N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

Form 3160-3
(April 2004)

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NM-90947

6. If Indian, Allotee or Tribe Name: ----------

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: ----------

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: "1625" FEDERAL COM. # 301

2. Name of Operator: **Perenco LLC**

9. API Well No.: 30-015-33827

3a. Address: **6 Desta Drive, Suite 6800, Midland, TX 79705**

3b. Phone No. *(include area code)*: **(432) 682 8553**

10. Field and Pool, or Exploratory: **Wildcat Cottonwood Creek Abo E.**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: 510 ~~660~~ FNL & 1940 FEL unit letter B per SN dated 11-29-04 attached

At proposed prod. zone: **Bottom Hole Location : 660 FSL & 1940 FEL unit Letter O**

11. Sec., T. R. M. or Blk. and Survey or Area: **Sec 30, T-16-S, R-25-E**

14. Distance in miles and direction from nearest town or post office*: **4 miles NW of Artesia**

SUBJECT TO LIKE APPROVAL BY STATE

12. County or Parish: **Eddy**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): **660 ft**

16. No. of acres in lease: **320**

17. Spacing Unit dedicated to this well: **320 acres**

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: **1 mile**

19. Proposed Depth: **5500'**

20. BLM/BIA Bond No. on file: **NMB000094**

RECEIVED
JAN 14 2005
OCD-ARTESIA

21. Elevations (Show whether DF, KDB, RT, GL, etc.): **3558 GL**

22. Approximate date work will start*: **10/01/2004**

23. Estimated duration: **1 month**

24. Attachments — Keerroll Controlled Water Basin

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature: Stephen Howe — Name *(Printed Typed)*: **Stephen Howe** — Date: **08/06/2004**

Title: **Petroleum Engineer**

Approved by *(Signature)*: **/s/ Joe G. Lara** — Name *(Printed Typed)*: **/s/ Joe G. Lara** — Date: JAN 13 2005

Title: ACTING FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

**(Instructions on page 2)*

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0135
Expires November 30, 2000

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5. Lease Serial No.
NM-90947

6. If Indian, Allottee or Tribe Name
---

7. If Unit or CA/Agreement, Name and/or No.
---

1. Type of Well
☐ Oil Well ☒ Gas Well ☐ Other

8. Well Name and No.
1625 FEDERAL COM. # 301

2. Name of Operator
PERENCO LLC. (FRANK NIX 432-682-0949)

9. API Well No.

3a. Address
6 DESTA DRIVE SUITE 6800 MIDLAND TEXAS 79705

3b. Phone No. *(include area code)*
432-682-0949

10. Field and Pool, or Exploratory Area
WILDCAT COTTON WOOD CREEK

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
SURFACE LOCATION . 510' FNL & 1940' FEL SEC. 30 T16S-R25E
BOTTOM HOLE LOCATION 660' FSL & 1940' FEL SEC. 30 T16S-R25E

11. County or Parish, State
EDDY CO. NEW MEXICO

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other Move location
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

1. Perenco LLC. requests the approval to move the location of their "1625 FEDERAL COM # 301 From: 660' FNL & 1940' FEL SEC. 30 T16S-R25E EDDY CO. NM
To: 510' FNL & 1940' FEL SEC. 30 T16S-R25E EDDY CO. NM

2. The reason for this request is to move North away from a gas pipeline that was too close to the original location.

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Joe T. Janica — Title Agent

Signature Joe T Janica — Date 11/29/04

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Joe G. Lara ACTING — Title FIELD MANAGER — Date JAN 13 2005

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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
1625 N. French Dr., Hobbs, NM 88240

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

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised September 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		WILDCAT COTTONWOOD CREEK ABO EAST

Property Code	Property Name	Well Number
	"1625" FEDERAL COM.	301

OGRID No.	Operator Name	Elevation
218885	PERENCO, LLC	3582'

