THERMAL F. WER COMPANY

WELL NO. CTGH-1, AFE NO. Below DATE 7 JUNE 86
REPORT NO. 1 TIME FROM SPUD 16-26 HRS
TOTAL RIG DAYS 0+10 HRS., FTAGE DRLD. 35
MUD WT 8.3 PD/FT. VIS. 60 SEC
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
1

CQVPROBE CORRATOR SULPHIDE OXY. AIR/H2O 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 T I G
1 2 3/8" NERD 5/35 64/376 0 35 35 5 60 T I G

PUMP LINER STROKE SPM GPM PSI TOTAL GPM NOZZLE VEL.
1 5" 10" 50 82 0 82 T I G

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

REMARKS FOR 24 HOUR PERIOD:

Wet and mist. Flooded 10" hole 6-7-86
Dilled 12" hole from surface to 12' depth; stepped on ground 1st day.
1 boo 12" air hammer; dilled 12-35' depth
1 boot 12" bit andreamed 0-35'. 1st day.
1 boot 10"' conductor, me 35' after, stepped at 12'. 1st day.
1 boot 12" hole to 35' bolt.
1 boot 10"' conductor, after plugged at 12'. 1st day.

OPERATION 0.0600 HOURS FOLLOWING DAY;
REVIEWING CONDUCTOR HOLE PROBLEM

INOPERATIVE EQUIPT, EXPLAIN:

COSTS
TANGIBLES
CASING
VALVES
FLANGES
OTHER
INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATEMENT
BITS
1001
1000
1736
DRILL EQUIP., MAIN.
DRILL EQUIP., RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
Cement Services
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER
WATER LINE 500

DAILY TOTAL 11.55
FORWARD
ACCUM. TOTAL 11.55

SUPERVISOR

THERMAL F. WER COMPANY

11-9-86

PADDEN 11-9-86
THermal PoWer CoMPANY

WELL NO. CTGH-1
REPORT NO. 2
TOTAL RIG DAYS 1 + 10 HRS
DEPT OF 2400 HRS. 35
HRS. DRILLED 35
HRS. OTHER 1
MUD WT. 8.88 G/G
W.L. 54
C.K. 1/3
P.V. 0.1
GELS 9.1/2
% SAND 3
% SOLIDS 3
% LOST CIRC. MTL. 0
GALVONIC PROBE...
CORRATOR...
SULPHIDE...
FORM. DRLD...
FLOW LINE TEMP...
MAX. TEMP...
DEVIATION SURVEYS:

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND
2 1 1/2 2 1/2 1 1/2 8 6 35 35 35 35 35

PUMP LINER STROKE RPM PSI TOTAL GPM NOZZLE VEL
L 3 6 57 28 88

AIR COMP NO CFM PSI TEMP °F CHEM.

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT.
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Went truck setup below for 6
Second hand-in-hand hook.

Mud line 3 1/2" hole 3 1/2 hrs. 214.3
Lav 10' 1/4" bit. Removal opened hole
Lav 10' 1/4" Lav cement opened hole 35'

Lav 10' 1/4" Lav cement opened hole 35'

Lav 10' 1/4" Conductors dropped at 24'
Pit 214.3 and lav 10' 1/4" Drop 25 35' 214.3
Lav 10' 1/4" Conductors dropped at 25' Politics 22 214.3

Shut down at 2300 hrs.

Tied second conductor hole in
Call-ups from Second Hole

OPEration 6000 HOURS FOLLOWING DAY:

Take 30' again. Drive straight
Shoe, Surface & cement 10' 1/4"

INOPERATIVE EQUIP'T, EXPLAIN

COSTS

TANGIBLES
Casing
Valves
Plances
Other

INTANGIBLES
Location
Rig Moves
Rig
Abatement
Bits
Drill Equip. Main.
Drill Equip. Rental
Fuel, Water Power
Mud
Supervision & Labor
Cement Services
Transportation
Logging Services
Fishing & Directional

DAILY TOTAL 21.75
FORWARD 17.55
ACCU. TOTAL 97.72

SUPERVISOR

Bowden
8/09/86
THERMAL POWER COMPANY

WELL NO. CTGH-1 AFE NO. CSG 10'31' at 35'
REPORT NO. CSG. 3
DATE 9 JUNE 86 CSG.
TOTAL RIG DAYS 3 CSG.
FOOTAGE DRLD. TIE-BACK 28' +10' x 8'
HOURS DRILLED 0 MRS. REPAIR
HOURS OTHER COOLING TOWER IN USE, RIG NO. 2
MUD WT. 8.8 % SAND 4%
VIS. 65 % SOLIDS 10%
P.V. GELS 50% LOST CIRC. MTL. 9%
GALVONIC PROBE 40' FORM. DRLD. 250'
CORRATOR 250' FLOW LINE TEMP. 124
SULPHIDE 124° OXY. 46 AIR H2O RATIO 1
FORM. DRLD. 250' SUCTION TEMP. 124°F.
FLOW LINE TEMP. 124°F.
MAX. TEMP. 124°F.
DEVIATION SURVEYS:

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

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

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

STRAIGHT ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Started up rig at 9 am
Laid 12'4" air hammer and C.O. to 35'. P.D.H.
Laid one joint of 10'-3'" K-55
40.5' de-lap conductor casing to 35'.
Slow hole day with air
Cemented conductor at 35', depth with heavy #16 coring Portland cement and the top of construction cement plus 3% to 6%
CIP at 1430 hrs. Drill down
Sig at 1800 hrs WOC

INOPERATIVE EQUIP'T. EXPLAIN

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATAMENT

BIBS
DRILL EQUIP. MAIN.
DRILL EQUIP. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL

OTHER

Total $2,500

DAILY TOTAL
FORWARD
ACCURATE TOTAL
AFE 86 07 1 0999 0

SUPER Pipeline
THERMAL POWER COMPANY

WELL NO. C-604-I

REPORT NO. 4

DATE 6/14/66

TOTAL RIG DAYS 4

TIME FROM SPUD 2:11:45

DEPTH @ 2400 HRS. 2,400

FOOTAGE DRLD. 195

HRS. DRILLED 60

HRS. TRIPPED 1

HRS. OTHER 27

COOLING TOWER IN USE 2

W.L. 2500

C.K. 50

10 1/4" CSG CSG. 35'

10 1/4" CSG. 35'

CSG.

CSG.

LINER TIE-BACK

HRS. REPAIR RIG NO.

YES ☐ NO ☐

PH CHL YP

% 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: 160 °F.

220 °F.

220

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.

2 8 3/4" Smith F 2 NL600X No. 12 15 135 145 145 145 T E G

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

1 5" 6 80 1111 100 1111

AIR COMP No. CFM PSI TEMP. °F. CHEM. RATIO RATE DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 1x 8 3/4" 34 ft. 1x 6" DC 10 x 14 ft. Total Length 220'

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Duggar 8 3/4" hole from 35' to 220'

2 1/2" hole running deviation survey

Problem with cable

Shut down 1000 hours

Geo-physical borehole logging called out

1000 hours

COSTS

TANGIBLES

CASING

VALVES

FLANGES

OTHER

INTANGIBLE

LOCATION 3096

RIG MOVES

RIG

ABATEMENT

BTS 2500 (2.442)

DRILL EQUIP. MAIN

DRILL. EQUIP. RENTAL

FUEL, WATER POWER

MUD 200

SUPERVISION & LABOR

200

CIMENT SERVICES

TRANSPORTATION

LOGGING SERVICES 300 330

FISHING & DIRECTIONAL

OTHER

Boyles Sup 250

DAILY TOTAL 6646

FORWARD 2294.6

ACCURATE 2950.0

AFE

SUPERVISOR Buddy Bowden
THERMAL WER COMPANY

WELL NO. CTAH-1

REPORT NO. 5

DATE 6/1/86

TOTAL RIG DAYS 5

TIME FROM SPUD 115:30

DEPTH @ 2400 HRS. 410.0

FOOTAGE DRDL. 280

HRS. DRILLED 1/2

HRS. TRIPPED 1/2

HRS. OTHER 1/4

COOLING TOWER IN USE 1

W.L. 10 CK 2

P.V. 18 GELS 12/21

% SAND 5%

% SOLIDS 10

% LOST CIRC. MTL. 0

GALVONIC PROBE

CORRATOR

SULPHIDE

OXY.

AIR H2O RATIO

FLOW LINE TEMP.

FLOW Suction Temp.

MAX. TEMP.

F.

DEVIATION SURVEYS: 22.5° x 45°

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.

1 3/4 in. AV 6017 35 21 15-180° 67 T E G

PUMP LI NER STROKE SPM 'GPM PSI TOTAL GPM NOZZLE VEL. ANNULLUS VEL.

1 5 6 30 131 100 131

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

20 X 11/2 DC total 410

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION: 8 3/4" bit, 1 X 6" drill col. 110

TOTAL STRING WT.

TOTAL PICKUP WT.

REMARKS FOR 24 HOUR PERIOD:

drilled 8 3/4" hole from 220' to 410'

1/2 hr other = survey

410' - 410' Total 50% returns

= 1000 gal

410' Full returns

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPT. EXPLAIN

COSTS

TANGIBLES

CASING

VALVES

FLANGES

OTHER

INTANGIBLE

LOCATION

RIG MOVES

RIG

ABATEMENT

BITS

DRILL EQUIP. MAIN.

