

DISTRICT I

P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II

P.O. Box Drawer DD, Artesia, NM 88211-0719

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-101

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. P.O. Box 3109, Midland Texas 79702		² OGRID Number 022351
		³ API Number 30-015-29728
⁴ Property Code 10920	⁵ Property Name COTTON DRAW UNIT	⁶ Well No. 84

⁷ Surface Location

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
1	2	25-S	31-E		2815	SOUTH	1160	EAST	EDDY

⁸ Proposed Bottom Hole Location If Different From Surface

UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
⁹ Proposed Pool 1 PADUCA, DEVONIAN, NW 96615					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3455'
¹⁶ Multiple No	¹⁷ Proposed Depth 17000'	¹⁸ Formation DEVONIAN	¹⁹ Contractor NABORS	²⁰ Spud Date 8/20/97

²¹ Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
24	18 5/8	87.5#	700'	1575 SACKS	SURFACE
17 1/2	13 3/8	68#	4500'	3250 SACKS	SURFACE
12 1/4	9 5/8	47 & 53.5#	12000'	3700 SACKS	3000'
8 1/2	7 5/8 LINER	39#	14700'	600 SACKS	11700'
6 1/2	5 1/2	20#	16400'	500 SACKS	11000'

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone.
Describe the blowout prevention program, if any. Use additional sheets if necessary.

4 5/8 4" LINER 11# 1700' 200 SACKS 16100'

SEE ATTACHED: CASING PROGRAM, CEMENT PROGRAM, MUD PROGRAM, AND BOP PROGRAM.

UNORTHODOX LOCATION: EXCEPTION HAS BEEN APPLIED FOR. (COPY ATTACHED)

18 Hours WOC on All Casing Strings.

Posted ID-1
NL & API
7-25-97

NSL A

Approved 7-18-97

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>C. Wade Howard</i>		Approved By: <i>Jim W. Brown</i> BGA	
Printed Name C. Wade Howard		Title: <i>District Supervisor</i>	
Title Eng. Assistant		Approval Date: 7-18-97 Expiration Date: 7-18-98	
Date 7/14/97	Telephone 688-4606	Conditions of Approval: Attached <input type="checkbox"/>	

DISTRICT I
P. O. Box 1980, Hobbs, NM 88240

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P. O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease-4 copies
Fee Lease-3 copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

