SUBMIT IN TRIPLICATE*

(Other instructions on reverse side)

Form Budget	approved Bureau	No.	42-R1425.
.,			

UNII	בט:	SIAH	£5	
DEPARTMENT	OF	THE	INTER	IOR

30	- ()4	25-	33	900
5. LEASI	DESIGNA	TION AND	SERIAL	NO.
	SF-0	78106		

GEOLOGICAL SURVEY					SF-078106		
APPLICATION	FOR PERMIT	O DRILL, DEE	PEN, OR PLUG B	ACK	6. IF INDIAN, ALLOTTEE OR TRIBE NAME		
1a. TYPE OF WORK	1 101() 21(())	<u> </u>					
	LL X	DEEPEN 🗌	PLUG BAC	CK 🗌	7. UNIT AGREEMENT NAME		
b. TYPE OF WELL			SINCLE TO MILETINE	T M C	Gallegos Canyon Unit		
OIL GA	ELL X OTHER	INFILL	ZONE X ZONE	<u> </u>	8. FARM OR LEASE NAME		
2. NAME OF OPERATOR	ar cold live						
AMOCO PRODUCTI	ON COMPANY				9. WELL NO.		
3. ADDRESS OF OPERATOR		Wassa Wassaf a a	07/01		229E		
	ive, Farmington				10. FIELD AND POOL, OR WILDCAT		
4. LOCATION OF WELL (Re. At surface					Basin Dakota 🕳		
1820' FSL and	1080' FEL, Sect	ion 21, T28N,	R12W		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA		
At proposed prod. zon	e				NE/4, SE/4, Section 21		
Same					T28N, R12W		
14. DISTANCE IN MILES A	ND DIRECTION FROM NEA	REST TOWN OR POST OF	FICE*		12. COUNTY OR PARISH 13. STATE		
	outheast from Fa				San Juan New Mexi		
15. DISTANCE FROM PROPO LOCATION TO NEAREST		l l	NO. OF ACRES IN LEASE		OF ACRES ASSIGNED HIS WELL		
PROPERTY OR LEASE L	INE, FT.	1080'	43,146.62		320		
18. DISTANCE FROM PROP	OSED LOCATION*		PROPOSED DEPTH	20. ROTA	RY OR CABLE TOOLS		
TO NEAREST WELL, DI OR APPLIED FOR, ON THI		1700'	6198 '		Rotary		
21. ELEVATIONS (Show who	ther DF, RT, GR, etc.)				22. APPROX. DATE WORK WILL START*		
5610' GL					As soon as permitted		
23.	I	PROPOSED CASING	AND CEMENTING PROGRA	M			
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH		QUANTITY OF CEMENT		
12-1/4"	8-5/8" (N	ew) 24#	300'	300	sx Class "B" Neat		
7-7/8"		ew) 11.6#	6198'		sx Class "B" 50:50 POZ		
1-110	7 +12	1			in 100 sx Class "B" Neat		
approved by the Natural Gas Poli	NMOCC on May 2 icy Act under O	2, 1979. This rder No. R-16	s well will quali	fy und	to Order No. R-1670-V er Section 103 of the		
L'Acres	mer Berlin & M. Leon Hares				$\mathcal{L}_{\mathcal{L}}$		
	- u 1070				- 1 - 001 an and 1 - 1		
1 017	ī 25 1 97 9						
1		1			The state break		
U. S. GE	CLOCICAL SURVEY PEGTON, N. M.	į			Onst. 3		
FAR A	PIGTON, N. M.						
IN ABOVE SPACE DESCRIBE zone. If proposal is to preventer program, if an	drill or deepen direction:	proposal is to deepen ally, give pertinent da	or plug back, give data on p ta on subsurface locations a	resent proc nd measure	ductive zone and proposed new productive and true vertical depths. Give blower		
24.	- 1 11	_					
SIGNED	: Faclerll,	TITLE	District Engi	neer			
	ral or State office use)						
					. - '		
PERMIT NO.			APPROVAL DATE				
APPROVED BY	AL. IF ANY:	TITLE _	41		DATE		