Surface Location

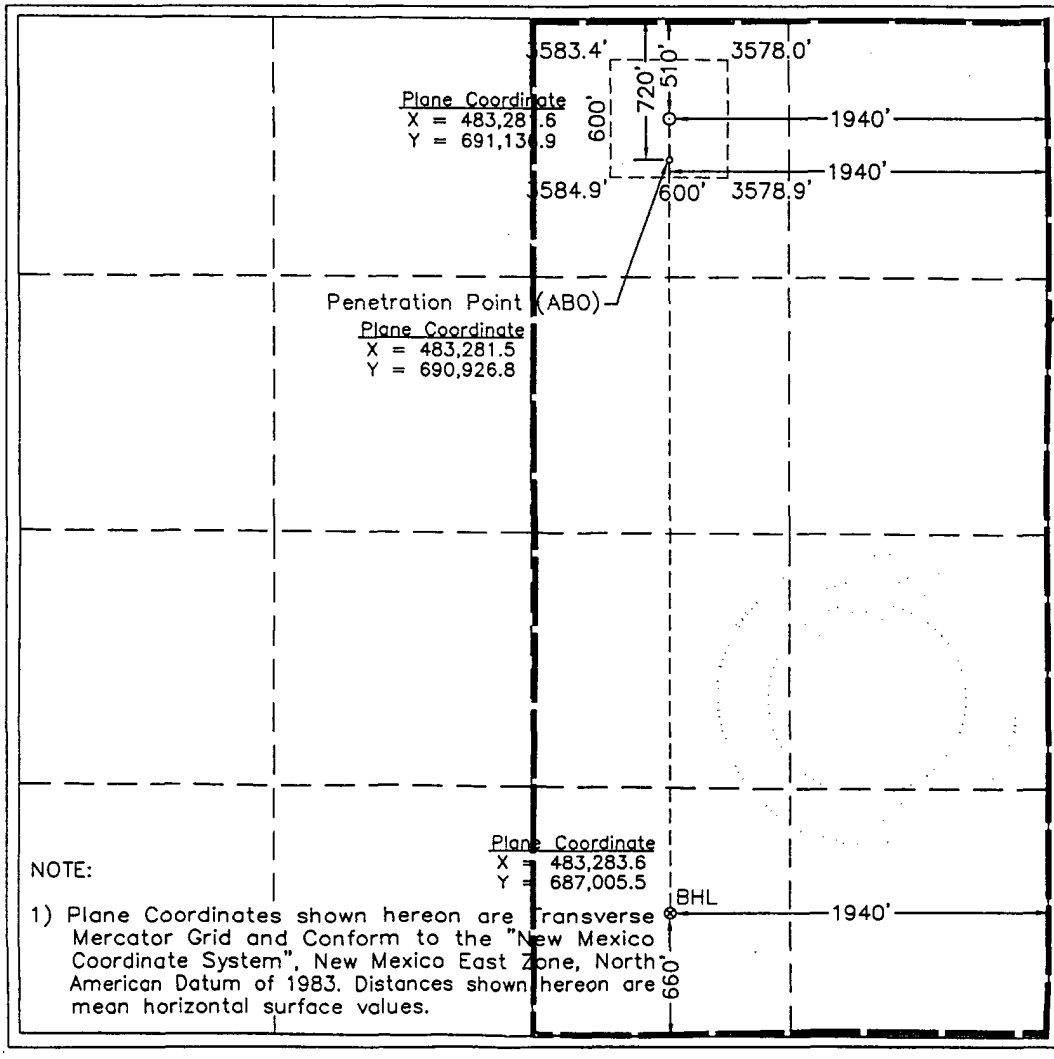
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	30	16 S	25 E		510	NORTH	1940	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	30	16 S	25 E		660	SOUTH	1940	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1983. Distances shown hereon are mean horizontal surface values.

OPERATOR CERTIFICATION

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

Signature

Joe T. Janica

Printed Name

Agent

Title

11/29/04

Date

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 upervison and that the same is true and orrect to the best of my belief.

