COPY TO O. C. C.

Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC 031670 B(2)

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

1a. TYPE OF WORK: DRILL ☑ DEEPEN ☐ PLUG BACK ☐

b. TYPE OF WELL: OIL WELL ☑ GAS WELL ☐ OTHER — SINGLE ZONE ☐ MULTIPLE ZONE ☑

7. UNIT AGREEMENT NAME: SEMU

8. FARM OR LEASE NAME: SEMU BURGER B

9. WELL NO.: 102

2. NAME OF OPERATOR: CONTINENTAL OIL COMPANY

10. FIELD AND POOL, OR WILDCAT: ~~UNDESIGNATED~~ BLINEBRY + TUBB

3. ADDRESS OF OPERATOR: P. O. Box 460, Hobbs, N.M. 88240

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: SEC. 20 T 20S R 38E

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 990' FSL and 330' FWL
At proposed prod. zone: SAME

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

12. COUNTY OR PARISH: LEA — 13. STATE: N.M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
		40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
	6700'	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3534.6' GR

22. APPROX. DATE WORK WILL START*: MAR. 1, 1979

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12 1/4"	9 5/8"	32.3#	1400'	575 sx CIRCULATE
8 3/4"	7"	23# & 26#	6700'	1500 sx.

IT IS PROPOSED TO DRILL A STRAIGHT HOLE TO A TD OF 6700' and complete as a dual Blinebry-TUBB oil well.
SEE ATTACHMENT FOR 10 point well plan.
SEE ATTACHED FOR 13 point Surface Use Plan.

RECEIVED
JAN 22 1979
U. S. GEOLOGICAL SURVEY
HOBBS, NEW MEXICO

IN ABOVE SPACE DESCRIBE PROPOSED 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 Wm A. Whitefield TITLE Administrative Supervisor DATE 1-19-79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

APPROVED AS AMENDED
JAN 26 1979
ACTING DISTRICT ENGINEER

USGS - 6
NMFU - 4
JFB RGL
FILE.

*See Instructions On Reverse Side

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 1-1-65

All distances must be from the outer boundaries of the Section

Operator	Lease	Well No.
Continental Oil Co.	S E M U Burger "B"	102

Unit Letter	Section	Township	Range	County
M	20	20 South	38 East	Lea

Actual Footage Location of Well:
990 feet from the South line and 330 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3534.6	BLINE + TUBB	NMEU UNDESIGNATED	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

