

LEASE 48-14	WELL NO.	API WELL NUMBER	DATE 12-30-82
OPERATOR <i>Grace Petroleum</i>	CONTRACTOR <i>Robert Western</i>		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
D.P. SIZE	WT./FT.	GRADE	TOOL JOINT
TYPE	THREAD	STRING NO.	PUMP NO.
PUMP MANUFACTURER		TYPE	STROKE LENGTH

FIELD OR DIST.	COUNTY <i>Superior</i>	STATE <i>Nev</i>
WIRE LINE RECORD	REEL NO.	PT. KNIPPED
SIZE	NO. LINES	PT. CUT OFF
PRESENT LENGTH		
TON MI. OR TRIPS SINCE LAST CUT		
CUMULATIVE TON MI. OR TRIPS		

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN				STB RMR OD		FT. MFG.		PRESSURE GRADIENT
2	DRILL ACTUAL				D.C. ID		FT. TYPE		VISC.-SEC.
3	REAMING				STB RMR OD		FT. JETS 1/32"		PV/YP
4	CONFINO				D.C. ID		FT. SER. NO.		GELS
5	CONDITION MUD & CIRCULATE				STB RMR OD		FT. DEPTH OUT		WL -CC'S
6	TRIPS						DEPTH IN		pH
7	LUBRICATE RIG						TOTAL FTG.		SOLIDS %
8	REPAIR RIG						TOTAL HRS. RUN		
9	SMI P.C. DRILLING LINE				STANDS DP		FT. COND. 1/8" 1/8" GAGE		MUD & CHEMICALS ADDED
10	DEVIATION SURVEY				SINGLES DP		FT. OPM/ PD-PSH		TYPE AMT. TYPE AMT.
11	WIRE LINE LOGS						KELLY DOWN		
12	RUN CASING & CEMENT				TOTAL		FT.		
13	WAIT ON CEMENT				WT. OF STRING		LBS.		
14	NEEPLE UP B.O.P.								
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FISHING								
20	DIR. WORK								
21									
22									
COMPLETION									
A	PERF'R'N								
B	T&G TRIPS								
C	TREATING								
D	SWABBING								
E	TESTING								
F	ADDM'L								
G									
TOTALS									
DAY WORK TIME (HOURS) (OFFICE USE ONLY)									
HRS. W/CONTR. D.P.									
HRS. W/OPR. D.P.									
HRS. WO/D.P.									
HRS. STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM 5 P.M. CUMULATIVE ROTATING HRL									
TOTAL HRS. RUN									

FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
					<p><i>Log Up. Re-work some areas at location (to small) set unit, sub, dryhouse, mudpump</i></p> <p><i>(12-30-82)</i></p>						
DRILLER											
FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
					<p><i>Log Up. Re-work some areas at location with double set pipe packs, mudpump, walk, & back.</i></p> <p><i>(12-31-82)</i></p>						
DRILLER											
FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
DRILLER											

MORNING TOUR

DAY TOUR

EVENING TOUR

LEASE	WELL NO. 45-14	API WELL NUMBER	DATE 1-1-83							
OPERATOR <i>Carace</i>	CONTRACTOR <i>Calvert Western</i>		RIG NO. 8							
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER								
D.P. SIZE	WT./FT.	GRADE	TOOL JOINT	TYPE	THREAD	STRING NO.	PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH

FIELD OR DIST.	COUNTY	STATE	WIRE LINE RECORD	REEL NO.					
SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CGL. NO.	SET AT	SIZE	NO. LINES	FT. SLIPPED
LAST CASING TURNING OR LINER			FT. CUT OFF		PRESENT LENGTH				
TON MI. OR TRIPS SINCE LAST CUT			CUMULATIVE TON MI. OR TRIPS						

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD							
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	FT.	BIT NO.	TIME	WEIGHT						
1	RIG UP AND TEAR DOWN				STB RMR	00	PT. SIZE		PRESSURE GRADIENT						
2	DRILL ACTUAL				D.C. ID	00	PT. TYPE		VISC.-SEC.						
3	REAMING				STB RMR	00	PT. JETS 1/32"		PV/YP						
4	CORING				D.C. ID	00	PT. SER. NO.		GELS						
5	CONDITION MUD & CIRCULATE				STB RMR	00	PT. DEPTH OUT		ML -CC'S						
6	TRIPS						DEPTH IN		pH						
7	LUBRICATE RIG						TOTAL FTG.		SOLIDS %						
8	REPAIR RIG						TOTAL HRL RUN								
9	EXT. PPG LIME LINE				STANDS DP	FT.	COND. 1/8" T/B GAUGE		MUD & CHEMICALS ADDED						
10	DEVIATION SURVEY				SINGLES DP	FT.	GPM/ PD.-PH		TYPE AMT. TYPE AMT.						
11	WIRE LINE LOGS				KELLY DOWN	FT.									
12	RUN CASING & CEMENT				TOTAL	FT.									
13	WAIT ON CEMENT				WT. OF STRING	LBS.									
14	TRIPPLE UP R.O.P.														
15	TEST R.O.P.														
16	DRILL STEM TEST														
17	PLUG BACK														
18	SOURCE CEMENT														
19	FISHING														
20	DIR. WORK														
21															
22															
23															
COMPLETION		A. PERM'T'N		B. TBG TRIPS		C. TREATING		D. SWABBING		E. TESTING		F. ADDIT'L		G.	

FOOTAGE		DR. D RMR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)			ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO													

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD							
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	FT.	BIT NO.	TIME	WEIGHT						
1	RIG UP AND TEAR DOWN				STB RMR	00	PT. SIZE		PRESSURE GRADIENT						
2	DRILL ACTUAL				D.C. ID	00	PT. TYPE		VISC.-SEC.						
3	REAMING				STB RMR	00	PT. JETS 1/32"		PV/YP						
4	CORING				D.C. ID	00	PT. SER. NO.		GELS						
5	CONDITION MUD & CIRCULATE				STB RMR	00	PT. DEPTH OUT		ML -CC'S						
6	TRIPS						DEPTH IN		pH						
7	LUBRICATE RIG						TOTAL FTG.		SOLIDS %						
8	REPAIR RIG						TOTAL HRL RUN								
9	EXT. PPG LIME LINE				STANDS DP	FT.	COND. 1/8" T/B GAUGE		MUD & CHEMICALS ADDED						
10	DEVIATION SURVEY				SINGLES DP	FT.	GPM/ PD.-PH		TYPE AMT. TYPE AMT.						
11	WIRE LINE LOGS				KELLY DOWN	FT.									
12	RUN CASING & CEMENT				TOTAL	FT.									
13	WAIT ON CEMENT				WT. OF STRING	LBS.									
14	TRIPPLE UP R.O.P.														
15	TEST R.O.P.														
16	DRILL STEM TEST														
17	PLUG BACK														
18	SOURCE CEMENT														
19	FISHING														
20	DIR. WORK														
21															
22															
23															
COMPLETION		A. PERM'T'N		B. TBG TRIPS		C. TREATING		D. SWABBING		E. TESTING		F. ADDIT'L		G.	

FOOTAGE		DR. D RMR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)			ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO													

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
	4:00	6:00	10		Rig up						

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD							
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	FT.	BIT NO.	TIME	WEIGHT						
1	RIG UP AND TEAR DOWN				STB RMR	00	PT. SIZE		PRESSURE GRADIENT						
2	DRILL ACTUAL				D.C. ID	00	PT. TYPE		VISC.-SEC.						
3	REAMING				STB RMR	00	PT. JETS 1/32"		PV/YP						
4	CORING				D.C. ID	00	PT. SER. NO.		GELS						
5	CONDITION MUD & CIRCULATE				STB RMR	00	PT. DEPTH OUT		ML -CC'S						
6	TRIPS						DEPTH IN		pH						
7	LUBRICATE RIG						TOTAL FTG.		SOLIDS %						
8	REPAIR RIG						TOTAL HRL RUN								
9	EXT. PPG LIME LINE				STANDS DP	FT.	COND. 1/8" T/B GAUGE		MUD & CHEMICALS ADDED						
10	DEVIATION SURVEY				SINGLES DP	FT.	GPM/ PD.-PH		TYPE AMT. TYPE AMT.						
11	WIRE LINE LOGS				KELLY DOWN	FT.									
12	RUN CASING & CEMENT				TOTAL	FT.									
13	WAIT ON CEMENT				WT. OF STRING	LBS.									
14	TRIPPLE UP R.O.P.														
15	TEST R.O.P.														
16	DRILL STEM TEST														
17	PLUG BACK														
18	SOURCE CEMENT														
19	FISHING														
20	DIR. WORK														
21															
22															
23															
COMPLETION		A. PERM'T'N		B. TBG TRIPS		C. TREATING		D. SWABBING		E. TESTING		F. ADDIT'L		G.	
TOTALS		DAY WORK TIME SUMMARY (OFFICE USE ONLY)													
HRL W/CONTR. D.P.		HRL W/OPR. D.P.		HRL NO/D.P.		HRL STANDBY									
TOTAL DAY WORK															
NO. OF DAYS FROM BEV. CUMULATIVE ROTATING HRS															
TOTAL MUD COST															

FOOTAGE		DR. D RMR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)			ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO													

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
	8:00	1:00	8	1	Rig up						

LEASE 45-14 WELL NO. 2 API WELL NUMBER 45-14 DATE 11/3/87
 OPERATOR GRACE Geothermal CONTRACTOR CALVERT western
 SIGNATURE OF OPERATOR'S REPRESENTATIVE Garry Ballan SIGNATURE OF CONTRACTOR'S TOOL PUSHER
 FIELD OR DIST. 5 COUNTY Humboldt STATE Nevada
 WIRE LINE RECORD REEL NO. NO. LINEI. FT. CLIPPED
 SIZE MAKE WT. & GR. NO. JOINTS FEET RHR TO CSC. NO. SET AT
 FT. CUT OFF PRESENT LENGTH
 TON M. OR TRIPS SINCE LAST CUT
 CUMULATIVE TON M. OR TRIPS

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	BIT	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN								
2	DRILL ACTUAL		1/4		1 1/2 RHR	7.16	8 1/2	2:00	3100
3	REAMING	4	7		D.C. ID	31.00	REED		
4	CORING				1 1/2 RHR	5.30	FP625	41	41
5	CONDITION MUD & CIRCULATE				D.C. ID	278.57	181815		
6	TRIPS				1 1/2 RHR	1.68			
7	LUBRICATE RIG								
8	REPAIR RIG								
9	CUT OFF DRILLING LINE								
10	DEVIATION SURVEY		3/4		STANDS DP	323.46	11 1/4		
11	WIRE LINE LOGS				SINGLES DP	91.37			
12	RUN CASING & CEMENT				KELLY DOWN	4.00			
13	WAIT ON CEMENT				TOTAL	456			
14	TRIP UP				WT. OF STRING	46.000			
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FISHING								
20	DIR. WORK								
21	BHA	4			3	323.46	11 1/4		
22									
23									
COMPLETION				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
A	PERF'N'G								
B	TRIP TRIPS								
C	TREATING								
D	SWABBING								
E	TESTING								
F	ADMIT'L								
G									
TOTALS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
DAY WORK TIME SUMMARY (OFFICE USE ONLY)									
MRL W/CONTR. D.P.									
MRL W/OPR. D.P.									
MRL NO/D.P.									
MRL STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM START									
CUMULATIVE ROTATING TIME									
TOTAL MUD COST									

FOOTAGE		DR. D RHR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		12:00	8:00			ripple up				

FOOTAGE		DR. D RHR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		8:00	12:00	4	21	Pick up bit & BHA, clean out bridges & sand mud, circ out cement mud				
		12:00	4:00	4	3					

FOOTAGE		DR. D RHR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		4:00	11:00	7	3	Ream from 456 - 754				
		11:00	11:15	1/4	2	open hole to 8 1/2				
		11:15	12:00	3/4	10	Survey				

FOOTAGE		DR. D RHR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		4:00	11:00	7	3	Ream from 456 - 754				
		11:00	11:15	1/4	2	open hole to 8 1/2				
		11:15	12:00	3/4	10	Survey				

FOOTAGE		DR. D RHR-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		4:00	11:00	7	3	Ream from 456 - 754				
		11:00	11:15	1/4	2	open hole to 8 1/2				
		11:15	12:00	3/4	10	Survey				

LEASE: 45-14
 OPERATOR: Grace Geothermal
 SIGNATURE OF OPERATOR'S REPRESENTATIVE: Andy Baller
 WELL NO.:
 API WELL NUMBER:
 CONTRACTOR: Calwest Western
 SIGNATURE OF CONTRACTOR'S TOOL PUSHER:
 CITY: Balfazor
 COUNTY: Humboldt
 STATE: Nevada
 WIRE LINE RECORD: 8
 NO. LINES: 8
 PT. SLIPPED:
 FT. CUT OFF:
 PRESENT LENGTH:
 TON/M. ON TRIPS SINCE LAST CUT:
 CUMULATIVE TON/M. ON TRIPS:

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT SIZE	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN				6 pt	7.16	8 1/2	2:45 AM - 7:20 AM	
2	DRILL ACTUAL				8 1/2	31.00	1		
3	REAMING	6	6 1/2		8 1/2	5.30	1		
4	CORING				8 1/2	228.57	1		
5	CONDITION MUD & CIRCULATE				8 1/2	1.68	1		
6	TRIPS				8 1/2	323.46	1		
7	LUBRICATE RIG				8 1/2	723.64	1		
8	REPAIR RIG				8 1/2	0	1		
9	SWAPPE LINE				8 1/2	1.68	1		
10	DEVIATION SURVEY	1 1/2	1 1/2		8 1/2	323.46	1		
11	WIRE LINE LOG				8 1/2	0	1		
12	RUN CASING & CEMENT				8 1/2	1.68	1		
13	WAIT ON CEMENT				8 1/2	323.46	1		
14	WIPPLE UP R.O.P.				8 1/2	723.64	1		
15	TEST B.O.P.				8 1/2	0	1		
16	DRILL STEM TEST				8 1/2	1.68	1		
17	PLUG BACK				8 1/2	323.46	1		
18	SQUEEZE CEMENT				8 1/2	723.64	1		
19	FISHING				8 1/2	0	1		
20	DR. WORK				8 1/2	1.68	1		
21					8 1/2	323.46	1		
22					8 1/2	723.64	1		
23					8 1/2	0	1		

FOOTAGE		DR. D. R.H. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
723	824		R		60	5000	300			
824	947		R							

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO									
824	947	9 3/4			916	9 3/4				

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
12:00	4:00			Reaming
4:00	4:30			Dev. survey
4:30	7:00			Reaming
7:00	8:00			Dev. survey
8:00	8:00			Reaming

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT SIZE	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN				8 1/2	7.16	8 1/2	9:00 - 11:00 - 3:00	
2	DRILL ACTUAL				8 1/2	31.00	1		
3	REAMING				8 1/2	5.30	1		
4	CORING				8 1/2	228.57	1		
5	CONDITION MUD & CIRCULATE				8 1/2	1.68	1		
6	TRIPS				8 1/2	323.46	1		
7	LUBRICATE RIG				8 1/2	723.64	1		
8	REPAIR RIG				8 1/2	0	1		
9	SWAPPE LINE				8 1/2	1.68	1		
10	DEVIATION SURVEY				8 1/2	323.46	1		
11	WIRE LINE LOG				8 1/2	0	1		
12	RUN CASING & CEMENT				8 1/2	1.68	1		
13	WAIT ON CEMENT				8 1/2	323.46	1		
14	WIPPLE UP R.O.P.				8 1/2	723.64	1		
15	TEST B.O.P.				8 1/2	0	1		
16	DRILL STEM TEST				8 1/2	1.68	1		
17	PLUG BACK				8 1/2	323.46	1		
18	SQUEEZE CEMENT				8 1/2	723.64	1		
19	FISHING				8 1/2	0	1		
20	DR. WORK				8 1/2	1.68	1		
21					8 1/2	323.46	1		
22					8 1/2	723.64	1		
23					8 1/2	0	1		

FOOTAGE		DR. D. R.H. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
947	1253		R		60	2400	300	5 1/2	60	8 1/2

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO									
1008	8 1/4				1100	8 1/4		1192	7 1/4	

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
8:00	9:45	1 1/2	3	Reaming - 8 1/2 Hole
9:45	10:15	1/2	7	Rig service
10:15	11:00	3/4	3	Reaming - 8 1/2 Hole
11:00	11:30	1/2	10	Circ + survey
11:30	12:00	1/2	3	Reaming - 8 1/2 Hole
12:00	1:30	1/2	10	Circ + survey
1:30	3:00	1 1/2	3	Reaming - 8 1/2 Hole
3:00	3:30	1/2	18	Circ + survey

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT SIZE	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN				8 1/2	7.16	8 1/2	4:00 - 8:00 - 11:30	
2	DRILL ACTUAL				8 1/2	31.00	1		
3	REAMING				8 1/2	5.30	1		
4	CORING				8 1/2	228.57	1		
5	CONDITION MUD & CIRCULATE				8 1/2	1.68	1		
6	TRIPS				8 1/2	323.46	1		
7	LUBRICATE RIG				8 1/2	723.64	1		
8	REPAIR RIG				8 1/2	0	1		
9	SWAPPE LINE				8 1/2	1.68	1		
10	DEVIATION SURVEY				8 1/2	323.46	1		
11	WIRE LINE LOG				8 1/2	0	1		
12	RUN CASING & CEMENT				8 1/2	1.68	1		
13	WAIT ON CEMENT				8 1/2	323.46	1		
14	WIPPLE UP R.O.P.				8 1/2	723.64	1		
15	TEST B.O.P.				8 1/2	0	1		
16	DRILL STEM TEST				8 1/2	1.68	1		
17	PLUG BACK				8 1/2	323.46	1		
18	SQUEEZE CEMENT				8 1/2	723.64	1		
19	FISHING				8 1/2	0	1		
20	DR. WORK				8 1/2	1.68	1		
21					8 1/2	323.46	1		
22					8 1/2	723.64	1		
23					8 1/2	0	1		

FOOTAGE		DR. D. R.H. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
1253	1560		R		60	74	300	5 1/2	60	8 1/2

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO									
1284	8 1/4				1376	8 1/4		1499	8 1/4	

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
4:00	4:30	1/2	3	Ream 8 1/2 hole
4:30	5:00	1/2	10	Circ + Survey - Rig Service
5:00	7:00	2	3	Reaming
7:00	7:30	1/2	10	Circ + Survey
7:30	9:30	2	3	Reaming
9:30	10:00	1/2	10	Circ + Survey
10:00	12:00	2	3	Reaming

LEASE	WELL NO.	API WELL NUMBER	DATE
	45-14		1/5/83
OPERATOR		CONTRACTOR	
Grace Geothermal		Calyvert	
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
Gody Sollen		Howard Leach	
D.P. SIZE	WT. OF	GRADE	TOOL JT O.D.
			TYPE THREAD
			STRING NO.
			PUMP NO.
			PUMP MANUFACTURER
			TYPE
			STROKE LENGTH

FIELD OR DIST.	COUNTY	STATE	WIRE LINE RECORD	REEL NO.
	Humboldt	Nevada		
LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS
			FEET	RKS. TO CSC. NO.
			SET AT	
			PT. CUT OFF	PRESENT LENGTH
			TOH.M. OR TRIPS SINCE LAST CUT	
			CUMULATIVE TOH.M. OR TRIPS	

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	1	2	PT.	BIT NO.	SIZE	TIME	WT.	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN											
2	DRILL ACTUAL				1	1	7.5	1	8 1/2	4:00	9.0	9.0
3	REAMING	5	7	7	1	1	7.16	1	8 1/2	7:00	9.0	9.0
4	CORING				1	1	5.30	1	8 1/2	42	53	65
5	CONDITION MUD & CIRCULATE				9	9	278.57	1	8 1/2			
6	TRIPS				1	1	1.68					
7	LUBRICATE RIG											
8	REPAIR RIG											
9	CUT OFF DRILLING LINE											
10	DEVIATION SURVEY	1	1									
11	WIRE LINE LOSS											
12	RUN CASING & CEMENT											
13	WAIT ON CEMENT											
14	SHUFFLE UP B.O.P.											
15	TEST B.O.P.											
16	DRILL STEM TEST											
17	PLUG BACK											
18	SQUEEZE CEMENT											
19	FISHING											
20	DIR. WORK											
21	Chgs 24725											
22												
23												

FOOTAGE		DR. D. R.M.-R. CORE.C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
1560	1591		R			8000	15000			
1591	1714									

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	12:00	12:30	1/2	3	Ream					
	12:30	2:00	1 1/2	10	Wash Heavy (Hole Shale) Run survey					
	2:00	2:30	2 1/2	3	Reaming					
	2:30	6:00	3 1/2	3	Work boulders past stabilizers					
	6:00	8:00	2	2	Reaming					

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	1	2	PT.	BIT NO.	SIZE	TIME	WT.	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN											
2	DRILL ACTUAL				1	1	1.75	1	8 1/2	9:00	9.0	9.0
3	REAMING				1	1	7.16	1	8 1/2	11:00	9.0	9.0
4	CORING				1	1	5.30	1	8 1/2	56	56	69
5	CONDITION MUD & CIRCULATE				9	9	278.57	1	8 1/2			
6	TRIPS				1	1	1.68					
7	LUBRICATE RIG											
8	REPAIR RIG											
9	CUT OFF DRILLING LINE											
10	DEVIATION SURVEY											
11	WIRE LINE LOSS											
12	RUN CASING & CEMENT											
13	WAIT ON CEMENT											
14	SHUFFLE UP B.O.P.											
15	TEST B.O.P.											
16	DRILL STEM TEST											
17	PLUG BACK											
18	SQUEEZE CEMENT											
19	FISHING											
20	DIR. WORK											
21	Chgs 24725											
22												
23												

FOOTAGE		DR. D. R.M.-R. CORE.C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
1714	1899		R			60	2-4	300	5 1/2	60
										6 1/2
										5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	8:00	8:30	1/2	3	Reaming 8 1/2 Hole					
	8:30	9:30	1	10	Circ + Survey - Hole Fill No Run					
	9:30	4:00	6 1/2	3	Reaming 8 1/2 Hole					
					Fuel 75.55 app. 3500 gal Loss 60 Bbls. Cement mud					
					Rotok 60000					
					Pickup 20000 - 5-off-55000					

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	1	2	PT.	BIT NO.	SIZE	TIME	WT.	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN											
2	DRILL ACTUAL				1	1	1.75	1	8 1/2	4:00	9.0	9.0
3	REAMING				1	1	7.16	1	8 1/2	8:00	9.0	9.0
4	CORING				1	1	5.30	1	8 1/2	57	69	57
5	CONDITION MUD & CIRCULATE				9	9	278.57	1	8 1/2			
6	TRIPS				1	1	1.68					
7	LUBRICATE RIG											
8	REPAIR RIG											
9	CUT OFF DRILLING LINE											
10	DEVIATION SURVEY											
11	WIRE LINE LOSS											
12	RUN CASING & CEMENT											
13	WAIT ON CEMENT											
14	SHUFFLE UP B.O.P.											
15	TEST B.O.P.											
16	DRILL STEM TEST											
17	PLUG BACK											
18	SQUEEZE CEMENT											
19	FISHING											
20	DIR. WORK											
21	Chgs 24725											
22												
23												

FOOTAGE		DR. D. R.M.-R. CORE.C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
1899	2164		R			10	3/4	300	5 1/2	60
										6 1/2
										5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	4:00	6:00	2	3	Reaming					
	6:00	6:30	1/2	10	Circ + Survey					
	6:30	9:30	3	3	Reaming					
	9:30	10:00	1/2	10	Circ. + Survey					
	10:00	12:00	2	3	Reaming					

LEASE NO. WELL NO. 45-14 API WELL NUMBER DATE JAN 6-8

OPERATOR SPACE Geothermal CONTRACTOR Calvert Westco RIG NO. 5

SIGNATURE OF OPERATOR'S REPRESENTATIVE NORDY SALLAN SIGNATURE OF CONTRACTOR'S TOOL PUSHER Howard Paul

D.P. SIZE	WT. LBS.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.	PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
5 1/2	1330	8	4 1/2	IF	1	1	G D	EXN	17
						2	G D	P47A	7

FIELD OR DIST. Devio COUNTY Humboldt STATE Nevada

WIRE LINE RECORD REEL NO.

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	R.R. TO CSG. NO.	SET AT	SIZE	NO. LINES	PT. SLIPPED
8 5/8				402					

LAST CASING TURNING ON LINER

PT. CUT OFF	PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION - HOURS

CODE NO.	OPERATION	WORK	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	1 1/2		
3	REAMING	7 1/2	3	1/2
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS	3 1/2	1	
7	LUBRICATE RIG	1/2		
8	REPAIR RIG			
9	CUT OFF CEMENT LINE			
10	DEVIATION SURVEY	1/2	1	
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NEEDLE UP B.O.P.			

NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD	
1	BIT	8 1/2	1.75 FT.	BIT NO.	1	TIME	12:30 4:00 6:00
	SIZE			SIZE	8 1/2	WEIGHT	9.1 9.2
	MFG.			MFG.	Reed	PRESSURE GRADIENT	
	TYPE			TYPE	FP625	VISC.-SEC	53 55 60
	JETS 1/32"			JETS 1/32"	16-16-15	PV/VP	1 1 1
	SER. NO.			SER. NO.	939562	ORLS	1 1 1
	DEPTH OUT			DEPTH OUT		WL -CC'S	
	DEPTH IN			DEPTH IN	0	PH	
	TOTAL FTG.			TOTAL FTG.	59 1/4	SOLIDS %	
	TOTAL HRL RUN			TOTAL HRL RUN		MUD & CHEMICALS ADDED	
	STANDS DP	2006.72		COND. 1/8" T.M. GAGE		TYPE	AMT.
	SINGLES DP	30.04		OPM/ PD-PM		Gel	10
	KELLY DOWN	38.00				Lig	5
	TOTAL	2358				Sample	1
	WT. OF STRING	6810.80					

FOOTAGE

FROM	TO	DR. D. RM.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
2164	2358		R		80	1000	300			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2237	2 1/4							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	3:00			Ream
3:00	3:30			Circ. Survey 2 1/4°
3:30	8:00			Ream

DRILLER: J. J. [Signature]

NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD	
1	BIT	8 1/2	1.75 FT.	BIT NO.	1	TIME	9:00 12:00 3:00
	SIZE			SIZE	8 1/2	WEIGHT	9.0
	MFG.			MFG.	Reed Lat	PRESSURE GRADIENT	
	TYPE			TYPE	FP625	VISC.-SEC	49
	JETS 1/32"			JETS 1/32"	18-18-15	PV/VP	1 1 1
	SER. NO.			SER. NO.	939563	ORLS	1 1 1
	DEPTH OUT			DEPTH OUT		WL -CC'S	
	DEPTH IN			DEPTH IN	0	PH	
	TOTAL FTG.			TOTAL FTG.	2393	SOLIDS %	
	TOTAL HRL RUN			TOTAL HRL RUN	58 1/4	MUD & CHEMICALS ADDED	
	STANDS DP	1927.20		COND. 1/8" T.M. GAGE		TYPE	AMT.
	SINGLES DP			OPM/ PD-PM		Gel	35x
	KELLY DOWN	4.1				Lig	35x
	TOTAL	2391				Custic	25x
	WT. OF STRING	6820.00					

FOOTAGE

FROM	TO	DR. D. RM.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
2358	2391		R		80	1000	500	5 1/2	50	6 1/2 Pits 5

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2391	5°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:00	1	3	Reaming 8 1/2 Hole
9:00	9:30	1/2	7	Rig Service
9:30	11:30	1/2	3	Reaming 8 1/2 Hole
11:30	12:30	1	10	Circ. Survey 2 1/4° 60' off Bottom
14:30	2:00	1 1/2	6	TRIP OUT
2:00	4:00	2	6	Change BHA Pickup 2 DC & TRIP IN

DRILLER: Chal [Signature]

TOTALS

DAY WORK TIME (HOURS) (OFFICE USE ONLY) 8 8

NO.		DRILLING ASSEMBLY (At end of run)		BIT RECORD		MUD RECORD	
1	BIT	8 1/2	.75 FT.	BIT NO.	2	TIME	4:00 8:00 11:30
	SIZE			SIZE	8 1/2	WEIGHT	8.8 8.9 9.0
	MFG.			MFG.	Reed	PRESSURE GRADIENT	
	TYPE			TYPE	FP625	VISC.-SEC	57 57 59
	JETS 1/32"			JETS 1/32"	18-18-15	PV/VP	1 1 1
	SER. NO.			SER. NO.	939558	ORLS	1 1 1
	DEPTH OUT			DEPTH OUT		WL -CC'S	
	DEPTH IN			DEPTH IN	2393	PH	
	TOTAL FTG.			TOTAL FTG.		SOLIDS %	
	TOTAL HRL RUN			TOTAL HRL RUN	7	MUD & CHEMICALS ADDED	
	STANDS DP	2087.70		COND. 1/8" T.M. GAGE		TYPE	AMT.
	SINGLES DP	30.62		OPM/ PD-PM		Gel	10
	KELLY DOWN	37					
	TOTAL	2540					
	WT. OF STRING	7000.00					

FOOTAGE

FROM	TO	DR. D. RM.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
2391	2540		R		60/80	1000	350	5 1/2	60	6 1/2 Pits 5
2527	2540		D		60/70	30	600			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	8:00	1	6	Trip in
5:00	10:30	5 1/2	3	Reaming
10:30	12:00	1 1/2	2	Drig. new hole

DRILLER: Casey [Signature]

LEASE **45-14** WELL NO. API WELL NUMBER DATE **JAN 7-5**

OPERATOR **GRACE Geothermal** CONTRACTOR **Calvert** RIG NO. **5**

SIGNATURE OF OPERATOR'S REPRESENTATIVE **Nordy Sallan** SIGNATURE OF CONTRACTOR'S TOOL PUSHER **Edward Lead**

D.P. SIZE WT./FT. GRADE TOOL JT O.D. TYPE THREAD STRING NO. PUMP NO. PUMP MANUFACTURER TYPE STROKE LENGTH

FIELD OR DIST. **Denise** COUNTY **Humboldt** STATE **Neveda**

WIRE LINE RECORD REEL NO. WIRE NO. NO. LINES FT. TAPPED

LAST CASING TUBING OR LINER SIZE MAKE WT. & GR. NO. JOINTS PRESS. NO. TO C.C. NO. INT AT

PT. CUT OFF PRESENT LENGTH

TON/M. OR TRIPS SINCE LAST CUT CUMULATIVE TON/M. OR TRIPS

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	PT.	BIT NO.	TIME	WEIGHT	
1	RIG UP AND TEAR DOWN				8 1/2	75	2	7:00	20	
2	DRILL ACTUAL	7 1/2	5	4 1/2	8 1/2	7.16	Reed	8 1/2	20	
3	REAMING				6 1/4	6.77	EP625	58	44	
4	CORING				5.30	20.20.20				
5	CONDITION MUD & CIRCULATE				6 1/4	308.81	933558			
6	TRIPS	1 1/2	3 1/2		Yamb	1.68				
7	LUBRICATE RIG									
8	REPAIR RIG									
9	EXT. DRILLING LINE				BHA	392.24				
10	DEVIATION SURVEY	1/2	1							
11	WIRE LINE LOGS									
12	RUN CASING & CEMENT									
13	WAIT ON CEMENT									
14	NEPPEL UP A.C.P.									
15	TEST B.O.P.									
16	DRILL STEM TEST									
17	PLUG BACK									
18	SQUEEZE CEMENT									
19	FISHING									
20	DIR. WORK									
21										
22										
23										
COMPLETION					A. PERFORATION		MUD & CHEMICALS ADDED			
					B. TRIP TRIPS		TYPE		AMT.	
					C. TREATING		TYPE		AMT.	
					D. SWABBING		TYPE		AMT.	
					E. TESTING		TYPE		AMT.	
					F. ADDITION		TYPE		AMT.	
					G.		TYPE		AMT.	

FOOTAGE		DR. D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2540	2624		D		60	50,000	500	5 1/2	4 1/2	
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
		2588	9 1/2							
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		12:20	3:20			Drill				
		3:20	3:30			C.R.E. survey 9 1/2 increase Rotary RPM to 85				
		3:30	5:00			DRILL Lost 80 BBLs mud (mix LCM)				
		5:00	8:00			DRILL				
						Pick up 80,000 Rotate 70,000 Slack off 60,000				

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	PT.	BIT NO.	TIME	WEIGHT	
1	RIG UP AND TEAR DOWN				8 1/2	175	2	7:00	12:00	
2	DRILL ACTUAL				6 1/4	7.16	2	12:00	3:00	
3	REAMING				6 1/4	61.77	Reed	8 1/2	8.8	
4	CORING				5.30	20.20.20				
5	CONDITION MUD & CIRCULATE				6 1/4	308.81	933558			
6	TRIPS									
7	LUBRICATE RIG									
8	REPAIR RIG									
9	EXT. DRILLING LINE				BHA	385.43				
10	DEVIATION SURVEY									
11	WIRE LINE LOGS									
12	RUN CASING & CEMENT									
13	WAIT ON CEMENT									
14	NEPPEL UP A.C.P.									
15	TEST B.O.P.									
16	DRILL STEM TEST									
17	PLUG BACK									
18	SQUEEZE CEMENT									
19	FISHING									
20	DIR. WORK									
21										
22										
COMPLETION					A. PERFORATION		MUD & CHEMICALS ADDED			
					B. TRIP TRIPS		TYPE		AMT.	
					C. TREATING		TYPE		AMT.	
					D. SWABBING		TYPE		AMT.	
					E. TESTING		TYPE		AMT.	
					F. ADDITION		TYPE		AMT.	
					G.		TYPE		AMT.	

FOOTAGE		DR. D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2624	2667		D		60	50,000	500	5 1/2	5 1/2	5
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
		2636	10 1/2		2667	11 1/4				
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		8:00	7:00	1 1/2	2	Drill 8 1/2 Hole #1 - 2000 8AM				
		9:10	9:30	1/2	10	Circ & Survey 10 1/2 Deg tank - 2400 "				
		9:30	10:00	1/2	7	Service Rig - 750 "				
		10:00	2:00	4	2	Drill 8 1/2 Hole 10,000 wt 80 Del - 5150 8AM				
		2:00	2:30	1/2	10	Circ & Survey @ 11:00 AM - 8950 Fuel				
		2:30	4:00	1 1/2	2	TRIP OUT TOCKENGA BHA				

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	PT.	BIT NO.	TIME	WEIGHT	
1	RIG UP AND TEAR DOWN				8 1/2	75	2 RR	8:00	10:00	
2	DRILL ACTUAL				6 1/4	92.98	8 1/2	10:00	11:30	
3	REAMING				6 1/4	5.30	Reed	8 1/2	8.9	
4	CORING				5.28	20.20.20				
5	CONDITION MUD & CIRCULATE				6 1/4	216.25	933558			
6	TRIPS									
7	LUBRICATE RIG									
8	REPAIR RIG									
9	EXT. DRILLING LINE				BHA	383.59				
10	DEVIATION SURVEY									
11	WIRE LINE LOGS									
12	RUN CASING & CEMENT									
13	WAIT ON CEMENT									
14	NEPPEL UP A.C.P.									
15	TEST B.O.P.									
16	DRILL STEM TEST									
17	PLUG BACK									
18	SQUEEZE CEMENT									
19	FISHING									
20	DIR. WORK									
21										
22										
COMPLETION					A. PERFORATION		MUD & CHEMICALS ADDED			
					B. TRIP TRIPS		TYPE		AMT.	
					C. TREATING		TYPE		AMT.	
					D. SWABBING		TYPE		AMT.	
					E. TESTING		TYPE		AMT.	
					F. ADDITION		TYPE		AMT.	
					G.		TYPE		AMT.	

FOOTAGE		DR. D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2667	2692		D		70	500	5 1/2	5 1/2	6 1/2	5
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		4:00	7:30	3 1/2	6	Trip out - change BHA - Trip in Pick up - 80,000				
		7:30	12:00	4 1/2	2	Drill Rotate - 71,000 Slack off - 60,000				

LEASE	WELL NO. 45-14	API WELL NUMBER	1/8/8
OPERATOR GRACE Geothermal	CONTRACTOR Calvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>Nancy Gollan</i>	SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>David Seal</i>		
D.P. SIZE 3 1/2	WT./FT. 13.30	GRADE E	TOOL JT O.D. 4 3/4
TYPE THREAD IF	STRING NO. 1	PUMP NO. 1/2	PUMP MANUFACTURER GARBER DENVER
		TYPE FXN	STROKE LENGTH 14

LINE RECORD REEL NO.	SIZE 1	NO. LINES 8	FT. SLIPPED
	FT. CUT OFF	PRESENT LENGTH	
TOM H. OR TRIPS SINCE LAST CUT			
CUMULATIVE TOM H. OR TRIPS			

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	DRILLING ASSEMBLY	BIT NO.	SIZE	TIME	WEIGHT
1	RIG UP AND TEAR DOWN			1	8 1/2 .75 FT.	2 PR	8 1/2	1:00	8.8
2	DRILL ACTUAL	7 1/2	7	3	6 1/4 DC 92.98	8 1/2	8 1/2	3:00	8.8
3	REAMING			2	DC ID 6 1/4 OD 61.35	FP62J	FP62J	9:8	9.8
4	CORING			1	STB RMR 185 OD 5.28	JETS 1/32"	202020		
5	CONDITION MUD & CIRCULATE			7	DC ID 6 1/4 OD 216.25	SER. NO.	939538		
6	TRIPS				STB RMR OD 1.68	DEPTH OUT			
7	LUBRICATE RIG			1	XO	DEPTH IN	2393		
8	REPAIR RIG					TOTAL FTG.	383.59		
9	SWELLING LINE					TOTAL HRS. RUN	32 1/2		
10	DEVIATION SURVEY	1/2	1/2			STANDS DP	2702.53		
11	WIRE LINE LOGS					SINGLES DP			
12	RUN CASING & CEMENT					KELLY DOWN	28.00		
13	WAIT ON CEMENT					TOTAL	2714.23		
14	UNPLE UP B.C.P.					WT. OF STRING	71,000		

FOOTAGE		DR. D. R.H.R. CORE-C	CORE NO.	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO								
2682	2714	0		92	4,000	600	54		5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2696	12°								

TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
	12:00	2:00	2	2	Drill
	2:00	2:30	10	10	Wire survey 12° @ 2682'
	2:30	8:00	6 1/2	2	Drill Pottery 90 5000 on Bit

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	DRILLING ASSEMBLY	BIT NO.	SIZE	TIME	WEIGHT
1	RIG UP AND TEAR DOWN			1	8 1/2 .75 FT.	2	8 1/2	9:00	8.9
2	DRILL ACTUAL			3	6 1/4 DC 92.98	8 1/2	8 1/2	12:00	8.9
3	REAMING			1	STB RMR 185 OD 5.30	FP62J	FP62J	3:00	8.9
4	CORING			2	DC ID 6 1/4 OD 61.35	FP62J	FP62J	8:8	8.9
5	CONDITION MUD & CIRCULATE			1	STB RMR 185 OD 5.28	JETS 1/32"	202020		
6	TRIPS			7	DC ID 6 1/4 OD 216.25	SER. NO.	939538		
7	LUBRICATE RIG				STB RMR OD 1.68	DEPTH OUT			
8	REPAIR RIG			1	XO	DEPTH IN	2393		
9	SWELLING LINE					TOTAL FTG.	383.59		
10	DEVIATION SURVEY					TOTAL HRS. RUN	39 1/2		
11	WIRE LINE LOGS					STANDS DP	2743		
12	RUN CASING & CEMENT					SINGLES DP			
13	WAIT ON CEMENT					KELLY DOWN	41		
14	UNPLE UP B.C.P.					TOTAL	2758		
15	TEST B.C.P.					WT. OF STRING	72,000		

FOOTAGE		DR. D. R.H.R. CORE-C	CORE NO.	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO								
2714	2758	0		85	4,000	600	54	6 1/2	5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2727	11°								

TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
	5:00	10:00	2	2	Drill 6 1/2" Hole
	10:00	10:30	1/2	10	Circ. and survey 11° @ 2727
	10:30	11:00	7	7	Service Rig
	11:00	4:00	5	2	Drill 8 1/2" Hole Fuel #1 585-320000 #2 445-920000

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	DRILLING ASSEMBLY	BIT NO.	SIZE	TIME	WEIGHT
1	RIG UP AND TEAR DOWN			1	8 1/2 .75 FT.	2	8 1/2	4:00	8.00
2	DRILL ACTUAL			3	6 1/4 DC 92.98	8 1/2	8 1/2	8:00	8.00
3	REAMING			1	STB RMR 185 OD 5.30	FP62J	FP62J	11:30	9.0
4	CORING			2	DC ID 6 1/4 OD 61.35	FP62J	FP62J	9:0	9.0
5	CONDITION MUD & CIRCULATE			1	STB RMR 185 OD 5.28	JETS 1/32"	202020		
6	TRIPS			7	DC ID 6 1/4 OD 216.25	SER. NO.	939538		
7	LUBRICATE RIG				STB RMR OD 1.68	DEPTH OUT			
8	REPAIR RIG			1	XO	DEPTH IN	2393		
9	SWELLING LINE					TOTAL FTG.	47		
10	DEVIATION SURVEY					TOTAL HRS. RUN	47		
11	WIRE LINE LOGS					STANDS DP	2343		
12	RUN CASING & CEMENT					SINGLES DP			
13	WAIT ON CEMENT					KELLY DOWN	25		
14	UNPLE UP B.C.P.					TOTAL	2773		
15	TEST B.C.P.					WT. OF STRING	73,000		

FOOTAGE		DR. D. R.H.R. CORE-C	CORE NO.	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO								
2758	2773	0		95	4	600	5 1/2	54	6 1/2

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2758	12 1/4°								

TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
	4:00	4:30	1/2	10	Circ. + Survey - Rig Service
	4:30	12:00	7 1/2	2	Drill

LEASE 45+14	WELL NO.	API WELL NUMBER	DATE 1-9-83
OPERATOR SPACE Geothermal	CONTRACTOR Calvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>[Signature]</i>		SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>[Signature]</i>	
D.F. SIZE	WT./FT.	GRADE	TOOL JT O.D.
			TYPE THREAD
			STRING NO.
			PUMP NO.
			PUMP MANUFACTURER
			TYPE
			STROKE LENGTH

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1. RIG UP AND TEAR DOWN				1	BIT 8 1/2 .75 FT.	BIT NO. 2	TIME 12:00 4:00 7:30	WEIGHT 9.0 8.9 8.9	
2. DRILL ACTUAL	7	7 1/2	7 1/2	3	6 1/4 92.98	SIZE 8 1/2		PRESSURE GRADIENT	
3. REAMING				2	STR RMR 185 5.30	MFG. REED		VISC.-SEC. 55 55 54	
4. CORING				1	D.C. 6 1/4 61.35	TYPE FP62J			
5. CONDITION MUD & CIRCULATE				1	STR RMR 185 5.08	JETS 1/32" 20 20 20			
6. TRIPS				7	D.C. 6 1/4 216.25	SER. NO. 939558			
7. LUBRICATE RIG					STR RMR 185 5.08	DEPTH OUT			
8. REPAIR RIG					STR RMR 185 5.08	DEPTH IN			
9. SWAPPING LINE					STR RMR 185 5.08	TOTAL FTG. 2393			
10. DEVIATION SURVEY					STR RMR 185 5.08	TOTAL WRL RUN 54			
11. WIRE LINE LOGS					STR RMR 185 5.08	COND. 1/8" 1/8" GAGE			
12. RIG CASING & CEMENT					STR RMR 185 5.08	WT. OF STRING 73,000			
13. WAIT ON CEMENT					STR RMR 185 5.08				
14. PREPARE UP R.O.P.					STR RMR 185 5.08				
15. TEST R.O.P.					STR RMR 185 5.08				
16. DRILL STEM TEST					STR RMR 185 5.08				
17. FLUG BACK					STR RMR 185 5.08				
18. SQUEEZE CEMENT					STR RMR 185 5.08				
19. FISHING					STR RMR 185 5.08				
20. DIR. WORK					STR RMR 185 5.08				
21.					STR RMR 185 5.08				
22.					STR RMR 185 5.08				

COMPLETION				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
A. PERP'N'TH				1	BIT 8 1/2 .75 FT.	BIT NO. 2	TIME 4:00 12:00 3:00	WEIGHT 8.9 8.9 9.0	
B. TRO TRIPS				3	6 1/4 92.98	SIZE 8 1/2		PRESSURE GRADIENT	
C. TREATING				1	STR RMR 185 5.30	MFG. REED		VISC.-SEC. 50 52 50	
D. SWABBING				7	D.C. 6 1/4 214.25	TYPE FP62J			
E. TESTING					STR RMR 185 5.08	JETS 1/32" 20 20 20			
F. ADDIT'NL					STR RMR 185 5.08	SER. NO. 939558			
G.					STR RMR 185 5.08	DEPTH OUT			
					STR RMR 185 5.08	DEPTH IN			
					STR RMR 185 5.08	TOTAL FTG. 2393			
					STR RMR 185 5.08	TOTAL WRL RUN 61 1/2			
					STR RMR 185 5.08	COND. 1/8" 1/8" GAGE			
					STR RMR 185 5.08	WT. OF STRING 73,150			

TOTALS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1	BIT 8 1/2 .75 FT.	BIT NO. 2	TIME 4:00 8:00 11:30	WEIGHT 4.0 9.0 8.9					
3	6 1/4 92.98	SIZE 8 1/2		PRESSURE GRADIENT					
1	STR RMR 185 5.30	MFG. REED		VISC.-SEC. 49 52 55					
2	D.C. 6 1/4 61.35	TYPE FP62J							
1	STR RMR 185 5.28	JETS 1/32" 20 20 20							
7	D.C. 6 1/4 216.25	SER. NO. 939558							
1	STR RMR 185 5.08	DEPTH OUT							
1	X 0 1.68	DEPTH IN							
		TOTAL FTG. 2393							
		TOTAL WRL RUN 69							
		COND. 1/8" 1/8" GAGE							
		WT. OF STRING 73,000							

FIELD OR DIST. Denio	COUNTY Humboldt	STATE NEVADA	WIRE LINE RECORD REEL NO.
SIZE	MAKE	WT. & DR.	NO. JOINTS
FEET	RKB. TO CSG. NO.	SET AT	
FT. CUT OFF	PRESENT LENGTH		
TON MI. OR TRIPS SINCE LAST CUT			
CUMULATIVE TON MI. OR TRIPS			

FOOTAGE		DR. D. RIG-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO.	METHOD RUN
FROM	TO									
2773	2790	D			42	4000	600	5/8	55	

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		12:00	12:00	0		DRILL				
		6:00	8:00	2		CUR. Survey 12° @ 2289				
		7:00	8:00	1		DRILL				
						Pickup - 83,000 Rotate - 73,500 Slack off - 61,000				

FOOTAGE		DR. D. RIG-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO.	METHOD RUN
FROM	TO									
2796	2809	D			102	9000	600	5/8	55	6 1/2 1/4 5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		8:00	1:30	5 1/2	2	DRILL 8 1/2 H66				
		1:30	2:00	1/2	7	Rig service				
		2:00	4:00	2	2	DRILL 8 1/2 H66				

FOOTAGE		DR. D. RIG-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO.	METHOD RUN
FROM	TO									
2809	2829	D			110	4	100	5 1/2	55	6 1/2 Pts 5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		11:00	7:00	3	2	DRILL				
		7:00	7:30	1/2	10	CUR. + Survey - Rig Service				
		7:30	12:00	4 1/2	2	DRILL				
						Pick up - 84,000 Slack off - 63,000 Rotate - 73,500				

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-10-83
OPERATOR GRACE Geothermal	CONTRACTOR Anilveat western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE Gordy Hallan		SIGNATURE OF CONTRACTOR'S TOOL PUSHER Howard Leach	
D.P. SIZE 3 1/2 13.80	WT./FT. E	GRADE 4 3/4 IF	STROKE LENGTH 14
TOOL JT O.D. TYPE THREAD	STRING NO.	PUMP NO. 1 (R.D)	PUMP MANUFACTURER F.W.V

FIRM OR DIST. New	COUNTY Humboldt	STATE Nevada	WIRE LINE RECORD	REEL NO.
SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET
LAST CASING TURNING ON LINER	PT. CUT OFF	PRESENT LENGTH		
TON M. OR TRIPS SINCE LAST CUT				
CUMULATIVE TON M. OR TRIPS				

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	BIT	SIZE	DEPTH	TIME	WEIGHT
1	RIG UP AND TIE DOWN			3	8 1/2	75	2	12:00	8.9
2	DRILL ACTUAL	7 1/2	3	1	6 1/4	92.98	8 1/2	8:19	8.9
3	REAMING			2	6 1/4	61.35	FP625	55	58
4	CORING			1	5 1/8	5.28	202020	1	1
5	CONDITION MUD & CIRCULATE			2	6 1/4	216.25	939558	1	1
6	TRIPS		N 1/2	1	X 0	1.68	2393		
7	LUBRICATE RIG		1/2						
8	REPAIR RIG								
9	BIT PIPE DRILLING LINE				BHA	383.59	76 1/2		
10	DEVIATION SURVEY	1/2	1/2						
11	WIRE LINE LOGS								
12	RUN CASING & CEMENT								
13	WAIT ON CEMENT								
14	NEEPL UP B.O.P.								
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FISHING								
20	DR. WORK								
21									
22									
23									
COMPLETION				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
A	PERF'N'G			1	8 1/2	175	2	9:00	12.00
B	TRO TRIPS			3	6 1/4	92.98	8 1/2	9:00	9.00
C	TREATING			1	5 1/8	5.30	Lead		
D	SWABBING			2	6 1/4	61.35	FP625	50	47
E	TESTING			1	5 1/8	5.28	202020	1	1
F	ADDITIONAL			2	6 1/4	216.25	939558	1	1
G				1	X 0	1.68	2393		
				BHA		383.59	83 1/2		
				STANDS DP		2557			
				SINGLES DP		30.55			
				KELLY DOWN		37			
				TOTAL		2908			
				WT. OF STRING		74,000			

FOOTAGE		DR. D. R.H. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2809		0			108	6000	600	5 1/2	55	
	2851				116	5000	600			

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2851		12°							
TIME LOG									
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
12:00	4:30			DRILL					
4:30	5:00			C.I.R.O. Survey 12° @ 2851					
Pick up = 82,000									
Rotate = 73,500									
Stack - of F = 62,000									

FOOTAGE		DR. D. R.H. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2851	2908	4			110	6000	600	5 1/2	55	6 1/2 P.H. 5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2881		12°							
TIME LOG									
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
9:00	9:00		2	Only 10 1/2" Hole					
9:10	9:30	1/2	10	C.I.R.O. Survey					
9:30	10:00	1/2	7	Service Rig					
10:00	1:00	1	2	Drill 8 1/2" Hole					
Fuel 13.4 - 25000									
25.3 45000									
instead 0.50									
7400									

FOOTAGE		DR. D. R.H. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2908	2923	D			110	6000	600	5 1/2	55	6 1/2 P.H. 5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2912		12 1/4°							
TIME LOG									
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
4:00	4:30	1/2	2	Drill					
4:30	5:00	1/2	10	C.I.R.O. + Survey					
5:00	7:10	2 1/2	2	Drill					
7:30	12:00	4 1/2	6	Trip out - change BHA - Trip in					

FOOTAGE		DR. D. R.H. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2908	2923	D			110	6000	600	5 1/2	55	6 1/2 P.H. 5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2912		12 1/4°							
TIME LOG									
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
4:00	4:30	1/2	2	Drill					
4:30	5:00	1/2	10	C.I.R.O. + Survey					
5:00	7:10	2 1/2	2	Drill					
7:30	12:00	4 1/2	6	Trip out - change BHA - Trip in					

FOOTAGE		DR. D. R.H. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2908	2923	D			110	6000	600	5 1/2	55	6 1/2 P.H. 5

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2912		12 1/4°							
TIME LOG									
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
4:00	4:30	1/2	2	Drill					
4:30	5:00	1/2	10	C.I.R.O. + Survey					
5:00	7:10	2 1/2	2	Drill					
7:30	12:00	4 1/2	6	Trip out - change BHA - Trip in					

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-1-83
OPERATOR GRACE Geothermal	CONTRACTOR Calvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>Jody Gellan</i>		SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>Chuck Seal</i>	
D.P. SIZE 3 1/2	WT. T. 13.70	GRADE E	TOOL JOINT 4 3/4
TYPE THREAD IF	STRING NO.	PUMP NO. 1	PUMP MANUFACTURER BO
		TYPE FXV	STROKE LENGTH 19

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	NORM.	DAY	EVE.	1	BIT 8 1/2	7.25	PT. BIT NO. 1 RR	TIME 6:00	5:00	
1	RIG UP AND TEAR DOWN				1	OPT 7.16	PT. SIZE 8 1/2	WEIGHT 8.8	6:08		
2	DRILL ACTUAL	7	7		1	STB 10 1/4	PT. MFG. Reed	PRESSURE GRADIENT			
3	REAMING				1	D.C. 10 1/4	PT. TYPE FR62J	VISC.-SEC. 10	40		
4	CORING				1	STB 10 1/4	PT. JETS 1/32"	PV/YP			
5	CONDITION MUD & CIRCULATE				2	D.C. 6 1/4	PT. SER. NO. 73763	GELS			
6	TRIPS				1	STB 10 1/4	PT. DEPTH OUT	ML.-CC'S			
7	LUBRICATE RIG	1/2			9	6 1/4 DC	DEPTH IN 2723 RR	PH			
8	REPAIR RIG				1	XO 1.68	TOTAL FTG. 65 1/4	SOLIDS %			
9	ENTERING LINE				1	BHA 390.75	TOTAL HRL. RUN	MUD & CHEMICALS ADDED			
10	DEVIATION SURVEY	1	1/2		1	STANDS DP 2878.80	COND. 1/2" 1/2" GAGE	TYPE AMT. TYPE AMT.			
11	WIRE LINE LOGS				1	SINGLES DP 31.34	OPM/PO-PS				
12	RUN CASING & CEMENT				1	KELLY DOWN 28					
13	WAIT ON CEMENT					TOTAL 2768.55					
14	WIPPLE UP & O.P.					WT. OF STRING 75,000	LBS.				

