

GEOHERMAL POWER CORP.
WELL NO. 15
SEC. 18, T27S, R9W
BEAVER COUNTY, UTAH

Prepared by:

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.
860 Anaconda Tower - 555 Seventeenth Street
Denver, Colorado 80202

September 5, 1978

WELL DATA SUMMARY

WELL NAME: Geothermal Power Corporation #15

LOCATION: Sec. 18, T27S, R9W, Beaver County, Utah

OPERATOR: Geothermal Power Corporation

ELEVATION: 5544.5 ft. KB; 5539 ft. GL

TOTAL DEPTH: 1890 ft.

STATUS: Completed as geothermal observation well

SPUD DATE: Not Known

RIG RELEASED: 11:00 AM 7/20/78

HOLE SIZE: 6-1/2" to 1890 ft.

OBSERVATION CASING: Ran 90 joints of 1-1/2" Black Pipe (Total of 1890 ft.). Landed at 1890 ft. KB, cemented with 10 sacks construction cement.

LOGS: Induction, Density, Sonic, Bottom Hole Temperature.

DRILLING CONTRACTOR: Darrah Drilling Corporation

DRILLING FOREMAN: C. R. McKay, Helton Engineering & Geological Services, Inc.

ADDITIONAL INFORMATION: The Helton drilling foreman was called out after the well was spudded, so the first few daily drilling reports are not available.

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. _____ DATE 7/16/78

DEPTH 650 FEET MADE _____ HRS. ON BOTTOM _____

OPERATION W.O.P. Tripping

SURVEYS							
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____

WT OF STRING M LBS. _____ WT ON BIT M LBS. _____ ROTARY RPM _____

PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 0

PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____

DRILL PIPE OD 3 1/2 / 4 1/2 THD 2-7/8 / 3 1/2 DRILL COLLARS OD 5" THD 3 1/2 TF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
Ream Bit No.											
Core No.							FEET CUT	FEET REC.			
MUD							Hrs. Run			IN	OUT
WT	VIS	WL	GEL	FC	DESILTER					LB/GAL	
PH	APP VIS	PLAS VIS	YLD. PT.	DESANDER						LB/GAL	
WATER	OIL	CL-	PPM	DEGASSER						LB/GAL	
SOLIDS	SAND	CA ++	PPM	COMPRESSOR DATA		MUD DUMPED				bbl	
AV	NV	d-exp	Pore Press	OUTPUT		cfm Press.				psig	
MUD ADDED							MAKE	RATING			
DAILY MUD COST											

RIG TIME	OTHERS (SPECIFY)
1. Drilling _____	6. Surveying _____
2. Tripping <u>1</u>	7. Circulating _____
3. Service & BOPs _____	8. Clean to Btm _____
4. Reaming _____	9. Cond. Mud _____
5. Slip & Outline _____	10. Repairing <u>1/2</u>
	11. Coring _____
	12. Testing _____
	13. Logging _____
	14. Casing _____
	15. WOC _____
	16. _____
	17. _____
	18. _____
	19. _____
	20. _____

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

Took United Airlines to Salt Lake City. Arrived approximately 7:15 AM. Took Sky West to Cedar City. Arrived at 9:15 AM. Drove to Milford, Utah. On location approximately 12:00 PM. Rig down - mud pump to recycle mud to main tank out.

Located centrifugal pump - hauled out to location to use until parts arrive from California for pump. Installed same. Owner of rig had let personnel off.

Waited for crews to return.

6:30 AM - 8:00 AM Hooked up centrifugal pump and tripped in hole.

Well Costs	\$
Daily	
Cumulative	

WEATHER: TEMP _____ °F Supervisor: _____

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 2 DATE 7/17/78
 DEPTH 870 FEET MADE 210 HRS. ON BOTTOM 14
 OPERATION Drilling

SURVEYS									
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 0
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 / 4 1/2 THD 2-7/8 / 3 1/2 DRILL COLLARS OD 5" THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
<u>2</u>	<u>6-1/2</u>	<u>Hughes J33</u>	<u>650</u>			<u>14</u>	<u>None</u>				<u>Used</u>
Ream Bit No.											
Core No.							FEET CUT	FEET REC.			

MUD WT <u>9</u> VIS <u>40</u> WL _____ GEL _____ FC _____	Hrs. Run <u>14</u>	IN	OUT
PH _____ APP VIS _____ PLAS VIS _____ YLD. PT. _____	DESILTER _____		LB/GAL
WATER _____ OIL _____ CL- _____ PPM	DESANDER _____		LB/GAL
SOLIDS _____ SAND _____ CA ++ _____ PPM	DEGASSER _____		LB/GAL
AV _____ NV _____ d-exp _____ Pore Press _____	COMPRESSOR DATA _____	MUD DUMPED _____ bbl	
MUD ADDED _____	OUTPUT _____	cfm Press. _____ psig	
	MAKE _____	RATING _____	
DAILY MUD COST			

