

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

PLUG BACK ☐

b. TYPE OF WELL

OIL
WELL ☒

GAS
WELL ☐

OTHER

SINGLE
ZONE ☐

MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

Bettis Boyle & Stovall

3. ADDRESS OF OPERATOR

P. O. Box 1240, Graham, Texas 76046

MAY 24 '90

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*

At surface

1650' FNL & 1980' FEL Sec. 21, Twp-21-S, R-29-E

At proposed prod. zone

1650' FNL & 1980' FEL Sec. 21, Twp-21-S, R-29-E

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

15 miles east of Carlsbad

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST
PROPERTY OR LEASE LINE, FT.
(Also to nearest drlg. unit line, if any)

330'

18. DISTANCE FROM PROPOSED LOCATION*

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

1330'

16. NO. OF ACRES IN LEASE

80

19. PROPOSED DEPTH

5100'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

40

20. ROTARY OR CABLE TOOLS

Rotary

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

GR 3389'

22. APPROX. DATE WORK WILL START*

June 1, 1990

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	500	Circulate
7-7/8	4 1/2" to 5.5	11.6 to 17.0	5100	Circulate

CEMENT PROGRAM:

8-5/8" casing: 300 sacks Class "C" with 2% CACL2

5-1/2" casing: 500 sacks Halliburton Lite, 200 sacks Premium "H"

GAS NOT DEDICATED:

MUD PROGRAM:

0 - 500': Fresh water spud mud.

500 - 5100': Fresh water/cut brine; mud sweeps as required to clean
and condition hole to log, test or run casing.

BOP PROGRAM:

See Attached Exhibit: APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
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

DATE

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

*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.

APPLICATION FOR DRILLING

BETTIS, BOYLE & STOVALL

**BIG EDDY UNIT NO. 115
1650' FNL AND 1980' FEL
SECTION 21, T-21-S, R-29-E
EDDY COUNTY, NEW MEXICO**

In conjunction with form 3160-3, Application for Permit to Drill subject well, Bettis, Boyle & Stovall submits the following items of pertinent information in accordance with USGS requirements.

1. The geological surface formation is Quaternary.
2. The estimated top(s) of geological markers are as follows:

Delaware	3250' KB
Total Depth	5100' KB
3. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered.

Water	Appx. 150'
Oil and/or gas	3250' to 5100' KB
4. Proposed casing program: See attached form 3160-3 and Exhibit E.
5. Pressure control equipment: See attached form 3160-3 and Exhibit E.
6. Mud Program: See attached form 3160-3.
7. Auxiliary equipment: Kelly cock and drill pipe/collar safety valve with appropriate connections for each.
8. Testing, coring and logging programs:

Probable core:	100 feet in Delaware formation between 3250' to 5100' KB
Possible DST(s):	Delaware if justified by valid show of oil and/or gas.
Mud logging unit:	From 3250' to 5100' KB.
Open hole logs:	Gamma ray, compensated neutron, formation density, laterlog, dual spaced sonic and/or others as required to evaluate formation and productivity.
9. No abnormal pressures or temperatures are anticipated.
10. Anticipated spud date: On or before June 1, 1990.

Submit to Appropriate
District Office
State Leases - 4 copies
Fee Leases - 3 copies

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator BETTIS BOYLE & STOVALL			Lease Big Eddy Unit		Well No. 115
Unit Letter G	Section 21	Township 21 South	Range 29 East	County Eddy	
Actual Footage Location of Well: 1650 feet from the North line and 1980 feet from the East line					
Ground level Elev. 3389.6	Producing Formation Delaware	Pool Wildcat		Dedicated Acreage: 40 Acres	

1. Outline the acreage dedicated to the subject well by colored pencil or hatchure 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 interest 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 interest, has been approved by the Division.

OPERATOR CERTIFICATION

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

Signature

Printed Name

Harry M. Bettis, Jr.

Position

Agent

Company

Bettis, Boyle & Stovall

Date

5-4-90

SURVEYOR CERTIFICATION

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

April 27, 1990

Signature & Seal of
Professional Surveyor

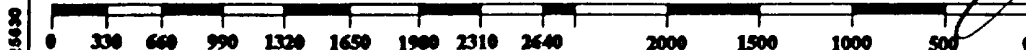
Certificate No.