September 23, 2004

Date Surveyed JSR

Signature & Seal of Professional Surveyor

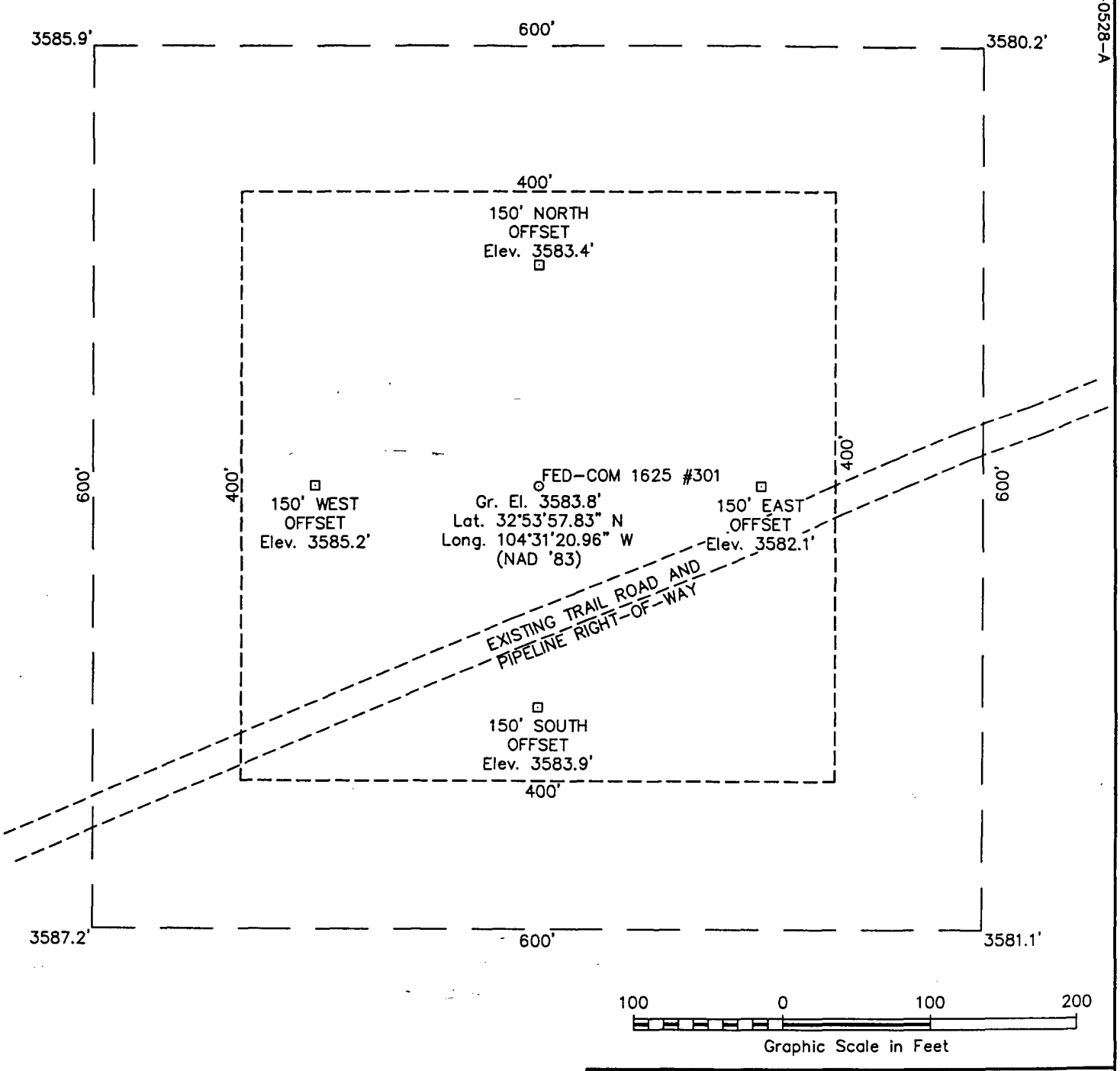
W.O. Num. 2004-0674

Certificate No. MACON McDONALD 12185

SECTION 30, TOWNSHIP 16 SOUTH, RANGE 25 EAST, N.M.P.M.

EDDY COUNTY NEW MEXICO

L-2004-0528-A



DRIVING DIRECTIONS

FROM THE INTERSECTION OF U.S. HIGHWAY 82 AND A CALICHE LEASE ROAD ABOUT 5 MILES WEST OF ARTESIA, NM GO NORTH ON SAID LEASE ROAD 1.0 MILE TO A TWO-TRACK ROAD, THEN CONTINUE NORTH ON TWO-TRACK ROAD 3.5 MILES TO ANOTHER TWO-TRACK ROAD ON WEST SIDE OF ROAD. THEN GO SOUTHWEST ON SAID TWO-TRACK ROAD 1.4 MILES TO A POINT ON EAST LINE OF THE WELL PAD FOR PROPOSED LOCATION.

PERENCO, LLC

"1625" FEDERAL COM. # 301

Located 660' FNL & 1940' FEL, Section 30
Township 16 South, Range 25 East, N.M.P.M.
Eddy County, New Mexico

Drawn By: LVA	Date: August 9, 2004
Scale: 1"=100'	Field Book: 287 / 5-8
Revision Date:	Quadrangle: Hope NE
W.O. No: 2004-0528	Dwg. No.: L-2004-0528-A

WEST COMPANY of Midland, Inc.

110 W. LOUISIANA, STE. 110
MIDLAND TEXAS, 79701
(432) 687-0865 - (432) 687-0868 FAX

Drilling Program: "1625" FEDERAL COM. # 301

Objectives

Drill vertically to ~5500' TD and then drill laterally to test the lower Abo formation for hydrocarbons.

Location

Surface Location
Section: 30 *Township:* 16 *Range:* 25 *FNL:* 660 *FEL:* 1940
Bottom Hole Location
Section: 30 *Township:* 16 *Range:* 25 *FSL:* 660 *FEL:* 1940
Elevation
3558'

Estimated Days to Completion

30 days drilling
30 days testing and completion

Geology

Estimated Tops of Important Geological Markers

Chalk Bluff	0-200'
San Andres	530'
Glorieta	1670'
Tubb	3,155'
Abo	3,825'
Wolfcamp	4,940'
TD	5,500'

Estimated Depths of Anticipated Fresh Water and Protential Hydrocarbon Producing Zones

Quanternary Alluvium	0-200'	Fresh Water
San Andres	750'	Oil
Glorieta	1,885'	Oil/Gas
Tubb	3,370'	Oil/Gas
Abo Pay	5,080'	Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13-3/8" casing at 350' and circulating cement back to surface, and 9-5/8" casing will be set at 1200' with cement circulated back to surface.

Drilling Information

H2S
No hydrogen sulfide or other hazardous gasses or fluids have been encountered, reported or are known to exist at this depth in this area.

Shallow Gas
No shallow accumulations of have been encountered, reported or are known to exist at this depth in this area.

Lost Circulation
No major lost circulation zones have been reported in offsetting wells. However in the wider area around the well site, minor lost circulation events have been experienced between 171- 730' and at 4670'.

Conditions at TD
The estimated bottom hole temperature (BHT) at TD is 110 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 2500 psig.

Data Acquisition Program

Mud logging program as specified by staff geologist.

Electric logging program will consist of:
- GR-Dual Laterlog-MSFL 1100' to TD
- GR-Compensated Density-Neutron from 1100' to TD
- GR-Compensated Neutron run from Surface to 1100'

No cores are planned.

Well Control

Minimum Specifications for Pressure Control (See exhibit 1)
The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (2000 psi WP) preventer and an annular preventer (2000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested in accordance with Onshore Oil & Gas order No. 2. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 2000/1000 psi and the annular to 2000 psig pressure.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

Auxiliary Well Control and Monitoring Equipment
A kelly cock will be kept in the drill string at all times.

A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

A mud-logging unit will be continuously monitoring drilling penetration rate and hydrocarbon shows from 1100' to TD of Horizontal Lateral.

