Form 9-331 C
(May 1963)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1425.

30-039-22787

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

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

b. TYPE OF WELL
OIL WELL [x] GAS WELL [ ] OTHER SINGLE ZONE [ ] MULTIPLE ZONE [ ]

2. NAME OF OPERATOR
UNC Texas, Inc.

3. ADDRESS OF OPERATOR
P. O. Drawer 1391, Midland, Texas 79702

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface
1980' FS & WL of Section 31
At proposed prod. zone
same

5. LEASE DESIGNATION AND SERIAL NO.
NM 014023

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Betty 'C' 31

9. WELL NO.
3-31

10. FIELD AND POOL, OR WILDCAT
Lybrook - Gallup

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
K
Sec. 31 - 24N - 7W

12. COUNTY OR PARISH
Rio Arriba

13. STATE
New Mexico

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

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JUL 29 1981
U. S. GEOLOGICAL SURVEY
FARMINGTON, N. M.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
660

16. NO. OF ACRES IN LEASE
640.36

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.
1895.26

19. PROPOSED DEPTH
5750

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
6963 GR

22. APPROX. DATE WORK WILL START*

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	300	200 sx
7 7/8	4 1/2	10.5 - 11.6	5750	1010 sx

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS"

This action is subject to administrative appeal pursuant to 30 CFR 290.

See Attachments

RECEIVED
AUG 11 1981
OIL CON. COM.
DIST. 3

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 [signature] TITLE Drilling and Production Engineer DATE 7-15-81

(This space for Federal or State office use)

PERMIT NO. ______ APPROVAL DATE ______

APPROVED BY ______ TITLE ______
CONDITIONS OF APPROVAL, IF ANY:

APPROVED
AS AMENDED
AUG 7 1981
Dean Elliott
For JAMES F. SIMS
DISTRICT ENGINEER

*See Instructions On Reverse Side

NMOCC

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

☆GPO 782-931

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

Form C-107
Revised 10-1-71

All distances must be from the outer boundaries of the Section.

Operator	Lease	Well No.
UNC TEXAS CORPORATION	BETTY 31 "C"	3

Unit Letter	Section	Township	Range	County
K	31	24N	7W	Rio Arriba

Actual Footage Location of Well: 1980 feet from the South line and 1980 feet from the West line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage
6963	Gallup	Lybrook-Gallup	40 Acres

1. Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.