DRILL EQUIP. RENTAL

FUEL, WATER POWER

MUD

SUPERVISION & LABOR

CEMENT SERVICES

TRANSPORTATION

LOGGING SERVICES

FISHING & DIRECTIONAL

OTHER

Boyless sup. 2.5

DAILY TOTAL 4078

FORWARD 29 605

ACCUM. TOTAL 33 693

AFE

SUPERVISOR Rudder Rowden
WELL NO. CPGH-1
REPORT # 6
TOTAL RIG DAS
6
DATE 12-JUNE 86
TIME FROM SPUD 5-30/MRS
60
FOOTAGE DRLD. 97'
HRS. DRILLED 9.3
HRS. TRIPPED 3.5
HRS. OTHER 3.3
MUD WT. 8.8
GELS 2.126
P.V. 20
CORKER 7
W.L. 10
C.K 27/32
% SAND 0.5
% SOLIDS 3.5
% LOSS CIRC. MTL. 6-5

GALV. PROBE
CORRATOR
SULPHIDE
OXY.
AIR: H2 O RATIO
FORM. DRLD.
FLOW LINE TEMP. - F.
SUCTION TEMP. - F.
MAX. TEMP. - F.
DEVIATION SURVEYS: 5-17' 28'

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WM. RPM COND.
2 8.74 SHUNG HVG 79 F-3 NINE 35 517 172 1-15 15 5000 80 1/2 C.H

PUMP LINER STROKE SPM GPM PSI TOTAL GPM NOZZLE VEL. ANNULUS VEL.
1 5" 6" 80 121 142 131

AIR COMP. NO. CFM PSI TEMP. F. CHEM. RATIO L RATE
24 4.5" 26

TOTAL STRING WT. TOTAL PICKUP WT.
STEAM ENTRYS DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

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

24 hr barrels of mud at 425.

2 1/2 hrs circulating mud - condition 1' hole at 517'.

Telemetry Survey at 517'.

Geophysical Logging crew back in truck at 2100 hrs at drill site.

OPERATION 0-0000 HOURS FOLLOWING DAY:
Logging continued from 517 to 35'

HALLiburton on location

INOPERATIVE EQUIPT. EXPLAIN.

COSTS

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATEMENT
BIT
DRILL EQUIT. MAIN.
DRILL EQUIT. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
CIMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER

DAILY TOTAL
+180
FORWARD
23,183
ACCUMULATIVE
23,183
SUPERVISOR
POWDER 06/13/86
THERMAL P'WER COMPANY

WELL NO. CTAH 1 AFE NO. 10 3/4 CSG 35'
REPORT NO. DATE 13 June 1964 7 1/2 CSG 480'
TOTAL RIG DAYS 3 1/2 TIME FROM SPUD 1010 hrs.
DEPTH @ 2400 HRS. 817' FOOTAGE DRILLED.
HRS. DRILLED 0 HRS. TRIpped 0
HRS. OTHER 10 COOLING TOWER IN USE Y
MUD WT. - Vis. 1 W.L. - CK.
P.V. - GELS - PH - CHL - YP
% SAND - % SOLIDS - % LOST CIRC. MTL.
GALVONIC PROBE - CORRATOR - SULPHIDE - OXY.
FORM. DRILLED - FLOW LINE TEMP. - SUCTION TEMP.
MAX. TEMP. - F. DEVIATION SURVEYS:

BIT - SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.

PUMP LINER STROKE SPM GPM PSI TOTAL GPM NOZZLE VEL.

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

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

REMARKS FOR 24 HOUR PERIOD:

Colorado logging completed GT top 6000—10,000 Lbs.

Lam 4/4 Tot 6 5/7: CD—ac well found on win. 804.4
Lam 7: Casing stripped at 70'. 0 D.H.
Remore cementing from point joint Lam 15 pix. 488'. Tried to

1st flush 240' of cement pumped.

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE.

REMARKS FOR 24 HOUR PERIOD:

Cement job completed at C top 6000—10,000 Lbs.

Lam 4/4 Tot 6 5/7: CD—ac well found on win. 804.4
Lam 7: Casing stripped at 70'. 0 D.H.
Remore cementing from point joint Lam 15 pix. 488'. Tried to

1st flush 240' of cement pumped.

TANGIBLES
Casing
Valves
Flanges
Other

INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATEMENT
DTHS
DRILL EQUIP. MAIN.
DRILL EQUIP. RENTAL
FUELS, WATER, POWER
MUD
SUPERVISION & LABOR
Cement Services
Transportation
Logging Services
Fishing & Directional
OTHER

TOTAL
DAILY
FORWARD
ACCUMULATED
Wage $2375
1 band $4,614.64

COSTS

SUPERVISOR BOWDEN 00.0
**THERMAL POWER COMPANY**

**WELL NO.** CTGH-1  
**REPORT NO.** 8  
**DATE** 14-June-80  
**TIME FROM SPUD** 7:00 A.M.  
**FOOTAGE DRLD.** 0  
**HRS. DRILLED** 357  
**HRS. TRIPPED** 0  
**HRS. OTHER** 9  
**COOLING TOWER IN USE** YES  
**REPAIR** NO  
**MUD WT.** 10.4  
**W.L.** 35'  
**CK.** 108  
**P.V.** GELS  
**GELS** % SAND  
**SAND** % SOLIDS  
**SOLIDS** % LOST CIRC. MTL.  
**GALVONIC PROBE** CORRATOR  
**CORRATOR** SULPHIDE  
**SULPHIDE** OXY.  
**OXY.** AIR H2O RATIO 1  
**FLOW LINE TEMP.** °F.  
**SUCTION TEMP.** °F.  
**MAX. TEMP.** °F.  
**DEVIATION SURVEYS:**  

<table>
<thead>
<tr>
<th>BIT SIZE</th>
<th>MAKE</th>
<th>TYPE SER. NO.</th>
<th>JETS IN</th>
<th>OUT FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T E G</td>
</tr>
<tr>
<td>PUMP LINER</td>
<td>STROKE</td>
<td>SPM</td>
<td>GPM</td>
<td>PSI</td>
<td>TOTAL GPM</td>
<td>NOZZLE VEL.</td>
<td>ANNULUS VEL.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR COMP NO.</td>
<td>CFM</td>
<td>PSI</td>
<td>TEMP. °F.</td>
<td>CHEM.</td>
<td>RATIO</td>
<td>L. RATE</td>
<td></td>
</tr>
<tr>
<td>DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL STRING WT.</th>
<th>TOTAL PICKUP WT.</th>
<th>ROTARY TORQUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**REMARKS FOR 24 HOUR PERIOD:**

*Slipped 4 bundles of Class C cement and added 1:1 and filled annulus between 7" and 10 3/4"*

Cement came to surface and remained there.

*Rigged down rotary tool out of 7" casing, dumped out pits, rigging calling*

**TANGIBLES**  
**COSTS**

<table>
<thead>
<tr>
<th>TANGIBLES</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASING</td>
<td></td>
</tr>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>FLANGES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
<tr>
<td>INTANGIBLE</td>
<td></td>
</tr>
<tr>
<td>LOCATION</td>
<td>Rig $8,000</td>
</tr>
<tr>
<td>RIG MOVES</td>
<td></td>
</tr>
<tr>
<td>APARTMENT</td>
<td></td>
</tr>
<tr>
<td>BITS</td>
<td></td>
</tr>
<tr>
<td>DRILL EQUIP. MAIN.</td>
<td></td>
</tr>
<tr>
<td>DRILL EQUIP. RENTAL</td>
<td></td>
</tr>
<tr>
<td>FUEL, WATER, POWER</td>
<td></td>
</tr>
<tr>
<td>MUD</td>
<td></td>
</tr>
<tr>
<td>SUPERVISION &amp; LABOR</td>
<td>300</td>
</tr>
<tr>
<td>CEMENT SERVICES</td>
<td></td>
</tr>
<tr>
<td>TRANSPORTATION</td>
<td></td>
</tr>
<tr>
<td>LOGGING SERVICES</td>
<td>350 + 575</td>
</tr>
<tr>
<td>FISHING &amp; DIRECTIONAL</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td>750</td>
</tr>
</tbody>
</table>

**DAILY TOTAL** 1,550

**FORWARD** 4,000

**ACCU. TOTAL** $10,940

**AFE** 86-201-4300-0-2

**SUPERVISOR** Tomlin 8/15/80
THERMAL F WER COMPANY

WELL NO. CTHH-1  AFE NO. 104
REPORT NO. 7  DATE 15-JUNE 1986
TOTAL RIG DAYS 147
DEPTH @ 2400 HRS. 4577
HRS. DRILLED 245
HRS. OTHER 12
COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. PH. CHL. YP.
P.V. GELS % SAND % SOLIDS
GALVONIC PROBE CORRATOR SULPHIDE
FORM. DRILD FLOW LINE TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND

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

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

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

REMARKS FOR 24 HOUR PERIOD:

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

INOPERATIVE EQUIP'T, EXPLAIN

OPERATION @ 0600 HOURS FOLLOWING DAY:

OPERATING PRESSURE TEST BOP

INOPERATIVE EQUIP'T, EXPLAIN

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG

ABATEMENT
BIOS

DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD

SUPERVISION & LABOR

Cement Services
Transportation
Logging Services
Fishing & Directional
OTHER

Total

DAILY TOTAL 2050
FORWARD 40,940
ACCU. TOTAL 52,990

OPERATION @ 0600 HOURS FOLLOWING DAY:

OPERATING PRESSURE TEST BOP

INOPERATIVE EQUIP'T, EXPLAIN

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG

ABATEMENT
BIOS

DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD

SUPERVISION & LABOR

Cement Services
Transportation
Logging Services
Fishing & Directional
OTHER

Total

DAILY TOTAL 2050
FORWARD 40,940
ACCU. TOTAL 52,990

SUPERVISOR

ASSISTANT
THERMAL POWER COMPANY

WELL NO. CTGH 1  AFE NO. 1
REPORT NO. 10  DATE 6/16/1962
TOTAL RIG DAYS 117  TIME FROM SPUD 4/16/1962
DEPTH @ 2400 HRS. 317
HRS. DRILLED 11  FOOTAGE DRLED. 317
HRS. TRIPPED 11
HRS. OTHER 11  VIS.
MUD WT. 11  W.L.
P.V. 11  GELS 11  % SAND 11  % SOLIDS 11
GALVONIC PROBE 11  CORRATOR 11  SULPHIDE
FORM. DRLED. 11  FLOW LINE TEMP. 11 
MAX. TEMP. 11  F. DEVIATION SURVEYS:

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.

