STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

November 22, 1996

Plains Petroleum Operating Company
415 West Wall Street
Midland, Texas 79701
Attention: James R. Sutherland

Administrative Order DD-159

Dear Mr. Sutherland:

Under the provisions of **Rules 111.D** and **E** of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995, Plains Petroleum Operating Company ("Plains") made application to the New Mexico Oil Conservation Division on May 6, 1996 for authorization to directional drill its proposed Baylus Cade Federal Well No. 7 (**API No. 30-025-33649**), Lea County, New Mexico.

The Division Director Finds That:

(1) The proposed wellbore, to be drilled to a pre-determined bottom-hole location to the McKee formation of the Teague (Simpson) Pool in the Hill-Cayless McKee Pressure Maintenance Project Area, established by Division Order No. R-10474, dated October 3, 1995, is subject to the statewide rules and regulations for oil wells, as promulgated by **Rules 104.C(1)** and **F(1)**, which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of the lease or unitized area (pressure maintenance/waterflood project area), nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary;

(2) The Hill-Cayless McKee Pressure Maintenance Project Area comprises the SE/4 of Section 34 and the SW/4 of Section 35, both in Township 23 South, Range 37 East, NMPM, Lea County, New Mexico;

(3) As evidenced in the testimony presented in Division Case 11,276; in which Order No. R-10370 was issued on May 16, 1995, whereby Plains was authorized to directionally drill its E. C. Hill "B" Federal Well No. 13 from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of said Section 34; to an unorthodox bottomhole oil well location that is to be within 50

feet of a point 1120 feet from the South line and 1380 feet from the East line of said Section 34, the proposed Baylus Cade Federal Well No. 7 is in close proximity to a east-west trending fault, and its proposed surface location of 1890 feet from the South line and 360 feet from the West line (Unit L) of said Section 35 would be structurally low on the down-thrown south side of the this fault;

(4) By drilling vertically to a depth of 7,600 feet, kicking off in a northerly direction, and bottoming the hole within the McKee formation approximately 400 feet to the north, serves to locate this well at a more geologically advantageous structural position within the reservoir and serves to increase the likelihood for Plains to intercept a possible "bank" oil accumulation formed from previous pressure maintenance activity within the immediate area;

(5) The 40-acre tract comprising the NW/4 SW/4 of said Section 35 is to be dedicated to said well to form a standard oil spacing and proration unit for said pool;

(6) The applicable drilling window or "producing area" for said wellbore should include that area within the NW/4 SW/4 of said Section 35 that is no closer than 330 feet to the northern boundary of said dedicated 40-acre tract; and,

(7) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said **Rules 111.D** and **E** and **104.C(1)** and **F(1)**, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of **Division General Rules 104** and **111**.

IT IS THEREFORE ORDERED THAT:

(1) Plains Petroleum Operating Company ("Plains") is hereby authorized to drill its Baylus Cade Federal Well No. 7 (**API No. 30-025-33649**) from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of Section 35, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, drill vertically to an approximate depth of 7,600 feet, kick-off in a northerly direction, and bottom the hole within the McKee formation of the Teague (Simpson) Pool approximately 400 feet to the north.

(2) The 40-acre tract comprising the NW/4 SW/4 of said Section 35 shall be dedicated to said well to form a (standard) oil spacing and proration unit for said pool.

(3) The applicable drilling window or "producing area" for said wellbore shall consist of that area within the NW/4 SE/4 of said Section 35 that is no closer than 330 feet to the northern

boundary of said dedicated 40-acre tract.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottom-hole location, as well as the wellbore's true depth and course, may be determined.

(4) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(5) The operator shall comply with all requirements and conditions set forth in **Division General Rule 111.E(2)** and any applicable requirements in **111.D** and **F** and **104.C(1)** and **104.F(2)**.

(6) Form C-105 shall be filed in accordance with **Division Rule 1105** and the operator shall indicate thereon true vertical depth in addition to measured depths.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

SEAL

cc: Oil Conservation Division - Hobbs
U. S. Bureau of Land Management - Carlsbad

DD-Plain

Rec: 10-31-96
Susp: 11-20-96
Released: 11-22-96

November 22, 1996

Plains Petroleum Operating Company
415 West Wall Street
Midland, Texas 79701

Attention: James R. Sutherland

Administrative Order DD-159

Dear Mr. Sutherland:

Under the provisions of **Rules 111.D** and **E** of the General Rules and Regulations of the New Mexico Oil Conservation Division ("Division"), revised by Division Order No. R-10388, issued by the Oil Conservation Commission in Case 11,274 on June 13, 1995, Plains Petroleum Operating Company ("Plains") made application to the New Mexico Oil Conservation Division on May 6, 1996 for authorization to directional drill its proposed Baylus Cade Federal Well No. 7 (**API No. 30-025-33649**), Lea County, New Mexico.

The Division Director Finds That:

(1) The proposed wellbore, to be drilled to a pre-determined bottom-hole location to the McKee formation of the Teague (Simpson) Pool in the Hill-Cayless McKee Pressure Maintenance Project Area, established by Division Order No. R-10474, dated October 3, 1995, is subject to the statewide rules and regulations for oil wells, as promulgated by **Rules 104.C(1)** and **F(1)**, which provides for 40-acre oil spacing and proration units, or drilling units, and requires that wells be located no closer than 330 feet to the outer boundary of the lease or unitized area (pressure maintenance/waterflood project area), nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary;

(2) The Hill-Cayless McKee Pressure Maintenance Project Area comprises the SE/4 of Section 34 and the SW/4 of Section 35, both in Township 23 South, Range 37 East, NMPM, Lea County, New Mexico;

(3) As evidenced in the testimony presented in Division Case 11,276; in which Order No. R-10370 was issued on May 16, 1995, whereby Plains was authorized to

directionally drill its E. C. Hill "B" Federal Well No. 13 from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of said Section 34; to an unorthodox bottomhole oil well location that is to be within 50 feet of a point 1120 feet from the South line and 1380 feet from the East line of said Section 34, the proposed Baylus Cade Federal Well No. 7 is in close proximity to a east-west trending fault, and its proposed surface location of 1890 feet from the South line and 360 feet from the West line (Unit L) of said Section 35 would be structurally low on the down-thrown south side of the this fault;

(4) By drilling vertically to a depth of 7,600 feet, kicking off in a northerly direction, and bottoming the hole within the McKee formation approximately 400 feet to the north, serves to locate this well at a more geologically advantageous structural position within the reservoir and serves to increase the likelihood for Plains to intercept a possible "bank" oil accumulation formed from previous pressure maintenance activity within the immediate area;

(5) The 40-acre tract comprising the NW/4 SW/4 of said Section 35 is to be dedicated to said well to form a standard oil spacing and proration unit for said pool;

(6) The applicable drilling window or "producing area" for said wellbore should include that area within the NW/4 SW/4 of said Section 35 that is no closer than 330 feet to the northern boundary of said dedicated 40-acre tract; and,

(7) It appearing the applicant has satisfied all of the appropriate requirements prescribed in said **Rules 111.D** and **E** and **104.C(1)** and **F(1)**, the subject application should be approved and the well should be governed by the provisions contained within this order and all other applicable provisions of **Division General Rules 104** and **111**.

IT IS THEREFORE ORDERED THAT:

(1) Plains Petroleum Operating Company ("Plains") is hereby authorized to drill its Baylus Cade Federal Well No. 7 (**API No. 30-025-33649**) from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of Section 35, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, drill vertically to an approximate depth of 7,600 feet, kick-off in a northerly direction, and bottom the hole within the McKee formation of the Teague (Simpson) Pool approximately 400 feet to the north.

(2) The 40-acre tract comprising the NW/4 SW/4 of said Section 35 shall be dedicated to said well to form a (standard) oil spacing and proration unit for said pool.

(3) The applicable drilling window or "producing area" for said wellbore shall consist of that area within the NW/4 SE/4 of said Section 35 that is no closer than 330 feet to the

northern boundary of said dedicated 40-acre tract.

PROVIDED HOWEVER THAT prior to commencing directional drilling operations in said wellbore, the applicant shall establish the location of the kick-off point by means of a directional survey acceptable to the Division.

PROVIDED FURTHER THAT during or upon completion of said directional drilling operations, the applicant shall conduct an accurate wellbore survey from the kick-off point to total depth in order that the subsurface bottom-hole location, as well as the wellbore's true depth and course, may be determined.

(4) The applicant shall notify the supervisor of the Hobbs District office of the Division of the date and time said wellbore surveys are to be conducted so that they may be witnessed. The applicant shall further provide a copy of said wellbore surveys to the Santa Fe and Hobbs offices of the Division upon completion.

(5) The operator shall comply with all requirements and conditions set forth in **Division General Rule 111.E(2)** and any applicable requirements in **111.D** and **F** and **104.C(1)** and **104.F(2)**.

(6) Form C-105 shall be filed in accordance with **Division Rule 1105** and the operator shall indicate thereon true vertical depth in addition to measured depths.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

cc: Oil Conservation Division - Hobbs
U. S. Bureau of Land Management - Carlsbad

PLAINS PETROLEUM OPERATING COMPANY

a subsidiary of Barrett Resources Corporation

OIL CONSERVATION DIVISION
RECEIVED
96 NO 18 AM 8 52

November 16, 1996

Not an abbreviation is to be included in the Oct. 31st abbreviation

Mr. Michael E. Stogner
Chief Hearing Officer/Engineer
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: Proposed Directional Drill Site
Baylus Cade Federal No. 7 Well
Teague Simpson Pool
Unit Letter L, Sec. 35, T23S, R37E
Lea County, New Mexico

Dear Michael:

Enclosed are fully executed Waivers of Objection to our above referenced directional well site on the behalf of offset operators Arch Petroleum, Inc. and Texaco Exploration & Production Co.

Also I have contacted Rick Foppiano with Oxy, USA Inc., as to the status of their waiving objection to our application. Rick indicated that they did not have any objection to our application, our waiver letter was circulating through their asset team as a matter of courtesy and had not been returned to him yet.

Hondo Drilling Company's Rig #1 is on location and waiting to spud. It is anticipated that it would most likely take about 20 days to reach KOP depth from date of spud.

Again, it is most respectfully requested that an order be administratively approved and assigned for the drilling of this well. The Hobbs OCD office received copies of the original APD for this well on or about September 26, 1996.

Very truly yours,

PLAINS PETROLEUM OPERATING CO.

James R. Sutherland

James R. Sutherland
District Manager

Enclosures

415 West Wall Street • Suite 1000 • Midland, Texas 79701 • phone 915.683.4434, facsimile 915.683.1414

WAIVER OF OBJECTION

As an authorized representative of the below named offset operator, I have been duly informed by Plains Petroleum Operating Company that it has filed for a directional drilling bottom hole location drill site for its Baylus Cade Federal No. 7 well located in Unit Letter L, 2300' FSL & 400' FWL (BHL) and 1890' FSL & 360' FWL (SHL), Section 35, Township 23 South, Range 37 East, Teague Simpson Pool, Lea County, New Mexico.

The undesigned hereby waives any objection it may have to Plains Petroleum Operating Company filing for the directional bottom hole location for its Baylus Cade Federal No. 7 well.

Texaco E & P Inc.
Company

By: J A Head

Title: Asset Manager

Date: 11/15/96

RECEIVED NOV 15 1996

WAIVER OF OBJECTION

As an authorized representative of the below named offset operator, I have been duly informed by Plains Petroleum Operating Company that it has filed for a directional drilling bottom hole location drill site for its Baylus Cade Federal No. 7 well located in Unit Letter L, 2300' FSL & 400' FWL (BHL) and 1890' FSL & 360' FWL (SHL), Section 35, Township 23 South, Range 37 East, Teague Simpson Pool, Lea County, New Mexico.

