

OPER. ORIGIN NO. 17805

UNITED STATES
DEPARTMENT OF
BUREAU OF LAND

PROPERTY NO. 9276
POOL CODE 58900

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

APPLICATION FOR PERMIT TO

EXP. DATE 10/29/96
ACRNO 30-025-33649

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☒

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

PLAINS PETROLEUM OPERATING COMPANY

3. ADDRESS OF OPERATOR

415 West Wall, Suite 1000, Midland, TX 79701 915/683-4434

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

At surface

Unit Letter L, 1890' FSL & 360' FWL

At proposed prod. zone L - 2300' FSL & 400' FWL (BHL)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

10.6 miles Northeast of Jal, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drig. unit line, if any)

360'

16. NO. OF ACRES IN LEASE

120 Acres

17. NO. OF ACRES ASSIGNED

TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,

OR APPLIED FOR, ON THIS LEASE, FT.

516'

19. PROPOSED DEPTH

9700'

20. ROTARY OR CABLE TOOLS

Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

GR 3253'

22. APPROX. DATE WORK WILL START*

As soon as possible

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	13-3/8"	48# H-40 ST&C	350'	375 sx, circ
12-1/4"	8-5/8"	24 & 32# K-55	3000'	550 sx, Circ
7-7/8"	5-1/2"	15.5 & 17# K-55 & N-80 LT&C	9700'	925 sx, circ

This well is proposed to be drilled as a vertical well to a depth of 8000'. At 8000' the well will be directionally drilled to a bottom hole target 410' north and 40' east of the surface location to test for oil production from the Ellenburger and McKee formations, the McKee sand being the primary target.

APPROVAL SUBJECT TO

GENERAL REQUIREMENTS AND

SPECIAL STIPULATIONS

Mud Program

0' - 350'

Spud mud, FW, gel

350' - 3000'

Brine & native mud, mud weight 10 - 10.2 ppg, viscosity 26 - 28

3000' - 9700'

Fresh water gel 8.6 - 9.2 ppg, viscosity 28 - 35

We plan to use a 5000 psi Shaffer double, hydraulic-operated BOP during the drilling of this well. Upon receipt of the drilling permit, we will commence drilling operations. Approximately 25 days will be required to drill this well. Another 14 days are expected to be needed for the completion of this well. Estimated project start and completion dates will be October 28, 1996 and November 11, 1996, respectively. Attached is an H₂S Drilling Contingency Plan to be adhered to while drilling this well.

NOTE: If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.

James R. Sutherland

SIGNED

James R. Sutherland

TITLE

District Manager

DATE

Sept. 24, 1996

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

(ORIG. SGD.) TONY L. FERGUSON

TITLE

ADM, MINERALS

DATE

10/25/96

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

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

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94
Instructions on back

DISTRICT II
P. O. Drawer DD
Artesia, NM 88211-0719

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

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

☐ AMENDED REPORT

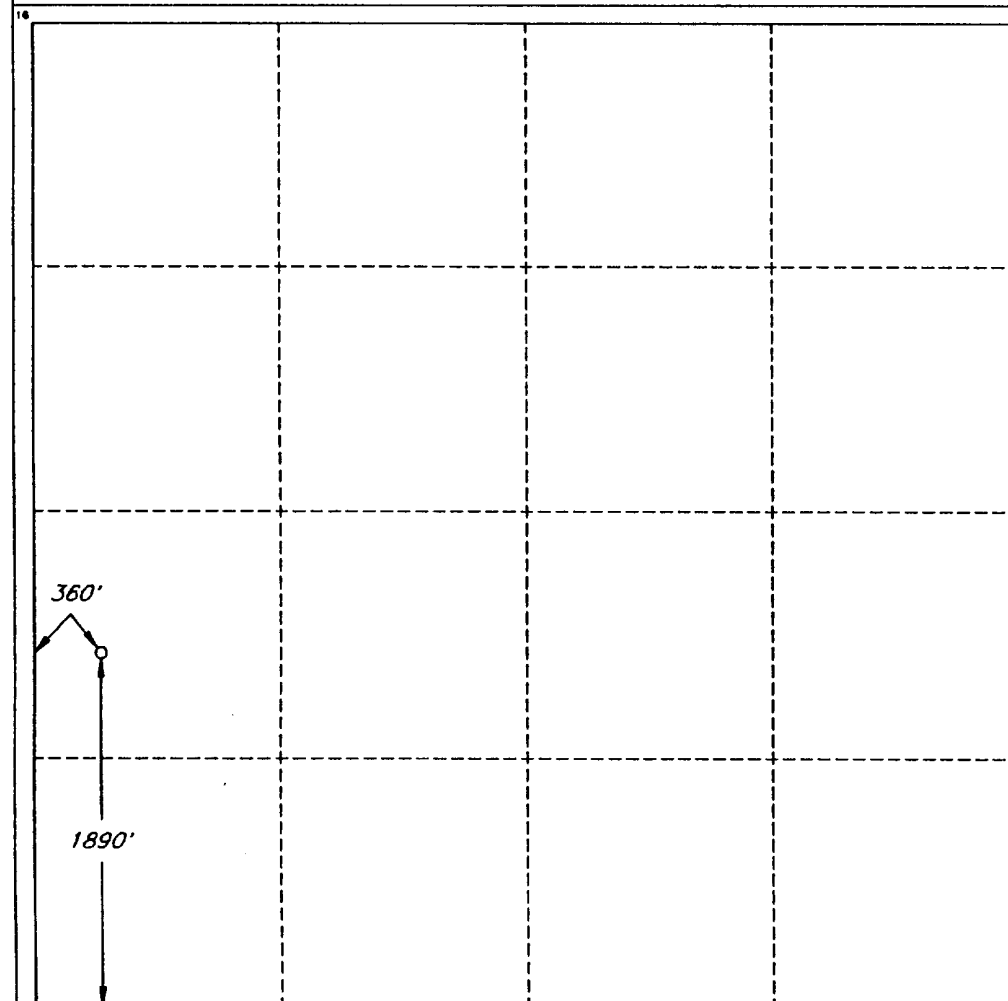
DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-33649		² Pool Code 58900		³ Pool Name TEAGUE SIMPSON					
⁴ Property Code 009276		⁵ Property Name BAYLUS CADE FEDERAL						⁶ Well Number 7	
⁷ OGRID No. 017805		⁸ Operator Name PLAINS PETROLEUM OPERATING COMPANY						⁹ Elevation 3253'	
¹⁰ SURFACE LOCATION									
UL or lot no. L	Section 35	Township 23 SOUTH	Range 37 EAST, N.M.P.M.	Lot Ida	Feet from the 1890'	North/South line SOUTH	Feet from the 360'	East/West line WEST	County LEA
"BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE"									
UL or lot no. L	Section 35	Township 23S	Range 37E	Lot Ida	Feet from the 2300	North/South line South	Feet from the 400	East/West line West	County LEA
¹² Dedicated Acres		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