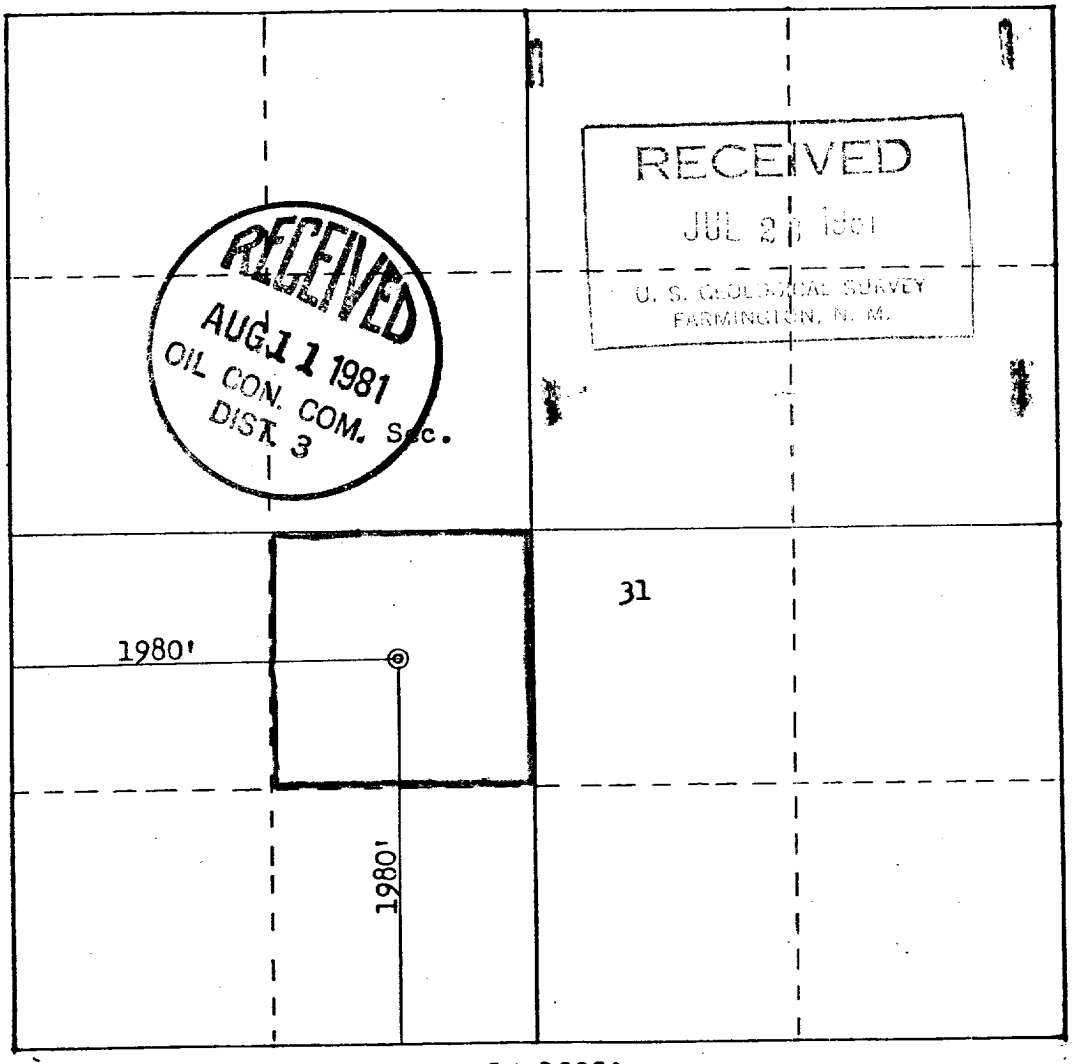
2. If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).

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?

☐ 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 interests, has been approved by the Commission.



Scale: 1"=1000'

CERTIFICATION

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

Name: Randall H. Hulme

Position: Drlg and Prod Engr

Company: UNC Texas, Inc.

Date: July 16, 1981

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: May 1, 1981

Registered Professional Engineer and Land Surveyor

Fred B. Kerr, Jr.

Certificate No. 3950

FORM 24-11

FORMATION INFORMATION AND DRILLING PRACTICES

UNC Texas, Inc.

Well: Betty 'C' 3-31
Location: 1980' FS & WL
Section 31-24N-7W
Rio Arriba Co., New Mexico
Lease No. NM 014023

Betty 'C' 3-31
(Well Name & Number)

TEN POINT PROGRAM

1) SURFACE FORMATION

The surface formation is Wasatch

2) ESTIMATED FORMATION TOPS

Kirtland-Fruitland	1460
Pictured Cliffs	2000
Cliffhouse	3520
Mancos	4520
Gallup	5370

3) ESTIMATED DEPTH OF ANTICIPATED WATER, OIL, GAS, OR MINERALS

5370' - oil

4) PROPOSED CASING PROGRAM

0 - 300' 8 5/8", 24#, K-55, new casing. Cement with 200 sx Class "B" + 2% $CaCl_2$

0 - 5750' 4 1/2", 10.5-11.6#, K-55, new casing. First stage: 470 sx 50-50 Class B Pozmix A + 4% gel + 10% salt + 0.6% Halad-9 + 6 lb. Gilsonite/sx. Second stage: Lead w/490 sx Halliburton Light + 12 lb. Gilsonite/sx; Tail w/50 sx Class B neat

5) PRESSURE CONTROL EQUIPMENT - BLOWOUT PREVENTER

B. O. P. will be as shown in Exhibit 1. The unit will be tested to 2000 psi and held for 20 minutes for each set of rams prior to drilling from under surface pipe. During drilling, the pipe rams will be closed at least once a day and checked for seating, fluid loss, and operations. On each trip the blind rams will be closed and checked for same.

