Form 9-331 C
(May 1963)

N. M. O. C. C. COPY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-015-22839

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: LC 067144

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

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

7. UNIT AGREEMENT NAME: Big Eddy Unit

8. FARM OR LEASE NAME: Big Eddy Unit

2. NAME OF OPERATOR: Perry R. Bass ✓

9. WELL NO.: 74

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

RECEIVED
FEB 16 1979
O. C. C.
ARTESIA, OFFICE

10. FIELD AND POOL, OR WILDCAT: Indian Flats

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)
At surface: 660'FNL & 1980'FEL, Sec 25, T21S, R28E
Eddy County, New Mexico
At proposed prod. zone: same as above

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Sec 25, T21S, R28E

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

12. COUNTY OR PARISH: Eddy

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: ~~640~~ 1280

17. NO. OF ACRES ASSIGNED TO THIS WELL: 320

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

19. PROPOSED DEPTH: 13000

20. ROTARY OR CABLE TOOLS: rotary

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

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
15"	11-3/4"	42	500	290 sx
11"	8-5/8"	24 & 28	2700	1225 sx
7-7/8"	5-1/2"	15.5 & 17	13000	1100 sx

Drilling procedure, BOPE Diagram, anticipated tops & surface use plans are attached.

Gas sales are dedicated

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 Gary C. Gilliland TITLE Senior Drilling Engr. DATE 1/24/79

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE 2-13-79

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

*See Instructions On Reverse Side

RECEIVED
FEB 16 1979
O. C. C.
ARTESIA, OFFICE

United States Department of the Interior

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

February 13, 1979

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

PERRY R. BASS
Big Eddy Unit Well No. 74
660 FNL 1980 FEL Sec. 25, T21S, R28E
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 13,000 feet to test the Morrow 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 attached 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 these Conditions of Approval including the attached General Requirements.

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

4. All permanent above-ground structures and equipment shall be painted in accordance with the attached Painting Guidelines. The color used should simulate sandstone brown (Federal Standard Color No. 595A, color 20318 or 30318).

5. Before drilling below the 8-5/8" casing, the blowout preventer assembly will consist of a minimum of one annular type and two ram type preventers.

6. A kelly cock will be installed and maintained in operable condition.

7. After setting the 8-5/8" casing string and before drilling into the Wolfcamp formation, the blowout preventers and related control equipment shall be pressure tested to rated working pressures by an independent service company. Any equipment failing to test satisfactorily shall be repaired or replaced. This office should be notified in sufficient time for a representative to witness the tests and shall be furnished a copy of the pressure test report.

8. Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be installed and operating before drilling into the Wolfcamp formation and used until production casing is run and cemented. Monitoring equipment shall consist of the following:

   (1) A recording pit level indicator to determine pit volume gains and losses.

   (2) A mud volume measuring device for accurately determining mud volume necessary to fill the hole on trips.

   (3) A flow sensor on the flow-line to warn of any abnormal mud returns from the well.

Sincerely yours,

(Orig. Sgd.) ALBERT R. STALL

Albert R. Stail
Acting District Engineer

74

B 25

660

321.0 Morrow Indian Flats 320

X unit

Gary E. Gerhard

Senior Drlg Engr

Bass Enterprises Prod Co

1/25/79

1/27/79

John W. West 676

3239

ANTICIPATED FORMATION TOPS
BIG EDDY UNIT #74

T/Delaware Mtn Gp	2710'
T/Bone Springs	6360'
T/Wolfcamp	9740'
T/Strawn	11015'
T/Atoka	11375'
T/Middle Morrow	12160'
T/Lower Morrow	12450'

MULTI-POINT SURFACE USE AND OPERATIONS PLAN

Big Eddy Unit No. 74

1980' FEL & 660' FNL

Sec 25, T21S, R28E

Eddy County, New Mexico

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction, activities, and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to rehabilitate the surface after completion of operations so that an appraisal can be made on environmental effects.