NO ALLOWABLE WELL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN
CONSOLIDATED OR A NON-STANDARD UNIT 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
James R. Sutherland
Printed Name
James R. Sutherland

Title
District Manager

Date
Sept. 24, 1996

SURVEYOR CERTIFICATION

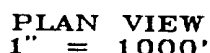
I hereby certify that the well
location shown on this plat was
plotted from field notes of actual
surveys made by me or under
my supervision, and that the
same is true and correct to the
best of my belief.

Date of Survey
SEPTEMBER 19, 1996

Signature and Seal of
Professional Surveyor

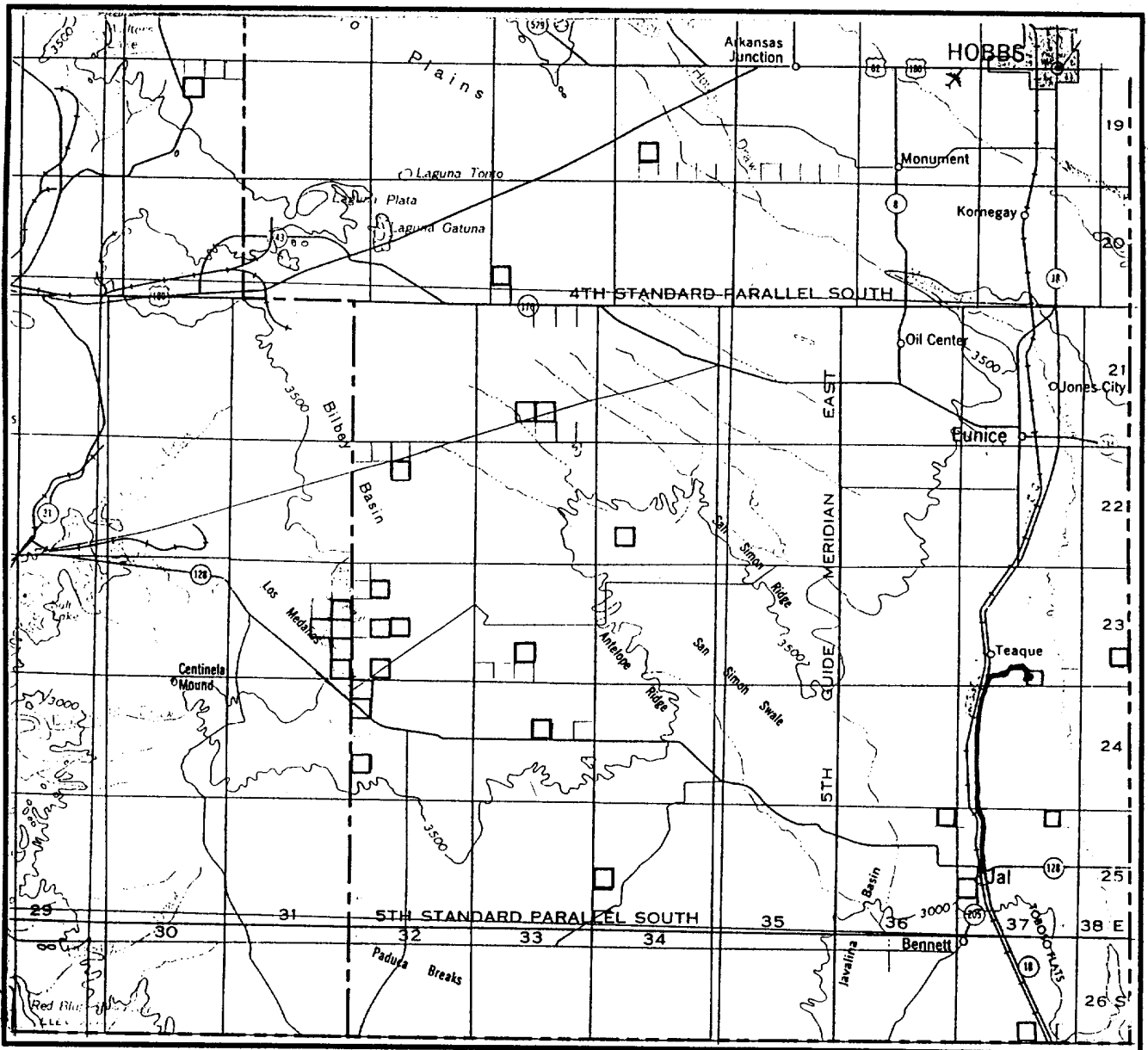
Certified
V. L. BEZNER LAND SURV. #7920
JOB #47588-1-1-1 SW / V.H.B.

