

FORM 1000-1
(1-1-1997)SUBMIT IN TRIPlicate
(Other instructions on
reverse side)FORM APPROVED
OWH NO. 1004-0135
Expires February 28, 1998

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1. TYPE OF WORK

DRILL ☒DEEPEN ☐

2. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒OTHER ☐SINGLE
ZONE ☒MULTIPLE
ZONE ☐3. NAME OF OPERATOR
AMOCO PRODUCTION COMPANY
P.O. BOX 3092
HOUSTON, TX 770794. ADDRESS AND TELEPHONE NO.
MARY CORLEY
SUBMITTING CONTACTPHONE 281.366.4491 EXT:
FAX: 281.366.0700
EMAIL: corleyml@bp.com

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

A1 Surface
790FSL AND 1415FWL SESW SEC 33 T29N R12W
A1 proposed productive zone

6. DISTANCE IN MILES AND DIRECTION FROM THE NEAREST TOWN OR POST OFFICE

1. MILES FROM FARMINGTON, NM

7. DISTANCE FROM PROPOSED
LOCATION TO NEAREST
PROPERTY OR LEASE LINE FT.
(Also include the bearing.)15. NO. ACRES IN LEASE
43102.0018. DISTANCE FROM PROPOSED LOCATION
TO NEAREST WELL DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE FT.19. PROPOSED DEPTH
1448 MD / 1VD17. NO. OF ACRES ASSIGNED
TO THIS WELL
320.0020. ROTARY OR CABLE TOOL
ROTARY

21. ELEVATIONS (Show whether OF, RT, OR, etc.)

5404 GL

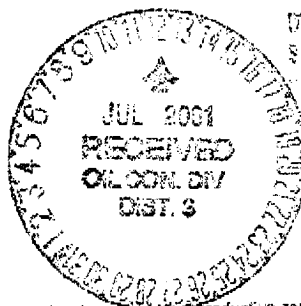
22. APPROX. DATE WORK WILL START
05/06/2001

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

Notice of Staking submitted 10/26/1999. Amoco Production Company respectfully request permission to drill the subject well into the Basin Fruitland Coal Pool as per procedures attached. Also included with application are the requested supporting documentations (total attachments - 5)

This office is subject to technical and
procedural review pursuant to 43 CFR 216.22
and 216.23 and 43 CFR 216.24



DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
GENERAL REQUIREMENTS

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed productive 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. ELECTRONIC SUBMISSION #2365 VERIFIED BY THE BLM WELL INFORMATION SYSTEM
FOR AMOCO PRODUCTION COMPANY SENT TO THE FARMINGTON FIELD OFFICE

SIGNED MARY CORLEY

TITLE SUBMITTING CONTACT

DATE 01/16/2001

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY /s/ Lee Ottent

TITLE

DATE

K

**UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL

☒

DEEPEN

☐

b. TYPE OF WELL

OIL
WELL

☐

GAS
WELL

☒

OTHER

SINGLE
ZONE

☒

MULTIPLE
ZONE

☐

2. NAME OF OPERATOR **AMOCO PRODUCTION COMPANY**
P.O. BOX 3092
HOUSTON , TX 77079

3. ADDRESS AND TELEPHONE NO
MARY CORLEY
SUBMITTING CONTACT

PHONE: 281.366.4491 EXT:
FAX: 281.366.0700
EMAIL: corleym1@bp.com

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

At Surface
790FSL AND 1415FWL SESW SEC 33 T29N R12W
At proposed prod. zone

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

11 MILES FROM FARMINGTON, NM

15. DISTANCE FROM PROPOSED*
LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drilg. unit line, if any)

18. DISTANCE FROM PROPOSED LOCATION*
TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE FT.

400

16. NO. ACRES IN LEASE
43102.00

19. PROPOSED DEPTH
1448 MD / TVD

17. NO. OF ACRES ASSIGNED
TO THIS WELL
320.00

20. ROTARY OR CABLE TOOLS
ROTARY

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

5404 GL

22. APPROX. DATE WORK WILL START*
05/06/2001

23. **PROPOSED CASING AND CEMENTING PROGRAM**

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT

Notice of Staking submitted 10/26/1999. Amoco Production Company respectfully request permission to drill the subject well into the Basin Fruitland Coal Pool as per procedures attached. Also included with application are the requested supporting documentations (total attachments - 8)

This action is subject to technical and procedural review pursuant to 43 CFR §100.4 and appeal pursuant to 43 CFR §103.4.



DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS"

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed productive 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. **ELECTRONIC SUBMISSION #2365 VERIFIED BY THE BLM WELL INFORMATION SYSTEM**
FOR AMOCO PRODUCTION COMPANY SENT TO THE FARMINGTON FIELD OFFICE

SIGNED **MARY CORLEY**

TITLE **SUBMITTING CONTACT**

DATE **01/16/2001**

PERMIT NO. _____

APPROVAL DATE _____

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:

APPROVED BY _____

/s/ Lee Otter

TITLE _____

DATE _____

District I
PO Box 1987, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
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

1 API Number 30-045-30524		1 Pool Code 71629		1 Pool Name Basin Fruitland Coal	
4 Property Code 000570		2 Property Name GALLEGOS CANYON UNIT			4 Well Number # 553
1 OGRID No. 000778		4 Operator Name AMOCO PRODUCTION COMPANY			1 Elevation 5404

Surface Location

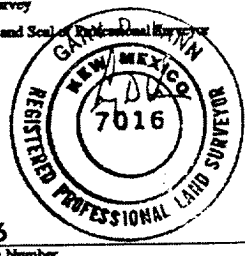
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	33	29 N	12 W		790	SOUTH	1415	WEST	SAN JUAN

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

11 Dedicated Acres 320.22	12 Joint or Infill	13 Order No.
-------------------------------------	--------------------	--------------

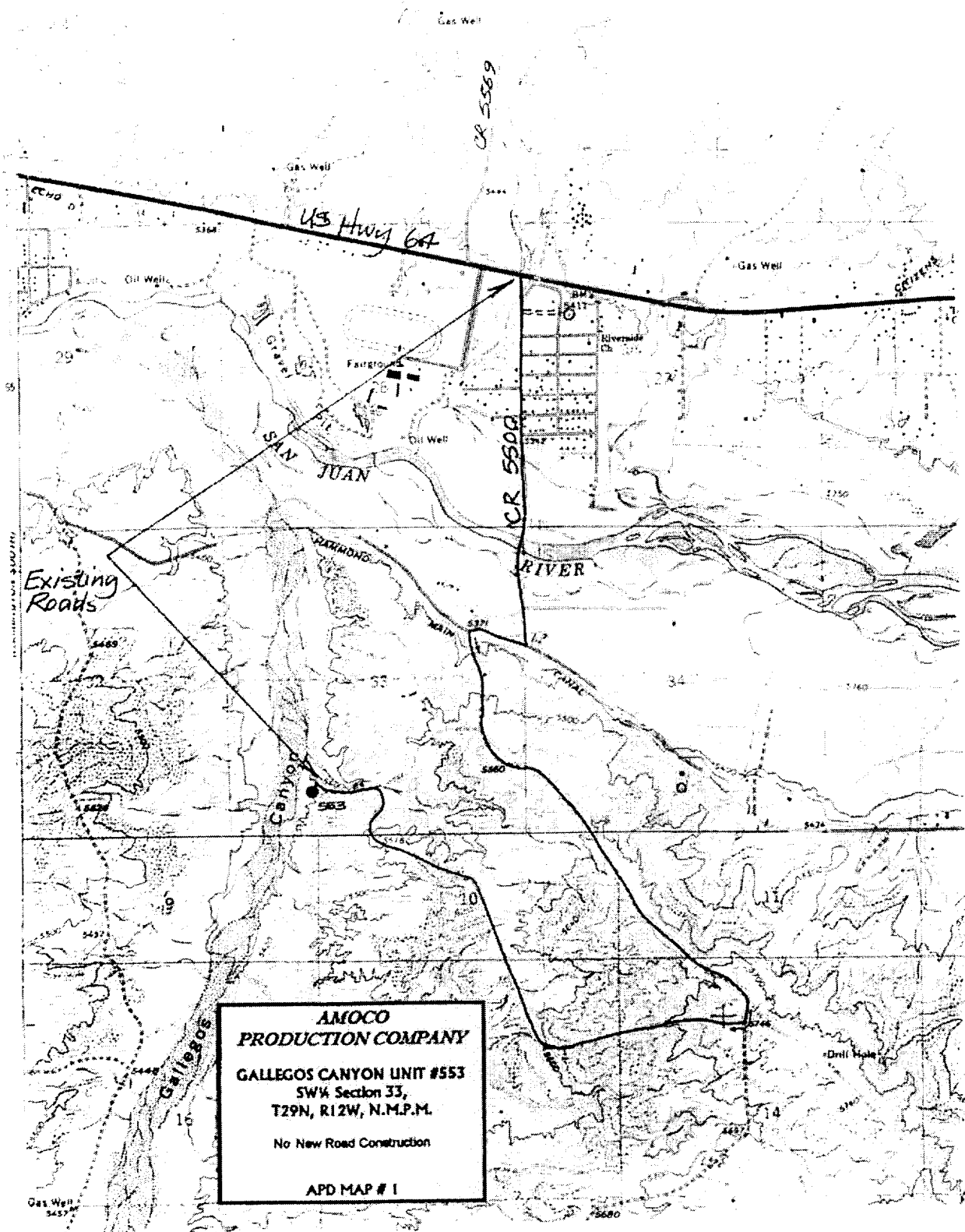
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

