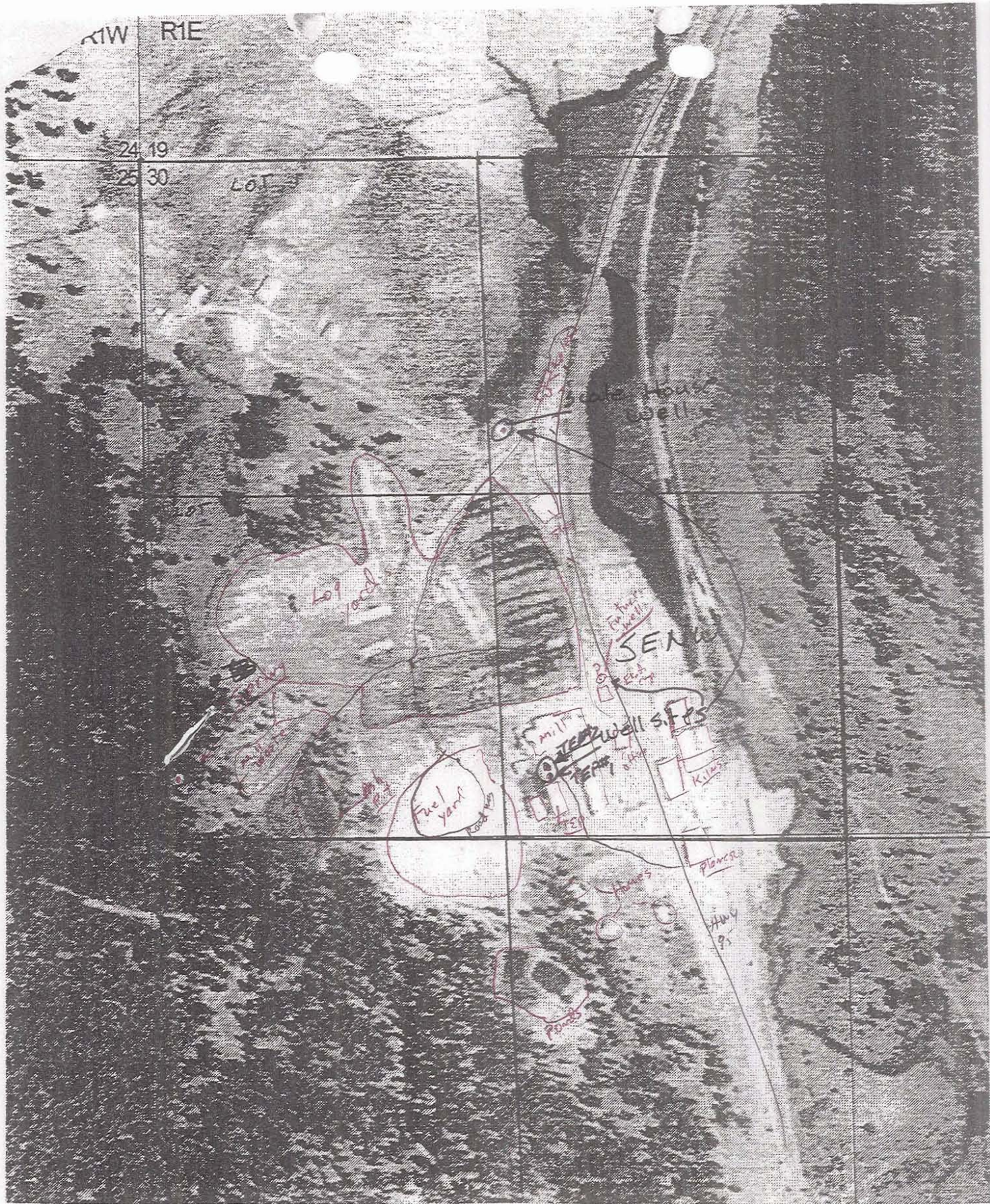
Please contact me with any questions.

Sincerely,



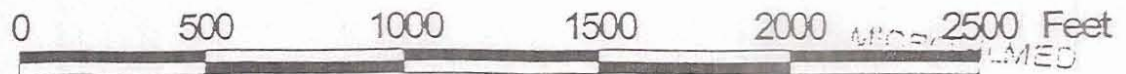
Terry M. Scanlan, P.E., P.G.

