

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
En. Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

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

¹ Operator name and Address MOBIL EXPLORATION & PRODUCING U.S. INC., AS AGENT FOR MOBIL PRODUCING TEXAS & NEW MEXICO INC. P.O. BOX 633, MIDLAND, TX 79702		² OGRID Number 15144
		³ API Number 30-025-32601
⁴ Property Code 3040	⁵ Property Name STATE M	⁶ Well Number 17

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
C	34	17-S	35-E		809	NORTH	1813	WEST	LEA

⁸ Proposed 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	County
⁹ Proposed Pool 1 Wildcat - VACUUM (DRINKARD) <96036>									
¹⁰ Proposed Pool 2									

¹¹ Work Type Code N	¹² Well Type Code O	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3930
¹⁶ Multiple S	¹⁷ Proposed Depth 8400	¹⁸ Formations DRINKARD**	¹⁹ Contractor TIMBER SHARP	²⁰ Spud Date 10-01-94 APPROX.

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
11	8-5/8	24	1480	550	
7-7/8	5-1/2	17	7500	920	

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

**SEE ATTACHED DRILLING PROGRAM SUMMARY
ALSO ATTACHED IS THE BOP REQUIREMENTS**

****FORMATION DEPTHS ARE ON ATTACHED DRILLING PROGRAM SUMMARY**

Permit Expires 6 Months From Approval
Date Unless Drilling Underway.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Kaye Pollock-Lyon*

Printed name: **KAYE POLLOCK-LYON**

Title: **ENV. & REG. TECHNICIAN**

Date:
07-25-94

Phone:
915-688-2584

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date:

Conditions of Approval:

Attached ☐

Orig. Signed by
Paul Kautz
Geologist

JUL 27 1994

Expiration Date:

Submit to Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

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

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

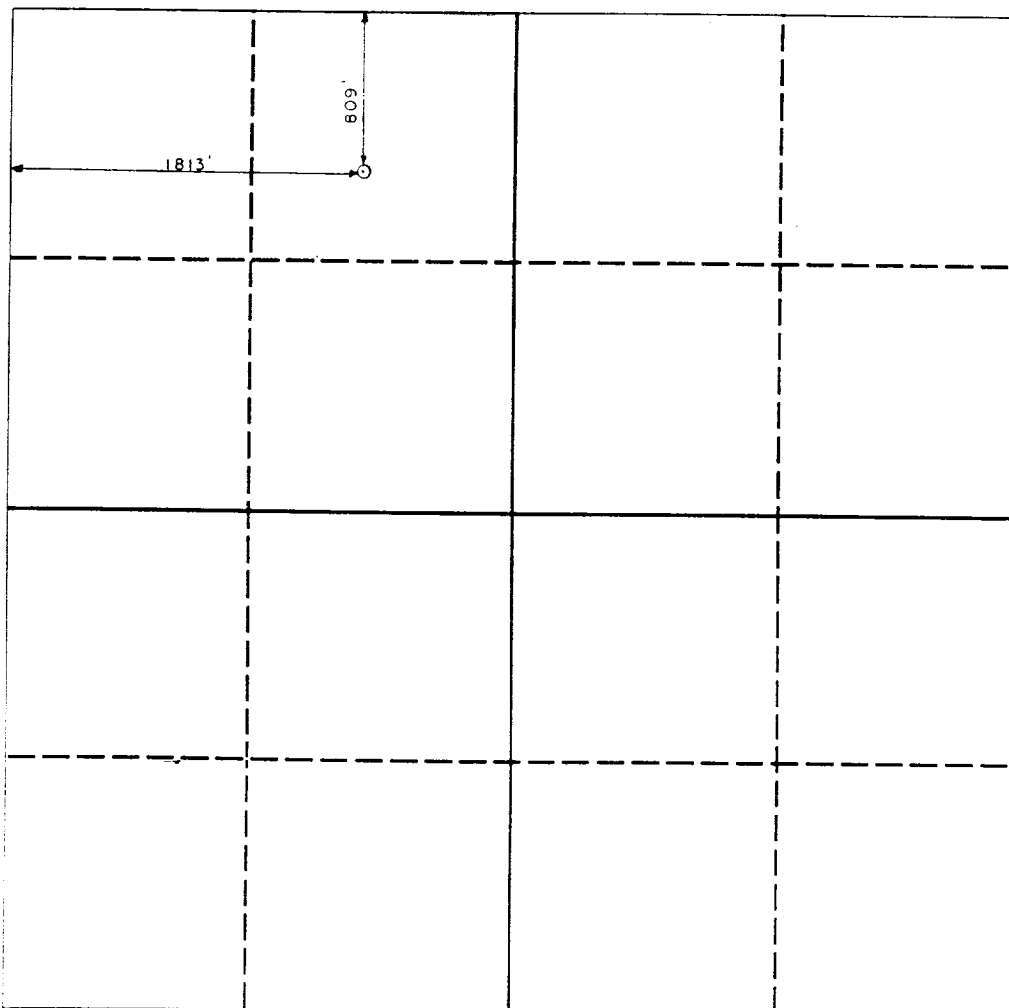
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator Mobil Exploration & Producing US			Lease State "M"		Well No. 17
Unit Letter C	Section 34	Township 17 S	Range 35 E	County NMPM	Lea
Actual Footage Location of Well: 1813 feet from the West line and 809 feet from the North line					
Ground level Elev. 3930		Producing Formation Drinkard	Pool Vacuum Wildcat	Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure marks on the plat below.
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
3. If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____
If answer is "no" list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary). _____
No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: *Kaye Pollock-Lyon*

