

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

Conoco Inc.
SEMU Blinebry Tubb A No. 113

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'-1450'	9 5/8", 36#, K-55, ST&C
0'-6740'	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'-1450'	8.5 - 9.0 ppg spud mud
1450'-6740'	9.0 - 10.0 ppg salt water gel
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.
9. No abnormal pressures or temperatures are expected to be encountered in this well.
10. The anticipated starting date is September 7, 1979, with a duration of approximately 16 days.

PEB:cab

STATE: New Mexico

DEPTH	FORMATION TOPS & TYPE	DRILLING PROBLEMS	TYPE OF FORMATION EVALUATION	HOLE SIZE (IN)	CASING		FRACTURE GRADIENT (PPG)	FORMATION PRESSURE GRADIENT (PPG)	MUD	
					SIZE (IN)	DEPTH (FT)			WEIGHT (PPG)	TYPE
	Surface: Pliestocene to recent sand		Drlg. Time Recorder							
1000	Rustler Anhy. Salado Salt	1385 1480	Geolograph 0'-TD	12 1/4 In.	9 5/8 In.	1450'			8.5- 9.0	Fresh Water
2000	Tansill Anhy. Yates SS	2575 2685								
3000	Seven Rivers SS	2935								
4000	Queen SS Penrose SS Grayburg Dol. San Andres Dol.	3510 3650 3825 4030								
5000	Glorieta SS.	5330								
6000	Blinebry Mkr. Tubb Mkr.	5869 6357	GR-CNL-FDC TD-4740'				14.9	Less Than 8.5		
7000	Drinkard Dol. TD	6670 6740	GR-DLL TD-4740' MSFL TD-2600'	8 3/4 In.	7"	6740'	15.1	Less Than 8.5	9.0- 10.0	Salt Gel

WELL NAME SEMU Blinebry-Tubb A #113 FIELD NMFU

DATE 8-3-79

WELL NO. ELEV. GRD KB PROPOSED TD 6740'
 LOCATION (SURF.) 1980' FNL & 330' FWL OF SEC 20 T 20S R 38E

COUNTY Lea STATE New Mexico SPACING 40 Acres

LOCATION (BOTTOM HOLE)

GEOLOGICAL ESTIMATES

<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONTENT</u>	<u>ZONE</u>	<u>TOP</u>	<u>THICKNESS</u>	<u>CONT</u>
Water Sand	75'			Blinebry Mkr.	5869'		
Rustler Anhy.	1385'			Tubb Mkr.	6357'		
Salado Salt	1480'			Drinkard Dol.	6670'		
Tansill Anhy.	2575'			TD	6740'		
Yates SS	2685'						
Seven Rivers SS	2935'						
Queen SS	3510'						
Penrose SS	3650'						
Grayburg Dol.	3825'						
San Andres Dol.	4030'						
Glorieta SS	5330'						
<u>CORING NO.</u>	<u>TYPE</u>	<u>HORIZON</u>	<u>INTERVAL FROM-TO</u>	<u>FOOTAGE</u>	<u>REMARKS</u>		

None

DRILL STEM TESTS

<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>	<u>NUMBER</u>	<u>HORIZON</u>
---------------	----------------	---------------	----------------	---------------	----------------	---------------	----------------

None

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

<u>DEPTH POINTS</u>	<u>TYPE</u>	<u>HOLE SIZE</u>	<u>REMARKS</u>
0-TD	(9) Geolograph (2) Deflection		
2600'-TD	(6) GR-CNL-FDC (5) DLL-Cal-MSFL	8 3/4"	2" & 5" (Pull caliper to surf. csg. shoe)
5000'-TD	(6) PDC	Inside casing	Depth control
0-4000'	(4) Temperature	Inside casing	Locate cement top

FUEL AND WATER (SOURCE)
 Conoco to furnish water
 Contractor to furnish fuel

PROPOSED WELL PLAN

WELL NAME	SEMU Blinebry-Tubb A No. 113		FIELD	NMFU
<u>ATTACHMENT</u>	<u>NO.</u>	<u>REQUIRED</u>	<u>NOT REQUIRED</u>	
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'-1450' Drill 12 1/4" hole. Set and cement 9 5/8" OD surface casing. WOC 18 hours. Pressure test to 1200# for 30 minutes. Drill out.
- 2) 1450'-6740' 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 1200# for 30 minutes.
- 3) Detail completion procedure to be determined from OH log analysis. Anticipate acidize and sandfrac Blinebry and Tubb Formations.

CASING, CENTRALIZERS & SCRATCHERS

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)		WT PER FT		GRADE	THREAD	AMT	WT. IN AIR, WT. IN MUD 1000 LBS 1000 LBS		REMARKS
FROM-TO	OD	DRIPT ID							
(S) 0'-1450'	9 5/8"	8.765"	36#	K-55	ST&C	1450'	52.2		
(P) 0'-6740'	7"	6.151"	26#	K-55	LT&C	6740'	175.2		DV tool @ + 4000' Sandblast + 1000' casing across + / section.

TYPE OF STRING	CENTRALIZERS		SCRATCHER		OTHER ACCESSORY EQUIPMENT (SUCH AS DEGAASERS, MUD. CENTRIFUGE FLOAT COLLARS, ETC. - SPECIFY)		REMARKS
	NO. FROM-TO	INTERVAL	NO. FROM-TO	INTERVAL			
(S) Surface	(4) 2 ea. on bottom two joints				Guide shoe & float collar		
	(9) 1 every 4 joints to surface						
(P) Production	(4) 2 ea. on bottom two joints				Float shoe and float collar		
	(9) 1 every 3 joints to 5700'				DV stage tool @ + 4000'		

TEST PROGRAM

DEPTH INTERVAL FROM-TO	WEIGHT LBS/CAL	TYPE	OIL %	pH	WATER LOSS (cc)	VIS. (sec.)	YIELD POUNT	THINNING AGENTS	WATER LOSS AGENTS
0'-1450'	8.5-9.0	Spud	--	9.0+	--				
1450'-6740'	9.0-10.0	Salt Water Gel	--	9.0-10.0	10-12+	35-40			

REMARKS

- (1) Below 1450', 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 1450'.
- (4) Condition mud to reduce water loss 50' above Blinbry Marker.
- (5) Condition mud to reduce viscosity prior to pumping cement.

CEMENT

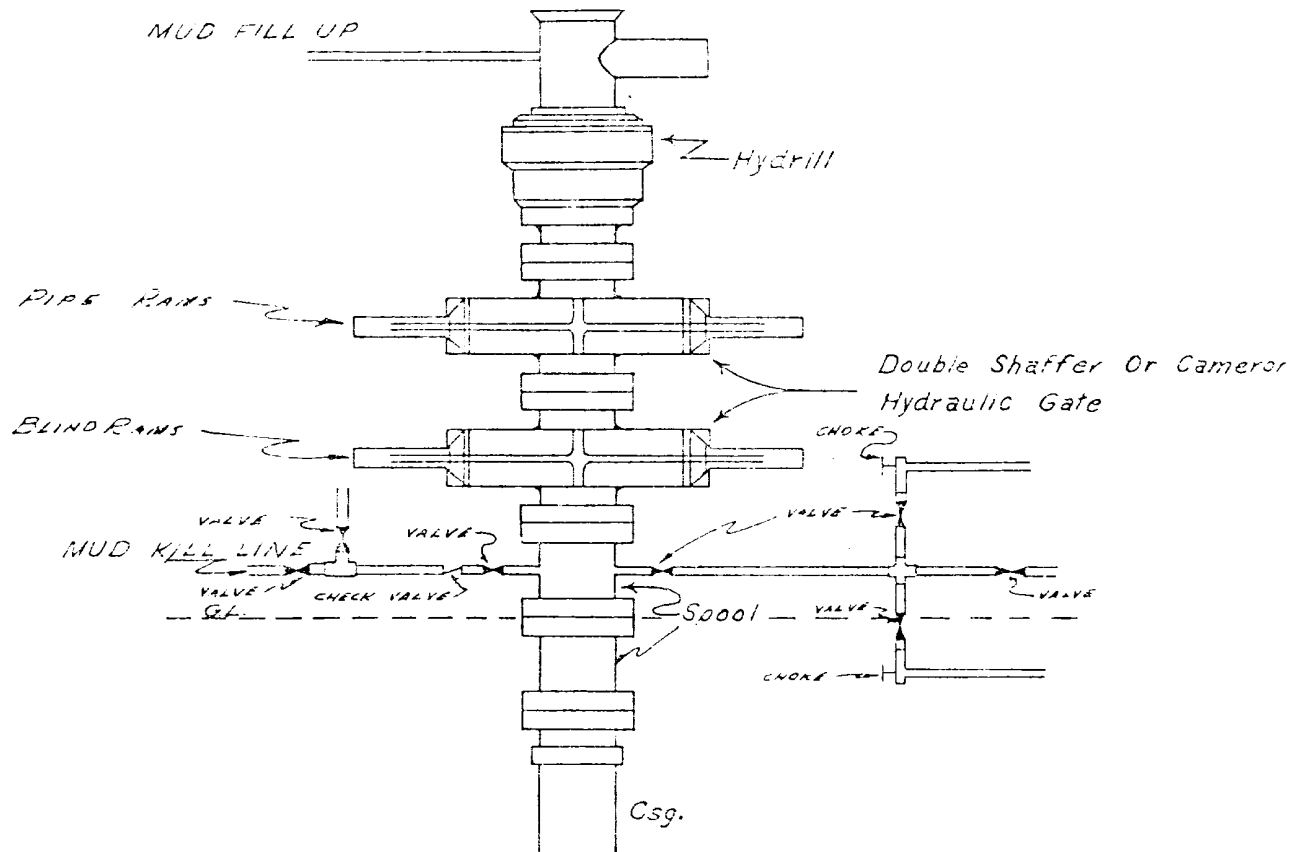
TYPE OF STRING INTERVAL (FT) FROM-TO TYPE MIX	GEL%	SALT%	CaCl ₂	SLURRY WEIGHT LB./GAL.	SLURRY YIELD OF/SKX	TOTAL AMT. REQUIRED SKX/CF	FILL UP	BHT	SIZE	REMARKS
(S) 0'-1450' Class "C" (Lead)	4%	--	2%	13.3	1.88	420/790	Circ.	85°F	12 1/4"	100% Excess Add 1/4#/sx flocele if lost circulation occurs.
Class "C" (Tail-in)	--	--	2%	14.8	1.32	100/132				
(P) 0'-6740' (1st Stage)										
Class "C" (Lead)	4%	3#/sx	--	13.3	1.88	250/451	To DV Tool @ + 4000'	110°F	8 3/4"	100% Excess Add 1/4#/sx flocele if lost circulation occurs.
Class "C" (Tail-in)	--	3#/sx	--	14.8	1.32	275/373				
(2nd Stage)										
Lite-Wate (Lead)	--	18%	--	13.3	1.93	875/1694	Circ.	95°F	8 3/4"	200% Excess Add 1/4#/sx flocele if lost circulation occurs.
Class "C" (Tail-in)	--	--	2%	14.8	1.32	125/182				