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
15	TEST B.O.P.				1	BIT 8 1/2	7.25	PT. BIT NO. 3 RR	TIME 9:00	12:00	3:00
16	DRILL STEM TEST				1	6 1/4	7.16	PT. SIZE 8 1/2	WEIGHT 8.9	8.9	8.9
17	PLUG BACK				1	STB 6 1/4	PT. MFG. Reed	PRESSURE GRADIENT			
18	SQUEEZE CEMENT				1	D.C. 10 1/4	PT. TYPE FR62J	VISC.-SEC. 37	37	37	
19	FILING				9	STB 10 1/4	PT. JETS 1/32"	PV/YP			
20	DR. WORK				1	STB 10 1/4	PT. SER. NO. 43556	GELS			
21					1	STB 10 1/4	PT. DEPTH OUT	ML.-CC'S			
22					9	6 1/4 DC	DEPTH IN 2723 RR	PH			
23					1	BHA 390.75	TOTAL FTG. 72 1/2	SOLIDS %			9.5
COMPLETION					1	STANDS DP 2572	TOTAL HRL. RUN	MUD & CHEMICALS ADDED			
A.	PERF'N'G				1	SINGLES DP 30.54	OPM/PO-PS	TYPE AMT. TYPE AMT.			
B.	TRIP				1	KELLY DOWN 34					
C.	TREATING					TOTAL 3019					
D.	SWABBING					WT. OF STRING 86,000	LBS.				
E.	TESTING										
F.	ADDITIONAL										
G.											

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
24	DRILL ACTUAL				1	BIT 8 1/2	7.25	PT. BIT NO. 1 RR	TIME 4:00	8:00	11:30
25	REAMING				1	STB 6 1/4	PT. MFG. Reed	PRESSURE GRADIENT			
26	CORING				1	D.C. 6 1/4	PT. TYPE FR62J	VISC.-SEC. 37	39	43	
27	CONDITION MUD & CIRCULATE				2	STB 6 1/4	PT. JETS 1/32"	PV/YP			
28	TRIPS				1	STB 6 1/4	PT. SER. NO. 73763	GELS			
29	LUBRICATE RIG				9	6 1/4 DC	DEPTH IN 2723 RR	PH			
30	REPAIR RIG				1	XO 1.68	TOTAL FTG. 80 1/4	SOLIDS %			
31	ENTERING LINE				1	BHA 390.75	TOTAL HRL. RUN	MUD & CHEMICALS ADDED			
32	DEVIATION SURVEY				43	STANDS DP 2642.10	COND. 1/2" 1/2" GAGE	TYPE AMT. TYPE AMT.			
33	WIRE LINE LOGS				1	SINGLES DP 30.82	OPM/PO-PS				
34	RUN CASING & CEMENT				1	KELLY DOWN 79					
35	WAIT ON CEMENT					TOTAL 3081					
36	WIPPLE UP & O.P.					WT. OF STRING 75,000	LBS.				

FOOTAGE		DR.-D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2923			D		116	10,000	600	5 1/2	85	

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2950			1 1/2							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
2:00	4:00			DRILL
4:00	5:00			DRILL
5:00	8:00			DRILL

pick up 85,000
potato 75,000
slack off 65,100
DRILLER *Chuck Seal*

FOOTAGE		DR.-D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
2968	3018		D		100	10,000	600	5 1/2	55	6 1/2

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2981			1 1/2	TEMP 160°						

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	1/2	7	Big Service
8:30	10:30	2	2	Drill 8 1/2 Hole
10:30	11:00	1/2	10	Drill 8 1/2 Hole
11:00	4:00	5	2	Drill 8 1/2 Hole

Fuel #1 2.94
#2 5.34
DRILLER *Chuck Seal*

FOOTAGE		DR.-D. R.M.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. 1	PUMP NO. 2	METHOD RUN
FROM	TO									
3018	3081		D		100	10,000	600	5 1/2	55	6 1/2

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4:00	12:00		8	2						

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8	2	Drill

DRILLER *Casey Handley*

LEASE **45-14** WELL NO. **1** API WELL NUMBER **1** DATE **1-12-83**

OPERATOR **GRACE Geothermal** CONTRACTOR **Conwert Western** RIG NO. **5**

SIGNATURE OF OPERATOR'S REPRESENTATIVE **Ward G. Ballan** SIGNATURE OF CONTRACTOR'S TOOL PUSHER **David Leach**

D.P. SIZE **3/4** WT./FT. **13.38** GRADE **E** TOOL JT O.D. **4 3/4** TYPE THREAD **IF** STRING NO. **1** PUMP NO. **1** PUMP MANUFACTURER **BARNER-DENVER** TYPE **FXN** STROKE LENGTH **14**

FIELD OR DIST. **Devie** COUNTY **Humboldt** STATE **Nevada**

WIRE LINE RECORD REEL NO.

LAST CASING TUBING OR LINER SIZE **8 5/8**

PT. CUT OFF **PRESENT LENGTH**

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	MORN.	DAY	EVE.	NO.	BIT NO.	FT.	TIME	WEIGHT	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN				1	8 1/2	7.16	8:00	8.4	8.9
2	DRILL ACTUAL	8	6	4	1	6pt	7.16	8:00	8.4	8.9
3	REAMING				1	D.C. ID 6 1/4	31.00			
4	CORING				1	STB RMR 185	5.28			
5	CONDITION MUD & CIRCULATE				2	D.C. ID 6 1/4	61.98			
6	TRIPS	1 1/2	4		1	STB RMR 185	5.30			
7	LUBRICATE RIG	1/2			1	XO	277.60			
8	REPAIR RIG				1	XO	1.68			
9	CUTTING LINE				1	BHA	390.75			
10	DEVIATION SURVEY				44	STANDS DP	2786.14			
11	WIRE LINE LOGS					SINGLES DP	30.27			
12	RUN CASING & CEMENT					KELLY DOWN	41.2			
13	WAIT ON CEMENT					TOTAL	3167			
14	WIRE LINE LOGS					WT. OF STRING				
15	TEST B.O.P.									
16	DRILL STEM TEST									
17	PLUG BACK									
18	SQUEEZE CEMENT									
19	FISHING									
20	DIL. WORK									
21										
22										
COMPLETION				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
A	PERF'R'YTH				1	8 1/2	7.16	9:00	9.0	9.0
B	TBG TRIPS				1	6pt	7.16	9:00	9.0	9.0
C	TREATING				1	D.C. ID 6 1/4	31.00			
D	SWABBING				1	STB RMR 185	5.28			
E	TESTING				2	D.C. ID 6 1/4	61.98			
F	ADMIT'L				1	STB RMR 185	5.30			
G					1	XO	277.60			
TOTALS				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
DAY WORK TIME SUMMARY (OFFICE USE ONLY)				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
MRS. W/CONTR. D.P.				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
MRS. W/OPR. D.P.				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
MRS. W/D.P.				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
MRS. STANDBY				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
TOTAL DAY WORK				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
NO. OF DAYS FROM RIG TO CUMULATIVE ROTATING HR.				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		
TOTAL MUD COST				NO. DRILLING ASSEMBLY (At end of tour)		BIT RECORD		MUD RECORD		

FOOTAGE FROM **3081** TO **3167** DR. D. R. L. R. CORE. C. **0** CORE NO. **0** FORMATION (SHOW CORE RECOVERY)

ROTARY RPM **85** WT. ON BIT 1000' **2000** PUMP PRESS **600** PUMP NO. 1 LINER SIZE **5 1/2** S.P.M. **55** PUMP NO. 2 LINER SIZE **5 1/2** S.P.M. **55** METHOD RUN **DRILL**

DEVIATION RECORD

DEPTH **3081** DEV. **0** DIRECTION **0** DEPTH **3167** DEV. **0** DIRECTION **0**

TIME LOG FROM **12:00** TO **5:00** ELAPSED TIME **4** HOURS CODE NO. **DRILL** DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS **DRILL**

Pick up - 95,000
Rotate - 77,000
Block off - 62,000

FOOTAGE FROM **3167** TO **3259** DR. D. R. L. R. CORE. C. **0** CORE NO. **0** FORMATION (SHOW CORE RECOVERY)

ROTARY RPM **85** WT. ON BIT 1000' **1200** PUMP PRESS **600** PUMP NO. 1 LINER SIZE **5 1/2** S.P.M. **60** PUMP NO. 2 LINER SIZE **6 1/2** S.P.M. **DRILL** METHOD RUN **DRILL**

DEVIATION RECORD

DEPTH **3167** DEV. **0** DIRECTION **0** DEPTH **3259** DEV. **0** DIRECTION **0**

TIME LOG FROM **8:00** TO **11:00** ELAPSED TIME **3** HOURS CODE NO. **DRILL** DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS **DRILL 8 1/2 Hole**

11:00 11:30 **1/2** 7 **Rig service**
11:30 2:30 **2** 2 **DRILL 8 1/2 Hole**
2:30 4:00 **1 1/2** 6 **TRIP OUT Hole**

Kill speed 200#-28
Circ psi 600#-52

FOOTAGE FROM **3259** TO **3295** DR. D. R. L. R. CORE. C. **0** CORE NO. **0** FORMATION (SHOW CORE RECOVERY)

ROTARY RPM **85** WT. ON BIT 1000' **1520** PUMP PRESS **600** PUMP NO. 1 LINER SIZE **5 1/2** S.P.M. **52** PUMP NO. 2 LINER SIZE **6 1/2** S.P.M. **DRILL** METHOD RUN **DRILL**

DEVIATION RECORD

DEPTH **3259** DEV. **0** DIRECTION **0** DEPTH **3295** DEV. **0** DIRECTION **0**

TIME LOG FROM **4:00** TO **8:00** ELAPSED TIME **4** HOURS CODE NO. **DRILL** DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS **Trip out - trip in**

8:00 12:00 **4** 2 **DRILL**

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-13-83
OPERATOR Grace Geothermal	CONTRACTOR Calvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>Gordon Hollan</i>		SIGNATURE OF CONTRACTOR'S TOOL PUSHER <i>Lawrence Taylor</i>	
D.P. SIZE 3 1/2	WT. IN 13.30	GRADE E	TOOL JT. O.D. TYPE THREAD 4 3/4 IF
STRING NO.	PUMP NO.	PUMP MANUFACTURER GARDNER-DEWEER	TYPE FXN
			STROKE LENGTH 14

FIELD OR DIST. Denio	COUNTY Humboldt	STATE NEVADA	WIRE LINE RECORD	REEL NO.
SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET
REB. TO CEG. HD.	SET AT	SIZE	NO. LINES	PT. CLIPPED
PT. CUT OFF		PRESENT LENGTH		
TON. MI. OR TRIPS SINCE LAST CUT		CUMULATIVE TON. MI. OR TRIPS		

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	DRILLING ASSEMBLY	BIT RECORD	NO.	DRILLING ASSEMBLY	BIT RECORD	MUD RECORD	
1	RIG UP AND TEAR DOWN			1	BIT 8 1/2 .75 FT.	BIT NO. 3	TIME	200	500	8:00	
2	DRILL ACTUAL	8	7 1/2	1	6 1/4 7.16	SIZE 8 1/2	WEIGHT	8.8	8.8	8.8	
3	REAMING			1	6 1/4 5.28	FT. MFG. VAREL	PRESSURE GRADIENT				
4	CORING			1	6 1/4 1.85	FT. TYPE V537	VISC.-SEC.	42	40	41	
5	CONDITION MUD & CIRCULATE	1/2		2	6 1/4 6.198	FT. JETS 1/2" 20 20 20	P.V./P.	7	7	7	
6	TRIPS	1/2		1	6 1/4 5.30	FT. SER. NO. 4637	ORLS	7	7	7	
7	LUBRICATE RIG	1/2		9	6 1/4 277.60	FT. DEPTH OUT 3259	M.-CC'S				
8	REPAIR RIG			1	XO 1.68	TOTAL FTG. TOTAL HRS. RUN	PH				
9	SWABLINE LINE			1	BHA 390.75	TOTAL HRS. RUN 12	SOLIDS %				
10	DEVIATION SURVEY	1/2		48	STANDS DP 253.18	COND. TYP. 1/8" GAGE	MUD & CHEMICALS ADDED				
11	WIRE LINE LOGS			1	SINGLES DP 30.73	OPW. PD.-PH	TYPE	AMT.	TYPE	AMT.	
12	RUN CASING & CEMENT			1	KELLY DOWN 2600		AMT.				
13	WAIT ON CEMENT				TOTAL 3579.65						
14	MAKE UP				WT. OF STRING 77,000	LBS.					