Drilling Program

1. **Surface-350'**
   - 1.1 MIRU
   - 1.2 P/U 17.5" bit and surface BHA, drill to 350'

Surface BHA		Mud Characteristics	
1 x Drill Bit	17.5"	Mud Weight	8.4
1 x Bit Sub	8"	Viscosity	28
1 x Crossover	8"	pH	11
1 x Shock absorber	8"	Other	
8 x Collar	8"		

   - 1.3 Circulate high-viscosity sweep
   - 1.4 POOH and RIH 13-3/8 surface casing to 350'.

Size	13-38"	Cement	Class C + 2% CaCl
Specification	40# N-80 (LT&C)	# Sacks	450
# Joints	8	Estimated TOC	Surface

1.5 Cement and circulate to surface
1.6 Cut off casing and weld on 13-3/8" casing head
1.7 NU spacer spool, flowlines, and annular BOP
1.8 Per NM regs, wait until lower 20% of cement has reached a compressive strength of 500 psi, at least 8 hours.

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2. 350'- 1100'

2.1 P/U 12-1/4 bit and intermediate BHA. RIH to TOC. Tag and note depth.

Intermediate BHA		Mud Characteristics	
1 x Drill Bit	12-1/2"	Mud Weight	8.4
1 x Shock absorber	8"	Viscosity	28
2 Drill Collar	8"	pH	11
1 x IB Stabilizer	12-1/4	Other	
1 x Collar	8"		
1 x IB Stabilizer	12-1/4"		
5 x Collar	8"		
1 x Cross Over	8"		
23 x Collar	6-1/4"		

2.2 Pressure test casing to at least 600 psi
2.3 Drill out plug and cement.
2.4 Drill ahead to 1200'
2.5 Circulate high-viscosity sweep
2.6 POOH and lay down 12-1/2 BHA
2.7 P/U and RIH 9-5/8 intermediate casing to 1200'

Size	9-5/8"	Cement	Class C + 5% CaCl + 5% NaCl + 6% Bentonite + 0.25 lb/sk celloflake
Specification	40# N-80 (LT&C)	# Sacks	375 + 100 tail
# Joints	27	Estimated TOC	Surface

2.8 Cement and circulate to surface
2.9 Install 9-5" casing head
2.10 NU spacer spool, flow lines, and annular BOP
2.11 Test BOP to 2000 psi, annular to 1500 psi

3. *1200 - 5500'*

3.1 P/U 8-3/4" bit and production string BHA. RIH, tag and note TOC

3.2 Drill through cement and plug. Continue to 5500' (TD to be finalized by geologist)

BHA		Mud Characteristics	
1 x Drill Bit	8-3/4"	Mud Weight	9.3
1 x Tri Collar	8-3/4"	Viscosity	28
2 x Drill Collar	6-1/4"	pH	11
1 x IBS	8-3/4"	Other	
26 x Collar	6-1/4"		

3.3 At TD, circulate to clean hole

3.4 Spot high-viscosity mud on bottom. POOH

3.5 Run triple combo log (GR-Dual Laterlog-MSFL and GR-Compensated Density-Neutron)

3.6 P/U and RIH 7" Production Casing

Size	7"	Cement	Class C + 5% NaCl + 10% Bentonite + 0.25 lb/sk celloflake
Specification	26# L80 (LT&C)	# Sacks	500 + 170 tail
# Joints	120	Estimated TOC	900'

3.7 Cement, circulate TOC to 1000' (200' overlap with intermediate casing)

3.8 Install 7" casing head

3.9 NU spacer spool, flow lines, and annular BOP

3.10 Run Cement Bond Log

---

4. *Lateral Section*

4.1 Run cast iron bridge plug on wireline to 4615 ft

4.2 RIH with whipstock assembly

4.3 RIH with wireline to check orientation: 180° (south)

4.4 Set whipstock and shear off. POOH W/S setting string

4.5 RIH with window mill, cut window between 4598' and 4606' including 8 ft of formation to create rat hole

4.6 Circulate high viscosity sweep

4.7 P/U and RIH Lateral section BHA, drill and kickoff to west, building angle at 23°/100ft degrees until 90° is reached.

Lateral Section BHA		Mud Characteristics	
Bit	6-1/8	Mud Weight	8.4
Motor (2.5 Deg)	4-3/4	Viscosity	28
Float Sub	4-11/16	pH	11
UBHO	4-5/8	Other	
Monel Collar	4-3/4		
Monel Collar	4-11/16		

4.8 Drill and slide horizontal section to 8927' MD (4860' TVD)
4.9 At TD circulate to clean hole
4.10 Spot slider fluid
4.11 POOH

---

5. Completion

5.1 RIH with 105 joints pre-perforated 11.6# L080 (ULTFS) 4.5" liner and packer hanger.
5.2 Set hanger at 4510 ft.
5.3 POOH
5.4 Nipple Down BOPs
5.5 R/D and release drilling rig

---

6. Stimulation

6.1 RU Stinger's Casing Saver
6.2 RU Acid truck
6.3 Test lines to 7500 psi
6.4 Load well with 40 bbls water
6.5 Pump 65,000 bbls 15% NEFE HCL at 100 bbls/min
6.6 Flush with 245 bbls slick water

Mud Program - Summary

The well will be drilled to TD with a Fresh Water /gel mud system. The applicable depths and properties of this system are as follows:

Depth	Type	(PPG) Wt(sec)	Viscosity	Water loss(cc)
0-1200	Fresh Water (Spud Mud)	8.5	28	N.C.
1200-5500'	F. Water Gelled System	9.3	28-30	N.C.
KOP - TD	Fresh Water w/ Polymer Sweeps	8.4-8.6	28	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