1. Existing roads including location of exit from main highway Exhibit "A" is a portion of a map showing existing Water Line Rd. This road is obtained by traveling approx 2-1/2 miles NE of Carlsbad and turning right at the Eddy County Sheriff's Posse Roping Arena. The existing road to BEU #74 is approx 8 miles down this road.

2. Planned access road (Width, maximum grade, turnout, drainage design, location & size of culverts & surfacing material, where fences will be cut, & where gates or cattleguard will be used.)
Exhibit "B" is a drawing showing planned access road to BEU #74. This road will be 12' wide and approx 660' long. The road will be constructed of watered and compacted caliche with no turnouts, cattle guards, gates or culverts.

3. Location of existing wells Exhibit "A" shows surrounding existing wells.

4. Location of tank battery and flow lines
If a commercial well is obtained, production facilities will be located on the well pad. Refer to Exhibit "C".

5. Location and type of water supply Fresh water will be hauled from the city of Carlsbad. Brine water will be hauled from Champion Brine Water Station, 3-1/2 miles east and 2-1/2 miles south of Carlsbad.

6. Source of construction material Exhibit "A" shows location of caliche source.

7. Methods of handling waste disposal:

   A. Drill cuttings will be disposed of in the drilling pits.

   B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.

   C. Water produced during tests will be disposed of in the drilling pits. Oil produced during tests will be stored in test tanks until sold.

   D. Current laws and regulations pertaining to the disposal of human waste will be complied with.

   E. Trash, paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste materials will be contained to prevent scattering by the wind. Location of trash pit is shown in Exhibit "C".

   F. Trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations. (Note: All trash left on well site to be removed or buried within 30 days must be contained to prevent scattering.)

8. Ancillary facilities none required

9. Well site layout Exhibit "C" shows the approx dimensions of the well pad and reserve pit, as well as the relative location of major rig components, trash pit, etc. Only minor levelling of the well site will be required. No significant cuts or fills will be necessary. The reserve pit will be lined with plastic. The pit and pad area have been staked and flagged.

10. Plans for restoration of surface:

A. Producing well - all pits will be cut, filled, and leveled as soon as practical to original conditions with rehabilitation to commence following removal of drilling and completion equipment.

B. Dry hole - same as above with dry hole marker to be installed and surface reseeded if required. At the time of final abandonment, both USGS and BLM restoration stipulations will be complied with.

11. Other information:

A. Terrain relatively flat

B. Soil sandy

C. Vegetation sparse, primarily mesquite, with very little grass

D. Surface use grazing

E. Surface water none

F. Water wells There is a wind mill approx 1 mile southwest of this location.

G. Residences and buildings none

H. Surface ownership The well site and access road are on federal land.

I. Well signs posted at each drilling site.

J. Open pits - all pits containing liquid or mud will be fenced.

K. Archaeological resources none observed

12. Operator's representative
(Field personnel responsible for compliance with development plan for surface use)

DRILLING
Mike Cure
Box 2760
Midland, Texas 79702
915-684-5723

PRODUCTION
Al Gallas
Box 1043
Kermit, Texas 79745
915-563-0656
(or) Mike Cure
Box 2760
Midland, Texas 79702
915-684-5723