The undesigned hereby waives any objection it may have to Plains Petroleum Operating Company filing for the directional bottom hole location for its Baylus Cade Federal No. 7 well.

ARCH PETROLEUM INC.
Company

By: Merieke S. Vanderslice

Title: V.P. of Operations

Date: November 14, 1996

RECEIVED NOV 15 1996

DD 11/20/96

PLAINS PETROLEUM OPERATING COMPANY

a subsidiary of Barrett Resources Corporation

October 30, 1996

Mr. Michael E. Stogner
Chief Hearing Officer/Engineer
Oil Conservation Division
2040 S. Pacheco
Santa Fe, NM 87505

Re: Proposed Directional Drill Site
Baylus Cade Federal No. 7
Teague Simpson Pool
Unit Letter L, Sec. 35, T23S, R37E,
Lea County, New Mexico

Dear Michael:

Plains Petroleum Operating Company respectfully requests approval/authority to directionally drill its Baylus Cade Federal No. 7 well from a surface location 1890 feet from the South line and 360 feet from the West line (Unit L) of Section 35, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico to a bottom hole oil well location that is within 50 feet of a point 2300 feet from the South line and 400 feet from the West line (Unit L) of Section 35 to test the Teague-simpson (McKee) Pool.

The NW/4 SW/4 of Section 35 will be dedicated to the subject well forming a standard 40-acre spacing and proration unit for the Teague-Simpson (McKee) Pool.

Plains Petroleum Operating Company supplied geologic evidence for Case No. 11276, Order No. R-10370 that shows that this location is in close proximity to a east-west trending fault. The surface location of this well may be structurally low on the south side, down-thrown side of the fault. Directionally drilling this well from kick-off point of 7600' to the Simpson (McKee) formation approximately 400' north of the aforementioned fault to a more advantageous structural position will increase the likelihood of intercepting a "bank" oil accumulated from previous pressure maintenance water injection carried out on this lease by Carter Foundation in the N/2 Sections 34 and 35 in 1965. No take or withdrawal well in the Simpson (McKee) was located on the north side of this east-to-west trending fault south of Carter's injection point.

The OCD Order No. R-10474 approved Plains Petroleum Operating Company's application to initiate the Teague-Simpson (McKee) Cooperative Pressure Maintenance Project October, 1995, water injection commenced into the E. C. Hill "B" Federal #13 and Baylus Cade Federal #5 wells in December, 1995.

415 West Wall Street • Suite 1000 • Midland, Texas 79701 • phone 915.683.4434, facsimile 915.683.1414

All offset operators have been notified, this date, by certified mail of this application and we have requested waiver of objection to this directional well application.

Copies of our APD package, surveyors plat and directional drilling plan are enclosed for your perusal and review.

It is respectfully requested that this application be approved as soon as possible so that we may take advantage of a particular drilling rig's availability.

If there are any questions regarding this application, please call the undersigned at any time.

Very truly yours,

PLAINS PETROLEUM OPERATING CO.

James R. Sutherland

James R. Sutherland
District Manager

Enclosures

PLAINS PETROLEUM OPERATING COMPANY

a subsidiary of Barrett Resources Corporation

October 30, 1996

Mr. Richard Foppiano
Oxy USA, Inc.
P. O. Box 50250
Midland, TX 79710

Re: Waiver of Objection
Baylus Cade Federal No. 7
Lea County, New Mexico

Gentlemen:

Plains Petroleum Operating Company proposes to drill the Baylus Cade Federal No. 7 well as a vertical well to a depth of 7600' and at 7600', the well will be directionally drilled to a bottom hole target 410' north and 40' east of the surface location. An Application to Drill the referenced well was filed with the Bureau of Land Management September 24, 1996 and we have subsequently received the approved APD. Copies of Form 3160-3 Application to Drill and the respective location plats are enclosed.

Enclosed is a Waiver of Objection prepared for your signature as an offset operator to the proposed drill site. We respectfully request your approval to the waiver.

Should you have any questions or need further clarification of this request, please contact me at 915/683-4434.

Very truly yours,

PLAINS PETROLEUM OPERATING CO.

James R. Sutherland
District Manager

Enclosures

415 West Wall Street • Suite 1000 • Midland, Texas 79701 • phone 915.683.4434, facsimile 915.683.1414

PLAINS PETROLEUM OPERATING COMPANY

a subsidiary of Barrett Resources Corporation

October 30, 1996

Mr. Rick Vandeslice
Arch Petroleum, Inc.
10 Desta Drive, Suite 420E
Midland, TX 79705

Re: Waiver of Objection
Baylus Cade Federal No. 7
Lea County, New Mexico

Gentlemen:

Plains Petroleum Operating Company proposes to drill the Baylus Cade Federal No. 7 well as a vertical well to a depth of 7600' and at 7600', the well will be directionally drilled to a bottom hole target 410' north and 40' east of the surface location. An Application to Drill the referenced well was filed with the Bureau of Land Management September 24, 1996 and we have subsequently received the approved APD. Copies of Form 3160-3 Application to Drill and the respective location plats are enclosed.

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Very truly yours,

PLAINS PETROLEUM OPERATING CO.

James R. Sutherland
District Manager

Enclosures

415 West Wall Street • Suite 1000 • Midland, Texas 79701 • phone 915.683.4434, facsimile 915.683.1414

PLAINS PETROLEUM OPERATING COMPANY

...a subsidiary of Barrett Resources Corporation

October 30, 1996

Mr. Mark Schneider
Texaco Exploration & Production Co.
P. O. Box 2100
Denver, CO 80201-2100

Re: Waiver of Objection
Baylus Cade Federal No. 7
Lea County, New Mexico

Gentlemen:

Plains Petroleum Operating Company proposes to drill the Baylus Cade Federal No. 7 well as a vertical well to a depth of 7600' and at 7600', the well will be directionally drilled to a bottom hole target 410' north and 40' east of the surface location. An Application to Drill the referenced well was filed with the Bureau of Land Management September 24, 1996 and we have subsequently received the approved APD. Copies of Form 3160-3 Application to Drill and the respective location plats are enclosed.

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Should you have any questions or need further clarification of this request, please contact me at 915/683-4434.

Very truly yours,

PLAINS PETROLEUM OPERATING CO.

James R. Sutherland
District Manager

Enclosures

415 West Wall Street • Suite 1000 • Midland, Texas 79701 • phone 915.683.4434, facsimile 915.683.1414

WAIVER OF OBJECTION

As an authorized representative of the below named offset operator, I have been duly informed by Plains Petroleum Operating Company that it has filed for a directional drilling bottom hole location drill site for its Baylus Cade Federal No. 7 well located in Unit Letter L, 2300' FSL & 400' FWL (BHL) and 1890' FSL & 360' FWL (SHL), Section 35, Township 23 South, Range 37 East, Teague Simpson Pool, Lea County, New Mexico.

The undesigned hereby waives any objection it may have to Plains Petroleum Operating Company filing for the directional bottom hole location for its Baylus Cade Federal No. 7 well.

_____

Company

By: _____

Title: _____

Date: _____

DIRECTIONAL DRILLING PROPOSAL

PLAINS PETROLUEM OPERATING COMPANY

BAYLUS CADE FEDERAL #7
LEA COUNTY, NEW MEXICO
SEC. 35 - T23S - R37E

October 1, 1996

PREPARED FOR: MR. JAMES R. SUTHERLAND

HALLIBURTON

The Future Is Working Together.

9270

HALLIBURTON
ENERGY SERVICES

Drilling Systems

9800 West Reno / Oklahoma City, OK 73127 / 405-324-2222

October 1, 1996

PLAINS PETROLEUM OPERATING COMPANY
Mr. James R. Sutherland
415 West Wall, Suite 1000
Midland, TX. 79701

Dear James:

We appreciate the opportunity to present the following Directional Drilling Proposal for the Baylus Cade Federal #7 well in Sec. 35 - T23S - R37E of Lea County, New Mexico. Our full service capability, coupled with our experience in the area, provides us with all the tools required to effectively and economically control your wellbore.

If you have any questions please call Dick Spencer, or myself in Oklahoma City at (405) 324-2222. We are looking forward to working with you on this project and any project in which you feel we may benefit you.

Sincerely,

Scott Feland
Well Planning

Halliburton Energy Services

Proposal Report

Date: 10/1/96
Time: 8:48 am
Wellpath ID: PROPOSAL
Last Revision: 10/1/96

Calculated using the Minimum Curvature Method
Computed using WIN-CADDS REV2.2.2
Vertical Section Plane: N 5.57 W

Survey Reference: WELLHEAD
Vertical Section Reference: WELLHEAD
Closure Reference: WELLHEAD
TVD Reference: WELLHEAD

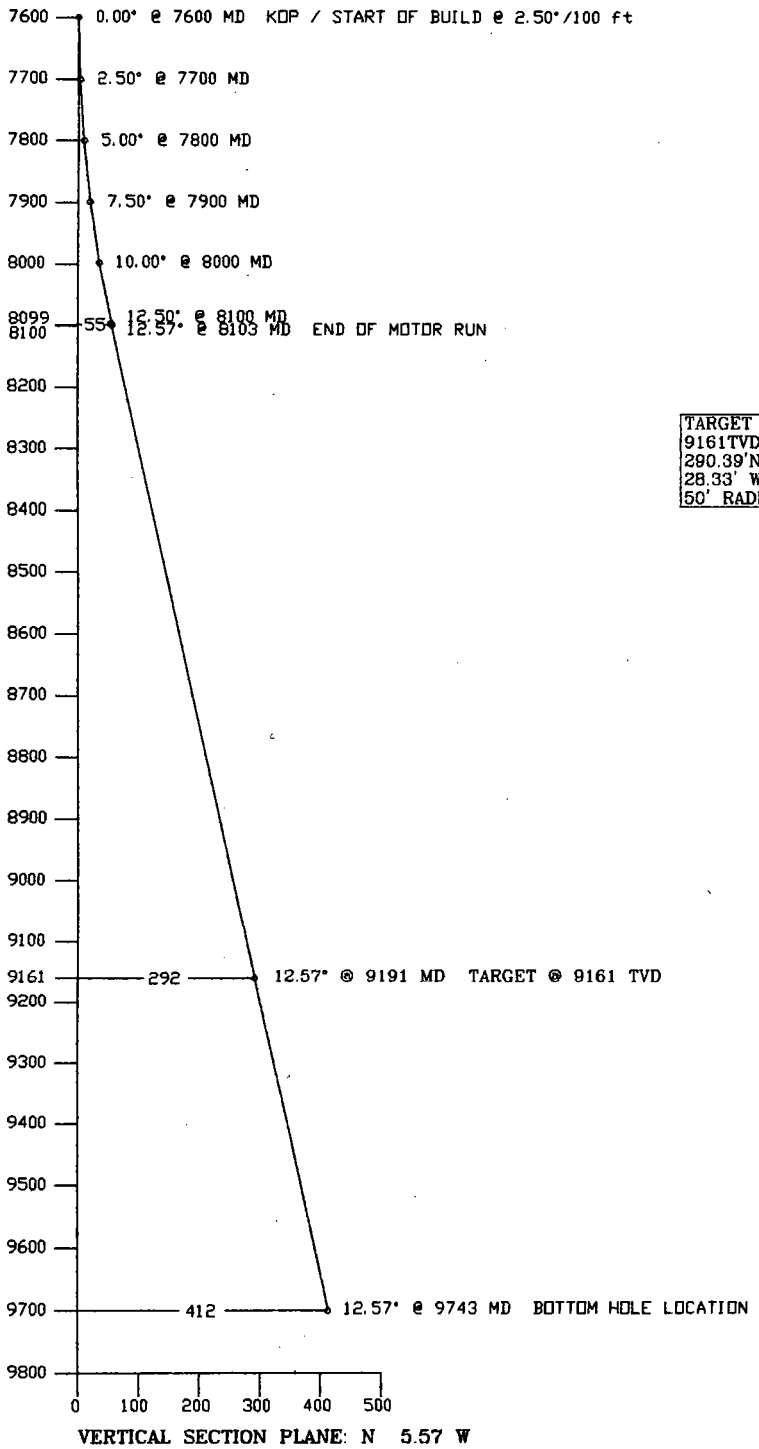
PLAINS PETROLEUM
BAYLUS CADE FEDERAL #7
LEA COUNTY, NEW MEXICO
SEC. 35 - T23S - R37E
PROPOSAL

