

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

30-015-23004

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK DRILL <input checked="" type="checkbox"/> DEEPEN <input type="checkbox"/> PLUG BACK <input type="checkbox"/>			5. LEASE DESIGNATION AND SERIAL NO. LC 03302		
b. TYPE OF WELL OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER <input type="checkbox"/>			6. IF INDIAN, ALLOTTED OR TRIBE NAME		
2. NAME OF OPERATOR Perry R. Bass			7. UNIT AGREEMENT NAME Big Eddy Unit		
3. ADDRESS OF OPERATOR P O Box 2760 Midland, Texas 79702			8. FARM OR LEASE NAME Big Eddy Unit		
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.) At surface 1980' FWL 1980' FNL Sec. 7, T22S, R29E At proposed prod. zone Same as above			9. WELL NO. 71		
14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE* 8 miles east of Carlsbad, NEw Mexico			10. FIELD AND POOL, OR WILDCAT Wildcat		
15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any) 660'			11. SEC., T., R., M., OR R.L.K. AND SURVEY OR AREA Sec. 7, T22S R29E		
16. NO. OF ACRES IN LEASE 320			12. COUNTY OR PARISH Eddy		
17. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT. 0			13. STATE N M		
18. PROPOSED DEPTH 12,300'			20. ROTARY OR CABLE TOOLS Rotary		
21. ELEVATIONS (Show whether DF, RT, GR, etc.)			22. APPROX. DATE WORK WILL START* Upon approval		

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
18"	16"	65#	40'	Ready mix
15"	11 3/4"	42#	300'	400 sx
11"	8 5/8"	28#	2900'	1250 sx
7 7/8"	5 1/2"	17 & 15#	T. D.	1000 sx

Drilling Procedure, BOPE Diagram, anticipated tops, and surface use plans are attached.

Gas is DedicatedRECEIVED
SEP 4 1979
U.S. GEOLOGICAL SURVEY
ARTESIA, 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 Gay E. Herbert TITLE Senior Drilling Engineer DATE August 30, 1979
(This space for Federal or State office use)PERMIT NO. _____ APPROVAL DATE 9-18-79APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

WELL LOCATION AND ACREAGE INFORMATION

THE FOLLOWING INFORMATION IS FOR INFORMATION ONLY AND DOES NOT CONSTITUTE A WARRANTY OR GUARANTEE OF ANY KIND.

Perry R. Bass

Big Eddy Unit

71

F

7

22 South

29 East

Eddy

1980

North

1980

West

3295.0

Morrow

Wildcat

320.0

One of the acreage dedicated to the subject well is for the purpose of production of oil and gas.

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SEP 19 1979

O. C. C.
ARTESIA, OFFICE
Unit

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ARTESIA, NEW MEXICO

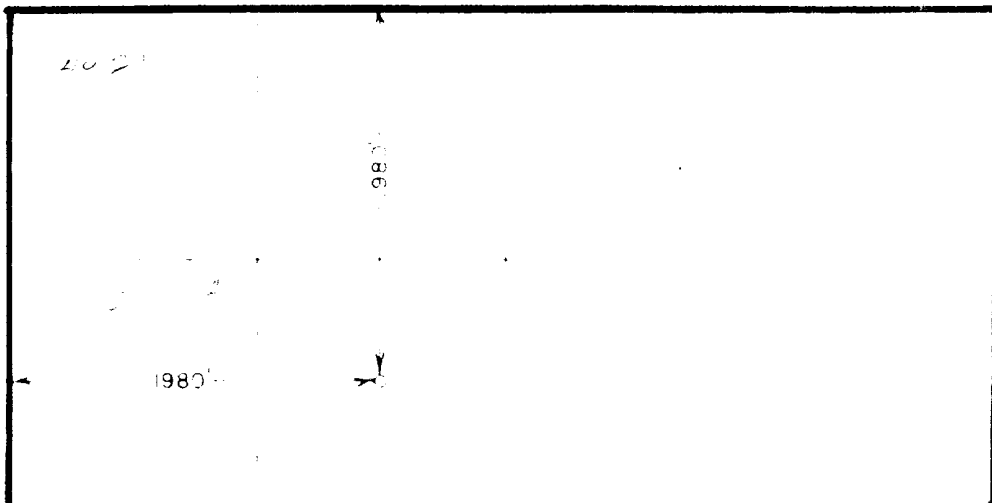
1. If more than one lease is dedicated to the well, indicate the lease number, the lease owner, and the lease interest and royalty.