6) DRILLING FLUIDS

Depth	Type Fluid	Weight	Viscosity	Fluid Loss
0-300	gel-lime	8.6-9.0	35-40	NC
300-5750	low-solids	8.8-9.4	32-42	10±

7) AUXILIARY EQUIPMENT

A kelly cock and bit float will be used while drilling. A full opening safety valve subbed to drill pipe threads will be on the floor at all times. The mud system will be monitored daily by a mud engineer.

8) EVALUATION

A) Testing - none planned

B) Logging

Depth	Electric Wireline Logs	Interval
TD	DIL/SFL	300' - TD
TD	FDC/CNL/GR	Zones of Interest

C) Coring - none planned

9) ABNORMAL TEMPERATURES, PRESSURES, OR POTENTIAL HAZARDS

None

10) STARTING DATE

Anticipated starting date is August 15, 1981 with subsequent drilling and completion operations lasting 30-60 days.

DRILLING PROGRAM PREPARED BY:

R H Hulme — 7-20-81

(ENGINEER) Randall H. Hulme — (DATE)

Drilling and Production Engineer — UNC Texas, Inc.

(TITLE) — (COMPANY)

SURFACE DEVELOPMENT PLAN

UNC Texas, Inc.

Well: Betty 'C' 3-31
Location: 1980' FS & WL
Section 31-24N-7W
Rio Arriba Co., New Mexico
Lease No. NM 014023

UNC Texas, Inc.
Betty 'C' 3-31
Section 31, T24N - R7W

1) EXISTING ROADS (shown in Green)

The proposed well location, as staked by a registered land surveyor, is shown in exhibit 2.

The attached topographic map (exhibit 3) shows all existing roads (shown in green) within one mile of the proposed location. The existing roads will bear normal drilling operation traffic, and will not have to be upgraded.

To reach the location from Bloomfield, New Mexico, go southeast on New Mexico Highway 44 for approximately 42 1/2 miles. Turn left on existing dirt road. Continue on dirt road bearing right at all turns and Y's for approximately 1 1/2 miles. Turn north on proposed access road (shown in red) approximately 1000 feet to location.

2) PLANNED ACCESS ROAD (shown in Red)

The new access road (shown in red in exhibit 3) will be about 1000 feet long and 20 feet wide.

No turnouts will be needed.

No drainage pattern will be incorporated for the drilling phase.

No culverts will be necessary.

No fences will be crossed and no cattleguards will be necessary.

The road will be centerline flagged prior to construction.

3) LOCATION OF EXISTING WELLS

The proposed well is a development well. Exhibit 4 identifies existing (1) water wells, (2) abandoned wells, (3) temporarily abandoned wells, (4) disposal wells, (5) drilling wells, (6) producing wells, (7) shut-in wells, (8) injection wells, and (9) monitoring or observation wells within a one-mile radius.

4) LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

Exhibit 4 shows existing operator owned facilities within a one-mile radius of the proposed well.

UNC Texas, Inc.
Betty 'C' 3-31
Section 31, T24N - R7W

It is proposed to utilize the existing production facilities at the Betty 'C' 2-31 location approximately 0.4 miles to the south east of location. New facilities will consist of 2" flowline to follow a R-O-W to be applied for with the proper authority.

Production facilities will utilize a beam pumping unit and will require approximately 50' x 50'.

Any construction will utilize soil materials native to the site. Construction methods will be employed to assure no drainage flows are impounded.

Fences will be installed around equipment and pits to protect wildlife and livestock.