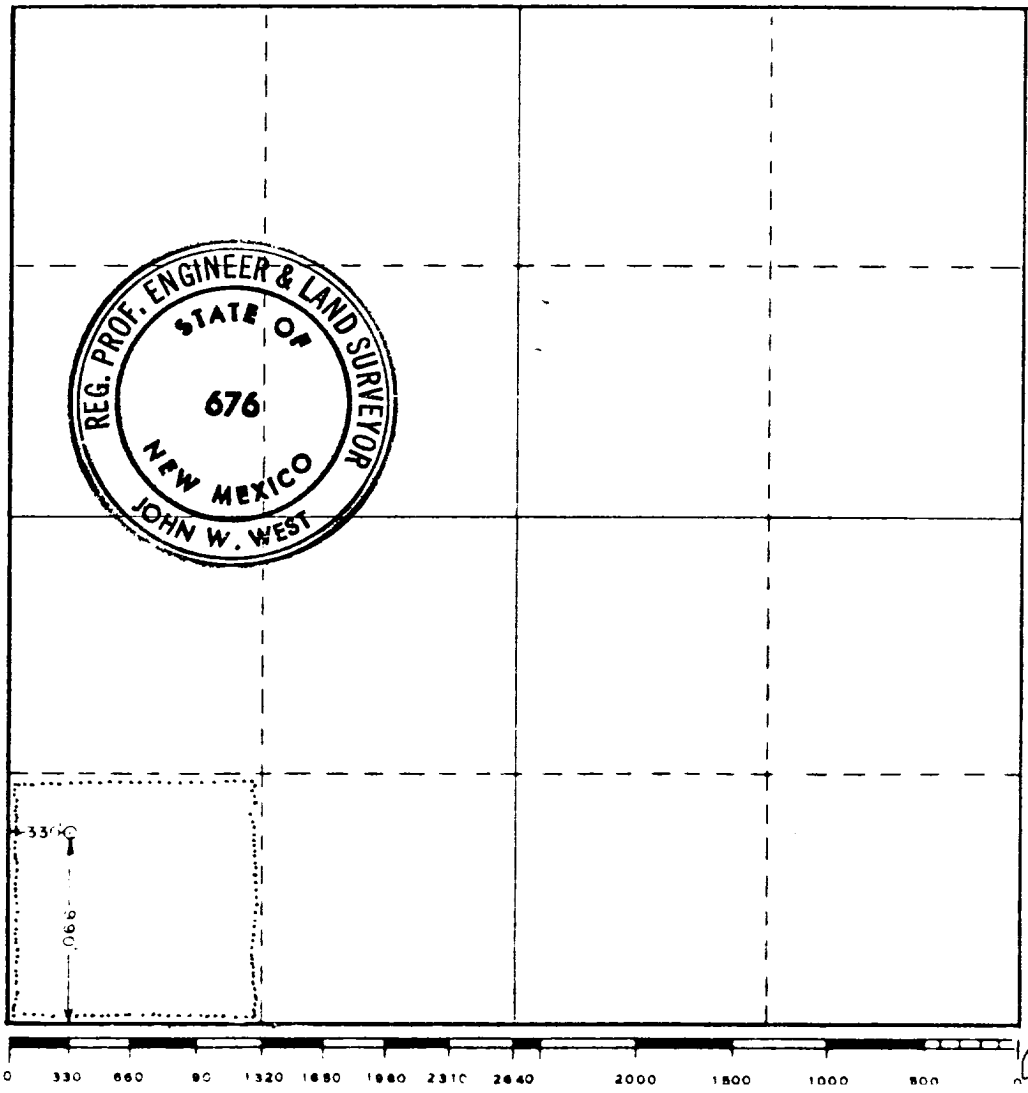
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ Yes ☐ No If answer is "yes," type of consolidation _____

If answer is "no," list the owners and tract descriptions which have actually been consolidated. (Use reverse side of this form if necessary.) _____

No allowable will be assigned to the well until all interests have been consolidated (by communitization, unitization, forced-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commission.



CERTIFICATION

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

Name: Wm A. Butterfield
Position: Administrative Supervisor
Company: Continental Oil Company
Date: January 19, 1979

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 knowledge and belief.

Date Surveyed: October 18, 1978

Registered Professional Engineer and/or Land Surveyor

John W. West

Certificate No. John W. West 676

Ronald J. Eidson 3239

ATTACHMENT TO FORM 9-331C
APPLICATION FOR PERMIT TO DRILL

Continental Oil Company
SEMU BURGER B No. 102
T-20S, R-38E
Lea County, New Mexico

1. The geologic name of the surface formation is Quaternary Sand.

2. The estimated tops of important geologic markers are shown on the attached Proposed Well Plan.

3. The estimated depths at which anticipated water, oil, gas or other mineral-bearing formations to be encountered are shown on attached Proposed Well Plan.

4. The proposed casing program is as follows:
   0-1400' - 9 5/8", 32#, K-55, ST&C
   0-5500' - 7", 23#, K-55, ST&C
   5500'-6700' - 7", 26#, K-55, ST&C

5. A drawing of an API Series 900 Blowout Preventer Specification is attached. Pipe rams and blinds will be checked to 1,000 PSI for 30 minutes when BOP is installed. BOP will be checked when casing string is set and operated daily for checks.

