

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. SF-078047
1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator CONOCO INC. Contact: VICKI WESTBY E-Mail: Vicki.R.Westby@conoco.com		7. If Unit or CA Agreement, Name and No. 28981
3a. Address 10 DESTA DR., ROOM 608W MIDLAND, TX 79705	3b. Phone No. (include area code) Ph: 915.686.5799 Ext: 5799	8. Lease Name and Well No. PORK CHOP FEDERAL 34 1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWNW 660FNL 660FWL At proposed prod. zone		9. API Well No. 30-039-26823
14. Distance in miles and direction from nearest town or post office*	15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	10. Field and Pool, or Exploratory BASIN DAKOTA
16. No. of Acres in Lease	17. Spacing Unit dedicated to this well 320.00 N/2	11. Sec., T., R., M., or Blk. and Survey or Area D Sec 34 T26N R7W Mer NMP
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 7014 MD	12. County or Parish RIO ARRIBA
20. BLM/BIA Bond No. on file	21. Elevations (Show whether DF, KB, RT, GL, etc.) 6231 GL	13. State NM
22. Approximate date work will start	23. Estimated duration	

24. Attachments

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. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature	Name (Printed/Typed) VICKI WESTBY	Date 09/26/2001
Title AUTHORIZED SIGNATURE		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) David J. Mankiewicz	Date 12/17/01
Title AFM minerals	Office FEC	

Application approval does not warrant or certify 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.

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.

Additional Operator Remarks (see next page)

Electronic Submission #7426 verified by the BLM Well Information System
For CONOCO INC., sent to the Farmington
Committed to AFMSS for processing by Maurice Johnson on 09/28/2001 ()

In accordance with review pursuant to 43 CFR 3165.3
and appeal pursuant to 43 CFR 3165.4.

ALL INFORMATION CONTAINED
HEREIN IS UNCLASSIFIED
DATE 09/28/2001 BY 60322/UC/LRS

** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL ** ORIGINAL **

District I
PO Box 1980, Hobbs, NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719

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

District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30039-26823		*Pool Code 71599	*Pool Name Basin Dakota
*Property Code 28981	*Property Name PORK CHOP FEDERAL 34		*Well Number 1
*CGRII No. 005073	*Operator Name CONOCO, INC.		*Elevation 6231'

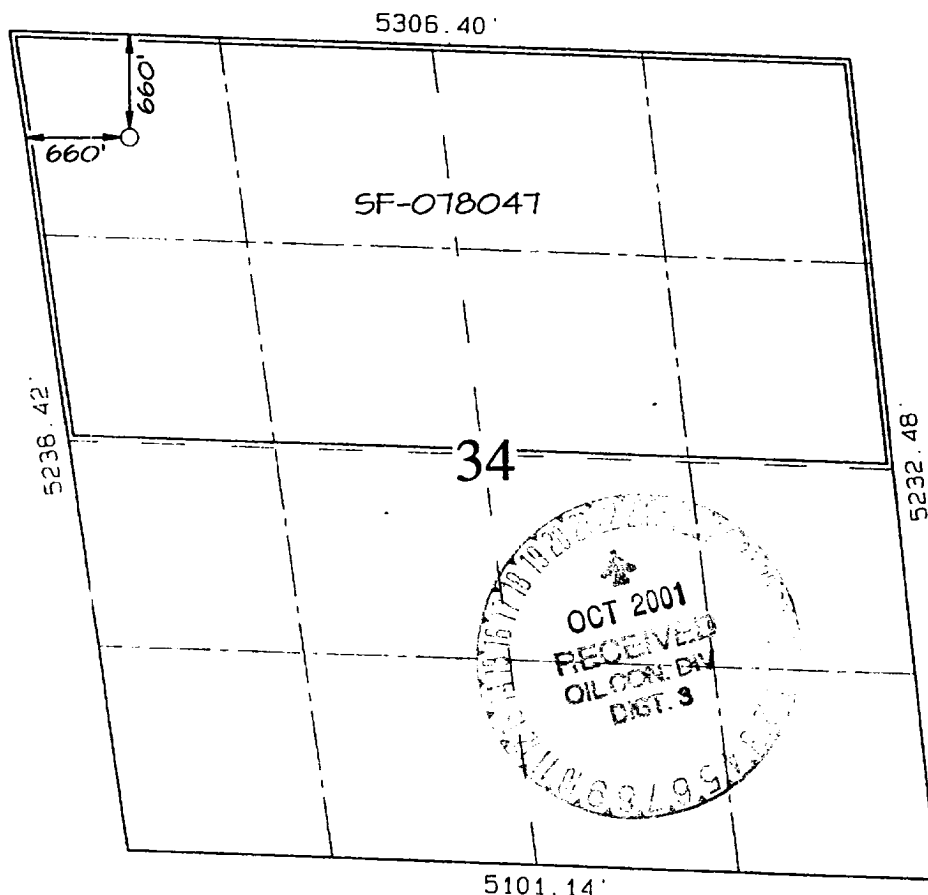
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	26N	7W		660	NORTH	660	WEST	RIO ARriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 320.0 Acres - (N/2)					13 Joint or Infill		14 Consolidation Code		15 Order No.