Casing & Cementing Program - Summary

Casing

Hole Size	Interval	OD Casing	Weight Grade Jt.
17-1/2"	0-350'	13-3/8"	48# H-40 ST&C
12-1/4"	0-1200'	9-5/8"	40# N-80 LT&C
8-3/4"	0-5500'	7"	26# J-55 LT&C
6-1/8"	4850-9000'	4-1/2"	11.35# N-80 HDL

Cement

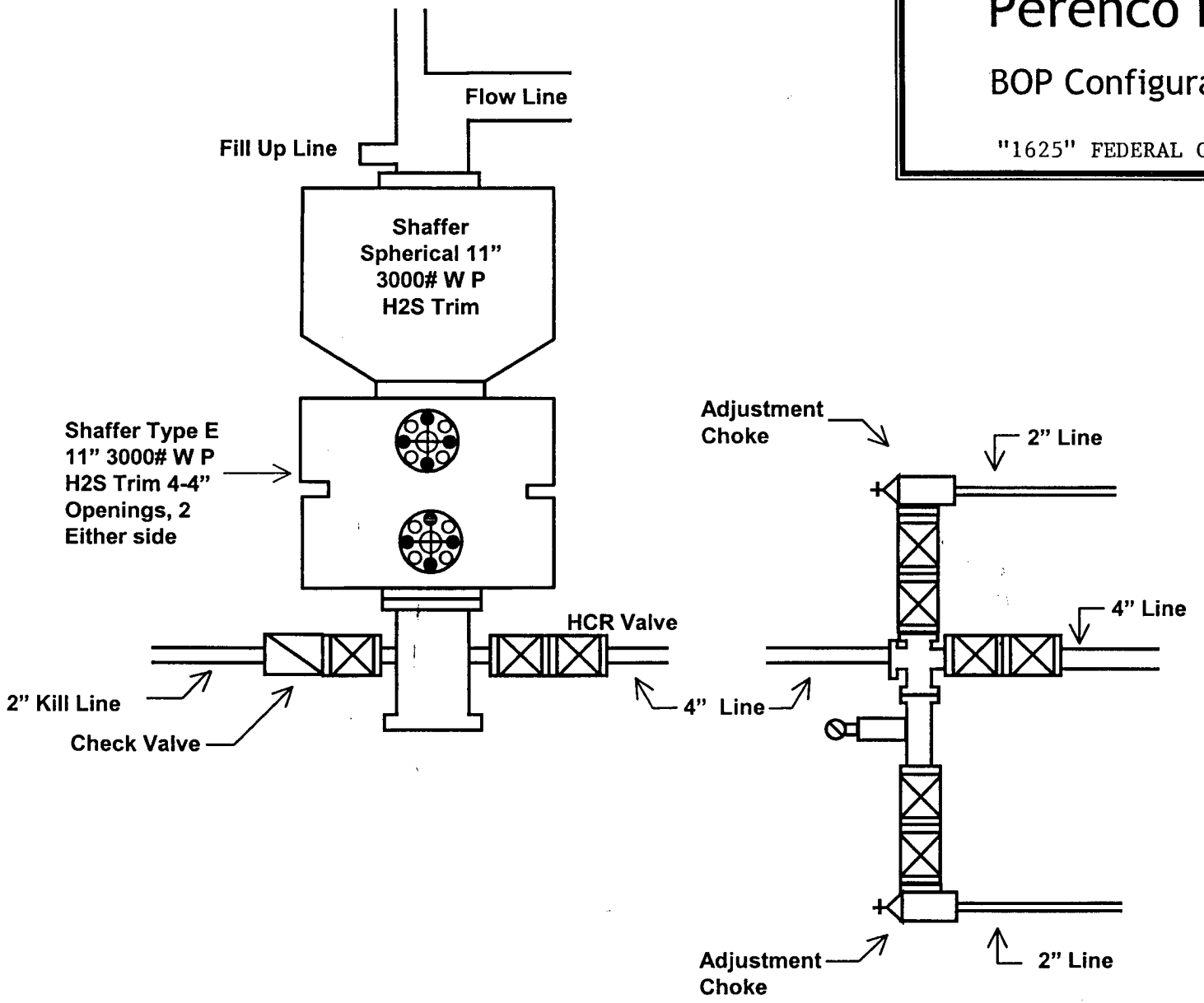
17-1/2" Surface Casing	Cement to surface with 450 sx Class C w/ 2% CaCl
9-5/8" Intermediate	Cement to surface. Lead with 375 sx 65/35 Class C Poz + 5% NaCl + .25#/sk Celloflake + 6% Bentonite. Tail with 100 sx C + 2% CaCl
7" Production	Cement w/ Lead 500 sx 50/50 Class C Poz + 5% NaCl + 10% gel. Tail w/ 170 sx Class C
4-1/2" slotted liner	Will not be cemented

Exhibit 1

Perenco LLC

BOP Configuration

"1625" FEDERAL COM. # 301



ATTACHMENT TO EXHIBIT #1

1) Blow out preventer and all fittings must be in good condition, 2000 psi W.P. minimum.

2) Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi W.P. minimum.

3) All choke and fill lines to be securely anchored especially ends of choke lines.

4) Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.

5) Kelly cock on kelly.