Measured Depth (ft)	Incl (deg.)	Drift Dir. (deg.)	Course Length (ft)	TVD (ft)	Vertical Section (ft)	TOTAL Rectangular Offsets (ft)	(ft)	DLS (dg/100ft)
KOP / TIE IN / START OF BUILD @ 2.50 deg/100 ft								
7600.00	0.00	N 0.00 E	0.00	7600.00	0.00	0.00 N	0.00 E	0.00
7700.00	2.50	N 5.57 W	100.00	7699.97	2.18	2.17 N	0.21W	2.50
7800.00	5.00	N 5.57 W	100.00	7799.75	8.72	8.68 N	0.85W	2.50
7900.00	7.50	N 5.57 W	100.00	7899.14	19.61	19.51 N	1.90W	2.50
8000.00	10.00	N 5.57 W	100.00	7997.97	34.82	34.65 N	3.38W	2.50
8100.00	12.50	N 5.57 W	100.00	8096.04	54.33	54.07 N	5.28W	2.50
8102.77	12.57	N 5.57 W	2.77	8098.75	54.93	54.67 N	5.33W	2.50
TARGET @ 9161 TVD								
9191.11	12.57	N 5.57 W	1088.34	9161.00	291.77	290.39 N	28.33W	0.00
BOTTOM HOLE LOCATION								
9743.34	12.57	N 5.57 W	552.24	9700.00	411.95	410.00 N	40.00W	0.00

PLAINS PETROLEUM
BAYLUS CADE FEDERAL #7
LEA COUNTY, NEW MEXICO
SEC. 35 - T23S - R37E

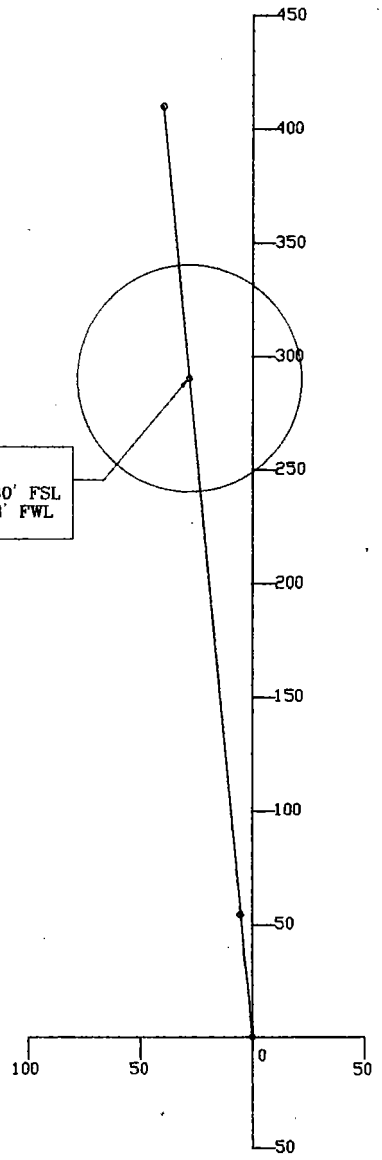
HALLIBURTON ENERGY SERVICES
DRILLING SYSTEMS

VERTICAL VIEW
SCALE 100 ft. / DIVISION



VERTICAL SECTION PLANE: N 5.57 W

HORIZONTAL VIEW
SCALE 50 ft. / DIVISION



TARGET LOCATION		
9161TVD		
280.39'N	2180'	FSL
28.33' W	388'	FWL
50' RADIUS		

SURFACE LOCATION
1890' FSL, 360' FWL

BOTTOM HOLE LOCATION
2300' FSL, 400' FWL

PROPOSED BHL	
TVD	9700.00
MD	9743.34
VS	411.95
N/S	410.00 N
E/W	40.00 W

PLAINS PETROLEUM

Baylus Cade Federal #7

RECOMMENDED DIRECTIONAL DRILLING PROCEDURE

- Drill to a KOP of 7600' MD with a packed hole assemly, monitoring the inclination and direction with a monel and single shot kit . TOH to pick up a steerble assembly.(Run gyro survey in surface pipe if needed.)

- STEERABLE ASSEMBLY:

  7-7/8" ROCK BIT
  6-1/2" F2000S DYNA-DRILL MOTOR WITH A 1-1/4° BENT HOUSING
  1 DEGREE BENT SUB
  6-1/4" DATA-DRILL MWD SYSTEM
  6-1/4" MONEL DRILL COLLAR
  RIG DRILL COLLARS

- TIH Build angle to 12.57° and N 5.57 W direction @ 2.5°/100'. One bit run should complete the build portion of the hole. TOH to pick up a hold assembly.

- HOLD ASSEMBLY:

  7-7/8" ROCK BIT
  7-7/8" 6 POINT REAMER
  MONEL DRILL COLLAR
  6-1/4" 12' SHORT DRILL COLLAR (45' TOTAL LENGTH BETWEEN 6 POINT AND IBS)
  7-7/8" IBS
  6-1/4" DRILL COLLAR
  7-7/8" IBS
  6-1/4" RIG COLLARS

- Drill to 9743 TD monitoring the well with single shot surveys.

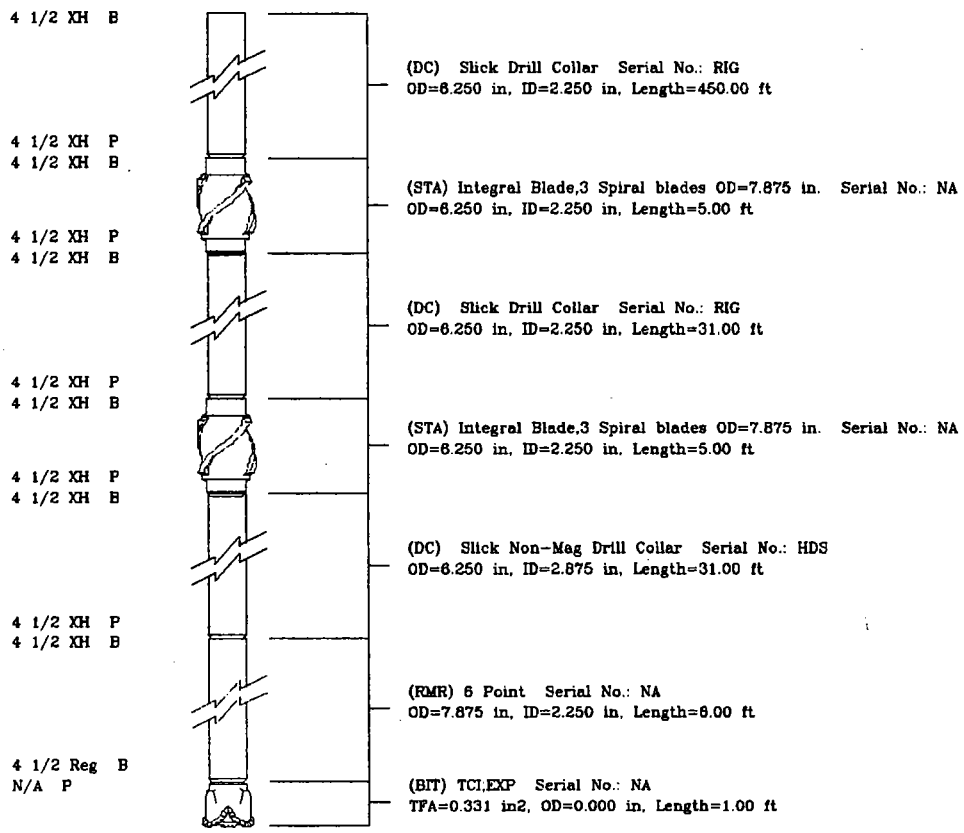
- Make correction run as needed to achieve desired bottom location.

HALLIBURTON
ENERGY SERVICES
DRILLING SYSTEMS

Bottom Hole Assembly #1
7-7/8" Hole Size

Assembly Type: Packed Assembly

Total Length = 529.00 ft



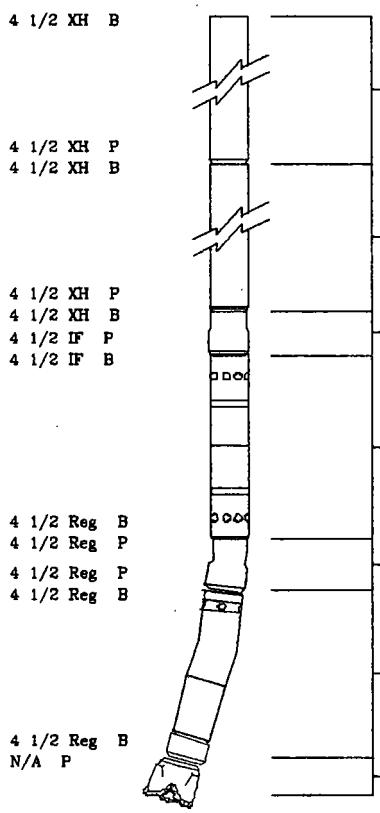
EXAMPLE

HALLIBURTON
ENERGY SERVICES
DRILLING SYSTEMS

Bottom Hole Assembly #2
7-7/8" Hole Size

Company: PLAINS PETROLEUM
Field: BAYLUS CADE FEDERAL #7
Location:
Well: PROPOSAL
Run No: 2

Assembly Type: Steerable System
Total Length = 554.80 ft



(DC) Slick Drill Collar Serial No.: RIG
OD=6.250 in, ID=2.250 in, Length=481.00 ft

(DC) Slick Non-Mag Drill Collar Serial No.: HDS
OD=6.250 in, ID=2.875 in, Length=31.00 ft

(SUB) Cross-Over Serial No.: NA
OD=6.250 in, ID=2.875 in, Length=2.00 ft

(MWD) DATADRIL Serial No.: NA
OD=6.250 in, Length=15.00 ft

(SUB) Bent 1.00 deg. Serial No.: NA
OD=6.250 in, ID=2.250 in, Length=2.00 ft

(MTR) Bored Rotor,F2000S 5/6 1.250 deg. Bent Hsg. Serial No.: NA
OD=6.500 in, Length=22.80 ft