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



17 OPERATOR CERTIFICATION

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

Vicki R. Westby
Signature

Vicki R. Westby

Printed Name

Sr. Title Analyst

Title

September 19, 2001
Date

18 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

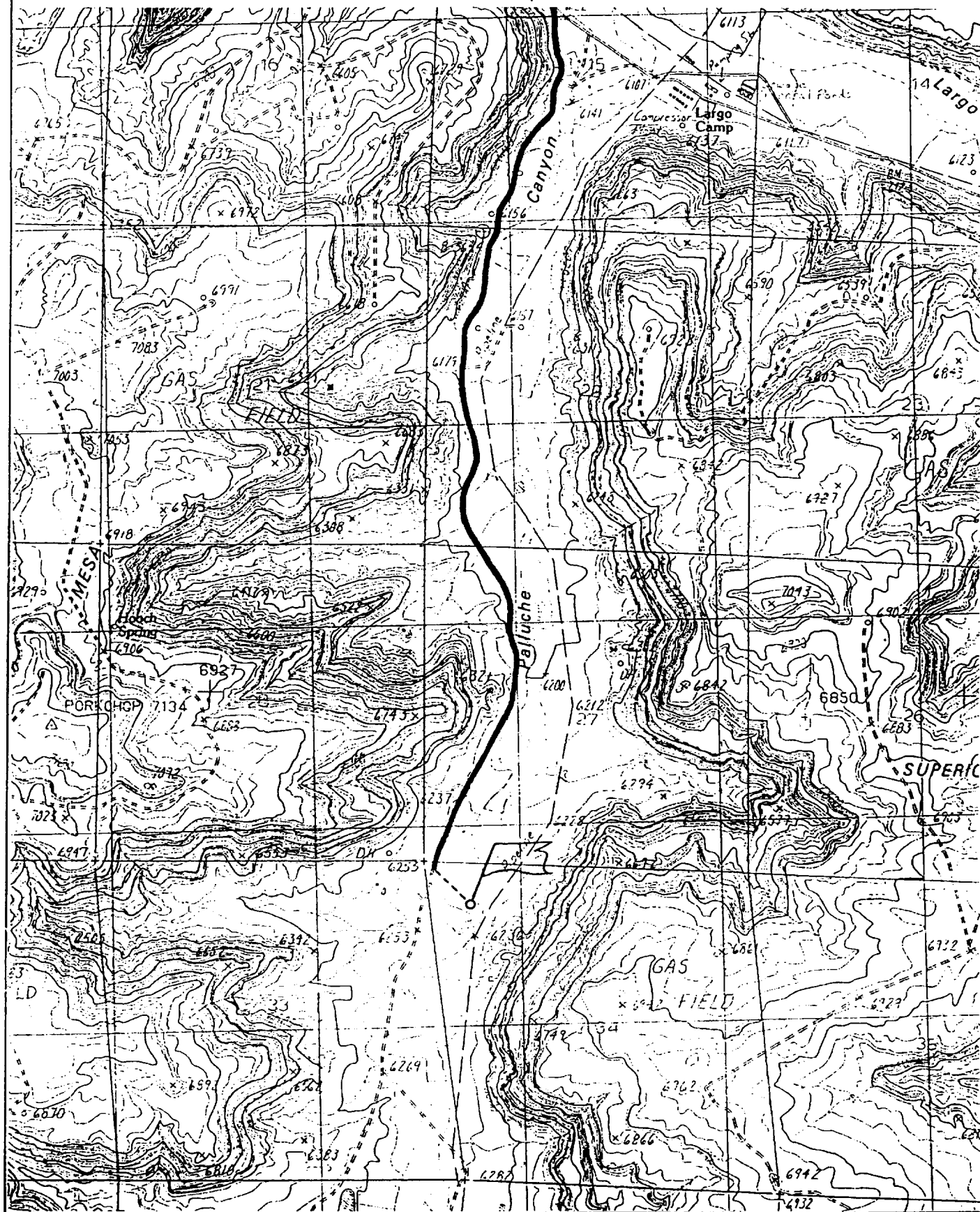
Date of Survey: AUGUST 24, 2001

Signature and Seal of Professional Surveyor



JASON C. EDWARDS
Certificate Number 15269

CONOCO, INC. PORK CHOP FEDERAL 34 #1
660' FNL & 660' FNL, SECTION 34, T26N, R7W, N.M.P.M.
RIO ARriba COUNTY, NEW MEXICO



PROJECT PROPOSAL - New Drill / Sidetrack



Well : PORKCHOP FED 34 1 Lease : PORKCHOP AFE # : 3341 (MV) AFE \$:
 Field Name : LINDRITH Rig : Key 49 State : NM County : RIO ARRIBA API # :
 Geoscientist : Johnson, Tom B. Phone : (281) 293 - 6551 Prod. Engineer : Jennye Pusch Phone : 2812935305
 Res. Engineer : Riley, Steve Phone : (281) 293-3967 Proj. Field Lead : Eric E. Fransen Phone :

Primary Objective (Zones) :

Pool	Pool Name
FRR	BASIN DAKOTA (PRORATED GAS)

Surface Location :

Latitude : 36.448981 Longitude : -107.569 X : Y : Section : 34 Survey : 26N Abstract : 7W
 Footage X : 660 FWL Footage Y : 660 FNL Elevation: 6231 (FT)

Bottom Hole Location :