TOTAL STRING WT.  TOTAL PICKUP WT.
STEAM ENTRYS, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Tripped up BOP's and 2" choke manifold.

Culd not obtain pressure build-up; found leak in 8.5" x 12" 600. Series flange that
seams into 12" bronze bleed.

Must repair cement threads on
flange to match with the
BOP required slop test.

Ordered retighten flange
from Haddocks, Farmington, N.J

INOPERATIVE EQUIPT, EXPLAIN

OPERATION @ 0600 HOURS FOLLOWING DAY:

Seeking local thread checking
capacity.

COSTS

TANGIBLES
CASING
VALVES
FLANGES OTHER
INTANGIBLE
LOCATION
RIG MOVES RIG
ABANDON
BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD
SPECIALIZATION & LABOR
Cement Services
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER

DAILY TOTAL
FORWARD
ACCU. TOTAL
AFE RIG 201-8380-02
SUPERVISOR

2900 log
1200 geologic catch
4400
2200 cost

Dennis Dodi
Acculator, Oregon Spur

300

2200-3-08

Bowden 6/17/62
THERMAL POWER COMPANY

WELL NO. CGBH 1
REPORT NO. 11
DATE 17 JUNE 1986
TOTAL RIG DAYS 11
TIME FROM SPUD NO. 4
DEPTH @ 2400 HRS. 8517
HRS. DRILLED 857
HRS. TRIPPED 0
HRS. OTHER 0
COOLING TOWER IN USE, YES □ NO □
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE CORRATOR SULPHIDE OXY.
FORM. DRLD. FLOW LINE TEMP. °F.
MAX. TEMP. °F. DEVIATION SURVEYS:

BIT = SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND. T R G
PUMP LINER STROKE SPM GPM PSI TOTAL GPM NOZZLE VEL. ANNULLUS 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
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Eds. Workday 83/4" x 6" 900

Steer Change, bent
Holes. Second would not
Start.

Replacement change air
Delivered in Portland.

COSTS

INTANGIBLES
CASING 10 7/8" 9 1405

VALUES

OTHER

SUPERVISION & LABOR 300

CÉMENT SERVICES

TRANSPORTATION 300

LOGGING SERVICES

FISHING & DIRECTIONAL

OTHER

DAILY TOTAL 325
FORWARD 37 115
ACCU. TOTAL 200 370

SUPERVISOR

REMARKS FOR 24 HOUR PERIOD:

Eds Workday 83/4" x 6" 900

Steer Change, bent
Holes. Second would not
Start.

Replacement change air
Delivered in Portland.
THERMAL POWER COMPANY

WELL NO. CTGH 1
REPORT NO. 12
DATE 18-JUNE-1956
TOTAL RIG DAYS 12
DEPTH @ 2400 HRS. 317
HRS. DRILLED ___________
HRS. OTHER ___________
MUD WT. ___________
P.V. ___________
GELS ___________
% SAND ___________
% SOLIDS ___________
% LOST CIRC. MTL. ___________
GALVONIC PROBE ___________
CORRATOR ___________
SULPHIDE ___________
OXY. ___________
AIR-H-O RATIO ___________
FORM. DRLD. ___________
FLOW LINE TEMP. ___________
MAX. TEMP. ___________
DEV. DEVIATION SURVEYS:

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.

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

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE.

STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Installed Nipplement/Flange in 7" LADY, installing head, Uninstalled 7½" Nipple, connecting 1ST and 2ND unit, and 45° cut, accumulaters.

Installed Joint head, and Pipe Nipple with 1900 PSI (water) at 10.5 X 10.5 psi, and installed Head, with 1500 psi (water) at 50 rpm.

Installed accumulaters at 2500 psi.

All nozzles, diameter, flare angle, and Head, and Head, with less than 10% pressure held down.

Test observed and approved by Dennis Davis BLM 18-JUNE-56.

Lined all day at drill setter, Snowed at the Sludge Elevations.

Operation at 0600 hours following day:

Adjusting DC Rig heads and cables.

Keep at Clean out hole at 317. Then

Lined 4.5" casing cup guide.

INOPERATIVE EQUIPT. EXPLAIN:

COSTS

TANGIBLES
Casing
Valves
Flanges
Other

INTANGIBLE
Location
Rig Moves
Rig
Abatement
Bits
Drill Equip. Main.
Drill. Equip. Rental
Fuel, Water Power
Mud
Supervision & Labor
Cement Services
Transportation
Logging Services
Fishing & Directional
Other

DAILY TOTAL
FOREWARD
ACCUMUL TOTAL

AF 86-007 4300-02
SUPERVISOR Loyesen

A Rm 8c
**THERMAL POWER COMPANY**

- **WELL NO.** CTGH-1
- **DATE** 18, JUNE 1966
- **TOTAL RIG DAYS** 12
- **FOOTAGE DRLD.** 1971
- **HRS. DRILLED** 0
- **HRS. TRIPPED** 0
- **HRS. REPAIR** 0

**MUD WT.**
- **VIS.**
- **W.L.**
- **PH.**
- **GELS.**
- **% SAND.**
- **% SOLIDS.**
- **% LOST CIRC. MTL.**

**PUMP**
- **LINEAR STROKE**
- **SPM**
- **GPM**

**TOTAL GPM**
- **NOZZLE VEL.**
- **ANNULUS VEL.**

**AIR COMPL. NO.**
- **CFM.**
- **PSI.**
- **TEMP.**

**CHEM. RATIO.**
- **RATE.**

**TOTAL STRING WT.**

**TOTAL PICKUP WT.**

**REMARKS FOR '24 HOUR PERIOD:**
- **Aligned - Stabilized one rig over 200 stock trail wheels.**
- **Built rig floor and doghouse.**
- **Commenced picking up core.**
- **Sawing at 2345 hrs.**

**OPERATION @ 2500 HOURS FOLLOWING DAY:**
- **Cleaned out cement to 440.**
- **Cleaned out hole to 507.**
- **Spud @ 457 ft.**

**INOPERATIVE EQUIPMENT EXPLAIN.**

**COSTS**
- **TANGIBLES**
  - **CASING**
  - **VALVES**
  - **PLANGES**
  - **OTHER**

- **INTANGIBLE**
  - **LOCATION**
  - **RIG MOVES**
  - **RIG**
  - **ABATEMENT**
  - **BITS**
  - **DRILL EQUIP. MAIN.**
  - **DRILL. EQUIP. RENTAL**
  - **FUEL, WATER POWER**
  - **MUD**
  - **SUPERVISION & LABOR**
  - **CEMENT SERVICES**
  - **TRANSPORTATION**
  - **LOGGING SERVICES**
  - **FISHING & DIRECTIONAL**
  - **OTHER**

- **DAILY TOTAL**
- **FORWARD**
- **ACCU. TOTAL**

| AFE | 86.809 | 4700.02 |
**THERMAL POWER COMPANY**

**WELL NO.** CTGH-1  
**AFE NO.**  
**REPORT NO.**  
**DATE** 22 June 1986  
**TIME FROM SPUD TO DATE**  
**FOOTAGE DRILLED**  
**HOURS DRILLED**  
**HOURS OTHER**  
**MUD WT.**  
**W.L.**  
**C.K.**  
**P.V.**  
**GELS**  
**% SAND**  
**% SOLIDS**  
**% LOST CIRC. MTL.**  
**GALVONIC PROBE**  
**CORRATOR**  
**SULPHIDE**  
**OXY.**  
**AIR-H2O RATIO**  
**FORM. DRILLED**  
**FLOW LINE TEMP.**  
**SUCTION TEMP.**  
**MAX. TEMP.**  
**DEVIATION SURVEYS:**

<table>
<thead>
<tr>
<th>BIT SIZE</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT</th>
<th>FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND.</th>
<th>T.G.</th>
<th>T.E.</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 1/2&quot;</td>
<td>HCG</td>
<td>KGB</td>
<td>411</td>
<td>S17</td>
<td>574</td>
<td>12</td>
<td>2-500</td>
<td>60</td>
<td>T.G.</td>
<td>T.E.</td>
<td>T.G.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUMP</th>
<th>LINER</th>
<th>STROKE</th>
<th>SPM</th>
<th>GPM</th>
<th>PSI</th>
<th>TOTAL GPM</th>
<th>NOZZLE VEL.</th>
<th>ANNULUS VEL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5&quot;</td>
<td>80</td>
<td>21</td>
<td>182</td>
<td>131</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AIR COMP. NO.**  
**CFM**  
**PSI**  
**TEMP.**  
**CHEM.**  
**RATIO L RATE**  
**DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:**  
6" BIT 4.5" HYD. F.T.