13. Certification:

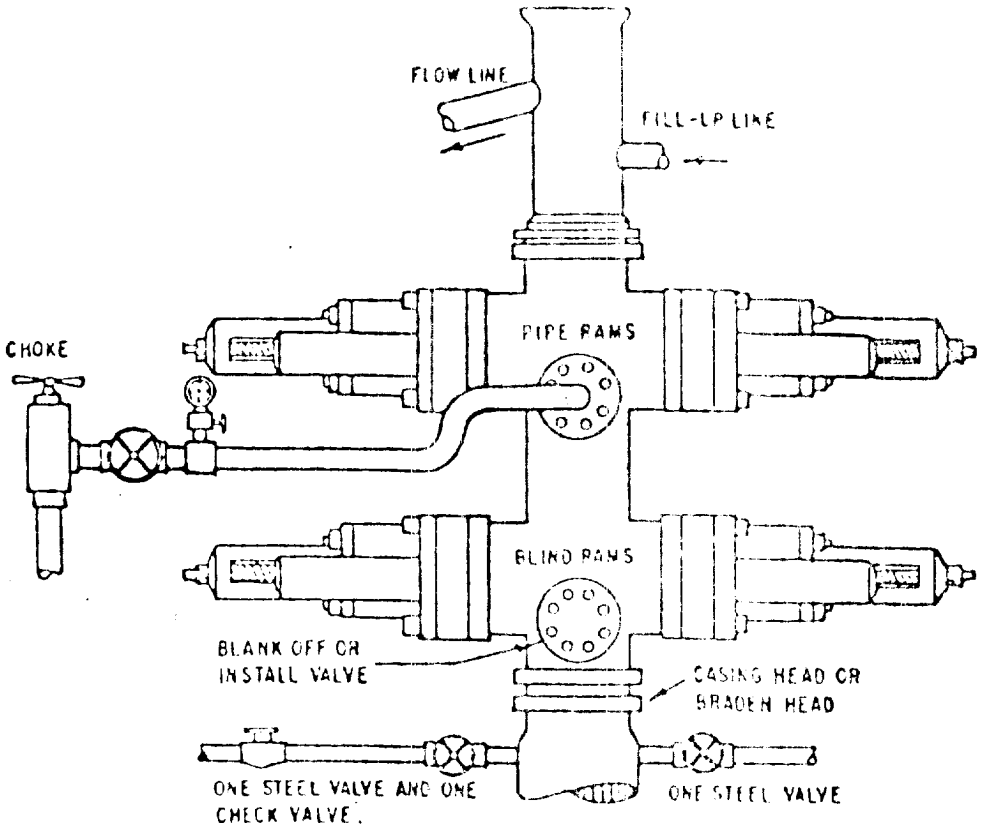
I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Bass Enterprises Production Company and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved

February 02, 1979
(Date)

(Name)

Senior Drilling Engineer
(Title)

CEB:gp



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. ONE DOUBLE GATE BLOWOUT PREVENTER WITH LOWER RAMS BLIND AND UPPER RAMS FOR PIPE, ALL HYDRAULICALLY CONTROLLED. OPENING ON PREVENTERS BETWEEN RAMS.