Latitude : Longitude : X : Y : Section : Survey : Abstract :
 Location Type : Summer Only Start Date (Est.) : Completion Date : Date In Operation :

Formation Data : Assume KB = 6244 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	496	5748	☒			Surface hole size 12 1/4". Severe lost circulation is possible. 9 5/8", 36 ppf, J-55, STC casing. <u>Circulate cement to surface.</u>
OJAM	1452	4792	☒			Possible Water Flows
KRLD	1650	4594	☒			
FRLD	1758	4486	☒			Possible Gas
PCCF	2209	4035	☒			Possible Gas
LEWS	2391	3853	☒			
CHRA	3057	3187	☒			
CLFH	3806	2438	☒	1640	130	Possible Gas/Water
MENF	3836	2408	☒			Possible Gas/Water
PTLK	4474	1770	☒			Possible Gas/Water
MNCS	4777	1467	☒	2055	150	
UPPER GLLP	5581	663	☒			
MID GLLP	5835	409	☒			
SNST	6123	121	☒			Possible Lost Circulation
GRHN	6454	-210	☒	2777	100	Possibly Highly Fractured
GRRS	6511	-267	☒	2800	100	

PROJECT PROPOSAL - New Drill / Sidetrack



TWLS	6566	-322	☐	2825	194	Gas
PAGU	6647	-403	☐	2860	196	Gas
L DKOT	6757	-513	☐	2907	197	Possible Gas/Water
MRSN	6864	-620	☐	2953	198	
Total Depth	7014	-770	☐	3018	199	Production hole size 7 7/8". 4 1/2", 11.6 ppf, P-110/Dual Grade, LTC casing. Circulate cement a minimum of 100' inside the previous casing string. Will run OH Triple Combo Log Suite.