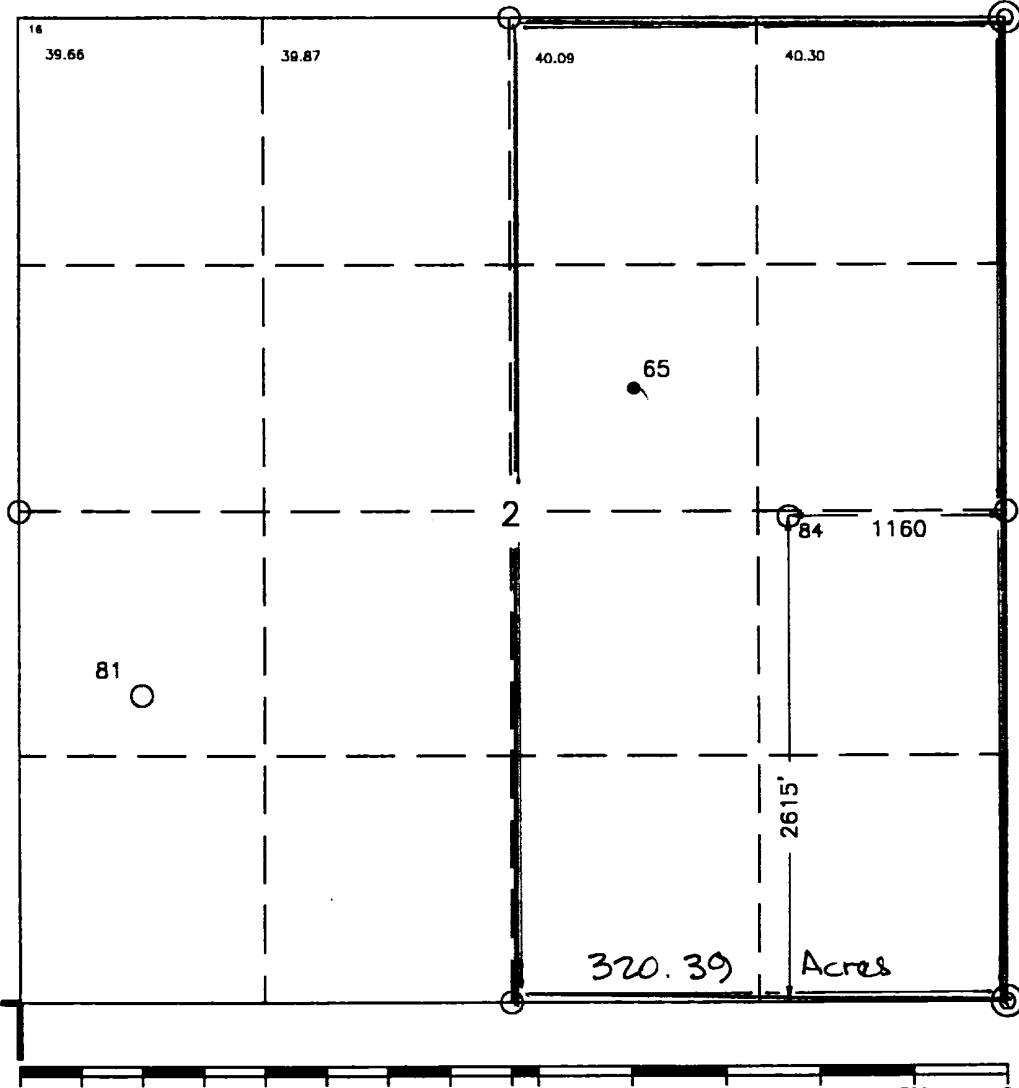
¹ API Number		² Pool Code		³ Pool Name Paduca, Devonian	
⁴ Property Code 10920		⁵ Property Name Cotton Draw Unit			⁶ Well Number 84
⁷ OCRID No. 22351		⁸ Operator Name TEXACO EXPLORATION & PRODUCTION, INC.			⁹ Elevation 3455'

¹⁰ Surface Location									
UL or lot no. 1	Section 2	Township 25-S	Range 31-E	Lot Idn	Feet from the 2615'	North/South line South	Feet from the 1160'	East/West line East	⁷ County Eddy

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	⁷ County

¹² Dedicated Acres 320.39	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION.

	¹⁶ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.
	Signature <i>C. Wade Howard</i>
	Printed Name C. Wade Howard
	Position Engineer's Assistant
	Company Texaco Expl. & Prod. Inc.
	Date June 17, 1997
	¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.
	Date Surveyed June 11, 1997
	Signature & Seal of Professional Surveyor <i>John S. Piper</i>
	Certificate No. 7254 John S. Piper

Sheet 8 of 8

○ = Staked Location • = Producing Well ● = Injection Well ∞ = Water Supply Well ⊕ = Plugged & Abandon Well

COTTON DRAW UNIT No. 84

CASING PROGRAM:

All casing will be new.

Surface Casing: 24" Hole

18 5/8", 87.5#, J-55, BTC, set @ 700'
Centralize the bottom 3 joints and every 4th to Surface.

Intermediate I Casing: 17 1/2" Hole

13 3/8", 68#, N-80, BTC, set @ 4500'
Centralize the bottom 3 joints.

Intermediate II Casing: 12 1/4" Hole

9 5/8", 53.5#, P-110, LTC, from Surface to 7000' and from 10000' to 12000'
9 5/8", 47#, P-110, LTC from 7000' to 10000'
DV Tool @ 8500'. Centralize the bottom three joints and above & below the DV Tool and two baskets below the DV.

Drill Liner: 8 1/2" Hole

3000' of 7 5/8", 39#, P-110, SLX, set @ 14700'. Top of Liner @ 11700'.
Centralize Liner with Turbulators. One per joint.

Production Casing: 6 1/2" Hole

5 1/2", 20#, P-110, SLX, set @ 16400'.
Centralize bottom three joints.

Production Liner: 4 5/8" Hole

900' of 4", 11#, P-110, SLX set at 17000'. Top of Liner @ 16100'.
Centralize Liner with Turbulators. One per joint.