2. If more than one lease of different ownership is dedicated to the well, indicate the lease number, the lease owner, and the lease interest and royalty.

X Yes No If answer is "Yes," type in the number of the lease.

If answer is "No," list the owners and tract descriptions in the space provided, or attach a separate sheet if necessary.

No available will be assigned to the well until all interests are exhausted. If the well is not producing, it may be pooled, or otherwise for until a reasonable standard is reached.



Gary Gerhard

Gary Gerhard

Senior Drilling Engineer

Bass Enterprises Production Co.

August 30, 1979

SEP 7, 1979

Robert

676

3234



United States Department of the Interior

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

RECEIVED

SEP 19 1979

O. C. C.
ARTESIA, OFFICE

September 18, 1979

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

Gentlemen:

PERRY R. BASS
Big Eddy Unit Well No. 71
1980 FNL 1980 FWL Sec. 7 T.22S R.29E
Eddy County Lease No. NM 03302

Above Data Required on Well Sign

Your APPLICATION FOR PERMIT TO DRILL the above-described well to a depth of 12,300 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 not be less than 8" x 5" in size and each page should identify 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 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.
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,

Albert R. Stall
Acting District Engineer

5. Location and type of water supply Fresh water will be hauled from Carlsbad.

Brine water will be hauled from Champion Brine Sales 3½ miles east and
2½ miles south of Carlsbad.

6. Source of construction material Exhibit "A" shows approximate 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 "D".

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 approximate dimensions of the well
pad and reserve pits as well as the relative location of major rig
components. Only minor leveling of the well site will be required. 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 same time of final abandonment, 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 none
- 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)

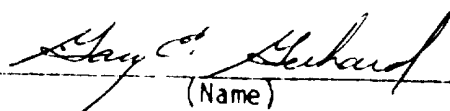
DRILLING
Mike Cure
Box 2760
Midland, Texas 79702
915-684-5723

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.

August 30, 1979
(Date)


(Name)

Senior Drilling Engineer
(Title)

CEB:gp

DRILLING PROCEDURE

BIG EDDY UNIT # 71

Location: 1980' FNL & 1980' FWL, Sec. 7, T22S, R29E.

Conductor Casing: 40' + of 16" conductor casing will be set with a rathole machine and cemented to the surface with ready-mix.

Surface Hole: A 15" OH will be drilled to 300' + (Rustler Anhydrite) and 11 3/4" casing run to total depth. The surface casing will be cemented with 400 sx Class "C" plus 2% CaCl₂. Cement must be circulated to the surface.

Total WOC time is 8 hours.

Nippling up 11 3/4" casing: After waiting 4 hours "nippling up" procedures may begin. A 11 3/4" SW 3000# WP x 12" 3000 # RJT casing head will be welded in place. A set of hydraulic operated pipe and blind rams will then be installed. (See BEPCO Drawing II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily drillers' log.

Intermediate hole: A 11" OH will then be drilled to 2900' (B/Lamar Lime). 8 5/8" casing will be run to total depth and cement with 1000 sx of Halliburton "Light" cement tailed in with 250 sx Class "C" plus 2% CaCl₂. Cement must be circulated to the surface.

Total WOC time for this casing string will be 12 hours.

Nippling up 8 5/8" Casing: After waiting 4 hours "Nippling up" procedures may begin. The 11 3/4" casinghead will be removed and 8 5/8" SW 5000# WP x 12" 5000# WP RJT casinghead installed.

A BOP stack consisting of hydrill, pipe rams, and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hydro-statically tested to 5000 psi (hydrill 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 8 5/8" BOP stack. A copy of the test results will also be furnished the USGS.

The results of this test will be recorded in the daily drillers' log.

Production Hole: A 7-7/8" OH will then be drilled to TD (13,000+). A PVT recorder, flow-show sensor and rotating head will be installed before drilling the Wolfcamp.

5 1/2" casing will then be run to TD. This casing string will be cemented with 1000sx Class "H" plus 5# KC1 per sack. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time: This well is estimated to take 55 days from spud to TD.