- | | |
|--------------------------|------------------------------------|
| RIG TIME | OTHERS (SPECIFY) |
| 1. Drilling <u>14</u> | 16. <u>3-1/2 hrs. Cleaned pits</u> |
| 2. Tripping <u>2-1/2</u> | 17. <u>and mud tank went</u> |
| 3. Service & BOPs _____ | 18. <u>thru mud pump (circ.</u> |
| 4. Reaming _____ | 19. <u>sand & granite) 12#</u> |
| 5. Slip & Cutline _____ | 20. <u>mud.</u> |
| 6. Surveying _____ | |
| 7. Circulating _____ | |
| 8. Clean to Btm _____ | |
| 9. Cond. Mud _____ | |
| 10. Repairing <u>4</u> | |
| 11. Coring _____ | |
| 12. Testing _____ | |
| 13. Logging _____ | |
| 14. Casing _____ | |
| 15. WOC _____ | |

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM Tripped in hole. Stuck pipe at 180'. Pulled loose. Reamed same spot several times. No problems going to bottom.
10:30 - 8:30 PM Drilled.
8:30 - 12:00PM Dumped pits - mixed new mud. Circulated too much sand & granite. Drilled.
12:00 - 4:00AM Centrifugal pump out. Trip to town - found another one. Tripped in hole w/8 stands.
4:00 - 8:00 AM Drilled - worked on pump.

Well Costs	\$
Daily	
Cumulative	

WEATHER: TEMP. 100 °F Hot Supervisor: C. R. McKay
 Form HE-D1

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 3 DATE 7/18/78
 DEPTH 890 FEET MADE 20 HRS. ON BOTTOM 2
 OPERATION Drilling - WO parts.

SURVEYS									
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. 18 WT ON BIT M LBS _____ ROTARY RPM _____
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 0
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 / 4 1/2 THD 2-7/8 / 3 1/2 DRILL COLLARS OD 5" THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
<u>2</u>	<u>6-1/2</u>	<u>J33</u>	<u>650</u>	<u>890</u>	<u>240</u>	<u>16</u>	<u>None</u>	<u>3</u>	<u>2</u>	<u>2</u>	<u>Used Bit</u>
Ream Bit No.											
Core No.							FEET CUT	FEET REC.			

MUD						Hrs. Run		IN		OUT	
WT <u>9</u>	VIS <u>50</u>	WL _____	GEL _____	FC _____	DESILTER _____						LB/GAL
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER _____							LB/GAL
WATER _____	OIL _____	CL- - _____	PPM _____	DEGASSER _____							LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA _____	MUD DUMPED _____						bbf
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____	cfm Press. _____						psig
MUD ADDED _____				MAKE _____	RATING _____						
DAILY MUD COST											

RIG TIME	OTHERS (SPECIFY)
1. Drilling <u>2</u>	6. Surveying _____
2. Tripping <u>2</u>	7. Circulating _____
3. Service & BOPs _____	8. Clean to Btm _____
4. Reaming _____	9. Cond. Mud _____
5. Slip & Outline _____	10. Repairing _____
	11. Coring _____
	12. Testing _____
	13. Logging _____
	14. Casing _____
	15. WOC _____
	16. _____
	17. _____
	18. _____
	19. _____
	20. _____

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 10:00 Drilling.

10:00 AM - 2:00 Centrifugal pump motor went out. Shut rig down until rig equipment repaired. Tripped out - put pipe on bank - waited on parts.

2:00 PM - 8:00 AM Waited on parts.

Note: Formation change approximately 860' - some clay and fine sand.

	Well Costs	\$
	Daily	
	Cumulative	

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 4 DATE 7/19/78
 DEPTH 890 FEET MADE 0 HRS. ON BOTTOM 0
 OPERATION Shut down - tripping.

SURVEYS								
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____
 PUMP No. 1 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD _____ THD _____ DRILL COLLARS OD _____ THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
Ream Bit No.											
Core No.							FEET CUT	FEET REC.			
MUD							Hrs. Run			IN	OUT
WT _____	VIS _____	WL _____	GEL _____	FC _____	DESILTER _____					LB/GAL	
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER _____					LB/GAL		
WATER _____	OIL _____	CL- _____	PPM _____	DEGASSER _____					LB/GAL		
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA			MUD DUMPED _____ bbl				
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____			cfm Press. _____ psig				
MUD ADDED							MAKE			RATING	
DAILY MUD COST											

RIG TIME	OTHERS (SPECIFY)
1. Drilling _____	6. Surveying _____
2. Tripping <u>2</u>	7. Circulating _____
3. Service & BOPs _____	8. Clean to Btm _____
4. Reaming _____	9. Cond. Mud _____
5. Slip & Cutline _____	10. Repairing _____
	11. Coring _____
	12. Testing _____
	13. Logging _____
	14. Casing _____
	15. WOC _____
	16. _____
	17. _____
	18. _____
	19. _____
	20. _____

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 9:00 PM Waited on parts for pump. Should arrive on plane at 7:00 PM.

Crew off - start up in morning.

6:00 AM - 8:00 AM Laid down 4½" drill pipe - picked up 3½" drill pipe.