CONDITIONS OF APPROVAL, IF ANX:

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

P. O. BOX 2088

SANTA FE, NEW MEXICO 87501

Form C-102 Revised 10-1-78

			All distant	rea must be fro	m the cule	r Dounder	37 0 69 1 NO	Section.			
Operator					Lease						Well No.
AMOCO PRODUCTION COMPANY			GALI	EGOS (CANYON	UNIT	NIT 229-E				
Unit Letter	Letter Section Township		Rang	е	C	County					
I		21	28	N		12W		San	Juan		_
Actual Footage Loc	cation o						i				
1820		· Q.	outh		1080)			East		
				line and			ieet ir	om the	Easo		line
Ground Level Elev.	'	Producing Fo		į	Pool	- Dal-	_ 4 _				ited Acreage:
5610		Dakota			Bası	n Dako	o ta			L	Acres
interest a 3. If more the dated by a X Yes	han ond roy an on commu	ne lease is valty). e lease of conitization,	dedicated lifferent ov unitization	to the well wnership is o , force-pooling yes," type o	, outline ledicated ng. etc?	each and to the	nd identi well, ha Unit	ify the o	ownership to	all o	(both as to working wners been consoli-
this form i No allowa	if nec ble wi	essary.) Ill be assign	ed to the v	vell until all	interests	s have b	oeen cor	nsolidat	ed (by com	muniti appro	zation, unitization, ved by the Commis-
•		1				i i]	CER	TEICATION
									tained he best of m	rein is i y knowld Ja	true and complete to the edge and belief.
		1							B. E.	FACK	KELL
		1)		DISTRI	CT E	NGINEER
		1			I-149-1	ND-84	75		Company AMOCO	PRODI	JCTION COMPANY
		1 8	Sec.						ОСТОВЕ	R 3,	1979
	· /			21 SF-078	106	 	1080		shown on notes of under my	this pla actual : supervi	that the well location of was plotted from field surveys made by me or sion, and that the same ect to the best of my lief.
·		 				1820'			Fred	per 2 Profess Survéy	ional Engineer
0 330 660	·90 1	320 1650 191	0 2310 26	40 2000	1500	1000	500	0	3950	TERR.	IR.

SUPPLEMENTAL INFORMATION TO FORM 9-331C

GALLEGOS CANYON UNIT NO. 229E
1820' FSL & 1080' FEL, SECTION 21, T28N, R12W
SAN JUAN COUNTY, NEW MEXICO

The geologic name of the surface formation is the Tertiary Ojo Alamo.

Estimated tops of important potential hydrocarbon bearing formations:

FORMATION	<u>DEPTH</u>	ELEVATION
Fruitland	1097'	+4526 '
Pictured Cliffs	1362'	+4261'
Chacra	2302'	+3321'
Mesaverde	2943'	+2680
Dakota	5897'	- 274 [†]
TD	6198'	

Estimated KB elevation: 5623'

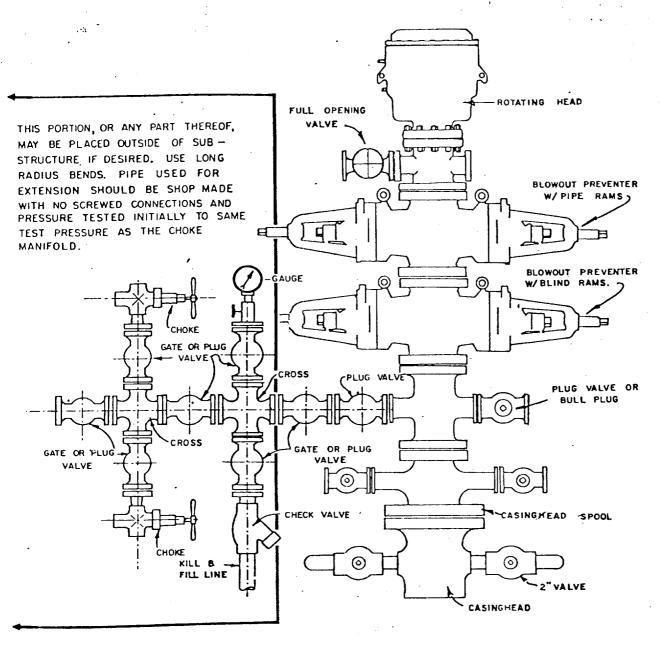
Drilling fluid to TD will be a low solids non-dispersed mud system. Open hole logging program will include logs from TD to below surface casing:

Induction Electric - SP - GR
Formation Density - Compensated Neutron Density - GR

Completion design will be based on these logs. No cores or drill stem tests will be taken.

Operations will commence when permitted and last approximately 3 weeks.

Amoco's standard blowout prevention will be employed (see attached drawing).



BLOWOUT PREVENTER HOOKUP

EXHIBIT D-4
OCTOBER 16,1969

MULTI-POINT SURFACE USE PLAN

GALLEGOS CANYON UNIT NO. 229E 1820' FSL & 1080' FEL, SECTION 21, T28N, R12W SAN JUAN COUNTY, NEW MEXICO

- 1. The attached topographic map shows the proposed route to the location.
- 2. It will not be necessary to build any road. Existing road to be used.
- 3. Existing oil and gas wells within a one-mile radius of our proposed well have been spotted on the vicinity map.
- 4. There is a 380-barrel tank and facilities located at Gallegos Canyon Unit No. 229.
- 5. Water will be hauled from the San Juan River.
- 6. No construction materials will be hauled in for this location.
- 7. A 100' by 100' pit will be built on location to hold all drilling waste. Upon completion of the well, pit will be fenced and waste and liquids left to dry, then pit will be filled and leveled.
- 8. There are neither airstrips nor camps in the vicinity.
- 9. The well site layout, reserve, burn and trash pits are shown on the attached Drill Site Specification Sheet. A 2-foot cut will be made on south side.
- 10. Restoration of the surface will be accomplished by cleaning up and leveling upon completion of the well. Drilling mud will be hauled away and the reserve pit back filled. Reseeding of the site will be carried out as instructed by the Bureau of Indian Affairs.
- II. The general topography and soil characteristics are a sandy soil supporting vegetation of Russian thistle and grass. An alfalfa field and water line are within IIO feet of location.

