THERMAL POWER COMPANY

GL04429_7

WELL NO.	CTGH 1
AFE NO.	
REPORT NO.	80
DATE	7 SEPT 86
TOTAL RIG DAYS	80
TIME FROM SPUD	
DEPTH @ 2400 HRS.	4800
FOOTAGE DRLD.	
HRS. DRILLED	
HRS. TRIPPED	
HRS. OTHER	
COOLING TOWER IN USE,	YES ☐ NO ☐

10¾" CSG.	35
7" CSG.	
4.5" CSG.	488
" CSG.	526
LINER 3.5"	420's
TIE-BACK	
HRS. REPAIR	
RIG NO.	

MUD WT. ____ VIS. ____ W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO ____/____
FORM. DRLD. ____ FLOW LINE TEMP. ____°F. SUCTION TEMP. ____°F.
MAX. TEMP. ____°F. DEVIATION SURVEYS: ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO ____/____ RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE (HIGH / AVERAGE / LOW) ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Rigged down core rig,
Cleaned cellar and pits
RELEASED RIG 1300 hrs
7 Sept 86

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	$3000 DEMOB
RIG	$750
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	2400 < BAKER TANK + BOP RETURN
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	BAYLES 250
DAILY TOTAL	$6700
FORWARD	$432,018
ACCU. TOTAL	$438,718
AFE	86 DOO1 4300 02
SUPERVISOR	BOWDEN

OPERATION @ 0600 HOURS FOLLOWING DAY:
Will get location mulching and access trail ditching - drainage
cost estimates plus HX and n 4.5
INOPERATIVE EQUIP'T, EXPLAIN: csg costs to add in

DO 8 Sept 86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 19 DATE 6 SEPT 86
TOTAL RIG DAYS 19 TIME FROM SPUD
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 24 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG	35'
7" CSG.	488'
4.5 CSG.	526'
LINER 3.5	4205'
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Finished laying down DC, rods.
Removed rig floor; pumped out cellar; removed BOP.

Installed 1¼" thick plate flange on Larkin casing head with ring groove and bolts.
6" long nipple and 3" full opening valve on top

Shut down rig at 2400 hrs 6 Sept 86

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR P. DOWDEN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	3000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	15,500 !
FISHING & DIRECTIONAL	
OTHER BOYLES	250
WELLHEAD	2150
DAILY TOTAL	$ 21,500
FORWARD	410,518
ACCU. TOTAL	432,018
AFE 8h HBOT	4300 02

DO 8Sept86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 78 DATE 5 SEPT 86
TOTAL RIG DAYS 78 TIME FROM SPUD 78 DAYS
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD. 0
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 24 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488'
4.5" CSG. 526'
LINER 3.5 4205'
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Accomplished geophysical bore hole logging: Dielisivity and Sonic.

Completed logging at 2400 hrs 5 Sept 86 no problems with HX rod break at 823'.

All core boxes, from 526' to 4800' shipped out to UURI Salt Lake City

OPERATION @ 0600 HOURS FOLLOWING DAY:
Laying down DCC rods

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER Bowes Parts	750
DAILY TOTAL	$ 3850
FORWARD	406,668
ACCU. TOTAL	410,518
AFE 86 4001 4300 02	

SUPERVISOR BOWDEN

ND 6 Sept 86

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 11 DATE 4 SEPT 86
TOTAL RIG DAYS 11 TIME FROM SPUD
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 32 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
				17	350			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Completed 11 hrs of borehole geophysical logging: SP, Resistivity, Caliper, etc

13 hrs RIH Cooling Ppl for additional logs

Geologist DOGHAMI onsite last two days sampling the rock cores per his DOE contract

USFS rep. onsite, stating Access Road site requirements including mulching / reseeding

OPERATION @ 0600 HOURS FOLLOWING DAY:

Logging

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	100
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER BOILER	250
DAILY TOTAL	3450
FORWARD	402,718
ACCU. TOTAL	$ 406,168
AFE	86 D001.4300.02

DO 5 Sept 86

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 76 DATE 3 SEPT 86
TOTAL RIG DAYS 16 TIME FROM SPUD
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 32 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5"	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	900			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

POH, dropped NX bit from string
RIH with NC rods open ended to 4800' TD. Circulated light drilling fluid and water for 8 hours & cool hole for logs.
POH Rigging up loggers at 2400 hrs

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	100
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	4065 PRUETT 27 Aug 86
FISHING & DIRECTIONAL	
OTHER BOILER	250
DAILY TOTAL	$ 7715
FORWARD	345,023
ACCU TOTAL	$ 402,178
AFE	80,000 / 4300 02

OPERATION @ 0600 HOURS FOLLOWING DAY:
Logging Borehole with final Geophysical Program

INOPERATIVE EQUIP'T, EXPLAIN SUPERVISOR

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO. ____
REPORT NO. 75 DATE 2 SEPT 86
TOTAL RIG DAYS 75 TIME FROM SPUD ____
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD. —
HRS. DRILLED ____ HRS. TRIPPED ____
HRS. OTHER ____ COOLING TOWER IN USE, YES ☐ NO ☐

10¾" CSG 35'
7" CSG. 488'
4.5" CSG. 526
LINER 3.5 4205
TIE-BACK ____
HRS. REPAIR ____ RIG NO. ____

MUD WT. ____ VIS. ____ W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO /
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. 204 °F. DEVIATION SURVEYS: ____
three MRTs at 4800'

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO / RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Forest Service lifted Fire Precaution Class E on 8-30-86

Boyles Bros crews arrived back on drillsite afternoon of 9-2-86. Started up rig at 2000 hrs.
RIH with wireline; found water level at 50-foot depth.
RIH with NCC rod - NX bit from 4150' to 4800'. No problems and no fill on bottom. Ran three MRT's to 4800'; all recorded 204°F

COSTS

TANGIBLES
CASING ____
VALVES ____
FLANGES ____
OTHER ____

INTANGIBLE
LOCATION ____
RIG MOVES ____
RIG ____ ? OMISSION
ABATEMENT ____
BITS ____
DRILL EQUIP. MAIN. ____
DRILL. EQUIP. RENTAL 4200 - ? [illegible]
FUEL, WATER POWER ____
MUD ____
SUPERVISION & LABOR ____
CEMENT SERVICES ____
TRANSPORTATION ____
LOGGING SERVICES # 990 19, 20, 21 Aug @ 330/day
FISHING & DIRECTIONAL ____
OTHER Boyles # 750
WATCHMAN 4000 [illegible]
DAILY TOTAL ?
FORWARD $ 385,263
ACCU. TOTAL ____
AFE 86 D001 4300 02

OPERATION @ 0600 HOURS FOLLOWING DAY: POOH and removed NX bit. Going in hole with open ended NCC rods to circulate/cool hole for final GP
INOPERATIVE EQUIPT. EXPLAIN Airlock loss.
SUPERVISOR ____

THERMAL POWER COMPANY

WELL NO. CTaH-1 AFE NO.
REPORT NO. 34 DATE 27 Aug '86
TOTAL RIG DAYS 34 TIME FROM SPUD 818 + 10 hrs
DEPTH @ 2400 HRS. 4805 FOOTAGE DRLD. —
HRS. DRILLED — HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER — COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¼ " CSG CSG. 35 feet
7 " CSG. 488
4.5 " CSG. 526
LINER 3.5 " 4205
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (MIN AVERAGE MAX)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

ProTech Industries, Inc. ran a temperature-pressure survey from surface to total depth

Field readings are as follows:

DEPTH (ft)	TEMPERATURE (°F)	PRESSURE (psi)
100	BTL*	22
1000	BTL	420
2100	78	902
3000	~~BTL~~ 120	1297
4000	171	1730
4800	210/208	2074

4800 feet pick-up.

* BTL = Below tool limit of 50°F
** Two temperature tools run.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Suspended - shut down for USFS fire hazard condition "E"

COSTS

TANGIBLES
CASING
VALVES

Pruett survey
Total Costs reported as $4065
- to be added into COSTS

TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER Survey

DAILY TOTAL
FORWARD 385,263
ACCU. TOTAL
AFE 86 D001 4300 02

JLI 1 Oct '86

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO. ____
REPORT NO. 73 DATE 18 AUG 86
TOTAL RIG DAYS 13 TIME FROM SPUD 20 days
DEPTH @ 2400 HRS. 4800 FOOTAGE DRLD. 40
HRS. DRILLED 13 HRS. TRIPPED ____
HRS. OTHER 11 COOLING TOWER IN USE, YES ☐ NO ☒

10 3/4" CSG 35
7" CSG. ____
" CSG. 488
4.5" CSG. 526
LINER 3.5 4205
TIE-BACK ____
HRS. REPAIR / RIG NO. ____

MUD WT. 8.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H₂O RATIO /
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. 197 °F. DEVIATION SURVEYS: ____
MR [illegible] AT 4790

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
9	7.875	CHRS	NX	652301		4226		576	160½	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	300			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO / RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Cored from 4760 to 4800 feet
Obtained 100% core recovery;
no drilling fluid returns
Received Forest Service order
to shut down rig and operations
due to high fire hazards. All
timber logging operations also
shut down today by this
Condition E determination
Pulled coring string off bottom,
and into HX rods with NX bit
at 4150. Closed rams on NCC rod
string. Hydril and kelly cock
Shut down at mid day Aug 18

OPERATION @ 0600 HOURS FOLLOWING DAY:

Suspended - shut down per USFS
Condition E

INOPERATIVE EQUIP'T, EXPLAIN ____

COSTS

TANGIBLES
- CASING ____
- VALVES ____
- FLANGES ____
- OTHER ____

INTANGIBLE
- LOCATION ____
- RIG MOVES ____
- RIG $ 3120
- ABATEMENT ____
- BITS ____
- DRILL EQUIP. MAIN. ____
- DRILL. EQUIP. RENTAL 300
- FUEL, WATER POWER ____
- MUD 100
- SUPERVISION & LABOR 300
- CEMENT SERVICES ____
- TRANSPORTATION ____
- LOGGING SERVICES 330
- FISHING & DIRECTIONAL ____
- OTHER 250

DAILY TOTAL 4400
FORWARD $ 380,863
ACCU. TOTAL $ 385,263
AFE 86-D001-4300-02
SUPERVISOR [illegible signature]

RO 19 Aug

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 12 DATE 11 Aug 80
TOTAL RIG DAYS 12 TIME FROM SPUD 710 + 1065
DEPTH @ 2400 HRS. 4760 FOOTAGE DRLD. 60
HRS. DRILLED 18 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 6 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 165 °F. DEVIATION SURVEYS:
MRT AT 4750'

10 3/4" CSG	35
7" CSG.	488
4.5" CSG.	326
LINER 3.5	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	2.88"	Chris	NX	652301		4226		536	141.5	1000	463	B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-75	3000			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 4700 & 4760 feet
Recovered 100% cores; no
drilling fluid returns
1 hr temperature survey
5 hrs recovering and repairing
broken wire line and core
barrel.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 4780 feet

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4875
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	$ 6185
FORWARD	374,678
ACCU. TOTAL	380,863
AFE 80 1001 4300 02	

10.18 Cu

SUPERVISOR BOWDEN

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 11 DATE 16 Aug 86
TOTAL RIG DAYS 11 TIME FROM SPUD 7on + 10os
DEPTH @ 2400 HRS. 4700 FOOTAGE DRLD. 80
HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR / RIG NO.
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 104 °F. DEVIATION SURVEYS:
CIRC AT 4700 ±

10 3/4" CSG	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
4	7 7/8"	Chas	NX	65 2001		4226	4716	129.5	1000	60		I B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				575	350			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 4620 & 4700'
Got 100% core recovery
Mud drilling fluid additions

OPERATION @ 0600 HOURS FOLLOWING DAY:

Circ at 4720'

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$6365
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	$7745
FORWARD	366,933
ACCU. TOTAL	374,678
AFE	86 D001 4300 02

DO. 17 Aug

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.