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

C. ALL CONNECTIONS FROM OPERATING MANIFOLD TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.

D. THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE PREVENTERS.

E. ALL CONNECTIONS TO AND FROM PREVENTERS TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.'s.

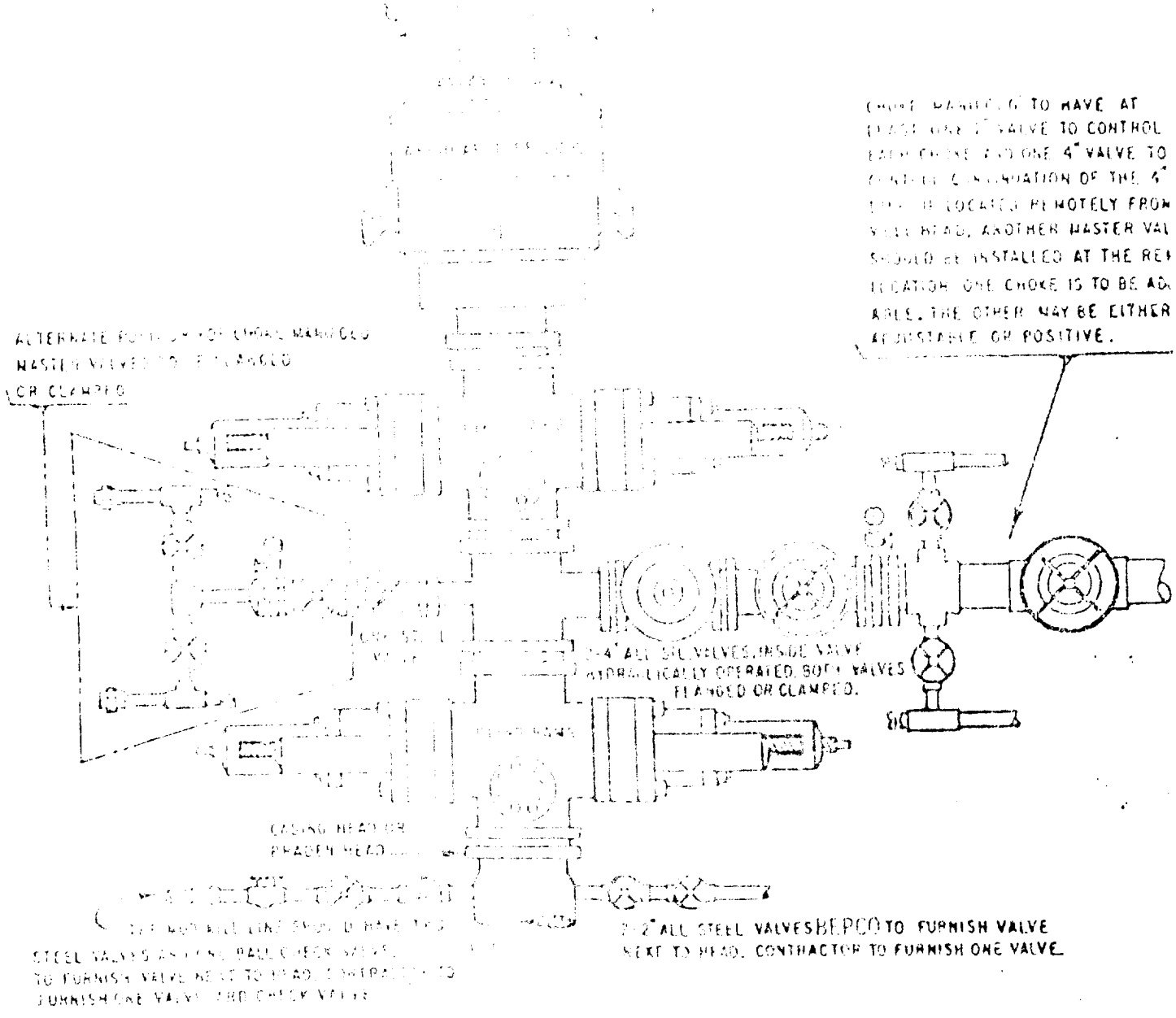
F. MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING CEMENT PLUG.

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

H. CHOKE MAY BE EITHER POSITIVE OR ADJUSTABLE. choke spool may be used between rams.

BEPCO II

ONE HYDRAULIC DUAL BLOWOUT PREVENTER



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

A. CONDITIONS PERMITTING, THE BLOWOUT PREVENTER AND ACCESSORIES SHALL BE AS SHOWN AND EITHER

(1) TWO HYDRAULIC OPERATED RAM TYPE PREVENTERS, ONE UNIT CONTAINING BLIND RAMS AND THE UPPER UNIT CONTAINING PIPE RAMS.

(2) A DUAL HYDRAULIC PREVENTER WITH BLIND RAMS ON BOTTOM AND PIPE RAMS ON TOP.

B. OPENING ON [illegible] SHALL BE AT LEAST 4" IN DIAMETER.

C. ALL CONNECTIONS IN THE BOP STACK SHALL BE ALL STEEL FLANGED TYPE A MINIMUM OF ONE INCH IN DIAMETER.

D. THE FLUID ACCUMULATOR SYSTEM SHALL HAVE SUFFICIENT VOLUME TO OPERATE THE BOP'S AND HAVE A RESERVE CAPACITY EQUIVALENT TO THAT REQUIRED TO OPERATE THE BOP'S.

E. ALL CONNECTIONS TO AND FROM PREVENTERS SHALL BE OF STEEL CONSTRUCTION AND OF A DIAMETER EQUIVALENT TO THAT OF THE B.O.P.'S.

F. MANUAL CONTROLS SHALL BE INSTALLED AT A REMOTE LOCATION.

G. KELLY COCK AND FLOOR VALVE SHALL BE AVAILABLE.

H. INSIDE BLOWOUT PREVENTER SHALL BE AVAILABLE.

I. DUAL OPERATING CONTROLS SHALL BE INSTALLED, ONE ON RIG FLOOR AND THE OTHER LOCATED A SAFE DISTANCE FROM THE RIG FLOOR.