Printed Name
Kaye Pollock-Lyon

Position

Env & Reg Technician

Company

Mobil Producing TX & NM Inc.

Date

07-25-94

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

July 21, 1994

Signature & Seal of
Professional Surveyor

J. N. Anderson

Certificate No.

5109

0 330 660 990 1320 1650 1980 2310 2640 2000 1500 1000 500 0

**MIDLAND DRILLING
DRILLING PROGRAM SUMMARY**

DPS-MID(8/88)

WELL:	State "M" #17	TD - PROPOSED:	3,200	AFE NUMBER:	
FIELD:	Vacuum	TD - PERMIT:	3,400	AFE \$M - DRY:	
CNTY/ST:	Lea -- New Mexico	DAYS - DRY:	13	AFE \$M - SUSP:	
SECTION:	34	DAYS - SUSP:		MOBIL W. I. %:	87.5%
BLK/TWP:	17-S				
SVY/RNG:	35-E				

HOLE GEOMETRY & MUD PROGRAM:

Sect No.	Bit Size	Depth, Ft		Mud Type	Mud Weight	Visc. secs	Fluid Loss	Mud pH	Survey Freq	Max Dev	Max Dogleg
		From	To								
1	11.0"	0'	1,480'	FW/Native	9.0	34-40	NC	9.5+	500'	2.00	1.50
2	7.875"	1,480'	7,500'	Sat Brine	<10.1	33-36	NC	9.5+	500'	5.00	1.50
3	7.875"	7,500'	8,200'	mt55/Starc	<10.2	33-36	NC	9.5+	500'	5.00	1.50

CASING & BOP PROGRAM:

Sect No.	Csg Size	Depth, Ft		Section Length	Wt/Ft, Lbs	Sec Wt MLbs	Grade	Conn Type	Size	Stack	Rating
		From	To								
1	8.625	0	1,480'	1,480'	24.00	35.5	JSS-50	STC	11.000	SFG	3.000
2	5.500	0	2,000'	2,000'	17.00	34.0	K-65	STC			
3	5.500	2,000	7,420'	5,420'	15.50	34.0	JSS-50	STC			
4	5.500	7,420	7,500'	80'	17.00	14	L-60	LTC			

CEMENTING PROGRAM:

Sect No.	Depth, Ft		Slurry Density	Slurry Yield	Volume		Slurry Description
	From	To			CuFt	Sacks	
1	0	980'	13.5	1.74	609	350	"C" - 4% D20 + 2% S1 + .25 pps D29
2	980'	1,480'	14.8	1.32	264	200	"C" - 2% S1 + .25 pps D29
3	3,700'	6,850'	12.8	1.96	1,313	670	35/65 poz:H - 6% D20 - 5% D44 + .25 pps D29
4	6,850	7,500'	16.4	1.06	265	250	"H" - .25 pps D29

O. H. LOGGING PROGRAM:

Type of Log	Depth, Ft		FORMATION TOPS:		
	From	To	Name	Depth	Remarks
GR-Spectroscopy	6,000	TD	Rustier Anhydrite	1,475'	
CNL-LDL-GR-Cal	2,000	TD	Yates	2,895'	
			Queen	3,819'	
			San Andres	4,370'	
			Glorietta	6,060'	
			Tubb	7,550'	
			Drinkard	7,700'	

SAMPLE CATCHING/MUD LOGGING PROGRAM:

Service Performed	Depth, Ft		Freq, Ft.
	From	To	
Sample Catching			
Drilling Time			
Mud Logging	5,000	TD	

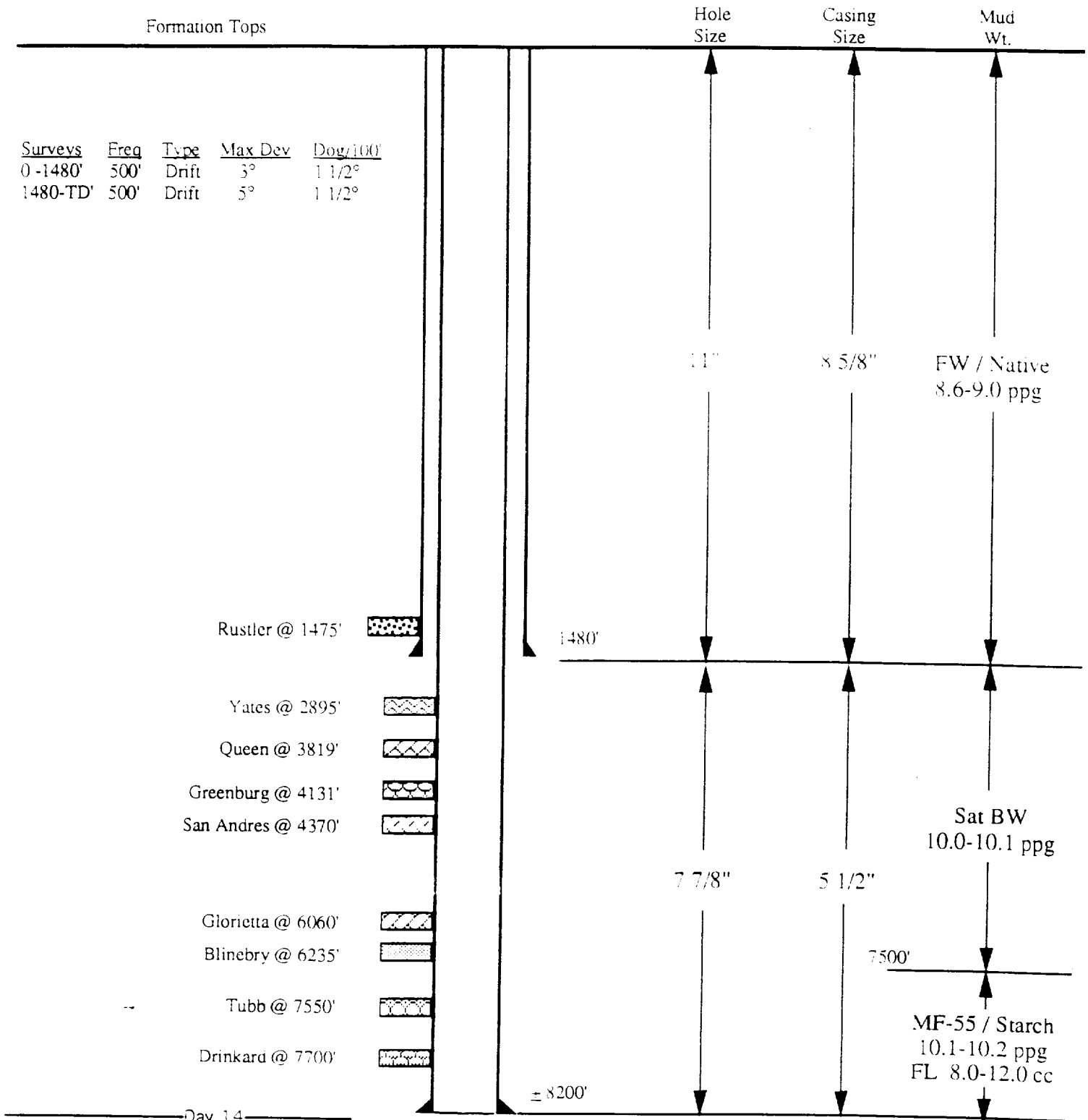
REGULATORY REQUIREMENTS:

CORING PROGRAM:

Core Point	Formation	Core Type	Bit Size	Core Size	Core Length	DST PROGRAM:	Formation	Depth
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ILLEGIBLE