FOOTAGE		DR. D. R.H.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. / LINER SIZE S.P.M.	PUMP NO. / LINER SIZE S.P.M.	METHOD RUN
FROM	TO									
3295	3399		0		90	2000	600	5 1/2 55		

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	12:00	8:00			DRILL					

Pick up - 100,000
Rotate - 79,000
Stack of 65,000

DRILLER *John Christensen*

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1	DRILL STMA TEST			1	BIT 4 1/2 .75 FT.	BIT NO. 3	TIME	4:00	12:00	3:00	
2	PLUG BACK			1	6 1/4 7.16	SIZE 8 1/2	WEIGHT	8.8	8.8	8.4	
3	REPAIR CEMENT			1	6 1/4 37	FT. MFG. VAREL	PRESSURE GRADIENT				
4	REWORK			1	6 1/4 31.10	FT. TYPE V537	VISC.-SEC.	38	39	39	
5	REWORK			2	6 1/4 5.28	FT. JETS 1/2" 20 20 20	P.V./P.	7	7	7	
6	REWORK			2	6 1/4 6.198	FT. SER. NO. 4637	ORLS	7	7	7	
7	REWORK			1	6 1/4 5.30	FT. DEPTH OUT 3259	M.-CC'S				
8	REWORK			9	6 1/4 277.60	FT. DEPTH IN 3259	PH				
9	REWORK			1	XO 1.68	TOTAL FTG. TOTAL HRS. RUN	SOLIDS %				
10	REWORK			1	BHA 390.75	TOTAL HRS. RUN 14 1/2					
11	REWORK			50	STANDS DP 3435	COND. TYP. 1/8" GAGE	MUD & CHEMICALS ADDED				
12	REWORK			1	SINGLES DP 30.62	OPW. PD.-PH	TYPE	AMT.	TYPE	AMT.	
13	REWORK			1	KELLY DOWN 38		AMT.				
14	REWORK				TOTAL 3503.62						
15	REWORK				WT. OF STRING 80,000	LBS.					

FOOTAGE		DR. D. R.H.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. / LINER SIZE S.P.M.	PUMP NO. / LINER SIZE S.P.M.	METHOD RUN
FROM	TO									
3399			0		90	2000	600	5 1/2 52	6 1/2 45	5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	8:00	11:00	3	2	Orig. 8 1/2" Hole					
	11:00	11:30	1/2	7	R.P. Service					
	11:30	4:00	4 1/2	2	Drill 8 1/2" Hole					

Fuel 10.060
25.42

Kills Speed 200 @ 28 stroke
Circ. Pri. 600 52 stroke

DRILLER

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1	TOTALS	8	8	1	BIT 8 1/2 .75 FT.	BIT NO. 3	TIME	4:00	8:00	12:00	
2	DAY WORK TIME SUMMARY (OFFICE USE ONLY)			1	6 1/4 7.16	SIZE 8 1/2	WEIGHT	9.0			
3	HRS. W/CONTR. D.P.			1	6 1/4 37	FT. MFG. VAREL	PRESSURE GRADIENT				
4	HRS. W/OPR. D.P.			1	6 1/4 31.10	FT. TYPE V537	VISC.-SEC.	38			
5	HRS. W/D.P.			1	6 1/4 5.28	FT. JETS 1/2" 20 20 20	P.V./P.	7			
6	HRS. STANDBY			2	6 1/4 6.198	FT. SER. NO. 4637	ORLS	7			
7				1	6 1/4 5.30	FT. DEPTH OUT 3259	M.-CC'S				
8				9	6 1/4 277.60	FT. DEPTH IN 3259	PH				
9				1	XO 1.68	TOTAL FTG. TOTAL HRS. RUN	SOLIDS %				
10				1	BHA 390.75	TOTAL HRS. RUN 23 1/2					
11				51	STANDS DP 3136.25	COND. TYP. 1/8" GAGE	MUD & CHEMICALS ADDED				
12				1	SINGLES DP 30.62	OPW. PD.-PH	TYPE	AMT.	TYPE	AMT.	
13				1	KELLY DOWN 25		AMT.				
14					TOTAL 3551						
15					WT. OF STRING 40,000	LBS.					

FOOTAGE		DR. D. R.H.-R. CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. / LINER SIZE S.P.M.	PUMP NO. / LINER SIZE S.P.M.	METHOD RUN
FROM	TO									
3503	3557		0		90	20	600	5 1/2 55	6 1/2 45	5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
	4:00	8:30	4 1/2	2	Drill Change rotating rubber					
	8:30	9:30	1	21	Change rotating rubber					
	9:30	10:00	1/2	15	Circ. Survey					
	10:00	11:30	1 1/2	6	Trip out 18 strokes D.P.					
	11:30	12:00	1/2	5	Mud at Circ.					

DRILLER *Cathy Handley*

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-14-83
OPERATOR George Cothren	CONTRACTOR Calwest Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE Gordy Hollan		SIGNATURE OF CONTRACTOR'S TOOL PUSHER Howard Paul	
D.P. SIZE	WT. / FT.	GRADE	TOOL JT O.D. TYPE THREAD
			STRING NO.
			PUMP NO.
			PUMP MANUFACTURER
			TYPE
			STROKE LENGTH

FIELD OR DIST. Davis	COUNTY Humboldt	STATE Nevada	WIRE LINE RECORD REEL NO.
SIZE	MAKE	WT. & GR.	NO. JOINTS
			FEET
			REF. TO C&G. NO.
			SET AT
LAST CASING TUBING OR LINER	SIZE	NO. LINES	FT. SLIPPED
			FT. CUT OFF
			PRESENT LENGTH
			TON M. OR TRIPS SINCE LAST CUT
			CUMULATIVE TON M. OR TRIPS

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	BIT NO.	SIZE	TIME	WEIGHT	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN			6	6 1/4	.75			
2	DRILL ACTUAL		7 8						
3	REAMING								
4	CORING								
5	CONDITION MUD & CIRCULATE								
6	TRIPS								
7	LUBRICATE RIG								
8	REPAIR RIG								
9	CUT OFF LING LINE								
10	DEVIATION SURVEY								
11	WIRE LINE LOSS								
12	RUN CASING & CEMENT								
13	WAIT ON CEMENT								
14	WIPPLE UP B.O.P.								
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FISHING								
20	DIR. WORK								
21									
22									
23									
COMPLETION				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
A.	PERF'R/TM			1	8 1/2	.75			
B.	TBD TRIPS								
C.	TREATING								
D.	SWABBING								
E.	TESTING								
F.	ADDT'L								
TOTALS				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
8 8 8'				1	8 1/2	.75			
WELL W/CONTR. D.P.									
WELL W/OPR. D.P.									
WELL W/D.P.									
WELL STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM START OPERATIVE ROTATING WELL				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
10				1	8 1/2	.75			
TOTAL MUD COST				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
				55					

FOOTAGE		DR. D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO											
3551												

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
3537		12:00	12:30	24'		Circ Condition Hole				
		12:30	4:00			Trip out Lay Down starting on a D.C.				
		4:00	8:00			Trip in Break circ. 20 stands in				

FOOTAGE		DR. D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO											
3581	3567		D			60 5000	600	5 1/2	52	6 1/2	44	PMS S

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		8:00	9:00	1	6	Trip in Hole, Brake Circ.				
		9:00	4:00	7	2	2/19				

FOOTAGE		DR. D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
FROM	TO											
3567	3588		D			60 5000	600	5 1/2	52	6 1/2	44	S

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS				
		4:00	12:00	8	2	Drif.				

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-15-88
OPERATOR Space Geothermal	CONTRACTOR Culvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
D.P. SIZE 3/4	WT./FT. 13.30	GRADE E	TOOL JT Q.D. TYPE THREAD 4 3/4 IF
STRING NO.	PUMP NO. 1	PUMP MANUFACTURER Garwood-Denver	TYPE FXW
			CLASS 14

FIELD OR DIST. Denver	COUNTY Humboldt	STATE Neveda	WIRE LINE RECORD REEL NO.
SIZE	MAKE	WT. & GR.	NO. JOINTS
FEET	R.R. TO C.S.G. NO.	SET AT	
LAST CASING TURNING ON LINER		PT. BLIPPED	
PT. CUT OFF		PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT		CUMULATIVE TON MI. OR TRIPS	

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	PT.	BIT NO.	SIZE	TIME	WT.
1	RIG UP AND TEAR DOWN								
2	DRILL ACTUAL	8	2	1	8 1/2	3 1/2	5/2	12:00	8.00
3	REAMING			6	6 1/2	145.05	Varel		8.8
4	CORING						V527		4.4
5	CONDITION MUD & CIRCULATE						01010		4.5
6	TRIPS						4627		
7	LUBRICATE RIG						3259		
8	REPAIR RIG						3259		
9	WIRE LINE SURVEY						47.8		
10	WIRE LINE LOGS	4	8						
11	RUN CASING & CEMENT								
12	WAIT ON CEMENT								
13	NIPPLE UP & D.P.								
14	TEST B.P.								
15	DRILL STEM TEST								
16	PLUG BACK								
17	SQUEEZE CEMENT								
18	FISHING								
19	DIR. WORK								
20	DIR. WORK								
21	DIR. WORK								
22	DIR. WORK								
23	DIR. WORK								
24	DIR. WORK								
TOTALS									
DAY WORK TIME (OFFICE USE ONLY)									
HRS. W/CONTR. D.P.									
HRS. W/OPR. D.P.									
HRS. W/D.P.									
HRS. STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM START CONSECUTIVE ROTATING HRS.									
TOTAL MUD COST									

FOOTAGE		DR. D. R.L.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. 1	PUMP NO. 2	METHOD RUN	
FROM	TO							LINE SIZE	S.P.M.	LINE SIZE	S.P.M.
3588	3602		D		60	5000	500	5 1/2	55		
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
		12:00	8:00	8	2	DRILL - condition Hole For Logs					
DRILLER: <i>[Signature]</i>											

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	PT.	BIT NO.	SIZE	TIME	WT.
1	RIG UP AND TEAR DOWN								
2	DRILL ACTUAL			1	8 1/2	3 1/2	8 1/2	9:00	1300
3	REAMING			6	6 1/2	145.05	Varel		240
4	CORING						V527		
5	CONDITION MUD & CIRCULATE						4637		
6	TRIPS						3610		
7	LUBRICATE RIG						3259		
8	REPAIR RIG						3259		
9	WIRE LINE SURVEY						47.8		
10	WIRE LINE LOGS								
11	RUN CASING & CEMENT								
12	WAIT ON CEMENT								
13	NIPPLE UP & D.P.								
14	TEST B.P.								
15	DRILL STEM TEST								
16	PLUG BACK								
17	SQUEEZE CEMENT								
18	FISHING								
19	DIR. WORK								
20	DIR. WORK								
21	DIR. WORK								
22	DIR. WORK								
23	DIR. WORK								
24	DIR. WORK								
TOTALS									
DAY WORK TIME (OFFICE USE ONLY)									
HRS. W/CONTR. D.P.									
HRS. W/OPR. D.P.									
HRS. W/D.P.									
HRS. STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM START CONSECUTIVE ROTATING HRS.									
TOTAL MUD COST									

FOOTAGE		DR. D. R.L.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. 1	PUMP NO. 2	METHOD RUN	
FROM	TO							LINE SIZE	S.P.M.	LINE SIZE	S.P.M.
3602	3610		D		60	5000	600	5 3/8	58	4 1/2	45
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
		9:00	10:00	2	2	Drily - 3610					
		10:00	11:00	1	5	Circulate and condition Hole For Logs					
		11:00	12:00	1	6	Trip out For Logs					
		12:00	4:00	4	11	Rig up loggers & Logging					
DRILLER: <i>[Signature]</i>											

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	NO.	PT.	BIT NO.	SIZE	TIME	WT.
1	RIG UP AND TEAR DOWN								
2	DRILL ACTUAL								
3	REAMING								
4	CORING								
5	CONDITION MUD & CIRCULATE								
6	TRIPS								
7	LUBRICATE RIG								
8	REPAIR RIG								
9	WIRE LINE SURVEY								
10	WIRE LINE LOGS								
11	RUN CASING & CEMENT								
12	WAIT ON CEMENT								
13	NIPPLE UP & D.P.								
14	TEST B.P.								
15	DRILL STEM TEST								
16	PLUG BACK								
17	SQUEEZE CEMENT								
18	FISHING								
19	DIR. WORK								
20	DIR. WORK								
21	DIR. WORK								
22	DIR. WORK								
23	DIR. WORK								
24	DIR. WORK								
TOTALS									
DAY WORK TIME (OFFICE USE ONLY)									
HRS. W/CONTR. D.P.									
HRS. W/OPR. D.P.									
HRS. W/D.P.									
HRS. STANDBY									
TOTAL DAY WORK									
NO. OF DAYS FROM START CONSECUTIVE ROTATING HRS.									
TOTAL MUD COST									

FOOTAGE		DR. D. R.L.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. 1	PUMP NO. 2	METHOD RUN	
FROM	TO							LINE SIZE	S.P.M.	LINE SIZE	S.P.M.
DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG		FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS					
		4:00	11:30	7 1/2	11	Log hole					
		11:30	12:00	1/2	11	Rig down loggers					
DRILLER: <i>[Signature]</i>											

LEASE 45-14	WELL NO.	API WELL NUMBER	DATE 1-17-83
OPERATOR GRACE Petroleum	CONTRACTOR Calvert Western		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE <i>Nordy Tolan</i>	SIGNATURE OF CONTRACTOR'S TOOL PUSHER		
D.P. SIZE 3/2	WT./FT. 13.50	GRADE E	TOOL JT O.D. 4 3/4
TYPE THREAD 1 1/2	STRING NO.	PUMP NO.	PUMP MANUFACTURER BARANCA-DeWitt
			TYPE FXW
			STROKES PER MIN. 14