6. The proposed mud program is as follows:

0-1400'	8.5-9.0	PPG	fresh water
1400'-6700'	9.0-10.0	PPG	salt water

7. The auxiliary equipment to be used is:
   (1) kelly cocks
   (2) floats at the bit

8. It is proposed to run GR CAL CNL FDC PDC logs at selected intervals, as shown on attached Proposed Well Plan.

9. No abnormal pressures or temperatures are expected to be encountered in this well.

10. The anticipated starting date is March 1, 1979, with a duration of approximately 21 days.

PEB:vjk

PROPOSED WELL PLAN OUTLINE

WELL NAME: SEMU Burger "B" No. 102 COUNTY: Lea

LOCATION: 990' FSL & 330' FWL STATE: New Mexico
Sec. 20, T20S, R38E

EST. KB 3555'
EST. DF 3540'

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE	CASING SIZE	CASING DEPTH	FRACTURE GRADIENT	FORMATION PRESSURE GRADIENT	MUD WEIGHT	MUD TYPE
	Quaternary Water ss. 80-150									
1000									8.5-9.0	Fresh Water
	Rustler Anhy. 1390 Salado Salt 1490		Geolograph Deflection 0-TD	12 1/4	9 5/8	1400'				
2000										
	Base Salt 2540 Yates ss. 2680	Possible water flows encountered @ 2700'-3000'								
3000										
4000										
5000	Glorieta ss.- 5355		GR-CNL-FDC DLL-CAL 2600'-TD							
	Blinebry Marker 5870									
6000	Tubb ss. 6350							Less Than 8.5	9.0-10.0	Salt Water Gel
	Drinkard dol. 6650 TD 6700			8 3/4	7"	6700'	15.5			
7000										

WELL NAME SEMU Burger "B" No. 102 FIELD NMFU DATE

AFE NO. ELEV. GRD KB PROPOSED TD 6700

LOCATION (SURF.) 990' FSL & 330' FWL OF SEC -20 T -20S R -38E

COUNTY Lea STATE New Mexico SPACING 40 Acres

LOCATION (BOTTOM HOLE)

GEOLOGICAL ESTIMATES

ZONE	TOP	THICKNESS	CONTENT	ZONE	TOP	THICKNESS	CON
Rustler Anhy.	1390'						
Salado Salt	1490'						
Base Salt	2540'						
Yates S.S.	2680'						
Glorieta S.S.	5355'						
Blinebry dolo.	5870'		O & G				
Tubb S.S.	6350'		O & G				
Drinkard dolo.	6650'						

CORING NO.	TYPE	HORIZON	INTERVAL FROM-TO	FOOTAGE	REMARKS

None

Samples: None

DRILL STEM TESTS

NUMBER	HORIZON	NUMBER	HORIZON	NUMBER	HORIZON	NUMBER	HORIZ

None

WATER SHUT OFF TESTS

WELL SURVEYS (List types by code numbers as follows: Directional and/or Deviation (1) Deflection (2) Caliper (3) Temperature (4) Electrical (5) Radioactive (6) Geolograph (7) Photoclinometer (8) Mudlogging (9) Other (10) and name of that type.)

DEPTH POINTS	TYPE	HOLE SIZE	REMARKS
0 - TD	Geolograph Deflection		
2600' - TD	GR-CNL-FDC DLL-Cal	8 3/4"	2" & 5" (Pull caliper to surf. csg shoe)
5300' - TD	PDC	Inside Csg.	

FUEL AND WATER (SOURCE)

PROPOSED WELL PLAN

WELL NAME SEMU Burger "B" No. 102 FIELD NMFU

ATTACHMENT	NO.	REQUIRED	NOT REQUIRED
CASING CENTRALIZERS, SCRATCHERS		X	
CEMENTING		X	
MUD PROGRAM		X	
WELL PLAN OUTLINE		X	
PORE PRESSURE - FRAC GRADIENT			
PROJECTED PROGRESS			
CROSS SECTION OR WELL COURSE			
HYDRAULICS PROGRAM			
BIT PROGRAM			
VENDER USAGE LIST			

DRILLING AND COMPLETION PROCEDURE

(1) 0-1400' Drill 12 1/4" hole. Set and cement 9 5/8" surface casing. WOC-18 hours. Pressure test to 1000 psi for 30 minutes. Drill out.

(2) 1400'-6700' Drill 8 3/4" hole. Pressure test shoe to 300#. Drill to TD. Run OH logs. Set and cement 7" OD production casing. WOC-18 hours. Pressure test to 1000# for 30 minutes.

(3) Detailed completion procedure to be prepared from OH log analysis. Anticipate sand frac on Blinebry and Tubb zones.