6) Extension wrenches and hand wheels to be properly installed.

7) Blow out preventer control to be located as close to driller's position as feasible.

8) Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

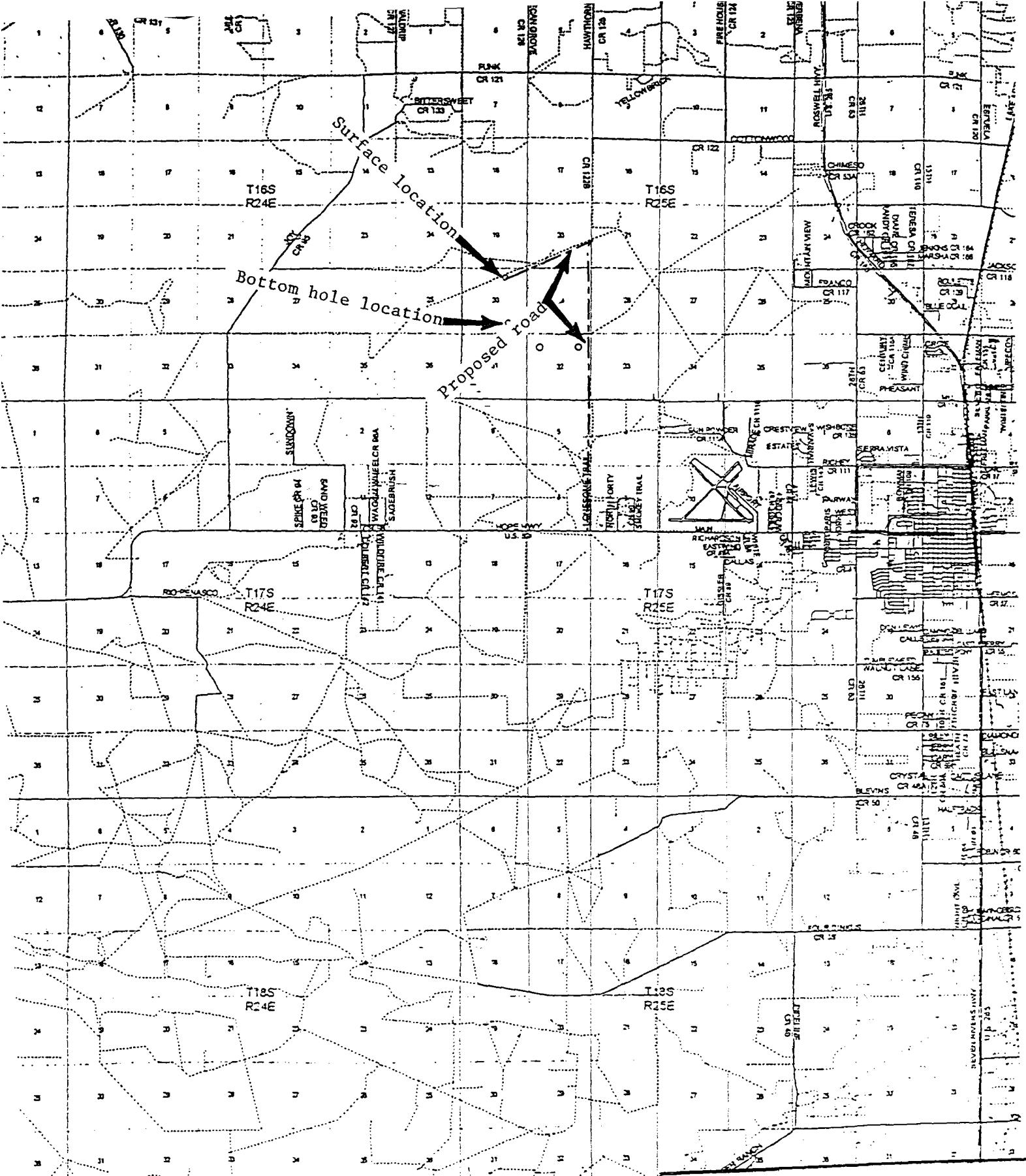


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

PERENCO, LLC.
"1625" FEDERAL COM. # 301
UNIT "B" SECTION 30
T16S-R25E EDDY CO. NM

Perenco LLC
"1625" FEDERAL COM.
301
Eddy Co, NM
Proposed Drill Site

EXHIBIT "D"