COTTON DRAW UNIT No. 84

CEMENT PROGRAM:

Surface Casing: 1200 sacks Class C w/ 2% gel (14.2 ppg, 1.5 cf/s, 7.4 gw/s). Tail with 375 sacks Class C (14.8 ppg, 1.32 cf/s, 6.3 gw/s).
Top of Cement: Surface.

Intermediate I Casing: 3000 sacks 35/65 Poz H w/ 6% gel, 5% salt, 1/4# FC (12.8 ppg, 1.94 cf/s, 10.5 gw/s). Tail with 250 sacks Class H (15.6 ppg, 1.18 cf/s, 5.2 gw/s).
Top of Cement: Surface.

Intermediate II Casing: 1st Stage - 1200 sacks 50/50 Poz H w/ 2% gel, 5% salt, 1/4# FC (14.2 ppg, 1.35 cf/s, 6.3 gw/s). Tail with 250 sacks Class H (15.6 ppg, 1.18 cf/s, 5.2 gw/s).
DV Tool @ 8500': 2nd Stage - 2000 sacks 50/50 Poz H w/ 2% gel, 5% salt, 1/4# FC (14.2 ppg, 1.35 cf/s, 6.3 gw/s). Tail with 250 sacks Class H (15.6 ppg, 1.18 cf/s, 5.2 gw/s). Top of Cement: 3000'.

Drill Liner: 600 sacks Gas Block (15.6 ppg, 1.2 cf/s, 3.31 gw/s).
Top of Cement: 11700'.

Production Casing: 500 sacks Gas Block (15.6 ppg, 1.2 cf/s, 3.31 gw/s).
Top of Cement: 11000'.

Production Liner: 200 sacks Gas Block (15.6 ppg, 1.2 cf/s, 3.1 gw/s).
Top of Cement: 16100'.

MUD PROGRAM:

<u>Depth</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>
0'-700'	Fresh Water	8.4	28
700'-4500'	Brine Water	10.0	29
4500'-12000'	Fresh Water	8.4	28
12000'-14700'	Lime/Morex	13.5-15.3	40-60
14700'-16400'	Lime/Morex	10.6-12	40-60
16400'-17000'	Fresh Water	8.4	28

COTTON DRAW UNIT No. 84
PRESSURE CONTROL EQUIPMENT:

17-1/2" Hole

A 3000 psi Dual Ram type preventer with rotating head will be used. (See Exhibit C). We do not plan to have an annular preventer. We will be able to achieve full closure of the well with the double ram preventer. It will be installed after surface casing is set. BOP will be tested each time it is installed on a casing string and at least every 29 days, and operated at least once each 24-hour period during drilling.

A PVT system will not be installed. We will be drilling thru the reserve pit and will circulate the steel pits one hour each tour to check for gains and losses and will be noted on the driller's log, which is Texaco's policy.

We do not plan to run an automatic remote-controlled choke. We will have installed and tested two manual, H2S trimmed, chokes.

12-1/4" Hole

A 5000 psi Dual Ram type preventer, annular preventer with rotating head will be used (See Exhibit F-1). The BOP will be tested at least every 29 days and operated at least once each 24 hour period during drilling.

A PVT system will not be installed. Drilling fluid will be circulated through the reserve pit and also will be circulated through the steel pits one hour each tour to check for gains and losses and will be noted on the driller's log, which is Texaco's policy.

An automatic remote-controlled choke will not be used. Texaco will install and test two manual, H2S trimmed chokes.

8-1/2" Hole

A 10,000 psi single pipe ram preventer, dual Ram type preventer, single blind ram preventer, annular preventer with rotating head will be used (See Exhibit G). The BOP will be tested at least every 29 days and operated at least once each 24 hour period during drilling.

A PVT system will be installed. Drilling fluid will be circulated through the steel pits on a continuous basis.

An automatic remote-controlled choke will be used.