Logging Program :

Intermediate Logs :

☐ Log only if show ☐ GR / ILD ☐ Triple Combo

TD Logs :

☒ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT

Additional Information :

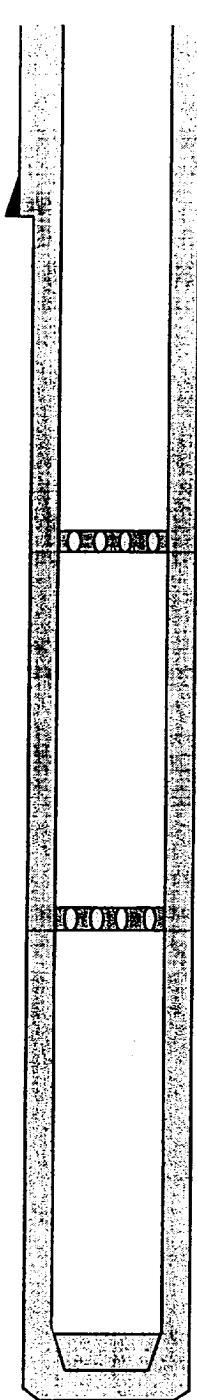
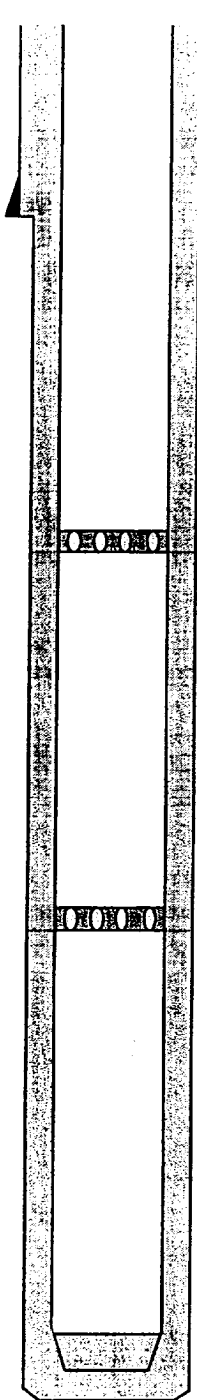
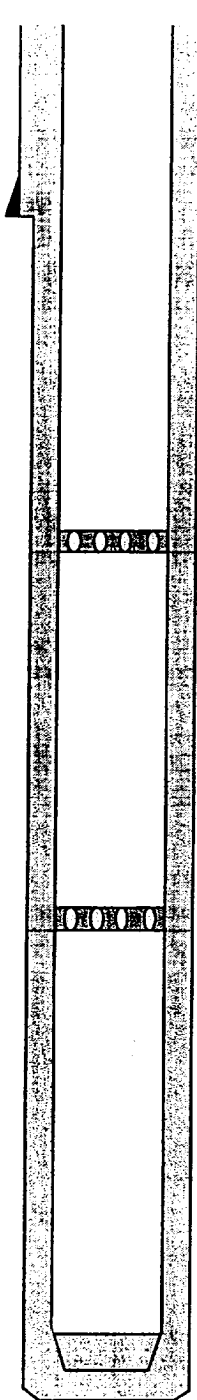
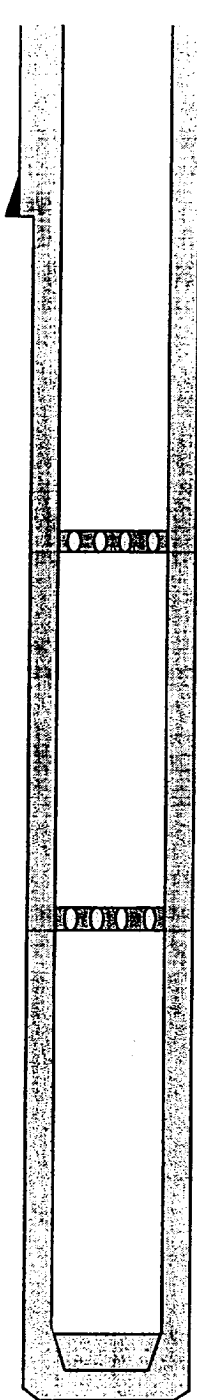
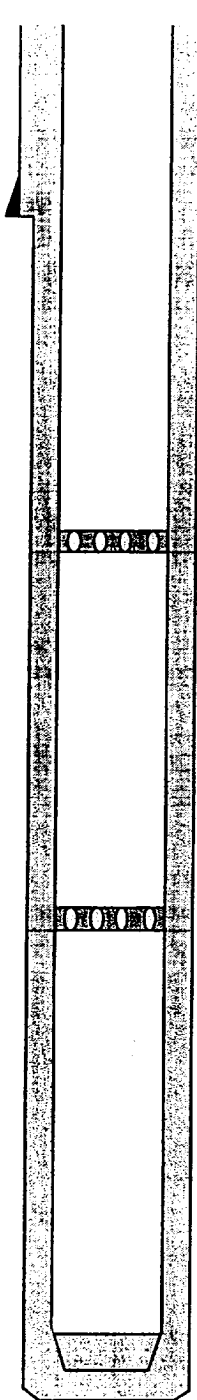
Logging company to provide a sketch with all lengths, OD's & ID's of all tools prior to running in the hole.