Areas unnecessary for use will be graded to blend with the surrounding topography. Topsoil will be replaced on these areas and seeded according to BLM requirements.

5) LOCATION AND TYPE OF WATER SUPPLY

Water for drilling will be trucked from the Chapman's waterhole approximately 3/4 miles to the west. Water is privately owned.

6) SOURCE OF CONSTRUCTION MATERIALS

Any construction material required for road or location will be excess material accumulated from building of such sites.

Surface Ownership: Val Chapman
P. O. Box 1756
Farmington, NM 87401

7) METHODS OF HANDLING WASTE DISPOSAL

The location of the reserve and burn pits is shown on the attached drill site layout (exhibit 5). All trash and burnable material will be burned in the burn pit when safety permits. All nonburnable material (drilling fluids, cuttings, chemicals) will be stored in the reserve pit and then buried when they have dried. Any oil produced while drilling will be trucked from the location prior to leaving pit to dry out. Cleanup will proceed after the rig moves off, as outlined in Section 10 of this report.

Sewage disposal will be necessary during drilling operations only. A portable toilet will be provided for human waste.

UNC Texas, Inc.
Betty 'C' 3-31
Section 31, T24N - R7W

8) ANCILLARY FACILITIES

No ancillary facilities are planned.

9) WELL SITE LAYOUT

The attached layout (exhibit 5) shows the drilling rig with all associated facilities. Cut and fill required is also shown.

No pit liners are planned at this time.

10) PLANS FOR RESTORATION OF SURFACE

Prior to backfill operations, any hydrocarbon material on the pit surface will be removed. The fluids and solids contained in the pit will be backfilled when the pit dries. The area not required for production operations will be contoured, graded, or leveled to its previous condition, such that no drainage will be impounded. The topsoil will be replaced and the area reseeded per BLM recommendations.

The access road will be maintained for vehicular traffic if production results, or regraded to original condition if well is not productive.

Pits will be fenced and so maintained until they are dry and backfilled.

Rehabilitation will commence within 90 days of completion of operations, weather permitting, and if required by private land owner.

11) OTHER INFORMATION

A. Surface Description: Topography is broad, open canyon bottom, with westerly drainage and alluvial surface deposits. Soil is sandy, clayey loam. Principle vegetation consists of sagebrush, mustard, snakeweed, scattered juniper and pinion, rabbitbrush, narrowleaf yucca, prickly pear cactus, needle & thread, squirreltail, six-weeks fescue, and galleta.

B. Surface Ownership: Val Chapman

C. Proximity of Water, Dwellings, Historical Sites:
   (1) Water: Nearest source of water is Chapman's waterhole approximately 3/4 miles west of proposed location.

   (2) There are no occupied dwellings on the location.

   (3) Historical Sites: None found. Refer to Report 81-SJC-220 of the Cultural Resource Management Program, San Juan Campus, New Mexico State University dated June 19, 1981.

UNC Texas, Inc.
Betty 'C' 3-31
Section 31, T24N - R7W

12) OPERATORS FIELD REPRESENTATIVE

Randall H. Hulme
P. O. Drawer 1391
Midland, Texas 79702

Work: 915-683-3613
Home: 915-697-1358

Malcolm D. Abel
As Above

Work: 915-683-3613
Home: 915-697-1332

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 UNC Texas, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Randall H. Hulme
Drilling and Production
Engineer

10" 900 Series

SHAFFER HYDRAULIC BLOWOUT PREVENTERS

(Patented)

TYPE LWS PREVENTERS—8", 3000 Lb. & 5000 lb.—10", 5000 Lb. 12", 3000 Lb.—13⅝", 5000 Lb.—16", 3000 Lb.