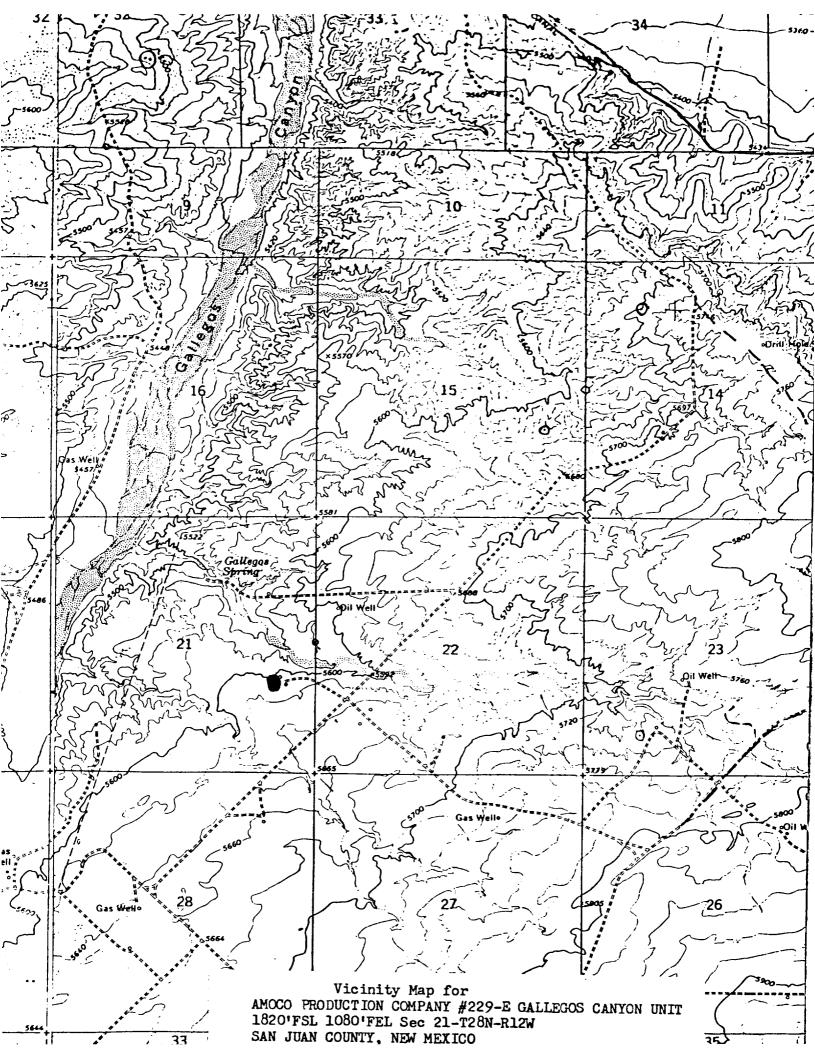
Representatives of the U. S. Geological Survey's Farmington Office and the Bureau of Indian Affairs inspected the site with Amoco personnel. Cultural resources inspection was conducted by an archaeologist from San Juan College.

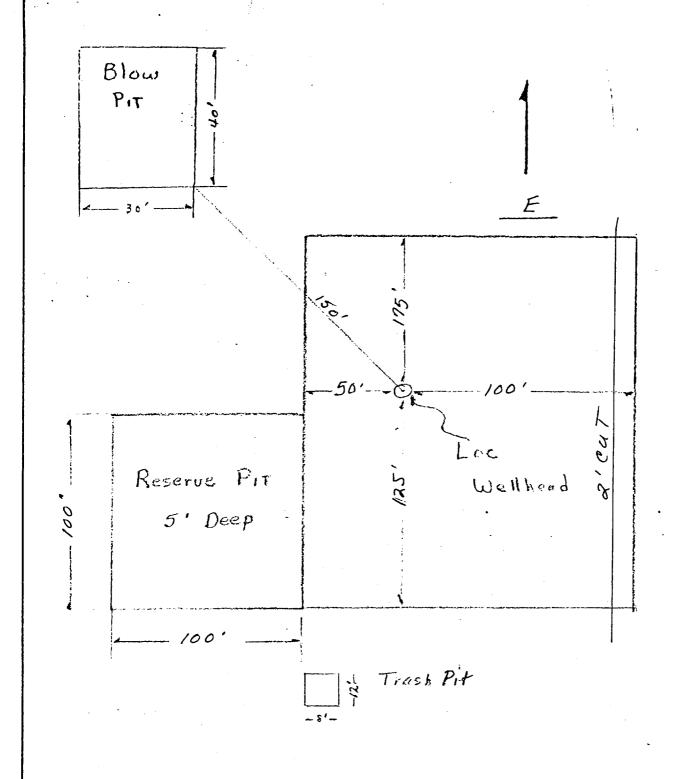
12. Operator's Representative: R. W. Schroeder

Phone: Office: 505-325-8841; Home: 505-325-6164 Address: 501 Airport Drive, Farmington, NM 87401

<u>Certification</u>: I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite and access route, that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by <u>AMOCO PRODUCTION COMPANY</u> and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

Date _	October 19, 1979			Schoole		
_		R.	W.	Schroeder,	Ø	istrict Superintendent





Approximately 1.2 Acres

Amoco Production Company	SCALE:	NONE
Drilling Location Specs.		
Gallegos Canyon Unit No. 229E	DRG. NO.	