PLAT SHOWING PROPOSED
WELL LOCATION AND LEASE ROAD IN
SECTION 35, T-23-S, R-37-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



				PLAINS PETROLEUM OPER. CO.	SCALE: AS SHOWN
NO.	REVISION	DATE	BY		DATE: SEPTEMBER 19, 1996
SURVEYED BY: B.R.B.					JOB NO.: 47388-1F
DRAWN BY: V.H.B.					48 SW
APPROVED BY: V.L.B.				SHEET : 1 OF 1	
				<i>SURVEYING AND MAPPING BY</i> TOPOGRAPHIC LAND SURVEYORS <i>MIDLAND, TEXAS</i>	

VICINITY MAP



SECTION 35 TWP 23-S RGE 37-E
 SURVEY NEW MEXICO PRINCIPAL MERIDIAN
 COUNTY LEA STATE NM
 DESCRIPTION 1890' FSL & 360' FWL

OPERATOR PLAINS PETROLEUM OPERATING CO.
 LEASE BAYLUS CADE FEDERAL #7

DISTANCE & DIRECTION FROM JCT. OF STATE HWY. 128
& STATE HWY. 18 IN JAL, GO NORTH 10.6 MILES ON
STATE HWY. 128, THENCE EASTERLY 2.2 MILES ON
LEASE ROAD, THENCE SOUTHERLY 0.8 MILE ON LEASE
ROAD, THENCE SOUTHWEST 0.1 MILE ON LEASE ROAD
TO A POINT ±250' NORTH OF THE LOCATION.



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
 Review this plat and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

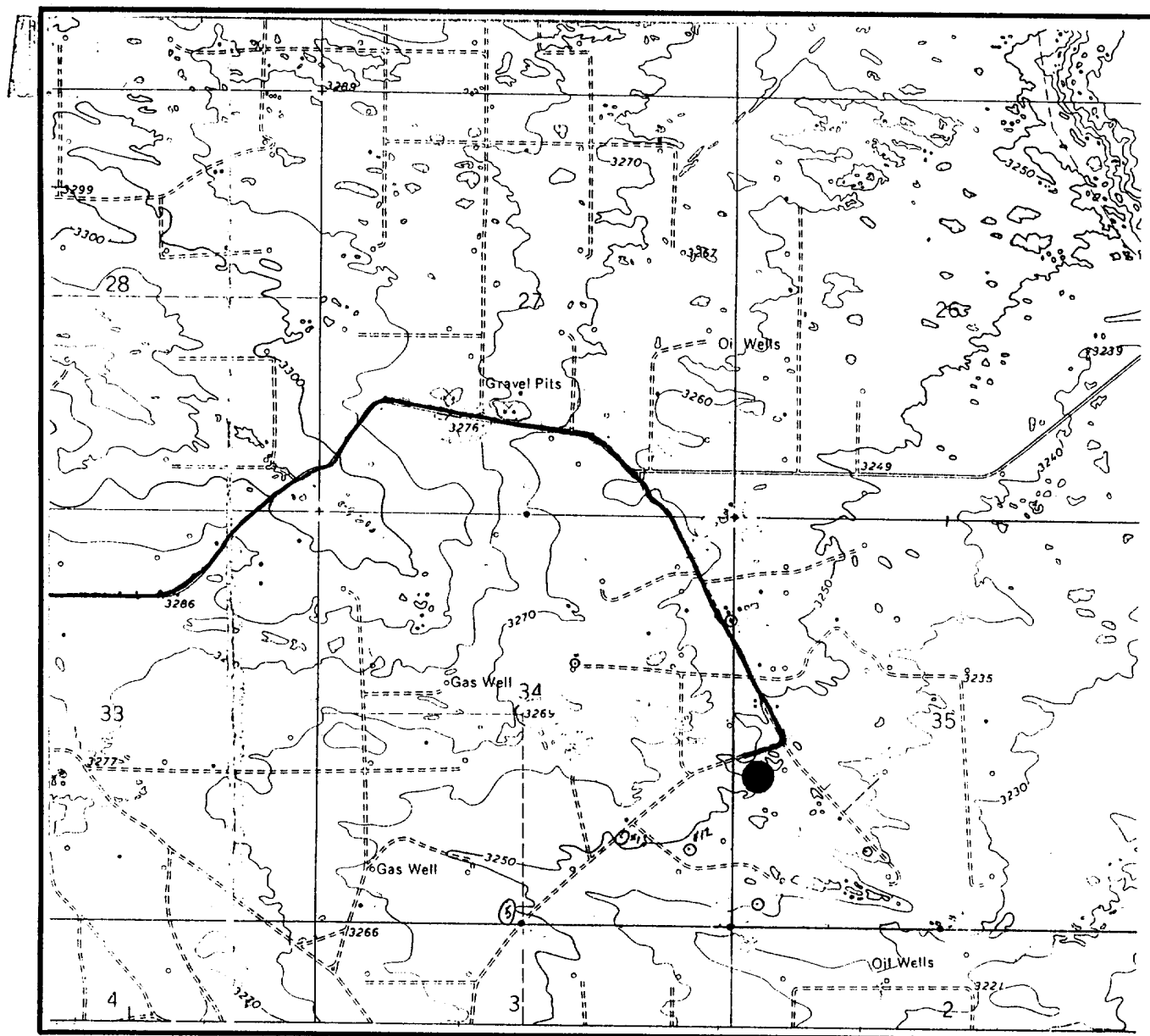
Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
 PAMPA, TX. 79065
 (800) 658-6382