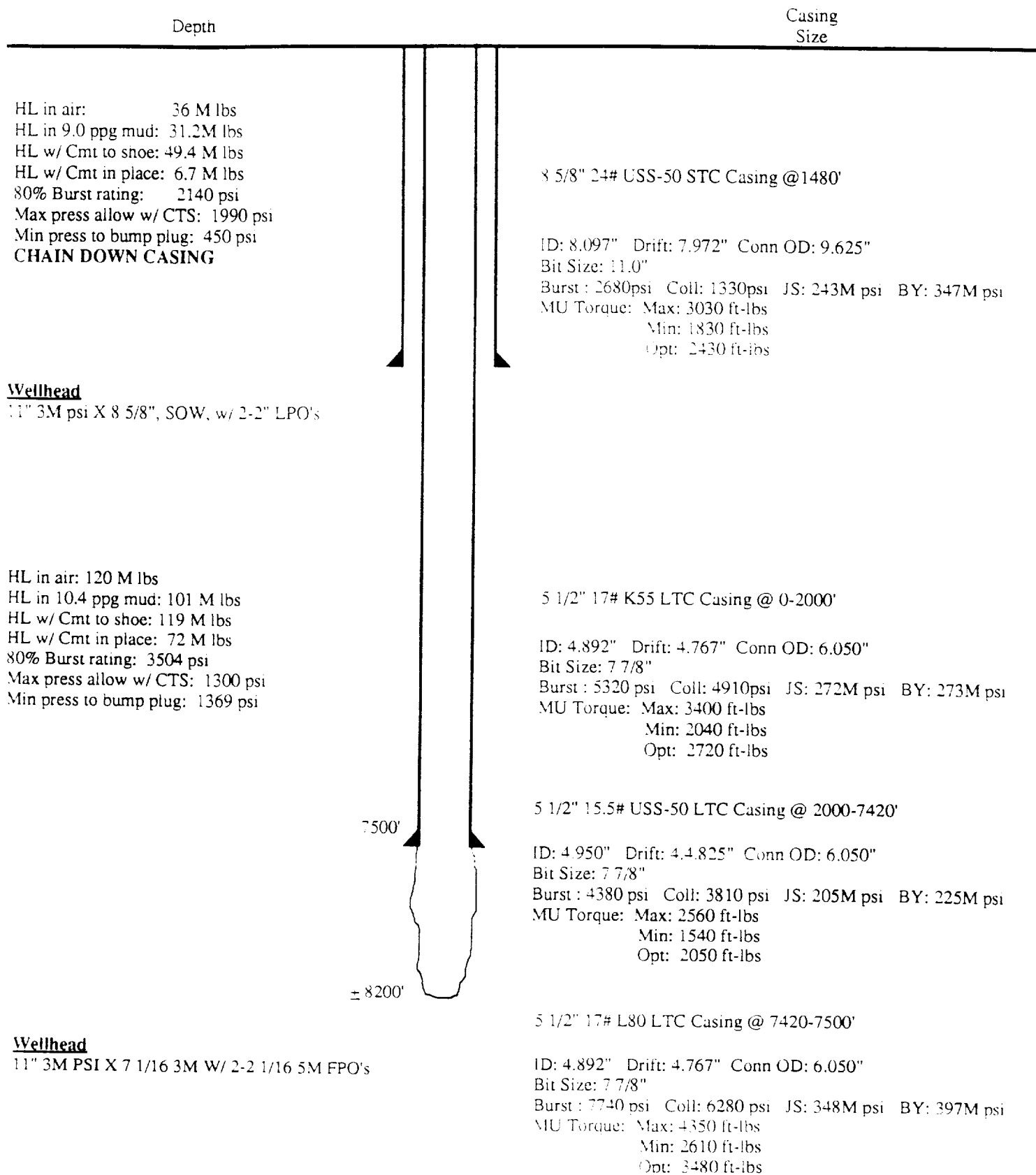
DRILLING SUMMARY



Log Type	Interval
CNL-ARI	6000-TD
FMI	7700-TD
Sonic-Cal	TD- Surf

Mud Logger
5000'-TD

CASING DIAGRAM



CEMENTING DETAIL

SURFACE

8 5/8" 24# USS-50 STC Casing @ 1480'

Casing Running Order

- Float Shoe
- 1 jt 8 5/8" casing
- Float Collar (Thread Lock from FC down)

Centralizers:

- 1 - 5' above shoe
- 1 - 5' float collar
- 1 - every fourth collar to Surface
- Total: 11- centralizers
- 2-stop collars