JOHN W. WEST,

676

RONALD J. EIDSON,

3239



MULTI-POINT SURFACE USE AND OPERATIONS PLAN

BETTIS, BOYLE & STOVALL BIG EDDY UNIT NO. 115 1650' FNL AND 1980' FEL SECTION 21, T-21-S, R-29-E EDDY COUNTY, NEW MEXICO

This plan is submitted with Form 3160-3 covering the above described well. The purpose of this 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 be followed in rehabilitating the surface after completion of the operations so that a complete appraisal can be made of the environmental effects associated with the operation.

1. EXISTING ROADS:

Exhibit A is a vicinity map.

Exhibit B is a portion of a U.S.G.S. topographic map of the area showing the location of the proposed wellsite and roads in the vicinity. The location is situated approximately fifteen miles east of Carlsbad, New Mexico, via the route shown in red.

Directions:

1. Proceed northeast from Carlsbad on Highway 180 approximately 15 miles.
2. Turn right on Highway 31 and continue south approximately 4 miles.
3. Turn right and continue approximately 4.50 miles to wellsite.

2. PLANNED ACCESS ROAD:

- A. The proposed new access road will be an 1000' extension to existing east-west lease roads.
- B. The road will be a caliche road approximately 12 feet in width.
- C. The center line of the 1000' extension to the existing roads will be staked and flagged.

3. LOCATION OF EXISTING WELLS:

- A. The well locations in the vicinity of the proposed well are shown on Exhibit C.
- B. There is no producing well on this lease at present.
(delaware completions)

4. LOCATION OF PROPOSED FACILITIES:

In the event that the well is productive, the necessary production facilities will be installed on the drilling pad.

5. LOCATION AND TYPE OF WATER SUPPLY:

It is planned to drill the well with fresh water and brine water as presented in Exhibit G. All drilling fluids will be obtained from commercial sources and will be hauled to the location by truck over existing and proposed roads shown in Exhibits A & B.

6. SOURCES OF CONSTRUCTION MATERIALS:

Any caliche required for construction of the drilling pad and the access road will be obtained, with permission, from an existing pit on Federal-owned surface in Section 23, T-21-S, R-29-E.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pit.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the U.S.G.S. for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.

F. Trash, waste paper, garbage and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste material will be contained to prevent scattering by the wind.

G. All trash and debris will be buried or removed from the wellsite within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

None required.

9. WELLSITE LAYOUT:

A. Exhibit D shows the dimensions of the well pad and reserve pits and the location of major rig components.

B. The ground surface at the drilling location is sloping down to the southwest. The location will be leveled with compacted caliche.

C. The reserve pits will be plastic lined.

D. The pad and pit area has been staked and flagged.

10. PLANS FOR RESTORATION OF THE SURFACE:

A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleared of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.

B. Unguarded pits, if any, containing fluids will be fenced until they have been filled.

C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management and the United States

Geological Survey will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled within 90 days after abandonment.

11. TOPOGRAPHY:

See Exhibit H

12. OPERATOR'S REPRESENTATIVES:

The field representatives responsible for assuring compliance with the approved surface use plan are:

Drilling Superintendent:

Bill Baker

Mobile: 505-887-9503-01124
Office: 915-683-5511

Operations Manager:

Wayne Schkade

817-549-0780

Agent:

John D. Bettis

915-685-4128

Geologist:

Thomas R. Smith

915-685-4128

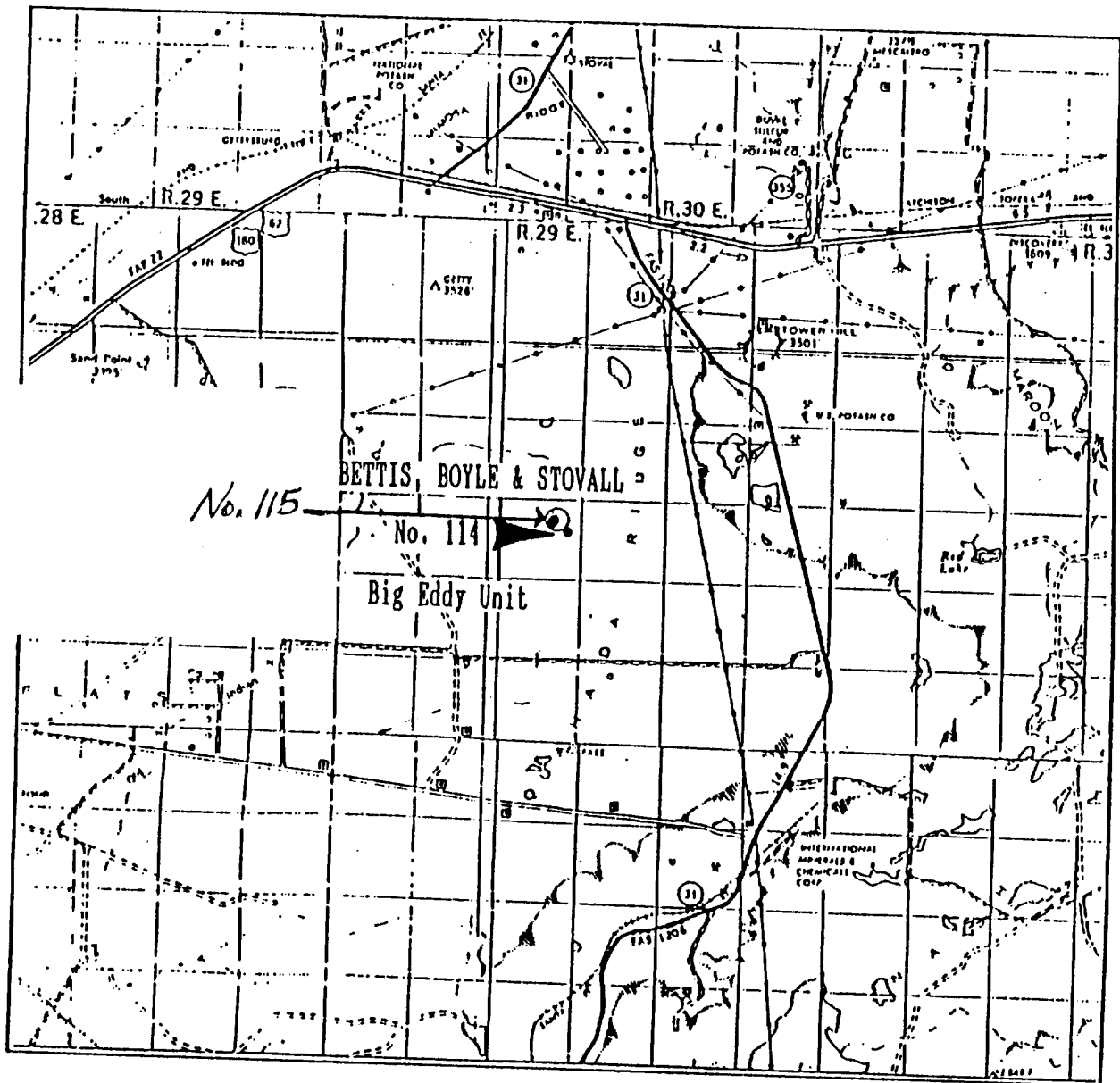
13. CERTIFICATION:

I hereby certify that I, or persons under my direct supervision have inspected the proposed drillsite 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 Bettis, Boyle & Stovall and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

5/7/90
Date

Harry M. [Signature]
Agent

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 21 TWP. 21S RGE. 29E
 SURVEY N.M.P.M.
 COUNTY Eddy STATE NM
 DESCRIPTION 2080' FNL & 660' FEL
 ELEVATION 3394.7
 OPERATION Bettis, Boyle & Stovall
 LEASE Big Eddy Unit No. 114

Section	21	Township	21S
Range	29E	Survey	N.M.P.M.
County	Eddy	State	NM
Description	1650' FNL & 1980' FEL		
Elevation	3389 GL		
Operation	Bettis, Boyle & Stovall		
Lease	Big Eddy Unit No. 115		

EXHIBIT "A"

JOHN WEST ENGINEERING
 HOBBS, NEW MEXICO
 (505) 393-3117

INTERIOR
RVEY



Scale: 1" = 2000'

Sec. 21 Twp. 21 South Rge. 29 East
 Survey N.M.P.M.
 County Eddy State N.M.
 Description 2080' FNL & 660' FEL
 Elevation 3394.7' GR
 Operator Bettis, Boyle & Stovall
 Lease Big Eddy Unit #114
 U.S.G.S. Topographic Map
Tower Hill, South NM