6709 N. CLASSEN BLVD.
 OKLAHOMA CITY, OK. 73116
 (800) 654-3219

2903 N. BIG SPRING
 MIDLAND, TX. 79705
 (800) 767-1653

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 35 TWP 23-S RGE 37-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 1890' FSL & 360' FWL

ELEVATION 3253'

OPERATOR PLAINS PETROLEUM OPERATING CO.

LEASE BAYLUS CADE FEDERAL #7

U.S.G.S. TOPOGRAPHIC MAP

RATTLESNAKE CANYON, NEW MEXICO

SCALED LAT. N 32°15'31"

LONG. W 103°08'27"



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

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(800) 767-1653

APPLICATION TO DRILL

PLAINS PETROLEUM OPERATING COMPANY
BAYLUS CADE FEDERAL #7
1890' FSL & 360' FWL (SHL)
2300' FSL & 400' FWL (BHL)
Sec. 35 (Unit Letter L), T23S, R37E
Lea County, New Mexico
Lease No. NMLC034711
September 24, 1996

In addition with Form 3160-2, Application to Drill the above well, Plains Petroleum Operating Company submits the following in accordance with BLM requirements.

1. ESTIMATED GEOLOGICAL MARKERS

GL: 3253'

KB: 3265'

<u>FORMATION</u>	<u>TOP</u>	<u>SS</u>
Penrose	3406'	-141'
Glorieta	4916'	-1651'
Paddock	5031'	-1766'
Blaine	5261'	-1996'
Tubb	5911'	-2646'
Drinkard	6315'	-3050'
Abo	6397'	-3132'
Devonian	7221'	-3956'
Silurian	7726'	-4461'
Fusselman	8126'	-4861'
Montoya	8501'	-5256'
Simpson	8801'	-5536'
McKee	9161'	-5896'
Ellenburger	9586'	-6321'
TD	9700'	-6435'

APPLICATION TO DRILL
Plains Petroleum Operating Company
Baylus Cade #7
Lea County, New Mexico
Lease No. NMLC034711
September 24, 1996
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2. CASING DETAIL

	CASING SIZE OD	INTERVAL	LENGTH OF INTERVAL	WEIGHT #/FT	INTERVAL WEIGHT	CASING GRADE	JOINT
Surface	13-3/8"	0' - 350'	350'	48#	16,800	H-40	STC
Intermediate	8-5/8"	0' - 100'	100'	32#	3,200	K-55	STC
	8-5/8"	100' - 2200'	2200'	24#	50,400	K-55	STC
	8-5/8"	2200' - 3000'	800'	32#	25,600	K-55	STC
Production	5-1/2"	0' - 1000'	1000'	17#	17,000	K-55	LTC
	5-1/2"	1000' - 7500'	6500'	15.5#	100,750	K-55	LTC
	5-1/2"	7500' - 9400'	1900'	17#	32,300	K-55	LTC
	5-1/2"	9400' - 9700'	300'	17#	5,100	N-80	LTC
Tubing	2-7/8"	0 - 9700'	9700'	6.5#	63,050	J-55	EUE

3. CEMENTING & FLOAT EQUIPMENT DETAIL

WELL DATA	SURFACE	INTERMEDIATE (TD 3000')	PRODUCTION (TD 9700')
Depth	350'	3000'	9700'
Casing Size	13-3/8"	8-5/8"	5-1/2"
Hole Size	17-1/2"	12-1/4"	7-7/8"
Desired Fill	Surface	Surface	Surface
Hole Volume	245 Ft ³	940 Ft ³	1150 Ft ³ , 475 Ft ³
Recommended Volume	490 Ft ³	1410 Ft ³	1325 Ft ³ , 475 Ft ³
DV Tool Depth	N/A	N/A	3000'

PLA' IS PETROLEUM (PER. CO.

Operator: PPOC	Well Name: BAYLUS CADE FED #7
Project ID:	Location: 1890' FSL & 360' FWL Sec.35

Design Parameters:

Mud Weight (10.20 ppg) : 0.530 psi/ft
 Shut in casing pressure : 1565 psi
 Internal gradient (burst) : 0.008 psi/ft
 Annular gradient (burst) : 0.530 psi/ft
 Tensile load is determined using buoyed weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.10
 8 Round : 1.75 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	100	8.625	32.00	K-55	ST&C	100	7.875	
2	2,100	8.625	24.00	K-55	ST&C	2,200	7.972	
3	800	8.625	32.00	K-55	ST&C	3,000	7.875	

	Collapse Load (psi)	Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	53	2427	9.999	1565	3930	2.51	66.85	402	6.01 J
2	1166	1348	1.156	1513	2950	1.95	64.15	263	4.10 J
3	1590	2530	1.592	417	3930	9.41	21.61	402	18.61 J

Prepared by : Jim Sutherland

Date : Sept. 24, 1996

Remarks :

LEA COUNTY, NEW MEXICO

Minimum segment length for the 3,000 foot well is 100 feet.