RIG LAY OUT PLAT

PERENCO, LLC.
"1625" FEDERAL COM. # 301
UNIT "B" SECTION 30
T16S-R25E EDDY CO. NM

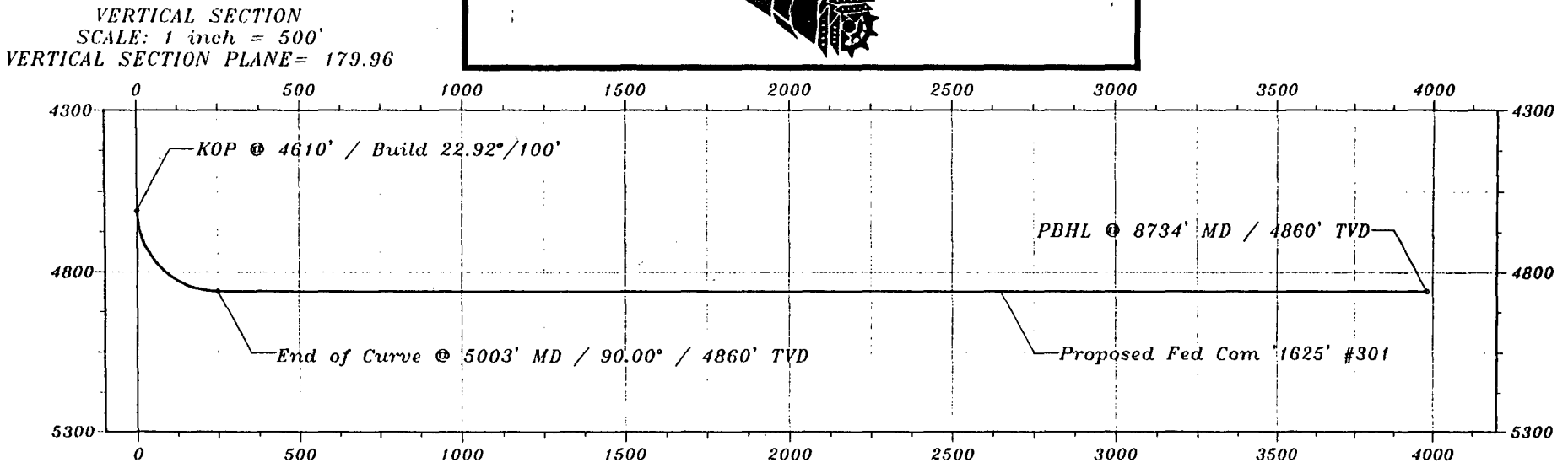
Perenco, Inc.

"1625" FEDERAL COM. # 301

Eddy County, New Mexico

Proposal 04-217

THE DIRECTIONAL DRILLING COMPANY



THE DIRECTIONAL DRILLING COMPANY

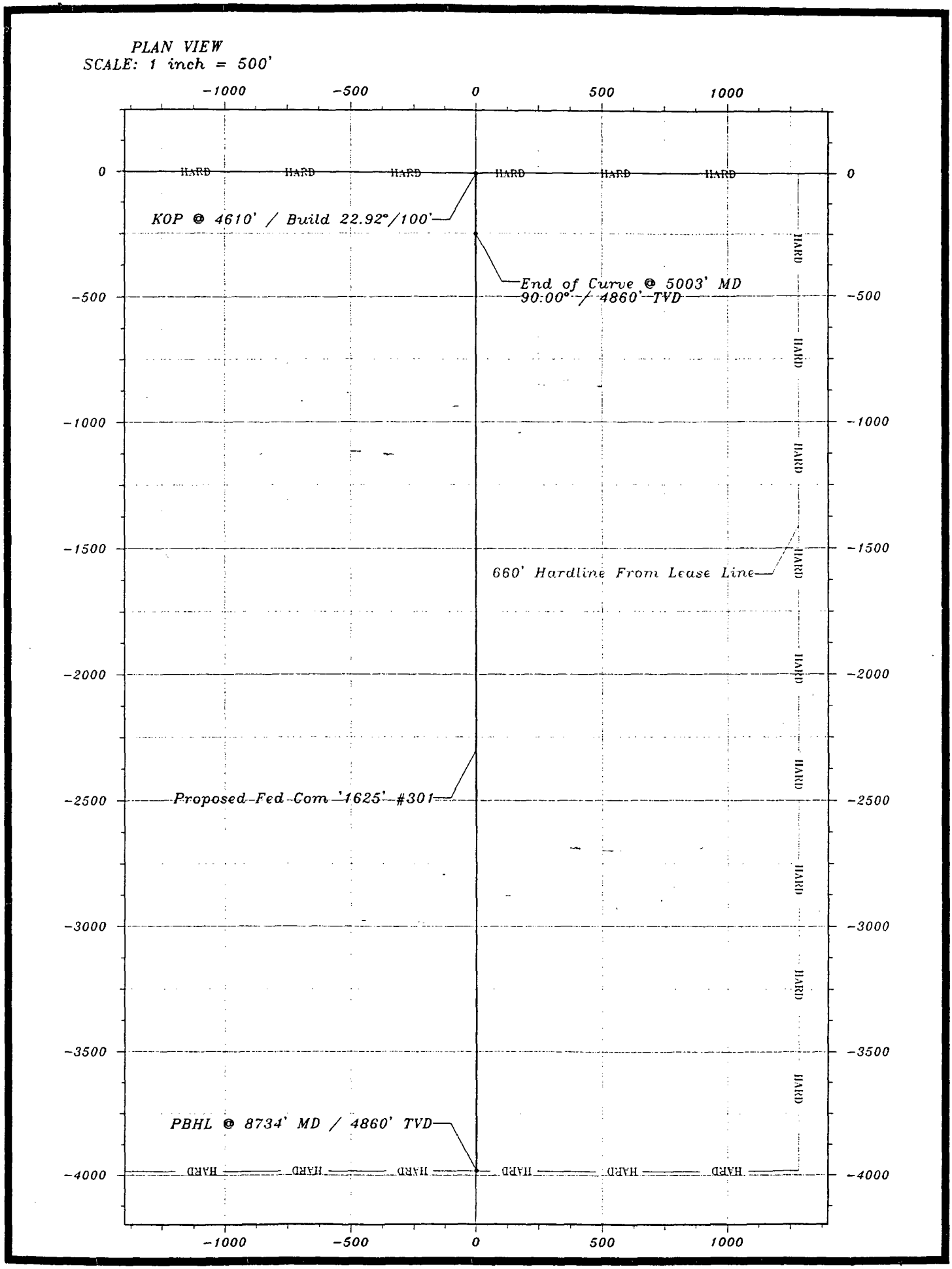
Job Number: Proposal 04-217
Company: Perenco, Inc.
Lease/Well: "1625" FEDERAL COM
Location: Eddy County
Rig Name:
RKB:
G.L. or M.S.L.: 3558'