(BIT) TCI,EXP Serial No.: NA
TFA=0.331 in2, OD=0.000 in, Length=1.00 ft

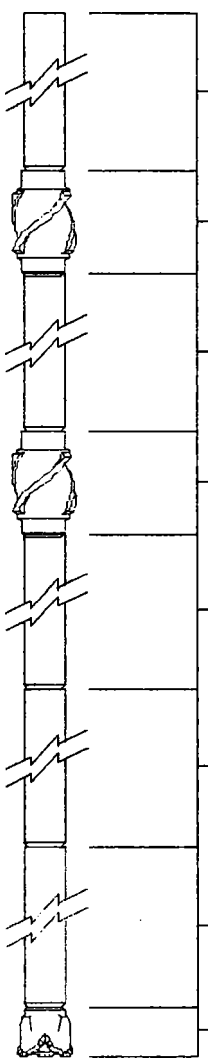
HALLIBURTON
ENERGY SERVICES

DRILLING SYSTEMS

Bottom Hole Assembly #3
7-7/8" Hole Size

Company: PLAINS PETROLEUM
Field: BAYLUS CADE FEDERAL #7
Location:
Well: PROPOSAL
Run No: 3

Assembly Type: Packed Assembly
Total Length = 572.00 ft



4 1/2 XH B

(DC) Slick Drill Collar Serial No.: RIG
OD=6.250 in, ID=2.250 in, Length=481.00 ft

4 1/2 XH P
4 1/2 XH B

(STA) Integral Blade,3 Spiral blades OD=7.875 in.
OD=6.250 in, ID=2.250 in, Length=5.00 ft

4 1/2 XH P
4 1/2 XH B

(DC) Slick Drill Collar
OD=6.250 in, ID=2.250 in, Length=31.00 ft

4 1/2 XH P
4 1/2 XH B

(STA) Integral Blade,3 Spiral blades OD=7.875 in. Serial No.: NA
OD=6.250 in, ID=2.250 in, Length=5.00 ft

4 1/2 XH P
4 1/2 XH B

(DC) Slick Drill Collar Serial No.: SHORT
OD=6.250 in, ID=2.250 in, Length=12.00 ft

4 1/2 XH P
4 1/2 XH B

(DC) Slick Non-Mag Drill Collar Serial No.: HDS
OD=6.250 in, ID=2.875 in, Length=31.00 ft

4 1/2 XH P
4 1/2 XH B

(RMR) 3 Point Serial No.: NA
OD=7.875 in, ID=2.250 in, Length=6.00 ft

4 1/2 Reg B
N/A P

(BIT) TCI,EXP Serial No.: NA
TFA=0.331 in2, OD=0.000 in, Length=1.00 ft

OPERATOR'S COPY

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLIC
(Other instructions on reverse side)

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

OCT 26 1996

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NMLC034711

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: BAYLUS CADE FEDERAL

2. NAME OF OPERATOR: PLAINS PETROLEUM OPERATING COMPANY

9. WELL NO.: 7

3. ADDRESS OF OPERATOR: 415 West Wall, Suite 1000, Midland, TX 79701 915/683-4434

10. FIELD AND POOL, OR WILDCAT: TEAGUE SIMPSON

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)

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 35, T23S, R37E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10.6 miles Northeast of Jal, NM

12. COUNTY OR PARISH: LEA — 13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. 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

CAPITAN CONTROLLED WATER BASIN

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 ATTACHED

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 H_2S Drilling Contingency Plan to be adhered to while drilling this well.

zone. 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 Tony L. Ferguson TITLE ARM Minerals DATE 10/25/96

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

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

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

DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

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

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

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

Form C-102
Revised 02-10-94

Instructions on back

Submit to the 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
	56900	TEAGUE SIMPSON

4 Property Code	5 Property Name	6 Well Number
009276	BAYLUS CADE FEDERAL	7

7 OGRID No.	8 Operator Name	9 Elevation
017805	PLAINS PETROLEUM OPERATING COMPANY	3253'

10 SURFACE LOCATION

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
L	35	23 SOUTH	37 EAST, N.M.P.M.		1890'	SOUTH	360'	WEST	LEA

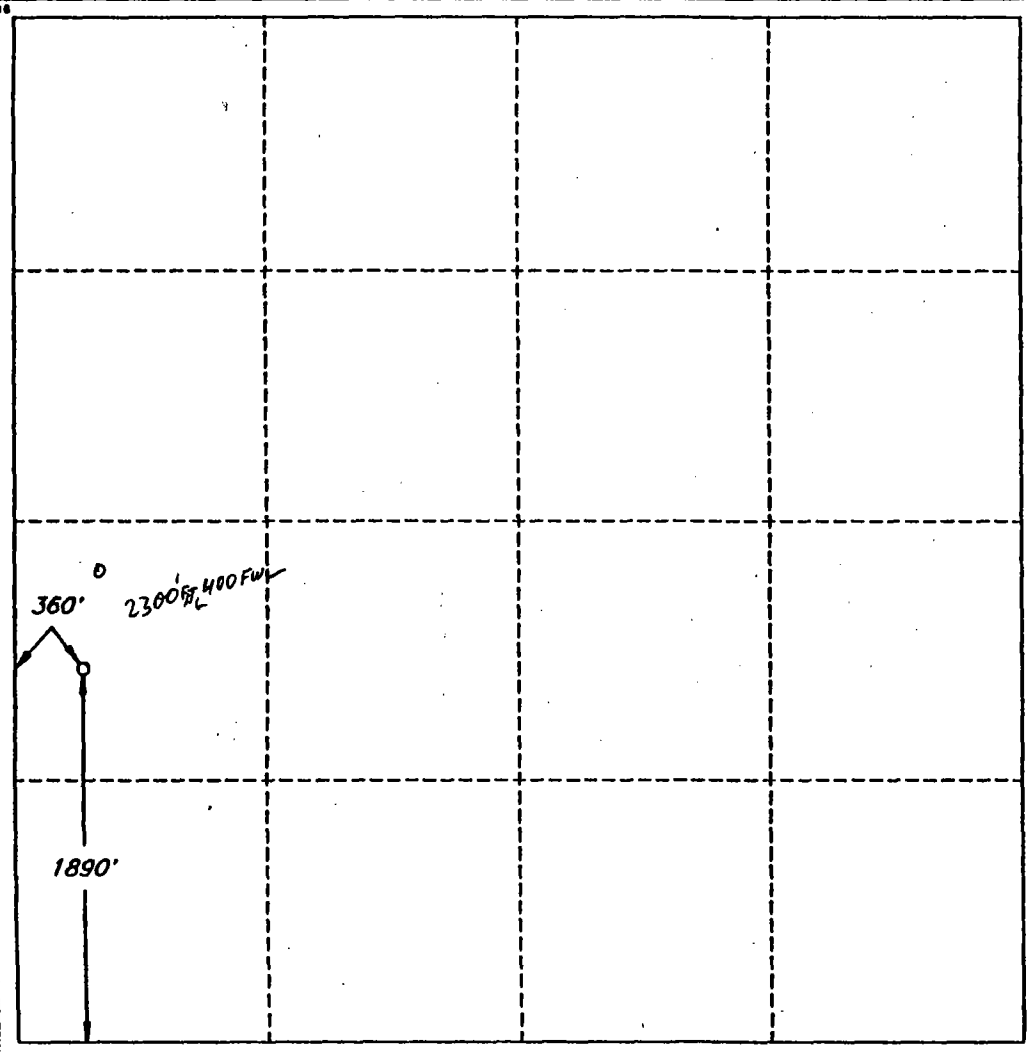
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
L	35	23S	37E		2300	South	400	West	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

16



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.

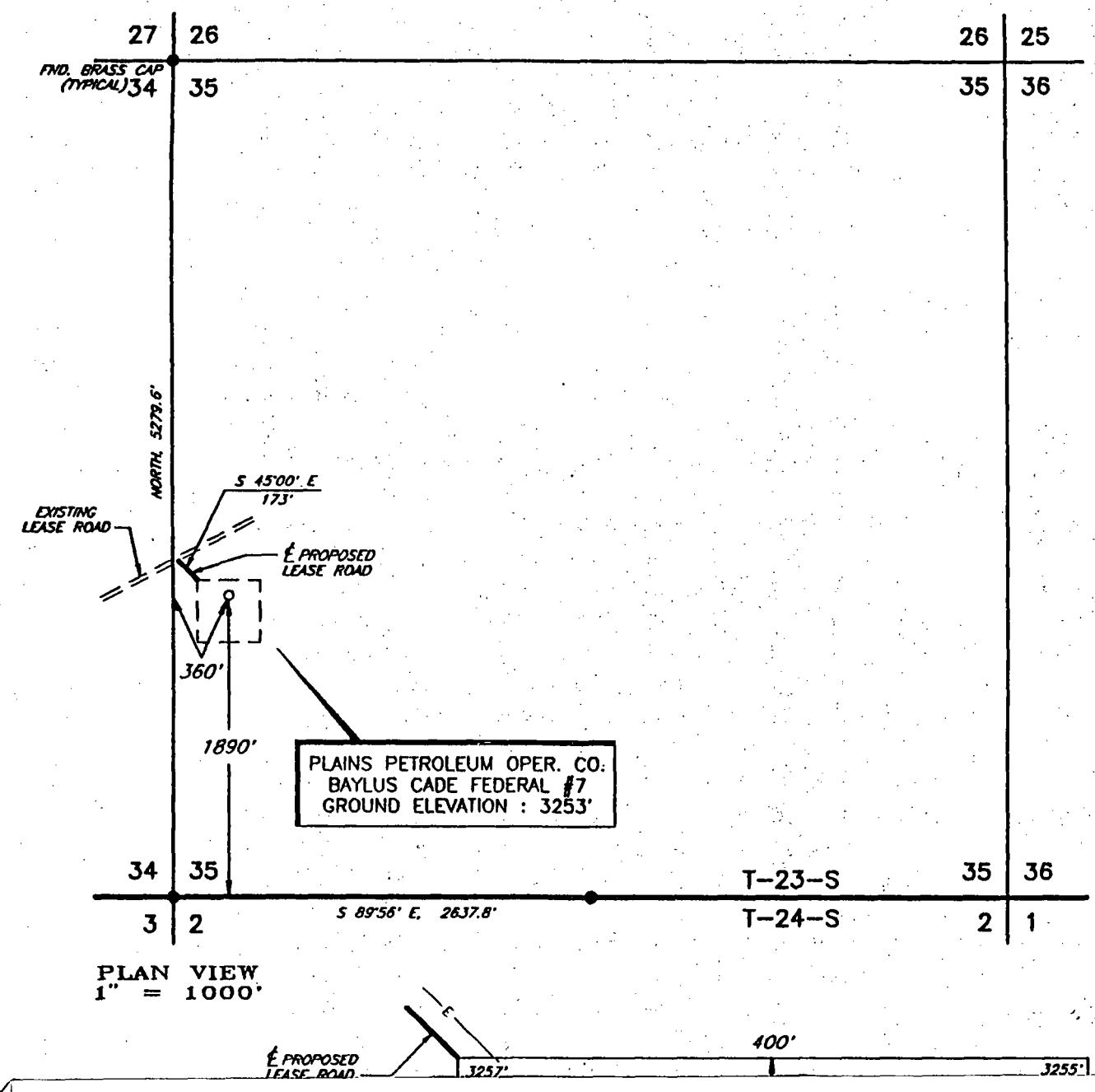
Date of Survey: SEPTEMBER 19, 1996
Signature and Seal of Professional Surveyor:

STATE OF NEW MEXICO
V. LYNN BEZNER
NO. 7920
REGISTERED LAND SURVEYOR

Certificate No. V. L. BEZNER N.M.P.S. #7920

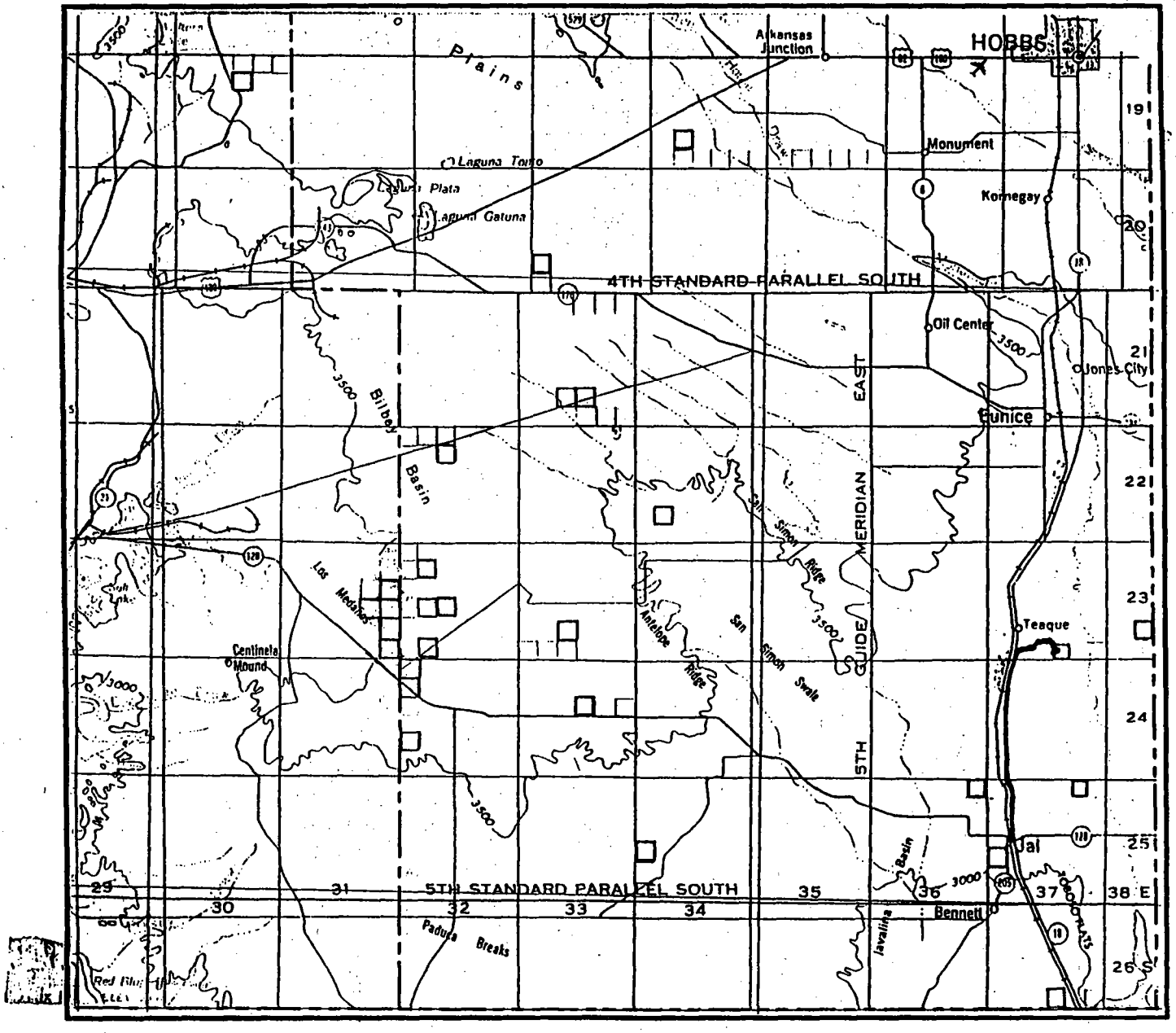
JOB #47388 L 35 SW / V.H.B.

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



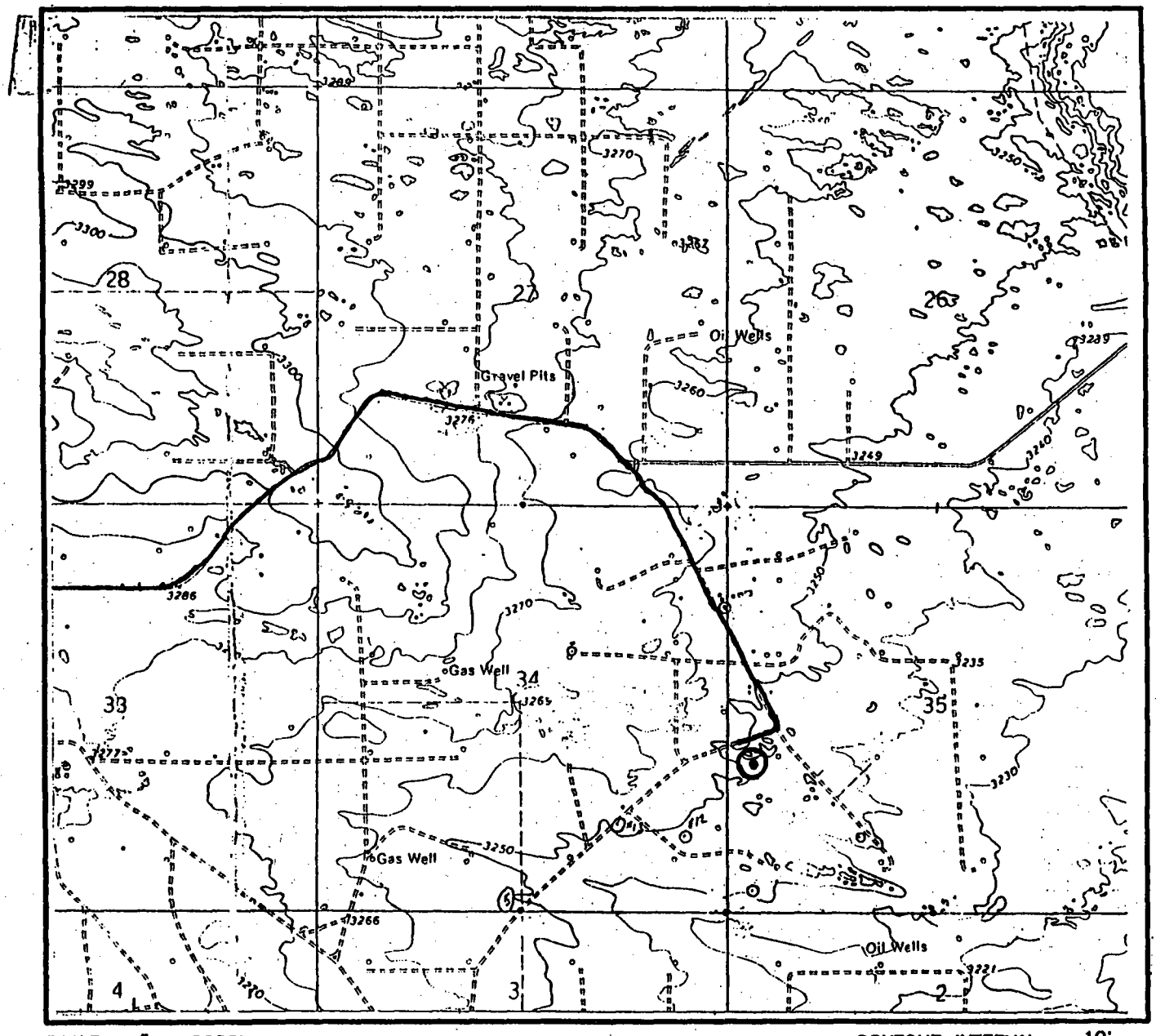
PLAN VIEW
1" = 1000'

VICINITY MAP



SECTION 35 TWP 23-S RGE 37-E

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 35 TWP 23-S RGE 37-E

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'

FORMATION	TOP	SS
Penrose	3406'	-141'
Glorieta	4916"	-1651'
Paddock	5031'	-1766'
Blinebry	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'

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	6000'

PLAINS PETROLEUM OPER. 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)	Collapse Strgth (psi)	Collapse S.F.	Burst Load (psi)	Min Int Yield Strgth (psi)	Burst S.F.	Tension Load (kips)	Tension Strgth (kips)	Tension 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)

PLAINS PETROLEUM OPER. 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	

	Collapse Load (psi)	Collapse Strgth (psi)	Collapse S.F.	Burst Load (psi)	Min Int Yield Strgth (psi)	Burst S.F.	Tension Load (kips)	Tension Strgth (kips)	Tension 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)

PLAINS PETROLEUM OPER. 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	

	Collapse Load (psi)	Collapse Strgth (psi)	Collapse S.F.	Burst Load (psi)	Min Int Yield Strgth (psi)	Burst S.F.	Tension Load (kips)	Tension Strgth (kips)	Tension 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 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)

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

4. MUD DETAIL

DEPTH	PROPERTIES	TREATMENT
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**

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 COMP
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.

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.

XI. Other Information

A. Topography: Terrain in the general area consists of an undulating plane covered by sandy soils of aeolian material of Holocene age.

B. Soil: The solid belongs to the typic haplargids paleargids association.

C. Vegetation: Consists of Quercus havardii, Prosopis juliflora, yucca glauca, Suaeda sp., Euphorbia sp., Aristida sp., Bouteloua eriopoda, Cenchrus incertus, Muhlenbergia arenacea and Sporobolus spp.

D. Fauna: Consists of Crotalus and sistrurus, canis latrans, lepus alleni and mephitis.

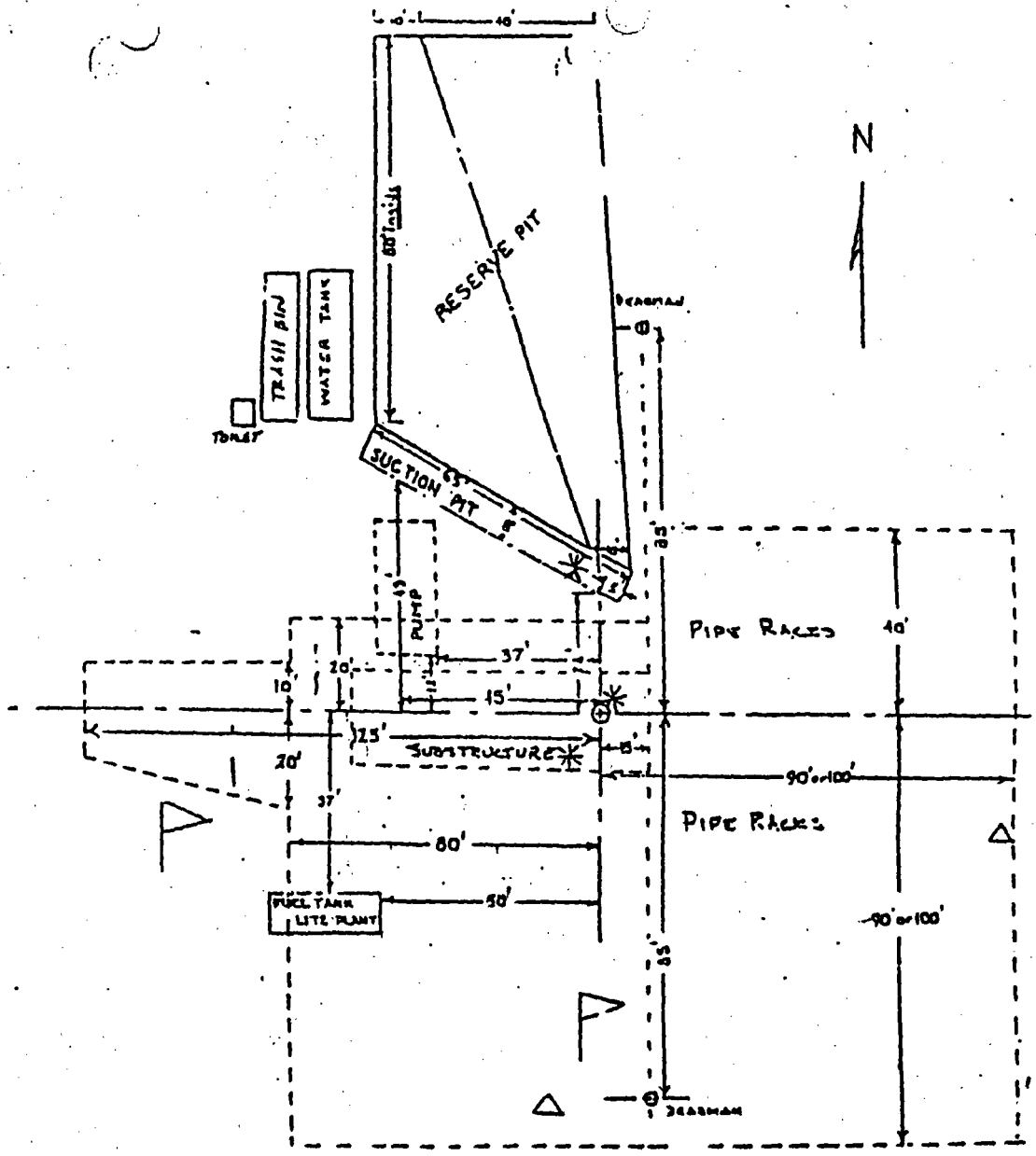
E. The surface of this land is being utilized to a limited extent as grazing land for cattle.