Well Costs	\$
Daily	
Cumulative	

Flow line temperature 80°

WEATHER: TEMP. _____ °F Supervisor: C. R. McKay

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 5 DATE 7/20/78
 DEPTH 1090 FEET MADE 200 HRS. ON BOTTOM 10
 OPERATION Shut down, waiting on repairs to water truck.

SURVEYS							
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. 28 WT ON BIT M LBS 20 ROTARY RPM 80
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 300
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 / 4 1/2 THD 3 1/2 / 2-7/8 IF DRILL COLLARS OD 5" THD 3 1/2 IF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
3	6-1/2	Varel V2	390		200	10					
Ream Bit No.											
Core No.											
							FEET CUT	FEET REC.			

MUD						Hrs. Run		IN OUT	
WT <u>11/9</u>	VIS <u>40</u>	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP. VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER <u>10</u>					LB/GAL
WATER _____	OIL _____	CL. - _____	PPM _____	DEGASSER _____					LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA _____		MUD DUMPED _____			bbf
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____		cfm Press. _____			psig
MUD ADDED						MAKE _____		RATING _____	
DAILY MUD COST									

RIG TIME

1. Drilling <u>10</u>	6. Surveying _____	11. Coring _____	16. _____
2. Tripping <u>4 1/2</u>	7. Circulating _____	12. Testing _____	17. _____
3. Service & BOPs _____	8. Clean to Btm _____	13. Logging _____	18. _____
4. Reaming _____	9. Cond. Mud <u>2 1/2</u>	14. Casing _____	19. _____
5. Slip & Cutline _____	10. Repairing <u>truck 7</u>	15. WOC _____	20. _____

OTHERS (SPECIFY)

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 12:30 PM Tripped in hole - regained circulation - conditioned mud.
 12:30 PM - 6:30 PM Drilled.
 6:30 PM - 9:00 PM Cleaned tanks - put new head in 5 x 10 mud pump - mixed mud.
 9:00 PM - 1:00 AM Drilled. Unable to keep up with samples (too fine). Now catching 15 foot samples.
 1:00 AM - 8:00 AM Rear end of water truck torn out on bad roads. Shut rig down. No Water. Contractor to furnish same.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 85°

WEATHER: TEMP. _____ °F Supervisor: C. R. McKay
 Form HE-D1

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 6 DATE 7/21/78
 DEPTH 1320 FEET MADE 230 HRS. ON BOTTOM 8
 OPERATION Mixing Mud.

SURVEYS							
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. 23 WT ON BIT M LBS 20 ROTARY RPM 80
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 300
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 / 4 1/2 THD 3 1/2 / 2-7/8 DRILL COLLARS OD 5" THD 3 1/2 IF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS	
								T	B	G		
<u>3</u>	<u>6-1/2</u>	<u>Varel V2</u>	<u>890</u>		<u>450</u>	<u>18</u>						
Ream Bit No. _____												
Core No. _____												
							FEET CUT	FEET REC.				
MUD							Hrs. Run			IN OUT		
WT <u>9</u>	VIS <u>38</u>	WL _____	GEL _____	FC _____				DESILTER _____			LB/GAL	
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____				DESANDER _____	<u>8</u>			LB/GAL	
WATER _____	OIL _____	CL- _____	PPM _____				DEGASSER _____				LB/GAL	
SOLIDS _____	SAND _____	CA ++ _____	PPM _____				COMPRESSOR DATA	MUD DUMPED _____			bbf	
AV _____	NV _____	d-exp _____	Pore Press _____				OUTPUT _____	cfm Press. _____			psig	
MUD ADDED							MAKE _____	RATING _____				
DAILY MUD COST												

<p>RIG TIME</p> <p>1. Drilling <u>8</u></p> <p>2. Tripping <u>5</u></p> <p>3. Service & BOPs _____</p> <p>4. Reaming _____</p> <p>5. Slip & Cutline _____</p>	<p style="text-align: right;">OTHERS (SPECIFY)</p> <p>6. Surveying _____</p> <p>7. Circulating _____</p> <p>8. Clean to Btm _____</p> <p>9. Cond. Mud <u>1</u></p> <p>10. Repairing _____</p> <p>11. Coring _____</p> <p>12. Testing _____</p> <p>13. Logging _____</p> <p>14. Casing _____</p> <p>15. WOC _____</p> <p>16. <u>Water Truck Down 4 hrs.</u></p> <p>17. _____</p> <p>18. _____</p> <p>19. _____</p> <p>20. _____</p>
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DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 12:00 PM Down. No Water. Contractor to furnish water.

12:00 AM - 1:00 PM Conditioned mud with chemical and water.

1:00 PM - 9:00 PM Drilled

9:00 PM 12:00 AM Blew manifold gasket on compressor. Shut rig down. Pulled 4 1/2" pipe to be replaced by 3 1/2" pipe. Rig down at 12:00 AM. Transferred water to tanks.

12:00 AM - 6:00 AM Rig down.

