

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

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

☐ AMENDED REPORT

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

¹ Operator name and Address MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM P.O. BOX 633, MIDLAND, TX 79702		² OGRID Number 15144 B-1520-1
⁴ Property Code 8055		³ API Number 29235 30-0 25-24748
⁵ Property Name NORTH VACUUM ABO		⁶ Well Number 278

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
M	23	17-S	34-E		500'	SOUTH	652'	EAST	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
A	27	17-S	34-E		685'	NORTH	561	EAST	LEA
⁹ Proposed Pool 1					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P-DIVIATION	¹² Well Type Code 0	¹³ Cable/Rotary ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 4029'
¹⁶ Multiple NO	¹⁷ Proposed Depth 8599'	¹⁸ Formations ABO	¹⁹ Contractor	²⁰ Spud Date 06-30-97

²¹ Proposed Casing and Cement Program					
Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17 1/2"	13 3/8"	48# H-40	400'	500 SXS	SURFACE
12 1/4"	8 5/8"	28, 32 & 17#	5500'	2970 SXS	CIRC / SURFACE
7 7/8"	5 1/2" LINER	15.5# K-55	TD 8800'	1220 SXS	CIRC / SURFACE
	ORIGINAL	CASING	UNDISTURBED		

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 ATTACHMENT

Permit Expires 1 Year From Approval
 Date Unless Drilling Underway
 Plugback

DD-177<H>

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. Signature: Shirley Houchins Printed name: SHIRLEY HOUCHINS Title: ENVIRONMENTAL & REGULATORY TECHNICIAN Date: 06-12-97		OIL CONSERVATION DIVISION Approved by: Paul Kautz Title: Geologist Approval Date: _____ Expiration Date: _____ Conditions of Approval: Attached ☐	
Phone: (915) 688-2585			

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994

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Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-24748 <i>29235</i>		Pool Code	Pool Name NORTH VACUUM Abo
Property Code 8055	Property Name NORTH VACUUM Abo		Well Number 278
OGRID No. <i>15144</i> B-1520-1	Operator Name MOBIL PRODUCING TX & NM INC.* *MOBIL EXPLORATION & PRODUCING US INC. AS AGENT FOR MPTM		Elevation 4029'

¹⁰ Surface Location

UI or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
M	23	17-S	34-E		500'	SOUTH	650	WEST	LEA

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	County
<i>A</i>	27	17-S	34-E		685'	NORTH	561	EAST	LEA

¹² Dedicated Acres	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**

				¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> <u><i>Shirley Houchins</i></u> Signature SHIRLEY HOUCHINS Printed Name ENV. & REG. TECHNICIAN Title 06-12-97 Date
				¹⁸ SURVEYOR CERTIFICATION <i>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 belief.</i> Date of Survey Signature and Seal of Professional Surveyor: Certificate Number
Sec. 27 BHL X 685' FNL 561' FEL				