Surface

Spacer: 25 bbls FW

*Lead: 350 sx "C" + 4% D20 + 2% S1 + 0.25 pps D29

*Tail: 200 sx "C" + 2% S1 + 0.25 pps D29

	<u>Lead</u>	<u>Tail</u>
Weight (ppg)	13.5	14.8
Yield (cf/sx)	1.74	1.32
Mix Water (gps)	9.11	6.32
Thick Time (hrs:min)	≥ 3:20	≥ 2:00
Free Water (cc/30 min)	≤ 1%	≤ 1%
Fluid Loss (cc's)	NC	NC
12 Hr Comp Strength	≥ 500	≥ 700
72 Hr Comp Strength	≥ 1500	≥ 1500
Top of Cement	0	500'

* Est. volumes based on gauge hole + 100% excess. Run fluid or mechanical caliper to determine exact volumes.

- 1) Chain Down Casing
- 2) Circ. one hole vol. prior to cementing.
- 3) Displace cement w/ FW @ 6-7 bpm. **DO NOT OVERDISPLACE**
- 4) If cement does not circ. to surface, contact Drlg. Supt. and the NMOC.
- 5) Test casing to 1500 psi.
- 6) **WAIT MIN 8 HRS PRIOR TO DRILL OUT**

PRODUCTION

5 1/2" 17 K55 LTC Casing @ 0-2000'

5 1/2" 15.5# USS50 STC Casing @ 2000-7420'

5 1/2" 17# L80 LTC Casing @ 7420-7500'