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

**REMARKS FOR 24 HOUR PERIOD:**
- Drilled 6" bit, drilling assembly and 3 1/2" core bits 174 ft.
- Drilled foot cull at 466' and cement in bottom joint of 7 1/2".
- Cleared out 8 1/2" hole to 517' and drilled 6" hole to 524'.
- Circulated 30 minutes and 1900 ft.
- Found that 6" bit and 4.5" joint left on rig. Drilled out at 1000 hrs after calling for over

**TANGIBLES**
- CASING  
- VALVES  
- FLANGES  
- OTHER

**INTANGIBLE**
- LOCATION  
- RIG MOVES  
- RIG  
- ABATEMENT  
- BITS  
- DRILL EQUIP. MAIN.  
- DRILL EQUIP. RENTAL  
- FUEL, WATER POWER  
- MUD  
- SUPERVISION & LABOR  
- CEMENT SERVICES  
- TRANSPORTATION  
- LOGGING SERVICES  
- FISHING & DIRECTIONAL  
- OTHER  
- "Machinery"  
- "Machinry"  
- DAILY TOTAL  
- FORWARD  
- ACCU. TOTAL  
- AFE  
- SUPERVISOR  

---

This is where we're going. Coming.
THERMAL POWER COMPANY

WELL NO. CTGH 1
REPORT NO. 13
DATE 7-14-79
TOTAL RIG DAYS 13
DEPTH @ 2400 HRS. 327
HRS. DRILLED HRS. TRIPPED
HRS. OTHER 13
COOLING TOWER IN USE, YES ☐ NO ☐
MUD WT. W/L VIS. 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:

<table>
<thead>
<tr>
<th>BIT SIZE MAKE</th>
<th>TYPE SER. NO.</th>
<th>JETS IN</th>
<th>OUT FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T</td>
<td>G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T</td>
<td>G</td>
</tr>
<tr>
<td>PUMP LINER</td>
<td>STROKE SPM GPM PSI TOTAL GPM</td>
<td>NOZZLE VEL.</td>
<td>ANNULUS VEL.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR COMP. NO.</td>
<td>CFM PSI TEMP. °F. CHEM. RATIO RATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

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

REMARKS FOR 24 HOUR PERIOD:

Plan 5 1/2" Bowser w/4 1/2" Cables, latched on to fish, P.O.T. with frame.

Plan 2 60 yards of 4 1/2" One Grade Casing维尔Chilled Two hours at each Coupling and shipped on 10 solid flanges. 200 lbs. each.

Guide String at 526 (to be pierced before running and Bumper added); swing from 17" Kicker Casing Head.

OPERATION @ 0600 HOURS FOLLOWING DAY:
String at 539' without returns.

INOPERATIVE EQUIPT. EXPLAIN

SUPERVISOR
**THERMAL POWER COMPANY**

**WELL NO.** C107H1  
**DATE** 22-JUNE-1986  
**REPORT NO.** 10  
**TIME FROM SPUD** 10+  
**DEPT @ 2400 MRS.** 591  
**FOOTAGE DRLD.** 70  
**HRS. DRILLED** 22  
**HRS. TRIPPED** 9  
**HRS. OTHER** 2  
**COOLING TOWER IN USE** 10  
**W.L.** 10  
**C/K** 1/3  
**PH** 6.5  
**CHL** 480  
**PP** 15  
**GALV. PROBE** 47%  
**CORRATOR** 43%  
**SULPHIDE** 0%  
**OXY** 2%  
**AIR-H2O RATIO** 1  
**FORM. DRLD.** 10  
**FLOW LINE TEMP.** 75°F  
**MAX. TEMP.** 100°F  

<table>
<thead>
<tr>
<th>BIT #</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT</th>
<th>FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>5.92</td>
<td>C</td>
<td>70-305-V54</td>
<td>527</td>
<td>578</td>
<td>61</td>
<td>22-300</td>
<td>350</td>
<td>T &amp; B</td>
<td>T &amp; B</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PUMP</th>
<th>LINER</th>
<th>STROKE</th>
<th>SPM</th>
<th>GPM</th>
<th>PSI</th>
<th>TOTAL GPM</th>
<th>NOZZLE VEL.</th>
<th>ANNULUS VEL.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>-</td>
<td>-</td>
<td>85</td>
<td>100</td>
<td>85</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**AIR COMP. NO.**  
**CFM**  
**PSI**  
**TEMP.**  
**CHEM.**  
**RATIO**  

**DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:**

**TOTAL STRING WT.**  
**TOTAL PICKUP WT.**  

**REMARKS FOR 24 HOUR PERIOD:**

- Start mud circulation just below 300.
- Vertical Christensen diamond core buck was torn at end of 61' run.
- Using 10' core stand.

**INOPERATIVE EQUIPT. EXPLAIN**

**OPERATION @ 0600 HOURS, FOLLOWING DAY:**

Living at 10S, without returns.

**COSTS**

<table>
<thead>
<tr>
<th>TANGIBLES</th>
<th>CASING</th>
<th>VALVES</th>
<th>FLANGES</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTANGIBLE</th>
<th>LOCATION</th>
<th>RIG MOVES</th>
<th>RIG</th>
<th>ABATEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>5B</td>
<td>2791</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DAILY TOTAL</th>
<th>FORWARD</th>
<th>ACCU. TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$3,426</td>
<td>$7,549</td>
</tr>
</tbody>
</table>

**AOE NO.** 56-201-4300-02  
**SUPERVISOR** (Signed)  

Date: 20-JUNE-1986
**THERMAL FLOWER COMPANY**

<table>
<thead>
<tr>
<th>WELL NO.</th>
<th>JTH-1</th>
<th>AFE NO.</th>
<th>35</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPORT NO.</td>
<td>197</td>
<td>DATE</td>
<td>6/22/86</td>
</tr>
<tr>
<td>TOTAL RIG DAYS</td>
<td>47</td>
<td>TIME FROM SPUD</td>
<td>6/21/86</td>
</tr>
<tr>
<td>DEPTH @ 2400 HRS.</td>
<td>694</td>
<td>FOOTAGE DRLD.</td>
<td>97</td>
</tr>
<tr>
<td>HRS. DRILLED</td>
<td>47</td>
<td>HRS. TRIPPED</td>
<td>694</td>
</tr>
<tr>
<td>HRS. OTHER</td>
<td>694</td>
<td>COOLING TOWER IN USE,</td>
<td>YES</td>
</tr>
<tr>
<td>MUD WT.</td>
<td>9.4</td>
<td>W.L.</td>
<td>12</td>
</tr>
<tr>
<td>P.V.</td>
<td>2.0</td>
<td>GELS</td>
<td>2/8</td>
</tr>
<tr>
<td>GALVONIC PROBE</td>
<td>CORRATOR</td>
<td>SULPHIDE</td>
<td>OXY.</td>
</tr>
<tr>
<td>FORM. DRLD.</td>
<td>694</td>
<td>FLOW LINE TEMP.</td>
<td>137</td>
</tr>
<tr>
<td>MAX. TEMP.</td>
<td>137</td>
<td>SUCTION TEMP.</td>
<td>120</td>
</tr>
<tr>
<td>BIT = SIZE MAKE TYPE SER. NO.</td>
<td>JETS IN OUT FT.</td>
<td>HRS. WT.</td>
<td>RPM</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PUMP LINER STROKE</td>
<td>SPM</td>
<td>GPM</td>
<td>PSI</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR COMP NO.</td>
<td>CFM</td>
<td>PSI</td>
<td>TEMP.</td>
</tr>
</tbody>
</table>

**DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:**

**TOTAL STRING WT.**

**TOTAL PICKUP WT.**

**ROTARY TORQUE.**

**REMARKS FOR 24 HOUR PERIOD:**

Cover Sheet with dot grid, No Pencil Notations.

