Form 9-331 C
(May 1963)

N.M.O.C.D. COPY SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-22673

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

RECEIVED
APR 24 1980
O. C. D.
ARTESIA, OFFICE

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U.S. GEOLOGICAL SURVEY
ARTESIA, NEW MEXICO

5. LEASE DESIGNATION AND SERIAL NO.: LC-067144

6. IF INDIAN, ALLOTTEE OR TRIBE NAME: --

1a. TYPE OF WORK: DRILL [X] DEEPEN [ ] PLUG BACK [ ]

7. UNIT AGREEMENT NAME: Big Eddy Unit

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

8. FARM OR LEASE NAME: Big Eddy Unit

2. NAME OF OPERATOR: Perry R. Bass

9. WELL NO.: 81

3. ADDRESS OF OPERATOR: P O Box 2760 Midland, Texas 79702

10. FIELD AND POOL, OR WILDCAT: Indian Flats

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 2310' FEL & 330' FSL, Sec. 35, T21S, R28E
At proposed prod. zone: Same as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec. 35, T21S, R28E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 10 miles east of Carlsbad, NM

12. COUNTY OR PARISH: Eddy

13. STATE: NM

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: 4000'

20. ROTARY OR CABLE TOOLS: Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): 3169.9 GL

22. APPROX. DATE WORK WILL START*: Upon approval

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
12-1/4"	8-5/8"	24#	400'	350 sx
7-7/8"	5-1/2"	14#	TD	315 sx

This well was orginally applied for and approved as Big Eddy Unit #64 in August, 1978.

Drilling procedure, BOPE diagram, anticipated formation tops and surface use plans attached.

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 _____ TITLE Engineering Assistant DATE 3-24-80

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 4-23-80

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

W MEXICO OIL CONSERVATION COMMI ON

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.
Bass Enterprises	Big Eddy Unit	81

Unit Letter	Section	Township	Range	County
O	35	21 South	28 East	Eddy

Actual Footage Location of Well:			
660 feet from the South line and 1980 feet from the East line			
Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3379	Delaware	Indian Flats Delaware	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?

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

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.

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CERTIFICATION

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

Name: Mike Waygood

Position: Engineering Assistant

Company: Bass Enterprises Prod. Co.

Date: March 24, 1980

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: 3-25-80

Registered Professional Engineer and/or Land Surveyor: Ronald J. Eidson

Certificate No. John W. West 676
Ronald J. Eidson 3239

United States Department of the Interior

GEOLOGICAL SURVEY
P. O. Drawer U
Artesia, New Mexico 88210

RECEIVED
APR 24 1980
O. C. D.
ARTESIA, OFFICE

April 23, 1980

Perry R. Bass
P. O. Box 2760
Midland, Texas 79702

PERRY R. BASS Big Eddy Unit No. 81 330 FSL 2310 FEL Sec. 35 T.21S R.28E Eddy County Lease No. LC-067144
Above Data Required on Well Sign

Gentlemen:

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 4,000 feet to test the Delaware formation is hereby approved subject to compliance with the OIL AND GAS OPERATING REGULATIONS (30 CFR 221) and the following conditions:

1. Drilling operations authorized are subject to compliance with the GENERAL REQUIREMENTS FOR OIL AND GAS OPERATIONS ON FEDERAL LEASES, dated July 1, 1978.

2. Prior to commencing construction of road, pad, or other associated developments, operator will provide the dirt contractor with a copy of the SURFACE USE PLAN and this approval including the GENERAL REQUIREMENTS.

3. All access roads will be limited to a 12 foot wide driving surface, excluding turnarounds. Surface disturbance associated with road construction will be limited to 20 feet in width.

4. Submit a Daily Report of Operations from spud date until the Well Completion Report (form 9-330) is filed. The progress report should be not less than 8" x 5" in size and each page should identify the well.

5. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Requirements. The color used should simulate Sandstone Brown (Federal Standard No. 595A, color 20318 or 30318).

6. Notify the Survey by telephone 24 hours prior to spudding well.

7. Cement behind the 8-5/8" casing must be circulated.

8. Notify Survey in sufficient time to witness the cementing of the 5-1/2' casing.

9. Please have anyone contacting the Survey in regard to this well to identify the well with all of the information required above for the well sign.