6:00 AM - 8:00 AM Mixed mud.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 920

WEATHER: TEMP. 105 °F Hot Supervisor: C. R. McKay

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 7 DATE 7/22/78
 DEPTH 405 FEET MADE 85 HRS. ON BOTTOM 6-1/2
 OPERATION Drilling - Repairing Air Compressor

SURVEYS							
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LAST PIPE GALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. 26 WT ON BIT M LBS 20 ROTARY RPM 60/80
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 300
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 3/4 THD 3 1/2-7/8 DRILL COLLARS OD 5" THD 3 1/2 IF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
3	6-1/2	Varel V2	890	1405	515	24 1/2		8	4	8	
Ream Bit No.											
Core No.							FEET CUT	FEET REC.			

MUD						Hrs. Run		IN OUT	
WT <u>9</u>	VIS <u>40</u>	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER <u>6-1/2</u>					LB/GAL
WATER _____	OIL _____	CL - _____	PPM _____	DEGASSER _____					LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA _____	MUD DUMPED _____				bbf
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____	cfm Press. _____				psig
MUD ADDED _____				MAKE _____	RATING _____				
DAILY MUD COST									

RIG TIME

1. Drilling <u>6-1/2</u>	6. Surveying _____	11. Coring _____	16. <u>Shut Down</u> <u>5 hrs.</u>
2. Tripping <u>9</u>	7. Circulating _____	12. Testing _____	17. _____
3. Service & BOPs _____	8. Clean to Btm _____	13. Logging _____	18. _____
4. Reaming _____	9. Cond. Mud _____	14. Casing _____	19. _____
5. Slip & Cutline _____	10. Repairing <u>3-1/2</u>	15. WOC _____	20. _____

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 11:00 AM Picked up 3-1/2" IF Drill Pipe. Put 500' in hole to replace 4-1/2" pipe.

11:00 AM 2:30 PM Repaired air compressor.

2:30 PM 9:00 PM Drilled

9:00 PM 3:00 AM Made 1/2 trip. Laid down 20 joints - balance in derrick - Shut down for night.

3:00 AM 8:00 AM Rig down.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 96°

WEATHER: TEMP. 105 °F Hot Supervisor: Supervisor

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 8 DATE 7/23/78

DEPTH 1405 FEET MADE 0 HRS. ON BOTTOM 0

OPERATION Rig shut down.

SURVEYS			
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____

WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____

PUMP No. 1 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____

PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____

DRILL PIPE OD _____ THD _____ DRILL COLLARS OD _____ THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
Ream Bit No.											
Core No.							FEET CUT		FEET REC.		

MUD							Hrs. Run		IN OUT	
WT _____	VIS _____	WL _____	GEL _____	FC _____	DESILTER _____					
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____		DESANDER _____					
WATER _____	OIL _____	CL- _____	PPM _____		DEGASSER _____					
SOLIDS _____	SAND _____	CA ++ _____	PPM _____		COMPRESSOR DATA _____	MUD DUMPED _____				
AV _____	NV _____	d-exp _____	Pore Press _____		OUTPUT _____	cfm Press. _____				
MUD ADDED _____					MAKE _____	RATING _____				
DAILY MUD COST										

RIG TIME					OTHERS (SPECIFY)				
1. Drilling _____	6. Surveying _____	11. Coring _____	16. <u>24 hrs. down time.</u>						
2. Tripping _____	7. Circulating _____	12. Testing _____							
3. Service & BOPs _____	8. Clean to Btm _____	13. Logging _____							
4. Reaming _____	9. Cond. Mud _____	14. Casing _____							
5. Slip & Cutline _____	10. Repairing _____	15. WOC _____							

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM Rig down (on bank). Since arrival have had driller, two rough necks, pusher to to relieve driller. (Rest badly needed).

8:00 AM 1/2 hr. crew unloaded 1-1/2" casing.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 100°

WEATHER: TEMP. _____ °F Supervisor: _____

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 9 DATE 7/24/78
 DEPTH 1690 FEET MADE 285 HRS. ON BOTTOM 13-1/2

OPERATION Drilling
 SURVEYS

LAST PIPE TALLY _____ B JARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. 29 WT ON BIT M LBS 25 - 20 ROTARY RPM 80/60
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 300
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 / 4 1/2 THD 2-7/8 / 3 1/2 DRILL COLLARS OD 5" THD 3 1/2 IF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS	
								T	B	G		
<u>4</u>	<u>6-1/2</u>	<u>Hughes J33</u>	<u>1405</u>		<u>285</u>	<u>13 1/2</u>	<u>14</u>	<u>14</u>	<u>14</u>			<u>Used bit - re-run from this hole - had been used before that.</u>
Ream Bit No.												
Core No.							FEET CUT		FEET REC.			