SW

NVAU 277

277



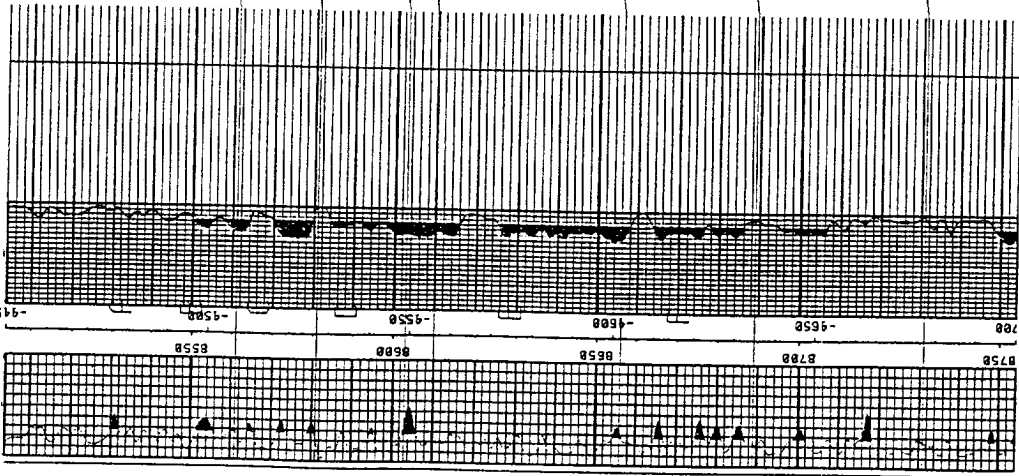
NVAU 278

278

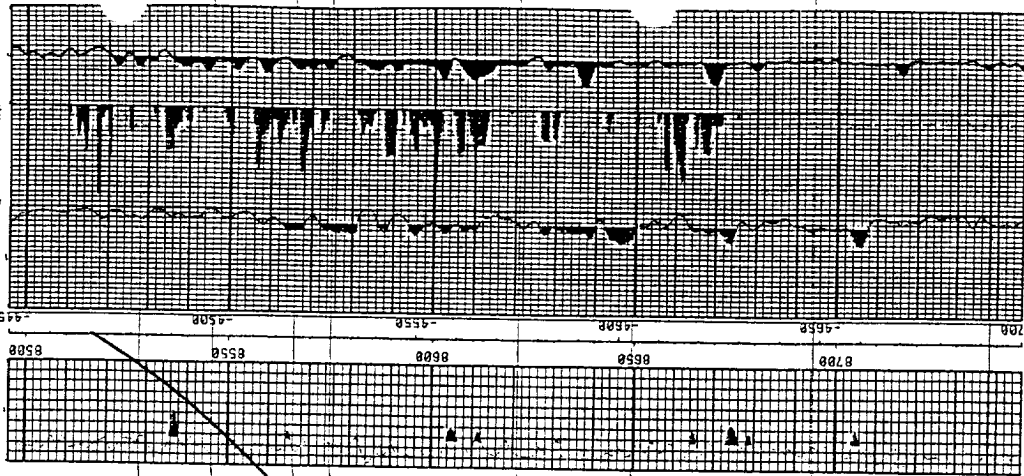


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NVAU #278
Lea County, New Mexico

I. GENERAL DRILLING SUMMARY

A. Objective

The objective of this project is to mill a window in the 5-1/2" casing from 8441' to 8450' and drill an open hole lateral in the Abo formation with a vertical section of 1250 ft.

B. Procedure

1. Prepare location and dig workover pit.
2. Bleed well down. MIRU pulling unit and required H₂S equipment.
3. ND wellhead. NU BOP (double ram w/ stripper head). POH w/ production/injection equipment. Set CIBP and whipstock at 8508 and mill window from 8441 to 8450 ft.
4. Drill curve and lateral to a vertical section of 1250 ft. Drilling operations complete.

