Form 3160-3. (November 1983) (formerly 9-331C)	DEPARTMEN	TED STATES	NTER		MIT IN <sup>7</sup> ther instructive reverse sin 100 882.	de)	5. LEASE DESIGNATION NM 86146	No. 1004-0136 31, 1985	
APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK						ACK	6. IF INDIAN, ALLOTTER	OR TRIBE NAME	
						7. UNET AGREEMENT N	AMB		
							8. FARM OR LEASE NAM		
2. NAME OF OPERATOR	ELL OTHER	·····	<b>Z</b> 0		ZONE		E BW ''31'' Federal		
Collins & Wa	re Inc					-	9. WELL NO.		
3. ADDRESS OF OPERATOR	ic, inc.						1		
600 W. Illin	ois, Suite 701	Midland. T	X 79	9701			10. FIELD AND POOL, O	B WILDCAT	
4. LOCATION OF WELL (R	eport location clearly and	,			ients.*)	ŗ.	Livingston Ri	dge Delaware	
At surface	660' FSL of Sec	tion 21		. 1 . 1		1	11. SEC., T., R., M., OR H	SLE.	
At proposed prod. 201			Un	it N			AND SURVEY OR AR	EA	
At proposed prod, 20de							Section 31, T	21S, R32E	
14. DISTANCE IN MILES	AND DIRECTION FROM NEA	REST TOWN OR POS	T OFFICE	•	· ·		12. COUNTY OR PARISH	13. STATE	
28 miles Eas					Lea	NM			
15. DISTANCE FROM PROPOSED* 16. NO. OF ACRES IN LOCATION TO NEAREST					N LEASE		ACRES ASSIGNED	· · · · · · · · · · · · · · · · · · ·	
PROPERTY OR LEASE LINE, FT. (Also to nearest drig, unit line, if any) 660'				40			40		
18. DISTANCE FROM PROPOSED LOCATION*							TARY OB CABLE TOOLS		
TO NEAREST WELL, DRILLING, COMPLETED, or applied for, on this lease, ft. 1320'				8700'			otarv		
21. ELEVATIONS (Show wh				ontrolle	d Mate	f	22. APPROX. DATE WO	BE WILL START*	
		3613.5 GR		.0111.0110		Dasar	Upon Approva	ul	
23.		PROPOSED CASI	NG AND	CEMENTIN	G PROGRAM	R-111-	P Potash Secr	etary's Potash	
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER F	00 <b>T</b>	SETTING	DEPTH	1	QUANTITY OF CEMEN	T	
17 1/2"	13 3/8''	48# - 61#		800'		Suffici	Sufficient to Circulate 🕅		
12 1/4"	8 5/8''	24# - 32	2#	4500'		Sufficient to Circulate			
7 7/8''	5 1/2''	15.5# - 20	)#	8700'			lent to tie wi		
,	1	I	1			Interme			

After setting production casing, drilling rig will be replaced with completion rig. Pay zone will be perforated and stimutaled as necessary.

See attached for: APPROVAL SUBJECT TO	Supplemental drilling data BOP Sketch Surface use and operations plan		<b>51</b> 0 30	RECEIV
GENERAL REQUIREMENTS SPECIAL STIPULATIONS ATTACHED	AND	<b>የ</b> እስታ 25 - 52 10 - 11 21 - 1	5	ËD

SEP SEP

IN ABOVE SPACE DESCRIBE PROFOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new 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. SIGNED D. Change Akins	TITLEAgent	DATE 9/13/91
(This space for Federal or State office use)		
APPROVED BY Marth Marth	TITLE Det fare M	. DATE 10-18-91

## \*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.

OUT & 1 1991 Gain Mones Office

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Submit 10 Appropriate District Office State Lease - 4 copies Fee Lease - 3 copies

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330 660

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DISTRICT I P.O. Box 1980, Hobbs, NM \$8240

### ..... State of New Mexico ...ergy, Minerals and Natural Resources Departia

Form C-102 ni 1-1-19 Royla

**OIL CONSERVATION DIVISION** P.O. Box 2088

I (XX) KIN PRETOR K.C. ATTAC NIME \$7410			L LOCATION AN M Distances must be fr			AT	
perator			p				Well No.
	LINS & WA			EBWFEI	DERAL 31		<u> </u>
nit Letter	Section	Township		Range 32 EA:	em	County	LEA
N ctual Footage Lo	31		21 SOUTH	52 EA	SI NM	<u>M</u>	
1774		WEST	г	660	)	SOU	тн "
round level Elev	feet from the	roducing Formation			LOOP 11		Dedicated Acreage:
3613	1	aware Brush	by Canyon	Pool Northeas	≁ ingston Rid∉	no A ola.	
1. Outli			ect well by colored peaci				
3. lf m	ore than one leas	e of different owner	e well, outline each and is rahip is dedicated to the v	•		•	• •
Г	zation, force-poo Yes	No No	If answer is "yes" type lescriptions which have a	of consolidation			
	er is no list the m if neccessary.	OMBELS SEC ENCLO	escriptions which have a	constry ocea consolida	tea. (Une revenue stat	: Ot	
No allo	wabie will be as		mtil all interests have bee		nmunitization, unitiza	tion, forced-poo	ling, or otherwise)
or until	a non-standard 1	mit, climinating suc	th interest, has been appr	oved by the Division.			A
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## SUPPLEMENTAL DRILLING DATA

COLLINS & WARE, INC. E B W 31 FEDERAL WELL NO. 1

#### 1. SURFACE FORMATION: Quaternary

2.	ESTIMATED TOPS OF GEOLOGIC MARKERS:	
	Rustler Anhydrite	750'
	Delaware	4450'
	Bell Canyon	4550'
	Cherry Canyon	5450'

## Brushy Canyon 7200'

#### з. ANTICIPATED POSSIBLE HYDROCARBON BEARING ZONES:

Brushy Canyon

#### 4. PROPUSED CASING AND CEMENTING PROGRAM:

13 3/8" 48-61# K-55 ST&C casing is to be set at approximately 800' in 17 1/2" hole. Casing to be cemented with 500 sacks of light cement tailed in with 200 sacks of Class "C" with 2% CaCl. Cement to circulate.

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8 5/8" 24-32# J-55 and S-80 ST&C casing is to be set at approximately 4500' in 12 1/4" hole. Casing is to be cemented with 1200 sacks of light cement tailed in with 200 sacks of Class "C" with 1% CaCl. Cement to circulate.

5 1/2" 15.5# and 20# K-55 and N-80 LT&C casing is to be set at 8700' in 7 7/8" hole. Casing is to be cemented with 600 sacks of Class "H" cement. Cement to tie back.

5. PRESSURE CONTROL EQUIPMENT:

Blowout prevention equipment, while drilling the 12 1/4" hole, will be either a 1500 psi working pressure double ram type preventer or a 1500 psi working pressure annular type preventer.

Blowout prevention equipment, while drilling below the 8 5/8" casing seat, will be a 3000 psi working pressure BOP stack. A BOP sketch is attached.

6. CIRCULATING MEDIUM:

Surface to 800':	Fresh water spud mud - Viscosity 30 to 36 as
	required for hole cleaning
800' to 4500':	Brine conditioned as necessary for control of
	viscosity, Weight 9.8-10, pH 9-10, Viscosity
	32-36
4500' to T.D.:	Water-based drilling fluid conditioned as
	necessary for control of weight, viscosity, pH
	and water loss. Weight 9-10, Viscosity 38-45,
	pH 9-10, Filtrate while drilling pay zone 6-15



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