DV STAGE TOOL @ + 4,000'

REMARKS

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

CONTINENTAL OIL COMPANY
Blow-out Preventer Specifications



NOTE:

API SERIES 900

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.

SURFACE USE PLAN
Conoco Inc.
SEMU Blinebry-Tubb A No. 113

The plan is to accompany "Application for Permit to Drill" the subject well. The following is a discussion of pertinent information concerning possible effect which the proposed drilling of the well may have on the environment of the well and road sites and surrounding acreage. A copy will be posted on the derrick floor so all contractors and sub-contractors will be aware of all items of this plan.

1. EXISTING ROADS

- A. The proposed well site is 1980' FNL and 330' FWL, Section 20, T20S, R38E, Lea County, New Mexico.
- B. Exhibit A is a portion of a New Mexico road map showing existing roads. Directions to the location are as follows: From the Stanolind Road in Hobbs, travel south on Highway 18 ten miles to the red, white, and blue cattleguard at the entrance to Conoco's Warren Unit. See Exhibit C.
- C. Access roads are shown on Exhibits B and C.
- D. No improvement or maintenance is anticipated for the existing roads.

2. PLANNED ACCESS ROADS

- A. Width and Length: New road required will be 12' wide and 50' long. This new road is labeled and coded on Exhibits B and C.
- B. Turnouts: None required.
- C. Drainage Design: New road will have a drop of 6" from center line on each side.
- D. Culverts, Cuts, and Fills: None required.
- E. Surfacing Material: Six inches of caliche, bladed, watered and compacted.
- F. Gates, Cattleguards and Fences: None required.
- G. The proposed road is staked.

3. LOCATION OF EXISTING WELLS

See Exhibit C.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. Tank Batteries: No new tank batteries required.
- B. Producing Facilities: No new producing facilities required.
- C. Oil Gathering Lines: Flowlines will lay on the surface alongside the road right-of-way.
- D. Other Lines: Electrical power lines will be built on 330' spans as shown on Exhibit E.
- E. Rehabilitation: Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location. Rehabilitation of the surface is planned to be completed within 45 days from commencement.

5. WATER SUPPLY

Water will be hauled from Eunice, New Mexico.

6. SOURCE OF CONSTRUCTION MATERIALS

Caliche will be hauled over existing roads from a pit in the SE/4 SE/4, Section 15, T20S, R38E.

7. METHODS FOR HANDLING WASTE DISPOSAL

Waste Disposal: Well cuttings will be disposed in reserve pit. Barrel trash containers to be in accessible locations within drill site area during drilling and completion procedures. All detrimental waste will be hauled away, burned or buried with a minimum cover of 24" of dirt. See Exhibit "D" for location of pits. If well is productive, maintenance waste will be placed in special trash cans and hauled away periodically. Any produced water will be collected in tanks until hauled to an approved disposal system, or separate disposal applications will be submitted to the Survey for appropriate approval.

8. ANCILLARY FACILITIES

None required.

9. WELL SITE LAYOUT

Exhibit "D" shows the relative location and dimensions of the well pad, mud pit, reserve pit, etc. The reserve pit will be lined with plastic. The pad and pits are staked.

10. PLANS FOR RESTORATION OF SURFACE

Pits will be backfilled and leveled as soon as practical to original condition. Commencement of rehabilitation operations will immediately follow removal of drilling and completion equipment from location and rehabilitation of the surface is planned to be completed within 45 days from commencement.

11. OTHER INFORMATION

- A. Terrain: Flat
- B. Soil: Sandy
- C. Vegetation: Mesquite, shinnery
- D. Surface Use: Grazing
- E. Ponds and Streams: None
- F. Water Wells: None
- G. Residences and Buildings: None
- H. Arroyos, Canyons, Etc.: None
- I. Well Sign: Sign identifying and locating well will be maintained at drill site with the spudding of the well.
- J. Open Pits: All pits containing mud or other liquids will be fenced.
- K. Archaeological Resources: None observed.

12. OPERATOR'S REPRESENTATIVE

Field personnel who can be contacted concerning compliance of this Surface Use Plan are as follows:

Production and Drilling
W. D. Cates or H. C. Pokrandt
1001 North Turner
Hobbs, New Mexico 88240
Phone: 393-4141

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 Conoco Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

5/29/79
Date

H. C. Pokrandt
H. C. Pokrandt
Production Superintendent

PEB:cab

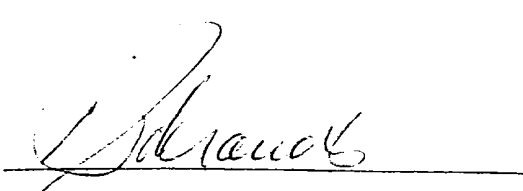
District Engineer
U. S. Geological Survey

Gentlemen:

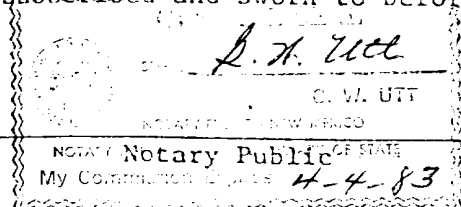
Re: SEMU Blinbry Tubb A No. 113

This refers to the Form 9-331C, Application to Drill, Deepen or Plugback accompanying this letter. The undersigned hereby states that he has personally contacted Earl Kornegay, the owner of the surface land where the proposed work is to be conducted and advised him of the proposed work, the construction site and pertinent roads included in the project. It is further stated that, upon being fully advised of the extent of the work and the effect upon the surface, said owner has consented to the said work and that agreement as to the compensation for damages to the surface estate has been reached.