MUD						Hrs. Run		IN	OUT
WT <u>9.3</u>	VIS <u>40</u>	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER <u>13 1/2</u>					LB/GAL
WATER _____	OIL _____	CL- - _____	PPM _____	DEGASSER _____					LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA _____	MUD DUMPED _____				bbbl
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____	cfm Press. _____				psig
MUD ADDED _____				MAKE _____	RATING _____				
DAILY MUD COST									

RIG TIME				OTHERS (SPECIFY)	
1. Drilling <u>13 1/2</u>	6. Surveying _____	11. Coring _____	16. <u>2 1/2 down.</u>		
2. Tripping <u>4 1/2</u>	7. Circulating _____	12. Testing _____	17. _____		
3. Service & BOPs _____	8. Clean to Btm _____	13. Logging _____	18. _____		
4. Reaming _____	9. Cond. Mud _____	14. Casing _____	19. _____		
5. Slip & Cutline _____	10. Repairing <u>3 1/2</u>	15. WOC _____	20. _____		

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 10:30 AM Down.
10:30 AM - 3:00 PM Tripped in hole - mixed mud.
3:00 PM - 7:00 PM Drilled - 1480' Reamed.
7:00 PM - 10:30 PM Down - repaired air compressor clutch.
10:30 PM - 8:00 AM Drilled to 1680'.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 102° F

WEATHER: TEMP. _____ °F Supervisor: _____

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 10 DATE 7/25/78
 DEPTH 1890 FEET MADE 200 HRS. ON BOTTOM 16
 OPERATION Drilling - Waiting on Schlumberger

SURVEYS							
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____
 WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____
 PUMP No. 1 5 x 10 GD IN USE _____ LINERS 5" SPM 50 PRESS 300
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD 3 1/2 - 4 - 1/2 THD 2 - 7/8" / 3 1/2 DRILL COLLARS OD 5" THD 3 1/2 IF No. IN HOLE 3

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE			COND			REMARKS
							IN 32nds			T	B	G	
4	6-1/2	Hughes J33	1405	1890	485	29 1/2	10	10	10				Used bit - Welded in jets
Ream Bit No.													
Core No.							FEET CUT			FEET REC.			

MUD						Hrs. Run		IN	OUT
WT _____	VIS _____	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP. VIS _____	PLAS VIS _____	YLD. PT. _____		DESANDER _____	16			LB/GAL
WATER _____	OIL _____	CL. - _____	PPM _____		DEGASSER _____				LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____		COMPRESSOR DATA	MUD DUMPED _____			bbl
AV. _____	NV _____	d-exp _____	Pore Press _____		OUTPUT _____	cfm Press. _____			psig
MUD ADDED					MAKE	RATING			
DAILY MUD COST									

<p>RIG TIME</p> <p>1. Drilling <u>16</u></p> <p>2. Tripping _____</p> <p>3. Service & BOPs _____</p> <p>4. Reaming _____</p> <p>5. Slip & Outline _____</p>	<p>OTHERS (SPECIFY)</p> <p>6. Surveying _____</p> <p>7. Circulating _____</p> <p>8. Clean to Btm _____</p> <p>9. Cond. Mud _____</p> <p>10. Repairing _____</p> <p>11. Coring _____</p> <p>12. Testing _____</p> <p>13. Logging _____</p> <p>14. Casing _____</p> <p>15. WOC _____</p> <p>16. _____</p> <p>17. <u>8 hrs. W.O. Schlumberger</u></p> <p>18. _____</p> <p>19. _____</p> <p>20. _____</p>
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DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 12:00 PM Drilled 1690 - 1890'.

12:00 PM - 8:00 AM Waited on Schlumberger - Mixed mud, conditioned hole.

Schlumberger came out of Grand Junction.

Bit is dull - believed to be in granite.

Mud Logging Unit Released: 12:00 Midnight.

Well Costs	\$
Daily	
Cumulative	

WEATHER: TEMP. _____ °F Supervisor: C. R. McKay

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 11 DATE 7/26/78
 DEPTH 1890' T.J. FEET MADE 0 HRS. ON BOTTOM 0
 OPERATION Laying down drill pipe - rigging up Schlumberger - running logs.

SURVEYS							
---------	--	--	--	--	--	--	--

LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES ___ NO ___
 WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____
 PUMP No. 1 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____
 DRILL PIPE OD _____ THD _____ DRILL COLLARS OD _____ THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds			COND			REMARKS
							T	B	G	T	B	G	
4	6-1/2	Hughes J33	1405	1890	485	29 1/2	10	10	10	6	5	4	
Ream Bit No.													
Core No.							FEET CUT			FEET REC.			

MUD						Hrs. Run		IN	OUT
WT <u>9</u>	VIS <u>60</u>	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____	DESANDER _____					LB/GAL
WATER _____	OIL _____	CL- _____	PPM _____	DEGASSER _____					LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____	COMPRESSOR DATA	MUD DUMPED _____				bbl
AV _____	NV _____	d-exp _____	Pore Press _____	OUTPUT _____	cfm Press. _____				psig
MUD ADDED				MAKE	RATING				
DAILY MUD COST									

RIG TIME

- | | | | |
|-------------------------|-----------------------|--------------------------|-----------|
| 1. Drilling _____ | 6. Surveying _____ | 11. Coring _____ | 16. _____ |
| 2. Tripping <u>8</u> | 7. Circulating _____ | 12. Testing _____ | 17. _____ |
| 3. Service & BOPs _____ | 8. Clean to Btm _____ | 13. Logging <u>9-1/2</u> | 18. _____ |
| 4. Reaming _____ | 9. Cond. Mud _____ | 14. Casing _____ | 19. _____ |
| 5. Slip & Cutline _____ | 10. Repairing _____ | 15. WOC _____ | 20. _____ |

OTHERS (SPECIFY)

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 10:30 PM Broke out and laid down 4 1/2 and 3 1/2" drill pipe. Torqued up - heated each joint to break out.
10:30 PM - 8:00 AM Rigged up Schlumberger - Induction Log tool broken - ran logs.