FIGURE 1.

THREE RECOMMENDED HYDRAULIC BLOWOUT PREVENTERS

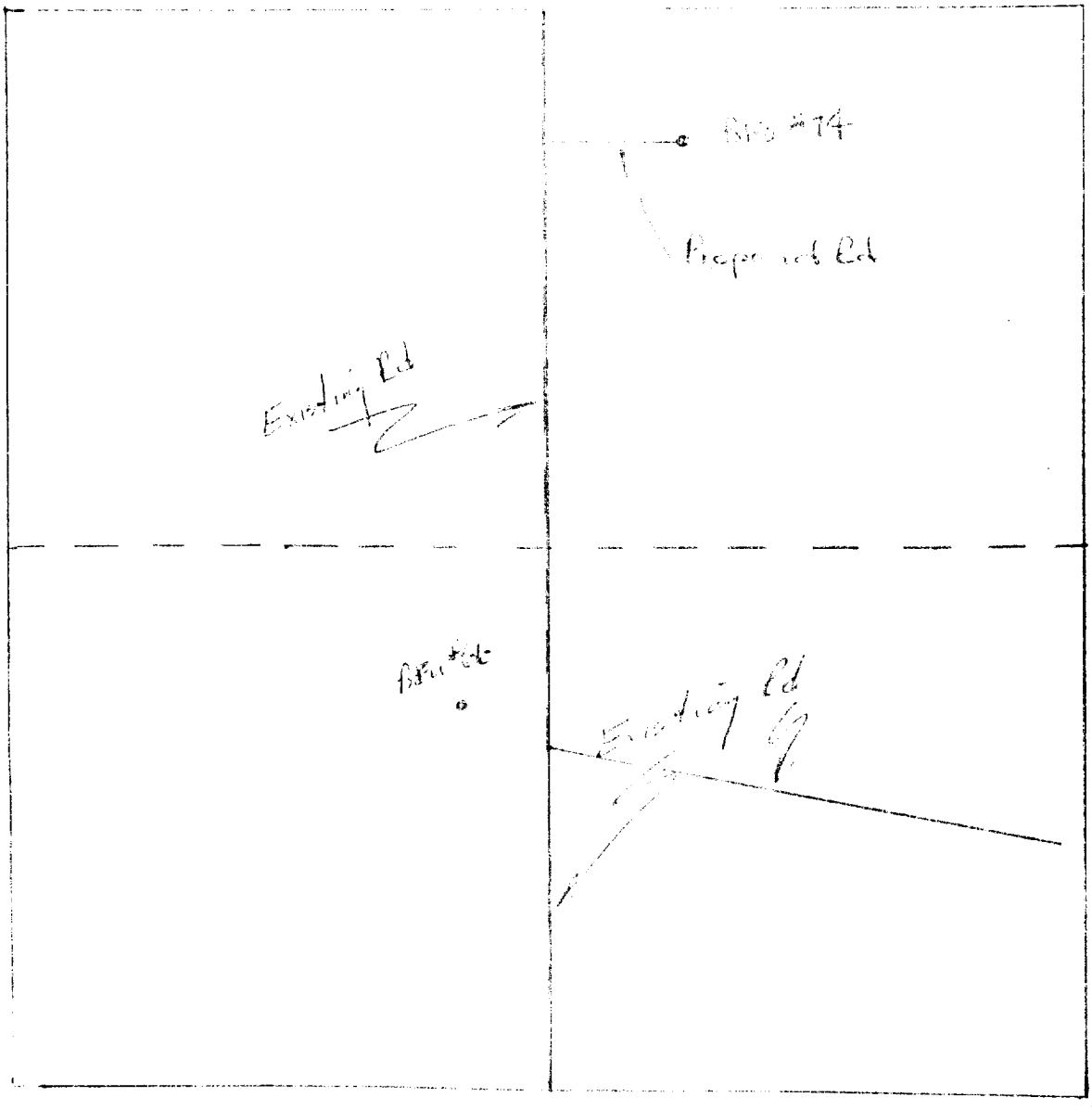


EXHIBIT "B"