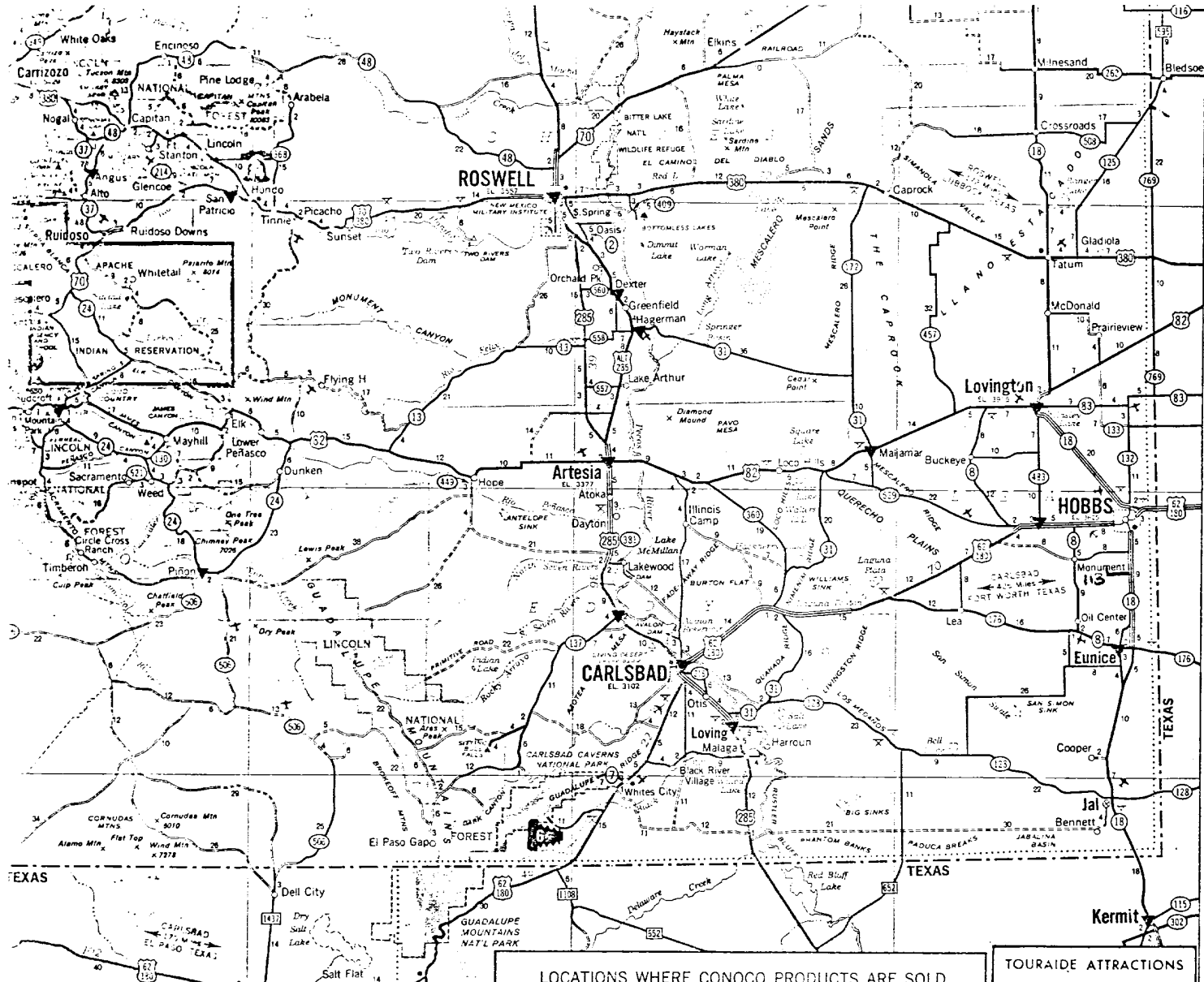
It has been agreed, subject to change at that time, that upon abandonment of operations the roads shall be (~~ripped or left intact~~) and the pad shall be (~~ripped or left intact~~).


STATE OF NEW MEXICO
COUNTY OF LEA

Subscribed and sworn to before me this 29th day of August, 19 79



My commission expires



LOCATIONS WHERE CONOCO PRODUCTS ARE SOLD

- ▼ Locations on Interstate Highways, toll roads or major limited access highways where CONOCO PRODUCTS are sold.
- ▼ Other CONOCO station locations.
- ▼ Locations of CONOCO Travel Shoppes.



Locations where CONOCO DEALERS provide Trailer Travelers with Sanitary Disposal Facilities. Look for this sign:



TOURADE ATTRACTIONS



HISTORICAL



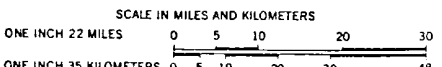
SCENIC



GENERAL

Attraction points described on reverse side

How to read your map on NEW MEXICO



HIGHWAY MARKERS

INTERSTATE 40 UNITED STATES 66 STATE 41 TEXAS FARM OR RANCH 308

ROAD CLASSIFICATIONS

CONTROLLED ACCESS DIVIDED HIGHWAYS Interstate interchange numbers are mileposts

OTHER DIVIDED HIGHWAYS

PRINCIPAL THROUGH HIGHWAYS

OTHER THROUGH HIGHWAYS

CONNECTING HIGHWAYS

LOCAL ROADS In unfamiliar areas inquire locally before using these roads

Divided Undivided Interchanges

Paved Gravel

Paved Gravel

Paved Gravel

Paved Gravel

Paved Gravel

MILEAGES

MILEAGE BETWEEN TOWNS AND JUNCTIONS

ONE MILE EQUALS 1.6 KILOMETERS

SPECIAL FEATURES

STATE PARKS

RECREATION AREAS

PORTS OF ENTRY

POINTS OF INTEREST

POPULATION SYMBOLS

State Capital

Under 1,000

1,000 to 2,500

2,500 to 5,000

5,000 to 10,000

10,000 to 25,000

25,000 to 50,000

50,000 to 100,000

100,000 and over

THE H. M. GOSHA COMPANY

BOX 622 SAN JOSE CALIF. 95130

A DIVISION OF THE TIMES MAPS COMPANY

ALL RIGHTS RESERVED

1977 Edition

11	San Antonio	D-4	Springer	D-6	Tulsa	D-6
12	San Jose	D-5	Stamberg	D-2	Turkey	D-2
13	San Juan	D-2	Stamberg	D-2	Turkey	D-2
14	San Juan	D-2	Stamberg	D-2	Turkey	D-2
15	San Juan	D-2	Stamberg	D-2	Turkey	D-2
16	San Juan	D-2	Stamberg	D-2	Turkey	D-2
17	San Juan	D-2	Stamberg	D-2	Turkey	D-2
18	San Juan	D-2	Stamberg	D-2	Turkey	D-2
19	San Juan	D-2	Stamberg	D-2	Turkey	D-2
20	San Juan	D-2	Stamberg	D-2	Turkey	D-2
21	San Juan	D-2	Stamberg	D-2	Turkey	D-2
22	San Juan	D-2	Stamberg	D-2	Turkey	D-2
23	San Juan	D-2	Stamberg	D-2	Turkey	D-2
24	San Juan	D-2	Stamberg	D-2	Turkey	D-2
25	San Juan	D-2	Stamberg	D-2	Turkey	D-2
26	San Juan	D-2	Stamberg	D-2	Turkey	D-2
27	San Juan	D-2	Stamberg	D-2	Turkey	D-2
28	San Juan	D-2	Stamberg	D-2	Turkey	D-2
29	San Juan	D-2	Stamberg	D-2	Turkey	D-2
30	San Juan	D-2	Stamberg	D-2	Turkey	D-2
31	San Juan	D-2	Stamberg	D-2	Turkey	D-2
32	San Juan	D-2	Stamberg	D-2	Turkey	D-2
33	San Juan	D-2	Stamberg	D-2	Turkey	D-2
34	San Juan	D-2	Stamberg	D-2	Turkey	D-2
35	San Juan	D-2	Stamberg	D-2	Turkey	D-2
36	San Juan	D-2	Stamberg	D-2	Turkey	D-2
37	San Juan	D-2	Stamberg	D-2	Turkey	D-2
38	San Juan	D-2	Stamberg	D-2	Turkey	D-2
39	San Juan	D-2	Stamberg	D-2	Turkey	D-2
40	San Juan	D-2	Stamberg	D-2	Turkey	D-2
41	San Juan	D-2	Stamberg	D-2	Turkey	D-2
42	San Juan	D-2	Stamberg	D-2	Turkey	D-2
43	San Juan	D-2	Stamberg	D-2	Turkey	D-2
44	San Juan	D-2	Stamberg	D-2	Turkey	D-2
45	San Juan	D-2	Stamberg	D-2	Turkey	D-2
46	San Juan	D-2	Stamberg	D-2	Turkey	D-2
47	San Juan	D-2	Stamberg	D-2	Turkey	D-2
48	San Juan	D-2	Stamberg	D-2	Turkey	D-2
49	San Juan	D-2	Stamberg	D-2	Turkey	D-2
50	San Juan	D-2	Stamberg	D-2	Turkey	D-2
51	San Juan	D-2	Stamberg	D-2	Turkey	D-2
52	San Juan	D-2	Stamberg	D-2	Turkey	D-2
53	San Juan	D-2	Stamberg	D-2	Turkey	D-2
54	San Juan	D-2	Stamberg	D-2	Turkey	D-2
55	San Juan	D-2	Stamberg	D-2	Turkey	D-2
56	San Juan	D-2	Stamberg	D-2	Turkey	D-2
57	San Juan	D-2	Stamberg	D-2	Turkey	D-2
58	San Juan	D-2	Stamberg	D-2	Turkey	D-2
59	San Juan	D-2	Stamberg	D-2	Turkey	D-2
60	San Juan	D-2	Stamberg	D-2	Turkey	D-2
61	San Juan	D-2	Stamberg	D-2	Turkey	D-2
62	San Juan	D-2	Stamberg	D-2	Turkey	D-2
63	San Juan	D-2	Stamberg	D-2	Turkey	D-2
64	San Juan	D-2	Stamberg	D-2	Turkey	D-2
65	San Juan	D-2	Stamberg	D-2	Turkey	D-2
66	San Juan	D-2	Stamberg	D-2	Turkey	D-2
67	San Juan	D-2	Stamberg	D-2	Turkey	D-2
68	San Juan	D-2	Stamberg	D-2	Turkey	D-2
69	San Juan	D-2	Stamberg	D-2	Turkey	D-2
70	San Juan	D-2	Stamberg	D-2	Turkey	D-2
71	San Juan	D-2	Stamberg	D-2	Turkey	D-2
72	San Juan	D-2	Stamberg	D-2	Turkey	D-2
73	San Juan	D-2	Stamberg	D-2	Turkey	D-2
74	San Juan	D-2	Stamberg	D-2	Turkey	D-2
75	San Juan	D-2	Stamberg	D-2	Turkey	D-2
76	San Juan	D-2	Stamberg	D-2	Turkey	D-2
77	San Juan	D-2	Stamberg	D-2	Turkey	D-2
78	San Juan	D-2	Stamberg	D-2	Turkey	D-2
79	San Juan	D-2	Stamberg	D-2	Turkey	D-2
80	San Juan	D-2	Stamberg	D-2	Turkey	D-2
81	San Juan	D-2	Stamberg	D-2	Turkey	D-2
82	San Juan	D-2	Stamberg	D-2	Turkey	D-2
83	San Juan	D-2	Stamberg	D-2	Turkey	D-2
84	San Juan	D-2	Stamberg	D-2	Turkey	D-2
85	San Juan	D-2	Stamberg	D-2	Turkey	D-2
86	San Juan	D-2	Stamberg	D-2	Turkey	D-2
87	San Juan	D-2	Stamberg	D-2	Turkey	D-2
88	San Juan	D-2	Stamberg	D-2	Turkey	D-2
89	San Juan	D-2	Stamberg	D-2	Turkey	D-2
90	San Juan	D-2	Stamberg	D-2	Turkey	D-2
91	San Juan	D-2	Stamberg	D-2	Turkey	D-2
92	San Juan	D-2	Stamberg	D-2	Turkey	D-2
93	San Juan	D-2	Stamberg	D-2	Turkey	D-2
94	San Juan	D-2	Stamberg	D-2	Turkey	D-2
95	San Juan	D-2	Stamberg	D-2	Turkey	D-2
96	San Juan	D-2	Stamberg	D-2	Turkey	D-2
97	San Juan	D-2	Stamberg	D-2	Turkey	D-2
98	San Juan	D-2	Stamberg	D-2	Turkey	D-2
99	San Juan	D-2	Stamberg	D-2	Turkey	D-2
100	San Juan	D-2	Stamberg	D-2	Turkey	D-2