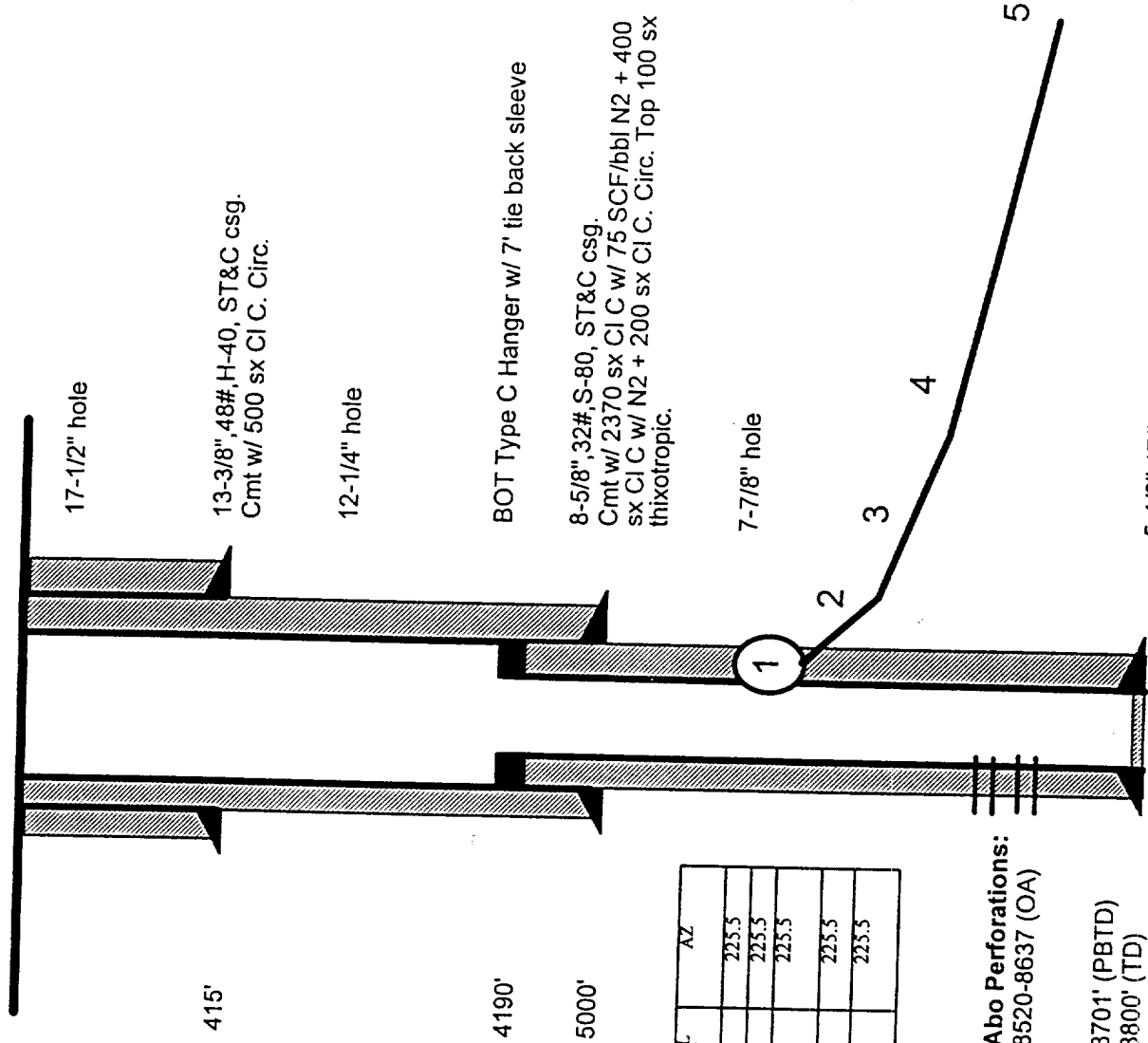
Note: Whipstock and CIBP will be retrieved after lateral section is stimulated.