Well Costs	\$
Daily	
Cumulative	

Flowline temperature 102° F.

WEATHER: TEMP 104 °F Hot Supervisor: C. R. McKay

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power #15 DAY NO. 12 DATE 7/27/78
DEPTH 1890' T.D. FEET MADE 0 HRS. ON BOTTOM 0
OPERATION Running 1-1/2" casing

SURVEYS table with 8 columns

LAST PIPE TALLY BOARD CORRECTION: YES NO
WT OF STRING M LBS. WT ON BIT M LBS ROTARY RPM
PUMP No. 1 IN USE LINERS SPM PRESS
PUMP No. 2 IN USE LINERS SPM PRESS
DRILL PIPE OD THD DRILL COLLARS OD THD No. IN HOLE

BOTTOM HOLE ASSEMBLY

Table with columns: BIT NO., SIZE, TYPE, DEPTH IN, DEPTH OUT, FT. MADE, TOTAL HRS. RUN, JET SIZE IN 32nds, COND (T, B, G), REMARKS

MUD table with columns: MUD WT, VIS, WL, GEL, FC, PH, APP VIS, PLAS VIS, YLD. PT., WATER, OIL, CL, PPM, SOLIDS, SAND, CA ++, PPM, AV, NV, d-exp, Pore Press, DESILTER, DESANDER, DEGASSER, COMPRESSOR DATA, MUD DUMPED, bbf, OUTPUT, cfm Press, psig, MAKE, RATING, DAILY MUD COST

RIG TIME table with 20 numbered rows and OTHERS (SPECIFY) column

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 3:00 PM Finished running logs. Ran Induction, Density, GR Caliper Sonic, Bottom Hole Temperature.
3:00 PM 12:00 AM Ran 1-1/2" pipe. 90 joints - 1890' KB. (regular black malleable pipe.). Cemented with 10 sacks cement, 18' depth - cut off conductor pipe.

Bottom Hole Temp.: #1 - 144°F
#2 - 146°F
#3 - 148°F

Table with columns: Well Costs, Daily, Cumulative, \$

WEATHER: TEMP. 104 °F Hot Supervisor: C. R. McKay

Helton Engineering & Geological Services, Inc.

DRILLING TIME LOG

<u>Formation</u>	<u>Start Drlg.</u>	<u>Depth</u>	<u>Finish Drlg.</u>	<u>Depth</u>
Soft	12:40	895	12:50	910
Soft, medium	12:57	910	1:21	925
Soft	1:28	925	1:48	940
"	1:58	940	2:23	955
"	2:29	955	2:55	970
"	3:01	970	3:27	985
"	3:33	985	3:54	1000
"	4:06	1000	4:27	1015
"	4:36	1015	4:57	1030
"	5:06	1030	5:27	1045
"	5:12	1045	5:30	1060
Very fast, soft	5:40	1060	6:00	1075
	6:08	1075	6:30	1090
6:45 - made mud, cleaned mud pump, tightened brakes -				
9:00	9:00	1090	9:20	1105
Soft, w/boulders	9:38	1105	10:00	1120
	10:15	1120	10:38	1135
	10:50	1135	11:25	1150
	11:35	1150	12:05	1165
	12:12	1165	12:50	1180
New Day - 7/20/78	1:25	1180	1:45	1195
	1:57	1195	2:20	1210
Soft clay & sands	2:27	1210	2:50	1225
Made mud, tight hole	2:58	1225	3:35	1240
	3:55	1240	4:30	1255
	4:38	1255	5:05	1270
	5:15	1270	6:15	1285
	6:31	1285	7:12	1300
Shut down for lube	7:30	1300	8:20	1315
	8:40	1315		
Worked on compressor				
New Day - 7/21/78	2:30	1315	3:00	1330
	3:20	1330	4:15	1345
	4:35	1345	5:20	1360
	5:35	1360	6:25	1375
Sands, boulders	6:30	1375	7:15	1390
	7:25	1390	8:28	1405
Tripped 9:00				

Helton Engineering & Geological Services, Inc.