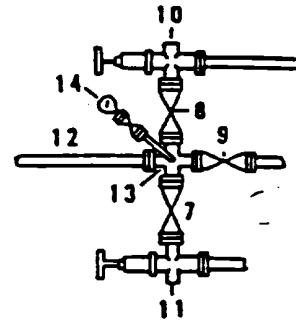
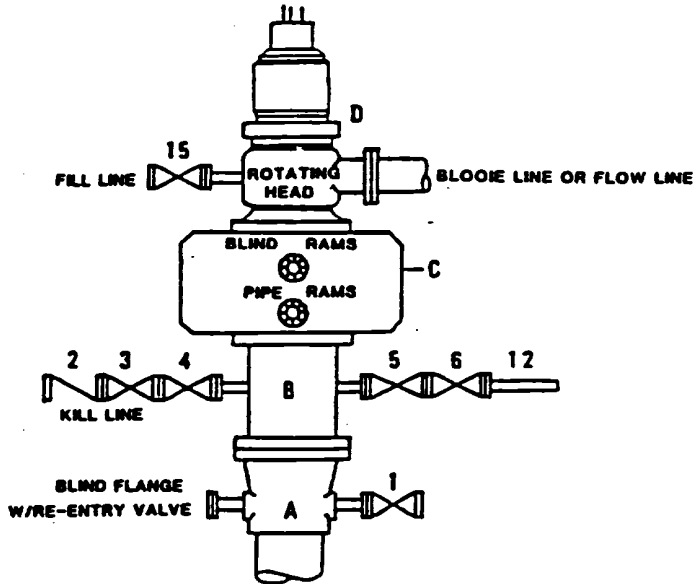
6-1/2" & 4 5/8" Hole

A 10,000 psi single pipe ram preventer, dual Ram type preventer, single blind ram preventer, annular preventer with rotating head will be used (See Exhibit G). The BOP will be tested at least every 29 days and operated at least once each 24 hour period during drilling.

A PVT system will be installed. Drilling fluid will be circulated through the steel pits on a continuous basis. An automatic remote-controlled choke will be used.

**DRILLING CONTROL
CONDITION II-B 3000 WP
FOR AIR DRILLING OR
WHERE NITROGEN OR AIR BLOWS ARE EXPECTED**

H₂S TRIM REQUIRED
YES _____ NO _____



DRILLING CONTROL

MATERIAL LIST - CONDITION II - B

- | | |
|-------------|---|
| A | Texaco Wellhead |
| B | 3000# W.P. drilling spool with a 2" minimum flanged outlet for kill line and 3" minimum flanged outlet for choke line. |
| C | 3000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 3000# W.P. control lines (where sub-structure height is adequate, 2 - 3000# W.P. single ram type preventers may be utilized). |
| D | Rotating Head with fill up outlet and extended Bloode Line. |
| 1,3,4, 7,8, | 2" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve. |
| 2 | 2" minimum 3000# W.P. back pressure valve. |
| 5,6,9 | 3" minimum 3000# W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve. |
| 12 | 3" minimum schedule 80, Grade "B", seamless line pipe. |
| 13 | 2" minimum x 3" minimum 3000# W.P. flanged cross. |
| 10,11 | 2" minimum 3000# W.P. adjustable choke bodies. |
| 14 | Cameron Mud Gauge or equivalent (location optional in choke line). |
| 15 | 2" minimum 3000# W.P. flanged or threaded full opening steel gate valve, or Halliburton Lo Torc Plug valve. |