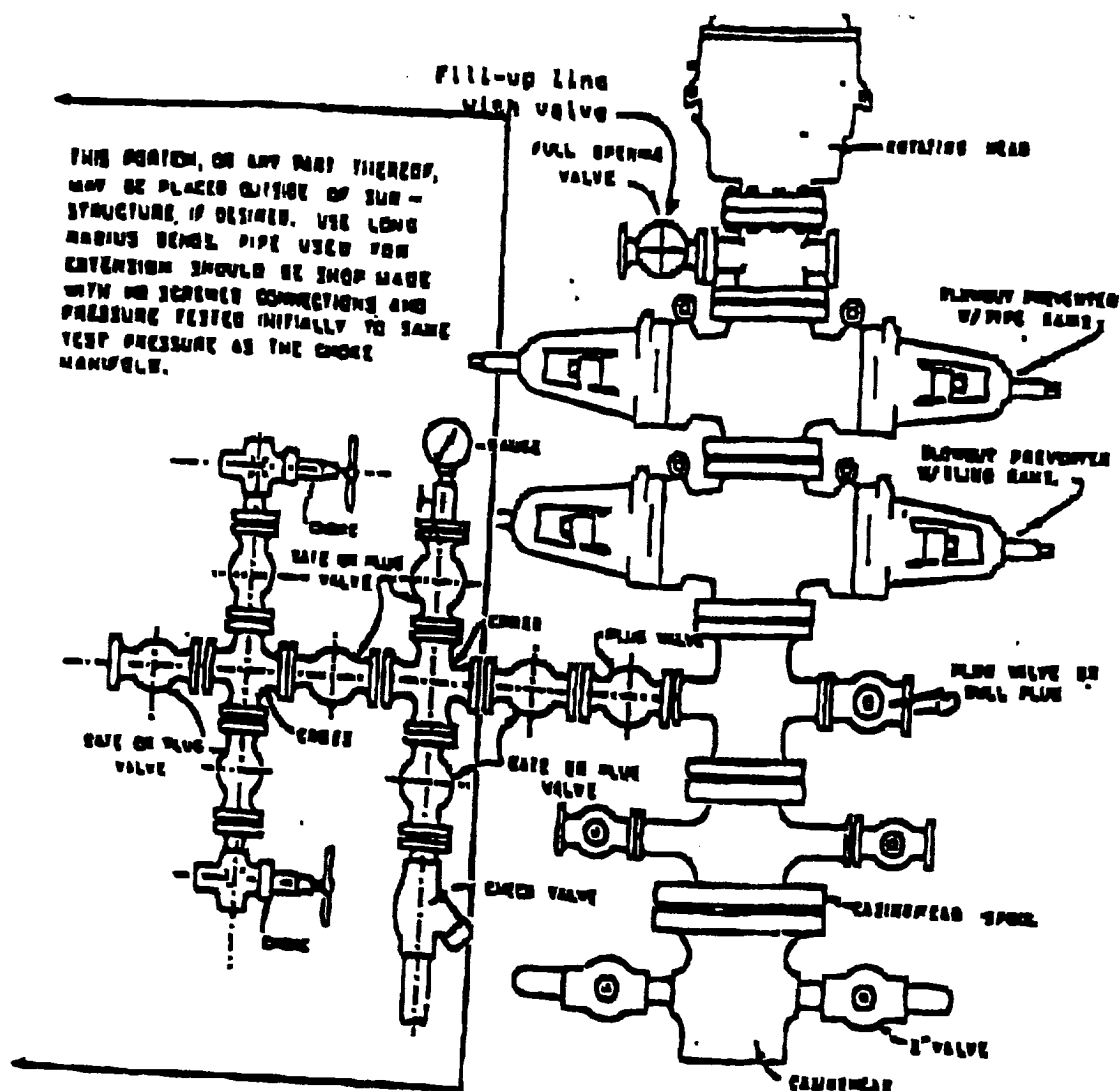
Cased hole TDT with GR to surface.