28 / 6

MUD PROGRAM

BIG EDDY UNIT # 71

1980' FNL & 1980' FWL, Sec. 7, T22S, R29E

Surface Hole:

The 15" surface hole will be drilled with a fresh water native mud, viscosity 34-40, wt. 8.9-9.2 ppg.

Intermediate Hole:

The 11" intermediate hole will be drilled with a 10 ppg brine water fluid, viscosity will be controlled at 28-32 or as hole conditions dictate. Paper may be used to control seepage.

Production Hole:

The 7 7/8" production hole will be drilled with fresh water 8.4-8.9 ppg from 3450' to 9950' (T/Wolfcamp). A fresh water gel 32-34 vis, low solids, non-dispersed system may be used through the Delaware Mountain Group (3450'-4500') for sample evaluation but after penetrating the Indian Draw, 49er sections the system can be watered back.

At 9950' displace the hole with 10 ppg brine water. This system can be used from the top of the Wolfcamp to T.D. with variations in viscosity weight and water loss as hole conditions dictate. A Grant rotating head and SWACO or similar mud-gas separator should also be installed at this time.

At the top of the Strawn (11,050') the weight should be increased to 10.3 ppg with soda ash, viscosity raised to 36 with drispac and XC-polymer. The fluid loss should be lowered to 15 cc or less.

Approximately 100' above the Atoka (11,630') the weight should again be increased to approximately 11#/gal and the water loss lowered to 10 cc (3% KCl should also be added at this time). These properties will be maintained for the remainder of the well. Ground paper may be added to the system to control any fluid seepage. Fluid weight can be increased or decreased as warranted.