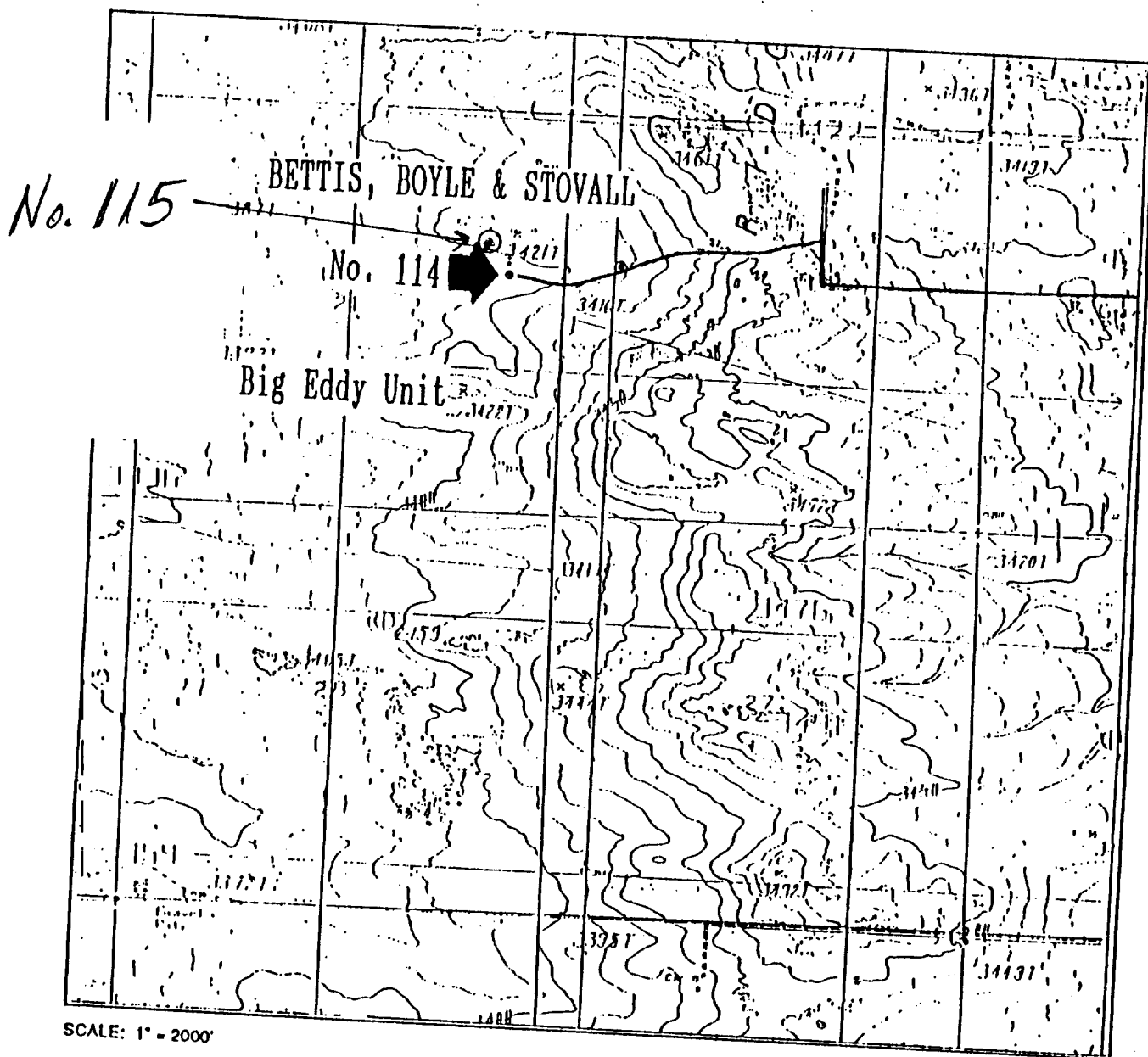
Section	<u>21</u>	Township	<u>21S</u>
Range	<u>29E</u>	Survey	<u>N.M.P.M.</u>
County	<u>Eddy</u>	State	<u>NM</u>
Description	<u>1650' FNL & 1980' FEL</u>		
Elevation	<u>3389 GL</u>		
Operation	<u>Bettis, Boyle & Stovall</u>		
Lease	<u>Big Eddy Unit No. 115</u>		

EXHIBIT "B"