North Vacuum Abo Unit #278 Proposed

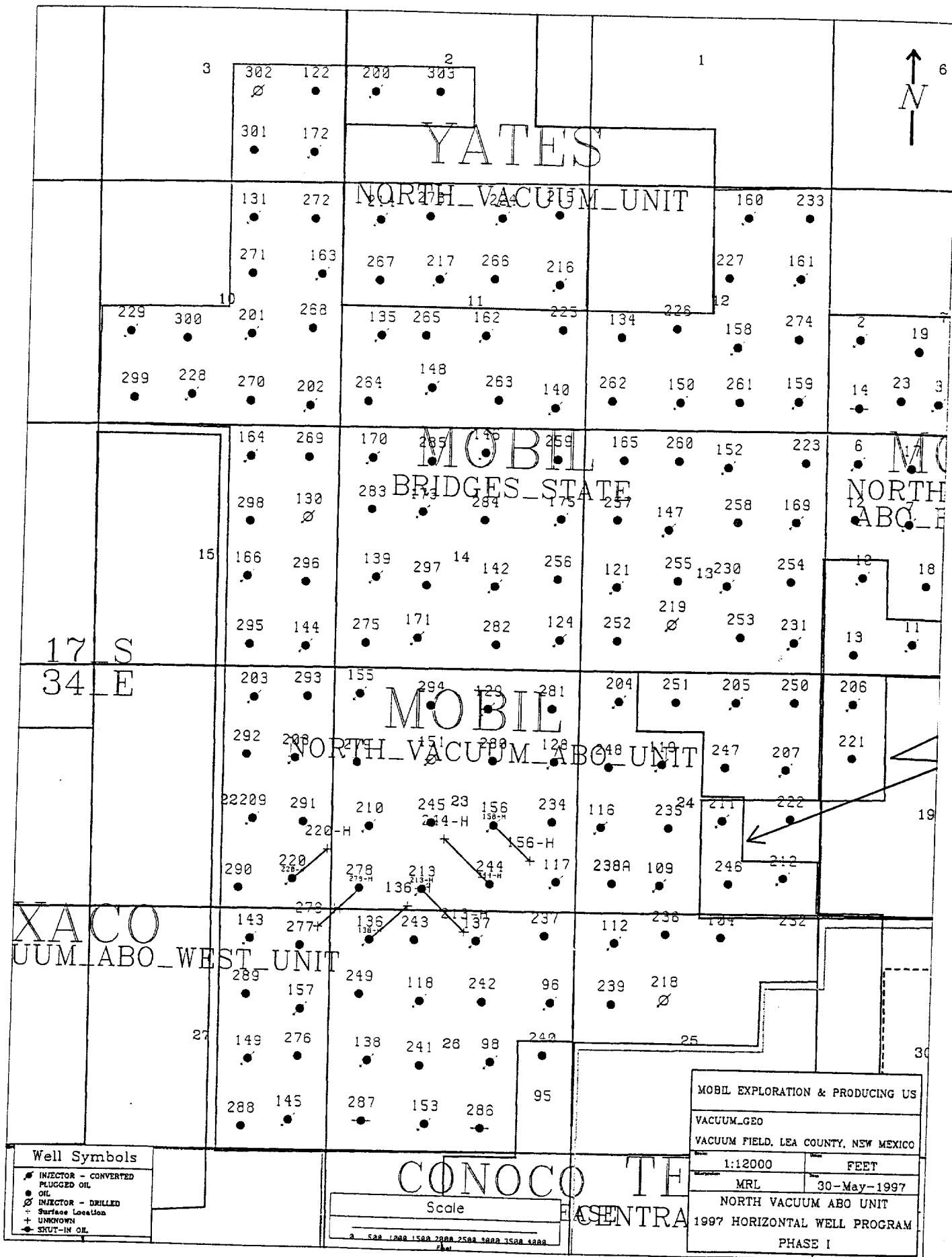
500' FSL & 650' FWL
Sec 23, T17S - R34E
Lea County, New Mexico

GL = 4029'
DF = 4046'
KB = 16.5' AGL
Drilled date = 7/85

Lateral	1A1
Radius (ft)	98
Az (deg)	225.5
Build Rate (deg/100)	58.5
EOL TVD (ft)	8634
KOP (ft)	8450
Vert. Displ. (ft)	1250
Window top (ft)	8441
Window btm (ft)	8450



POINT NUMBER	MEASURED DEPTH	TVD	VERTICAL SECTION	AZ
1	8450	8450	0	225.5
2	8591	8547	85	225.5
3	8971	8597	462	225.5
4	8997	8599	488	225.5
5	9760	8634	1250	225.5



**WELL PLANNING
REPORT**

MOBIL E&P SERVICES, INC.