Comments : Will run OH Triple Combo log suite. Will run 4.5", 11.6#, P-110/Dual Grade, LTC production casing. Initial loc @ 660 FN & WL as of 8/14/01 (~6235 GL). Location is ~700' from road & ~350' major pipeline.

Cementing Summary

Porkchop Fed 34-1

		OH				
		Depth	Excess			
	9-5/8" Sfc. Casing	0		Class 'H' Cement	309 sx	Slurry Volume 328.0 cu ft
				Flocele (if req'd)	0.25 lb/sk	58.4 bbl
				CaCl ₂	2.00% bwoc-db	Slurry Density 16.5 ppg
				Defoamer (if req'd)	0.05 gal/bbl	Slurry Yield 1.06 cu ft/sk
						Mix Fluid 4.2 gal/sk
	9-5/8" shoe	496	100%	Cement Blend	661 sx	Slurry Volume 1869.7 cu ft
				Class 'H' Cement	84 lb/sk	333.0 bbl
				San Juan Poz	lb/sk	Slurry Density 11.4 ppg
				Econolite	3.00% bwob	Slurry Yield 2.83 cu ft/sk
				CaCl ₂	bwob	Mix Fluid 17.29 gal/sk
				CFR-3	bwob	
				HR-5	bwob	
				Silicalite-blended	10 lb/sk	
				Flocele	0.5 lb/sk	
				Defoamer (if req'd)	0.05 gal/bbl	
	DV Tool #2 Stage #3	3,676	75%	Cement Blend	693 sx	Slurry Volume 1177.9 cu ft
				Class 'H' Cement	47 lb/sk	209.8 bbl
				San Juan Poz	24 lb/sk	Slurry Density 12.8 ppg
				Bentonite	3.00% bwob	Slurry Yield 1.70 cu ft/sk
				Halad-344	0.40% bwob	Mix Fluid 8.26 gal/sk
				CFR-3	0.20% bwob	
				HR-5	0.10% bwob	
				Silicalite-blended	20 lb/sk	
				Flocele	0.25 lb/sk	
				Defoamer (if req'd)	0.05 gal/bbl	
	DV Tool #1 Stage #2	5,973	60%	Cement Blend	189 sx	Slurry Volume 321.0 cu ft
				Class 'H' Cement	47 lb/sk	57.2 bbl
				San Juan Poz	24 lb/sk	Slurry Density 12.8 ppg
				Bentonite	3.00% bwob	Slurry Yield 1.70 cu ft/sk
				Halad-344	0.40% bwob	Mix Fluid 8.26 gal/sk
				CFR-3	0.20% bwob	
				HR-5	0.10% bwob	
				Silicalite-blended	20 lb/sk	
				Flocele	0.25 lb/sk	
				Defoamer (if req'd)	0.05 gal/bbl	
	4-1/2" Csg St Stage #1	6,511	60%			