State/Country: New Mexico / USA
Declination:
Grid:
File name: A:\04-217\04-217.SVY
Date/Time: 01-Sep-04 / 15:21
Curve Name: Proposed Fed Com '1625' #301 (r0)

WINSERVE SURVEY CALCULATIONS
Minimum Curvature Method
Vertical Section Plane 179.96
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	CLOSURE Distance FT	CLOSURE Direction Deg	Grid X FT	Grid Y FT
KOP @ 4610' / Build 22.92°/100'											
4610.00	.00	179.99	4610.00	.00	.00	.00	.00	.00	.00	.00	.00
4640.00	6.88	179.96	4639.93	-1.80	.00	1.80	22.92	1.80	179.96	.00	-1.80
4670.00	13.75	179.96	4669.43	-7.17	.00	7.17	22.92	7.17	179.96	.00	-7.17
4700.00	20.63	179.96	4698.07	-16.03	.01	16.03	22.92	16.03	179.96	.01	-16.03
4730.00	27.50	179.96	4725.44	-28.25	.02	28.25	22.92	28.25	179.96	.02	-28.25
4760.00	34.38	179.96	4751.16	-43.67	.03	43.67	22.92	43.67	179.96	.03	-43.67
4790.00	41.25	179.96	4774.85	-62.05	.04	62.05	22.92	62.05	179.96	.04	-62.05
4820.00	48.13	179.96	4796.16	-83.13	.06	83.13	22.92	83.13	179.96	.06	-83.13
4850.00	55.00	179.96	4814.80	-106.62	.07	106.62	22.92	106.62	179.96	.07	-106.62
4880.00	61.88	179.96	4830.49	-132.17	.09	132.17	22.92	132.17	179.96	.09	-132.17
4910.00	68.75	179.96	4843.01	-159.41	.11	159.41	22.92	159.41	179.96	.11	-159.41
4940.00	75.63	179.96	4852.18	-187.95	.13	187.95	22.92	187.95	179.96	.13	-187.95
4970.00	82.50	179.96	4857.87	-217.39	.15	217.39	22.92	217.39	179.96	.15	-217.39
5000.00	89.38	179.96	4859.99	-247.30	.17	247.30	22.92	247.30	179.96	.17	-247.30
End of Curve @ 5003' MD / 90.00° / 4860' TVD											
5002.70	90.00	179.96	4860.00	-250.00	.17	250.00	22.92	250.00	179.96	.17	-250.00
5402.70	90.00	179.96	4860.00	-650.00	.44	650.00	.00	650.00	179.96	.44	-650.00
5802.70	90.00	179.96	4860.00	-1050.00	.71	1050.00	.00	1050.00	179.96	.71	-1050.00
6202.70	90.00	179.96	4860.00	-1450.00	.98	1450.00	.00	1450.00	179.96	.98	-1450.00
6602.70	90.00	179.96	4860.00	-1850.00	1.25	1850.00	.00	1850.00	179.96	1.25	-1850.00

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	Dogleg Severity Deg/100	CLOSURE Distance FT	CLOSURE Direction Deg	Grid X FT	Grid Y FT
7002.70	90.00	179.96	4860.00	-2250.00	1.53	2250.00	.00	2250.00	179.96	1.53	-2250.00
7402.70	90.00	179.96	4860.00	-2650.00	1.80	2650.00	.00	2650.00	179.96	1.80	-2650.00
7802.70	90.00	179.96	4860.00	-3050.00	2.07	3050.00	.00	3050.00	179.96	2.07	-3050.00
8202.70	90.00	179.96	4860.00	-3450.00	2.34	3450.00	.00	3450.00	179.96	2.34	-3450.00
8602.70	90.00	179.96	4860.00	-3850.00	2.61	3850.00	.00	3850.00	179.96	2.61	-3850.00
PBHL @ 8734' MD / 4860' TVD											
8733.80	90.00	179.96	4860.00	-3981.10	2.70	3981.10	.00	3981.10	179.96	2.70	-3981.10


PLAN VIEW
SCALE: 1 inch = 500'
-1000
-500
0
500
1000
0
-500
-1000
-1500
-2000
-2500
-3000
-3500
-4000
HARD
KOP @ 4610' / Build 22.92°/100'
End of Curve @ 5003' MD
90.00° / 4860' TVD
660' Hardline From Lease Line
Proposed Fed Com '1625' #301
PBHL @ 8734' MD / 4860' TVD

WELL : "1625" FEDERAL COM. # 301
FIELD : Wildcat Abo (Gas)
CATEGORY : Horizontal Well
STATE : New Mexico
COUNTY : Eddy
SURFACE LOCATION : Section: 30 Township: 16 Range: 25, FNL: 660 FEL: 1940
BOTTOM HOLE LOCATION : Section: 30 Township: 16 Range: 25, FSL: 660 FEL: 1940
ELEVATION : 3558'