SICP is based on the ideal gas law, a gas gravity of 0.15, and a mean gas temperature of 89°F (Surface 74°F, BHT 104°F & temp. gradient 1.000°/100 ft.)

Surface/Intermediate string:

Next string will set at 3,000 ft. with 8.80 ppg mud (pore pressure of 1,371 psi.) The frac gradient of 0.700 at the casing seat results in an injection pressure of 2,100 psi. Effective BHP (for burst) is 1,590 psi, the BHP load is 0 psi (using an annular mud of 10.00 ppg) and the differential gradient is -0.520 psi/ft.

The minimum specified drift diameter is 7.875 in.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

PLANS PETROLEUM / PER. CO.

Operator: PPOC	Well Name: BAYLUS CADE FED #7
Project ID:	Location: 1890' FSL & 360' FWL, Sec.35

Design Parameters:

Mud Weight (8.80 ppg) : 0.457 psi/ft
 Shut in casing pressure : 4231 psi
 Internal gradient (burst) : 0.021 psi/ft
 Annular gradient (burst) : 0.457 psi/ft
 Tensile load is determined using buoyed weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.10
 8 Round : 1.75 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	1,000	5.500	17.00	K-55	LT&C	1,000	4.767	
2	6,500	5.500	15.50	K-55	LT&C	7,500	4.825	
3	1,900	5.500	17.00	K-55	LT&C	9,400	4.767	
4	300	5.500	17.00	N-80	LT&C	9,700	4.767	

	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Load (kips)	Tension Strgth (kips)	S.F.
1	457	3890	8.510	4252	5320	1.25	134.27	272	2.03 J
2	3429	3871	1.129	4252	4810	1.13	119.56	239	2.00 J
3	4297	4889	1.138	3703	5320	1.44	32.37	272	8.40 J
4	4434	6280	1.416	2874	7740	2.69	4.41	348	78.84 J

Prepared by : Jim Sutherland

Date : Sept. 24, 1996

Remarks :

LEA COUNTY, NEW MEXICO

Minimum segment length for the 9,700 foot well is 100 feet.

SICP is based on the ideal gas law, a gas gravity of 0.15, and a mean gas temperature of 123°F (Surface 74°F, BHT 171°F & temp. gradient 1.000°/100 ft.)

For burst purposes, lost circulation occurs behind the pipe at 6,000 ft, above which point, the annular mud weight of 8.800 ppg goes to zero.

The equivalent pore gradient at the seat is 3.36 ppg.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

PLANS PETROLEUM (PER. CO.

Operator: PPOC	Well Name: BAYLUS CADE FED #17
Project ID:	Location: 1890' FSL & 360' FWL, Sec.35

Design Parameters:

Mud Weight (7.60 ppg) : 0.395 psi/ft
 Shut in casing pressure : 3751 psi
 Internal gradient (burst) : 0.008 psi/ft
 Annular gradient (burst) : 0.395 psi/ft
 Tensile load is determined using buoyed weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.10
 8 Round : 1.75 (J)
 Buttress : 1.60 (J)
 Other : 1.50 (J)
 Body Yield : 1.50 (B)

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost	
1	9,700	2.875	6.50	J-55	EUE 8rd	9,700	2.347		
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Load (kips)	Tension Strgth (kips)	S.F.
1	3830	7680	2.005	3751	7260	1.94	55.72	99.7	1.79 J

Prepared by : Jim Sutherland
 Date : Sept. 24, 1996
 Remarks :

LEA COUNTY, NEW MEXICO

Minimum segment length for the 9,700 foot well is 100 feet.

SICP is based on the ideal gas law, a gas gravity of 0.15, and a mean gas temperature of 89°F (Surface 74°F, BHT 171°F & temp. gradient 1.000°/100 ft.)

The minimum specified drift diameter is 7.875 in.

An annular mud weight of 8.000 ppg was used for burst purposes. The differential mud gradient below any lost-circulation depth is -0.387 psi/ft and the bottom hole pressure load is 0 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guide-line, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Keeler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1987 pricing model. (Version 1.06)

APPLICATION TO DRILL

Plains Petroleum Operating Company

Baylus Cade #7

Lea County, New Mexico

Lease No. NMLC034711

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SLURRY

	Surface	Intermediate	Production 1st Stage	Production 2nd Stage
Recommendation	375 sx Premium Plus +2% CaCl ₂ + 1/4#/sk Flocele	Lead: 450 sx Premium Plus cement + .25% Dispersent + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Flocele. Tail: 100 sx Premium Plus cement	Lead: 100 sx Premium cement 35:65 Poz + 6% Gel + 9 PPS Salt + .2% Defoamer + .8% FLA. Tail: 575 sx Premium cement 50:50 Poz + 2% Gel + 4 PPS Salt + .2% Defoamer + .6% F LA	Lead: 150 sx Premium cement + .25% Dispersent + 2.5% Extender + .5% Gel + .2% Salt + 1/4 PPS Flocele. Tail: 100 sx Premium cement
Yield	1.32 Ft ³ /sk	2.85 Ft ³ /sk, 1.32 Ft ³ /sk,	2.14 Ft ³ /sx, 1.32 Ft ³ /sx	2.85 Ft ³ /sx, 1.32 Ft ³ /sx
Weight	14.8 PPG	11.6 PPG 14.8 PPG	12.7 PPG 14.2 PPG	11.6 PPG 14.8 PPG
Mix Water	6.32 gal/sk	17.2 gal/sk 6.32 gal/sk	11.6 gal/sk 6.32 gal/sk	17.2 gal/sk 6.32 gal/sk