FIELD OR DIST. David	COUNTY Humboldt	STATE Nevada	WIRE LINE RECORD REEL NO.
SIZE	MAKE	WT. & GR.	NO. JOINTS
FEET	REA. TO CSG. NO.	SET AT	
LAST CASING TURNING OR LINER		FT. CUT OFF	
		PRESENT LENGTH	
		TON M. OR TRIPS SINCE LAST CUT	
		CUMULATIVE TON M. OR TRIPS	

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE	OPERATION	MORN.	DAY	NO.	DRILLING ASSEMBLY	BIT NO.	SIZE	TIME	WEIGHT	PRESSURE GRADIENT	VISC.-SEC.
1	RIG UP AND TEAR DOWN			1	BIT 8 1/2	2 RR	8 1/2	2:00	5:00	7:30	
2	DRILL ACTUAL	4	7	6	D.C. ID 6 1/4	REED	145.05	49	44	45	
3	REAMING				STB RMR OD	FP22J					
4	CORING				D.C. ID	OPEN					
5	CONDITION MUD & CIRCULATE	1	7		STB RMR OD	939558					
6	TRIPS			1	STB RMR OD		3610				
7	LUBRICATE RIG				DEPTH IN						
8	REPAIR RIG				DEPTH IN						
9	CHLORIDE DRILLING LINE				DEPTH IN						
10	DEVIATION SURVEY				TOTAL FTG.						
11	WIRE LINE LOGS				TOTAL HRS RUN						
12	RUN CASING & CEMENT				COND. 1/2" 1/8" GAGE						
13	WAIT ON CEMENT				COND. 1/2" 1/8" GAGE						
14	SHUDDLE UP B.O.P.				COND. 1/2" 1/8" GAGE						
15	TEST B.O.P.				COND. 1/2" 1/8" GAGE						
16	DRILL STEM TEST				COND. 1/2" 1/8" GAGE						
17	PLUG BACK				COND. 1/2" 1/8" GAGE						
18	SQUEEZE CEMENT				COND. 1/2" 1/8" GAGE						
19	FISHING				COND. 1/2" 1/8" GAGE						
20	DIR. WORK				COND. 1/2" 1/8" GAGE						
21					COND. 1/2" 1/8" GAGE						
22					COND. 1/2" 1/8" GAGE						
23					COND. 1/2" 1/8" GAGE						

FOOTAGE		DR. D. R.M.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO												
3676	3689		D			50	5000	620	5 1/2	55			

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
2:00	8:00	8	2	DRILL						

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1	DRILL ACTUAL			1	BIT 8 1/2	2 RR	8 1/2	9:00	12:00	3:00	
2	DRILL ACTUAL			6	D.C. ID 6 1/4	REED	145.05	49	44	45	
3	REAMING				STB RMR OD	FP22J					
4	CORING				D.C. ID	OPEN					
5	CONDITION MUD & CIRCULATE				STB RMR OD	939558					
6	TRIPS			1	STB RMR OD		3610				
7	LUBRICATE RIG				DEPTH IN						
8	REPAIR RIG				DEPTH IN						
9	CHLORIDE DRILLING LINE				DEPTH IN						
10	DEVIATION SURVEY				TOTAL FTG.						
11	WIRE LINE LOGS				TOTAL HRS RUN						
12	RUN CASING & CEMENT				COND. 1/2" 1/8" GAGE						
13	WAIT ON CEMENT				COND. 1/2" 1/8" GAGE						
14	SHUDDLE UP B.O.P.				COND. 1/2" 1/8" GAGE						
15	TEST B.O.P.				COND. 1/2" 1/8" GAGE						
16	DRILL STEM TEST				COND. 1/2" 1/8" GAGE						
17	PLUG BACK				COND. 1/2" 1/8" GAGE						
18	SQUEEZE CEMENT				COND. 1/2" 1/8" GAGE						
19	FISHING				COND. 1/2" 1/8" GAGE						
20	DIR. WORK				COND. 1/2" 1/8" GAGE						
21					COND. 1/2" 1/8" GAGE						
22					COND. 1/2" 1/8" GAGE						
23					COND. 1/2" 1/8" GAGE						

FOOTAGE		DR. D. R.M.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO												
3689	3703		D			50	5000	600	5 1/2	52	6 1/2	PITS	5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
8:00	3:00	7	2	d/dg						
3:00	4:00	1	5	circulate and condition hole for tubing						

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
1	DRILL ACTUAL			1	BIT 8 1/2	2 RR	8 1/2	11:30			
2	DRILL ACTUAL			6	D.C. ID 6 1/4	REED	145.05	45			
3	REAMING				STB RMR OD	FP22J					
4	CORING				D.C. ID	OPEN					
5	CONDITION MUD & CIRCULATE				STB RMR OD	939558					
6	TRIPS			1	STB RMR OD		3610				
7	LUBRICATE RIG				DEPTH IN						
8	REPAIR RIG				DEPTH IN						
9	CHLORIDE DRILLING LINE				DEPTH IN						
10	DEVIATION SURVEY				TOTAL FTG.						
11	WIRE LINE LOGS				TOTAL HRS RUN						
12	RUN CASING & CEMENT				COND. 1/2" 1/8" GAGE						
13	WAIT ON CEMENT				COND. 1/2" 1/8" GAGE						
14	SHUDDLE UP B.O.P.				COND. 1/2" 1/8" GAGE						
15	TEST B.O.P.				COND. 1/2" 1/8" GAGE						
16	DRILL STEM TEST				COND. 1/2" 1/8" GAGE						
17	PLUG BACK				COND. 1/2" 1/8" GAGE						
18	SQUEEZE CEMENT				COND. 1/2" 1/8" GAGE						
19	FISHING				COND. 1/2" 1/8" GAGE						
20	DIR. WORK				COND. 1/2" 1/8" GAGE						
21					COND. 1/2" 1/8" GAGE						
22					COND. 1/2" 1/8" GAGE						
23					COND. 1/2" 1/8" GAGE						

FOOTAGE		DR. D. R.M.-R. CORE. C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO												
3703													

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS						
4:00	4:30	2 1/2	5	Circ. + cond. hole						
6:30	7:30	1	6	Trip out 30 studs						
7:30	12:00	4 1/2	5	Circ. + cond. hole						

NO. OF DAYS FROM SPUD
13

TOTAL MUD COST

DRILLER *Cory Handley*

LEASE 45-14 WELL NO. API WELL NUMBER DATE 1-18-83

OPERATOR *Gma Geothermal* CONTRACTOR *Calvert Western* RIG NO. 5

SIGNATURE OF OPERATOR'S REPRESENTATIVE *Jody Gallan* SIGNATURE OF CONTRACTOR'S TOOL PUSHER

D.P. REG. 3/2 WT. 13.76 GRADE E TOOL JT. 5/8 TYPE TREAD 1E STRING NO. PUMP NO. 1 PUMP MANUFACTURER B-P. TYPE F&W STROKES PER MIN. 14

FIELD OR DIST. *Paria* COUNTY *Hancock* STATE *Alabama*

WIRE LINE RECORD REEL NO. SIZE MAKE WT. & GR. NO. JOINTS FEET RKB TO CSO. NO. SET AT

LAST CASING TUBING OR LINER

PT. CUT OFF PRESENT LENGTH

TON. M. OR TRIPS SINCE LAST CUT CUMULATIVE TON. M. OR TRIPS

TIME DISTRIBUTION - HOURS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	PT.	FT.	BIT NO.	SIZE	TIME	WEIGHT
1	RIG UP AND TEAR DOWN					2 RR	8 1/2		
2	DRILL ACTUAL					REED	8 1/2		
3	REAMING					FR62J	8 1/2		
4	CORING					93958	8 1/2		
5	CONDITION MUD & CIRCULATE	8:30							
6	TRIPS	8:30							
7	LUBRICATE RIG								
8	REPAIR RIG								
9	CHILLING LINE								
10	DEVIATION SURVEY								
11	WIRE LINE LOGS								
12	RUN CASING & CEMENT								
13	WAIT ON CEMENT								
14	HUFFLE UP B.O.P.								
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FINISH								
20	DIR. WORK								
21	Lay Down Dr	4:19							
22									
COMPLETION				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
A	PERF'ITH								
B	TBO TRIPS								
C	TREATING								
D	SWABBING								
E	TESTING								
F	ADDITIONL								
G									
TOTALS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
DAY WORK TIME SUMMARY (OFFICE USE ONLY)				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
MRS. W/CONTR. D.P.				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
MRS. W/OPR. D.P.				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
MRS. W/D.P.				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
MRS. STANDBY				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
TOTAL DAY WORK				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
NO. OF DAYS FROM MUD CUMULATIVE ROTARY HRS				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
TOTAL MUD COST				NO. DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	

FOOTAGE		DR. D. R.H.-R. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										
3703											

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
12:00	8:00			Circ wait on tubing 30 hrs off Bottom

FOOTAGE		DR. D. R.H.-R. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										
3703								400	62	62	AS 5

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
8:00	10:00	2	5	Circulate and condition Hole For tubing
10:00	10:30	30	6	TRIP IN 30 STANDS TO BOTTOM NO FILL
10:30	11:00	18	5	Circulate and condition Hole
12:00	4:00	4	81	TRIP OUT AND LAY DOWN DRILL PIPE

FOOTAGE		DR. D. R.H.-R. CORE. C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO										

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
FROM	TO			
4:00	8:00	1 1/2	21	Lay down D.C. Break Kelly
5:00	8:00	3	14	Huffe down
8:00	9:00	1	22	Strap 119 fts tubing
9:00	12:00	3	6	Rig up to run tubing + run tubing - fill with 10 fts.

OPERATOR George Beethoven		CONTRACTOR Calwest Western		RIG NO. 5	FIELD OR DIST. Davis	COUNTY Humboldt	STATE Nevada	WIRE LINE RECORD REEL NO.	
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER			SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET
D.P. SIZE 3 1/2	WT./FT. 13.30	GRADE E	TOOL JT. O.D. 4 3/4	TYPE THREAD 1 1/2	STRING NO.	PUMP NO. 1	PUMP MANUFACTURER GP-	TYPE FXV	STROKE LENGTH 14
					LAST CASING TUBING OR LINER 2 3/8	NO. LINES	PT. SKIPPED	PT. CUT OFF	
					TON MI. OR TRIPS SINCE LAST CUT		PRESENT LENGTH		
					CUMULATIVE TON MI. OR TRIPS				

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of hour)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	NORM.	DAY	REVE.	BIT	FT.	BIT NO.	SIZE	WEIGHT	TIME		
1	RIG UP AND TEAR DOWN		8	8								
2	DRILL ACTUAL				STB RMR	OD	FT.	MFG.	PRESSURE GRADIENT			
3	REAMING				D.C. ID	OD	FT.	TYPE	VISC.-SEC.			
4	CORING				STB RMR	OD	FT.	JETS 1/32"	PV/YP			
5	CONDITION MUD & CIRCULATE				D.C. ID	OD	FT.	SER. NO.	GELS			
6	TRIPS				STB RMR	OD	FT.	DEPTH OUT	WL.-CC'S			
7	LUBRICATE RIG							DEPTH IN	pH			
8	REPAIR RIG							TOTAL FTG.	SOLIDS %			
9	CUT OFF DRILLING LINE				STANDS DP	FT.		COND. 1/8" 1/8" GAGE	MUD & CHEMICALS ADDED			
10	DEVIATION SURVEY				SINGLES DP	FT.		OPM/ PD-PS	TYPE	AMT.	TYPE	AMT.
11	WIRE LINE LOGS				KELLY DOWN	FT.						
12	RUN CASING & CEMENT				TOTAL	FT.						
13	WAIT ON CEMENT				WT. OF STRING	LBS.						
14	NIPPLE UP B.O.P.											
15	TEST B.O.P.											
16	DRILL STEM TEST											
17	PLUG BACK											
18	SQUEEZE CEMENT				STB RMR	OD	FT.	MFG.	PRESSURE GRADIENT			
19	FISHING				D.C. ID	OD	FT.	TYPE	VISC.-SEC.			
20	DIR. WORK				STB RMR	OD	FT.	JET 1/8"	PV/YP			
21					D.C. ID	OD	FT.	SER. NO.	GELS			
22					STB RMR	OD	FT.	DEPTH OUT	WL.-CC'S			
23								DEPTH IN	pH			
	A. PERP'Y'N							TOTAL FTG.	SOLIDS %			
	B. TSD TRIPS							TOTAL HRS. RUN				
	C. TREATING				STANDS DP	FT.		COND. 1/8" 1/8" GAGE	MUD & CHEMICALS ADDED			
	D. SWABBING				SINGLES DP	FT.		OPM/ PD-PS	TYPE	AMT.	TYPE	AMT.
	E. TESTING				KELLY DOWN	FT.						
	F. ADDIT'WL				TOTAL	FT.						
	G.				WT. OF STRING	LBS.						
TOTALS				8								
DAY WORK TIME ELEMENTARY (OFFICE USE ONLY)												
	HRS. W/CONTR. O.P.				STB RMR	OD	FT.	MFG.	PRESSURE GRADIENT			
	HRS. W/OPR. D.P.				D.C. ID	OD	FT.	TYPE	VISC.-SEC.			
	HRS. W/O.P.				STB RMR	OD	FT.	JETS 1/32"	PV/YP			
	HRS. STANDBY				D.C. ID	OD	FT.	SER. NO.	GELS			
					STB RMR	OD	FT.	DEPTH OUT	WL.-CC'S			
								DEPTH IN	pH			
								TOTAL FTG.	SOLIDS %			
								TOTAL HRS. RUN				
	TOTAL DAY WORK				STANDS DP	FT.		COND. 1/8" 1/8" GAGE	MUD & CHEMICALS ADDED			
					SINGLES DP	FT.		OPM/ PD-PS	TYPE	AMT.	TYPE	AMT.
					KELLY DOWN	FT.						
					TOTAL	FT.						
	NO. OF DAYS FROM SPUD			15	WT. OF STRING	LBS.						
	CUMULATIVE ROTATING HRS.											
	TOTAL MUD COST											

FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO.	PUMP NO.	METHOD RUN	
FROM	TO			DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
DEVIATION RECORD												
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO											
12:00	2:30			Run tubing to 3689' 116 JTs 2 3/8 EUE - set @ 3689' 5.5'								
2:30	8:00			Wash pumps & pits - fill tubing w/ water								
												DRILLER <i>Ed Hansen</i>
FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO.	PUMP NO.	METHOD RUN	
FROM	TO			DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
DEVIATION RECORD												
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO											
8:00	4:00	8	1	TEAR DOWN								
												DRILLER <i>Charles Cole</i>
FOOTAGE		DR. D. RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000'	PUMP PRESS	PUMP NO.	PUMP NO.	METHOD RUN	
FROM	TO			DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
DEVIATION RECORD												
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO											
6:00	10:00	8	1	Rig down								
10:00	6:00	8	1	Rig down								
												DRILLER <i>Cosy Handley</i>

46-14

1-20-83

11-31

OPERATOR
Grace Geo.
SIGNATURE OF OPERATOR'S REPRESENTATIVE

CONTRACTOR
Calvert Western Exp.
SIGNATURE OF CONTRACTOR'S TOOL PUSHER

FIELD OR DIST. COUNTY STATE **Nevada**
WIRE LINE RECORD REEL NO. SIZE 1 NO. LINES 8 FT. CUT OFF PRESENT LENGTH
TON IN. OR TRIPS SINCE LAST CUT CUMULATIVE TON IN. OR TRIPS

D.P. WEE	WT./FT.	GRADE	TOOL JT O.D.	TYPE	THREAD	STRING NO.	PUMP NO.	PUMP MANUFACTURER	TYPE	STROKES PER MIN.
3 1/2	13.20	5	4 3/4	IF	1	1	2	Cordner Denver	EXN	14

TIME DISTRIBUTION - HOURS				DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	MORN.	DAY	EVE.	BIT	FT.	BIT NO.	TIME	WEIGHT
1	RIG UP AND TEAR DOWN		8	8	STB RMR OD		PT. MFG.		PRESSURE GRADIENT
2	DRILL ACTUAL				D.C. ID OD		PT. TYPE		VISC.-SEC.
3	REAMING				STB RMR OD		PT. JETS 1/32"		PV/YP
4	CONING				D.C. ID OD		PT. SER. NO.		GELS
5	CONDITION MUD & CIRCULATE				STB RMR OD		PT. DEPTH OUT		ML -CC'S
6	TRIPS						DEPTH IN		pH
7	LUBRICATE RIG						TOTAL FTG.		SOLIDS %
8	REPAIR RIG						TOTAL HRS. RUN		
9	SWELLING LINE				STANDS DP	FT.	COND. 1/8" 1/8" GAGE		MUD & CHEMICALS ADDED
10	DEVIATION SURVEY				SINGLES DP	FT.	OPM/ PD-PH		TYPE AMT. TYPE AMT.
11	WIRE LINE LOGS				KELLY DOWN	FT.			
12	RUN CASINO & CEMENT				TOTAL	FT.			
13	WAIT ON CEMENT				WT. OF STRING	LBS.			
14	NIFFLE UP B.O.P.								
15	TEST B.O.P.								
16	DRILL STEM TEST								
17	PLUG BACK								
18	SQUEEZE CEMENT								
19	FISHING								
20	DIR. WORK								
21									
22									
23									
COMPLETION				A. PERFORATION					
				B. TRO TRIPS					
				C. TREATING					
				D. SWABBING					
				E. TESTING					
				F. ADDIT'L					
				G.					

TOTALS				DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
DAY WORK TIME (STANDARD OFFICE USE ONLY)				BIT	FT.	BIT NO.	TIME	WEIGHT	PRESSURE GRADIENT
8	8			STB RMR OD		PT. MFG.			PRESSURE GRADIENT
HRS. W/CONTR. D.P.				D.C. ID OD		PT. TYPE			VISC.-SEC.
HRS. W/OPR. D.P.				STB RMR OD		PT. JETS 1/32"			PV/YP
HRS. W/O D.P.				D.C. ID OD		PT. SER. NO.			GELS
HRS. STANDBY				STB RMR OD		PT. DEPTH OUT			ML -CC'S
						DEPTH IN			pH
						TOTAL FTG.			SOLIDS %
						TOTAL HRS. RUN			
				STANDS DP	FT.	COND. 1/8" 1/8" GAGE			MUD & CHEMICALS ADDED
				SINGLES DP	FT.	OPM/ PD-PH			TYPE AMT. TYPE AMT.
				KELLY DOWN	FT.				
				TOTAL	FT.				
				WT. OF STRING	LBS.				
NO. OF DAYS FROM RIG									
CUMULATIVE ROTATING HRS.									
TOTAL MUD COST									

FOOTAGE		DR. D. RMR-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO											

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS							
			Move Rig to Dev. D							

FOOTAGE		DR. D. RMR-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)		ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	PUMP NO. S.P.M. LINER SIZE	METHOD RUN
FROM	TO											

DEVIATION RECORD		DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	
TIME LOG	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
8:00	4:00	8	1	Rig Down + move rig.							

Form 3T-4



PRINTED IN U.S.A.



APPROVED

IADC - API OFFICIAL DAILY DRILLING REPORT FORM

DRILLER **Conroy Handley**

LEASE NS-14	WELL NO.	API WELL NUMBER	DATE 1-21-83
OPERATOR Grace Geo.	CONTRACTOR Calvert Western Expl.		RIG NO. 5
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
D.P. SIZE 3 1/2	WT./FT. 13.20	GRADE E	TOOL JT. Q.D. TYPE THREAD H2 1/4 IF
STRING NO. 1	PUMP NO. 2	PUMP MANUFACTURER Gardner Denver	TYPE FXN
		STROKE LENGTH 14	

FIELD OR DIST.	COUNTY	STATE Nevada	WIRE LINE RECORD REEL NO.
SIZE	MAKE	WT. & GR.	NO. LINES 8
NO. JOINTS	FEET	RER. TO CIG. NO.	PT. SKIPPED
LAST CASING TYPING OR LINER		SET AT	PT. CUT OFF
			PRESENT LENGTH
TON ML. OR TRIPS SINCE LAST CUT			
CUMULATIVE TON ML. OR TRIPS			

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD		
CODE NO.	OPERATION	NORM.	DAY	EVG.	BIT	PT.	BIT NO.	SIZE	TIME	WEIGHT	PRESSURE GRADIENT	
1	RIG UP AND TEAR DOWN			9 1/2								
2	DRILL ACTUAL				STB RMR	OD	PT. MFG.					
3	REAMING				D.C. ID	OD	PT. TYPE					
4	COWING				STB RMR	OD	PT. JETS 1/32"					
5	CONDITION MUD & CIRCULATE				D.C. ID	OD	PT. SER. NO.					
6	TRIPS				STB RMR	OD	PT. DEPTH OUT					
7	LUBRICATE RIG						DEPTH IN					
8	REPAIR RIG						TOTAL FTG.					
9	CUT PIPE LINE						TOTAL HRS. RUN					
10	DEVIATION SURVEY				STANDS DP	FT.	COND. 1/8" T/B GAGE					
11	WIRE LINE LOGS				SINGLES DP	FT.	GPM/ PD-PSI					
12	RUN CASING & CEMENT				KELLY DOWN	FT.						
13	WAIT ON CEMENT				TOTAL	FT.						
14	RIFFLE UP B.O.P.				WT. OF STRING	LBS.						
15	TEST B.O.P.											
16	DRILL STEM TEST											
17	PLUG BACK											
18	SQUEEZE CEMENT				STB RMR	OD	PT. MFG.					
19	FISHING				D.C. ID	OD	PT. TYPE					
20	DIR. WORK				STB RMR	OD	PT. JET 1/32"					
21					D.C. ID	OD	PT. SER. NO.					
22					STB RMR	OD	PT. DEPTH OUT					
COMPLETION							DEPTH IN					
							TOTAL FTG.					
							TOTAL HRS. RUN					
							COND. 1/8" T/B GAGE					
				SINGLES DP	FT.	GPM/ PD-PSI						
				KELLY DOWN	FT.							
				TOTAL	FT.							
				WT. OF STRING	LBS.							

FOOTAGE		DR. D. RA-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO											
DEVIATION RECORD				DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO			3002 Rig to Reno								

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	NORM.	DAY	EVG.	BIT	PT.	BIT NO.	SIZE	TIME	WEIGHT	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN										
2	DRILL ACTUAL				STB RMR	OD	PT. MFG.				
3	REAMING				D.C. ID	OD	PT. TYPE				
4	COWING				STB RMR	OD	PT. JETS 1/32"				
5	CONDITION MUD & CIRCULATE				D.C. ID	OD	PT. SER. NO.				
6	TRIPS				STB RMR	OD	PT. DEPTH OUT				
7	LUBRICATE RIG						DEPTH IN				
8	REPAIR RIG						TOTAL FTG.				
9	CUT PIPE LINE						TOTAL HRS. RUN				
10	DEVIATION SURVEY				STANDS DP	FT.	COND. 1/8" T/B GAGE				
11	WIRE LINE LOGS				SINGLES DP	FT.	GPM/ PD-PSI				
12	RUN CASING & CEMENT				KELLY DOWN	FT.					
13	WAIT ON CEMENT				TOTAL	FT.					
14	RIFFLE UP B.O.P.				WT. OF STRING	LBS.					
15	TEST B.O.P.										
16	DRILL STEM TEST										
17	PLUG BACK										
18	SQUEEZE CEMENT				STB RMR	OD	PT. MFG.				
19	FISHING				D.C. ID	OD	PT. TYPE				
20	DIR. WORK				STB RMR	OD	PT. JET 1/32"				
21					D.C. ID	OD	PT. SER. NO.				
22					STB RMR	OD	PT. DEPTH OUT				
COMPLETION							DEPTH IN				
							TOTAL FTG.				
							TOTAL HRS. RUN				
							COND. 1/8" T/B GAGE				
				SINGLES DP	FT.	GPM/ PD-PSI					
				KELLY DOWN	FT.						
				TOTAL	FT.						
				WT. OF STRING	LBS.						

FOOTAGE		DR. D. RA-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO											
DEVIATION RECORD				DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO			8:00 9:30 9 1/2 1 Rig down - Move Rig - Fence RESERVED								

TIME DISTRIBUTION - HOURS				NO.		DRILLING ASSEMBLY (At end of tool)		BIT RECORD		MUD RECORD	
CODE NO.	OPERATION	NORM.	DAY	EVG.	BIT	PT.	BIT NO.	SIZE	TIME	WEIGHT	PRESSURE GRADIENT
1	RIG UP AND TEAR DOWN										
2	DRILL ACTUAL				STB RMR	OD	PT. MFG.				
3	REAMING				D.C. ID	OD	PT. TYPE				
4	COWING				STB RMR	OD	PT. JETS 1/32"				
5	CONDITION MUD & CIRCULATE				D.C. ID	OD	PT. SER. NO.				
6	TRIPS				STB RMR	OD	PT. DEPTH OUT				
7	LUBRICATE RIG						DEPTH IN				
8	REPAIR RIG						TOTAL FTG.				
9	CUT PIPE LINE						TOTAL HRS. RUN				
10	DEVIATION SURVEY				STANDS DP	FT.	COND. 1/8" T/B GAGE				
11	WIRE LINE LOGS				SINGLES DP	FT.	GPM/ PD-PSI				
12	RUN CASING & CEMENT				KELLY DOWN	FT.					
13	WAIT ON CEMENT				TOTAL	FT.					
14	RIFFLE UP B.O.P.				WT. OF STRING	LBS.					
15	TEST B.O.P.										
16	DRILL STEM TEST										
17	PLUG BACK										
18	SQUEEZE CEMENT				STB RMR	OD	PT. MFG.				
19	FISHING				D.C. ID	OD	PT. TYPE				
20	DIR. WORK				STB RMR	OD	PT. JET 1/32"				
21					D.C. ID	OD	PT. SER. NO.				
22					STB RMR	OD	PT. DEPTH OUT				
COMPLETION							DEPTH IN				
							TOTAL FTG.				
							TOTAL HRS. RUN				
							COND. 1/8" T/B GAGE				
				SINGLES DP	FT.	GPM/ PD-PSI					
				KELLY DOWN	FT.						
				TOTAL	FT.						
				WT. OF STRING	LBS.						

FOOTAGE		DR. D. RA-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000+	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
FROM	TO											
DEVIATION RECORD				DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
TIME LOG		ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS								
FROM	TO			8:00 9:30 9 1/2 1 Rig down - Move Rig - Fence RESERVED								

TOTAL MUD COST

WT. OF STRING

LIBS

DRILLER

Casey Handley