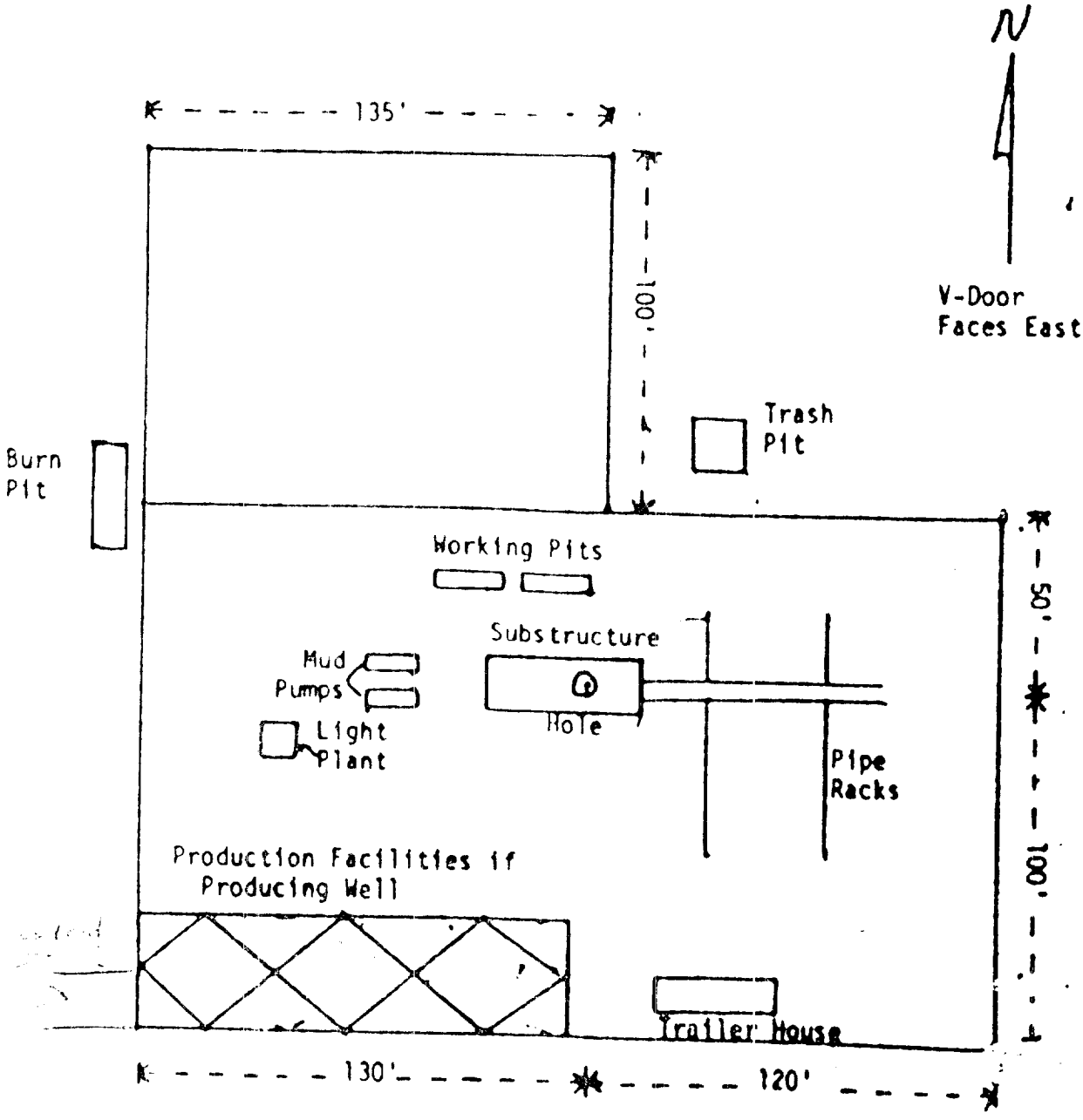

N
135'
100'
V-Door
Faces East
Trash
Pit
Burn
Pit
Working Pits
Substructure
Mud
Pumps
Hole
Light
Plant
Pipe
Racks
50'
100'
Production Facilities if
Producing Well
Trailer House
130'
120'