REPORT NO. 70 DATE 15 Dec 86

TOTAL RIG DAYS 10 TIME FROM SPUD 60+ Days

DEPTH @ 2400 HRS. 4630 FOOTAGE DRLD. 90

4620 →

HRS. DRILLED 22.5 HRS. TRIPPED HRS. REPAIR RIG NO.

HRS. OTHER 1.5 COOLING TOWER IN USE, YES ☐ NO ☐

MUD WT. VIS. W.L. CK. PH CHL YP

P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.

GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /

FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.

MAX. TEMP. 184 °F. DEVIATION SURVEYS:

MRT AT 4630

10 3/4" CSG	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	7.88	CHRS	NX	652301	4226		396	106½	1000	400	T B G	
											T B G	
											T B G	

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	2200			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW

STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 4530' to 4620'

Obtained 100% core recovery;

no drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring at 4640'

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	B6347
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	$ 1847
FORWARD	359.496
ACCU. TOTAL	361.343
AFE	86 200 / 4320 02

NO Loss

BOYDEN

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 68 DATE 14 AUG 86
TOTAL RIG DAYS 69 TIME FROM SPUD 68 DAYS + 10 HRS
DEPTH @ 2400 HRS. 4530 FOOTAGE DRLD. 80
HRS. DRILLED 23.5 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 0.5 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 182 °F. DEVIATION SURVEYS:
MRT AT 4540

10¾" CSG	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5"	4205
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
9	7 7/8	HTC	NX	65 2301		4226	—	306	85	10m	90	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1					350-650			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 80', from 4450 & 4530'
Got 100% core recovery; No mud returns.
Squirrel Creek water supply continues adequate yield; Enough to keep 500 barrel Baker tank full and to meet daily reg-coring requirement.
Forest Service visit drillsite every 2-3 days to ensure our water supply status and fire compliance.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 4550 feet

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 5320
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOXES 250
DAILY TOTAL	6700
FORWARD	352,406
ACCU. TOTAL	359,106
AFE	86 DOI 4300.0

SUPERVISOR BOWDEN

NO-151

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 68 DATE 13 Aug '86
TOTAL RIG DAYS 68 TIME FROM SPUD 68 DAYS
DEPTH @ 2400 HRS. 4450 FOOTAGE DRLD. 79
HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 183 °F. DEVIATION SURVEYS:
@ 4470' ; Fluid level = 60'

10 3/4" CSG CSG.	35
7" CSG.	488
4.5" CSG.	526
LINER 3.5"	4205'
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
9	3.935"	Chris	NX	652301		4226	—	226	59.5	500-1000 lbs	300-400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	650			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 4371 to 4450'. No fluid returns; 100% core recovery

Picked up torque at 4405-4407'; attempting to improve mud system

Worked BOPE and pipe rams.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring @ 4470'.

INOPERATIVE EQUIPMENT:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	
ABATEMENT	
BITS	5315
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Boyles SUP.	250
TRUCKING	2400
DAILY TOTAL	9095
FORWARD	343 311
ACCU. TOTAL	352 406
AFE	Rowden

/ JLI

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 67 DATE 12 Aug 86
TOTAL RIG DAYS 67 TIME FROM SPUD 1507 HRS
DEPTH @ 2400 HRS. 4371 FOOTAGE DRLD. 92
HRS. DRILLED 23 HRS. TRIPPED
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 182 °F. DEVIATION SURVEYS:
MRT AT 4383

10¾" CSG	35
7" CSG.	488
4.5" CSG.	326
LINER 3.5"	4205
TIE-BACK	
HRS. REPAIR	RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
9	7 7/8	Chris	NX	652301		4276		147	36.5	1000	400	B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				3-15	450			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 92 feet from 4279 to 4371 feet.
Obtained 100% core recovery.
No drilling fluid returns.

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring NX hole at 4390'.

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 6170
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	700
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Bores 250
DAILY TOTAL	7550
FORWARD	$ 335,761
ACCU. TOTAL	$ 343,311
AFE	80 001 4300 02

DChii
13 Aug
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTGit-1 AFE NO.
REPORT NO. 16 DATE 11 Aug 86
TOTAL RIG DAYS 16 TIME FROM SPUD 15D+10HRS
DEPTH @ 2400 HRS. 4279 FOOTAGE DRLD. 53
HRS. DRILLED 13.5 HRS. TRIPPED
HRS. OTHER 10.5 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 178 °F. DEVIATION SURVEYS:
AT 4296'

10¾" CSG. 35'
7" CSG. 488'
4.5" CSG. 526'
LINER 3.5 4205'
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
9	7.875	Cores	NX	65301		4226	-	53	13.5	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	450			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 4226 feet to 4279 feet.

Obtained 100% core recovery; no drilling fluid returns

Liquid level in core hole is 70 feet below surface

OPERATION @ 0600 HOURS FOLLOWING DAY:

Laying NX hole at 4300 feet

INOPERATIVE EQUIPMENT:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3545
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boxes 250
DAILY TOTAL	$ 4925
FORWARD	330,836
ACCU. TOTAL	335,769
AFE	86D01 4300 02

DO. 12 Aug

BOWDEN

THERMAL POWER COMPANY

WELL NO. CGH #1 AFE NO. _____
REPORT NO. 15 DATE 10 Aug 86
TOTAL RIG DAYS 15 TIME FROM SPUD 14 hrs 10 days
DEPTH @ 2400 HRS. 4226 FOOTAGE DRLD. 23'
HRS. DRILLED 4 HRS. TRIPPED _____ HRS. REPAIR _____ RIG NO. _____
HRS. OTHER 20 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. _____ CK. _____ PH _____ CHL _____ YP _____
P.V. _____ GELS _____ % SAND _____ % SOLIDS _____ % LOST CIRC. MTL. _____
GALVONIC PROBE _____ CORRATOR _____ SULPHIDE _____ OXY. _____ AIR-H$_2$O RATIO 1
FORM. DRLD. _____ FLOW LINE TEMP. _____ °F. SUCTION TEMP. _____ °F.
MAX. TEMP. _____ °F. DEVIATION SURVEYS: _____

CSG
" CSG. _____
" CSG. _____
" CSG. _____
LINER _____
TIE-BACK _____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
8	2.875"	CHRist	NX	652302		4203	4226	23	4	500	300	T P G worn
												T P G
												T P G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-13	600-800			

AIR COMP. NO ___ CFM _____ PSI ___ TEMP. °F ___ CHEM. _____ RATIO 1 RATE ___
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: _____

TOTAL STRING WT. _____ TOTAL PICKUP WT. _____ ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS. _____

REMARKS FOR 24 HOUR PERIOD:

Milled out HX diamond coreHead on bottom with NX diamond coreHead (bit 8) and cored to 4226'.

Recovered 100% core, had returns!

POH to replace worn bit 8

OPERATION @ 0600 HOURS FOLLOWING DAY:
RIH with new NX diamond core head and new core barrel.

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3057
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	250
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOILER 250
DAILY TOTAL	4487
FORWARD	326,349
ACCU. TOTAL	330,836
AFE	86 001 4300 02

DO 11 Aug
Boiler

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 64 DATE 4 Aug 86
TOTAL RIG DAYS 64 TIME FROM SPUD 630 + 10 HRS
DEPTH @ 2400 HRS. 4203 FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 24 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG. 35
7" CSG. 488
4.5" CSG. 326 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T P G
												T P G
												T P G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Started up rig at noon
RIH with new latch; found
core barrel at 4193 feet
Latched to core barrel. POH slowly
Recovered core barrel

OPERATION @ 0600 HOURS FOLLOWING DAY:
RIH with new NX core head

INCREMENTAL COSTS

TANGIBLES
- CASING
- VALVES
- FLANGES
- OTHER

INTANGIBLE
- LOCATION
- RIG MOVES
- RIG 38 1502
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL. EQUIP. RENTAL 300
- FUEL, WATER POWER
- MUD
- SUPERVISION & LABOR 300
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES 330
- FISHING & DIRECTIONAL
- OTHER Bowles 250

DAILY TOTAL 2680
FORWARD 323,669
ACCU. TOTAL 326,349
AFE 86 00 (430 02

LWD-10Bu
Bowles

THERMAL POWER COMPANY

WELL NO. CTG#1 AFE NO.
REPORT NO. 63 DATE 8 Mar 86
TOTAL RIG DAYS 63 TIME FROM SPUD 620 + 10 hrs
DEPTH @ 2400 HRS. 4203 FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 24 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG. 35
7" CSG. 488
4.6" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Ran latching assembly on WL, tools to top of core barrel at 4193 feet. Latched & POH. No core barrel. Examined latch assembly, suspect release of core barrel at 873 feet

OPERATION @ 0600 HOURS FOLLOWING DAY:
Rig shut down: latching assembly going to machine shop for modification.

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	—
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	FORCES 250
DAILY TOTAL	$ 4180
FORWARD	314,489
ACCU. TOTAL	323,669
AFE	86 001 4300 02

DO King
BOWDEN

THERMAL POWER COMPANY

WELL NO. CGit-1 AFE NO. _____
REPORT NO. 62 DATE 10/26/86
TOTAL RIG DAYS 61 TIME FROM SPUD _____
DEPTH @ 2400 HRS. 4203' FOOTAGE DRLD. _____
HRS. DRILLED _____ HRS. TRIPPED 10
HRS. OTHER 10.7 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. _____ VIS. _____ W.L. _____ CK. _____ PH ___ CHL _____ YP _____
P.V. _____ GELS _____ % SAND _____ % SOLIDS _____ % LOST CIRC. MTL. _____
GALVONIC PROBE _____ CORRATOR _____ SULPHIDE _____ OXY. _____ AIR-H₂O RATIO 1
FORM. DRLD. _____ FLOW LINE TEMP. _____ °F. SUCTION TEMP. _____ °F.
MAX. TEMP. _____ °F. DEVIATION SURVEYS: _____

10 3/4" CSG. 35
7 5/8" CSG. 988
4.5" CSG. 526 temporary
LINER _____
TIE-BACK _____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO ___ CFM _____ PSI ___ TEMP. °F ___ CHEM. _____ RATIO 1 RATE ___
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: _____

TOTAL STRING WT. _____ TOTAL PICKUP WT. _____ ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS. _____

REMARKS FOR 24 HOUR PERIOD:

12 hrs: Stnd down; waiting on DX rods

12 hrs Unloaded truck picked up DX rods; RIH open ended. Found break in DX rods at 823' depth and at a connection per driller's record

POH. picked up latching assembly

OPERATION @ 0600 HOURS FOLLOWING DAY:

Running in hole at 1500' with DX rods and latching assembly

INOPERATIVE EQUIPMENT: _____

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	@ 1500
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	350
FISHING & DIRECTIONAL	
OTHER	DRLG 250
DAILY TOTAL	1200
FORWARD	316,809
ACCU. TOTAL	318,009
AFE	86 DOI 430 02

80.8 Avg
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTGU 1 AFE NO.
REPORT NO. 61 DATE 6 Dec 86
TOTAL RIG DAYS 61 TIME FROM SPUD 10 + 10 days
DEPTH @ 2400 HRS. 4403 FOOTAGE DRLD. 0
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 24 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG. 35
7 5/8" CSG. 4418
4.5" CSG. 3226 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

24 hrs shut down;
waiting on DX tools

OPERATION @ 0600 HOURS FOLLOWING DAY:

As above

INCREASING FOAM PUMP RATE

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$0
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	350
FISHING & DIRECTIONAL	
OTHER	BYLES 230
DAILY TOTAL	1180
FORWARD	345,629
ACCU. TOTAL	$ 346,809
AFE	86 001 4300 02

DO. Thing Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 60 DATE 5 Aug 86
TOTAL RIG DAYS 60 TIME FROM SPUD 59 + Hours
DEPTH @ 2400 HRS. FOOTAGE DRLD.
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG — CSG. 35
7" CSG. 988
4½" CSG. 5226 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
7	3.937	Cdrs	MC	65 2938								T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LBS.
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Shut down; waiting on WX
Rods

OPERATION @ 0600 HOURS FOLLOWING DAY:

As above

COSTS

TANGIBLES
- CASING
- VALVES
- FLANGES
- OTHER

INTANGIBLE
- LOCATION
- RIG MOVES
- RIG 80
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL. EQUIP. RENTAL 300
- FUEL, WATER POWER
- MUD 0
- SUPERVISION & LABOR
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES 330
- FISHING & DIRECTIONAL
- OTHER Bayles 250

DAILY TOTAL	1480
FORWARD	314,149
ACCU. TOTAL	315,629
AFE	80,001 / 430,502.00

80.6 days forward

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO. ________

REPORT NO. 54 DATE 4 Aug 86

TOTAL RIG DAYS 54 TIME FROM SPUD 510 + 10 hrs

DEPTH @ 2400 HRS. 4203 FOOTAGE DRLD. 60

HRS. DRILLED 13.5 HRS. TRIPPED ________

HRS. OTHER 10.5 COOLING TOWER IN USE, YES ☐ NO ☐

10 3/4" CSG. 35

7" CSG. 488

4.5" CSG. 526 temporary

LINER ________

TIE-BACK ________

HRS. REPAIR ________ RIG NO. ________

MUD WT. 8.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____

P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____

GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1

FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.