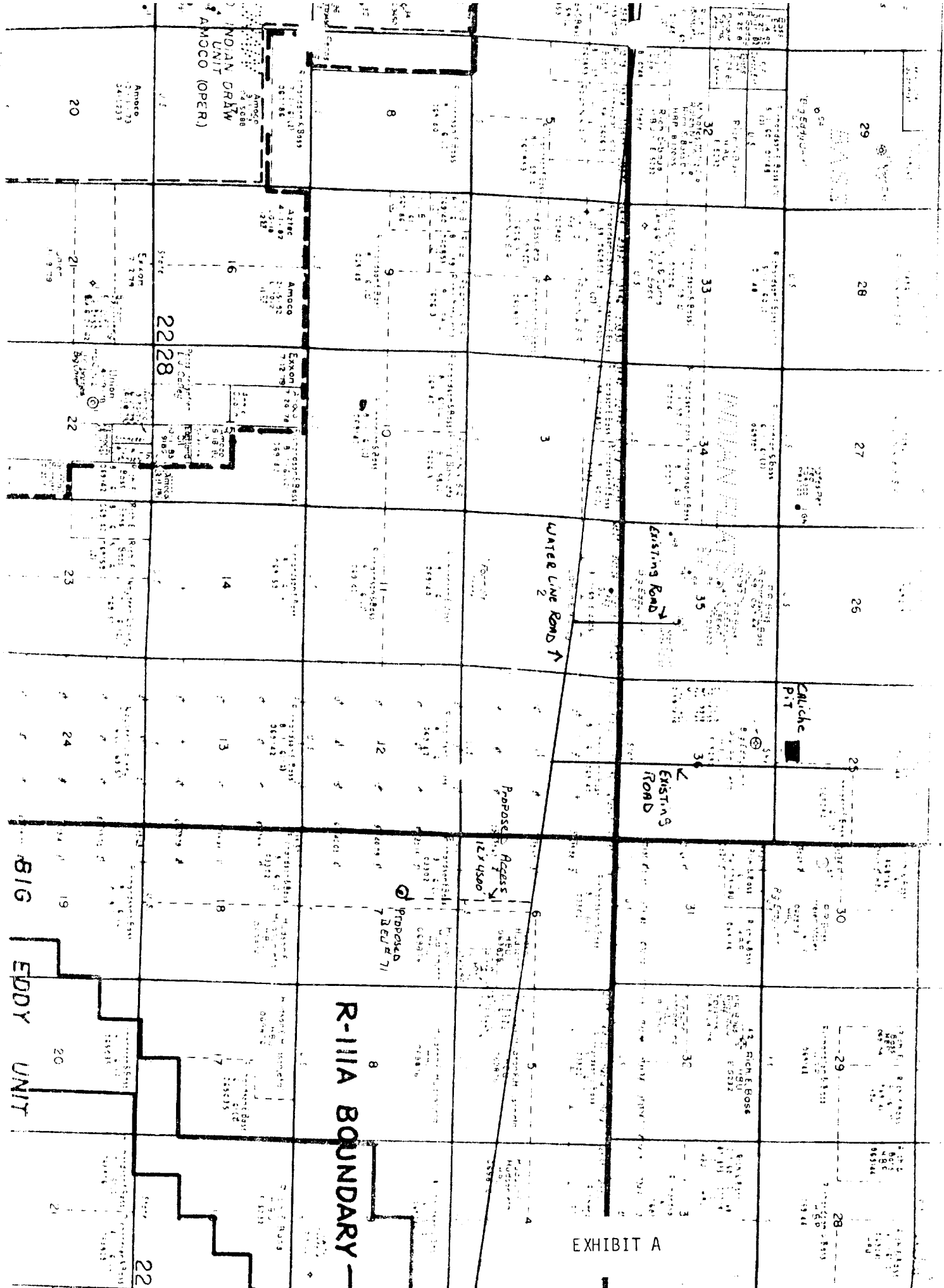


EXHIBIT A