F. The surface is privately owned.

G. No cultural resources or archaeological sites present.

XII. Company Representative:

James R. Sutherland
Plains Petroleum Operating Company
415 W. Wall, Suite 1000
Midland, TX 79701
Phone (915) 683-4434



- WIND DIRECTION INDICATORS

△ - SAFE BRIEFING AREAS

✳ - H_2S 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 minimun 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 blooey 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 seperator 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

NC = Normally Closed
NO = Normally Open

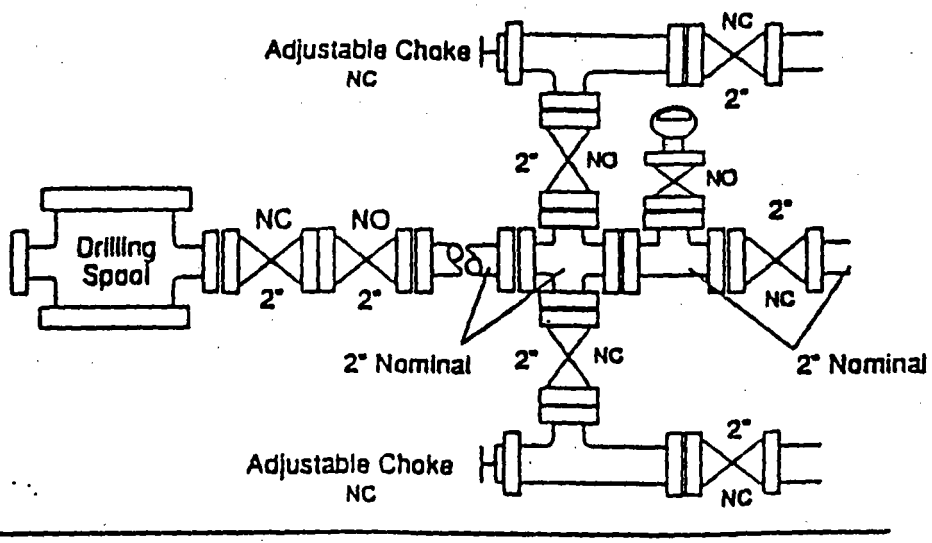


EXHIBIT A.1

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

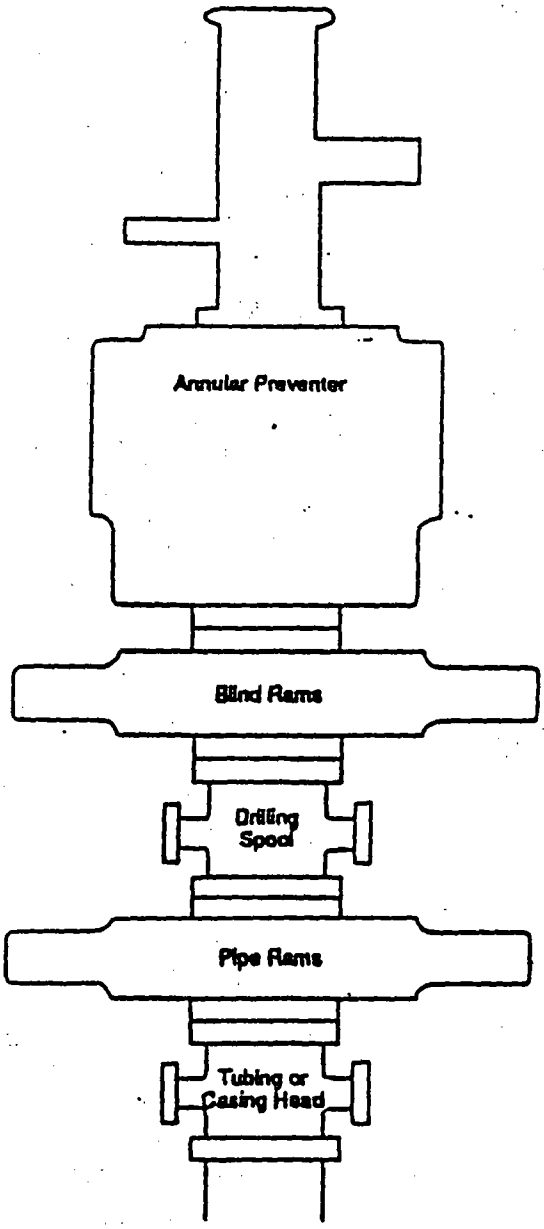


EXHIBIT A.2

DAMAGE SETTLEMENT
&
RELEASE

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 M10550 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 #14 well located 330' FSL & 330' FWL, Section 35, 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 R. Stephens

Jerry Stephens - Agent for Tom Linebery

Date: 5-31-96

SPECIAL DRILLING STIPULATIONS

THE FOLLOWING DATA IS REQUIRED ON THE WELL SIGN

OPERATOR'S NAME PLAINS PETROLEUM OPERATING CO WELL NO. & NAME #7 BAYLUS CADE FEDERAL
LOCATION 1890' F S L & 360' F W L SEC. 35, T. 23S., R. 37E.
LEASE NO. LC-034711 COUNTY LEA STATE NEW MEXICO

The special stipulations check marked below are applicable to the above described well and approval of this application to drill is conditioned upon compliance with such stipulations in addition to the General Requirements. The permittee should be familiar with the General Requirements, a copy of which is available from a Bureau of Land Management office. EACH PERMITTEE HAS THE RIGHT OF ADMINISTRATIVE APPEAL TO THESE STIPULATIONS PURSUANT TO TITLE 43 CFR 3165.3 and 3165.4.

This permit is valid for a period of one year from the date of approval or until lease expiration or termination whichever is shorter.

I. SPECIAL ENVIRONMENT REQUIREMENTS

( ) Lesser Prairie Chicken (Stips attached)
( ) San Simon Swale (Stips attached)
( ) Floodplain (Stips attached)
( ) Other

II. ON LEASE - SURFACE REQUIREMENTS PRIOR TO DRILLING

(✓) The BLM will monitor construction of this drill site. Notify the (✓) Carlsbad Resource Area Office at (505) 887-6544 ( ) Hobbs Office at (505) 393-3612, at least 3 working days prior to commencing construction.

(✓) Roads and the drill pad for this well must be surfaced with 6 inches of compacted caliche.

( ) All topsoil and vegetation encountered during the construction of the drill site area will be stockpiled and made available for resurfacing of the disturbed area after completion of the drilling operation. Topsoil on the subject location is approximately ____ inches in depth. Approximately _____ cubic yards of topsoil material will be stockpiled for reclamation.

( ) Other

III. WELL COMPLETION REQUIREMENTS

( ) A Communitization Agreement covering the acreage dedicated to the well must be filed for approval with the BLM. The effective date of the agreement must be prior to any sales.

(✓) Surface Restoration: If the well is a producer, the reserve pit(s) will be backfilled when dry, and cut-and-fill slopes will be reduced to a slope of 3:1 or less. All areas of the pad not necessary for production must be re-contoured to resemble the original contours of the surrounding terrain, and topsoil must be re-distributed and re-seeded with a drill equipped with a depth indicator (set at a depth of 1/2 inch) with the following seed mixture, in pounds of Pure Live Side (PLS), per acre.

( ) A. Seed Mixture 1 (Loamy Site)
Lehmanns Lovegrass (Eragrostis lehmannlana) 1.0
Side Oats Grass (Bouteloua curtipendula) 5.0
Sand Dropseed (Sporobolus cryptandrus) 1.0

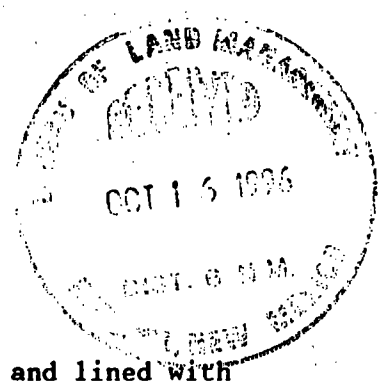
( ) B. Seed Mixture 2 (Sandy Sites)
Sand Dropseed (Sporobolus cryptandrus) 1.0
Sand Lovegrass (Eragrostis trichodes) 1.0
Plains Bristlegrass (Setaria magrostachya) 2.0

( ) C. Seed Mixture 3 (Shallow Sites)
Sideoats Grama (Boute curtipendula) 1.0
Lehmanns Lovegrass (Eragrostis lenmanniana) 1.0
or Boar Lovegrass (E. chloromalas)

(✓) D. Seed Mixture 4 ("Gyp" Sites)
Alkali Sacaton (Sporobolus airoides) 1.0
Four-Wing Saltbush (Atriplex canescens) 5.0

Seeding should be done either late in the fall (September 15 - November 15, before freeze up) or early as possible the following spring to take advantage of available ground moisture.

( ) Other



RESERVE PIT CONSTRUCTION STANDARDS

The reserve pit shall be constructed entirely in cut material and lined with 6 mil plastic.

Mineral material extracted during construction of the reserve pit may be used for development of the pad and access road as needed. Removal of any additional material on location must be purchased from BLM.

Reclamation: Reclamation of this type of deep pit will consist of pushing the pit walls into the pit when sufficiently dry to support track equipment. The pit liner is NOT TO BE RUPTURED to facilitate drying; a ten month period after completion of the well is allowed for drying of the pit contents.

The pit area must be contoured to the natural terrain with all contaminated drilling mud buried with at least 3 feet of clean soil. The reclaimed area will then be seeded as specified in this permit.

OPTIONAL PIT CONSTRUCTION STANDARDS

The reserve pit may be constructed in predominantly fill material if:

1) Lined as specified above and,

2) A borrow/caliche/gravel pit can be constructed immediately adjacent to the reserve pit and is capable of containing all reserve pit contents. The mineral material removed in the process can be used for pad and access road construction. However, a material sales contract must be purchased from BLM prior to removal of the material.

Reclamation of the reserve pit consists of bulldozing all reserve pit contents and contaminants into the borrow pit and covering with a minimum of 3 feet of clean soil material. The entire area must be recontoured, all trash removed, and reseeded as specified in this permit.