MAX. TEMP. 177 °F. DEVIATION SURVEYS: ________

MRT at 4173

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
7	5.957	Chris	MC	652958	—	3721	—	482	130	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				515	350			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO 1 RATE ____

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ________

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE ____ HIGH AVERAGE LOW

STEAM ENTRIES, DEPTH, LBS. ________

REMARKS FOR 24 HOUR PERIOD:

Cored 60 feet, from 4143 to 4203 feet

Recovered 100% cores; no mud returns

Sudden failure of HX core rods, while coring at 4203'.
Core rod string weight suggests break at 1000-1200' depth range.

OPERATION @ 0600 HOURS FOLLOWING DAY:

Waiting on NX rods for fishing run with spear.

COSTS

TANGIBLES

CASING	
VALVES	
FLANGES	
OTHER	

INTANGIBLE

LOCATION	
RIG MOVES	
RIG	$ 4187
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Rentals	250

DAILY TOTAL	$ 5667
FORWARD	308,482
ACCU. TOTAL	$ 314,149
AFE	86 001 4300 02

DD 5 Aug

L OWERY

THERMAL POWER COMPANY

WELL NO. CGH 1 AFE NO.
REPORT NO. 38 DATE 3 Aug 86
TOTAL RIG DAYS 38 TIME FROM SPUD 570 + 10 HRS
DEPTH @ 2400 HRS. 4143 FOOTAGE DRLD. 81
HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 167 °F. DEVIATION SURVEYS:
MDT AT 4133'

10 3/4" CSG. CSG. 35
7 5/8" CSG. 488
4 1/2" CSG. 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	3 7/8	CHRIS	MC	652458	-	3721	-	422	116.5	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	350			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE high average low
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 81 feet, from 4062 & 4143 feet. Obtained 100% core recovery; six mud returns

Water level in corehole at 75 feet below ground surface

OPERATIONS @ 0600 HOURS FOLLOWING DAY:
Drlg at 4163 feet

COSTS

TANGIBLES
- CASING
- VALVES
- FLANGES
- OTHER

INTANGIBLE
- LOCATION
- RIG MOVES
- RIG $ 5609
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL. EQUIP. RENTAL 300
- FUEL, WATER POWER
- MUD 300
- SUPERVISION & LABOR 302
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES 350
- FISHING & DIRECTIONAL
- OTHER BOYLES 250

DAILY TOTAL 7089
FORWARD 301,393
ACCU. TOTAL $ 308,482
AFE 8601 4300 02

RD Haag LOWERY

THERMAL POWER COMPANY

WELL NO. CGH 1 AFE NO.
REPORT NO. 57 DATE 2 AUG 86
TOTAL RIG DAYS 57 TIME FROM SPUD 560 HOURS
DEPTH @ 2400 HRS. 4062 FOOTAGE DRLD. 80
HRS. DRILLED 23 HRS. TRIPPED
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 167 °F. DEVIATION SURVEYS:
NRT AT 4057

10 3/4" CSG 35
" CSG.
7" CSG. 488
4 1/2" CSG. 526 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
7	3.937	HTC	MC	605258	-	3721	-	341	93	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				575	3550			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 80 feet, from 3982 & 4062 feet
Got 100% core recovery. No mud
returns
Water level at 70 feet below
surface

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 4083 feet

INCREASING POWER FUEL ...

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG $ 5379
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER
MUD 300
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER FUELS 250

DAILY TOTAL $ 6859
FORWARD 294,534
ACCU. TOTAL $ 301,393
AFE 86D01 4300.02

DO slug
LOWER

THERMAL POWER COMPANY

WELL NO. CTGH AFE NO. ______
REPORT NO. 56 DATE 1 AUG 86
TOTAL RIG DAYS 56 TIME FROM SPUD 55D + 10 HRS
DEPTH @ 2400 HRS. 3982 FOOTAGE DRLD. 81
HRS. DRILLED 23 HRS. TRIPPED ______ HRS. REPAIR ______ RIG NO. ______
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. ______ CK. ______ PH ______ CHL ______ YP ______
P.V. ______ GELS ______ % SAND ______ % SOLIDS ______ % LOST CIRC. MTL. ______
GALVONIC PROBE ______ CORRATOR ______ SULPHIDE ______ OXY. ______ AIR-H_2O RATIO 1
FORM. DRLD. ______ FLOW LINE TEMP. ______ °F. SUCTION TEMP. ______ °F.
MAX. TEMP. 162 °F. DEVIATION SURVEYS: ______
MRT AT 3972

10 3/4" CSG. 35
7" CSG. ______
7" CSG. 488
4.5" CSG. 526 Temporary
LINER ______
TIE-BACK ______

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
7	3.937	CHRIS	MC	652958	—	3721	—	261	10.5	1000	400	T B G
1	3.937"											T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	350			

AIR COMP. NO ______ CFM ______ PSI ______ TEMP. °F ______ CHEM. ______ RATIO 1 RATE ______
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ______

TOTAL STRING WT. ______ TOTAL PICKUP WT. ______ ROTARY TORQUE HIGH AVERAGE LOW ______
STEAM ENTRIES, DEPTH, LBS. ______

REMARKS FOR 24 HOUR PERIOD:

Cored 81 feet from 3901 to 3982 feet
Recovered 100%; no drilling fluid
returns

Water level in corehole at 75'
below surface

COSTS

TANGIBLES
CASING ______
VALVES ______
FLANGES ______
OTHER ______

INTANGIBLE
LOCATION ______
RIG MOVES ______
RIG $ 4880
ABATEMENT ______
BITS ______
DRILL EQUIP. MAIN. ______
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER ______
MUD 300
SUPERVISION & LABOR 300
CEMENT SERVICES ______
TRANSPORTATION ______
LOGGING SERVICES 330
FISHING & DIRECTIONAL ______
OTHER Ayles 250

DAILY TOTAL $ 10360
FORWARD 288174
ACCU. TOTAL $ 244,534
AFE 86-001 4300.02

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 4002 feet

JD. Lowery
LOWERY

INCORPORATING ...

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 33 DATE 31 JULY 1986
TOTAL RIG DAYS 33 TIME FROM SPUD 540 HOURS
DEPTH @ 2400 HRS. 3901 FOOTAGE DRLD. 90
HRS. DRILLED 23 HRS. TRIPPED
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 135 °F. DEVIATION SURVEYS:
MRT AT 3891'

10¾" CSG. 35
7" CSG.
4.5" CSG. 488
" CSG. 326 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	3.937	CHRIS	MC	652958		3721	INC	180	47.5	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1								

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (HIGH AVERAGE LBS.)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Core 90 feet from 3811 to 3901 feet
Est 100% Core Recovery; No
drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 3921'

INCREASING POWER FOR [illegible]

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG $4787
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER
MUD 300
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER BOILER 750

DAILY TOTAL $6267
FORWARD 281,907
ACCU. TOTAL $288,174
AFE 86 001 4300-02

DO Mayo
Sanders

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 54 DATE 30 July 1986
TOTAL RIG DAYS 54 TIME FROM SPUD 53 Flowing
DEPTH @ 2400 HRS. 3811 FOOTAGE DRLD. 88
HRS. DRILLED 23½ HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER ½
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 146 °F. DEVIATION SURVEYS:
MRI AT 3763'

10¾" CSG. 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
7	3.937	Cmes	MC 65	2988		3721	Inc	90	24½	1000	400	I 8 G
												I R G
												I R G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	350			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 3723 to 3811 feet
Obtained 100% ore recovery;
use drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring at 3831 feet

COSTS	
TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	9 462
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Bases 250
DAILY TOTAL	6101
FORWARD	0215,806
ACCU. TOTAL	281,907
AFE	86001 4300.02

WO-31 Jul
BROWN

THERMAL POWER COMPANY

10 3/4" CSG. 35
7" CSG. 488
4.5" CSG. 526 Temporary
LINER
TIE-BACK

WELL NO. CTG H 1 AFE NO.
REPORT NO. 53 DATE 26 July 1986
TOTAL RIG DAYS 53 TIME FROM SPUD 520+10 HRS
DEPTH @ 2400 HRS. 3723 FOOTAGE DRLD. 2
HRS. DRILLED 1 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 23 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. None °F. DEVIATION SURVEYS:

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
7	3.937	Chris.	MC	632958		3721		2	1	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-13	550			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE min average max
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored only 2' (3721 - 23') with new 3.937" corehead

Ran new corehead - Bit #7, corebarrel, latch couple and reamer shell

RIH Washed 8006 965' interval and chased casings to bottom

Worked BOP equipment

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 3743'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1982
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	330
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	RNTLES 250
DAILY TOTAL	$ 3462
FORWARD	$ 272,344
ACCU. TOTAL	$ 275,806
AFE	86,301 430 02

THERMAL POWER COMPANY

WELL NO. CTGH 1	AFE NO.	10 3/4" CSG.	35
REPORT NO. 52	DATE 28 JULY 1986	7" CSG.	488
TOTAL RIG DAYS 52	TIME FROM SPUD 51D + 10HRS	4.5" CSG.	526 temporary
DEPTH @ 2400 HRS. 3721	FOOTAGE DRLD. 80	LINER	
		TIE-BACK	

HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR RIG NO.

HRS. OTHER 1 COOLING TOWER IN USE. YES ☐ NO ☒

MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP

P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.

GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1

FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.