**OPERATION @ 0600 HOURS FOLLOWING DAY:**

**COOLING AT 7:19.**

**INOPERATIVE EQUIP'T, EXPLAIN:**

**COSTS**

<table>
<thead>
<tr>
<th>TANGIBLES</th>
<th>CASING</th>
</tr>
</thead>
<tbody>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>PLANCHES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INTANGIBLE</th>
<th>LOCATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIG MOVES</td>
<td></td>
</tr>
<tr>
<td>RIG</td>
<td>2943</td>
</tr>
<tr>
<td>ABATEMENT</td>
<td></td>
</tr>
<tr>
<td>BITS</td>
<td></td>
</tr>
</tbody>
</table>

**DRILL EQUIP, MAIN.**

**DRILL EQUIP, RENTAL**

**FUEL, WATER POWER**

**MUD**

**SUPERVISION & LABOR**

**CEMENT SERVICES**

**TRANSPORTATION**

**LOGGING SERVICES**

**FISHING & DIRECTIONAL**

**OTHER**

**ROYLES**

**DAILY TOTAL**

**FORWARD**

**ACCU. TOTAL**

**AFE**

**SUPERVISOR**

25J

Page 1 of 5
THERMAL POWER COMPANY

WELL NO. [LEH] AFE NO. [35]
REPORT NO. 13 DATE [6/24/86]
TOTAL RIG DAYS 74 TIME FROM SPUD [100%]
DEPTH @ 2400 HRS. 774 FOOTAGE DRLD. 80
HRS. DRILLED 1942 HRS. TRIPPED
HRS. OTHER 45 COOLING TOWER IN USE, YES NO
MUD WT. 8.14 VISC. 45 W.L. 12 CK. 14
P.V. 19 GELS 418 % SAND 0 % SOLIDS 0.5
GALVONIC PROBE CORRATOR SULPHIDE OXY. AIR-H20 RATIO
FORM. DRLD. FLOW LINE TEMP. °F SUCTION TEMP. °F
MAX. TEMP. °F DEVIATION SURVEYS: 72.8 – 22.9

BIT # SIZE MAKE TYPE SER. NO. JETS IN OUT FT.
2 3 1/2" Clut 346 LML489 59.8 16.7 86

PUMP LINER STROKE RPM GPM PSI TOTAL GPM NOZZLE VEL.
1 1 Liner 75 150

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

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

REMARKS FOR 24 HOUR PERIOD:

[Handwritten: Coiled from 694 – 724, no returns.
3/4" has pulled bit to 71 1/2" coming
shoes @ 400'].
7 1/2 hrs rig maintenance.
1/2 hr rig maintenance.

[Handwritten: Cost] [300]

OPERATION @ 0600 HOURS FOLLOWING DAY:

[Handwritten: Conroy A 727]

INOPERATIVE EQUIPT, EXPLAIN

SUPERVISOR [Handwritten: [Signature] 25b]
**Thermal Power Company**

**Well No.**: CTH-1  
**AFN No.**:  
**Report No.**: 19  
**Date**: 6-25-86  
**Total Rig Days**: 19  
**Time From Spud**: 16' 10"  
**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-H2 Ratio**:  
**Form. Drld.**:  
**Flow Line Temp.**:  
**Suction Temp.**:  
**Max. Temp**: 69° F.  
**Deviation Surveys**:  7133' = 272° 32.9" E  
**HAT @ 2400': 67° F.**

**Bit & Size**: 2 3/4"  
**Make**: CCAS  
**Type**: JC  
**SER. No.**: 651489  
**Jets In**: 58  
**OUT FT.**: 859  
**Total Hrs.**: 23.3  
**W.T.**: 1200  
**RPM**: 320  
**Cond.**: T R G  

**Pump**:  
**Liner**:  
**Stroke**: 25  
**Spm**:  
**GPM**: 100  
**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 Lift**:  

**Remarks for 24 Hour Period**:

- **Coal**: 774 to 859', no returns
- Water goes into hole thinning mud, losing viscosity. Rod vibrations being now tuned to determine if greasing is required.

**Operation & 6000 Hours Following Day**:

- **Core**: 864'.

**Inoperative Equip't, Explain**:  

**Supervisor**: Buddy Bowman

**Costs**

- **Tangibles**:
  - Casting:
  - Valves:
  - Flanges:
  - Other:

- **Intangibles**:
  - Location:
  - Rig Moves:
  - Rigs:
  - Abatement:
  - Parts:
  - Drill Equip. Main.:
  - Drill Equip. Rental:
  - Fuel, Water Power:
  - Mud:
  - Supervision & Labor:
  - Cement Services:
  - Transportation:
  - Logging Services:
  - Fishing & Directional:
  - Other:

- **Boyle's 50':** 250

**Daily Total**: 4,360
**Forward**: 93,999
**Accru. Total**: 97,349
**AFE**:  

26 June 86
THERMAL POWER COMPANY

WELL NO.  CTGH -1  AFE NO.  10-3/4" CSG.  3-5/8'  7  1/2" CSG.  4-5/8' 4-5/8" CSG. 3-5/8' 7-1/2" CSG. 3-5/8' 4-5/8" CSG. 3-5/8'
REPORT NO.  20  DATE  2-26-86  LINER  TIE-BACK
TOTAL RIG DAYS  20  TIME FROM SPUD  194+10 hrs  HRS. REPAIR  28  RIG NO.
DEPT @ 2400 HRS.  918  FOOTAGE DRLD.  5-9  YES  NO
HRS. DRILLED  21  HRS. TRIPPED
HRS. OTHER  3  COOLING TOWER IN USE.
MUD WT.  8.4  VIS.  45  W.L.  21  CK.
P.V.  ------  GELS  % SAND  % SOLIDS  % LOSS CIRC. MTL.
GALVONIC PROBE  ------  CORRATOR  SULPHIDE  OXY.  AIR-H2O RATIO
FORM. DRLD.  ------  FLOW LINE TEMP.  ------
MAX. TEMP.  68'  F.  SUCTION TEMP.  ------
DEVIATION SURVEYS:

BIT  SIZE  MAKE  TYPE  SER. NO.  JETS  IN  OUT  FT.  HRS. WT.  RPM  COND
--  --  --  --  --  --  --  --  --  --  --  --  --  --
3  3-9/17 CARR  NC  65-492  83'  9  59  81  1000  7-700  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  L  RATE

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT.  TOTAL PICKUP WT.  ROTARY TORQUE

REMARKS FOR 24 HOUR PERIOD:

(CORING FROM 8-5/9 TO 9-1/8')

TAIL FOR BIT CHANGE P  8-5/9 FT
TAIL FOR MIS.  9-85-9 FT
LUH WASH & WELL FROM 900 TO 912 FT
LUH RIG 4 MINT.

27 JUNE 86

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING 6 9-3/8 FT

INOPERATING TIME 1/2 HR

TOTAL STRING WT.  TOTAL PICKUP WT.  ROTARY TORQUE

MATERIALS & LABOR COST:

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASING</td>
<td></td>
</tr>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>FLANGES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

INTANGIBLE:

| LOCATION |       |
| RIG MOVES | 21-6-5 |
| RIG       |       |
| ABATEMENT |     |
| BITS      |       |
| DRILL EQUIP. MAIN. | |
| DRILL. EQUIP. RENTAL | 275 |
| FUEL, WATER POWER |       |
| MUD       |       |
| SUPERVISION & LABOR | 200 |
| CEMENT SERVICES |       |
| TRANSPORTATION |       |
| LOGGING SERVICES |     |
| FISHING & DIRECTIONAL |   |
| OTHER G. SUP. | 250 |
| G. GEOLOGISTS | 330 |
| DAILY TOTAL | 3,536 |
| FORWARD   | 9,724-9 |
| ACCUM. TOTAL | 106,858-5 |

TANGIBLES

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASING</td>
<td></td>
</tr>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>FLANGES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL STRING WT.  TOTAL PICKUP WT.  ROTARY TORQUE

REMARKS FOR 24 HOUR PERIOD:

(CORING FROM 8-5/9 TO 9-1/8')

TAIL FOR BIT CHANGE P  8-5/9 FT
TAIL FOR MIS.  9-85-9 FT
LUH WASH & WELL FROM 900 TO 912 FT
LUH RIG 4 MINT.

27 JUNE 86

OPERATION @ 0600 HOURS FOLLOWING DAY:
CORING 6 9-3/8 FT

INOPERATING TIME 1/2 HR

TOTAL STRING WT.  TOTAL PICKUP WT.  ROTARY TORQUE

MATERIALS & LABOR COST:

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASING</td>
<td></td>
</tr>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>FLANGES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

INTANGIBLE:

| LOCATION |       |
| RIG MOVES | 21-6-5 |
| RIG       |       |
| ABATEMENT |     |
| BITS      |       |
| DRILL EQUIP. MAIN. | |
| DRILL. EQUIP. RENTAL | 275 |
| FUEL, WATER POWER |       |
| MUD       |       |
| SUPERVISION & LABOR | 200 |
| CEMENT SERVICES |       |
| TRANSPORTATION |       |
| LOGGING SERVICES |     |
| FISHING & DIRECTIONAL |   |
| OTHER G. SUP. | 250 |
| G. GEOLOGISTS | 330 |
| DAILY TOTAL | 3,536 |
| FORWARD   | 9,724-9 |
| ACCUM. TOTAL | 106,858-5 |
THERMAL POWER COMPANY

WELL NO. CTGHT-1 | AFE NO. | 10W | CSG. 35
REPORT NO. 21 | DATE 27-JUNE-1986 | 488 | CSG. 526 Temporary
TOTAL RIG DAYS 2 | TIME FROM SPUD 200 FT | TIE-BACK
DEPTH @ 2400 HRS. 962 | FOOTAGE DRLD. 94 | HRS. DRILLED 13 | HRS. TRIPPED 11 | HRS. REPAIR 1 | RIG NO. 
MUD Wt. VIS. W.L. CK. PH CHL YP | COOLING TOWER IN USE. YES | NO | 1 | 
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL | GALE VONIC PROBE | CORRATOR | SULPHIDE | OXY. | AIR H2O RATIO | 1
FORM. DRLD. FLOW LINE TEMP. SUCTION TEMP. *F | MAX. TEMP. *F | DEVIATION SURVEYS:

<table>
<thead>
<tr>
<th>BIT #</th>
<th>SIZE</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT</th>
<th>FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND.</th>
<th>T</th>
<th>B</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PUMP | LINER | STROKE | SPM | GPM | PSI | TOTAL GPM | NOZZLE VEL. | ANNULUS VEL. |       |      |      |      |      |      |      |      |      |      |      |      |      |
|      |      |      |     |      |     |     |         |             |             |       |      |      |      |      |      |      |      |      |      |      |      |      |
AIR COMP. NO | CFM | PSI | TEMP. *F | CHEM. | RATIO | L | RATE | DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. | TOTAL PICKUP WT. | ROTARY TORQUE | WEW AVERAGE LCA |
STEAM ENTRIES, DEPTH, LBS. | |

REMARKS FOR 24 HOUR PERIOD:

Cord 5.437" Bell from 987 to 962'. Undercutting fluid flows. Pulled out to open cone hole at 947.