APPLICATION TO DRILL

Plains Petroleum Operating Company

Baylus Cade #7

Lea County, New Mexico

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September 24, 1996

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4. MUD DETAIL

<u>DEPTH</u>	<u>PROPERTIES</u>	<u>TREATMENT</u>
0 - 350'	Weight: 8.7 - 9.4 Viscosity: 33 - 35 Solids: <4.	Spud Mud: Fresh water gel with sufficient to viscosity to clean hole.
350' - 3000'	Weight: 10.0 - 10.2 Viscosity: 26 - 28 Solids: < 1.0	Drill out from surface csg with brine water
3000' - 9850'	Weight: 8.6 - 9.2 Viscosity: 28 - 35 Solids < 1.0 WL 7 - 10	Drill out from intermediate casing with fresh water mud

5. PRESSURE CONTROL EQUIPMENT (BOPE) DETAIL

13-5/8" API Shaffer 5000# series 900 dual hydraulic preventers adapted for the drilling contractors 4-1/2" drill pipe. The BOPS will be tested after they are installed on the surface casing, prior to drilling out, and each time they are removed or rearranged on the wellhead. See Exhibit A.

6. TESTING AND LOGGING PROGRAMS

TESTING

Drill stem tests may be performed to quantify and identify prospective producing horizons as drilling progresses. Production testing will be commenced after the well is drilled and casing has been set and cemented.

LOGGING

At TD, the following open hole well logs will be run: **GR-CNL-CDL-DLL-MLL-SGR-Caliper**

APPLICATION TO DRILL

Plains Petroleum Operating Company

Baylus Cade #7

Lea County, New Mexico

Lease No. NMLC034711

September 24, 1996

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7. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. Hydrogen sulfide Drilling Contingency Plan to be adhered to while drilling this well.

8. ANTICIPATED START DATE:

October 28, 1996 and the well to be completed on or about November 11, 1996.

SURFACE USE AND OPERATION PLAN
PLAINS PETROLEUM OPERATING COMPANY
BAYLUS CADE #7
1890' FSL & 360' FWL (SHL)
2300' FSL & 400' FWL (BHL)
Sec. 35 (L) T23S, R37E
Lea County, New Mexico
Lease No.NMLC034711
September 24, 1996

I. Existing Roads:

- A. Exhibit B is a plat showing the proposed wellsite as staked, approximately 10.6 miles NE of Jal, New Mexico.
- B. Exhibit C is a map showing existing roads in the area.
- C. All existing roads will be maintained and repaired as necessary.

II. Access Roads:

- A. The existing access roads to the Baylus Cade Federal #4 and other E. C. Hill "B" Federal wells will be used and extended approximately 250' south to the proposed wellsite as shown on Exhibit C.
- B. Roads will be 12 ft wide and constructed of caliche.
- C. Roads are center line flagged.
- D. No turn arounds, culverts, cuts, gates or cattleguards will be required.

III. Existing Wells: See Exhibit C

IV. Location of Tank Batteries:

Existing tank batteries will be used.

V. Location & Type of Water Supply:

- A. A fresh water supply well is located on the lease. This fresh water will be used for drilling. Water will be transferred from the pump station to the pits using a temporary polyline.

SURFACE USE AND OPERATION PLAN

Plains Petroleum Operating Company

Baylus Cade #7

Lea County, New Mexico

Lease No. NMLC034711

September 24, 1996

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VI. Source of Construction Materials:

- A. Construction materials will be caliche, which will be obtained by the dirt contractor from caliche pits on the North border of the lease.
- B. Topsoil from the location will be stockpiled near the location for future rehabilitation use.

VII. Method for Handling Waste Disposal:

- A. Cuttings - All cuttings will be held in the reserve pit.
- B. Drilling Fluids - All drilling fluids will be allowed to evaporate in the reserve pit.
- C. Produced Fluids (oil & water) - Any produced fluids will be collected in tanks until hauled to an approved disposal system.
- D. Garbage and Other Waste Material - All waste materials will be removed from the lease to a disposal facility.

VII. Ancillary Facilities: Not Applicable

IX. Well site Layout: Exhibit A

X. Plans for Restoration of Surface:

- A. After completion of the well, pits will be filled and the location cleaned of all trash and junk to leave the wellsite in good condition.
- B. Any unguarded pits containing fluids will be fenced off and covered with netting until they are filled.
- C. The reserve pit will be backfilled and leveled and the surface returned to its original contour.