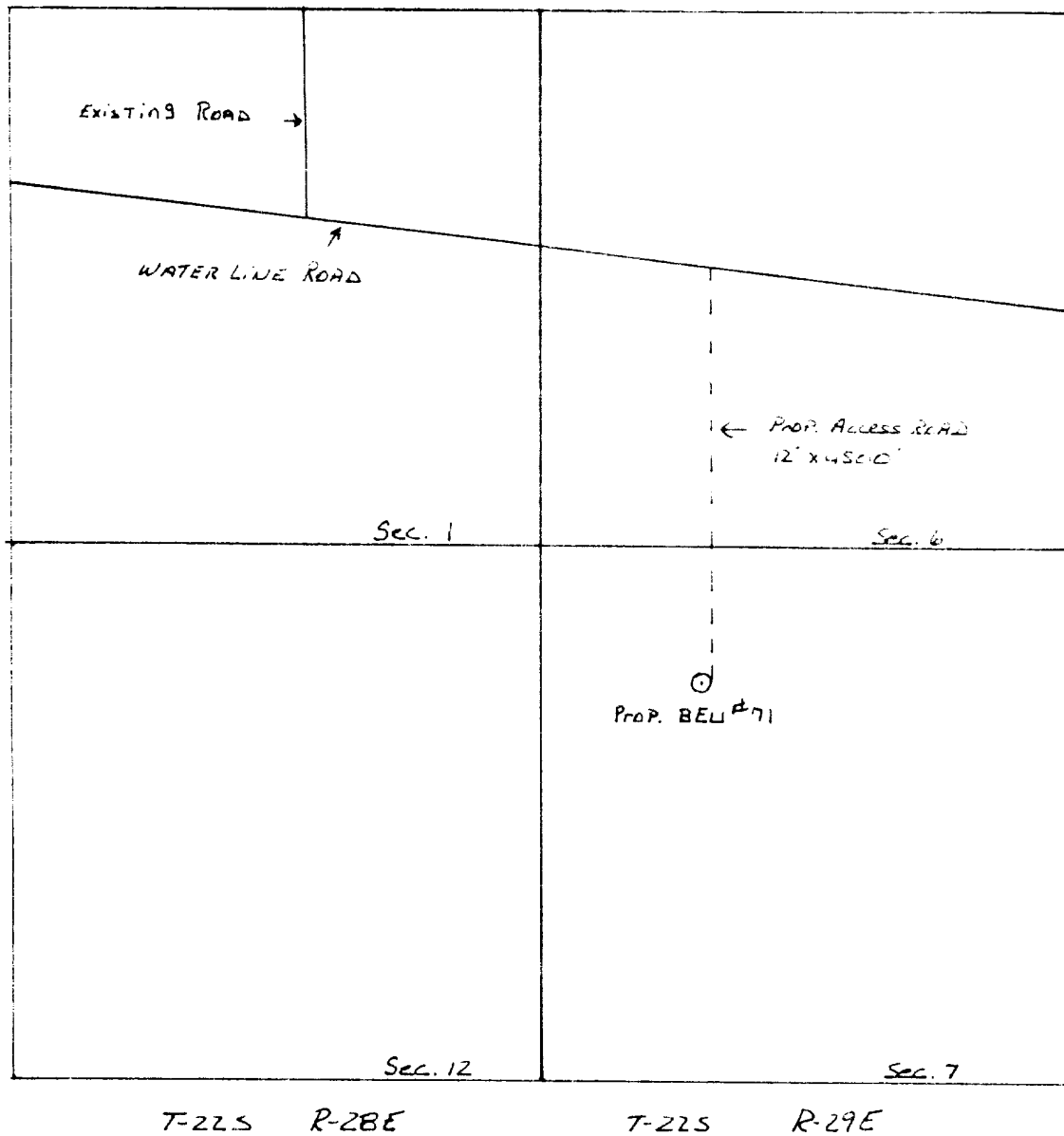


EXHIBIT "B"