CULTURAL

Whether or not an archaeological survey has been completed and notwithstanding that operations are being conducted as approved, the lessee/operator/grantee shall notify the BLM immediately if previously unidentified cultural resources are observed during surface disturbing operations. From the time of the observation, the lessee/operator/grantee shall avoid operations that will result in disturbance to these cultural resources until directed to proceed by BLM.

TRASH PIT STIPS

All trash, junk and other waste material shall be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary landfill. Burial on site is not permitted.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Plains Petroleum Operating Company
Well No. 7 - Baylus Cade Fed.
Location: 1890' FNL & 360' FWL sec. 35, T. 23 S., R. 37 E.
Lease: LC-034711

.....

I. DRILLING OPERATIONS REQUIREMENTS: **CAPITAN CONTROLLED WATER BASIN**

The Bureau of Land Management (BLM) is to be notified at (505) 393-3612 in sufficient time for a representative to witness:

1. Spudding

2. Cementing casing: 13-3/8 inch 8-5/8 inch 5-1/2 inch

3. Include the API No. assigned to well by NMOCD on the subsequent report of setting the first casing string.

II. CASING:

1. 13-3/8 inch surface casing should be set at 350 feet, below usable water and circulate cement to the surface. If cement does not circulate to the surface this BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. Minimum required fill of cement behind the 8-5/8 inch intermediate casing is to circulate to surface.

3. Minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to tie back 200 feet into 8-5/8 inch intermediate casing at 3000 feet.

III. PRESSURE CONTROL:

1. Before drilling below the 13-3/8 inch surface casing, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 5000 psi.

3. After setting the 8-5/8 inch intermediate casing string and before drilling into the Penrose formation, the BOPE shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

4. The results of the test will be reported to the BLM Hobbs Office at 414 West Taylor, Hobbs, New Mexico 88240.

5. A Hydrogen Sulfide Contingency Plan should be activated prior to drilling in the Seven Rivers formation. A copy of the plan shall be posted at the drilling site.

EXHIBIT A

BLM Serial Number: LC-034711

Company Reference: #7 BAYLUS CADE FEDERAL

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
THE ROSWELL DISTRICT, BLM

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

The holder shall minimize disturbance to existing fences and other improvements on public domain surface. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will make a documented good-faith effort to contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence.

Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

/_/ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

/✓/ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

/_/ Flat-blading is authorized on segment(s) delineated on the attached map.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, outsloping, insloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

A. All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval for lead-off ditches shall be determined according to the following table, but may be amended depending upon existing soil types and centerline road slope (in %):

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at

/__/ 400 foot intervals.

/__/ ____ foot intervals.

/__/ locations staked in the field as per spacing intervals above.

/__/ locations delineated on the attached map.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

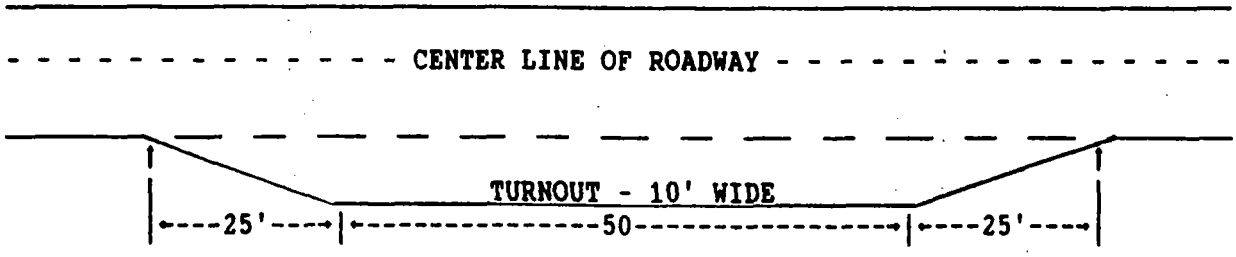
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4}$ + 100 = 200 feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the authorized officer after consulting with the holder.

10. SPECIAL STIPULATIONS: None

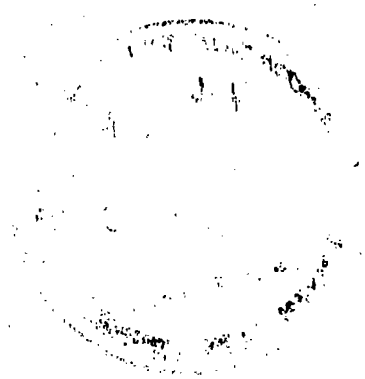
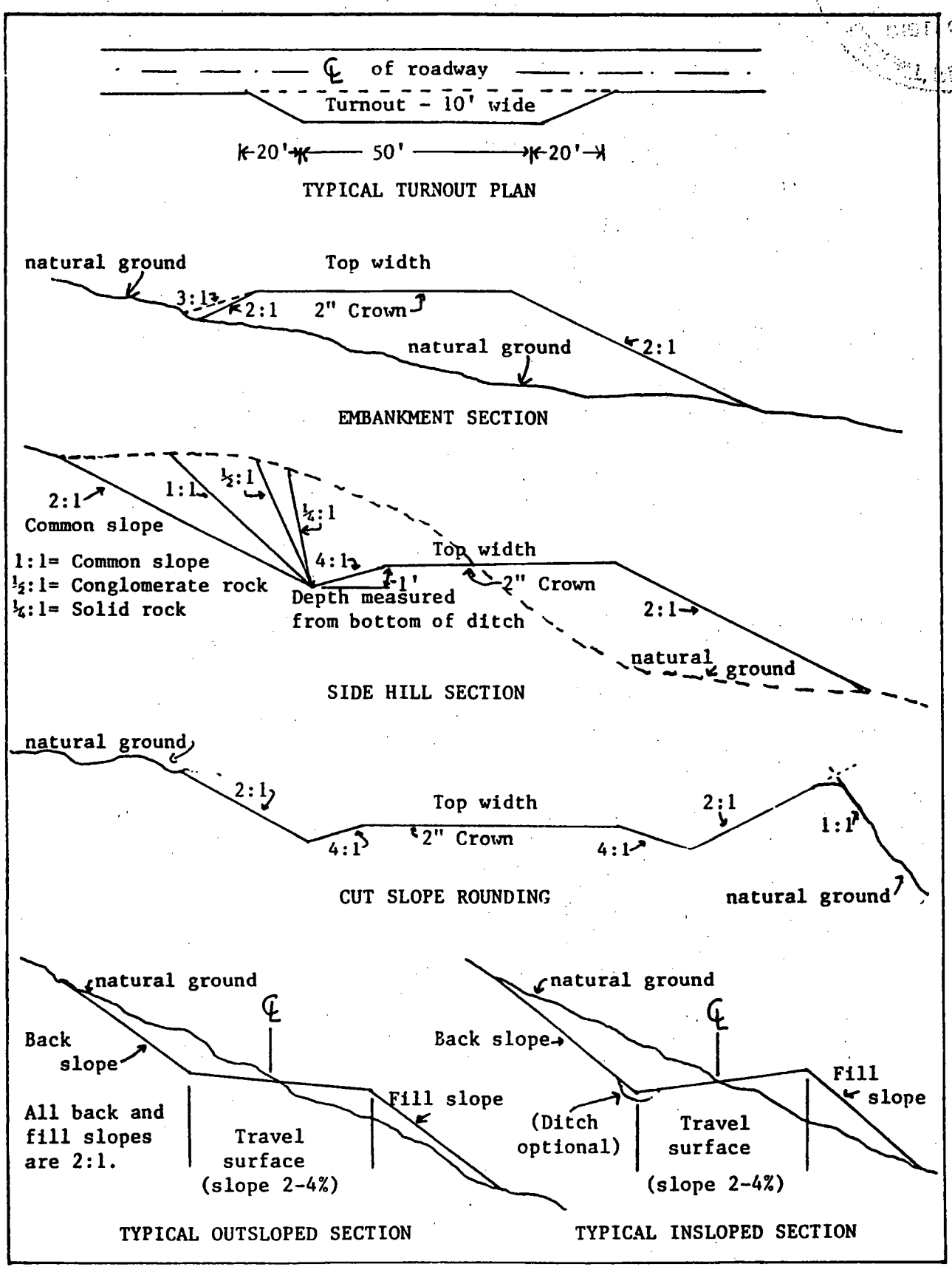


FIGURE 1: CROSS-SECTIONS AND PLANS FOR TYPICAL ROAD CONSTRUCTION REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS.

(Travel way, top width, driving surface, and travel surface are synonomous.)



STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

Case No. 11368
Order No. R-10474

APPLICATION OF PLAINS PETROLEUM COMPANY FOR A PRESSURE MAINTENANCE PROJECT, SPECIAL PROJECT ALLOWABLE, AND A QUALIFICATION FOR THE RECOVERED OIL TAX RATE PURSUANT TO THE "NEW MEXICO ENHANCED OIL RECOVERY ACT", LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on August 24 and September 21, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 3rd day of October, 1995, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Plains Petroleum Company, seeks authority to institute a cooperative pressure maintenance project on portions of its E. C. Hill "B" Federal and Baylus Cade Federal Leases, said project area to comprise the SE/4 of Section 34 and the SW/4 of Section 35, both in Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the McKee formation of the Teague (Simpson) Pool through the following described wells which will be converted to injection:

WELL NAME	WELL LOCATION
Baylus Cade Federal No. 5	985' FSL & 1650' FWL (N) 35-23S-37E
E.C. Hill "B" Federal No. 13	Surface Location 947' FSL & 1361' FEL (O) 34-23S-37E Bottomhole Location 1120' FSL & 1380' FEL (O) 34-23S-37E

(3) The applicant proposes to inject into the McKee sand member from a depth of approximately 9475 feet to 9641 feet in the aforesaid E. C. Hill "B" Federal Well No. 13, and from a depth of approximately 9408 feet to 9536 feet in the aforesaid Baylus Cade Federal Well No. 5.

(4) The Teague (Simpson) Pool was discovered in 1950 and created by Division Order No. 850. The main producing area of the field, which is located in the SW/4 of Section 22, all of Section 27, the NE/4 of Section 34 and the NW/4 of Section 35, Township 23 South, Range 37 East, has been extensively developed since its discovery. Nearly all of these producing wells are depleted and have now been plugged and abandoned.

(5) The applicant has discovered an area of the Teague (Simpson) Pool not previously developed. The applicant's geologic evidence and testimony indicate that the SE/4 of Section 34 and the SW/4 of Section 35 are effectively isolated from the main portion of the Teague (Simpson) Pool by a system of faults which traverse the area in southwest to northeast and southeast to northwest directions.

(6) The applicant has drilled five wells within the proposed project area. The applicant further testified that no additional wells will be drilled within the project area.

(7) The applicant proposes to utilize the E. C. Hill "B" Federal Well Nos. 10 and 12, located respectively in Unit M of Section 35 and Unit P of Section 34, and its Baylus Cade Federal Well No. 6 located in Unit K of Section 35, as its producing wells within the project area.

(8) Applicant proposes to inject water, for the purpose of pressure maintenance, into three distinct McKee producing sands within the Teague (Simpson) Pool.

(9) The current average producing rate within the proposed project area is approximately 215 barrels of oil per day per well.

(10) According to applicant's engineering evidence and testimony, the reservoir pressure within this isolated portion of the Teague (Simpson) Pool is approximately at bubble point pressure.

(11) Applicant testified that the initiation of pressure maintenance operations at this time should result in the recovery of an additional 400,000 barrels of secondary oil.

(12) Initial project costs are estimated to be approximately $214,000.

(13) The proposed pressure maintenance project should result in the recovery of otherwise unrecoverable oil from this portion of the field, thereby preventing waste.