MAX. TEMP. 137 °F. DEVIATION SURVEYS:

MRT AT 3711

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
6	5937	CHRIS	MC	652460		2336	3721	1385	340½	2000	400	T B G 1/3 worn
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	350			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 80 feet, from 3641 to 3721 feet. Got 100% core recovery; no drilling fluid returns

Water level in corehole is 65 feet

OPERATION @ 0600 HOURS FOLLOWING DAY:

Trip for new diamond corehead and new core barrel at 3721'

COSTS

TANGIBLES

CASING	
VALVES	
FLANGES	
OTHER	

INTANGIBLE

LOCATION	
RIG MOVES	
RIG	$ 4821
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOXES 250

DAILY TOTAL	6301
FORWARD	266,043
ACCU. TOTAL	$ 272,344
AFE	86 D01 4300 02

D. Oliver 29 July

BOWDEN

...POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 37 DATE 27 JULY 1986
TOTAL RIG DAYS 37 TIME FROM SPUD 36 1/2 HOURS
DEPTH @ 2400 HRS. 3641 FOOTAGE DRLD. 79
HRS. DRILLED 21 HRS. TRIPPED
HRS. OTHER 3 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 4 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H,O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 138 °F. DEVIATION SURVEYS: 3300' 3/4° N16°W
MRT AT 3641

10 3/4" CSG. CSG. 35
7" CSG. 488
4.5" CSG. 526 Temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.937	CHRIS	MC	652460	—	2336	—	1306	217.5	1000	40	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-75	350			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 79 feet, from 3562 to 3641 feet. 100% core recovery. No mud returns

Corehole water level at 40 feet

OPERATIONS @ 0600 HOURS FOLLOWING DAY:
Coring at 3661 feet

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 476.3
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	$ 6243
FORWARD	254.800
ACCU. TOTAL	266.043
AFE	$ 4200.00

NO. 28 Jun

BROWN

THERMAL POWER COMPANY

WELL NO. CTG #1 AFE NO.
REPORT NO. 50 DATE 26 July 1986
TOTAL RIG DAYS 50 TIME FROM SPUD 490 & 10 hrs
DEPTH @ 2400 HRS. 3562 FOOTAGE DRLD. 101
HRS. DRILLED 23½ HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER ½ COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.8 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 131 °F. DEVIATION SURVEYS:
MCI 3542

10 3/4" CSG. 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
10	3.937	CHRS	MC	105460		2336	1221		246	1000	400	T R G
												T R G
												T R G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				575	350			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 3461 to 3562 feet
Got 100% core recovery
no drilling fluid returns

Overlook water level at 10 feet

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring at 3582 feet

INTERMEDIATE POWER SUPPLY

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG $5723
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER
MUD 300
SUPERVISION & LABOR 340
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER BOXES 250

DAILY TOTAL 7203
FORWARD + 232,394
ACCU. TOTAL 239,597
AFE 86D01 4300 02

DO 27 July
Grouted

THERMAL POWER COMPANY

10¾" CSG @ CSG. 35
7" @ CSG. 488
4.5" @ CSG. 526 temporary
LINER
TIE-BACK

WELL NO. CG&T 1 AFE NO.
REPORT NO. 49 DATE 25 July 1986
TOTAL RIG DAYS 49 TIME FROM SPUD 48 D + 11 HRS
DEPTH @ 2400 HRS. 3461 FOOTAGE DRLD. 106
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 127 °F. DEVIATION SURVEYS:
MRT 3451

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
10	5.937	CHRG	MC 62	2460		2336	INC	1126	273	1000		T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-75		200		

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LBS.
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Drill 106 feet from 3355 to 3461

Got 100% core recovery; no mud returns

Borehole water level at 70 feet.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring below 3483 feet

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 5492
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	6972
FORWARD	$245,628
ACCU. TOTAL	252,597
AFE 86401	4300 02

DO 26 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 48 DATE 24 July 1986
TOTAL RIG DAYS 48 TIME FROM SPUD 470 + 10 hrs
DEPTH @ 2400 HRS. 3355 FOOTAGE DRLD. 86
HRS. DRILLED 22 1/2 HRS. TRIPPED
HRS. OTHER 1 1/2 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. 12 CK. 1/32 PH 6.5 CHL 1000 YP 10
P.V. 15 GELS 4 % SAND 0 % SOLIDS .5 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 176 °F. DEVIATION SURVEYS: 3350

10 3/4" CSG.	35
7" CSG.	488
4.5" CSG.	526 Temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
10	3.937	Chris	MC	652460		2336	TWC	1019	249	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				3-75	150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (MIN AVERAGE LBS)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 3269 to 3355 feet
Obtained 100% core recovery;
no drilling fluid returns
Water level in borehole is 80 feet

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 3382 feet

INCREASING COLUMN SIZE: ....

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4543
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	6023
FORWARD	739,602
ACCU. TOTAL	$ 745,625
AFE	86 D01 4300 02

DD-20
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 47 DATE 23 July 1986
TOTAL RIG DAYS 47 TIME FROM SPUD 46 1/2 Days
DEPTH @ 2400 HRS. 3269 FOOTAGE DRLD. 96
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 131 °F. DEVIATION SURVEYS:
MRT at 3259

10 3/4" CSG 35'
7" CSG. 488
4 1/2" CSG. 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
10	3.937	CHRIS	MC 66	2460		2336	INC	933	22 1/2	1000	480	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	185			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 3173 to 3269'

Got 100% core recovery; no drilling fluid returns

Liquid level in ~~Hot~~ borehole at 60' depth

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 3290'

COSTS

TANGIBLES
- CASING
- VALVES
- FLANGES
- OTHER

INTANGIBLE
- LOCATION
- RIG MOVES
- RIG $ 4973
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL. EQUIP. RENTAL 300
- FUEL, WATER POWER
- MUD 350
- SUPERVISION & LABOR
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES 330
- FISHING & DIRECTIONAL
- OTHER Boxes 250

DAILY TOTAL 5503
FORWARD $ 233.099
ACCU. TOTAL $ 239.602
AFE 86 001 4200 02

Billie 24 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 46 DATE 7-22-86
TOTAL RIG DAYS 46 TIME FROM SPUD 45+10 hr
DEPTH @ 2400 HRS. 3173 FOOTAGE DRLD. 104
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: MRT @ 3159 - .124°

CSG
" CSG.
" CSG.
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.937	Chr	NC	652460		2336	inc	837	202.5	1000	400	T P G
												T P G
												T P G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				575	1750			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (MIN AVERAGE MAX)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:
water level 80 feet
Cored 3069-3173'
No mud returns
100% recovery

OPERATION @ 0600 HOURS FOLLOWING DAY:
coring @ 3189

COSTS	
TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	5388
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300 Boyle Bros 250
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	Geologists 330
DAILY TOTAL	6918
FORWARD	226,181
ACCU. TOTAL	233,099
AFE	

(J.J.H.)

THERMAL POWER COMPANY

CSG 10¾" - 35'
" CSG. ____
" CSG. 7" - 488'
" CSG. cmt to surf.
LINER ____
TIE-BACK ____

WELL NO. CTGH-1 AFE NO. ____
REPORT NO. 45 DATE 7-21-86
TOTAL RIG DAYS 45 TIME FROM SPUD 44+10hr.
DEPTH @ 2400 HRS. 3069 FOOTAGE DRLD. 89
HRS. DRILLED 24 HRS. TRIPPED ____ HRS. REPAIR ____ RIG NO. ____
HRS. OTHER ____ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 9.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H₂O RATIO 1
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. ____ °F. DEVIATION SURVEYS: 3059' - 1° F MRT

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.937	Chr.	NC	652460	—	2336	inc	733	178.5	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
I				5-15	250			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO ____ RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE (HIGH AVERAGE LOW) ____ ____ ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:
Cored 2980' - 3069'
no mud returns
100% recovery

OPERATION @ 0600 HOURS FOLLOWING DAY:
coring @ 3089

COSTS	
TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	4501
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	306
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300 / Boyle Bros 250
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	geologists - 330
DAILY TOTAL	6031
FORWARD	220,150
ACCU. TOTAL	226,181
AFE	

R.K.B. (92H)

THERMAL POWER COMPANY

CSG 10 3/4, set @ 35'
" CSG. 7" set - 488'
" CSG. ____
LINER ____
TIE-BACK ____

WELL NO. CTGH #1 AFE NO. ____
REPORT NO. 44 DATE 7/20/86
TOTAL RIG DAYS 44 TIME FROM SPUD 43 D + 10 hrs
DEPTH @ 2400 HRS. 2980 FOOTAGE DRLD. 68'
HRS. DRILLED 15 HRS. TRIPPED ____ HRS. REPAIR ____ RIG NO. ____
HRS. OTHER 9 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. ____ °F. DEVIATION SURVEYS: MRT 2942, 112°. fluid level @ 63'

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
6	3.937	CHRISTEN	NC	652460		2336	Incomp.	644	144.5	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	300			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO 1 RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Cores from 2912 to 2980, No mud returns. Core recovery 100%. 1 hr MRT. Survey and fluid level

8 hrs drilling w/ NC core at bottom, got it out to the rods.
lost 4 foot of core out of inner barrel

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring at 2993'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	3152
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	Supervisor - 250
	2-Geologists - 330
DAILY TOTAL	4682
FORWARD	215,468
ACCU. TOTAL	220150
AFE	

INOPERATIVE EQUIP. EXPLAIN

THERMAL POWER COMPANY

WELL NO. CIGH 1 AFE NO.
REPORT NO. 43 DATE 19 July 1986
TOTAL RIG DAYS 43 TIME FROM SPUD 420 + 10 HRS
DEPTH @ 2400 HRS. 2912' FOOTAGE DRLD. 103
HRS. DRILLED 24 HRS. TRIPPED — HRS. REPAIR — RIG NO.
HRS. OTHER — COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. — CK. — PH — CHL — YP —
P.V. — GELS — % SAND — % SOLIDS — % LOST CIRC. MTL. —
GALVONIC PROBE — CORRATOR — SULPHIDE — OXY. — AIR-H₂O RATIO 1
FORM. DRLD. — FLOW LINE TEMP. — °F. SUCTION TEMP. — °F.
MAX. TEMP. 114 °F. DEVIATION SURVEYS: —
MRT AT 2903'

10¾" CSG	35
7" CSG.	488
4.5" CSG.	526 Temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.951"	CHRS	MC	654260	—	2336'	—	576	139	100	100	I 8 G
												I R G
												I R G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	—	—	—	5-15	300	—	—	—
—	—	—	—	—	—	—	—	—

AIR COMP. NO — CFM — PSI — TEMP. °F — CHEM. — RATIO 1 RATE —
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: —

TOTAL STRING WT. — TOTAL PICKUP WT. — ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS. —

REMARKS FOR 24 HOUR PERIOD:

Cored from 2809 to 2912'
Recovered 100% cores from the 103-foot interval
No drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2933' No rod chatter.

COSTS	
TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4774
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	$ 6304
FORWARD	$ 209,164
ACCU. TOTAL	215,468
AFE	86.001.4300.02

DO 20 July
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO. ____
REPORT NO. 42 DATE 18 JULY 86
TOTAL RIG DAYS 42 TIME FROM SPUD 41D + 10 HRS
DEPTH @ 2400 HRS. 2809 FOOTAGE DRLD. 101
HRS. DRILLED 24 HRS. TRIPPED ____

10 3/4" CSG. 35
7" CSG. 488
4.5" CSG. 326 temporary
LINER ____
TIE-BACK ____

HRS. REPAIR ____ RIG NO. ____
HRS. OTHER ____ COOLING TOWER IN USE. YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. 103 °F. DEVIATION SURVEYS: ____
AT 2802'

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
6	5.937	CHRIS	MC	65 2460		2336	Inc	473	115 1/2	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	225			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO 1 RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Cored 101', from 2708' to 2809'. Got 100% core recovery; no drilling fluid returns

COSTS

TANGIBLES
CASING ____
VALVES ____
FLANGES ____
OTHER ____

INTANGIBLE
LOCATION ____
RIG MOVES ____
RIG $ 4681
ABATEMENT ____
BITS ____
DRILL EQUIP. MAIN. ____
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER ____
MUD 350
SUPERVISION & LABOR 300
CEMENT SERVICES ____
TRANSPORTATION ____
LOGGING SERVICES 330
FISHING & DIRECTIONAL ____
OTHER 250

DAILY TOTAL 6211
FORWARD 202953
ACCU. TOTAL $ 209,164
AFE 86 001-4300-02

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2831'. Some rod chatter

INOPERATIVE EQUIP'T. EXPLAIN

SUPERVISOR

Dolan Bowden
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTG H-1 AFE NO.
REPORT NO. 41 DATE 17 July
TOTAL RIG DAYS 41 TIME FROM SPUD
DEPTH @ 2400 HRS. 2708 FOOTAGE DRLD. 114
HRS. DRILLED 23½ HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER ½ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.7 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 101 °F. DEVIATION SURVEYS:
2663' MRTS Water level 85'

10-¾" CSG 35
7⅝" CSG. 488
4½" CSG. 526 temp
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6		Chris	MC	652460		7336	INC	372	91½	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	175			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 2594 to 2708'
Recovered 114' or 100% cores
No drilling fluid returns.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2733'

INOPERATIVE EQUIP. PUMPS

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES 5
RIG $ 5348
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER
MUD 350
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER 250

DAILY TOTAL 6878
FORWARD 196,075
ACCU. TOTAL $ 702,933
AFE 86 DOT 4300-02

DO 18 July
Rainbow

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 49 DATE 7-16-85
TOTAL RIG DAYS 40 TIME FROM SPUD 294 10h
DEPTH @ 2400 HRS. 2594 FOOTAGE DRLD. 59
HRS. DRILLED 16 HRS. TRIPPED
HRS. OTHER 8 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:
MRT @ 2584' = 199°F

10¾" CSG
9⅝" CSG. 35
7" CSG. 488
4.5" CSG. 526 Temp
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
6	3.937	Chris	NC	632460	—	2336	—	258	68	10^3	40^3	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				515	150			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 2535 - 2594', NO mud returns, 100% core recovery

RIH w/ wireline to retrieve core @ 2584', core barrel stuck on way out at 400', pulled wireline in two, pulled 10 stands, retrieved core barrel, laid down 1 bad joint of core tubing. installed new wireline. RIH 10 stands to 2584', continued to core to 2594'.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring @ 2613'

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2770
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles sub	250
DAILY TOTAL	4300
FORWARD	191775
ACCU. TOTAL	196075
AFE	R G Beaton.