CASING, CENTRALIZERS & SCRATHERS

LIST TYPE OF STRING BY CODE LETTERS, i.e. CONDUCTOR (C); SURFACE (S); INTERMEDIATE (I); PRODUCTION (P); LINER (L); PERFORATIONS (PP)

TYPE OF STRINGS & INTERVAL (FT) FROM-TO	OD	ID	WT PER FT	GRADE	THREAD	AMT	WT. IN AIR, 1000 LBS	WT. IN MUD 1000 LBS	REMARKS
(S) 0-1400'	9 5/8"	8.845"	32.3#	H-40	STC	1400'	45.2	39.1	
(P) 0-5500'	7"	6.241"	23.0#	K-55	STC	5500'	126.5	107.5	
(P) 5500'-6700'	7"	6.151"	26.0#	K-55	STC	1200'	31.2	26.5	Sand blast & ruff-cote 600' csg. across pay sections

TYPE OF STRING	CENTRALIZERS NO.	CENTRALIZERS INTERVAL FROM-TO	SCRATCHER NO.	SCRATCHER INTERVAL FROM-TO	OTHER ACCESSORY EQUIPMENT (SUCH AS DEGASSERS, MUD, CENTRIFUGE FLOAT COLLARS, ETC. - SPECIFY)	REMARKS
(S) Surface	(4)	2 ea. on bottom two jts.	(13)	one every 15' from shoe to 200' from shoe	Guide shoe & float collar	
	(8)	one every 4 jts. to surface				
(P) Production	(4)	2 ea. on bottom two joints	(33)	one every 15' from 5800'-6050' & from 6300'-6550'	Float shoe & float collar	
	(7)	one every 3 jts. to 5800'				

MUD PROGRAM

DEPTH INTERVAL FROM-TO	WEIGHT LBS/GAL	TYPE	OIL %	pH	WATER LOSS (cc)	VIS. (sec.)	YEILD POINT	THINNING AGENTS	WATER LOSS AGENTS
0-1400'	8.5-9.0	Spud	--	9.0+	--	--	--	--	--
1400'-6700'	9.0-10.0	Salt Water Gel	--	9.0-10.0	10-12+	35-40	--	--	--

REMARKS

(1) Below 1400', drill w/saturated brine to keep hole enlargement to a minimum

(2) Add gelling agent as required to carry cuttings

(3) Pressure surges should be kept to a minimum below 1400'