(14) The United States Bureau of Land Management (USBLM) has approved the applicant's proposed cooperative Federal lease pressure maintenance project.

(15) The pressure maintenance project area should be limited to the SE/4 of Section 34 and the SW/4 of Section 35.

(16) The injection of water into the proposed injection wells should be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each well should be filled with an inert fluid and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(17) Prior to commencing injection operations into the subject wells, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(18) The injection wells or pressurization system should be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 1881 psi.

(19) The Division Director should have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(20) The operator should give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(21) The proposed pressure maintenance project should be approved and the project should be governed by the provisions of Rule Nos. 701 through 708 of the Oil Conservation Division Rules and Regulations.

(22) The project allowable should be equal to top unit allowable for the Teague (Simpson) Pool (275 barrels of oil per day) times the number of developed (production or injection) proration units within the project area. Unless additional producing or injection wells are drilled within the project area, the allowable should be established at 1,375 barrels of oil per day.

(23) The transfer of allowable between wells within the project area should be permitted.

(24) The injection authority granted herein for the wells described in Finding No. (2) above should terminate one year after the effective date of this order if the operator has not commenced injection operations into these wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(25) The applicant further requested that the subject pressure maintenance project be approved by the Division as a qualified "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(26) The evidence presented indicates that the subject pressure maintenance project meets all the criteria for approval.

(27) The approved "project area" should initially comprise the SE/4 of Section 34 and the SW/4 of Section 35.

(28) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(29) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the applicant must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Plains Petroleum Company, is hereby authorized to institute a cooperative pressure maintenance project on portions of its E. C. Hill "B" Federal and Baylus Cade Federal Leases, said project area to comprise the SE/4 of Section 34 and the SW/4 of Section 35, both in Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, by the injection of water into the McKee formation of the Teague (Simpson) Pool through the gross interval from approximately 9,408 feet to 9,641 feet in the following described wells which will be converted to injection:

WELL NAME	WELL LOCATION
Baylus Cade Federal No. 5	985' FSL & 1650' FWL (N) 35-23S-37E
E.C. Hill "B" Federal No. 13	Surface Location 947' FSL & 1361' FEL (O) 34-23S-37E Bottomhole Location 1120' FSL & 1380' FEL (O) 34-23S-37E

(2) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(3) The injection of water into the above-described injection wells shall be accomplished through 2 3/8 inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforations; the casing-tubing annulus in each well shall be filled with an inert fluid and a gauge or approved leak-detection device shall be attached to the annulus in order to determine leakage in the casing, tubing or packer.

(4) Prior to commencing injection operations into the subject wells, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth, to assure the integrity of such casing.

(5) The injection wells or pressurization system shall be initially equipped with a pressure control device or acceptable substitute which will limit the surface injection pressure to no more than 1881 psi.

(6) The Division Director shall have the authority to administratively authorize a pressure limitation in excess of the pressure limitation described above upon a showing by the operator that such higher pressure will not result in the fracturing of the injection formation or confining strata.

(7) The operator shall give advance notification to the supervisor of the Hobbs District Office of the Division of the date and time of the installation of injection equipment and of the mechanical integrity pressure tests in order that the same may be witnessed.

(8) The operator shall immediately notify the supervisor of the Hobbs District Office of the Division of the failure of the tubing, casing or packer in any of the injection wells, the leakage of water, oil or gas from or around any producing well, or the leakage of water, oil or gas from any plugged and abandoned well within the project area, and shall take such steps as may be timely and necessary to correct such failure or leakage.

(9) The subject pressure maintenance project is hereby designated the Hill-Cayless McKee Pressure Maintenance Project, and the operator shall conduct injection operations in accordance with Division Rule Nos. 701 through 708 and shall submit monthly progress reports in accordance with Division Rule Nos. 706 and 1115.

(10) The project allowable shall be equal to top unit allowable for the Teague (Simpson) Pool (275 barrels of oil per day) times the number of developed (production or injection) proration units within the project area. Unless additional producing or injection wells are drilled within the project area, the allowable shall be established at 1,375 barrels of oil per day.

(11) The transfer of allowable between wells within the project area shall be permitted.

(12) The subject pressure maintenance project is hereby approved as an "Enhanced Oil Recovery Project" pursuant to the "Enhanced Oil Recovery Act" (Laws 1992, Chapter 38, Sections 1 through 5).

(13) The approved "project area" shall initially comprise the SE/4 of Section 34 and the SW/4 of Section 35, Township 23 South, Range 37 East.

(14) To be eligible for the EOR credit, prior to commencing injection operations, the operator must request from the Division a Certificate of Qualification, which certificate will specify the proposed project area as described above.

(15) At such time as a positive production response occurs and within five years from the date of the Certificate of Qualification, the operator must apply to the Division for certification of positive production response, which application shall identify the area actually benefitting from enhanced recovery operations, and identifying the specific wells which the operator believes are eligible for the credit. The Division may review the application administratively or set it for hearing. Based upon evidence presented, the Division will certify to The Department of Taxation and Revenue those lands and wells which are eligible for the credit.

(16) The injection authority granted herein for the injection wells described in Finding No. (2) shall terminate one year after the effective date of this order if the operator has not commenced injection operations into these wells, provided however, the Division, upon written request by the operator, may grant an extension thereof for good cause shown.

(17) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LeMAY
Director

S E A L

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11276
Order No. R-10370

APPLICATION OF PLAINS PETROLEUM OPERATING CORPORATION FOR DIRECTIONAL DRILLING AND AN UNORTHODOX BOTTOMHOLE OIL WELL LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on May 4, 1995, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 16th day of May, 1995, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Plains Petroleum Operating Corporation, seeks authority to directionally drill its E. C. Hill "B" Federal Well No. 13 from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of Section 34, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, to an unorthodox bottomhole oil well location that is within 50 feet of a point 1120 feet from the South line and 1380 feet from the East line (Unit O) of Section 34 to test the Teague-Simpson Pool.

(3) The SW/4 SE/4 of Section 34 is to be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit for the Teague-Simpson Pool.

(4) Case No. 11276 was styled such that in the absence of objection, the case would be taken under advisement. No party appeared in opposition to the application.

(5) The subject well is located within the Teague-Simpson Pool which is currently governed by Statewide Rules and Regulations which require standard 40-acre oil spacing and proration units with wells to be located no closer than 330 feet from the outer boundary of the spacing unit.

(6) The applicant supplied geologic evidence in this case based upon 3-D seismic data and well control.

(7) The geologic evidence in this case indicates that:

a) the proposed E. C. Hill "B" Federal Well No. 13 was originally staked at a standard location 985 feet from the South line and 1570 feet from the East line of Section 34, however, applicant's geologic evidence indicated that this location was in close proximity to a northwest to southeast trending fault which traversed the SW/4 SE/4;

b) only a portion of the NE/4 of the spacing unit is located on the upthrown side of the fault;

c) although not conclusively determined, applicant believes that the reservoir may be structurally low and wet on the downthrown side of the fault; and,

d) a well at the proposed unorthodox bottomhole location should encounter the Mckee formation within the Teague-Simpson Pool on the upthrown side of the aforesaid fault and at a more structurally advantageous position than a well drilled at a standard location thereon, thereby increasing the likelihood of obtaining commercial oil production.

(8) The evidence further indicates that the proposed directional drilling is necessitated by topographic considerations, namely the presence of a gas pipeline.

(9) The affected offset acreage, being the N/2 SE/4 and SE/4 SE/4 of Section 34, is currently operated by Plains Petroleum Operating Company.

(10) No other offset interest owner and/or interest owner appeared at the hearing in opposition to the application.

(11) Approval of the proposed directional drilling and unorthodox bottomhole oil well location will afford the applicant the opportunity to produce its just and equitable share of the oil in the affected pool, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste and protect correlative rights.

(12) The applicant should be required to determine the subsurface location of the kick-off point in the wellbore prior to directional drilling and should be required to conduct a directional survey during or upon completion of directional drilling operations in order to determine the bottomhole location.

(13) The applicant should be required to submit copies of the directional surveys conducted on the subject well to the Santa Fe and Hobbs offices of the Division.

(14) The applicant should notify the supervisor of the Hobbs district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the subject well in order that these operations may be witnessed.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Plains Petroleum Operating Corporation, is hereby authorized to directionally drill its E. C. Hill "B" Federal Well No. 13 from a surface location 947 feet from the South line and 1361 feet from the East line (Unit O) of Section 34, Township 23 South, Range 37 East, NMPM, Lea County, New Mexico, to an unorthodox bottomhole oil well location that is within 50 feet of a point 1120 feet from the South line and 1380 feet from the East line (Unit O) of Section 34 to test the Teague-Simpson Pool.

(2) The SW/4 SE/4 of Section 34 shall be dedicated to the subject well forming a standard 40-acre oil spacing and proration unit for the Teague-Simpson Pool.

(3) The applicant shall determine the subsurface location of the kick-off point in the wellbore prior to directional drilling and shall conduct a directional survey during or upon completion of directional drilling operations in order to determine the bottomhole location.

(4) The applicant shall submit copies of the directional surveys conducted on the subject well to the Santa Fe and Hobbs offices of the Division.

(5) The applicant shall notify the supervisor of the Hobbs district office of the Division of the date and time of commencement of directional drilling operations and of the conductance of any directional surveys on the subject well in order that these operations may be witnessed.

(6) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

WILLIAM J. LEMAY
Director

S E A L

CMD : ONGARD 11/22/96 08:39:37
OG6CLOG C105-WELL COMPLETION OR RECOMP CASING LOG OGOMES -EMFO

OGRID Identifier : 17805 PLAINS PETROLEUM OPER CO
Prop Identifier : 9276 BAYLUS CADE FEDERAL
API Well Identifier : 30 25 33649 Well No : 007
Surface Locn - UL : L Sec : 35 Twp : 23S Range : 37E Lot Idn :
Multple comp (S/M/C): S TVD Depth (Feet) : MVD Depth (Feet):
Spud Date : P/A Date :
Casing/Linear Record:

S	Size (inches)	Grade	Weight (lb/ft)	Depth(ft) Top-Liner	Depth(ft) Bot-Liner	Hole Size (inches)	Cement (Sacks)	TOC (feet)	Code

E0004: No matching record found. Enter data to create.

PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 COMMENT PF10 TLOG PF11 PF12

CMD : ONGARD 11/22/96 08:39:46
OG6C101 C101-APPLICATION FOR PERMIT TO DRILL OGOMES -EMFO

OGRID Idn : 17805 API Well No: 30 25 33649 APD Status(A/C/P): A
Opr Name, Addr: PLAINS PETROLEUM OPER CO Aprvl/Cncl Date : 10-25-1996
415 W WALL STE 1000
MIDLAND,TX 79701

Prop Idn: 9276 BAYLUS CADE FEDERAL Well No: 7

	U/L	Sec	Township	Range	Lot Idn	North/South	East/West
Surface Locn :	L	35	23S	37E		FTG 1890 F S	FTG 360 F W
OCD U/L :	L	API County :	25				

Work typ(N/E/D/P/A) : N Well typ(O/G/M/I/S/W/C): O Cable/Rotary (C/R) : R
Lease typ(F/S/P/N/J/U/I): F Ground Level Elevation : 3253

State Lease No: Multiple Comp (Y/N) : S
Prpsd Depth : 9700 Prpsd Frmtn : SIMPSON

E0009: Enter data to modify record
PF01 HELP PF02 PF03 EXIT PF04 GoTo PF05 PF06 CONFIRM
PF07 PF08 PF09 PRINT PF10 C102 PF11 HISTORY PF12