JLI
17 July '85

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 39 DATE 7/15/86
TOTAL RIG DAYS 39 TIME FROM SPUD 38D+10 hr.
DEPTH @ 2400 HRS. 2535 FOOTAGE DRLD. 69
HRS. DRILLED 19 HRS. TRIPPED ~5hrs HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:
MRT @ 2544 — 96°F

10¾" CSG	
CSG.	35'
7 " CSG.	488
4.5 " CSG.	526 temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
#6	3 7/7	CH	NC	652460		2336	—	199	52	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
#1				5-15	150			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

5 hrs on trip. Run in hole with wireline to retrieve core at 2476. Pulled out of hole with core in a barrel lining up inside core tubing. Pulled wireline into pulled out of hole, 17 stands, retrieved core barrel, laid down 1 joint of bad core tubing. Running in hole at 2476 - Washed coal bridge from 1776 to 1780. Washed out 5' of fill on bottom. 19 hrs coring from 2476' to 2535'. No mud returns at 100% core recovery.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2562'

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER (Trucking) Mercant	
INTANGIBLE D+R Corp - $910	
LOCATION	
RIG MOVES	
RIG	3046
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	$300
FUEL, WATER POWER	
MUD	$350.
SUPERVISION & LABOR	$300.
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	$250
FISHING & DIRECTIONAL	Boyles Sup
OTHER	Unload/load mud $750
2 Geolips = $330	
DAILY TOTAL	$5566
FORWARD	$14209
ACCU. TOTAL	$19775
AFE	

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 38 DATE 14 SEPT 1986
TOTAL RIG DAYS 38 TIME FROM SPUD 370 + 10 hrs
DEPTH @ 2400 HRS. 2466 FOOTAGE DRLD. 98'
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 8.4 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 85 °F. DEVIATION SURVEYS:
MRT AT 2395

10¾" CSG 35
7" CSG. 488
4½" CSG. 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.937	Chris	MC	165246		2336	INC	130	33	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 2368 to 2466'
100% Core recovery; no drilling
fluid returns

Had cored to 2476'. Core
barrel jammed in core rods
at 2400' depth upon
retrieval. Broke wireline
apart. POH

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE POWER EMPLOYEE

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4106
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	5636
FORWARD	180,573
ACCU TOTAL	186,209
AFE	86.01 4300.02

DO 15 July
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTG It 1 AFE NO.
REPORT NO. 37 DATE 13 July 1980
TOTAL RIG DAYS 37 TIME FROM SPUD
DEPTH @ 2400 HRS. 2368 FOOTAGE DRLD. 32
HRS. DRILLED 9 HRS. TRIPPED HRS. REPAIR / RIG NO.
HRS. OTHER 15 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. 8.4 VIS. 45 W.L. CK. PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG 35
" CSG.
7" CSG. 488
5" CSG. 326 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
6	3.937	Christ	MC	652460		2336		32	9	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE (Min Average Max)
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Washed from 1000' to 2336' TD
No significant debris on bottom
Cored from 2336 to 2368'
Full core recovery obtained;
no drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2385'

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1340
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER BAKER	250
1" WATER LINE	500
DAILY TOTAL	3370
FORWARD	177,203
ACCU. TOTAL	$ 180,573
AFE 86201	4800 02

D.D. Mahaffey
BOWDEN

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO. ____
REPORT NO. 36 DATE 12 July 1986
TOTAL RIG DAYS 36 TIME FROM SPUD 35D + 10 HRS
DEPTH @ 2400 HRS. 2336 FOOTAGE DRLD. 50
HRS. DRILLED 8 HRS. TRIPPED ____
HRS. OTHER 16 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. ____ CK. ____ PH ____ CHL ____ YP ____
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. ____ °F. DEVIATION SURVEYS: ____
None

10 3/4" CSG. 35'
7" CSG. ____
4.5" CSG. 488
" CSG. 526 temporary
LINER ____
TIE-BACK ____
HRS. REPAIR ____ RIG NO. ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	3.937	CHRIS	MC	652461		1775	2336	561	140	1000	400	T B G ½ worn
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO 1 RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW ____
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Cored from 2286 to 2336 *
when wireline parted pulling core barrel off bottom
POH serviced core barrel; ran new diamond core bit; greased rods
RIH reamed and washed from 880' to 1000'

* full core recovery; no drilling fluid returns

COSTS

TANGIBLES
CASING ____
VALVES ____
FLANGES ____
OTHER ____

INTANGIBLE
LOCATION ____
RIG MOVES ____
RIG $ 2095
ABATEMENT ____
BITS ____
DRILL EQUIP. MAIN. ____
DRILL. EQUIP. RENTAL 300
FUEL, WATER POWER ____
MUD 300
SUPERVISION & LABOR 300
CEMENT SERVICES ____
TRANSPORTATION ____
LOGGING SERVICES 330
FISHING & DIRECTIONAL ____
OTHER Boxes 250

OPERATION @ 0600 HOURS FOLLOWING DAY:
Washing below 1800'

DAILY TOTAL 3575
FORWARD $ 173,628
ACCU. TOTAL $ 177,203
AFE 86D01 4300 02

DO 13 July
- Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 33 DATE 11 JULY 1986
TOTAL RIG DAYS 33 TIME FROM SPUD 340 + Hrs
DEPTH @ 2400 HRS. 2286 FOOTAGE DRLD. 105
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR / RIG NO.
HRS. OTHER 0 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 43 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 69 °F. DEVIATION SURVEYS:
MRT at 2243'

10 3/4" CSG 35'
" CSG.
4.5" CSG 488
" CSG 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	CHRS	INC	65	2461		1775	INC	511	132	1000	400	T B G
												T B G
												T B G

3.937"

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				515	1500			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 2181 to 2286'
Recovered 105' = 100%
No fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2306'.

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4400
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Pooles	250
DAILY TOTAL	5880
FORWARD	167,745
ACCU. TOTAL	$ 173,628
AFE	86201 4300 02

SUPERVISOR

DO 12 July
Bowden

THERMAL POWER COMPANY

10 3/4" CSG @ 35
7" CSG. @ 488
4.5" CSG. @ 526 temporary
LINER
TIE-BACK

WELL NO. CTG#4 AFE NO.
REPORT NO. 34 DATE 10 July 1986
TOTAL RIG DAYS 34 TIME FROM SPUD 33d + 10hrs
DEPTH @ 2400 HRS. 2181 FOOTAGE DRLD. 98
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 75 °F. DEVIATION SURVEYS:
MRT 2130

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	9.751	CHRG	HTC	J1161		1775	TOC	406	108	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Drld 98' from 2083 to 2181'
Recovered 100%; NO DRLG FLUID
Returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Drlg at 2201' Lime
Mud Chatter.

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4106
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	$ 250
DAILY TOTAL	3636
FORWARD	162112
ACCU. TOTAL	165,748
AFE # DOI 4300-02	

DO 11 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 33 DATE 9 July 1986
TOTAL RIG DAYS 33 TIME FROM SPUD 32D + 10Hrs
DEPTH @ 2400 HRS. 2083 FOOTAGE DRLD. 85
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER
MUD WT. 8. Pump Pressure → 0
P.V.
GALVONIC PI Fluid level drop to 150'
FORM. DRLD.
MAX. TEMP. *MRT
BIT # SIZE M may be due to water level
3 3.937 maintenance due to pump pressure
activity

PUMP	LINER
1	

AIR COMP. NO
DRILLING AS!

10¾" CSG 35
" CSG.
7⅝ " CSG. 488
" CSG. 526 tin proxy
LINER
TIE-BACK

HRS. REPAIR RIG NO.
YES ☐ NO ☒
PH CHL YP
% LOST CIRC. MTL.
OXY. AIR-H₂O RATIO 1
SUCTION TEMP. °F.

BIT #	FT.	HRS.	WT.	RPM	COND.
3	384	84	1000	400	T P G
					T P G
					T P G

PM	NOZZLE VEL.	ANNULUS VEL.

EM. RATIO 1 RATE

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 1998 to 2083' Obtained 100% recovery. No drilling fluid returns

H₂S detection equipment NOT OPERATING. Some sump electric outage. Will repair or replace and have at functioning by 2500' depth

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2103'. Pump pressure fell to zero at 2102' Fluid level fell to ± 150'.

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3557
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	250
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	$ 250
DAILY TOTAL	$ 4981
FORWARD	157,131
ACCU. TOTAL	$ 162,112
AFE	86201-4300-02

DD. 10 July Barbara

THERMAL POWER COMPANY

WELL NO. CT&H-1 AFE NO.
REPORT NO. 32 DATE 8 July 1986
TOTAL RIG DAYS 32 TIME FROM SPUD 310 + 10 hrs
DEPTH @ 2400 HRS. 1998 FOOTAGE DRLD. 81
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35'
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	5.781	Cl.	MC	652461		1775	TWC	223	60	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	200			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1917 to 1998
100% core recovery; no drilling fluid returns
All training on H₂S safety and detection completed with all three drilling crews

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 2016

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	8 2972
RIG	
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	4432
FORWARD	134679
ACCU. TOTAL	169,111
AFE	86 D01-4300-02

DD 9 July Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 31 DATE 7 July 1986
TOTAL RIG DAYS 31 TIME FROM SPUD 330 + 10 HRS
DEPTH @ 2400 HRS. 1917 FOOTAGE DRLD. 89
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 75 °F. DEVIATION SURVEYS:
MRT AT 1939

10 3/4" CSG 35
7" CSG. 488
4.5" CSG. 326 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
5	3.937"	CHRG	MC	652446		1775	INC	142	36	1000	Yost	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	200			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 89' from 1828 to 1917'
Obtained 100% core recovery
No drilling fluid returns

D. Walters Exlog Smith on location July 7th.
- installed H_2S detection system
- trained two crews on H_2S safety and detection system

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1939'

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	# 32 Ide
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	4646
FORWARD	130,033
ACCU. TOTAL	134,679
AFE	86 DOT-4300-02

D.D. 8 July
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH1 AFE NO.
REPORT NO. 14 DATE 5 July 1986
TOTAL RIG DAYS 29 TIME FROM SPUD 280+10 Core
DEPTH @ 2400 HRS. 1775 FOOTAGE DRLD. 10'
HRS. DRILLED 6 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 18 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
4	3 7/8	CHRS	MC	45492		1271	1775	504	116	7000	450	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored only 10' 1765-1775
when mistake in core barrel
occured. String rate lead
dropped. POH; picked up
new core head. RIH.
Had to wash down from 560
to 963'

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coming out of hole. Core barrel
jammed at 1779'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1117
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	250
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	2547
FORWARD	144,111
ACCU. TOTAL	$ 146658

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 28 DATE 4 July 1986
TOTAL RIG DAYS 28 TIME FROM SPUD 2.70+10 days
DEPTH @ 2400 HRS. 1765 FOOTAGE DRLD. 24.75
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR·H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4½" CSG. 526 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3.937	Chris	MC	A5C4930		1271	IN	494	110	1000	100	I B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				545	150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1690 to 1765'
Obtained 100% core recovery.
No drilling fluid returns!