SURFACE USE AND OPERATION PLAN

Plains Petroleum Operating Company

Baylus Cade #7

Lea County, New Mexico

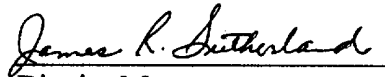
Lease No. NMLC034711

September 24, 1996

Page 4

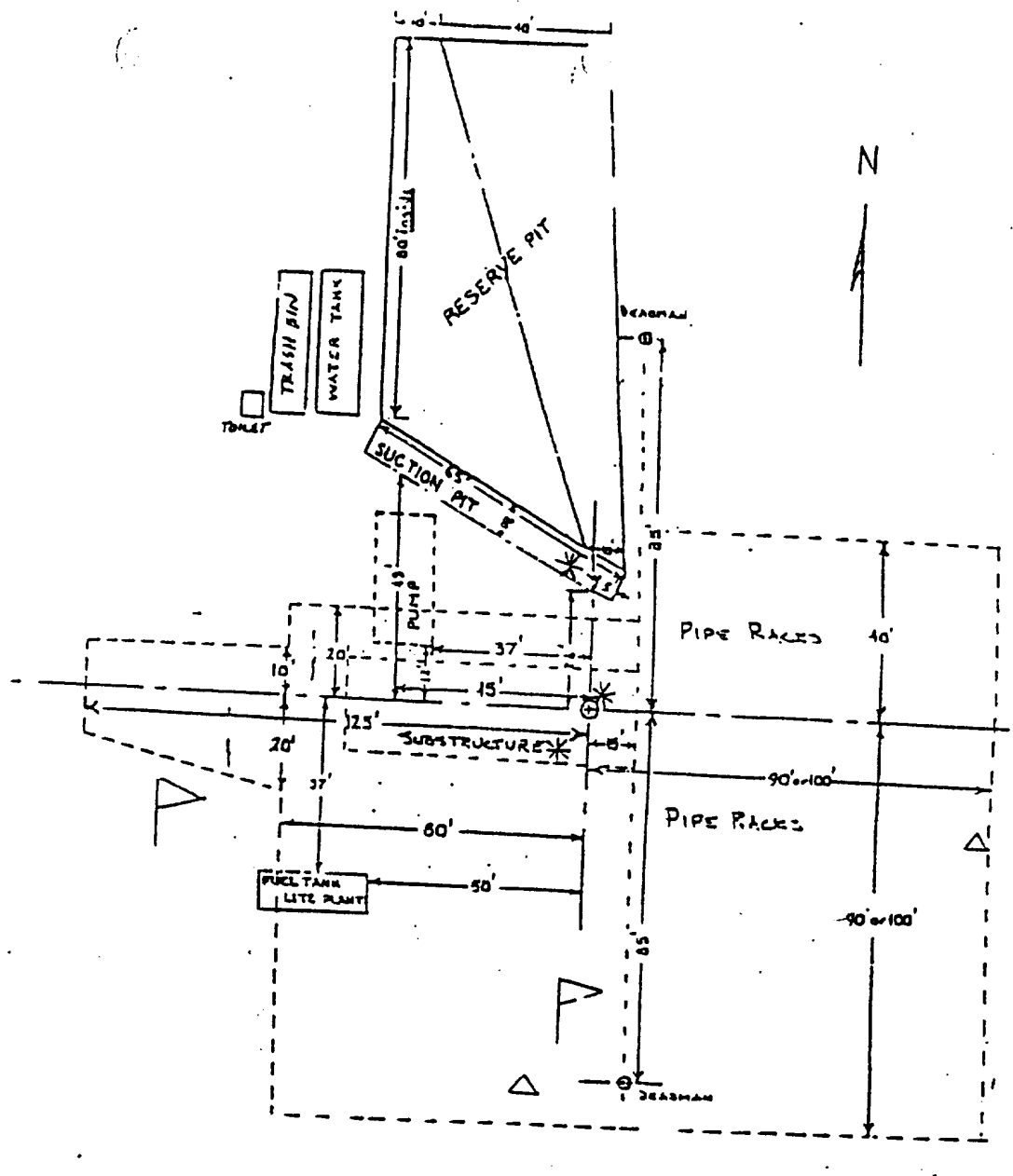
XIII. Certification

I hereby certify that I have inspected the proposed drillsite and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge true and correct: and, that the work associated with the operations proposed herein will be performed by Plains Petroleum Operating Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved. This statement is subject to the provisions of 18 USC 1001 for the filing of a false statement.



District Manager

Plains Petroleum Operating Company



△ - WIND DIRECTION INDICATORS

△ - SAFE BRIEFING AREAS

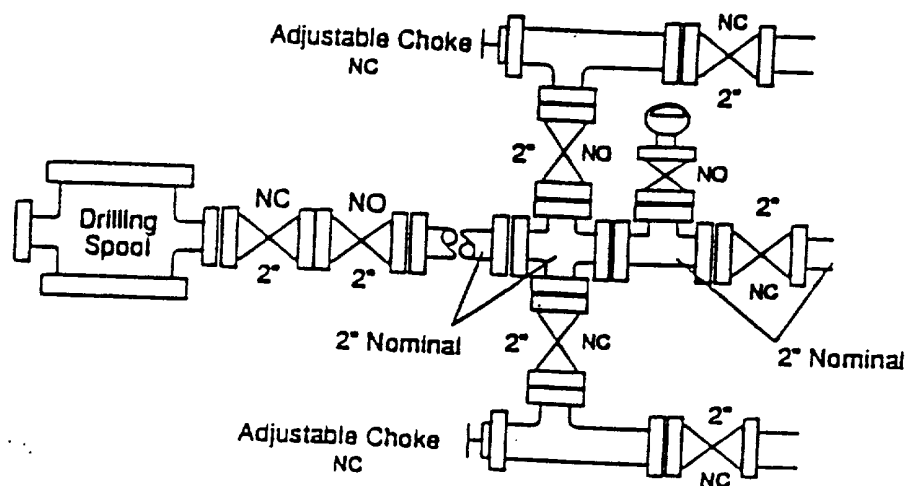
* - H₂S ALARM SENSORS

EXHIBIT 'A'