Sincerely yours,

George H. Stewart
Acting District Engineer

N.M.O.C.D. COPY

BASS ENTERPRISES PRODUCTION CO.
DIVISION PRODUCTION OFFICE
P. O. BOX 2760
MIDLAND, TEXAS 79702

900 VAUGHN BUILDING
(915) 684-5723

March 24, 1980

U. S. G. S.
P O Drawer U
Artesia, New Mexico 88210
Attention: Mr. George Stewart

Re: Big Eddy Unit #81
Eddy County, New Mexico
File: 400 - WF

Dear Mr. Stewart:

Attached are our applications (9 copies) to drill the subject well with complete drilling prognosis, development plan and multipoint surface use and operations plan.

Please be advised that this well was orginally applied for (and approved) as Big Eddy Unit #64 in August, 1978, and an archaeological survey of this location was done by the Agency of Conservation Archaeology, Eastern New Mexico University.

Feel free to contact myself or L. M. Cure at the letterhead address if additional information is required.

Very truly yours,

J. E. Pullig
Division Manager

JEP:MGW/kdb

Attachments

DRILLING PROCEDURE (Indian Flats Development Well)
Big Eddy Unit #81
Eddy Co., New Mexico

Surface Casing: 8-5/8" X 24#/ft. K-55 ST&C casing will be set in a 12-1/4" hole at 400'. Anticipate loss circulation from 100'-TD. After trying a pill of paper, hulls and gel, the hole may have to be dry drilled to TD. The casing will be run with a guide shoe, insert float and 3 centralizers. A cement basket may be run if circulation is not gained while drilling. The cement basket should be run 60' + below ground level. Cement with 200 sx Halliburton Lite (1.54 ft^3/sx, 13.6 ppg) w/¼#/sx flocoal "tailed-in" with 150 sx Class "C" plus 2% $CaCl_2$ (1.32 cu. ft/sx, 14.8 ppg). Cement must be circulated to the surface.

Nipple Up: After waiting 4 hours, the 8-5/8" casing should be cut off and an 8-5/8" SW x 8" 2000# WP RJT casinghead installed. NU manual double ram BOP's as per BEPCO I. Test casing and BOP's to 1000 psi before drilling plug.

Production Hole: A 7-7/8" hole will be drilled to TD (3800') using 10 ppg brine water with lime added for pH control. Paper may also be added to control seepage. Bottom hole assembly will consist of bit, 3 pt. bottom hole reamer, 30' DC, and a 3 pt. reamer. Hole deviation through the salt section will require reduced weights and frequent surveys every 200'.

A sulfur water flow requiring 12#/gal mud was encountered while drilling the B.E.U. #62. If this problem occurs in the B.E.U. #81, continue drilling for approximately 70' (Base of anhydrite interval), then pull out of the hole and try a cement squeeze.

A Lynes PIP packer or similar should be set in the first reliable packer seat above this sulfur flow. This point can probably be picked from the geolograph. If not, a caliper survey will be needed.

Depending on the interval from packer seat to sulfur flow, a cement volume of between 50 and 100 sx will be needed. Cement type - Class "C" high sulfate resistant w/2 $CaCl_2$.

After setting packer, squeeze sulfur flow at pressures not to exceed 500 psi. Over-displace drill pipe and packer then shut-in and wait on cement for 4 hours. Release pressure and check for flow. Providing job is successful, release packer and pull out of hole. If flow continues, squeeze again. Do not try more than two squeezes without releasing packer and pulling out of hole to inspect and redress.