NVAU #278

**N/A
10-Jun-97**

PERRY-SUN DRILLING SERVICE WELL PROFILE DATA

MOBIL E&P SERVICES, INC.
NVAU #278

N/A
10-Jun-97

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (Ft)	DEPARTURE (Ft)	VERTICAL SECTION	DOG LEG	TOOL FACE
8450.00	0.000	0.000	8450.00	0.00	0.00	0.00		
8475.00	14.625	225.500	8474.73	2.22 S	2.26 W	3.17		
8500.00	29.250	225.500	8497.86	8.75 S	8.91 W	12.49		
8525.00	43.875	225.500	8517.88	19.16 S	19.50 W	27.34		
8550.00	58.500	225.500	8533.51	32.78 S	33.36 W	46.77		
8575.00	73.125	225.500	8543.72	48.72 S	49.58 W	69.51		
8590.89	82.420	225.500	8547.09	59.59 S	60.64 W	85.02	58.500	225.500
8600.00	82.420	225.500	8548.29	65.92 S	67.08 W	94.05		
8625.00	82.420	225.500	8551.59	83.29 S	84.76 W	118.84		
8650.00	82.420	225.500	8554.88	100.66 S	102.43 W	143.62		
8675.00	82.420	225.500	8558.18	118.03 S	120.11 W	168.40		
8700.00	82.420	225.500	8561.48	135.40 S	137.79 W	193.18		
8725.00	82.420	225.500	8564.78	152.77 S	155.46 W	217.96		
8750.00	82.420	225.500	8568.07	170.14 S	173.14 W	242.74		
8775.00	82.420	225.500	8571.37	187.51 S	190.81 W	267.52		
8800.00	82.420	225.500	8574.67	204.88 S	208.49 W	292.31		
8825.00	82.420	225.500	8577.97	222.25 S	226.16 W	317.09		
8850.00	82.420	225.500	8581.26	239.62 S	243.84 W	341.87		
8875.00	82.420	225.500	8584.56	256.99 S	261.51 W	366.65		
8900.00	82.420	225.500	8587.86	274.36 S	279.19 W	391.43		
8925.00	82.420	225.500	8591.16	291.73 S	296.86 W	416.21		
8950.00	82.420	225.500	8594.46	309.10 S	314.54 W	441.00		
8971.40	82.420	225.500	8597.28	323.97 S	329.67 W	462.21	0.000	0.000
8975.00	84.525	225.500	8597.69	326.47 S	332.22 W	465.78		
8979.23	87.000	225.500	8598.00	329.43 S	335.23 W	470.00	58.500	0.000
8997.31	87.362	225.500	8598.89	342.09 S	348.11 W	488.06	2.000	0.000
9000.00	87.362	225.500	8599.01	343.97 S	350.03 W	490.75		
9025.00	87.362	225.500	8600.16	361.47 S	367.84 W	515.72		
9050.00	87.362	225.500	8601.31	378.98 S	385.65 W	540.70		
9075.00	87.362	225.500	8602.47	396.48 S	403.46 W	565.67		
9100.00	87.362	225.500	8603.62	413.99 S	421.28 W	590.64		
9125.00	87.362	225.500	8604.77	431.49 S	439.09 W	615.62		
9150.00	87.362	225.500	8605.92	448.99 S	456.90 W	640.59		
9175.00	87.362	225.500	8607.07	466.50 S	474.71 W	665.56		
9200.00	87.362	225.500	8608.22	484.00 S	492.53 W	690.54		
9225.00	87.362	225.500	8609.37	501.51 S	510.34 W	715.51		
9250.00	87.362	225.500	8610.52	519.01 S	528.15 W	740.48		
9275.00	87.362	225.500	8611.67	536.52 S	545.96 W	765.46		
9300.00	87.362	225.500	8612.82	554.02 S	563.78 W	790.43		
9325.00	87.362	225.500	8613.97	571.52 S	581.59 W	815.40		
9350.00	87.362	225.500	8615.12	589.03 S	599.40 W	840.38		
9375.00	87.362	225.500	8616.27	606.53 S	617.21 W	865.35		
9400.00	87.362	225.500	8617.43	624.04 S	635.03 W	890.32		
9425.00	87.362	225.500	8618.58	641.54 S	652.84 W	915.30		
9450.00	87.362	225.500	8619.73	659.04 S	670.65 W	940.27		