PARTS AND DIMENSIONAL ILLUSTRATIONS

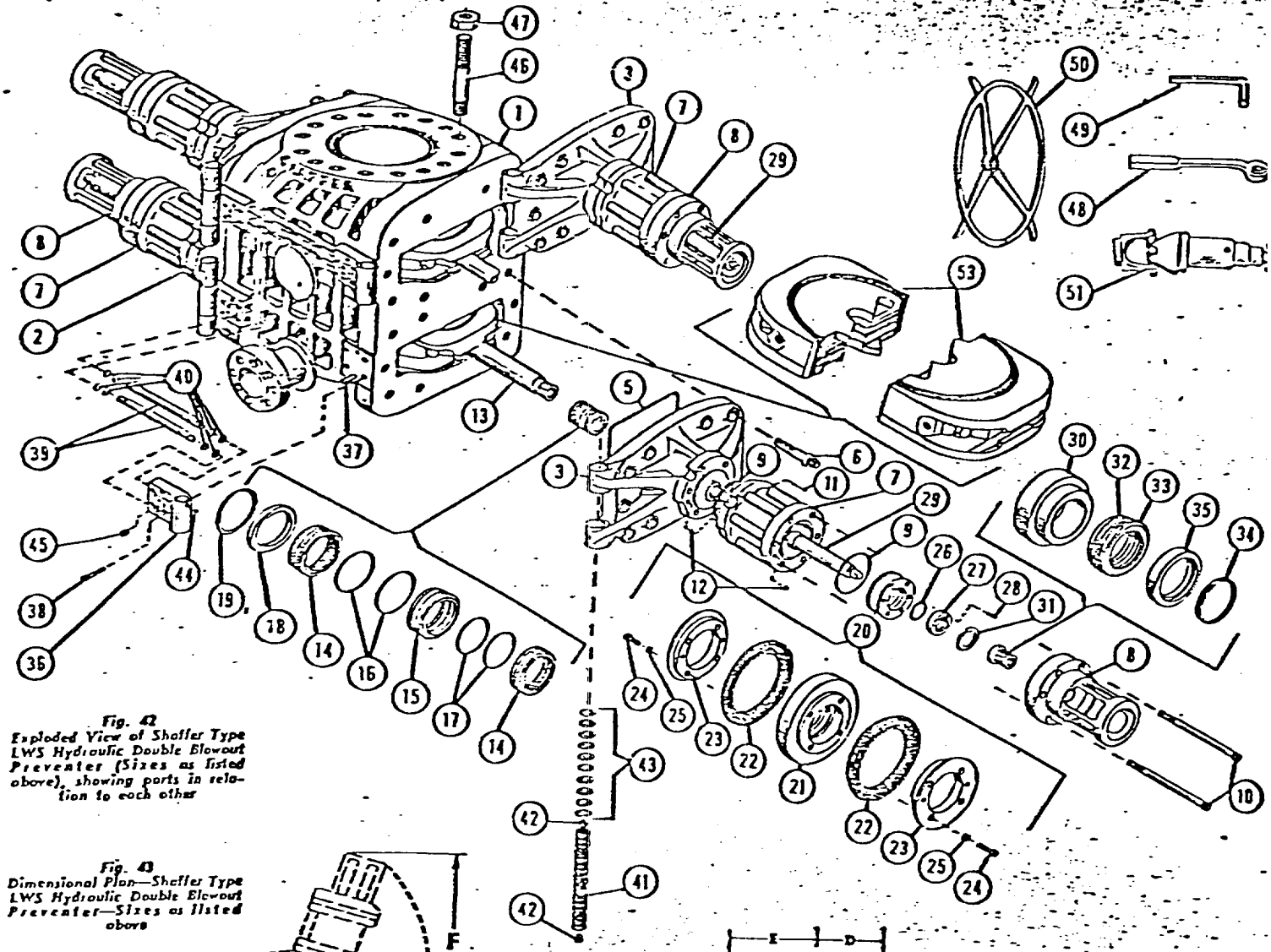


Fig. 42
Exploded View of Shaffer Type LWS Hydraulic Double Blowout Preventer (Sizes as listed above), showing parts in relation to each other