2644(R)		2645(R)		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: <u>Mary Corley</u> Printed Name: <u>Sr. Regulatory Analyst</u> Title: <u>1-16-2001</u> Date:	
Lot 2		Lot 1			
Lot 3		Lot 4		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: <u>November 3, 1998</u> Signature and Seal of Registered Professional Land Surveyor:  7016 Certificate Number	
Lot 6		Lot 5			

1415' 790'

(R) - BLM Record





**AMOCO PRODUCTION COMPANY
DRILLING AND COMPLETION PROGRAM**

Lease: Gallegos Canyon Unit
County: San Juan
State: New Mexico
Date: January 16, 2001

Well No: 553
Surface Location: 33-29N-12W, 790 FSL, 1415 FEL
Field: Basin Fruitland Coal

OBJECTIVE: Drill 150' into the Pictured Cliffs, set 4 1/2" Casing to TD, Perf & Stimulate Fruitland Coal interval.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 5404		Estimated KB: 5415	
Rotary	0 - TD	MARKER		SUBSEA	MEAS. DEPTH
		Ojo Alamo		Surface	Surface
		Kirtland		5270	145
		Fruitland Coal	#	4460	955
		Pictured Cliffs	*	4117	1298
		TOTAL DEPTH		3967	1448
		# Probable completion interval		* Possible Pay	
LOG PROGRAM		DRILL CUTTING SAMPLES			
TYPE	DEPTH INVERAL	FREQUENCY DEPTH		DRILLING TIME	
				FREQUENCY DEPTH	
				Geograph 0-TD	
CASED HOLE GR-CCL-TDT		TDT - PBTD - 0' GR-CCL - PBTD-0'			
REMARKS: - Please report any flares (magnitude & duration).					
SPECIAL TESTS		DRILLING TIME			
TYPE		FREQUENCY DEPTH		FREQUENCY DEPTH	
None				Geograph 0-TD	
REMARKS:					

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 120-135 3 jts.	Spud	8.6-9.2			
120-135 - TD (1)	Water/LSND	8.6-9.2			

REMARKS:
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

CASING PROGRAM: (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

Casing String	Estimated Depth	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.
Surface/Conductor	120-135	7"	J-55 ST&C	23#	8.75"	1
Production	1448	4 1/2"	J-55 ST&C	10.5#	6.25"	1,2

REMARKS:
(1) Circulate Cement to Surface
(2) Set casing 150' above below top Pictured Cliffs

CORING PROGRAM:

None

COMPLETION PROGRAM:

Rigless, Single Stage Hydraulic Frac

GENERAL REMARKS:

Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: Logging program reviewed by: N/A

PREPARED BY: APPROVED: DATE: December 21, 2000

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT	DENSITY (lb/gal)	YIELD (ft ³ /sk)	WATER (gal/sk)	EXCESS %
8 3/4"	J-55 ST&C 7"	23#	135'	95 SXS (113 CU.FT.) CLS B CIRC TO SURFACE	15.6	1.19	5.25	100%
6 1/4"	J-55 ST&C 4 1/2"	10.5	1448'	120 SXS (251 CU.FT.) CLS B - LEAD 44 SXS (97 CU.FT.) CLS B - TAIL	11.4 15.6	2.68 1.19	16.6 5.25	70%
				2% CuCl w 3% SMS				

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 1/2" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

**Amoco Production Company
BOP Pressure Testing Requirements**

Well Name: Gallegos Canyon Unit 553
County: San Juan

State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	Surface		
Kirtland	145		
Fruitland Coal	955		
Pictured Cliffs	1298		

** Note: Determined using the following formula: $ABHP - (.22 * TVD) = ASP$

Requested BOP Pressure Test Exception: 750 PSI

**SAN JUAN BASIN
Fruitland Formation
Pressure Control Equipment**

Background

The objective Fruitland Coal formation maximum surface pressure is anticipated to be less than 1000 PSI, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 PSI. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 PSI system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 PSI rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth. No abnormal temperature, pressure, or Hydrogen Sulfide gas is anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth

11" nominal or 7 1/16", 3000 PSI double ram
preventer with rotating head.

OK /
All ram type preventers and related control equipment will be hydraulically tested to 250 PSI (low pressure) and 750 PSI (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include Kelly cock, upper Kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure at the appropriate intervals.