EXHIBIT C


EXHIBIT "A"
INDIAN FLATS
BASS
"Big Eddy Unit"
Richardson & Bass, etal
Richardson & Bass
Rich. E. Bass
HBU - E-5232
Ralph Nix, S/R
Nix & Curtis
Rich-Bass
U.S.
State
Victor Line Rd
"Ford-St"
Hudson E. Hudson, etal
HBU
069876
Cliche Pit

DRILLING PROCEDURE
BIG EDDY UNIT NO. 74
Eddy County, New Mexico

LOCATION: 1980' FEL & 660' FNL, Sec 25, T21S, R28E

CONDUCTOR PIPE: 16" conductor casing should be set at 40'± with a rathole machine and cemented to surface with ready-mix.

BOTTOM HOLE ASSEMBLY:
A suggested BHA assembly for the 11" intermediate hole would consist of the following: (1) blade type near bit stabilizer (2) short drill collar 8" OD x 10' (3) blade type stabilizer (4) 30' x 8" OD drill collar (5) blade type stabilizer (6) remaining 8" OD drill collars.

The 7-7/8" BHA would consist of the following: (1) 6 pt near bit reamer with knobby rolling cutters (2) short drill collar 6" OD x 10' (3) blade type stabilizer (4) 6' OD x 30' drill collar (5) blade type stabilizer (6) remaining 6" OD drill collars.

SURFACE CASING:
A 15" surface hole will be drilled to 400'± with fresh water gel mud 8.5 ppg 40-50 vis. Loss circulation material will be used to control minor fluid losses. If severe loss circulation occurs, dry drill to TD. The surface casing will be 11-3/4" 42#/ft H-40 ST&C casing run with a guide shoe insert float and three centralizers. The casing is to be cemented to the surface with approximately 290 sx Class "C" + 2% $CaCl_2$, 14.8 ppg 1.32 ft^3/sk, 100% excess. Use top and bottom wooden plugs.

NIPPLE UP:
The casing head will be an 11-3/4" x 12", 3000# WP RJT flange with two 2" threaded outlets. Minimum BOPE is 2 hydraulic operated rams 10", 3000# WP BEPCO II (drawing attached). Pressure test stack, choke manifold and surface casing to 1000 psi before drilling cement plug

INTERMEDIATE CASING:
A 11" hole will be drilled to 2710'± (T/Lamar Lime) with a 10#/gal brine water system circulating the reserve pit. Loss circulation may occur between 1000' and TD. If loss circulation occurs, ground paper may be added as needed. Complete loss of returns will require dry drilling to TD. A caliper survey should be run to determine the required cement volume (20% excess)

The 8-5/8" intermediate casing string will consist of the following segments:

SEGMENT	INTERVAL	WEIGHT	GRADE	THREAD
1	2700-1200	28#/ft	S-80	ST&C
2	1200-0	32#/ft	K-55	ST&C

This casing string should be run with a combination float and guide shoe, float collar, and 6 centralizers, spaced every other collar beginning 5' above the guide shoe. A DV tool should also be run in the string at approximately 1000' with two cement baskets immediately below it.

The casing should then be cemented in two stages as follows:

(1) Cement 1st stage with approximately 475 sx Halliburton Light with 8#/sk salt plus 1/4#/sk Flocel, 13.6 ppg, 1.54 ft^3/sk "tailed in" with 200 sx Class "C" with 8#/sk salt plus 1/4#/sk Flocel, 14.8 ppg, 1.32 ft^3/sk (2) Cement 2nd stage with 450 sx Halliburton Light with 8#/sk salt plus 1/4#/sk Flocel, 13.6 ppg, 1.54 ft^3/sk "tailed in" with 100 sx Class "C" plus 8#/sk NaCl plus 1/4#/sk Flocel. If cement is not circulated to the surface, the casing must be grouted with 3/4" tubing etc.