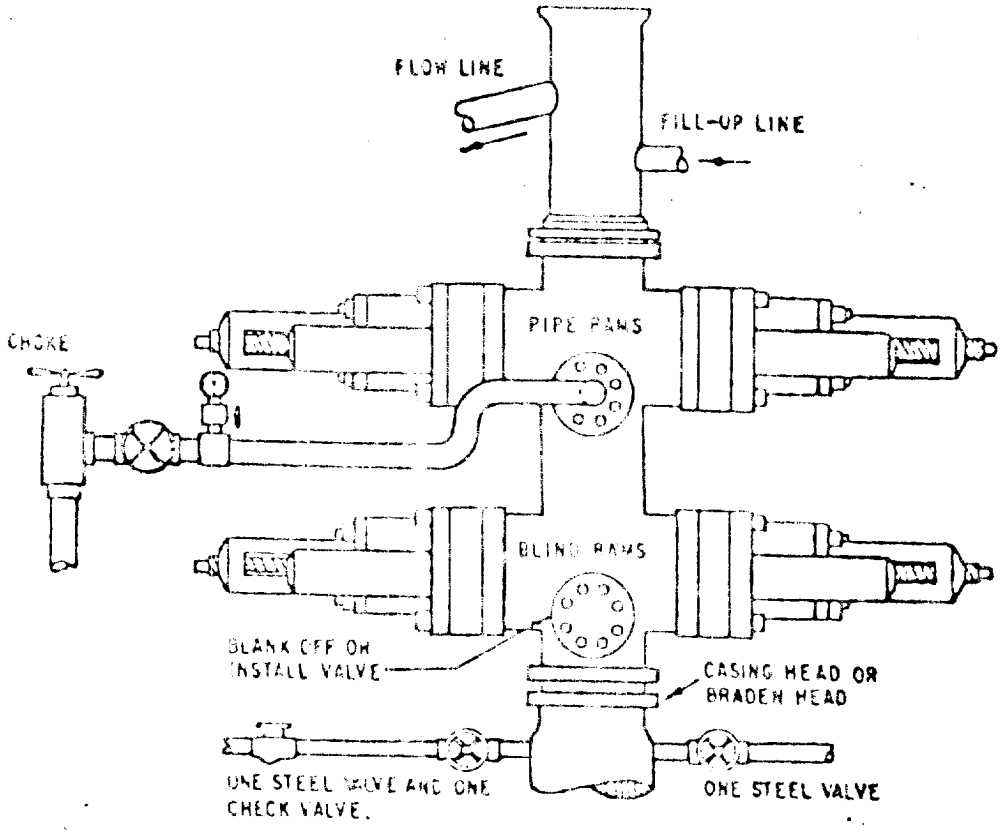
After drilling the cement plug, a 10#/gal brine water system may then be used to finish the hole. At 3500' top of Delaware the fluid viscosity should be increased to 32-34 funnel sec. and water loss lowered to 20 cc or less with starch.

Evaluation: 10' drilling samples are to be caught from surface casing depth - TD. Wireline logs to be run at TD are: DLL-RXO-GR, BHC-Sonic-GR, FDT. Side wall cores will be shot in zones of interest.

Production Casing: 5-1/2' 14#/ft. K-55 ST&C Casing will be set at TD (3800'). The casirg will be run with a float shoe (differential fill), float collar (differential fill), and six centralizers. The bottom 500' will be ruff-coated. Cement back to 2,000' using approx. 315 sx 50-50 Pozmix "A" plus 8#/sx salt. TOC 2000'. After "bumping the plug" cut off the 5-1/2" casing and install an 8" x 6" 2000# WP w/2" 2000# outlet tubinghead.

FORMATION MARKERS

T/Rustler	680'
T/Salt	880'
B/Salt	1920'
T/Delaware Lime	2700'
T/Delaware Sandstone	2800'
T/Indian Flats	3509'
T/49 Zone	3648'



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A CONDITIONS MAY BE MET BY EITHER

(1) ONE MANUALLY OPERATED DUAL BLOWOUT PREVENTER WITH THE LOWER RAMS BLIND AND THE UPPER RAMS FOR PIPE AND AN OUTLET BETWEEN THE RAMS

(2) TWO MANUALLY OPERATED BLOWOUT PREVENTERS WITH A CHOKE SPOOL BETWEEN THEM, THE LOWER UNIT CONTAINING BLIND RAMS AND THE UPPER UNIT CONTAINING PIPE RAMS.

B THE OPENING BETWEEN PREVENTERS TO BE FLANGED, STUDDED, OR CLAMPED AND AT LEAST TWO INCHES DIAMETER.

C. ALL CONNECTIONS TO AND FROM PREVENTERS TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE BLOWOUT PREVENTERS.

D. MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING CEMENT PLUG.

E. VALVE TO CONTROL FLOW THROUGH DRILL PIPE TO BE LOCATED ON RIG FLOOR.

F CHOKE MAY BE EITHER POSITIVE OR ADJUSTABLE

BEFCO I

TWO CLOSURE MANUAL BLOWOUT PREVENTER