P. 1/2

46

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL 10'

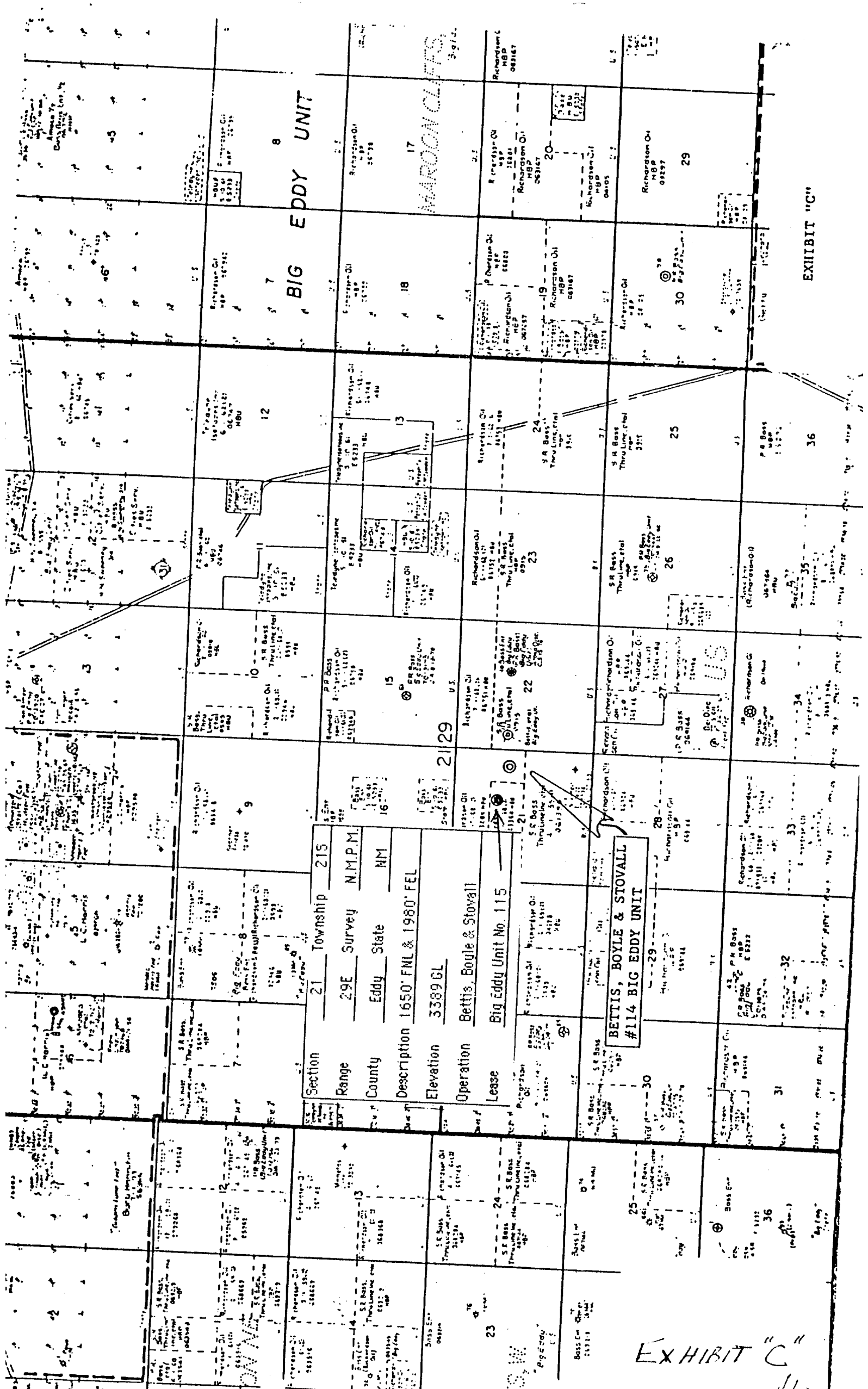
SEC. 21 TWP. 21S RGE. 29E
 SURVEY N.M.P.M.
 COUNTY Eddy STATE NM
 DESCRIPTION 2080' FNL & 660' FEL
 ELEVATION 3394.7
 OPERATION Bettis, Boyle & Stovall
 LEASE Big Eddy Unit No. 114
 U.S.G.S. TOPOGRAPHIC MAP
Tower Hill South, NM