Had to work rocks through two liners at 600-670' and at 690-710'.

At 962', inserted in the liner, one barrel; broke wire line in recovery attempt 701.

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIPMENT FOR 5/11

<table>
<thead>
<tr>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TANGIBLES</td>
</tr>
<tr>
<td>CASING</td>
</tr>
<tr>
<td>VALVES</td>
</tr>
<tr>
<td>PLANGES</td>
</tr>
<tr>
<td>OTHER</td>
</tr>
</tbody>
</table>

INTANGIBLE |
| LOCATION |
| RIG MOVES |
| RIG | 8-2335 |
| ABATEMENT |
| BITS |
| DRILL EQUIP. MAIN |
| DRILL EQUIP. RENTAL | 275 |
| FUEL, WATER POWER |
| MUD | 150 |
| SUPERVISION & LABOR | 300 |
| CEMENT SERVICES |
| TRANSPORTATION | 200 |
| LOGGING SERVICES | 330 |
| FISHING & DIRECTIONAL |
| OTHER Bores Wlt. | 250 |

DAILY TOTAL | 2-3640 |
FORWARD | 194-325 |
ACCUM TOTAL | 1,047,325 |
AFE | 80 407 4200-02 |

D 0.29
THERMAL POWER COMPANY

WELL NO. CTG H 1

REPORT NO. 22

DATE 28 JUNE 86

TOTAL RIG DAYS 27

TIME FROM SPUD 210+100

DEPTH @ 2400 HRS. 2703

FOOTAGE DRDL 121

HRS. DRILLED 2

HRS. TRIPPED 0

HRS. OTHER 4

COOLING TOWER IN USE, YES □ NO □

MUD WT. 8.4

VIS. 15

W.L. □ CK □ PH □

% SAND □ % SOLIDS □ % LOST CIRC. MTL. □

GALVONIC PROBE □ CORRATOR □ SULPHIDE □

FORM. DRDL □ FLOW LINE TEMP. □

MAX. TEMP. □ F. DEVIATION SURVEYS:


BIT- SIZE MAKE TYPE SER. NO. JETS IN FT. OUT FT. HRS. WT. RPM COND

5 3/4" 9 5/8" 165142 - 854 - 731 53 1000 480 T R 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

STEAM ENTIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Lined 3-3/8" Lps from 462’ to 1033’ Advanced 1/2
No drilling fluid returns

OPERATION @ 0600 HOURS FOLLOWING DAY:

CERING AT 11.23

INOPERATIVE EQUIPT. EXPLAIN

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATEMENT

BIZ
DRILL EQUIP. MAIN.
DRILL EQUIP. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER

COSTS

DAILY TOTAL 2 540
FORWARD 1 543
ACCUL. TOTAL 1 543

RAE 86 021 4380-02

RADE 86 021 4380-02

INOPERATIVE EQUIPT. EXPLAIN

7204

225

300

330

300

250

275

750

300

500

850

340
THERMAL POWER COMPANY

WELL NO. CTSH 1 AFE NO.
REPORT NO. 23 DATE 24 JUNE 1976
TOTAL RIG DAYS 24 TIME FROM SPUD 220' 10 hrs
DEPTH @ 2400 HRS. 1295 FOOTAGE DRLD. 16'
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER
MUD WT. 9.5 V.S. 45 COOLING TOWER IN USE, W.L. 5 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:

BIT SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.
3 3307 CORK 051942 - 850 350 87 100 480 T R G
PUMP LINER STROKE SPM 'GPM PSI TOTAL GPM NOZZLE VEL.
5 5 25 50 T R G
ANNULUS VEL

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT.
STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Cured 98°F hole from 1085'
to 1245'. No drilling fluid
returns. Obtaining 100% ere
mercury.

Drilled to 1245'. Depth.

Required to D. Davis. BCM
August 8-9, 1976

OPERATION @ 0500 HOURS FOLLOWING DAY:

Trip for new one truck at
12-11 depth

INOPERATIVE EQUIP., EXPLAIN

TANGIBLES
COSTS
CASING
VALVES
FLANGES
OTHER
INTANGIBLE
LOCATION
RIG MOVES
RIG
ABATEMENT
BIF
DRILL EQUIP. MAIN.
DRILL EQUIP. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIONAL
OTHER

DAILY TOTAL
FORWARD
ACCUM. TOTAL
AFE 86 211 4300-07

SUPERVISOR

NO 50 1976
**THERMAL POWER COMPANY**

<table>
<thead>
<tr>
<th>WELL NO.</th>
<th>CTG # 1</th>
<th>AFE NO.</th>
<th>10.4% CSG.</th>
<th>7.5% CSG.</th>
<th>488</th>
<th>8.5% CSG.</th>
<th>328 temporary</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL RIG DAYS</td>
<td>24</td>
<td>DATE</td>
<td>30 JUNE 1982</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DEPTH @ 2400 HRS.</td>
<td>1271</td>
<td>TIME FROM SPD.</td>
<td>2054 HOURS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRS. DRILLED</td>
<td>15</td>
<td>FOOTAGE DRLD.</td>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HRS. TRIPPED</td>
<td>4</td>
<td>TIE-BACK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUD WT.</td>
<td>8.5' PPG</td>
<td>VIS.</td>
<td>15 sec</td>
<td>0.1</td>
<td>1.0</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>GELS</td>
<td>% SAND</td>
<td>% SOLIDS</td>
<td>% LOST CIRC. MTL.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GALVONIC PROBE</td>
<td>CORRATOR</td>
<td>SULPHIDE</td>
<td>OXY.</td>
<td>AIR-H2O RATIO</td>
<td>1</td>
<td>FLOW LINE TEMP.</td>
<td>*F.</td>
</tr>
<tr>
<td>FORM. DRLD.</td>
<td>FLOW LINE TEMP.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAX. TEMP.</td>
<td>MAX. TEMP.</td>
<td>*F.</td>
<td>DEVIATION SURVEYS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Drilling Assembly, Total Length and Description:

- **BIT # SIZE MAKE TYPE**
  - SER. NO. | JETS | IN | OUT | FT. | HRS. WT. | RPM | COND. |
  - 41 | 3.437 | Chas | Mc US 4430 | -1271 | Inc | 45 | 15 | |
  - | | | | | | | | |
  - PUMP | LINER | STROKE | SPM | 'GPM | PSI | TOTAL GPM | NOZZLE VEL. | ANNULUS VEL. |
  - | TEG | | | | | | | |
  - AIR COMP | CFM. | PSI | TEMP. | *F. | CHEM. | RATIO | RATE |

## Remarks for 24 Hour Period:

- *The 4th hole was 24° warm up.
  - Abundance at 1271 depth had 124° total lower than
  - 85' 1271' in 85 lbs.*

- *The 4th hole has some damage.*
  - 3.0' HAD to wash at 660' on war.
  - 1274' to 1276' without pulling fluid returns obtained 100% one recovery.*

- *Lowden thinks a water zone at 600', 660', and 880' is before of both water and rock entry into limestone and is also the daily load circulation zone.*

- **Operation at 0600 hours following day:**
  - *Varying at 1348' depth.*

**Drill Torque, Cost Calculation**

<table>
<thead>
<tr>
<th>Tangibles</th>
<th>Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Casing</td>
<td>$3528</td>
</tr>
<tr>
<td>Valves</td>
<td></td>
</tr>
<tr>
<td>Flanges</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
</tr>
</tbody>
</table>

**Intangible**

- Location: |
- Rig Moves: |
- Rig: |
- Abatement: |
- Bids: |
- Drill Equip. Main. |
- Drill Equip. Rental |
- Fuel, Water Power: |
- Mud: |
- Supervision & Labor: |
- Cement Services: |
- Transportation: |
- Logging Services: |
- Fishing: |
- Directional: |
- Other: |

**Daily Total**

- Forw. | 3528 |
- Accu. Total | 34271.3 |
- AFE | 10 | 201 | 47000.0 | J. Brown |

**Daily Total**

- Forw. | 3528 |
- Accu. Total | 34271.3 |
- AFE | 10 | 201 | 47000.0 | J. Brown | 30 July 82
THERMAL POWER COMPANY

WELL NO. CTG H 1 AFE NO. 35
REPORT NO. 25  DATE 1 JULY 1986
TOTAL RIG DAYS 25
DEPTH @ 2400 HRS. 1453' FOOTAGE DRLD. 187'
HRS. DRILLED 24 HRS. TRIPPED
HRS. OTHER  COOLING TOWER IN USE, YES □ NO □
MUD WT. V.S. 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. 167 °F. DEVIATION SURVEYS:

<table>
<thead>
<tr>
<th>BIT &amp; SIZE MAKE TYPE SER. NO. JETS</th>
<th>IN</th>
<th>OUT</th>
<th>FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND.</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1/2&quot; CHIUS MT U4U30</td>
<td>127</td>
<td>182</td>
<td>579</td>
<td>1000</td>
<td>400</td>
<td>T B C</td>
</tr>
</tbody>
</table>

| PUMP LINER STROKE SPM 'GPM PSI TOTAL GPM NOZZLE VEL. ANNULUS VEL. |
|--------------------------------|--------|------|------|--------|------|
|                                 | 575    | 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
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.