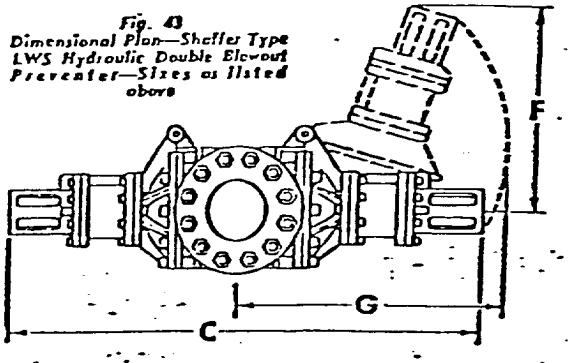


Fig. 43
Dimensional Plan—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above

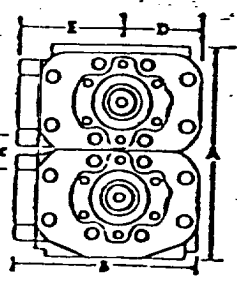


Fig. 44
Dimensional End Elevation—Shaffer Type LWS Hydraulic Double Blowout Preventer—Sizes as listed above

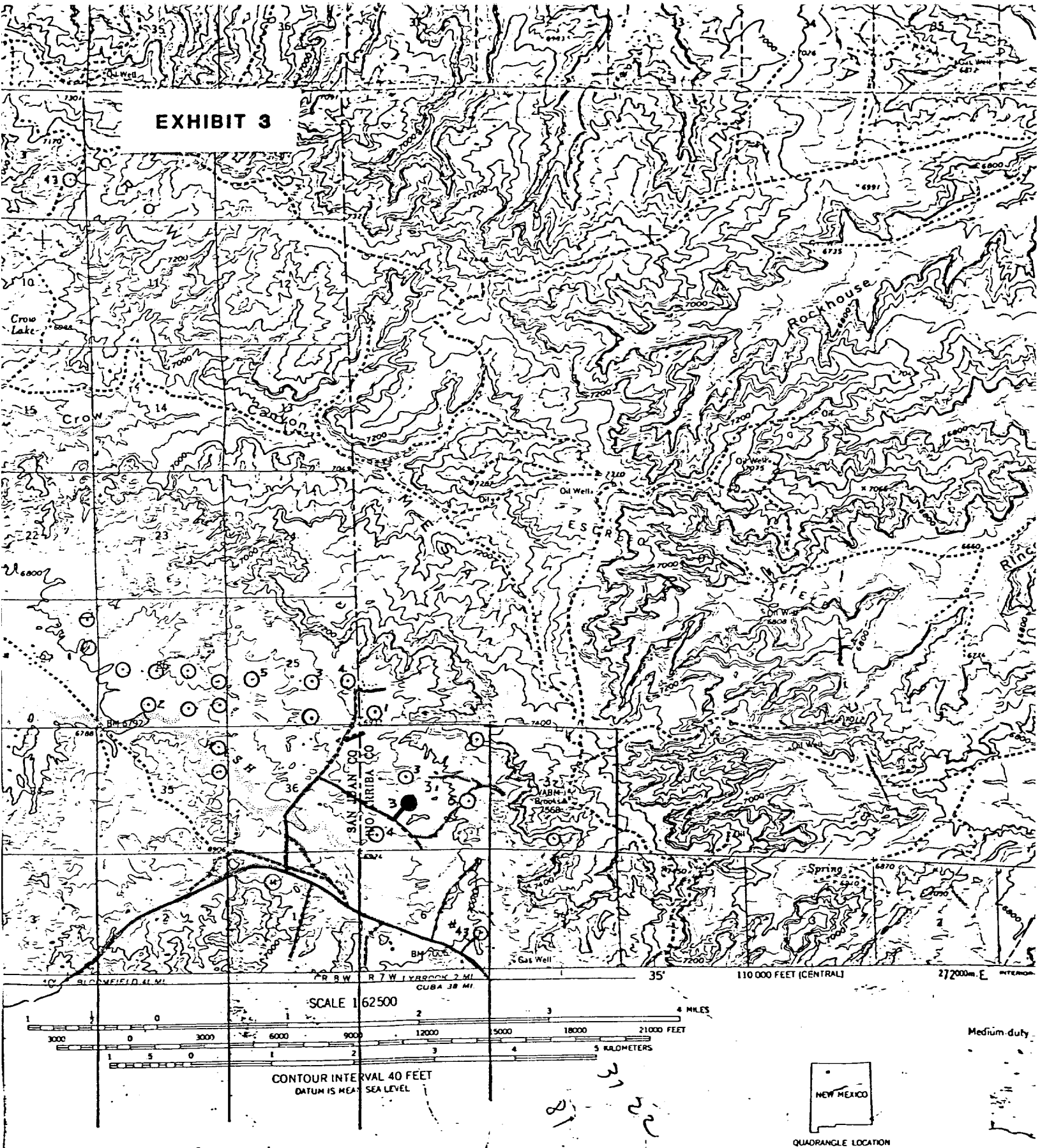
STANDARD ACCESSORIES

- (50) 4 Hand Wheels
- (48) 1 Door Wrench
- (49) 1 Cylinder & Cylinder Head Wrench
- (51) 4 Universal Joints

DIMENSIONAL AND ENGINEERING DATA ON ABOVE SIZES OF TYPE LWS PREVENTERS

Refer to Figs. 43 and 44

Size	Max. Service Press. Rating psi	Test Press. psi	Vertical Bore	Max. Ram Size	Approx. Weight Lbs. Studded Flange Single	Approx. Weight Lbs. Studded Flange Double	A Height Single Studded Flange	A Height Single Rolled Flange	A Height Double Studded Flange	A Height Double Rolled Flange	B Width	C Length	D Center To Front	E Center To Rear	F Door Open To Change Rams	G Door Open To Change Rams	Closing Ratio	Opening Ratio	U.S. Gals. Fluid To Close Rams	U.S. Gals. Fluid To Open Rams