Section	<u>21</u>	Township	<u>21S</u>
Range	<u>29E</u>	Survey	<u>N.M.P.M.</u>
County	<u>Eddy</u>	State	<u>NM</u>
Description	<u>1650' FNL & 1980' FEL</u>		
Elevation	<u>3389 GL</u>		
Operation	<u>Bettis, Boyle & Stovall</u>		
Lease	<u>Big Eddy Unit No. 115</u>		

EXHIBIT "B"

P. 2/2

JOHN WEST ENGINEERING
 HOBBS, NEW MEXICO
 (505) 393-3117



BIG EDDY UNIT

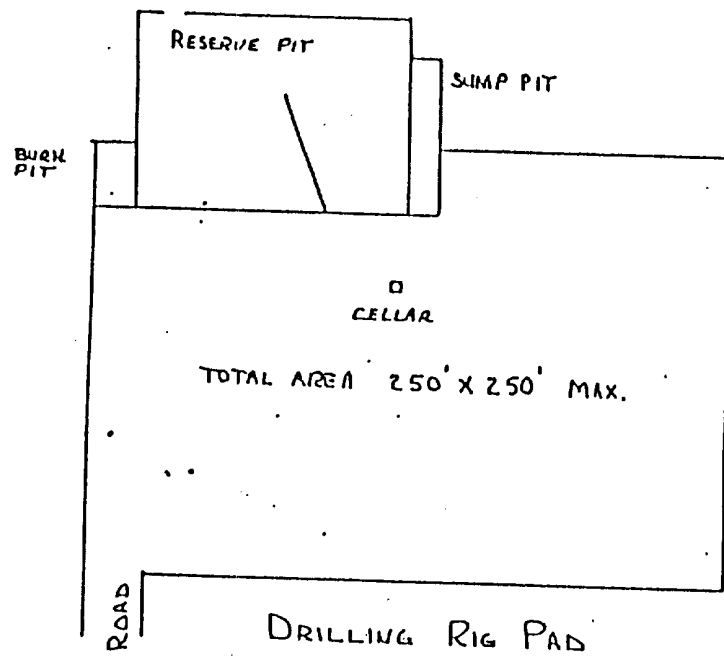
MAROON CLIFFS

BETTIS, BOYLE & STOVALL
#114 BIG EDDY UNIT

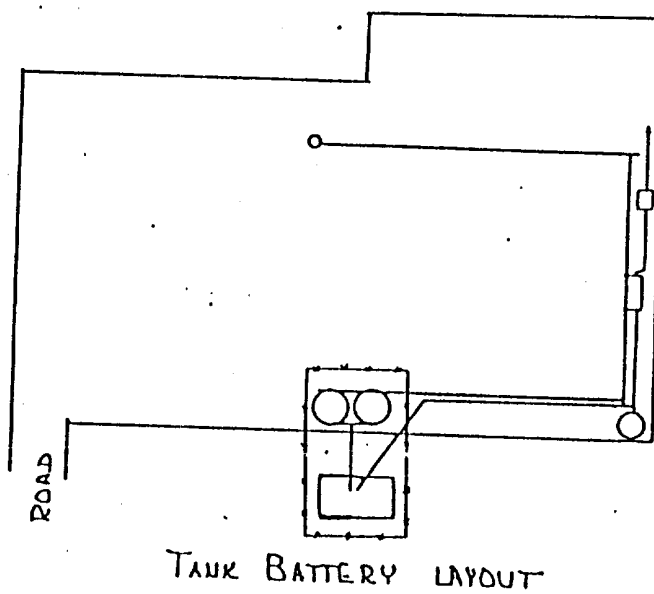
EXHIBIT "C"

EXHIBIT "C"

Section	21	Township	21S
Range	29E	Survey	N.M.P.M.
County	Eddy	State	NM
Description	1650' FNL & 1980' FEL		
Elevation	3389 GL		
Operation	Bettis, Boyle & Stovall		
Lease	Big Eddy Unit No. 115		