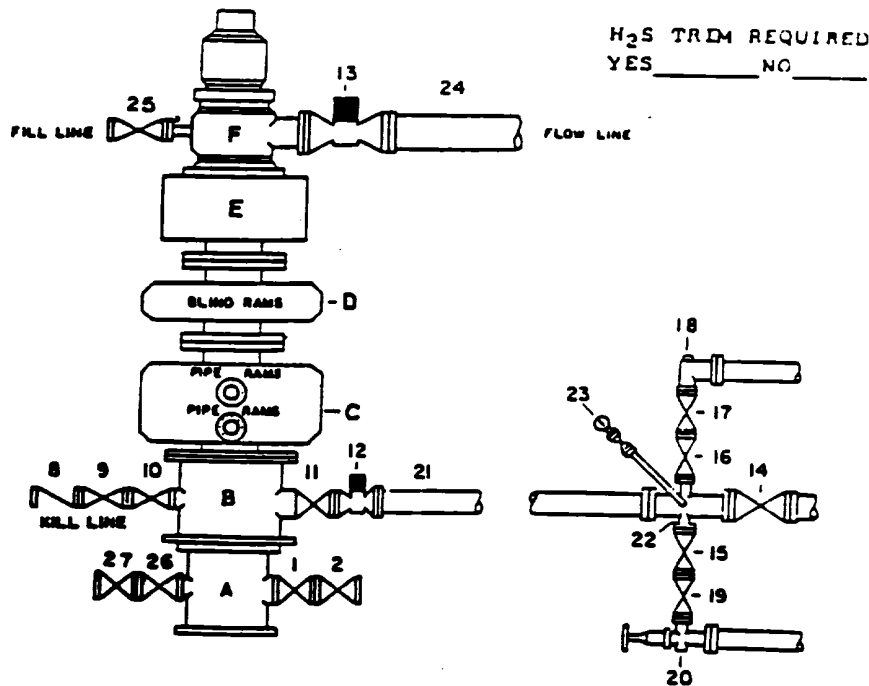
TEXACO, INC.
MIDLAND DIVISION
MIDLAND, TEXAS



SCALE	DATE	EST. NO.	DRG. NO.
DRAWN BY			
CHECKED BY			
APPROVED BY			

EXHIBIT C

DRILLING CONTROL **CONDITION V-B - 10,000 PSI WP**



H₂S TRIM REQUIRED
 YES _____ NO _____

DRILLING CONTROL

MATERIAL LIST - CONDITION V-B

- A Texaco Wellhead
- B 10,000 W.P. Drilling Spool with a minimum 2" flanged outlet for kill line and 4" minimum flanged outlet for choke line
- C 10,000 W.P. Dual Variable Ram Type preventer, hydraulic operated with 1" steel, 5000 W.P. control line
- D 10,000 W.P. Single Ram Type preventer, hydraulic operated with 1" steel, 5000 W.P. control lines
- E 10,000 W.P. Annular preventer, hydraulic operated with 1" steel, 5000 W.P. control lines
- F **When Required** - Rotating Head with fill up outlet and extended sleeve line
- 1,2,9,10, 15,16,17, 19,26,27 2" minimum 10,000 W.P. flanged full opening steel gate valve, or Halliburton Lo Torc Plug valve
- 6 2" minimum 10,000 W.P. back pressure valve
- 11,14 4" minimum 10,000 W.P. flanged full opening steel gate valve
- 12 4" minimum 10,000 W.P. flanged full opening hydraulic valve
- 13 **When Required** - 10" minimum 1000 W.P. flanged full opening hydraulic valve
- 21 4" minimum 10,000 W.P. 4130 mechanical tubing with flanged ends, or equivalent
- 22 2" minimum X 4" minimum 10,000 W.P. flanged cross
- 18 2" minimum 10,000 W.P. automatic choke
- 20 2" minimum 10,000 W.P. adjustable choke equipped with carbide trim
- 23 Cameron Mud Gauge or equivalent (location in choke line optional)
- 24 **When Required** - 10" steel flow line
- 25 2" minimum 1000 W.P. flanged or threaded full opening steel gate valve or Halliburton Lo Torc plug valve

SCALE:	DATE	EST NO	DRG NO
DRAWN BY:			
CHECKED BY:			
APPROVED BY:			



TEXACO, INC.
 MIDLAND DIVISION
 MIDLAND TEXAS



EXHIBIT G-1



Texaco Exploration
and Production Inc

500 North Loraine
Midland TX 79701

P O Box 3108
Midland TX 79702

July 3, 1997

GOV - STATE AND LOCAL GOVERNMENTS

Unorthodox Location
Cotton Draw Unit Well No. 84
Paduca (Devonian) Field
Eddy County, New Mexico

State of New Mexico
Energy and Minerals Department
Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

Attention: Mr. Michael E. Stogner

Gentlemen:

An Exception to Rule 104 F. III, by administrative approval, is requested for the captioned well. This well is located 2615' FSL & 1160' FEL, Unit Letter "I", of Section 2, T-25-S, R-31-E.

This well must be drilled in this location due to geological conditions. As seen on the attached map, structural closure on the Devonian horizon is centered in the SE/4 of Section 2. The proposed location is positioned to drill near the top of the structural closure, and as far from the currently producing CDU No. 76, while taking maximum advantage of indicated karst reservoir as interpreted from seismic data. Production from similar Devonian fields, Chapman Deep and Vermejo Moore Hooper, demonstrate the need to encounter the Devonian structurally high and in a location of good reservoir development to improve reservoir conditions.