T
20
S

Water Tanks
Well

Gravel Pit

Oil Wells

BM
3571

Gravel Pit

Drill
Hole

Well

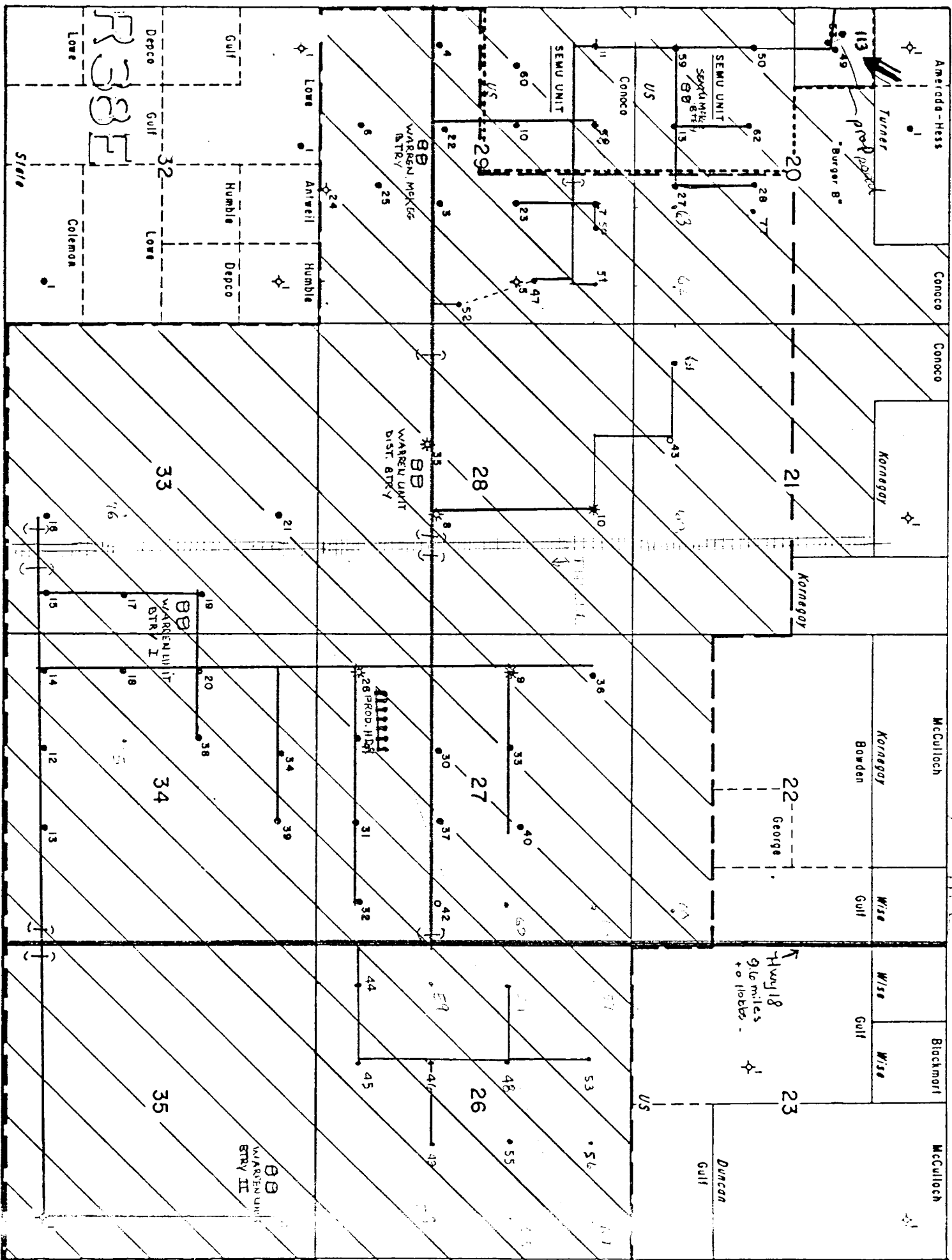
Gravel Pit
prop
road

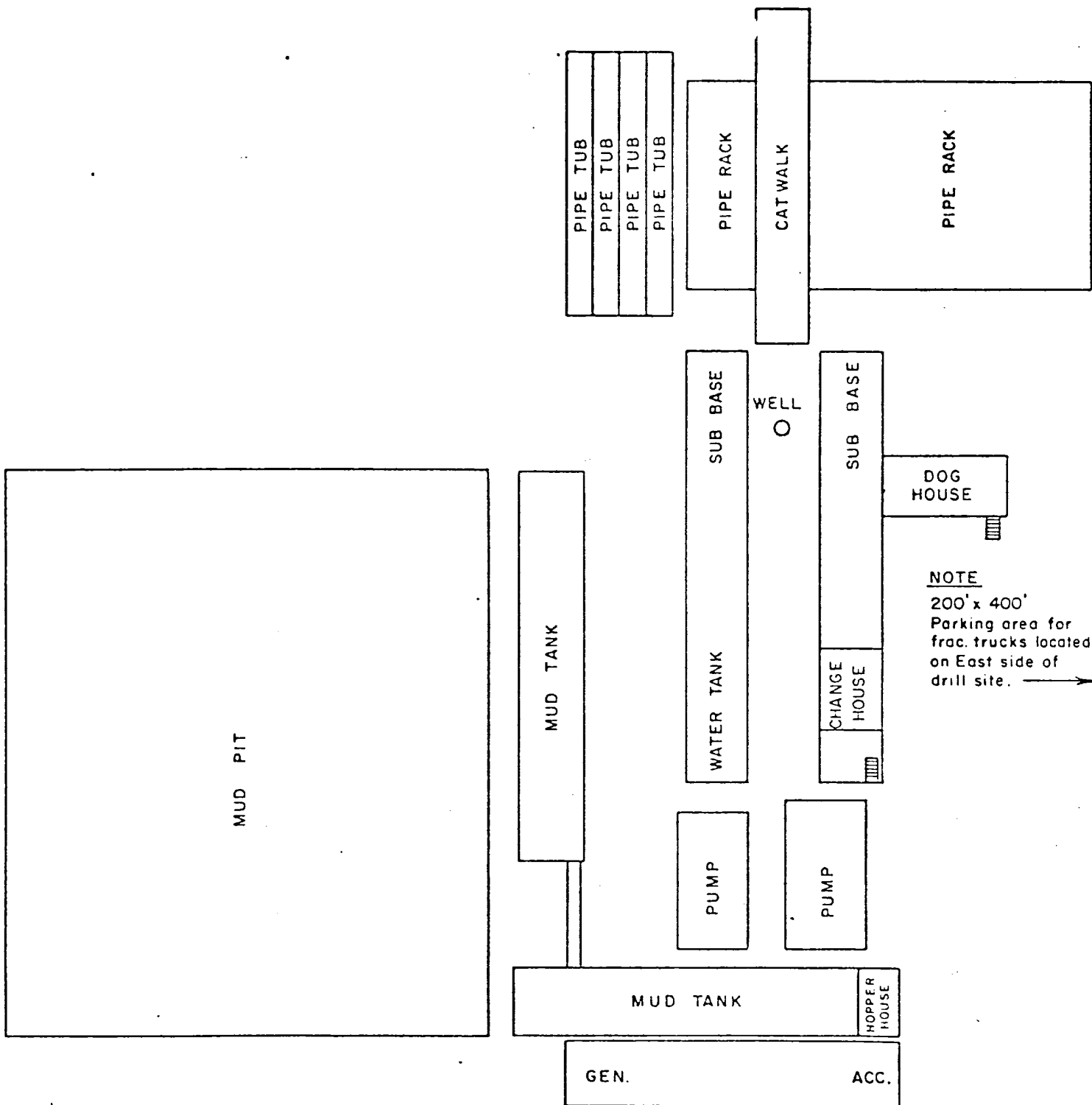
113

PIPELINE

PIPELINE