Production

Spacer: 25 bbls FW

**Lead: 670 sx 35/65 (Poz/H) + 6% D20 + 5% D44 + 0.25 pps D29

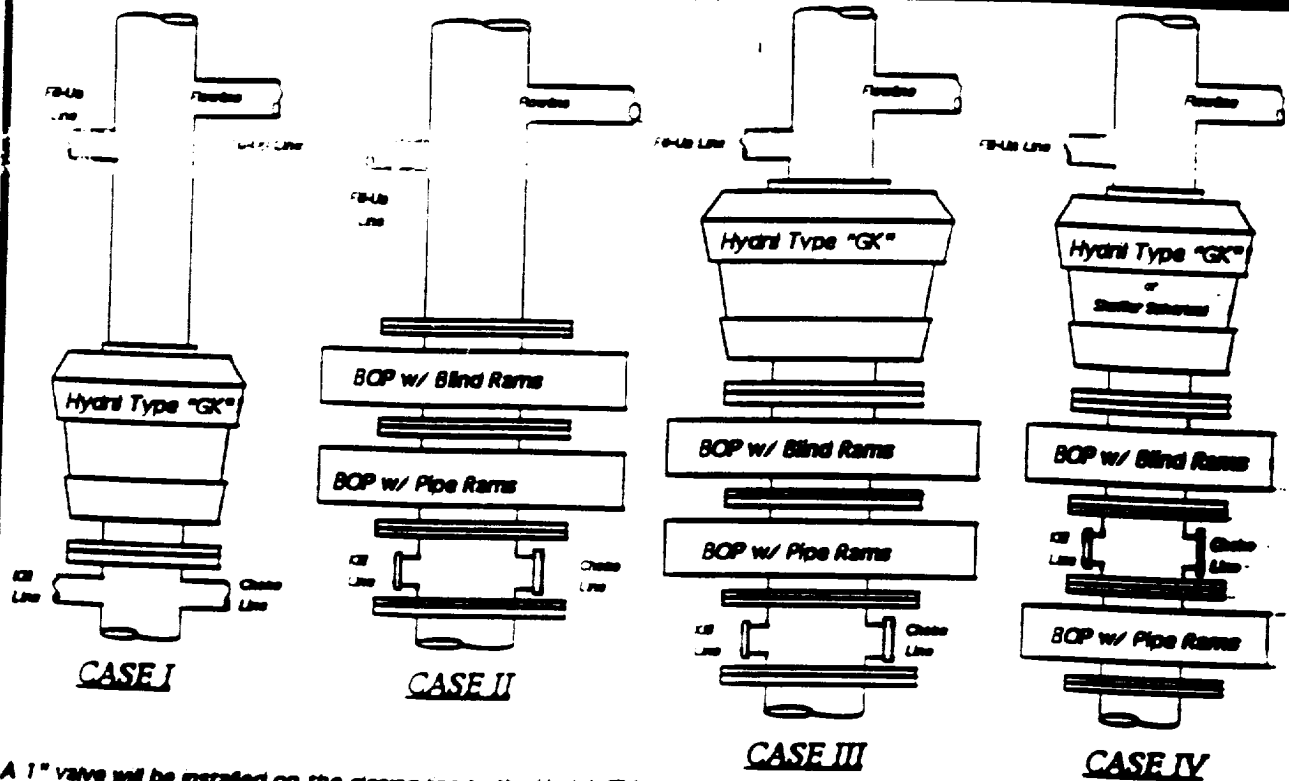
**Tail: 250 sx "H" + .025 pps D29

	<u>Lead</u>	<u>Tail</u>
Weight (ppg)	12.8	16.4
Yield (cf/sx)	1.96	1.06
Mix Water (gps)	10.46	4.34
Thick Time (hrs:min)	≥ 3:00	≥ 2:39
Free Water (cc/30 min)	≤ 1%	≤ 1%
Fluid Loss (cc's)	NC	NC
12 Hr Comp Strength	≥ 400	≥ ***
72 Hr Comp Strength	≥ ***	≥ ***
Top of Cement	3700'	7500'

** Est volumes based on gauged hole size or 50% excess. Run log caliper for actual volumes. Use 25% excess for open hole x 5 1/2" casing annulus.

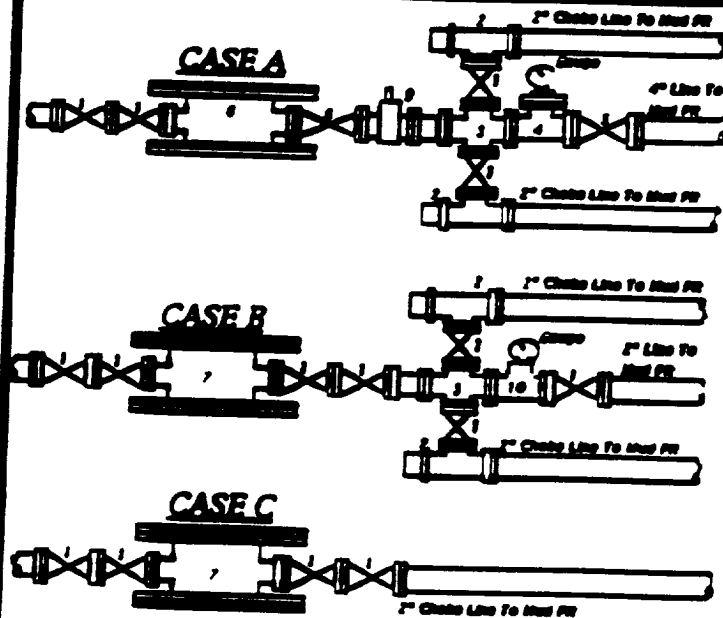
- 1) Reciprocate casing 15'-20' while conditioning hole
- 2) Circ. one hole vol. prior to cementing.
- 3) Displace cement w/ FW @ 4-6 bpm. **DO NOT OVERDISPLACE**
- 4) WOC 8 hrs. ND BOP & cut casing to install tubing head.
- 5) **Release rig. Move in Dowell pump truck and pump 400 sx "C" + 200 sx RFC Thixotropic cmt down backside until cmt returns to surface. Actual cement volumes will be determined by engineer from caliper log.**

SCHEDULE B MINIMUM BLOWOUT PREVENTER REQUIREMENTS



A 1" valve will be installed on the closing line to the Hydril. This valve will be on a short nipple next to the Hydril. The Hydril closing line must be equipped w/ a 1" - 3000 psi WP plug valve on the nipple into the Hydril.

CASE IV



BOP SIZE	BOP CASE	WORKING PRESSURE	CLOSING CASE
11	II	3000 psi	B

Bradenhead furnished by Mobil will be:
Mfr: _____
Size: _____ Type: _____

Legend

1. 2" Ramped all steel valve must be either Cameron® or Wellbore Line Torque or similar (P&ID).
2. 2" Ramped adjustable choke, min. 1" full opening & equipped w/ hand trim.
3. 4" x 2" Ramped steel cross.
4. 4" Ramped steel tee.
5. 4" Ramped all steel valve (Type as in no. 1).
6. Drilling Head or 2" x 4" Ramped cross.
7. Drilling Head or 4" x 2" Ramped cross.
8. 2" x 2" Ramped steel cross.
9. 4" Wellbore-adjustable gate valve.
10. 2" Ramped steel tee.

Notes

Chokes installed may be located in any convenient position. Use all steel hydraulic connections. Make BOP valves with full tapered end caps. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke man and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing chokes must have clearly marked controls to be located on derrick floor near operator's position.