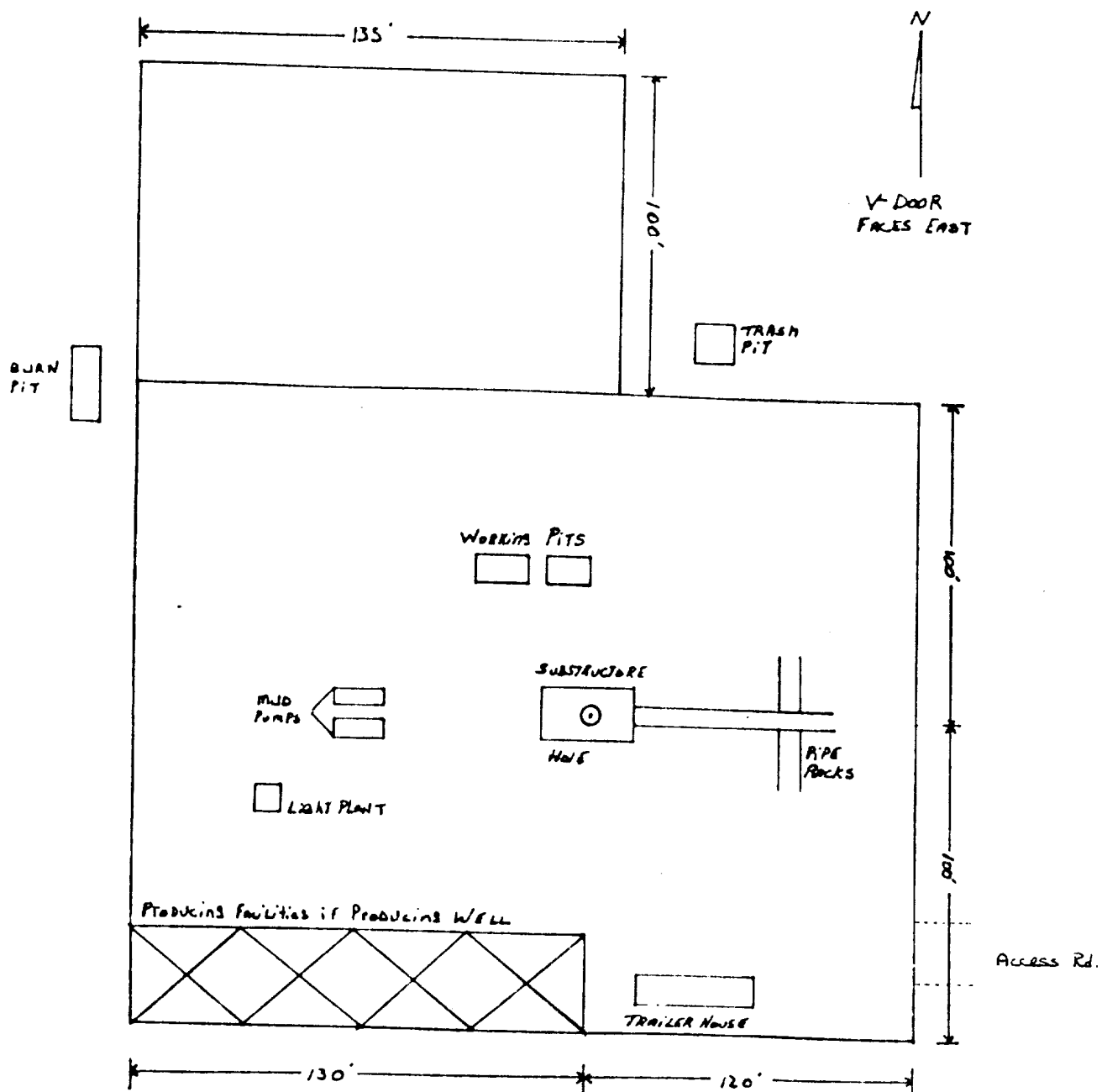
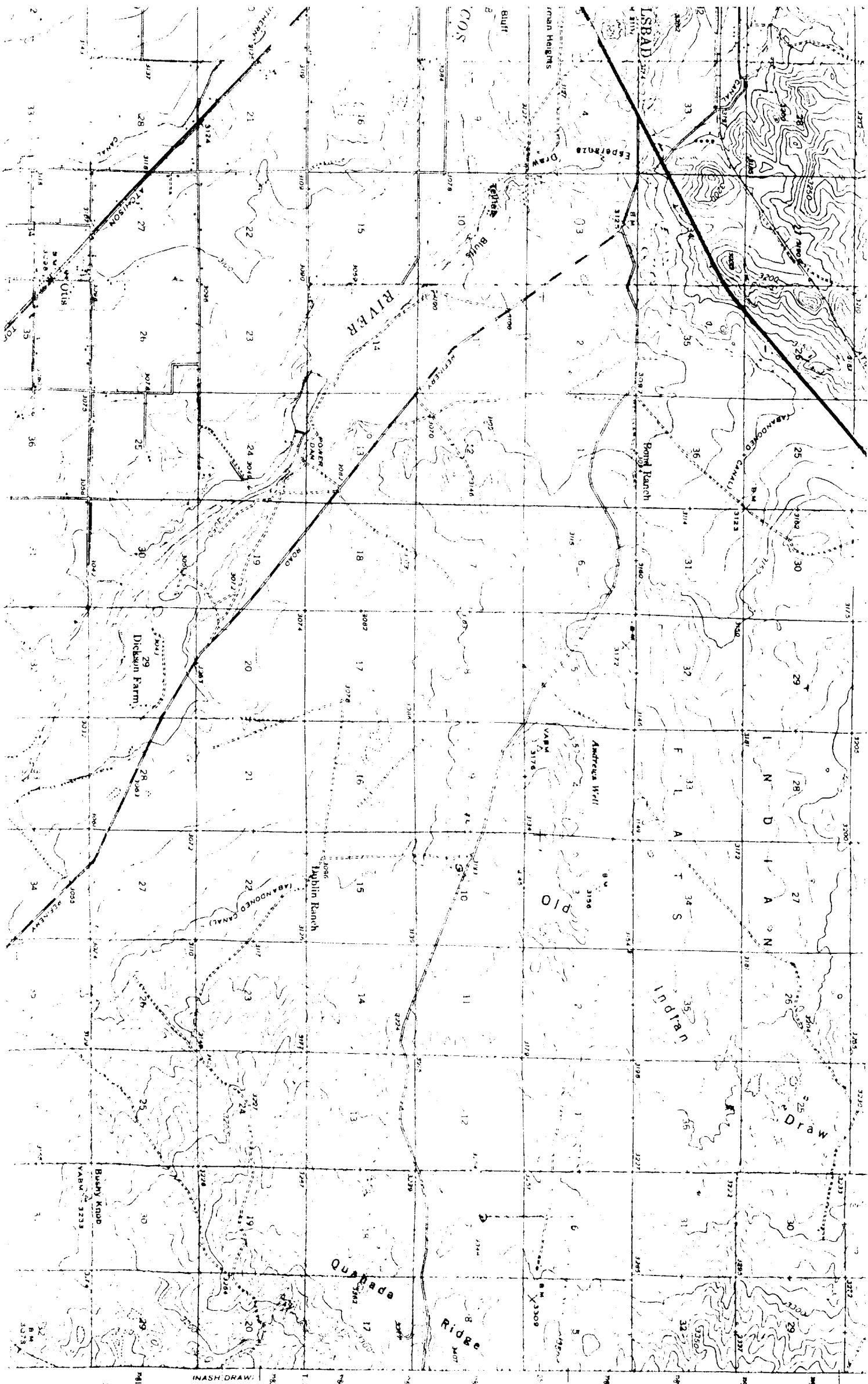