OPERATION @ 0600 HOURS FOLLOWING DAY:
Trip for new core head, after reaching 1775' depth

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2752
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	325
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER BOILES	250
DAILY TOTAL	4257
FORWARD	$ 134,854
ACCU. TOTAL	$ 144,111

ND-5 July
LANDEN

THERMAL POWER COMPANY

WELL NO. CGH 1 AFE NO.
REPORT NO. 24 DATE 3 July 1986
TOTAL RIG DAYS 24 TIME FROM SPUD 260 + 10 hrs
DEPTH @ 2400 HRS. 1690 FOOTAGE DRLD. 100'
HRS. DRILLED 23 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 1 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 1620' ½° N 39° E

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	5.937"	CHRO	MC	45 4930	—	1271	NC	419	86	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	150			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 1590 to 1690'
100% core recovery; no drilling fluid returns
1 hr - Survey at 1620'

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1711'

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 3670
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Bores	250
DAILY TOTAL	5150
FORWARD	134,704
ACCU. TOTAL	$ 139,854

No. 4 July Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 26 DATE 2 July 1986
TOTAL RIG DAYS 26 TIME FROM SPUD 25 DAYS
DEPTH @ 2400 HRS. 1590 FOOTAGE DRLD. 137
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 61 °F. DEVIATION SURVEYS: FLUID LEVEL 15'
MRT AT 11600'

10¾" CSG 35
7⅝" CSG. 408
4½" CSG. 526 temporary.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
4	3.937	CHRIS	MC	434952		1271	Inc.	319	62	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-75	100-150			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 1453' to 1590' in
24 hrs of coring operations
137/24 hrs = 5.7083 feet/hour
as "coring operating rate"

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$4894
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	6274
FORWARD	$128,430
ACCU. TOTAL	$134,704
AFE	8620 / 4300-02

DO 3 Jul
Browder

THERMAL POWER COMPANY

WELL NO. CTG#1 AFE NO.
REPORT NO. 23 DATE 1 JULY 1986
TOTAL RIG DAYS 25 TIME FROM SPUD 240 + 10 HRS
DEPTH @ 2400 HRS. 1453' FOOTAGE DRLD. 137'
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR / RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. VIS. W.L. CK. PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 67 °F. DEVIATION SURVEYS:

10¾" CSG 35
" CSG.
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
4	3.937"	CHRIS	MTC	1534430	-	1271	-	182	39	1000	400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	25-50			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 1316' - 1453'
100% core recovery
No drilling fluid returns

Liquid level in wellbore
at 40-45' depth.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1491'

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 4847
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	450
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Boxes	250
DAILY TOTAL	6277
FORWARD	121,153
ACCU. TOTAL	$ 128,430
AFE	86 001 4300-02

SUPERVISOR BOWDEN

DO 2 Ja 8

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 24 DATE 30 JUNE 1986
TOTAL RIG DAYS 24 TIME FROM SPUD 230 +10 HRS
DEPTH @ 2400 HRS. 1316 FOOTAGE DRLD. 71
HRS. DRILLED 15 HRS. TRIPPED 4
HRS. OTHER 5 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 ppg VIS. 45 sec W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG.
4.5" CSG 4886
4.5" CSG 326 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
4	3.937"	CHRIS	MC	45 4930	—	1271	INC	74		1000	400	T B G
								45	15			T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Core bit no. 3 was 2/3 worn upon replacement at 1271' depth; had cored 412' total interval from 859' to 1271' in ± 85 hrs.

Core bit no. 4 has same diameter 3.937". Had to wash at 660' on way in.

Cored 1245 to 1316' without drilling fluid returns. Obtained 100% core recovery

* BOWDEN thinks a water zone at 690', 660' and 680' is cause of both water and rock entry into corehole and is also the chief lost circulation zone.

1.1 ppg mud top

could be as high as 580'

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 1348' depth.

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG $ 3528
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD 700
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER BOILER SUP 250
Rod GREASE 150

DAILY TOTAL $ 5258
FORWARD $ 116,895
ACCU. TOTAL $ 122,153
AFE 80 001 4300-02

DO, July 8
Bowden

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 23 DATE 29 JUNE 1986
TOTAL RIG DAYS 23 TIME FROM SPUD 22DY 10HRS
DEPTH @ 2400 HRS. 1245 FOOTAGE DRLD. 162
HRS. DRILLED 24 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.5 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3.937	CHRIS	MC	65 1442	-	859	-	386	82	10M	480	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
				5-15	25-50			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 1083' to 1245'. No drilling fluid returns. Obtaining 100% core recovery.

DO reported to D. DAVIS - BLM

Progress to 0600 hrs 30 JUNE 1986

OPERATION @ 0600 HOURS FOLLOWING DAY:
Trip for new core head at 1271' depth

INOPERATIVE EQUIPT, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 5483
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	300
FUEL, WATER POWER	
MUD	300
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	FOYLES 300 250
DAILY TOTAL	$ 6963
FORWARD	104,932
ACCU. TOTAL	$ 111,895
AFE	86 DOI 4300-02

SUPERVISOR Bob DEN

NO 30 June

THERMAL POWER COMPANY

WELL NO. CTG1H1 AFE NO.
REPORT NO. 22 DATE 28 JUNE 86
TOTAL RIG DAYS 22 TIME FROM SPUD 210+10HRS
DEPTH @ 2400 HRS. 1083 FOOTAGE DRLD. 121
HRS. DRILLED 20 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 4 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 43 W.L. — CK. — PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

$10\frac{3}{4}$" CSG 35
7" CSG. 488
$4\frac{1}{2}$" CSG. 526 Temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3.937"		65142	—	859	—	1221	58	1000	400		T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				5-15	25-50			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE High Average Low
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 3.937" hole from 962' to 1083'. Released tools slipped
No drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING AT 1123

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG $ 4004
ABATEMENT
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL 275
FUEL, WATER POWER
MUD 250
SUPERVISION & LABOR 300
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER BOYLES SUP 250

DAILY TOTAL $ 5409
FORWARD 104,525
ACCU. TOTAL $ 109,934
AFE # 4300-02

BOWDEN

THERMAL POWER COMPANY

WELL NO. CTG#1 AFE NO.
REPORT NO. 21 DATE 27 JUNE 1986
TOTAL RIG DAYS 21 TIME FROM SPUD 200+110 HRS
DEPTH @ 2400 HRS. 962 FOOTAGE DRLD. 94
HRS. DRILLED 13 HRS. TRIPPED
HRS. OTHER 11 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4" CSG 35
7" CSG. 488
4.5" CSG. 526 Temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	3431		6J1491	-	859	INC	103	34	1000	440	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
				25-35	50-100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 5.937" hole from 918 to 962'. Had drilling fluid returns
Pulled out to grease core tools at 947'.
Had to work back through two bridges at 600-620' and at 690-710'
At 962', stacked in the inner core barrel; broke wire line in recovery attempt. POH

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 7335
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	225
FUEL, WATER POWER	
MUD	150
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boiler Sup. 250
DAILY TOTAL	$ 3640
FORWARD	100,883
ACCU. TOTAL	$ 104,523
AFE	86 101 4300-02

Bowden
AD-289

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 20 DATE 2-26-86
TOTAL RIG DAYS 20 TIME FROM SPUD 194+10 hr
DEPTH @ 2400 HRS. 918 FOOTAGE DRLD. 59
HRS. DRILLED 21 HRS. TRIPPED
HRS. OTHER 3 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 68 °F. DEVIATION SURVEYS:
MRT @ 918' = 68°F

10 3/4" CSG CSG. 35'
7 " CSG. 488
4 1/2 " CSG. 526 TEMPORARY
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
3	3.937	CHRIS	NC	651492		859	INC	59	21	1000	3-400	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
2				25-35	50-100			

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

CORED FROM 959 TO 918 FT

TRIP FOR BIT CHANGE @ 959 FT
TRIP FOR MIS. @ 959 FT
1 HR WASH & REDRILL FROM 900 TO 913 FT
2 HR RIG MAINT.

(CEM)
27 JUNE 86

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING @ 938 FT

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2165
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	216
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	R
OTHER BOYLES SUP	250
2 GEOLOGISTS	330
DAILY TOTAL	3536
FORWARD	97,349
ACCU. TOTAL	100,885
AFE	

BUDDY BOWLES

THERMAL F_WER COMPANY

WELL NO. CTG H-1 AFE NO.
REPORT NO. 19 DATE 6.25.86
TOTAL RIG DAYS 19 TIME FROM SPUD 13d + 10h
DEPTH @ 2400 HRS. 859' FOOTAGE DRLD. 85'
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H$_2$O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. 67 °F. DEVIATION SURVEYS: 733' = .2½° S32°E
MRT @ 865' = 67° F

10¾" CSG.	35'
7" CSG.	488'
4.5" CSG.	526' (Temp)
LINER	
TIE-BACK	

HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	3.937"	Chris.	NC	651489		588	859	271	67.5	1-2000	320	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
2				25-35	100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored 774 to 859'; no returns

Water flow into hole thinning mud, loosing lubricity. Rod vibration being monitored to determine if greasing is required.

JLI
26 June '86

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring @ 864'.

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	
ABATEMENT	
BITS	2579
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	626 (2 dmp)
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles SUP	250
DAILY TOTAL	4360
FORWARD	93 989
ACCU. TOTAL	97 349
AFE	

SUPERVISOR Buddy Bowden

THERMAL POWER COMPANY

WELL NO. LTGH-1 AFE NO.
REPORT NO. 18 DATE 6/24/86
TOTAL RIG DAYS 18 TIME FROM SPUD 174 10h
DEPTH @ 2400 HRS. 774 FOOTAGE DRLD. 80
HRS. DRILLED 19½ HRS. TRIPPED
HRS. OTHER 4½ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. 12 CK. film PH 6-5 CHL 400 YP 10
P.V. 18 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 738' = 2x2° No direction yet

10¾" CSG CSG.	35
7 " CSG.	498
4.5 " CSG.	526 temporary
LINER	
TIE-BACK	

HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	3.937"	Christ	NC	651489		588	INC	186	43½	1-2000	350	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				25-35	100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored from 694 - 774', NO returns
3½ hrs Pulled bit to 7" casing shoe @ 488', mixed LCM & mud trying to plug LCZ, NO success.
1½ hr rig maintenance

OPERATION @ 0600 HOURS FOLLOWING DAY:

Coring @ 797'

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	1200 (caller)
RIG MOVES	
RIG	2991
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	275
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	1130 (trucking)
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles SUP	250
DAILY TOTAL	6476
FORWARD	86513
ACCU. TOTAL	92989
AFE	

SUPERVISOR Buddy Bowden/JS 25

THERMAL POWER COMPANY

WELL NO. CTCH-1 AFE NO.
REPORT NO. 17 DATE 6/23/86
TOTAL RIG DAYS 17 TIME FROM SPUD 16 1/2 hrs
DEPTH @ 2400 HRS. 694 FOOTAGE DRLD. 97
HRS. DRILLED HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 60 W.L. 12 CK. thin PH 6.5 CHL 400 YP 10
P.V. 20 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10 3/4 " CSG	35
7 " CSG.	488
4.5 " CSG.	526 Temporary
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	3.937	Christ.	NC	6S1489		588	INC	106	24	1-2000	350	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1				255	100			

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cored f/ 597 to 694'
No mud returns

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 719'

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR Buddy Bowden

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	2943
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	675
FUEL, WATER POWER	
MUD	696
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	
Boyles	250
DAILY TOTAL	5194
FORWARD	81319
ACCU. TOTAL	86513
AFE	

25/m

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 16 DATE 22 JUNE 1986
TOTAL RIG DAYS 16 TIME FROM SPUD 15D+10HRS
DEPTH @ 2400 HRS. 547 FOOTAGE DRLD. 20
HRS. DRILLED 22 HRS. TRIPPED
HRS. OTHER 2 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.4 VIS. 45 W.L. 10 CK. 1/32 PH 6.5 CHL 400 YP 15
P.V. 20 GELS 4/8 % SAND 0 % SOLIDS 0.5 % LOST CIRC. MTL. ± 1
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	5.937"	C.	20305-454	65 1490	—	527	588	61	22	300	350	I B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	—	—	—	35	100	35	Small triplex pump for coring	

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Lost mud circulation just below 530' ±

Initial Christensen diamond core head was worn at end of 61' run.