BLOWOUT PREVENTER HOOKUP

Drilling contractors used in the San Juan Basing supply 1000 psi equipment, but cannot provide annular preventers because of sub-structure limitations. Maximum anticipated surface pressures for this well will not exceed the working pressure of the proposed BOP system. Please see the attached BOP diagram details 2000 psi equipment according to Onshore Order No. 2 even though the deletion of the annular preventor and fulfills your requirements (note diagram No. 1). In addition, the following equipment will comprise the 1000 psi system:

1. Two rams with one blind and one pipe ram.
2. Kill line (2 inch maximum).
3. One kill line valve.
4. One choke line valve.
5. Two chokes (reference diagram No. 1).
6. Upper kelly cock valve with handle.
7. Safety valve and subs to fit all drill strings in use.
8. Two-inch minimum choke line.
9. Pressure gauge on choke manifold.
10. Fill-up line above the upper most preventor.
11. Rotating head.

Cathodic Protection System Description

Anode Bed Type	Deep Well	
Hole Size	8"	
Hole Depth	200' - 500'	As required to place anodes below moisture and in low resistance strata.
Surface Casing	8" Diam., $\geq$ 20' Length. Cemented In Annular Space	When needed, casing will be installed at an adequate depth to control ground water flow. Casing will extend a minimum of 2' above grade, be surrounded by a concrete pad, and sealed with a PVC cap. Steel casing will be substituted when boulders are encountered.
Vent Pipe	1" Diam. PVC	Vent pipe will extend from bottom of hole, through top of casing cap, and sealed with a 1" perforated PVC cap.
Type Of Anodes	Cast Iron Or Graphite	
Number Of Anodes	8 - 20	Sufficient quantity to achieve a total anode bed resistance of < 1 ohm and a design life $\geq$ 20 years.
Anode Bed Backfill	Lorasco SW Calcined Petroleum Coke Breeze	Installed from bottom of hole to 10' above top anode.
Anode Junction Box	8 - 20 Circuit Fiberglass Or Metal	Sealed to prevent insect & rodent intrusion.
Current Splitter Box	2 - 5 Circuit Metal	Sealed to prevent insect & rodent intrusion.
DC / AC Cable	DC: #2, #4, #6, #8 Stranded Copper (One Size Or Any Combination Of) With High Molecular Weight Polyethylene (HMWPE) Insulation. AC: #8 Stranded Copper HMWPE	18" depth in typical situation, 24" depth in roadway, & 36" depth in arroyos and streams. EXCEPTION: If trenching is in extremely hard substratum, depth will be 6 - 12" with cable installed in conduit. Installed above foreign pipelines if 1' clearance is available, if not, installed under foreign pipeline with 1' clearance (AC cable always installed under foreign pipeline in conduit).
Power Source	1) Rectifier 2) Solar Power Unit 3) Thermoelectric Generator	Choice of power source depending on availability of AC & other economic factors.
External Painting	Color to be selected according to BLM specifications.	Paint applied to any surface equipment associated with the CP system which can reasonably be painted.