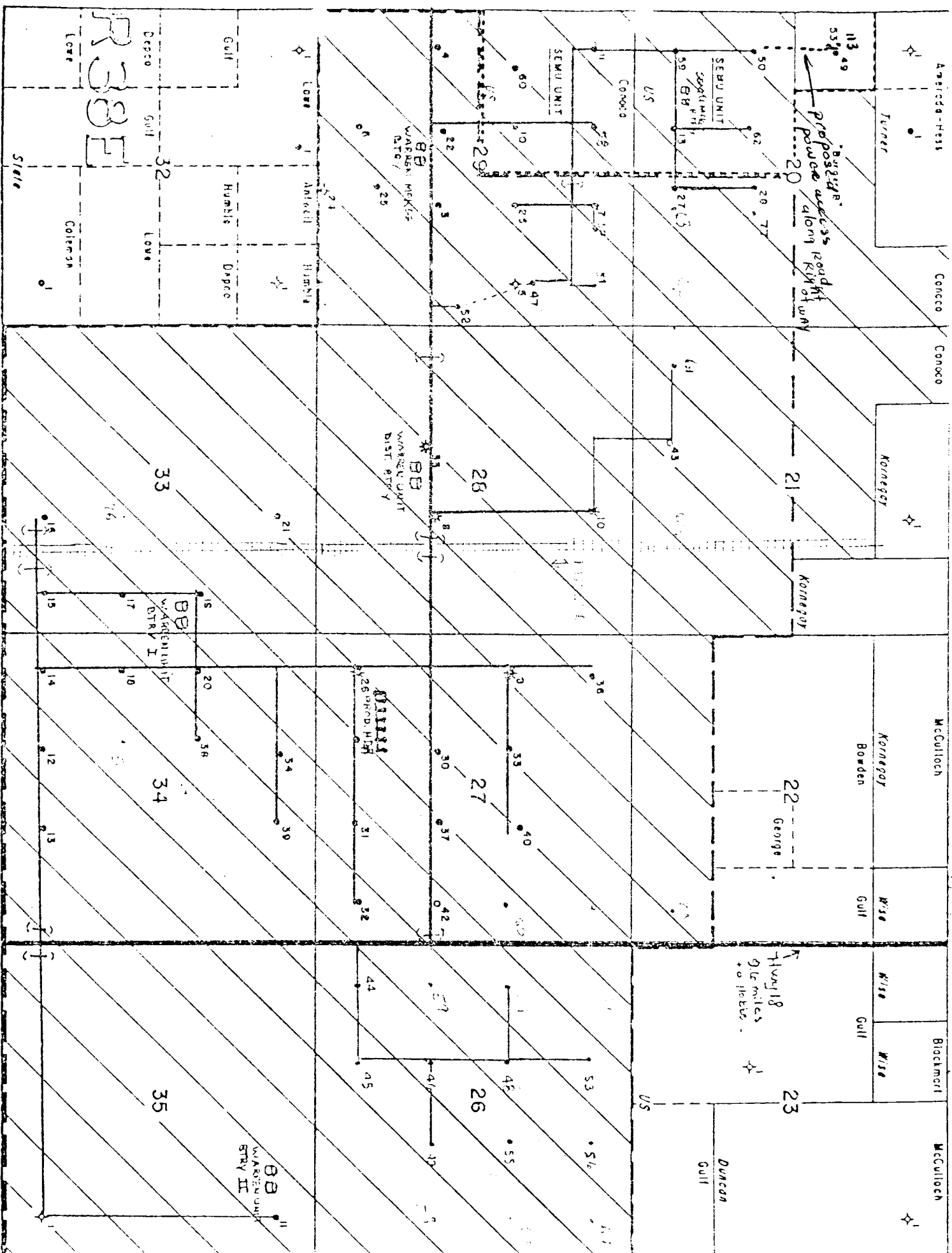
TEXAS - NE



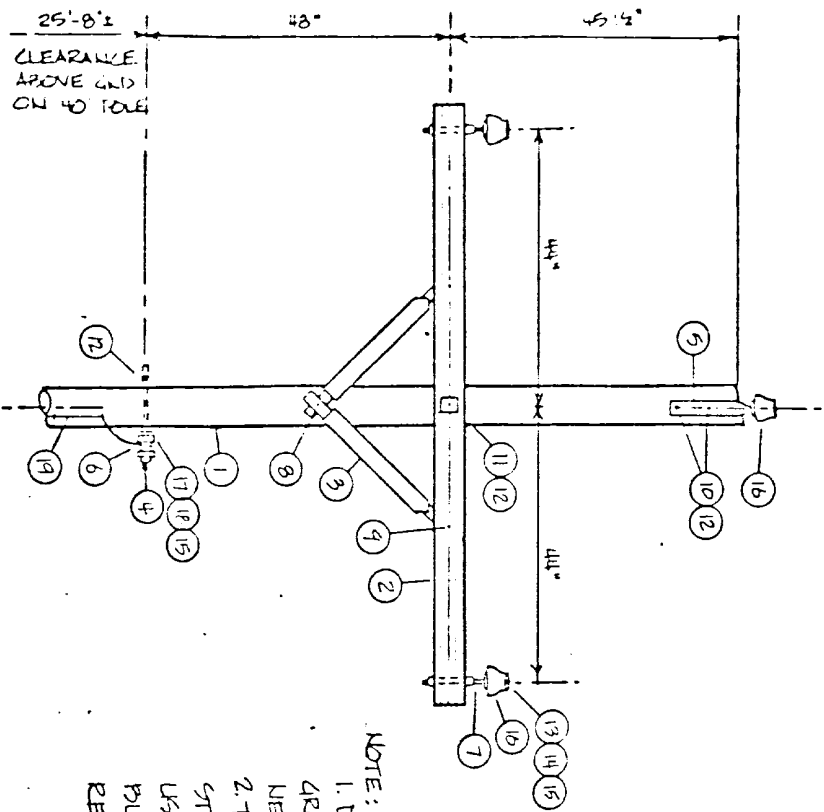


NOTE
 200' x 400'
 Parking area for
 frac. trucks located
 on East side of
 drill site. →

APPROX. RIG SITE DIMENSIONS
 160' x 200'