**SPERRY-SUN DRILLING SERVICE
WELL PROFILE DATA**

**MOBIL E&P SERVICES, INC.
NVAU #278**

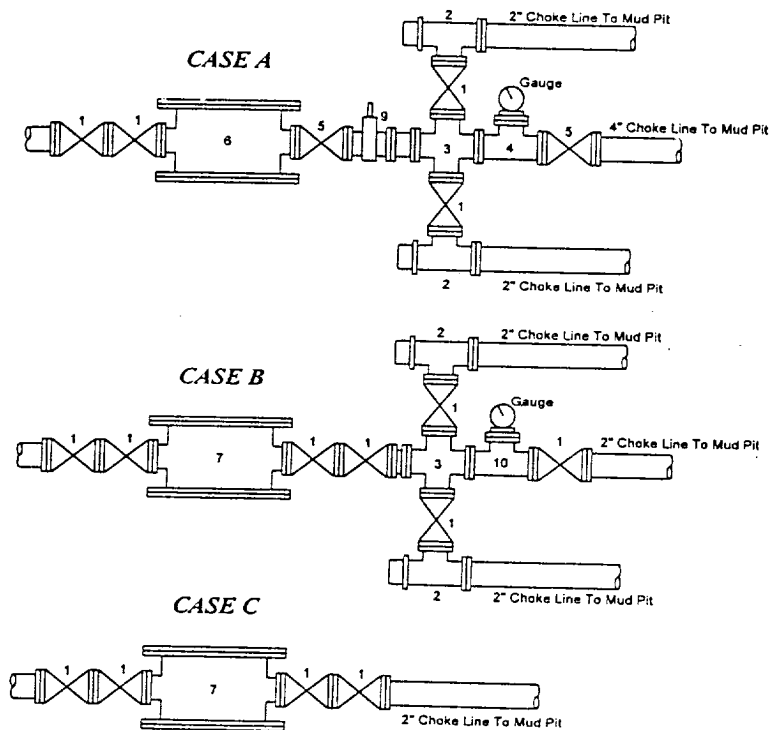
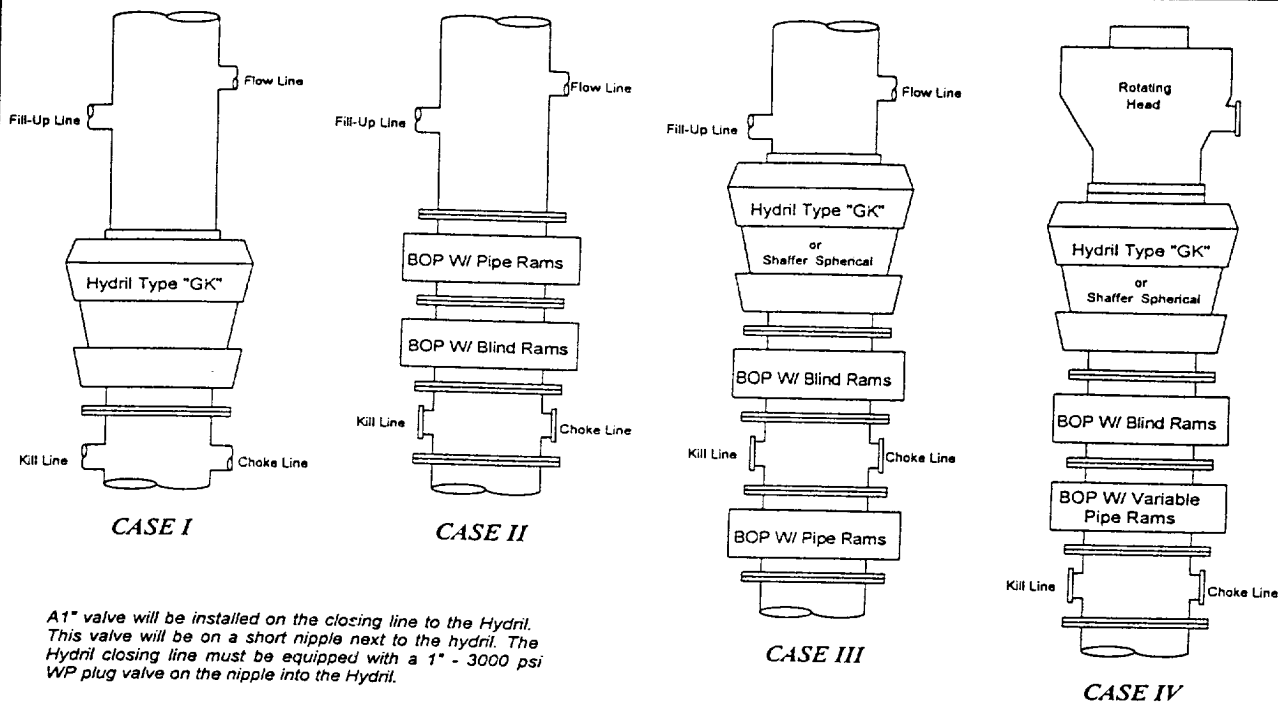
**N/A
10-Jun-97**