TANGIBLES
Casing
Valves
Planes
Other

INTANGIBLE
Location
Rig Moves
Rig
Abatement
Bits

DRILL EQUIP. MAIN.
Drill, Equip. Rental 300
Fuel, Water Power 450
Mud
Supervision & Labor 300
Cement Services
Transportation
Logging Services 330
Fishing & Directional
Other 250

OPERATION @ 0600 HOURS FOLLOWING DAY:
Going at 1441

DAILY TOTAL 61.71
FORWARD 817 15.3
ACCUMULATED 128 450

AFE 86-004 3800-02

SUPERVISOR

INOPERATIVE EQUIPT, EXPLAIN
THERMAL POWER COMPANY

WELL NO. CTGH 1
REPORT NO. 26
DATE 2-JULY-1986
TOTAL RIG DAYS 26
DEPTH @ 2400 HRS. 1590
HRS. DRILLED 24
HRS. OTHER COOLING TOWER IN USE,
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. 67 °F.
BIT - SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND.
4 5.5/8" CHH PO 4234930 1771 12-7 319 65 180 540 T R G

PUMP LINER STROKE GPM 061316-°
PSI TOTAL GPM NOZZLE VEL. ANNULUS VEL.
1

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

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

REMARKS FOR 24 HOUR PERIOD:

137/24 hrs = 5.7083 feet/hr
32" casing operating rate.

TANGIBLES
CASING
VALVES
FLANGES
OTHER

INTANGIBLE
LOCATION
RIG NOVES RIG
ABATEMENT

BDR

DRILL EQIP. MAIN.
DRILL EQIP. RENTAL
FUEL, WATER POWER
MUD

SUPERVISON & LABOR
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTIOAL
OTHER

COSTS

DAILY TOTAL 9274
FORWARD 128430
ACCU TOTAL 138430

AFE 9274-02 F 02-03-94

INOPERATIVE EQUIP. EXPLAIN

OPERATION @ 0600 HOURS FOLLOWING DAY:

INOPERATIVE EQUIP. EXPLAIN
THERMAL POWER COMPANY

WELL NO. C-741

REPORT NO. 27

TOTAL RIG DAYS 27

DEPT @ 2400 HRS. 1140

HRS. DRILLED 23

HRS. TRIPPED 4

MUD WT. 1.5

GELS 4

PH 4.0

SAND 5%

W.L. 0

% SOLIDS 7%

TIE-BACK 7

% LOST CIRC. MTL. 1%

FORM. DRLD. 109

FLOW LINE TEMP. 130° F.

MAX. TEMP. 130° F.

DEVIATION SURVEYS: 1220' 12° N 39' E

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

4 5 37" Oshco NC 56680 - 121 121 NC 424 1090 1000 400 T 2 C

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

1 - 150

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

REMARKS FOR 24 HOUR PERIOD:

- Work from 1540 to 1640.
- 100% core recovery; modelling.
- Fluid returns.
- Survey at 1620.

OPERATION @ 0500 HOURS FOLLOWING DAY:

- Work at 1711.

COSTS

- CASING
- VALVES
- FLANGES
- OTHER
- INTANGIBLE
- LOCATION
- RIG MOVES
- RIG
- ABATEMENT
- BITS
- DRILL EQUIP. MAIN.
- DRILL EQUIP. RENTAL
- FUEL, WATER POWER
- MUD
- SUPERVISION & LABOR
- CEMENT SERVICES
- TRANSPORTATION
- LOGGING SERVICES
- FISHING & DIRECTIONAL
- OTHER

DAILY TOTAL 5,710

FORWARD 13,700

ACCUM. TOTAL 159,854

AB 4 July

Babben
**THERMAL POWER COMPANY**

**WELL NO.**  CTS-1  
**A&E NO.**  
**REPORT NO.**  
**DATE:**  17-07 19-86  
**TOTAL RIG DAYS:**  29  
**TIME FROM SPUD:**  2704 HRS.  
**DEPTH @ 2400 HRS:**  1760  
**FOOTAGE DRLD:**  25  
**HAS DRILLED:**  24  
**HRS. TRIPPED:**  12  
**HRS. OTHER:**  COOLING TOWER IN USE.  
**MUD WT:**  8.5  
**VIS:**  8.5  
**W.L:**  8.5  
**CK:**  8.5  
**PH:**  8.5  
**CHL:**  8.5  
**YP:**  8.5  
**P.V:**  8.5  
**GELS:**  8.5  
**% SAND:**  8.5  
**% SOLIDS:**  8.5  
**% LOST CIRC. MTL:**  8.5  
**GALVONIC PROBE:**  8.5  
**CORRATOR:**  8.5  
**SULPHIDE:**  8.5  
**OXY:**  8.5  
**AIR-H20 RATIO:**  8.5  
**FLOW LINE TEMP:**  8.5  
**F. SUCTION TEMP:**  8.5  
**MAX. TEMP.:**  8.5  
**F. DEVIATION SURVEYS:**  

<table>
<thead>
<tr>
<th>BIT #</th>
<th>SIZE</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT</th>
<th>FT.</th>
<th>HRS. W</th>
<th>RPM</th>
<th>COND</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3 1/2</td>
<td>API</td>
<td>H-6</td>
<td>40-4432</td>
<td>1271</td>
<td></td>
<td></td>
<td>1271</td>
<td>1100</td>
<td>100</td>
<td>T-B-G</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>---</td>
</tr>
<tr>
<td>PUMP</td>
<td>LINER</td>
<td>STROKE</td>
<td>SPM</td>
<td>GPM</td>
<td>PSI</td>
<td>TOTAL GPM</td>
<td>NOZZLE VEL</td>
<td>ANNULUS VEL</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>---</td>
</tr>
</tbody>
</table>

**AIR COMP. NO:**  
**CFM:**  
**PSI:**  
**TEMP.:**  F.  
**CHEM.:**  
**RATIO:**  
**L RATE:**  

**DIGGING STRING W:\** TOTAL PICKUP W:\  
**STEAM ENTRIES, DEPTH, LBS:**  

**REMARKS FOR 24 HOUR PERIOD:**

- Mud from 1640 to 1765
- Obtained 100% core recovery.
- No drilling fluid returns.

**OPERATION @ 0600 HOURS FOLLOWING DAY:**

- Trip for new core test, after reaching 1175 depth.

**COSTS**

<table>
<thead>
<tr>
<th>TANGIBLES</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>CASING</td>
<td></td>
</tr>
<tr>
<td>VALVES</td>
<td></td>
</tr>
<tr>
<td>FLANGES</td>
<td></td>
</tr>
<tr>
<td>OTHER</td>
<td></td>
</tr>
</tbody>
</table>

**INTANGIBLE**

<table>
<thead>
<tr>
<th>LOCATION</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIG HOVER</td>
<td>A 275</td>
</tr>
</tbody>
</table>

**ABATEMENT**

<table>
<thead>
<tr>
<th>Bits</th>
<th>COSTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DRILL EQUIP, MAIN.</td>
<td>350</td>
</tr>
<tr>
<td>DRILL, EQUIP, RENTAL</td>
<td>350</td>
</tr>
<tr>
<td>FUEL, WATER POWER</td>
<td>350</td>
</tr>
<tr>
<td>MUD</td>
<td>350</td>
</tr>
<tr>
<td>SUPERVISION &amp; LABOR</td>
<td>350</td>
</tr>
<tr>
<td>CEMENT SERVICES</td>
<td>350</td>
</tr>
<tr>
<td>TRANSPORTATION</td>
<td>350</td>
</tr>
<tr>
<td>LOGGING SERVICES</td>
<td>350</td>
</tr>
<tr>
<td>FISHING &amp; DIRECTIONAL</td>
<td>350</td>
</tr>
<tr>
<td>OTHER</td>
<td>350</td>
</tr>
</tbody>
</table>