Texaco Exploration & Production, Inc. is the Lessee of Record of the affected adjoining and diagonal spacing units. Attached is Form C-102.

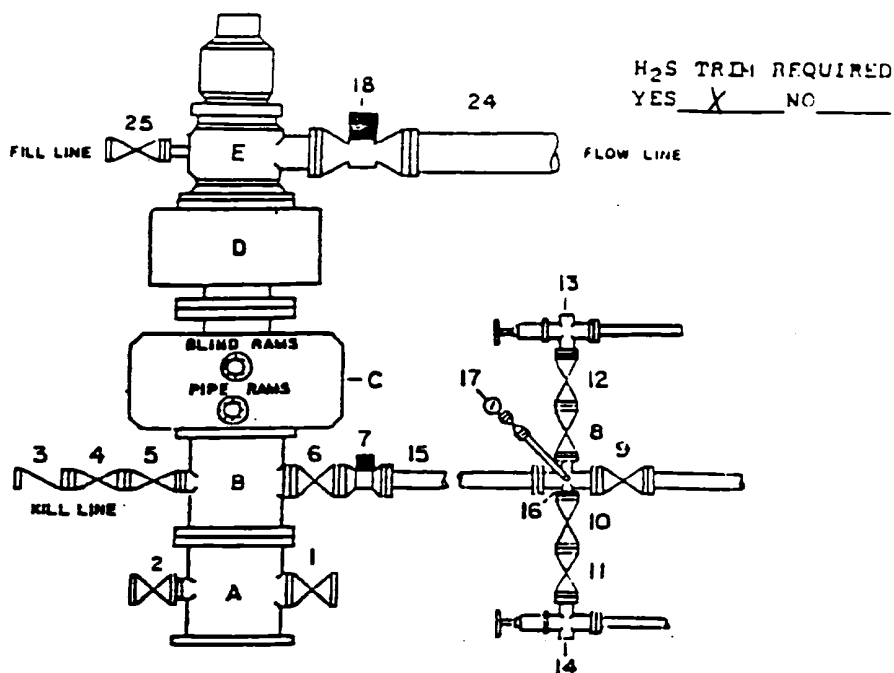
Yours very truly,

C. Wade Howard

C. W. Howard
Engineer Assistant

CWH Attachments cc: OCD, Atresia

DRILLING CONTROL CONDITION IV-B-5000 PSI WP



DRILLING CONTROL

MATERIAL LIST - CONDITION IV - B

- A Texaco Wellhead
- B 5000# W.P. drilling spool with a minimum 2" flanged outlet for kill line and 3" minimum flanged outlet for choke line.
- C 5000# W.P. Dual ram type preventer, hydraulic operated with 1" steel, 5000# W.P. control lines.
- D 5000# W.P. Annular preventer, hydraulic operated with 1" steel, 5000# W.P. control lines.
- E Rotating Head with fill up outlet and extended Bloose line.
- 1,2,4,5, 8,10,11, 12 2" minimum 5000# W.P. flanged full opening steel gate valve, or Malliburton Lo Torc Plug valve.
- 3 2" minimum 5000# W.P. back pressure valve.
- 6,9 3" minimum 5000# W.P. flanged full opening steel gate valve, or Malliburton Lo Torc Plug valve.
- 7 3" minimum 5000# W.P. flanged hydraulic valve
- 15 3" minimum Schedule 160, Grade B, seamless line pipe
- 16 2" minimum x 3" 5000# W.P. flanged cross
- 13,14 2" minimum 5000# W.P. adjustable chokes with carbide trim.
- 17 Cameron Mud Gauge or equivalent (location in choke line optional).
- 18 6" minimum 1000# hydraulic flanged valve.
- 24 8" minimum steel flow line.
- 25 2" minimum 5000# W.P. flanged or threaded full opening steel gate valve, or Malliburton Lo Torc Plug valve.



TEXACO, INC
MIDLAND DIVISION
MIDLAND 19642



SCALE	DATE	EST NO	DRU NO
DRAWN BY			
CHECKED BY			
APPROVED BY			

EXHIBIT F-1