MEASURED DEPTH	ANGLE DEG	DIRECTION DEG	VERTICAL DEPTH	LATITUDE (Ft)	DEPARTURE (Ft)	VERTICAL SECTION	DOG LEG	TOOL FACE
9475.00	87.362	225.500	8620.88	676.55 S	688.46 W	965.25		
9500.00	87.362	225.500	8622.03	694.05 S	706.27 W	990.22		
9525.00	87.362	225.500	8623.18	711.56 S	724.09 W	1015.19		
9550.00	87.362	225.500	8624.33	729.06 S	741.90 W	1040.17		
9575.00	87.362	225.500	8625.48	746.56 S	759.71 W	1065.14		
9600.00	87.362	225.500	8626.63	764.07 S	777.52 W	1090.11		
9625.00	87.362	225.500	8627.78	781.57 S	795.34 W	1115.09		
9650.00	87.362	225.500	8628.93	799.08 S	813.15 W	1140.06		
9675.00	87.362	225.500	8630.08	816.58 S	830.96 W	1165.03		
9700.00	87.362	225.500	8631.24	834.09 S	848.77 W	1190.01		
9725.00	87.362	225.500	8632.39	851.59 S	866.59 W	1214.98		
9750.00	87.362	225.500	8633.54	869.09 S	884.40 W	1239.95		
9760.06	87.362	225.500	8634.00	876.14 S	891.57 W	1250.00	0.000	0.000

**The Dogleg Severity is in Degrees per 100.00 Feet
Vertical Section was calculated along an Azimuth of 225.500° (True)**

**Based upon Minimum Curvature type calculations. At a Measured Depth of 9760.06 Feet,
the Bottom Hole Displacement is 1250.00 Feet, in the Direction of 225.500° (True)**

SCHEDULE B **MINIMUM BLOWOUT PREVENTER REQUIREMENTS**



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
11	II	3000	C

Bradenhead furnished by Mobil will be:
Mfr: National
Size: 11" - 3000 Type: SOMO

Legend

- 2" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
- 2" flanged adjustable chokes, min. 1" full opening & equipped with hard trim.
- 4" x 2" flanged steel cross.
- 4" flanged steel tee.
- 4" flanged all steel valve (Type as in no. 1).
- Drilling Spool with 2" x 4" flanged outlet.
- Drilling Spool with 2" x 2" flanged outlet.
- 2" x 2" flanged steel cross.
- 4" pressure operated gate valve.
- 2" flanged steel tee.

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.