Using 10' core barrel

OPERATION @ 0600 HOURS, FOLLOWING DAY:
Coring at 615' without returns

INOPERATIVE EQUIPT, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2291
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	750
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	$ 3921
FORWARD	$ 77,348
ACCU. TOTAL	$ 81,319
AFE	86 D01-4300-02

SUPERVISOR Fairchild

NO. 23 June 1986

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 13 DATE 21 JUNE 1986
TOTAL RIG DAYS 13 TIME FROM SPUD 10 Days
DEPTH @ 2400 HRS. 527 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 13 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
4.5" CSG. 526 temporary
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Ran 5½" BOWEN overshot with 4½" grapples. Latched on to fish; POH with same.

Ran 26 joints of 4.5" core guide casing. Welded two straps at each coupling and slipped on 11 solid bow stabilizers. Hung this core guide string at 526' (To be recovered before running any protection casing); hung from 7" Larkin casing head.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Coring at 534' without returns

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1625
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	350
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER Bryles	250
Fishing tools	2215
DAILY TOTAL	$ 5070
FORWARD	$ 72,328
ACCU. TOTAL	$ 77,398
AFE 86-DRL-4300-02	

SUPERVISOR BRANDEN 22 June

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 14 DATE 20 JUNE 1986
TOTAL RIG DAYS 14 TIME FROM SPUD 30 + 10 HRS
DEPTH @ 2400 HRS. 529 FOOTAGE DRLD. 12
HRS. DRILLED 2 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 17 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 8.4 VIS. 45 W.L. — CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
" CSG.
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
3	6"	HTC	RR162-OCS	NONE	517	529	12	2	5/10	120	T B G	
											T B G	
											T B G	

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	1892	131		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 6" BIT 4.5' JOINT D.P. X SUB, T.L. 21'
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Picked up 6" bit, drilling assembly and 3½" core rods RIH

Pulled float collar at 466' and cement in bottom joint of 7" to 488'.

Cleaned out 8¾" hole to 517' and drilled 6" hole to 529', Circulated 30 minutes and POH

Found that 6" bit and 4.5 joint left on bottom. Shut down at 1800 hrs after calling for overshot

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2250
ABATEMENT	
BITS	3 300
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	225
FUEL, WATER POWER	
MUD	500
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330
FISHING & DIRECTIONAL	
OTHER	Boyles 250
	Machining 50
DAILY TOTAL	4205
FORWARD	68,123
ACCU. TOTAL	72,328
AFE	86-201 4200-02

SUPERVISOR BOWDEN 20-21 June

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 13 DATE 12 JUNE 1986
TOTAL RIG DAYS 13 TIME FROM SPUD 20 + 10 HRS
DEPTH @ 2400 HRS. 517' FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 17 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7" CSG. 488
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Aligned - stabilized core rig over BOP stack and cellar.
Built rig floor and doghouse
Commenced picking up core rods at 2345 hrs

OPERATION @ 0600 HOURS FOLLOWING DAY:
Cleaned out cement to 490'; cleaned out hole to 507'. Prep to set hole below 517' to seat 4.5" string

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 2125
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	504
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	WELDER 844
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	700 GR/NGS, ADDL
FISHING & DIRECTIONAL	
OTHER	GEOL 1530 CATCH UP
DAILY TOTAL	5703
FORWARD	62,420
ACCU. TOTAL	68,123
AFE	86-DOE-4300-02

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 12 DATE 18 JUNE 1986
TOTAL RIG DAYS 12 TIME FROM SPUD 11D + 10HRS
DEPTH @ 2400 HRS. 517 FOOTAGE DRLD. —
HRS. DRILLED — HRS. TRIPPED
HRS. OTHER 12 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾ " CSG 35'
7" " CSG. 488'
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Installed replacement flange in 7" LARKIN casing head. Installed BOP: double gate and Hydril units and 40 gallon accumulator. Tested blind rams and pipe rams with 1000 psig (water) for 30 mins each. Tested Hydril with 1750 psig (water) for 30 mins.

Pressured accumulator to 2800 psig. At remote station worked blind rams, pipe rams and Hydril with less than 10% pressure bleed down.

BOP TEST OBSERVED AND APPROVED BY DENNIS DAVIS BLM 18 JUNE 86.

Rained all day at drillsite. Snowed at the higher elevations!

OPERATION @ 0600 HOURS FOLLOWING DAY:
Adjusting DC rig base and cables. Prep to clean out hole to 517'. Then run 4.5" casing core guide.

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR Bowden

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1500
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER	250
DAILY TOTAL	$ 2050
FORWARD	60,370
ACCU. TOTAL	$ 62,420
AFE	86-201-430002

DD 18 June 86

THERMAL POWER COMPANY

WELL NO. CIGH 1 AFE NO.
REPORT NO. 11 DATE 17 JUNE 1986
TOTAL RIG DAYS 11 TIME FROM SPUD 10½ + 7 Dys
DEPTH @ 2400 HRS. FOOTAGE DRLD.
HRS. DRILLED 5½ HRS. TRIPPED
HRS. OTHER 8 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35
7" CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

8 hrs Worked on 8 5/8" x 6" 900 Series flange. Recut threads; still would not seat.

Replacement flange air delivered in PORTLAND.

OPERATION @ 0600 HOURS FOLLOWING DAY:

Air delivered flange seated and sealed in Shaffer Casing head. Prep for BOP pressure test

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING 10¾ and 7"	9 1405
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	1000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300 + 1930 331 2260
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	3255
FORWARD	57115
ACCU. TOTAL	560,370
AFE	86-DD1-4300-02

SUPERVISOR BOWDEN DD-18 June

THERMAL POWER COMPANY

WELL NO. CTGH 1 AFE NO.
REPORT NO. 10 DATE 16 JUNE 1986
TOTAL RIG DAYS TIME FROM SPUD 9d+10hrs
DEPTH @ 2400 HRS. 377' FOOTAGE DRLD.
HRS. DRILLED 0 HRS. TRIPPED
HRS. OTHER 11 COOLING TOWER IN USE,
MUD WT. VIS. W.L. CK.
P.V. GELS % SAND % SOLIDS
GALVONIC PROBE CORRATOR SULPHIDE
FORM. DRLD. FLOW LINE TEMP. °F. $
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG 35
7 " CSG. 488
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.
YES ☐ NO ☐

Dennis Davis
Accumulator w't Oregon Space
requirement (1) hydraulic control
not present (2) electric remote
(3) manifolded pipe + blind rams
WOS specified in drilling plan
cellar to mud

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM

AIR COMP. NO CFM PSI TEMP. °F CHEM.
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Nipped up BOPs and 2" choke manifold

Could not obtain pressure buildup; found leak in 8 5/8" x 6" 900 series flange that screws into 7" LOKTA head.

Must repair or recut threads on flange to proceed with the BLM required BOP test.

Ordered replacement flange from Hotco - Farmington by fax delivery.

OPERATION @ 0600 HOURS FOLLOWING DAY:
Soaking local thread checking capacity.

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1375
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	2800
FISHING & DIRECTIONAL	
OTHER	Taylor 250
DAILY TOTAL	$ 4425
FORWARD	52,990
ACCU. TOTAL	$ 57,115
AFE	86 201-4300-02

2900 logging
1200 geological
catch-up
4100
-2200 costed
1900

SUPERVISOR BOWDEN DO. 17 June

THERMAL F WER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 9 DATE 15 JUNE 1986
TOTAL RIG DAYS 9 TIME FROM SPUD 8½+10HRS
DEPTH @ 2400 HRS. 317 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 12 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. — VIS. W.L. CK. PH . CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG	35'
7" CSG.	488
" CSG.	
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
—												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
—								

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Constructed cellar
Welded on LARKIN casing head to 7" casing
Set on BOP equipment

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$ 1500
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330 + 540
FISHING & DIRECTIONAL	
OTHER	Bayles Sup 250
DAILY TOTAL	$ 2050
FORWARD	$ 30940
ACCU. TOTAL	$ 32,990
AFE	86-201-4300-02

OPERATION @ 0600 HOURS FOLLOWING DAY:
Preparing to pressure test BOP

INOPERATIVE EQUIP'T, EXPLAIN

SUPERVISOR Bonifas NO. 16 June

THERMAL P_WER COMPANY

WELL NO. CTGH-1 AFE NO. _____
REPORT NO. 8 DATE 14 June 86
TOTAL RIG DAYS 8 TIME FROM SPUD 7d+10hrs
DEPTH @ 2400 HRS. 317 FOOTAGE DRLD. 0
HRS. DRILLED 9 HRS. TRIPPED _____
HRS. OTHER 9 COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. — VIS. _____ W.L. _____ CK. _____ PH ___ CHL _____ YP _____
P.V. _____ GELS _____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. _____
GALVONIC PROBE _____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1
FORM. DRLD. _____ FLOW LINE TEMP. _____ °F. SUCTION TEMP. _____ °F.
MAX. TEMP. _____ °F. DEVIATION SURVEYS: _____

10¾ CSG	35'
7 " CSG.	488
" CSG.	
LINER	
TIE-BACK	

HRS. REPAIR ____ RIG NO. ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
—								

AIR COMP. NO ___ CFM _____ PSI ___ TEMP. °F ___ CHEM. _____ RATIO 1 RATE ___
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: _____

TOTAL STRING WT. _____ TOTAL PICKUP WT. _____ ROTARY TORQUE (HIGH AVERAGE LOW)
STEAM ENTRIES, DEPTH, LBS. _____

REMARKS FOR 24 HOUR PERIOD:

Mixed 4 bowels of Class G cement and perlite 1:1 and filled annulus between 7" and 10¾" Cement level came to surface and remained there
Rigged down rotary tools
Cut off 7" casing
Pumped out pits
Digging cellar

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN _____

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	8 1000
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	330+210
FISHING & DIRECTIONAL	
OTHER	Boyles 250
DAILY TOTAL	1550
FORWARD	49,390
ACCU. TOTAL	* 50,940
AFE	86-DD1-4300-02

SUPERVISOR Bowden RD. 15 June

THERMAL P WER COMPANY

WELL NO. CTG H-1 AFE NO.
REPORT NO. 1 DATE 13 June 1986
TOTAL RIG DAYS 1 TIME FROM SPUD 60+ Hrs
DEPTH @ 2400 HRS. 517' FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 19 COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. - VIS. W.L. CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

10¾" CSG CSG. 35'
7" " CSG. 488'
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Colorado Logging completed GR log 0600-1300 hrs.

Ran 8 3/4" bit to 517'. CO - no fill found on btm. POH

Ran 7" casing. Stopped at 70'. POH. removed centralizer from first joint

Ran 7" casing. Stopped at 488' Tried to circulated csg to btm; no go

Rigged to cement. HALLIBURTON pumped 5 bbls water ahead of cement slurry of 127 cu ft Class G 11:1 perlite plus 40% silica flour, 2% gel at 13.5 ppg density Tailed 32 cu ft Class G plus 40% SiO2 at 15.5 ppg. Displaced w 19 bbls water CIP at 0130 hrs, 14 JUNE 86 Had good cement returns. Plug bumped at 1000 psig Held OK

Ran 519' of 7" 26 lb K-55 BT&C Cag shoe at 488', float collar at 466'.