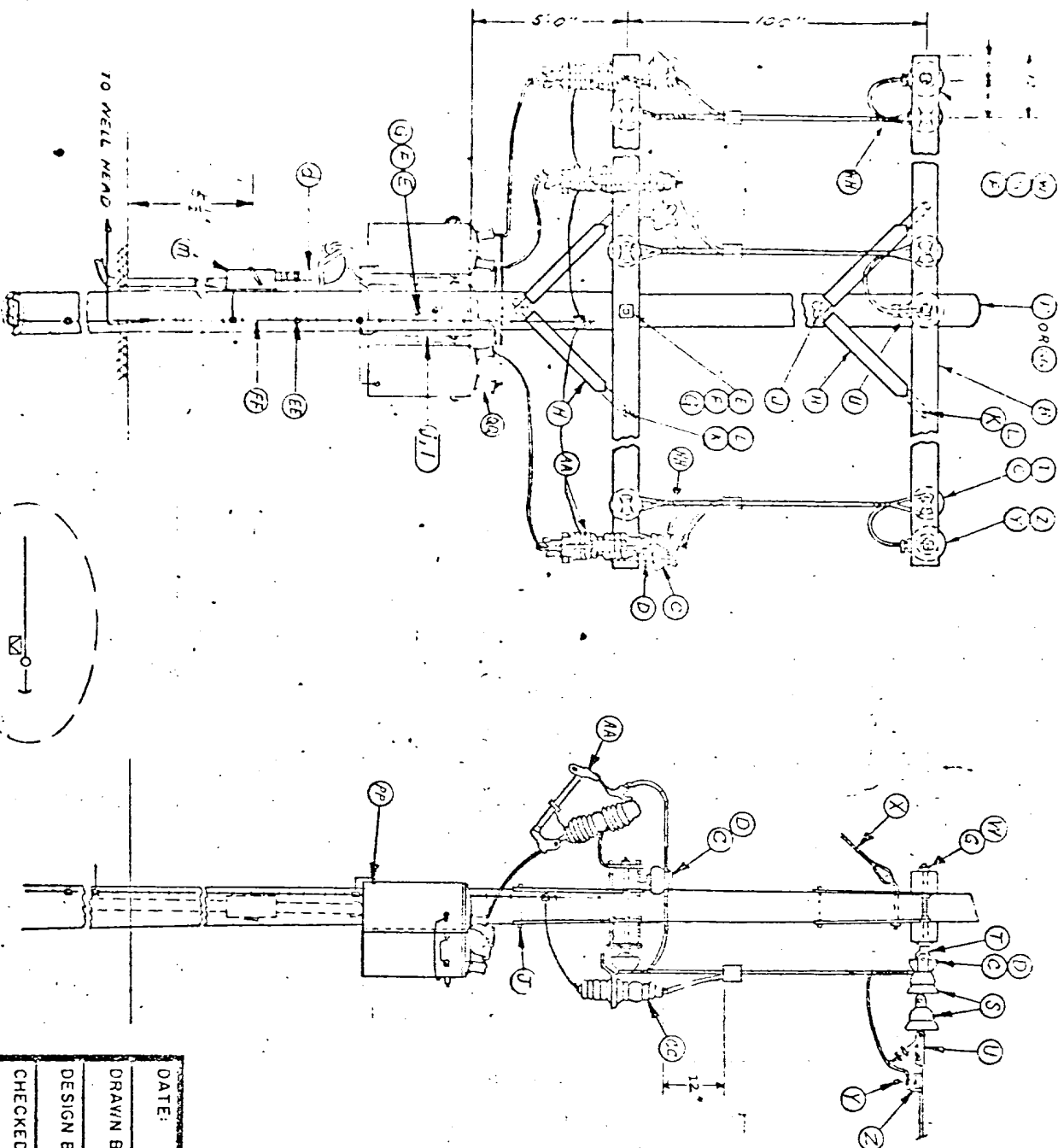


MATERIALS				
ITEM	DESCRIPTION	REQ'D	ITEM	DESCRIPTION
1	POLE, 40'	1	17	NEUTRAL CONDUCTOR
2	CROSSARM, 2 1/2" x 4 1/2" x 8'	1	18	ARMOR FOR
3	BRACE, WOOD	2	19	POLE GROUND WIRE, #6 AL.
4	STUD BALK	1		
5	BRIDGE PIN, 1 1/2"	1		
6	STEEL INSULATOR	2		
7	STEEL PIN, 3/8" x 5"	1		
8	LAG SCREW, 1/2" x 4"	2		
9	CARRIAGE BOLT, 3/8" x 4 1/2"	2		
10	MACHINE BOLT, 3/8" x 10"	1		
11	WASHER, 2 1/2" SQ.	5		
12	PHASE CONDUCTOR			
13	ARMOR ROD	3		
14	TIE WIRE, #6 AL.	1		
15	PIN INSULATOR, 9 KV	3		
16				



NOTE:
 1. DO NOT INSTALL
 GROUND WIRE FIRST
 NEUTRAL CONDUCTOR
 2. THIS CONSTRUCTION
 STANDARD TO BE
 USED ON ALL LINES
 BUILT ON NATIONAL
 RESOURCE LANDS

DATE: 7-15-71	TITLE: PRIMARY IN LINE POLE 12,500 VOLT AXR
DRAWN BY: J. Merrill	CONOCO HOBBS DIVISION PRODUCTION DEPT. JOB: ELEC. SPECS. DRAWING NO: ES-26
DESIGN BY:	
CHECKED BY: SK	
APPROVED BY: SK	
SCALE: 1/2" = 1'-0"	

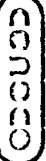


ITEM	QTY	REF
A	4	
B	5	
C	7	
D	3	
E	24	
F	12	
G	8	
H	4	
J	8	
K	8	
L	8	
PER 5G	1	ES-1A, NOTE 5
S	6	
T	3	
U	3	
V	5	
W	1	
X	3	
Y	3	
Z	3	
AA	3	
CC	3	
EE	8	
FF	1	
HH	6	
J	1	ES-1A, NOTE 2
KL	1	
PP	3	
QQ	6	

NOTE:
 1. CENTER PHASE ON BANK WILL HAVE EPOXY INSULATOR, KEARNLEY # 323015-24 INS. (REF. REFER TO DRWG. ES-2B)
 2. ALL WIRE FROM POINT "U" WILL BE INSULATED TYPE WIRE ON TRANSFORMER BANK.

DATE:	12-13-71	TITLE:	SINGLE NOTE SUBST.
DRAWN BY:	AKD	1PH. TRANS. SUBST. MOUNT.	
DESIGN BY:	AKD	PRIM. DEAD-END-12500/480V AGSR	
CHECKED BY:		PRODUCTION DEPT.	CCNCCO
APPROVED BY:		JOB:	
SCALE:	NONE	DRAWING NO:	ES-9
			HOBBS DIVISION
			ELEC. SPECS