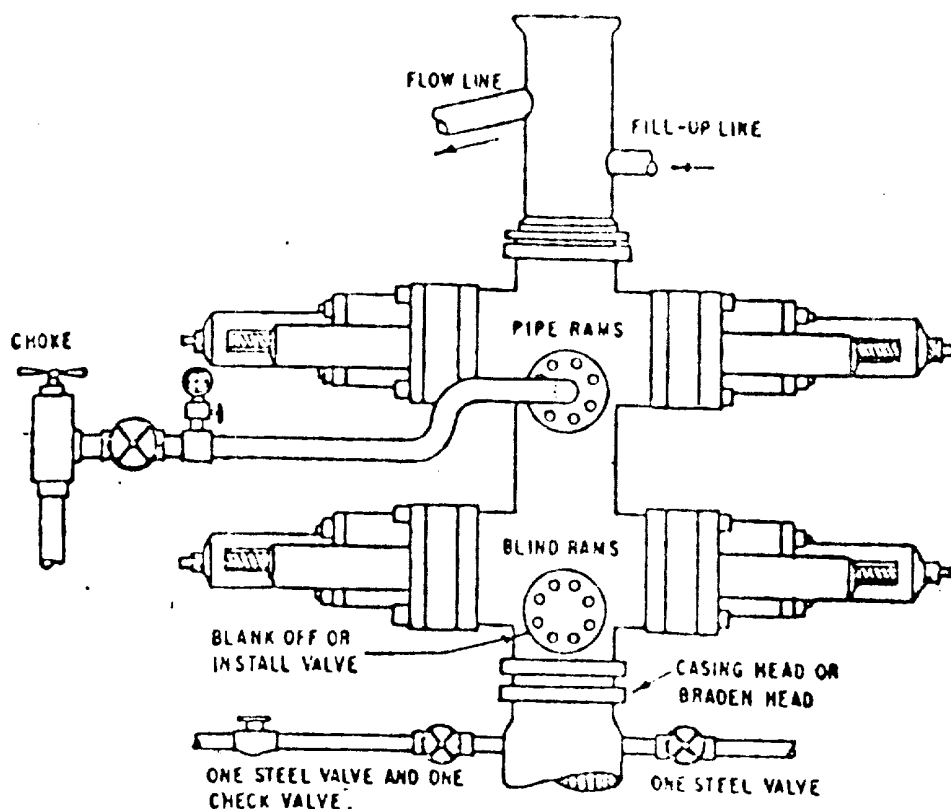