DRILLING TIME LOG
(Continued)

<u>Formation</u>	<u>Temp.</u>	<u>Start Drlg.</u>	<u>Depth</u>	<u>Finish Drlg.</u>	<u>Depth</u>
New Day 7/23/78	89 F.	3:00	1405	3:34	1420
	91	3:51	1420	4:15	1435
	92	4:20	1435	4:50	1450
	93	4:58	1450	5:25	1465
	96	5:31	1465	6:00	1480
	97	6:07	1480	6:40	1495
Air Comp. Trouble 7:00 - 11:00 down for lube.		6:46	1495	11:10	1510
New Day 7/24/78		11:35	1510	12:20	1525
	98	12:26	1525	1:05	1540
Few boulders and sand	98	1:10	1540	1:45	1555
Disc. staying the	99	1:55	1555	2:30	1570
same - 37 sec.	99	2:35	1570	3:05	1585
	100	3:13	1585	3:47	1600
Harder	100	3:55	1600	4:40	1615
	100	4:50	1615	5:25	1630
Change towers	100	5:35	1630	6:12	1645
	100	6:25	1645	7:00	1660
	98	7:11	1600	7:43	1675
Hard spots	96	7:50	1675	8:15	1690
Boulders about	98	8:25	1690	9:31	1705
5 ft. apart 2" thick	100	9:40	1705	10:07	1720
	100	10:45	1720	11:25	1735
	100	11:35	1735	12:10	1750
	95	12:20	1750	12:40	1765
	95	1:30	1765	1:55	1780
Changed rotary speed to save bit	95	2:05	1780	3:05	1795
	98	3:15	1795	4:00	1810
	100	4:10	1810	4:50	1825
	100	4:55	1825	5:45	1840
6:00-6:45 Lubed rig - cleaned desanders	100	6:45	1840	7:57	1855
Chert & granite 1865-70	102	8:07	1855	11:08	1870
		11:17	1870		1885
Out of water			1885		1900
Drillers			1900		1915
T.D. 1880 @ 2:00AM					
12:00 discontinued drilling, bit worn out. Mixed mud - began conditioning hole. Waited for Well Loggers.					

HELTON ENGINEERING & GEOLOGICAL SERVICES, INC.

DAILY DRILLING REPORT

(AS OF 8 AM)

WELL Geothermal Power Corp. #15 DAY NO. 13 DATE 7/28/78

DEPTH 1890 FEET MADE _____ HRS. ON BOTTOM _____

OPERATION

SURVEYS							
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LAST PIPE TALLY _____ BOARD _____ CORRECTION: YES _____ NO _____

WT OF STRING M LBS. _____ WT ON BIT M LBS _____ ROTARY RPM _____

PUMP No. 1 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____

PUMP No. 2 _____ IN USE _____ LINERS _____ SPM _____ PRESS _____

DRILL PIPE OD _____ TH D _____ DRILL COLLARS OD _____ THD _____ No. IN HOLE _____

BOTTOM HOLE ASSEMBLY

BIT NO.	SIZE	TYPE	DEPTH IN	DEPTH OUT	FT. MADE	TOTAL HRS. RUN	JET SIZE IN 32nds	COND			REMARKS
								T	B	G	
Ream Bit No.											
Core No.							FEET CUT		FEET REC.		

MUD						Hrs. Run		IN	OUT
WT _____	VIS _____	WL _____	GEL _____	FC _____	DESILTER _____				LB/GAL
PH _____	APP VIS _____	PLAS VIS _____	YLD. PT. _____		DESANDER _____				LB/GAL
WATER _____	OIL _____	CL-- _____	PPM _____		DEGASSER _____				LB/GAL
SOLIDS _____	SAND _____	CA ++ _____	PPM _____		COMPRESSOR DATA _____	MUD DUMPED _____			bbl
AV _____	NV _____	d-exp _____	Pore Press _____		OUTPUT _____	cfm Press. _____			psig
MUD ADDED _____					MAKE _____	RATING _____			
DAILY MUD COST									

RIG TIME				OTHERS (SPECIFY)
1. Drilling _____	6. Surveying _____	11. Coring _____	16. _____	_____
2. Tripping _____	7. Circulating _____	12. Testing _____	17. _____	_____
3. Service & BOPs _____	8. Clean to Btm _____	13. Logging _____	18. _____	_____
4. Reaming _____	9. Cond. Mud _____	14. Casing _____	19. _____	_____
5. Slip & Cutline _____	10. Repairing _____	15. WOC _____	20. _____	_____

DRILLING & GEOLOGICAL REMARKS (Time & Sequence of Operations to be inserted below)

8:00 AM - 11:00 AM Laid down balance of 3-1/2" drill pipe in derrick. Tore down to move out. Welded lock cap on 1-1/2" pipe.
RIG RELEASED: 11:00 AM.

Trip back to Denver.

	Well Costs	\$
	Daily	
	Cumulative	

WEATHER: TEMP. 105 °F _____ Hot _____ Supervisor: C. R. McKay

GRADIENT TEST WELL #15 T276 R9W SEC 18
LOGGED AUGUST 30TH & 31ST, 1978.