ITEM	DESCRIPTION	A. B. CHANGE NO.	JOSLYN NO.	OTHER MFRS. NO.	NO. SUB.
1	35' class 6 creosoted pine pole				
2	3 1/2" x 4 1/2" x 8 treated crossarm				
3	3 1/2" x 4 1/2" x 8 treated crossarm				
4	5/8" x 5" forced steel pin w/sq. washer, nut, & locknut	881	463		
5	5/8" x 12" machine bolt w/ nut (or length req'd)	881/2			
6	2 1/4" x 2 1/4" x 3/16" x 11/16" hole sq. washer	481/3			
7	3/4" x 1/2" locknut	341/2			
8	1 1/4" x 1 1/4" x 28" flat crossarm brace	717B			
9	1/2" x 6" E7 Fetter Drive Long Screw	508754			
10	3/4" x 4 1/2" carriage Bolt w/ Nut	8614 1/2			
11	3/4" x 1/2" locknut	3510			
12	Preformed Aluminum Alloy Armor Rods, size req'd				
13	tie wire #6 strong alum. alloy			KEARNEY #3202560	X
14	Epoxy Insulator (Extension Link)				
15	35' class 5 creosoted pine pole				
16	Aluminum double tab Squeeze on Connector			KEARNEY SERIES "81"	X
17	for Alum. Aluminum, or Copper-size req'd	66200			
18	5/8" x 18" (or length req'd) Double Arming Bolt	66202	44050		
19	5/8" x 18" (or length req'd) Double Arming Bolt	6668			
20	5/8" x 18" (or length req'd) Double Arming Bolt				
21	5/8" x 18" (or length req'd) Double Arming Bolt				
22	5/8" x 18" (or length req'd) Double Arming Bolt				
23	5/8" x 18" (or length req'd) Double Arming Bolt				
24	5/8" x 18" (or length req'd) Double Arming Bolt				
25	5/8" x 18" (or length req'd) Double Arming Bolt				
26	5/8" x 18" (or length req'd) Double Arming Bolt				
27	5/8" x 18" (or length req'd) Double Arming Bolt				
28	5/8" x 18" (or length req'd) Double Arming Bolt				
29	5/8" x 18" (or length req'd) Double Arming Bolt				
30	5/8" x 18" (or length req'd) Double Arming Bolt				
31	5/8" x 18" (or length req'd) Double Arming Bolt				
32	5/8" x 18" (or length req'd) Double Arming Bolt				
33	5/8" x 18" (or length req'd) Double Arming Bolt				
34	5/8" x 18" (or length req'd) Double Arming Bolt				
35	5/8" x 18" (or length req'd) Double Arming Bolt				
36	5/8" x 18" (or length req'd) Double Arming Bolt				
37	5/8" x 18" (or length req'd) Double Arming Bolt				
38	5/8" x 18" (or length req'd) Double Arming Bolt				
39	5/8" x 18" (or length req'd) Double Arming Bolt				
40	5/8" x 18" (or length req'd) Double Arming Bolt				
41	5/8" x 18" (or length req'd) Double Arming Bolt				
42	5/8" x 18" (or length req'd) Double Arming Bolt				
43	5/8" x 18" (or length req'd) Double Arming Bolt				
44	5/8" x 18" (or length req'd) Double Arming Bolt				
45	5/8" x 18" (or length req'd) Double Arming Bolt				
46	5/8" x 18" (or length req'd) Double Arming Bolt				
47	5/8" x 18" (or length req'd) Double Arming Bolt				
48	5/8" x 18" (or length req'd) Double Arming Bolt				
49	5/8" x 18" (or length req'd) Double Arming Bolt				
50	5/8" x 18" (or length req'd) Double Arming Bolt				
51	5/8" x 18" (or length req'd) Double Arming Bolt				
52	5/8" x 18" (or length req'd) Double Arming Bolt				
53	5/8" x 18" (or length req'd) Double Arming Bolt				
54	5/8" x 18" (or length req'd) Double Arming Bolt				
55	5/8" x 18" (or length req'd) Double Arming Bolt				
56	5/8" x 18" (or length req'd) Double Arming Bolt				
57	5/8" x 18" (or length req'd) Double Arming Bolt				
58	5/8" x 18" (or length req'd) Double Arming Bolt				
59	5/8" x 18" (or length req'd) Double Arming Bolt				
60	5/8" x 18" (or length req'd) Double Arming Bolt				
61	5/8" x 18" (or length req'd) Double Arming Bolt				
62	5/8" x 18" (or length req'd) Double Arming Bolt				
63	5/8" x 18" (or length req'd) Double Arming Bolt				
64	5/8" x 18" (or length req'd) Double Arming Bolt				
65	5/8" x 18" (or length req'd) Double Arming Bolt				
66	5/8" x 18" (or length req'd) Double Arming Bolt				
67	5/8" x 18" (or length req'd) Double Arming Bolt				
68	5/8" x 18" (or length req'd) Double Arming Bolt				
69	5/8" x 18" (or length req'd) Double Arming Bolt				
70	5/8" x 18" (or length req'd) Double Arming Bolt				
71	5/8" x 18" (or length req'd) Double Arming Bolt				
72	5/8" x 18" (or length req'd) Double Arming Bolt				
73	5/8" x 18" (or length req'd) Double Arming Bolt				
74	5/8" x 18" (or length req'd) Double Arming Bolt				
75	5/8" x 18" (or length req'd) Double Arming Bolt				
76	5/8" x 18" (or length req'd) Double Arming Bolt				
77	5/8" x 18" (or length req'd) Double Arming Bolt				
78	5/8" x 18" (or length req'd) Double Arming Bolt				
79	5/8" x 18" (or length req'd) Double Arming Bolt				
80	5/8" x 18" (or length req'd) Double Arming Bolt				
81	5/8" x 18" (or length req'd) Double Arming Bolt				
82	5/8" x 18" (or length req'd) Double Arming Bolt				
83	5/8" x 18" (or length req'd) Double Arming Bolt				
84	5/8" x 18" (or length req'd) Double Arming Bolt				
85	5/8" x 18" (or length req'd) Double Arming Bolt				
86	5/8" x 18" (or length req'd) Double Arming Bolt				
87	5/8" x 18" (or length req'd) Double Arming Bolt				
88	5/8" x 18" (or length req'd) Double Arming Bolt				
89	5/8" x 18" (or length req'd) Double Arming Bolt				
90	5/8" x 18" (or length req'd) Double Arming Bolt				
91	5/8" x 18" (or length req'd) Double Arming Bolt				
92	5/8" x 18" (or length req'd) Double Arming Bolt				
93	5/8" x 18" (or length req'd) Double Arming Bolt				
94	5/8" x 18" (or length req'd) Double Arming Bolt				
95	5/8" x 18" (or length req'd) Double Arming Bolt				
96	5/8" x 18" (or length req'd) Double Arming Bolt				
97	5/8" x 18" (or length req'd) Double Arming Bolt				
98	5/8" x 18" (or length req'd) Double Arming Bolt				
99	5/8" x 18" (or length req'd) Double Arming Bolt				
100	5/8" x 18" (or length req'd) Double Arming Bolt				

DATE: 12-27-71	TITLE: DESCRIPTIONAL MATERIALS
DRAWN BY: L. WINTER	
DESIGN BY:	
CHECKED BY:	
APPROVED BY:	
SCALE: NONE	PRODUCTION DEPT. HOBBBS DIVISION JOB: ELEC SPECS DRAWING NO.: ES-1 SHEET 1 OF 3

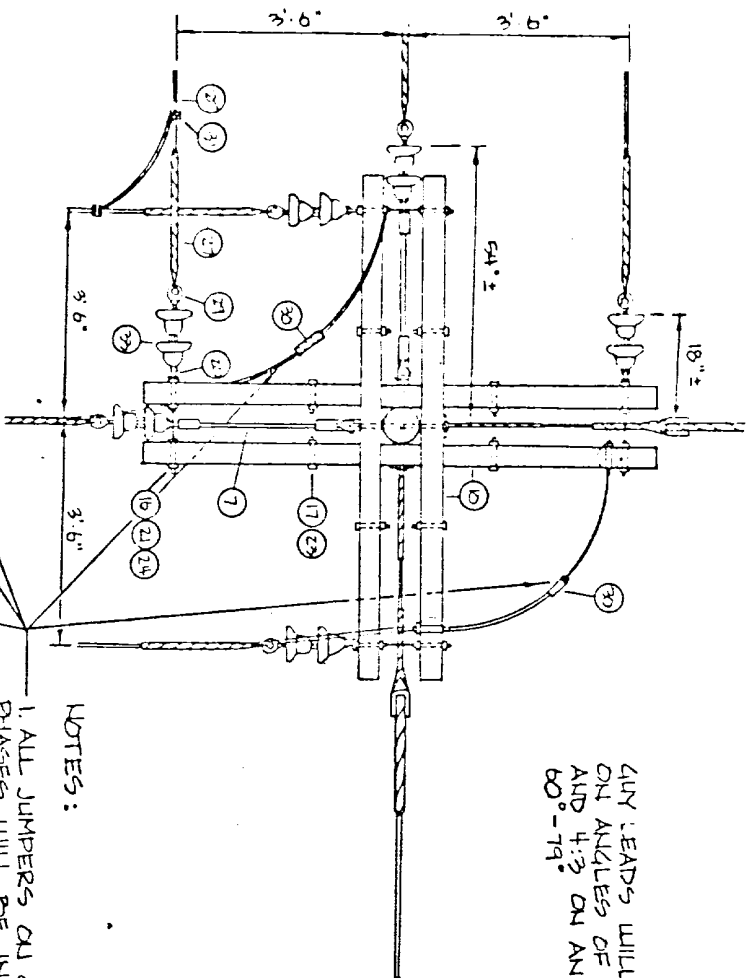
ITEM	DESCRIPTION	A. B. CHANGE NO.	JOSLYN NO.	OTHER REFS. NO.	NO SUB.
A	Primary output - 100 amp, 15 kv, 16000 amp int. cap.	F2XX1015G			X
B	600 volt surge arrester, 10 kv	UC510HGP			
C	14 kv surge arrester, 14 kv				
D	split phase oil switch, 14.4 kv				
E	split bolt connector, size req'd				
F	grounding spec. see dwg No. ES-11 & ES-1A, Note 3				
G	35' class 6 creosoted pine pole				
H	aluminum deadend preforms for ACSR, size req'd				
I	30' class 6 creosoted pine pole				
J	600 volt surge arrester, 14 kv				
K	600 volt surge arrester, 14 kv				
L	ground connector, motor				
M	600 V, secondary lightning arrester single phase				
N	Greenfield type 10 liquid-tight flexible steel				
O	conduit, size req'd, w/ necessary liquid-tight				
P	connectors.				
Q	req'd size 18 fitting & cover & gasket				
R	transformer tank grounding terminal				
S	air guards (insulating boots on transformer bushings)				
		GW5-15			

DATE: 12-27-71		TITLE:	
DRAWN BY: E. WINTER		DESCRIPTION MATERIAL	
DESIGN BY:		CCNOCO	
CHECKED BY:		PRODUCTION DEPT.	
APPROVED BY:		HOBBS DIVISION	
SCALE: NONE		JOB: ELEC SPECS	
		DRAWING NO: ES-1	
		SHEET 2 OF 3	