Cc: Charles Lively



- Legend
- ORRS
 - Blips
 - Roads
 - P.D.
 - Wells & Spring
 - P. feature well

T19N



APR 1 1969

WELL DRILLER'S REPORT

State law requires that this report be filed with the Director, Department of Water Resources within 30 days after the completion or abandonment of the well.

TEP Well #

1. WELL OWNER
Name EVERGREEN FOREST PRODUCTS
Address Box H New Meadows, Idaho
Owner's Permit No. _____

7. WATER LEVEL
Static water level 29 feet below land surface.
Flowing? ☐ Yes ☒ No G.P.M. flow _____
Artesian closed-in pressure _____ p.s.i.
Controlled by: ☐ Valve ☐ Cap ☐ Plug
Temperature _____ °F. Quality good

2. NATURE OF WORK
☒ New well ☐ Deepened ☐ Replacement
☐ Abandoned (describe method of abandoning) _____

8. WELL TEST DATA
☐ Pump ☐ Bailor ☒ Air ☐ Other _____

3. PROPOSED USE
☐ Domestic ☐ Irrigation ☒ Test ☐ Municipal
☐ Industrial ☐ Stock ☐ Waste Disposal or Injection
☐ Other _____ (specify type)

9. LITHOLOGIC LOG

Hole Diam.	Depth		Material	Water	
	From	To		Yes	No
12"	0	3	FILL DIRT		X
12"	3	9	BROWN CLAY		X
12"	9	19	BROWN CLAY + BROKEN BASALT		X
10"	19	26	BROWN CLAY + BROKEN BASALT		X
10"	26	72	BLUE BROKEN BASALT		X
10"	72	104	Red + Blue Volcanic Rock		X
10"	104	130	Blue BROKEN BASALT	X	
8"	130	140	Blue BROKEN BASALT		X
8"	140	170	BROWN BROKEN BASALT		X
8"	170	200	HARD BROWN BASALT		X
8"	200	210	Red + BROWN CLAYSTONE	X	
8"	210	269	BROWN BROKEN BASALT		X
8"	269	319	Red + BROWN CLAYSTONE	X	
8"	319	439	HARD BLUE BASALT		X
8"	439	447	Red + BROWN CLAYSTONE		X
8"	447	480	Blue BROKEN BASALT		X
8"	480	497	Red + BROWN CLAYSTONE	X	
6"	497	530	Blue BROKEN BASALT		X
6"	530	540	Red + Blue CINDERS	X	
6"	540	575	Blue BROKEN BASALT	X	

4. METHOD DRILLED
☒ Rotary ☒ Air ☐ Hydraulic ☐ Reverse rotary
☐ Cable ☐ Dug ☐ Other _____

5. WELL CONSTRUCTION
Casing schedule: ☒ Steel ☐ Concrete ☐ Other _____

Thickness	Diameter	From	To
<u>.250</u> inches	<u>10</u> inches	<u>3</u> feet	<u>130</u> feet
<u>.250</u> inches	<u>8</u> inches	<u>0</u> feet	<u>170</u> feet
<u>.250</u> inches	<u>6</u> inches	<u>195</u> feet	<u>500</u> feet

Was casing drive shoe used? ☒ Yes ☐ No
Was a packer or seal used? ☐ Yes ☒ No
Perforated? ☐ Yes ☒ No
How perforated? ☐ Factory ☐ Knife ☒ Torch
Size of perforation 1/8 inches by 6 inches

Number	From	To
<u>610</u> perforations	<u>0</u> feet	<u>170</u> feet
<u>1,125</u> perforations	<u>195</u> feet	<u>500</u> feet

Well screen installed? ☐ Yes ☒ No
Manufacturer's name _____
Type _____ Model No. _____
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Diameter _____ Slot size _____ Set from _____ feet to _____ feet
Gravel packed? ☐ Yes ☒ No ☐ Size of gravel _____
Placed from _____ feet to _____ feet
Surface seal depth 19 Material used in seal: ☐ Cement grout ☐ Pudding clay ☒ Well cuttings
Sealing procedure used: ☐ Slurry pit ☐ Temp. surface casing ☒ Overbore to seal depth
Method of joining casing: ☐ Threaded ☒ Welded ☐ Solvent Weld
☐ Cemented between strata
Describe access port SANITARY WELL SEAL

6. LOCATION OF WELL
Sketch map location must agree with written location.
Subdivision Name _____
Lot No. _____ Block No. _____
County ADAMS
NE 1/4 SW 1/4 Sec. 30 T. 19N N/S, R. 16W E/W.