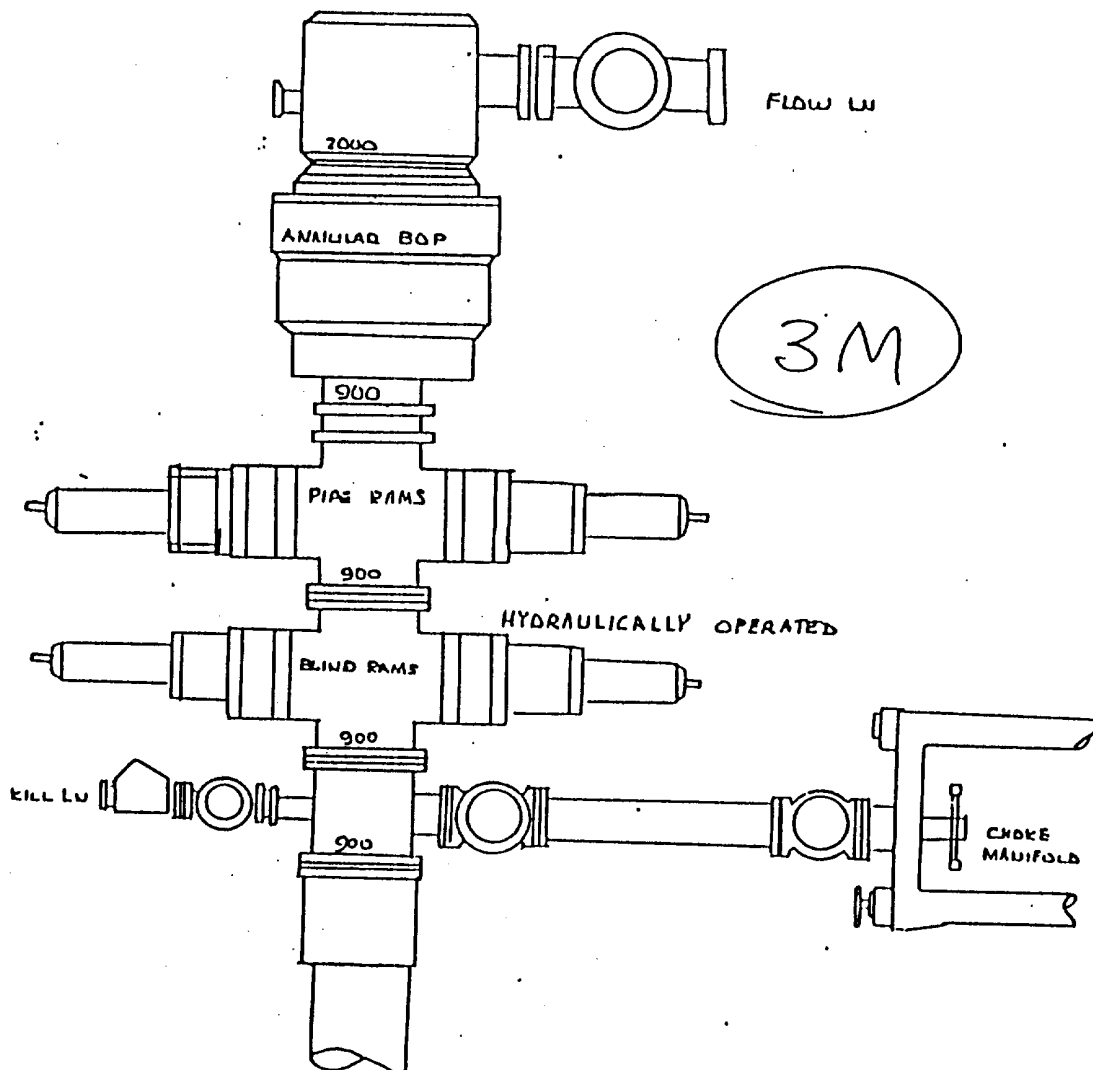
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TANK BATTERY LAYOUT

Section	21	Township	21S
Range	29E	Survey	N.M.P.M.
County	Eddy	State	NM
Description	1650' FNL & 1980' FEL		
Elevation	3389 GL		
Operation	Bettis, Boyle & Stovall		
Lease	Big Eddy Unit No. 115		

EXHIBIT D



BOP

Section	21	Township	21S
Range	29E	Survey	N.M.P.M.
County	Eddy	State	NM
Description	1650' FNL & 1980' FEL		
Elevation	3389 GL		
Operation	Bettis, Boyle & Stovall		
Lease	Big Eddy Unit No. 115		

NOTE: MAY NOT
HAVE ANNULAR
BOP - OPTIONAL
EQUIPMENT

EXHIBIT E

16