ITEM	DESCRIPTION	A. B. CHANCE NO.	JOSLYN NO.	OTHER MFRS. NO.	NO SUB.
a	double upset bolt 5/8", nut, round washer, and corner key on short end, sq. nut and NF locknut on long end, 15 1/8" long (or length required.)	7828			
b	wet process porcelain secondary spool insulator, 3", brown glaze		1101		
d	required size conduit w/ servicehead(s) & req'd size & rated insulated conductors. Ref. Dwg ES-1B note: provide clamp and ground conduit parallel groove clamp, size req'd			BURBY SERIES "UC"	
e					
f	secondary insulator clevis for 4" insulator	6510			
g	5/8" thimble nut				
h	5/8" x 12" (or length req'd) straight thimbleye bolt w/sq. nut	5512			
j	transformer cluster mount bracket (small)			ALUMAFORM 6M3-6	X
l	transformer cluster mount bracket (large)			ALUMAFORM 15M3-6	X
m	req'd size raintight disconnect & fuses, 3-phase, 600 V. Ref. Dwg No. ES-1B				
n	1/2" cross plate anchor (or size req'd)	X-16			
q	8-way expanding anchor (size req'd)	88135			
t	4" brown glaze wet process porcelain secondary spool insulator		10101		
u	5/8" x 7' thimbleye anchor rod w/nut (use twineye if req'd - chance No. 5347)	5317 (NUT 55006P)			
aa	3/8" high strength guy strand (10,800 lb.)				
bb	preforded guy wire for 3/8" guy strand				
di	5/8" x 10" angle thimbleye bolt w/nut	5010			
ee	3" x 3 1/4" x 11 1/16" hole curved washer	6823 1/2			X
ff	6" - guy clamp w/3-1/2" bolts				
re	medium size strain insulator				
hh	service sleeve for 3/8" guy strand	6454			
ji	3 1/16" x 2-1/2" x 7" lift plate	7887			X
nn	pole bottom ground plate (may use butt-wrapp if desired)				
qq	(round) connection (See Dwg. ES-12)				
rr	wet process porcelain secondary spool insulator, 3" - white glaze				
tt	wet process porcelain secondary spool insulator, 4" - white glaze				

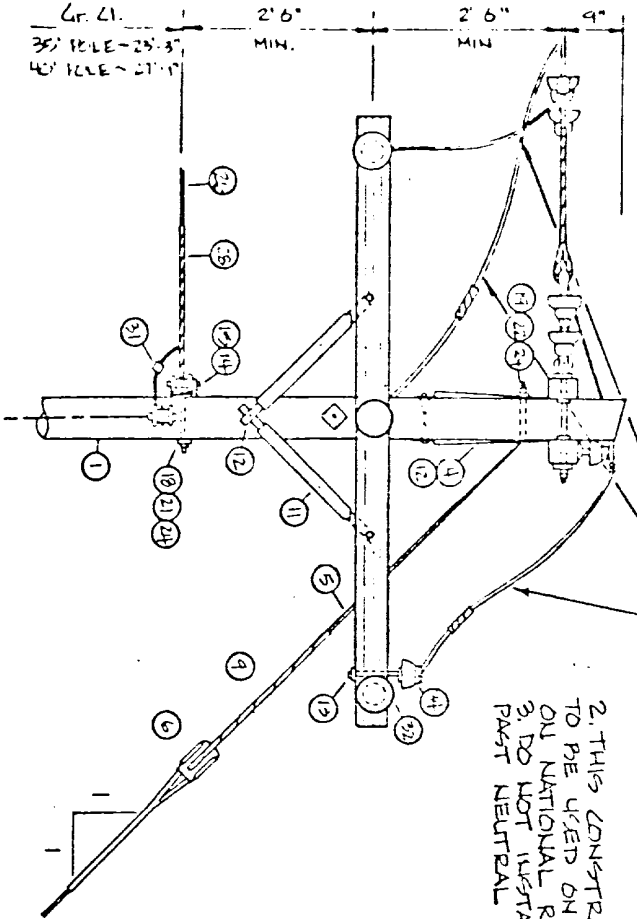
DATE: 12-27-71		TITLE: DESCRIPTION MATERIALS	
DRAWN BY: F. WINTER		CONOCO HOBBS DIVISION PRODUCTION DEPT. JOB: ELEC SPECS DRAWING NO: ES-1 SHEET 3 OF 3	
DESIGN BY:			
CHECKED BY:			
APPROVED BY:			
SCALE: NONE			

GUY LEADS WILL BE 1:1
ON ANGLES OF 80°-90°
AND 4:3 ON ANGLES OF
60°-79°



NOTES:

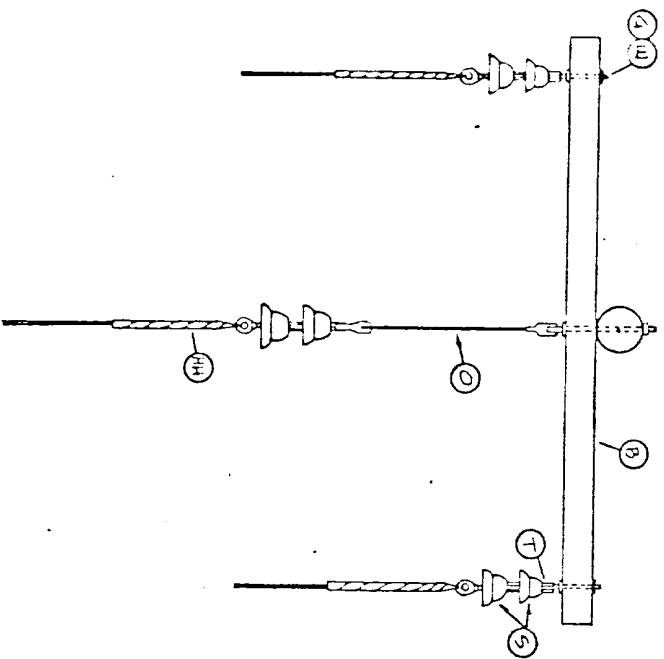
1. ALL JUMPERS ON CONDUCTOR PHASES WILL BE INSULATED TYPE WIRE.
2. THIS CONSTRUCTION STANDARD TO BE USED ON ALL LINES PULLED ON NATIONAL RESOURCE LANS.
3. DO NOT INSTALL GROUND WIRE PAST NEUTRAL CONDUCTOR.



MATERIALS

ITEM	DESCRIPTION	QTY
1	POLE, LENGTH, CLASS, _____	1
2	ANCHOR, 8"	2
3	ANGLE, 20D 5/8" x 7'	2
4	GUY ATTACHMENT, P133A	2
5	GUY CABLE, 3/8" 114	24*
6	GUY INSULATOR, 1005	2
7	BOX INSULATOR, KEARNEY # 329CNS-24	2
8	CLAMP, 3-POLT	2
9	GUY GRIP, 3/8"	2
10	CR072 ARM, 8"	4
11	BASE, 3/8" 6PA	8
12	LAG SCREW, 1/2"	8
13	STEEL PIN 5/8" x 5"	2
14	BACK, 1-POINT	2
15	GOOD INSULATOR, 13"	2
16	BOLT, D.A. 5/8" x 12"	8
17	NUT, WASH, 3/8" x 11 1/2"	8
18	WASHER, 3/8" x 10"	2
19	EYE NUT, 5/8" x 12"	2
20	LOCK NUT, 5/8"	2
21	WASHER, 2 1/4" FLAT	22
22	WASHER, 3" CURVED	2
23	LOCK NUT, 3/8"	8
24	LOCK NUT, 3/8"	10
25	PHASE CONDUCTOR, NO. _____	1
26	NEUTRAL CONDUCTOR, NO. _____	1
27	FREE TIE, NO. _____	1
28	PREP. TIE, NO. _____	2
29	CLEVIS, THIMBLE	2
30	JUMPER, CLEVIS, NO. _____	2
31	CONDUCTOR, 50.5ML. AL.	2
32	INSULATOR, 6KV PIN	2
33	INSULATOR, 6" DISC	12
34	TIE WIRE, NO. 6 AL.	1/2"

DATE: 7-15-77	TITLE: PRIMARY ANGLE STRUCTURE 60°-90° 12,500 VOLT ASR
DRAWN BY: I. MORTILLI	
DESIGN BY:	
CHECKED BY: SV	PRODUCTION DEPT. HOBBS DIVISION
APPROVED BY: SK	DRAWING NO. ES-27
SCALE: NONE	



ITEM	QTY.
REQ'D	
B	1
U	3
HH	3
O	1
S	6
T	2
W	3

NOTE:
FOR MATERIALS, SEE
DRAWING, ES-1

DATE: 7-15-71	TITLE: EPOXY INSULATOR (EXTENSION LINK)	
DRAWN BY: J. MORTILL		
DESIGN BY:		
CHECKED BY: SK		
APPROVED BY: SK		
SCALE: 1/8" = 1"		
PRODUCTION DEPT. CONOCO		HOBBS DIVISION
JOB:	DRAWING NO:	
ELEC. SPECS.	ES-28	