NIPPLE UP 8-5/8" CASING:

The BOP's should be removed and the 8-5/8" casing slips set immediately after plug down. Wait on the cement 4 hours before beginning additional nippling up procedures.

Cut the 8-5/8" casing off and install a 12" 3000# WP x 10" 5000# WP wellhead spool with 8-5/8" seals, and bit guide. Then proceed to nipple up the BOP's per BEPCO drawing IV (attached).

BOP's and choke manifold should be hydrostatically tested to 5000 psi before drilling DV tool and cement plug. After drilling DV tool and before drilling cement plug, pressure test casing to 2000 psi with mud pump. After drilling 5' of new hole, test 8-5/8" casing seat to 600 psi (equivalent 11.8#/gal).

PRODUCTION CASING:

Drill a 7-7/8" hole from 2710'± to TD (12,550'). The drilling fluid will be fresh water lime system, pH 9.5, from 2710' to 9700' (T/Wolfcamp) circulated through the reserve pit for solids control. (Paper may be added for seepage control). From 9700' to 11300', the drilling fluid should be 10 ppg brine water lime system with 3% KCl. In addition, a mud-gas separator and rotating head should be installed by 9700'. From 11,300' to TD a 11.7 ppg, 42-44 vis brine Drispac 3% KCl system should be used. The water loss should be maintained at 10 cc or less throughout this interval.

The 5-1/2" casing will be run with a float shoe and float collar. The casing should be centralized and "ruff-coted" through potential pay zones. Required cement volumes should be calculated from a caliper survey incorporating 20% excess, with a fillup 1000' above top of the Wolfcamp (8700' approx). The cement volume will be approximately 1100 sx consisting of 200 sx Halliburton "Light" plus 5#/sk KCl plus 0.3% CFR-2, 13.6 ppg, 1.54 ft^3/sk, followed by 900 sx Class "H" plus 5#/sk KCl plus 0.3% CFR-2 plus 0.6% Halad 22, 15.8 ppg, 1.20 ft^3/sk. The cement is to be tested with rig water for a minimum pump time of 3 hours on an API 12,000' schedule (assume BHT 200°F).

PRODUCTION CASING 5-1/2":

SEGMENT	INTERVAL	WEIGHT	GRADE	THREAD
1	12550-11130'	17#	S-95	LT&C
2	11130- 0	17#	N-80	LT&C

EVALUATION:

A one-man logging unit will be at location from 3000' to TD. A consultant geologist will also be on location through the Delaware Sands and from the Wolfcamp to TD.

The following logs will be run from TD to intermediate casing point (1) CNL-FDC (2) DLL-RXO. Sonic logs will also be run through the Delaware Sands.

DST's are anticipated in the Delaware, Strawn and Atoka sections.

BLOWOUT PREVENTION PROCEDURES:

The pipe rams should be operated once each tour from 9700' to TD. Blind rams should be closed after each bit trip.

A reduced circulating pressure @30 spm should be taken each day and this recorded on the daily drilling log. The attached BOP prevention work sheet should also be kept current.

TIME:

This well is estimated to take 48 days.

SUGGESTED BIT & HYDRAULICS PROGRAM:

BIT RUN	SIZE	TYPE	JETS	ROP	FOOTAGE
1	15"	SDT, OSC3	3x12	50	400
2	11"	F4	3x10	27.5	2300
3	7-7/8"	F47	2x12 blk	40	3250
4	7-7/8"	F57	2x12 blk	28	2800
5	7-7/8"	Reed OCD733	12, 13, blk	20	1800
6	7-7/8"	FP63	3x10	12	400
7	7-7/8"	J55	3x10	10	500
8*	7-7/8"	FP63	3x10	10	400
9*	7-7/8"	F57	3x10	10	400
10*	7-7/8"	F57	3x10	10	300

*May use diamond bits through these intervals.

GEG:gp
1/26/79