11. DRILLERS CERTIFICATION
I/We certify that all minimum well construction standards were complied with at the time the rig was removed.
Firm Name GESTRIN & SONS DRILLING Firm No. 408
Address 87.1 DEWEELY, Idaho Date 7-21-82
Signed by (Firm Official) Robert L. Gestrin
and
(Operator) Robert L. Gestrin

TFP Well #2

Form 238 7
11/97

IDAHO DEPARTMENT OF WATER RESOURCES

WELL DRILLER'S REPORT

1. WELL TAG NO. D 00 18333
DRILLING PERMIT NO. _____
Other DWR No. _____

Page 1 of 2

2. OWNER:

Name Tamarack Energy
Address Po Box H
City New Meadows State ID Zip 83654

3. LOCATION OF WELL by legal description:

Sketch map location must agree with written location.

N		E	
	X		
S		W	

Twp. 19 North ☒ or South ☐
Rge. 1 East ☒ or West ☐
Sec. 30 1/4 SE 1/4 NW 1/4
Dist. Lot _____ County Adams
Lat. _____ Long. _____
Address of Well Site 3555 Highway
95 City Tamarack

11. _____ Bk. _____ Sub. Name _____

4. USE:

☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other INDUSTRIAL
5. TYPE OF WORK check all that apply (Replacement, etc.)
☒ New Well ☐ Modify ☐ Abandonment ☒ Other

6. DRILL METHOD

☒ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other

7. SEALING PROCEDURES

SEAL FILTER PACK	AMOUNT	METHOD
Material	From To Backs of Pounds	
Bentonite	0 48 61555	Pour
Cement	48 75 545	Pour

 Was drive shoe used? ☒ Y ☐ N Shoe Depth(s) 29.5
 Was drive shoe seal tested? ☒ Y ☐ N How? visually Air

8. CASING/LINER:

Casing	From To Gauge Material	Casing	Line	Welded	Threaded
107	2.5 28.5 363	Steel	☒	☐	☐
58.6	21 320 250	Steel	☐	☒	☐

Length of Headpipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

 Perforations ☒ Method Torch & Grinder
 Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Line
~~385~~	2.0	400	268	Steel			X
262	315	1.5					

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

110 ft. below ground Artesian pressure _____ ft.
 Depth flow encountered _____ ft. Describe access port or control devices: _____

Office Use Only

 Inspected by _____
 Twp. _____ Rge. _____ Sec. _____
 1/4 _____ 1/4 _____ 1/4 _____
 Lat. _____ Long. _____
☒ Flowing Artesian

11. WELL TESTS:

☐ Pump ☐ Bailor ☒ Flowing Artesian

Yield gal/min	Drawdown	Pumping Level	Time
300	N/A	300	2 hrs
		315	

 Water Temp. 60 Bottom hole temp. 60
 Water Quality test or comments Iron & Some Sulfur
odor Depth first Water Encounter 29

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Strat. Dia	From To	Remarks, Lithology, Water Quality & Temperature	Y	N
16	0 5	FILL		☒
16	5 7	ROCKS & CLAY		☒
16	7 10	CLAY & SOME ROCKS		☒
15	10 25	Green BRN Clay		☒
15	25 30	Brown Clay & Rocks	☒	
15	30 32	weathered Brown BSLT	☒	
15	32 58	Fractured Brown BSLT	☒	
15	58 58	dens. Cinders - some clay	☒	
15	58 75	Broken Red-Brown Lava	☒	
15	75 78	Brown Clay & Rocks	☒	
10	78 85	Hard Red Lava	☒	
10	85 87	Broken - maybe Boulders	☒	
10	87 93	Hard BSLT or large Boulder	☒	
10	93 106	Boulders & Cinders	☒	
92	106 120	Red Brown BSLT cinders	☒	
92	120 143	Hard Brown Basalt	☒	
92	143 153	Hard Black Basalt	☒	
92	153 155	Hard BRN-BLK Basalt	☒	
92	155 165	Soft orange Brown Cinders	☒	
92	165 206	Hard BRN BLK BSLT	☒	
92	206 208	Fractured Brown BSLT	☒	
92	208 250	Hard BRN BLK Basalt	☒	
92	250 255	with Fractured areas	☒	
92	255 288	med-Hard Red-Brown BSLT	☒	
92	288 305	Hard Black Basalt	☒	
92	305 320	Slightly Softer BLK BSLT	☒	
92	320 385	Softer yet, but still hard	☒	
92	385 400	maybe slightly Fractured	☒	
92	400 420	with some Quarts	☒	
23	320 385	Hard Black Basalt	☒	
23	385 400	Continued on Page 2	☒	