**DAILY TOTAL FORWARD:** 4,257

**ACCUMULATED TOTAL:** 3,104,111
THERMAL POWER COMPANY

<table>
<thead>
<tr>
<th>WELL NO.</th>
<th>CTFH1</th>
<th>AEE NO.</th>
<th>CSG. 35</th>
</tr>
</thead>
<tbody>
<tr>
<td>REPORT NO.</td>
<td>24</td>
<td>DATE</td>
<td>5-7-76</td>
</tr>
<tr>
<td>TOTAL RIG DAYS</td>
<td>24</td>
<td>TIME FROM SPUD</td>
<td>290+ Days</td>
</tr>
<tr>
<td>DEPTH @ 2400 HRS.</td>
<td>1775</td>
<td>FOOTAGE DRLD.</td>
<td>70'</td>
</tr>
<tr>
<td>HRS. DRILLED</td>
<td>10</td>
<td>HRS. TRIPPED</td>
<td>40</td>
</tr>
<tr>
<td>HRS. OTHER</td>
<td>10</td>
<td>COOLING TOWER IN USE</td>
<td>Y</td>
</tr>
<tr>
<td>MUD WT.</td>
<td>8.5</td>
<td>W.L.</td>
<td>CHL.</td>
</tr>
<tr>
<td>VAC.</td>
<td>YP</td>
<td>Ck.</td>
<td>PH.</td>
</tr>
<tr>
<td>P.V.</td>
<td>5</td>
<td>GELS</td>
<td>% SAND</td>
</tr>
<tr>
<td>GALV. PROBE</td>
<td>5</td>
<td>% SOLIDS</td>
<td>% LOST CIRC. MTL.</td>
</tr>
<tr>
<td>CORRATOR</td>
<td>5</td>
<td>FORM. DRLD</td>
<td>FLOW LINE TEMP</td>
</tr>
<tr>
<td>SULPHIDE</td>
<td>5</td>
<td>F.</td>
<td>SUCTION TEMP</td>
</tr>
<tr>
<td>OXY. AIR, H2O RATIO</td>
<td>1</td>
<td>F.</td>
<td>F.</td>
</tr>
<tr>
<td>MAX. TEMP.</td>
<td>2F.</td>
<td>F.</td>
<td>DEVIATION SURVEYS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BIT #</th>
<th>SIZE</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT FT.</th>
<th>HRS. WT.</th>
<th>RPM</th>
<th>COND</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3&quot;</td>
<td>5/8&quot;</td>
<td>MC</td>
<td>415040</td>
<td>1271</td>
<td>1775</td>
<td>504.0</td>
<td>13.08</td>
<td>463</td>
<td>T E G</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>T E G</td>
</tr>
<tr>
<td>PUMP</td>
<td>LINER</td>
<td>STROKE</td>
<td>SPM</td>
<td>GPM</td>
<td>PSI</td>
<td>TOTAL GPM</td>
<td>NOZZLE VEL.</td>
<td>ANNULUS VEL.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AIR COMP NO</td>
<td>CFM</td>
<td>PSI</td>
<td>TEMP. °F</td>
<td>CHEM.</td>
<td>RATIO</td>
<td>L RATE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL STRING WT.</th>
<th>TOTAL PICKUP WT.</th>
<th>ROTARY TORQUE</th>
</tr>
</thead>
</table>

REMARKS FOR 24 HOUR PERIOD:

Cased only 10' 1765-1775 when stuck to core drill.
Occurred. Drilling rate had dropped. PTH; picked up
New core head. RTH.

Had to wash down from 560

to 463.'

OPERATION @ 0600 HOURS FOLLOWING DAY:

Opening out of hole. Core barrel

Summed at 1779'
THERMAL POWER COMPANY

WELL NO. CTGH 1  AFE NO. 35
REPORT NO. 31  DATE 7 JUly 1976
TOTAL RIG DAYS 31  TIME FROM SPUD TO 10/12/76
DEPTH @ 2400 HRS. 1417  FOOTAGE DRILLED 89
HRS. DRILLED 24  HRS. TRIPPED 8
HRS. OTHER 10  COOLING TOWER IN USE YES ☐ NO ☐
MUD WT. 8.7  VIS. 45
P.V. GELS 7  % SAND 85  % SOLIDS 15  % TRACED MTL. 0
GALVONIC PROBE 0  CORRATOR 0  SULPHIDE 0
FORM. DRILLD. 0  FLOW LINE TEMP. 120° F.  SUCTION TEMP. 100° F.
MAX. TEMP. 75° F.  DEVIATION SURVEYS:

<table>
<thead>
<tr>
<th>BIT #</th>
<th>SIZE</th>
<th>MAKE</th>
<th>TYPE</th>
<th>SER. NO.</th>
<th>JETS</th>
<th>IN</th>
<th>OUT</th>
<th>HRS. W.T.</th>
<th>RPM</th>
<th>COND.</th>
</tr>
</thead>
<tbody>
<tr>
<td>S 134</td>
<td>7/8</td>
<td>CHH 2</td>
<td>MC</td>
<td>105240</td>
<td>175</td>
<td>120</td>
<td>122</td>
<td>126/140</td>
<td>20deg</td>
<td>T B G</td>
</tr>
<tr>
<td>PUMP LINER</td>
<td>STROKE</td>
<td>SPM</td>
<td>GPM</td>
<td>PSI</td>
<td>TOTAL GPM</td>
<td>NOZZLE VEL.</td>
<td>ANNULUS VEL.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>5-15</td>
<td></td>
<td>200</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AIR COMPO. NO. CFM. 75 PSI TEMP. 120° F. CHEM. RATIO L RATE

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. 1000  TOTAL PICKUP WT. 0  ROTARY TORQUE 0
STEAM ENTRIES, DEPTH, LBS. 0

REMARKS FOR 24 HOUR PERIOD:

Closed 89' from 10/28 to 1/17
Obtained 100% core recovery
No drilling fluids returns!

Jeffers, Ex-Leg Smith
In location July 12.
Installed HIS detection system
Trained crew on HIS safety and detection system

OPERATION @ 0600 HOURS FOLLOWING DAY:

NOTE: 9/28 July 1396

INOPERATIVE EQUIP. EXPLAIN

OPERATION AT 0600 HOURS FOLLOWING DAY:

NOTICE AT 1936

TANGIBLES
CASHING
VALVES
PLANTERS
OTHER

INTANGIBLE
LOCATION
RIG MOVES
RIG ABATEMENT

BITS
DRILL EQUIP. MAIN.
DRILL. EQUIP. RENTAL
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
CEMENT SERVICES
TRANSPORTATION
LOGGING SERVICES
FISHING & DIRECTORIAL
OTHER

COSTS

DAILY TOTAL
FORWARD 1972
ACCUM. TOTAL 134,679

AFE 10/6/76-12/31/76

8/28 July 1976

Chad
THERMAL POWER COMPANY

WELL NO. Ctg H-1 AFE NO. 1047 CSG 35'
REPORT NO. 32 DATE 8-JULY-1988
TOTAL RIG DAYS 32 TIME FROM SPUD 310' + 1000'
DEPTH @ 2400 HRS. 1998 FOOTAGE DRLD. 87
HRS. DRILLED 24 TIE-BACK
HRS. TRIPPED HRS. REPAIR RIG NO. 35
MUD WT. 8.5 VIS. 45 PH CHL YP
P.V. GELS % SAND % SOLIDS % LOST CIRC. MTL.
GALVONIC PROBE COOLING TOWER IN USE,
FORM. DRLD. FLOWLINE TEMP.
MAX. TEMP. 87 F. DEVIATION SURVEYS:

BIT # SIZE MAKE TYPE SER. NO. JETS IN OUT FT. HRS. WT. RPM COND
1 3/4" OD. WC 65-1461 1775 1775 1000 T R G
PUMP LINER STROKE SPM GPM PSI TOTAL GPM NOZZLE VEL. ANNUlus VEL.

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

DRILLING ASSEMBLY, TOTAL LENGTH AND DESCRIPTION:

TOTAL STRING WT. TOTAL PICKUP WT. ROTARY TORQUE

STEAM ENTRIES, DEPTH, LBS.

REMARKS FOR 24 HOUR PERIOD:

Work from 1417 to 1448
100% toe recovery and setting
Fluid returns
All training on H2S Safety
and detection completed with
all three drilling crews

COSTS

TANGIBLES
Casing
Valves
Flanges
Other

INTANGIBLE
LOCATION
RIG MOVES 8-29-77
RIG
ABATEMENT

BITS
DRILL EQUIP. MAIN.
DRILL EQUIP. RENTAL 300
FUEL, WATER POWER
MUD
SUPERVISION & LABOR
Cement Services
TRANSPORTATION
LOGGING SERVICES 330
FISHING & DIRECTIONAL
OTHER

DAILY TOTAL 499 PLUS
FORWARD
ACCUT TOTAL 148,131
AFE 80,001-4300-02
THERMAL POWER COMPANY

WELL NO. CTGH-1
REPORT NO. 33
DATE 4 JULY 1979
TIME FROM SPUD: 7-10 HRS
FOOTAGE DRILLED: 2085
HRS. DRILLED:
HRS. OTHER:
MUD WT.:
P.V.:
GALVONIC PIP FORM, DRILLED:
MAX. TEMP.:
BIT SIZE:
PUMP LINER:
AIR COMP. NO.
DRILLING AS:

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

REMARKS FOR 24 HOUR PERIOD:

Lost 3.987" hole from 1948 to 2083 obtained 100% recovery. No settling fluid returns.

* Selection equipment not operating. Home power electric outage. Well returns as per Table 2. Well functioning at 2500 depth.

OPERATIVE EQUIPT. EXPLAIN

OPERATION @ 6000 HOURS FOLLOWING DAY:
Loading at 2103. Found pressure fell to 2092 Fluid level fell to 1450.

[Handwritten notes and signatures]