The Class III choke manifold is suitable for Class III workovers and drilling operations. The Standard Class III choke manifold is shown in Figure 11J.8 below. Specific design features of the Class III manifold include:

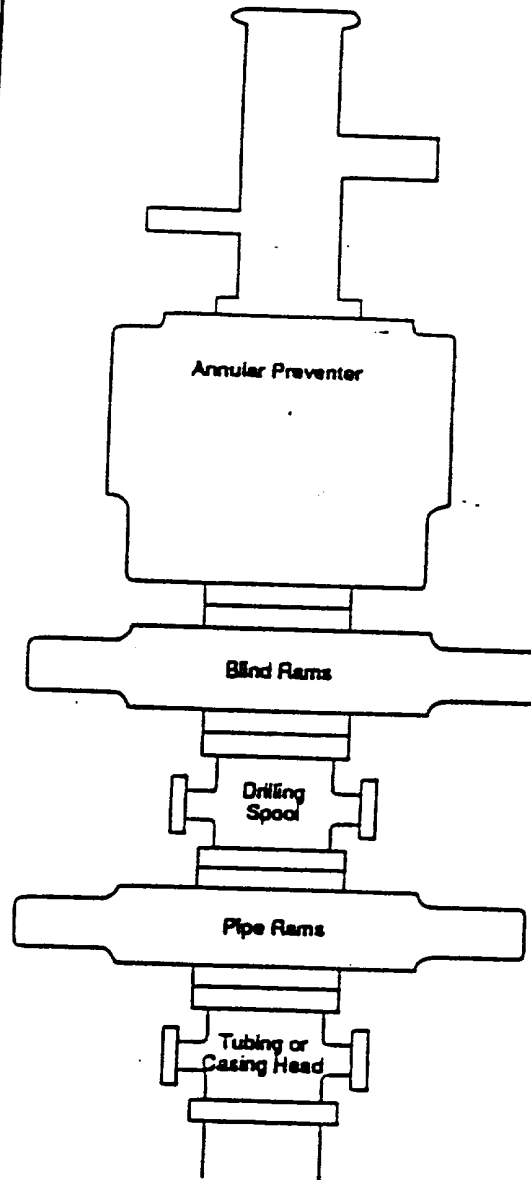
1. The manifold is attached to a drilling spool or the top ram preventer side outlet.
2. The minimum internal diameter is 2" (nominal) for outlets, flanges, valves and lines.
3. Includes two steel gate valves in the choke line at the drilling spool outlet. The inside choke line valve may be remotely controlled (HCR).
4. Includes two manually adjustable chokes which are installed on both side of the manifold cross. Steel isolation gate valves are installed between both chokes and the cross, and also downstream of both chokes.
5. Includes a bleed line which runs straight through the cross and is isolated by a steel gate valve.
6. Includes a valve isolated pressure gauge suitable for drilling service which can display the casing pressure within view of the choke operator.
7. Returns through the choke manifold must be divertible through a mud-gas separator and then be routed to either the shale shaker or the reserve pit through a buffer tank or manifold arrangement.
8. If the choke manifold is remote from the wellhead, a third master valve should be installed immediately upstream of the manifold cross.

Figure 11J.8 - Class III Choke Manifold



The Class III preventer stack is designed for drilling or workover operations. It is composed of a single hydraulically operated annular preventer on top, then a blind ram preventer, a drilling spool, and a single pipe ram preventer on bottom. The choke and kill lines are installed onto the drilling spool and must have a minimum internal diameter of 2". All side outlets on the preventers or drilling spool must be flanged, studded, or clamped. An emergency kill line may be installed on the wellhead. A double ram preventer should only be used when space limitations make it necessary to remove the drilling spool. In these instances, the choke manifold should be connected to a flanged outlet between the preventer rams only. In this hookup, the pipe rams are considered master rams only, and cannot be used to routinely circulate out a kick. The Class III blowout preventer stack is shown to the right in Figure 11J.4.

Figure 11J.4
Class III Blowout Preventer Stack



DAMAGE SETTLEMENT
&
RELEASE

SEP

SEP 24 1996

STATE OF NEW MEXICO }

COUNTY OF LEA }

I/We the undersigned AGENT for Tom Linebery owner(s) of the surface land accept Plains Petroleum Operating Company's (Barrett Resources) Check Number 24832 in the amount of \$7,500.00 as payment for surface damages related to the drilling and completion of the E. C. Hill "B" Federal #16 well located 330' FSL & 950' FEL, Section 34, T23S, R37E, Lea County, New Mexico. This consideration includes payment for only the ordinary and usual damages caused by the initial installation of such road and drill pad site, flowlines, powerlines, other necessary utilities to and from drill pad site, but does not include payment for any other damages which may be subsequently caused to the surface estate and/or on the lands surrounding the above described well or other improvements caused by Plains Petroleum Operating Company's operations.

ACCEPTED and AGREED to

By:

Jerry Stephens
Jerry Stephens Agent for Scarborough - Linebery

Date:

9/23/96

RECEIVED SEP 24 1996