EXHIBIT C

FORMATION TOPS

T/Salt	300'
B/Salt	2700'
T/Delaware Group	2900'
T/Delaware Sand	3000'
T/Indian Draw	3850'
T/Bone Spring	6600'
T/Wolfcamp	9950'
T/Strawn	11050'
T/Atoka	11630'
T/Middle Morrow	12450'
T/Lower Morrow	12700'





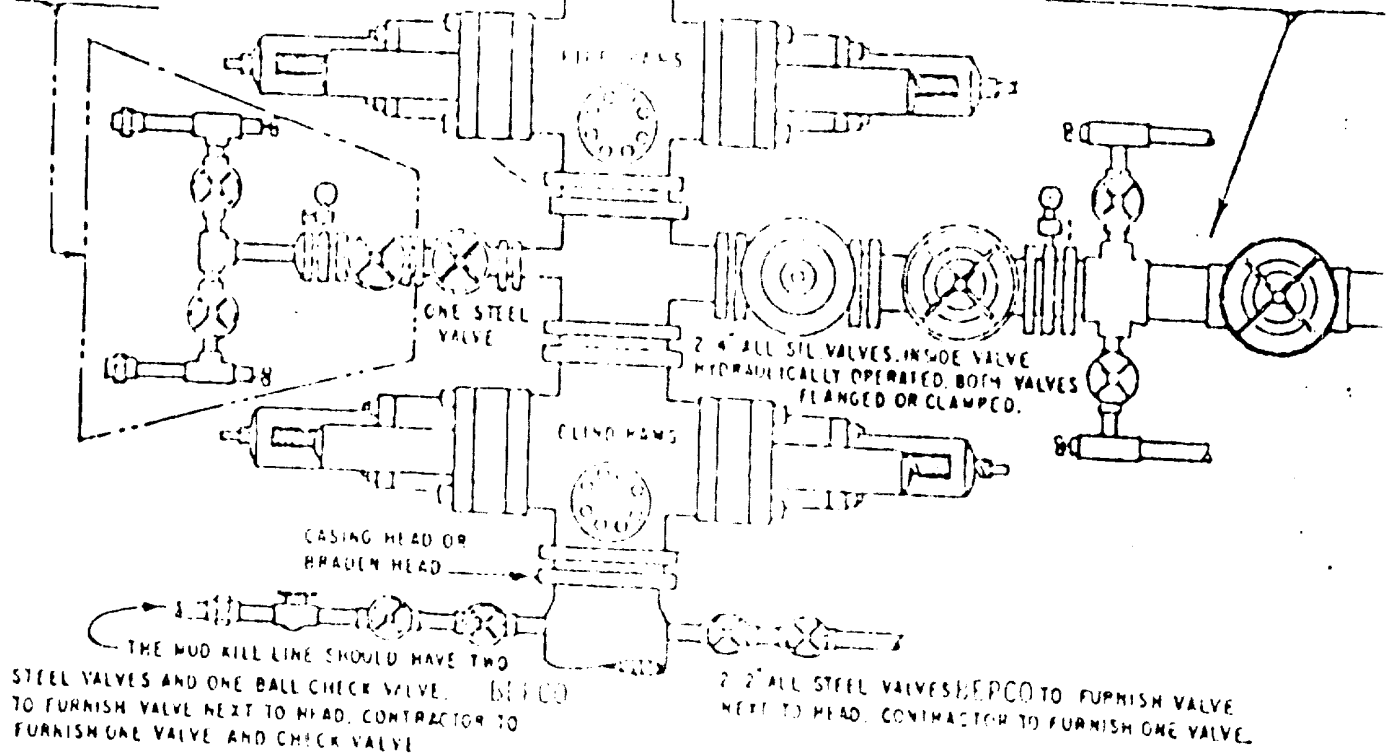
THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- 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

ALTERNATE POSITION FOR CHOKE MANIFOLD.
MASTER VALVES TO BE FLANGED
OR CLAMPED.

CHOKE MANIFOLD TO HAVE A
LEAST ONE 2" VALVE TO CONTI
EACH CHOKE AND ONE 4" VALVE
CONTROL CONTINUATION OF THE
LINE IF LOCATED REMOTELY F
WELL HEAD, ANOTHER MASTER
SHOULD BE INSTALLED AT THE
LOCATION. ONE CHOKE IS TO BE
ABLE. THE OTHER MAY BE EITI
ADJUSTABLE OR POSITIVE.



THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- CONDITIONS MAY BE MET BY AN ANNULAR TYPE BLOWOUT PREVENTER ON TOP AND A CHOKE SPOOL BELOW AND EITHER
 - TWO RAM TYPE BLOWOUT PREVENTERS BELOW THE SPOOL, THE LOWER UNIT CONTAINING BLIND RAMS AND THE UPPER UNIT CONTAINING PIPE RAMS, OR
 - A DUAL BLOWOUT PREVENTER BELOW THE SPOOL WITH BLIND RAMS ON BOTTOM AND PIPE RAMS ON TOP.
- OPENING ON CHOKE SPOOL TO BE FLANGED, STUDDED OR CLAMPED.
- ALL CONNECTIONS FROM OPERATING MANIFOLDS TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER
- THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE
- ALL CONNECTIONS TO AND FROM PREVENTER TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.'s
- MANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING COMMENCEMENT
- RELIEF COCK TO BE INSTALLED ON RELIEF
- INSIDE BLOWOUT PREVENTER TO BE AVAILABLE ON RIG FLOOR
- DUAL OPERATING CONTROLS ONE LOCATED BY DRILLERS POSITION AND THE OTHER LOCATED A SAFE DISTANCE FROM THE RIG FLOOR.

BEPCO IV

THREE CLOSURE HYDRAULIC BLOWOUT PREVENTERS