Cement dropped in annulus

OPERATION @ 0600 HOURS FOLLOWING DAY:
Prep to do outside cement job

INOPERATIVE EQUIP'T, EXPLAIN

COSTS 1 barrel of cement = 5.614 ft

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$2375
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	9471
TRANSPORTATION	
LOGGING SERVICES	300 + 210
FISHING & DIRECTIONAL	
OTHER	HOYLES 250
DAILY TOTAL	12,696
FORWARD	36,694
ACCU. TOTAL	$49,390
AFE	

SUPERVISOR BOWDEN DO 14 June

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 6 DATE 12 JUNE 86
TOTAL RIG DAYS 6a TIME FROM SPUD 504 Hours
DEPTH @ 2400 HRS. 517 FOOTAGE DRLD. 97
HRS. DRILLED 9.5 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 3.5 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.8 VIS. 70 W.L. 10 CK. 2/32 PH 7 CHL 400 YP 22
P.V. 20 GELS 12/26 % SAND 0.5 % SOLIDS 5.0 % LOST CIRC. MTL. 6-8
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 517' 2°

16" CSG	35'
" CSG.	
" CSG.	
" CSG.	
LINER	
TIE-BACK	

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2a	8 3/4	Smith	AV609	E-3	NONE	35	517	482	31.5	15,000	60	I 4 B 3 G W
												I B G
												I B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	100	131		

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 8 3/4" BIT ONE 6" DC 24 4.5" DCs
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Drilled 8 3/4" hole 420' to 517'

Put 10 barrels of mud at 425.

2 1/2 hrs Circulating mud - conditioning hole at 517'

1/2 hr Survey at 517'

Geophysical logging crew/truck arrived at 2100 hrs at drillsite

OPERATION @ 0600 HOURS FOLLOWING DAY:
Logging borehole, from 517 to 35'
HALLIBURTON on location

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	$1711
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	450
SUPERVISION & LABOR	BOWDEN 300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300 +180
FISHING & DIRECTIONAL	
OTHER	BOYLES 250
DAILY TOTAL	3011
FORWARD	33,683
ACCU. TOTAL	36,694
AFE	86-201-4300-02

SUPERVISOR Bowden DO 13 June

THERMAL F WER COMPANY

10¾" CSG / CSG. 35'
" CSG.
" CSG.
LINER
TIE-BACK

WELL NO. CTGH-1 AFE NO.
REPORT NO. 5 DATE 6/11/86
TOTAL RIG DAYS 5 TIME FROM SPUD 41 10 HRS
DEPTH @ 2400 HRS. 420' FOOTAGE DRLD. 200'
HRS. DRILLED 11½ HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER ½ COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. 9.2 VIS. 61 W.L. 10 CK. 2 PH 7.2 CHL 400 YP 26
P.V. 18 GELS 12/21 % SAND 5 % SOLIDS 6 % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO 1
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS: 220' = ½°.

517'

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	8¾	Smith	F-3	AV6099	Nose	35'	—	385'	21	15-18	60 65	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	80	131	100	131		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 8¾" bit, 1 x 6" drill collar, 20 x 4½ DC total 420'
TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

drilled 8¾" hole from 220' to 420'

½ hr others = survey

400-410' lost 50% returns ~1000 gals

410' full returns

JLI

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	45
RIG MOVES	
RIG	2993
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	190
TRANSPORTATION	
LOGGING SERVICES	300
FISHING & DIRECTIONAL	
OTHER	Boyles Sup. 250
DAILY TOTAL	4078
FORWARD	29605
ACCU. TOTAL	33683
AFE	

10¾" casing

-$30
150

SUPERVISOR Ruthie Rowden

THERMAL P WER COMPANY

WELL NO. CTGH-1 AFE NO. 10

REPORT NO. 4 DATE 6/14/84

TOTAL RIG DAYS 4 TIME FROM SPUD 3 1/2 hrs

DEPTH @ 2400 HRS. 220' FOOTAGE DRLD. 195'

HRS. DRILLED 9½ HRS. TRIPPED ____ HRS. REPAIR ____ RIG NO. ____

HRS. OTHER 2½ COOLING TOWER IN USE, YES ☐ NO ☐

MUD WT. 8.8 VIS. 40 W.L. ____ CK. ____ PH ____ CHL ____ YP ____

P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____

GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO ____/1

FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.

MAX. TEMP. ____ °F. DEVIATION SURVEYS: 160' = ½° ; 220' = No Data

10¾" CSG CSG. 35'

" CSG. ____

" CSG. ____

LINER ____

TIE-BACK ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
2	8¾	Smith	F3	AV6059	None	35'	—	195'	9½	S-15000	65	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6	80	114	100	114		

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO ____/____ RATE ____

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 1 x 8¾" bit, 1 x 6" DC, 10 x 4½ DC, Total Length 220'

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE (HIGH AVERAGE LOW) ____ ____ ____

STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Drilled 8¾" hole from 35' to 220'

2½ hrs running deviation survey problem with clock

Shut down 1900 hours

Geophysical borehole loggers called out 1700 hours

JLS

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP'T, EXPLAIN ____

SUPERVISOR Buddy Bowden

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	3096
RIG MOVES	
RIG	
ABATEMENT	
BITS	2500 (B.I.H 2)
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	200
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	300 (330 − 30 = 300)
FISHING & DIRECTIONAL	
OTHER	
Boyles Sup	250
DAILY TOTAL	6646
FORWARD	22946
ACCU. TOTAL	29605
AFE	

THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO.
REPORT NO. 3 DATE 2 JUNE 86
TOTAL RIG DAYS 3 TIME FROM SPUD 20+10HRS
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 0
HRS. DRILLED 0 HRS. TRIPPED
HRS. OTHER 9 COOLING TOWER IN USE, YES ☐ NO ☒
MUD WT. 8.8 VIS. 65 W.L. — CK. PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H₂O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

CSG 10¾" at 35'
" CSG.
" CSG.
" CSG.
LINER
TIE-BACK
HRS. REPAIR RIG NO.

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND
												T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.

AIR COMP. NO. CFM PSI TEMP. °F CHEM. RATIO / RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Started up rig at 9 am
Ran 12¼" air hammer and C.O. to 35'. POH.
Ran one joint of 10¾ K-55 40.5 lbs/ft conductor casing to 35'.
Blew hole dry with air
Cemented conductor at 35' depth with slurry of 16 sax Portland cement and 16 sax of Construction Cement plus 3% CaCl B
CIP at 1430 hrs. Shut down rig at 1800 hrs WOC

OPERATION @ 0600 HOURS FOLLOWING DAY:
Preparing to dull out with 8¾" bit

INOPERATIVE EQUIPT, EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	Pit liner $ 500
RIG MOVES	
RIG	1125
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	157
SUPERVISION & LABOR	300
CEMENT SERVICES	?
TRANSPORTATION	
LOGGING SERVICES	(900) 330 +90
FISHING & DIRECTIONAL	
OTHER	Boyles Sup. 250
DAILY TOTAL	3232
FORWARD	19,727
ACCU. TOTAL	$ 22,959
AFE	86-001-4300-02

SUPERVISOR

THERMAL P WER COMPANY

WELL NO. CTGH-1 AFE NO. BELOW
REPORT NO. 2 DATE 8 JUNE 86
TOTAL RIG DAYS 1 + 10 HRS TIME FROM SPUD
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 35
HRS. DRILLED 3 1/2 HRS. TRIPPED HRS. REPAIR RIG NO.
HRS. OTHER 11 COOLING TOWER IN USE. YES ☐ NO ☐
MUD WT. 8.6 PPG VIS. 54 W.L. 54 CK. 2/32 PH 6.8 CHL 400 YP 21
P.V. 17 GELS 9/12 % SAND 3 % SOLIDS 3.5 % LOST CIRC. MTL. NONE
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H_2O RATIO /
FORM. DRLD. FLOW LINE TEMP. °F. SUCTION TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

CSG
" CSG.
" CSG.
" CSG.
LINER
TIE-BACK

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
2	8 3/4	SMITH		AB679	NONE	0	35	35	3 1/2	ALL	60	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	3"	6"	54	88		88		

AIR COMP. NO CFM PSI TEMP. °F CHEM. RATIO 1 RATE
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Wyoed truck sold Rotary leg 6'
Spudded second conductor hole
Drilled 8 3/4" hole in 3 1/2 hrs POH
Ran 12 1/4" bit; reamed opened hole
but stopped at 20'. POH
Ran 12 1/4" air hammer; opened holes 35'
POH
Ran 10 3/4" conductor; stopped at 24'
POH and ran 12 1/4" bit CO to 35' POH
Ran 10 3/4 conductor; stopped at 28'
Shut down at 2300 hrs
Filled first conductor hole w
cuttings from second hole

OPERATION @ 0600 HOURS FOLLOWING DAY:
Prep to CO again; leave straight
hole. Expect to cement 10 3/4"
conductor

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	
RIG MOVES	
RIG	1325
ABATEMENT	
BITS	
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	
FISHING & DIRECTIONAL	
OTHER Cowles Rig Sup.	500
DAILY TOTAL	2175
FORWARD	17,552
ACCU. TOTAL	19,727
AFE	86-D01-4300-02

SUPERVISOR BOWDEN DD-99 June

THERMAL P WER COMPANY

WELL NO. CTGH 1 AFE NO. BELOW
REPORT NO. 1 DATE 7 JUNE 86
TOTAL RIG DAYS 0 +10 HRS TIME FROM SPUD 10 HRS
DEPTH @ 2400 HRS. 35 FOOTAGE DRLD. 35
HRS. DRILLED 5 HRS HRS. TRIPPED ____
HRS. OTHER 5 HRS COOLING TOWER IN USE, YES ☐ NO ☑
MUD WT. 8.3 PPG VIS. 60 SEC W.L. — CK. — PH — CHL — YP —
P.V. ____ GELS ____ % SAND ____ % SOLIDS ____ % LOST CIRC. MTL. ____
GALVONIC PROBE ____ CORRATOR ____ SULPHIDE ____ OXY. ____ AIR-H_2O RATIO 1
FORM. DRLD. ____ FLOW LINE TEMP. ____ °F. SUCTION TEMP. ____ °F.
MAX. TEMP. ____ °F. DEVIATION SURVEYS: ____

CSG
" CSG. ____
" CSG. ____
" CSG. ____
LINER ____
TIE-BACK ____
HRS. REPAIR ____ RIG NO. ____

BIT #	SIZE	MAKE	TYPE	SER. NO.	JETS	IN	OUT	FT.	HRS.	WT.	RPM	COND.
1	12¼"	REED	S136J	294376	NONE	0	35	35	5	ALL	60	T B G
												T B G
												T B G

PUMP	LINER	STROKE	SPM	GPM	PSI	TOTAL GPM	NOZZLE VEL.	ANNULUS VEL.
1	5"	6"	54	88	0	88		

AIR COMP. NO ____ CFM ____ PSI ____ TEMP. °F ____ CHEM. ____ RATIO 1 RATE ____
DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: ____

TOTAL STRING WT. ____ TOTAL PICKUP WT. ____ ROTARY TORQUE HIGH AVERAGE LOW
STEAM ENTRIES, DEPTH, LBS. ____

REMARKS FOR 24 HOUR PERIOD:

Mixed Spud mud. Spudded 10:30 am 6-7-86
Drilled 12¼" hole from surface to 12' depth, stopped on boulder bed POH.
Ran 12¼" air hammer; drilled 12-35' depth "rough going." POH
Ran 12¼" bit and reamed 0-35'. POH.
Ran 10¾" conductor one 35' joint; stopped at 12'. POH.
Reamed hole w 12¼" bit to 35' POH
Ran 10¾" conductor; again stopped at 12' POH and shut down

OPERATION @ 0600 HOURS FOLLOWING DAY:
REVIEWING CONDUCTOR HOLE PROBLEM

INOPERATIVE EQUIP'T, EXPLAIN ____

COSTS

TANGIBLES	
CASING	
VALVES	
FLANGES	
OTHER	
INTANGIBLE	
LOCATION	7005
RIG MOVES	7080
RIG	1736
ABATEMENT	
BITS	761 680
DRILL EQUIP. MAIN.	
DRILL. EQUIP. RENTAL	
FUEL, WATER POWER	
MUD	411
SUPERVISION & LABOR	300
CEMENT SERVICES	
TRANSPORTATION	
LOGGING SERVICES	33. —
FISHING & DIRECTIONAL	
OTHER WATER LINE	500
DAILY TOTAL	17,552
FORWARD	—
ACCU. TOTAL	$ 17,552
AFE	86-D01-4300-02A

SUPERVISOR BOWDEN RD 9 June