(4) Condition mud to reduce water loss 100' above Blinebry marker

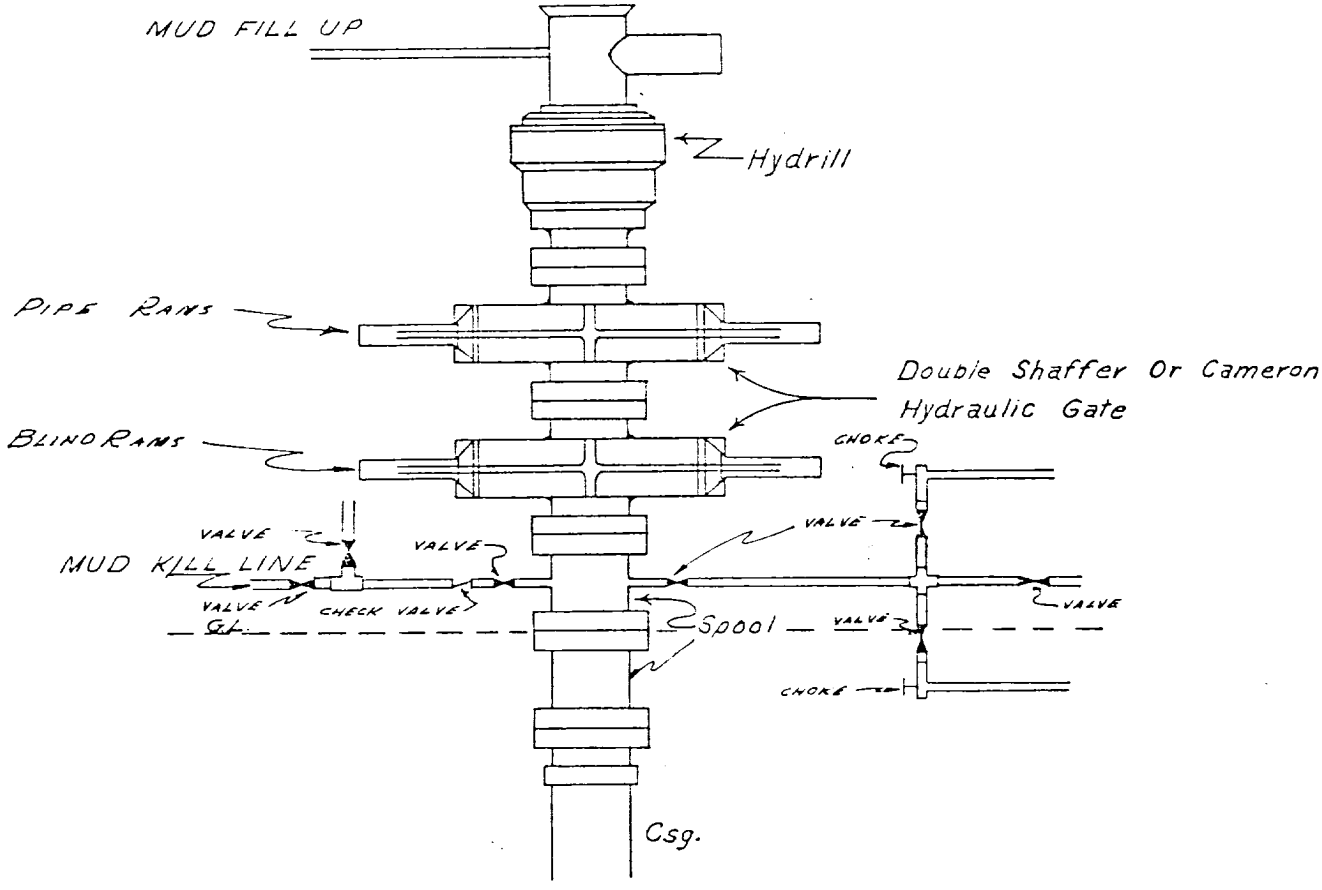
CEMENT

TYPE OF STRING INTERVAL (FT) FROM-TO	TYPE MIX	GEL%	SALT%	CaCl2	SLURRY WEIGHT LB./GAL	SLURRY YIELD OF/SKX	TOTAL AMT. REQUIRED SKX/CF	FILL UP	BHT	SIZE	REMARKS
(S) 0-1400'	Class "C" (Lead)	4%	--	2%	13.3	1.88	275/517	Circ.	85°F	12 1/4"	100% Excess Add 1/4#/sx flocele
	Class "C" (Tail-in)	--	--	2%	14.8	1.32	300/396	--			if lost circ. occurs
(P) 0-6700'	1st Stg.										
	Class "C" (Lead)	4%	3#/sx	--	13.3	1.88	250/470	To DV Tool @ 4000'	110°F	8 3/4"	100% Excess Add 1/4#/sx floc
	Class "C" (Tail-in)	--	3#/sx	--	14.8	1.32	300/396	--			if lost circ. occurs
	2nd Stg. - DV Tool @ 4000'										
	Lite Wate	--	18%	--	13.3	1.93	950/1834	Circ.	95°F	8 3/4"	200% Excess Add 1/4#/sx flocele if lost circ. occurs

REMARKS

(1) Lab test slurry for production casing
(2) Condition mud to have low plastic viscosity and yield strength
(3) Precede cement w/500 gal mud flush
(4) Utilize top and bottom plugs. Pump top plug down w/TFW
(5) Reciprocate casing while cementing
(6) Recalculate cement volumes from OH caliper log

CONTINENTAL OIL COMPANY
Blow-out Preventer Specifications



API Series 900

NOTE:

Manual and Hydraulic controls with closing unit no less than 75' from well head. Remote controls on rig floor.

DUE TO SUBSTRUCTURE CLEARANCE, HYDRILL MAY OR MAY NOT BE USED.