 Completed Depth 576 (Measurable)
 Date Started 7-20-01 Completed 8-12-01

13. DRILLER'S CERTIFICATION

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

Company Name PDD, INC. Firm No. 589Firm Official Pat Damm Date 8-13-01

and Driller or Operator _____ Date _____

(Sign once if Firm Official & Operator)

FORWARD WHITE COPY TO WATER RESOURCES

IDAHO DEPARTMENT OF WATER RESOURCES WELL DRILLER'S REPORT

1. WELL TAG NO. D 0018333

Page 2 of 2

DRILLING PERMIT NO. _____
Other IDWR No. _____

2. OWNER:
Name Turner & Sons
Address _____
City _____ State _____ Zip _____

3. LOCATION OF WELL by legal description:
Sketch map location must agree with written location.

Map showing location of well on section. Township 19 North ☒ or South ☐
Range 1 East ☒ or West ☐
Section 30 1/4 SE 1/4 NW 1/4
Gov't Lot _____ County Blaine
Lat _____ Long _____
Address of Well Site 3555 Highway 95
City Turner

4. USE:
☐ Domestic ☐ Municipal ☐ Monitor ☐ Irrigation
☐ Thermal ☐ Injection ☐ Other _____

5. TYPE OF WORK check all that apply (Replacement etc.)
☐ New Well ☐ Modify ☐ Abandonment ☐ Other _____

6. DRILL METHOD
☐ Air Rotary ☐ Cable ☐ Mud Rotary ☐ Other _____

7. SEALING PROCEDURES

SEAL/PLUG PACK			AMOUNT		METHOD
Material	From	To	Barrels	or Yards	

Was drive shoe used? ☒ Y ☐ N Shoe Depth: _____
Was drive shoe seal tested? ☐ Y ☒ N How? _____

8. CASING/LINER:

Material	From	To	Gauge	Access	Casing	Liner	Welded	Threads

Length of Headsipe _____ Length of Tailpipe _____

9. PERFORATIONS/SCREENS

Perforations _____ Method _____
Screens _____ Screen Type _____

From	To	Slot Size	Number	Diameter	Material	Casing	Liner

10. STATIC WATER LEVEL OR ARTESIAN PRESSURE:

100 ft below ground Artesian pressure _____ lb.
Depth flow encountered _____ ft. Describe access port or
control devices _____

11. WELL TESTS:

Test	Flow	Pressure	Time
300?	14-18	300	24-30
		315	

Water Temp. 60 Bottom hole temp. 60
Water Quality test or comments: _____

12. LITHOLOGIC LOG: (Describe repairs or abandonment)

Log	From	To	Remarks	Lithology	Water Quality & Temperature	Y	N
23	335	337	Fractured Blk BSlt				
23	337	430	Hard Blk BSlt				
23	330	433	Fractured Black Basalt				
			with some Brown Sags				
23	435	448	medium Soft Blk Fract-				
			ured Blk Black Claystone				
23	448	467	med Hard Blk BSlt				
23	467	469	Fractured Blk BSlt				
23	469	479	med Hard Blk BSlt				
23	479	480	maybe slightly Fractured				
23	480	487	Hard Black Basalt				
23	487	490	med Hard Blk BSlt				
23	490	492	Fractured BSlt				
23	492	494	Hard Blk BSlt				
23	494	522	Hard Blk BSlt				
23	522	523	Brown med Hard				
23	523	529	Hard Black BSlt				
23	529	532	Brown med Hard				
23	532	542	Hard Black Basalt				
23	542	546	Fractured Blk BSlt				
23	546	548	Hard Black Basalt				
23	548	549	slightly Fractured				
23	549	557	Hard Black Basalt				
23	557	561	Fractured BSlt				
23	561	568	Hard Brown Blk BSlt				
23	568	574	Hard Black Basalt				
23	574	575	Fractured BSlt				
23	575	576	Hard Black Basalt				

13. DRILLER'S CERTIFICATION

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

Company Name RDD, INC Firm No. 589

Firm Official [Signature] Date 8/14/01

Driller or Operator _____ Date _____

FORWARD WHITE COPY TO WATER RESOURCES