DEPTH (FT)	TEMP (°C)	DEPTH (FT)	TEMP (°C)
10	23.45	250	26.75
20	21.90	260	27.35
30	20.30	270	27.85
40	19.55	280	28.25
50	18.75	290	28.65
60	18.65	300	29.15
70	18.60	310	29.65
80	18.65	320	30.05
90	19.20	330	30.45
100	19.75	340	30.90
110	20.15	350	31.40
120	20.65	360	31.85
130	21.15	370	32.30
140	21.70	380	32.70
150	22.25	390	33.20
160	22.85	400	33.65
170	23.35	410	34.20
180	23.75	420	34.70
190	24.25	430	35.05
200	24.65	440	35.50
210	25.10	450	36.00
220	25.45	460	36.40
230	25.85	470	36.75
240	26.30	480	37.15

GRADIENT TEST WELL # 15 T27S R9W SEC 18

DEPTH (FT)	TEMP (°C)	DEPTH (FT)	TEMP (°C)
490	37.55	730	45.20
500	38.00	740	45.40
510	38.35	750	45.65
520	38.75	760	45.85
530	39.20	770	46.20
540	39.65	780	46.45
550	39.90	790	46.70
560	40.20	800	47.00
570	40.55	810	47.40
580	40.80	820	47.70
590	41.05	830	48.00
600	41.45	840	48.30
610	41.80	850	48.70
620	42.15	860	49.00
630	42.50	870	49.30
640	42.75	880	49.70
650	43.10	890	50.10
660	43.40	900	50.40
670	—	910	50.70
680	43.85	920	51.00
690	44.10	930	51.35
700	44.40	940	51.65
710	44.65	950	51.85
720	44.85	960	52.20

GRADIENT TEST WELL # 15 T27S R9W SEC18

DEPTH (FT)	TEMP (°C)
970	52.50
980	52.85
990	53.10
1000	53.55
1010	53.95
1020	54.25
1030	54.55
1040	54.85
1050	55.05
1060	55.40
1070	55.70
1080	56.00
1090	56.30
1100	56.60
1110	56.90
1120	57.20
1130	57.50
1140	57.80
1150	58.10
1160	58.40
1170	58.75
1180	59.05
1190	59.40
1200	59.70

DEPTH (FT)	TEMP (°C)
1210	60.05
1220	60.35
1230	60.65
1240	60.95
1250	61.20
1260	61.45
1270	61.65
1280	61.90
1290	62.05
1300	62.25
1310	62.40
1320	62.55
1330	62.65
1340	62.75
1350	62.80
1360	62.80
1370	62.80
1380	62.85
1390	62.90
1400	62.95
1410	63.05
1420	63.10
1430	63.15
1440	63.30

GRADIENT TEST WELL # 15

T275 R9W SEC18

DEPTH (FT)	TEMP (°C)
1450	63.40
1460	63.50
1470	63.55
1480	63.70
1490	63.80
1500	63.90
1510	63.95
1520	64.05
1530	64.15
1540	64.25
1550	64.35
1560	64.45
1570	64.55
1580	64.70
1590	64.80
1600	64.90
1610	65.10
1620	65.20
1630	65.35
1640	65.50
1650	65.60
1660	65.75
1670	65.90
1680	66.10

DEPTH (FT)	TEMP (°C)
1690	66.25
1700	66.40
1710	66.60
1720	66.75
1730	66.95
1740	67.15
1750	67.35
1760	67.55
1770	67.75
1780	68.00
1790	68.20
1800	68.40
1810	68.60
1820	68.85
1830	69.10
1840	69.35
1850	69.55
1860	69.80
1870	70.05
Bottom 1880	70.25
1890	—
1900	—

GEOHERMAL POWER CORPORATION

Temperature Log #15 - Roosevelt Hot Springs, Utah - Logged 7/30/78

<u>DEPTH</u>	<u>TEMP. °C</u>	<u>DEPTH</u>	<u>TEMP. °C</u>
0'		940'	49.95
20'	20.75	960'	50.54
40'	19.35	980'	51.08
60'	20.20	1000'	51.73
80'	21.14	1020'	52.32
100'	22.09	1040'	52.86
120'	22.70	1060'	53.46
140'	23.59	1080'	53.99
160'	24.65	1100'	54.56
180'	25.40	1120'	55.01
200'	26.10	1140'	55.60
220'	26.68	1160'	56.38
240'	27.44	1180'	56.89
260'	28.29	1200'	57.50
280'	29.02	1220'	58.04
300'	29.73	1240'	58.64
320'	30.58	1260'	59.08
340'	31.29	1280'	59.59
360'	32.40	1300'	59.89
380'	33.17	1320'	60.32
400'	33.62	1340'	60.65
420'	34.33	1360'	60.75
440'	35.02	1380'	60.86
460'	35.84	1400'	60.96
480'	36.54	1420'	61.20
500'	37.25	1440'	61.40
520'	38.00	1460'	61.66
540'	38.77	1480'	61.89
560'	39.41	1500'	62.19
580'	39.96	1520'	62.37
600'	40.55	1540'	62.56
620'	41.15	1560'	62.74
640'	41.79	1580'	62.89
660'	42.33	1600'	63.20
680'	42.81	1620'	63.42
700'	43.29	1640'	63.79
720'	43.74	1660'	64.09
740'	44.27	1680'	64.35
760'	44.68	1700'	64.84
780'	45.18	1720'	65.16
800'	45.70	1740'	65.60
820'	46.29	1760'	65.98
840'	46.85	1780'	66.44
860'	47.54	1800'	66.90
880'	48.18	1820'	67.42
900'	48.83	1840'	68.00
920'	49.41	1860'	68.55
		1880'	69.31
		1889'	69.44