8"	3,000	6,000	8"	7"	----	2,900	----	----	25¾"	41¾"	25¾"	70¾"	31¾"	34¾"	22"	46"	5.6 to 1	1.87 to 1	2.75	2.8
8"	5,000	10,000	8"	7"	----	3,500	----	----	25¾"	45¾"	25¾"	76¾"	31¾"	34¾"	22"	46"	5.6 to 1	1.87 to 1	2.75	2.8
10"	3,000	10,000	11"	8¾"	5,000	7,000	24¾"	24¾"	33"	50¾"	25¾"	82¾"	32¾"	36"	22"	46"	5.5 to 1	1.5 to 1	3.25	2.7
10"	5,000	10,000	11"	8¾"	----	8,200	----	----	24¾"	47¾"	21¾"	82¾"	32¾"	36"	22"	46"	5.5 to 1	1.5 to 1	3.25	2.7
13⅝"	3,000	10,000	13⅝"	10¾"	6,500	9,200	24¾"	24¾"	26"	47¾"	23¾"	82¾"	34¾"	38¾"	27"	52"	5.55 to 1	1.89 to 1	3.55	2.9
16"	3,000	6,000	16¾"	13¾"	----	8,500	----	----	35"	61"	33¾"	106¾"	38¾"	38¾"	32"	60"	5.55 to 1	1.85 to 1	3.5	2.8



THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D.C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Vicinity Map for
UNC TEXAS CORPORATION #3 BETTY 31 "C"
1980'FSL 1980'FWL Sec. 31-T24N-R7W
RIO ARRIBA COUNTY, NEW MEXICO

Existing Wells & Facilities

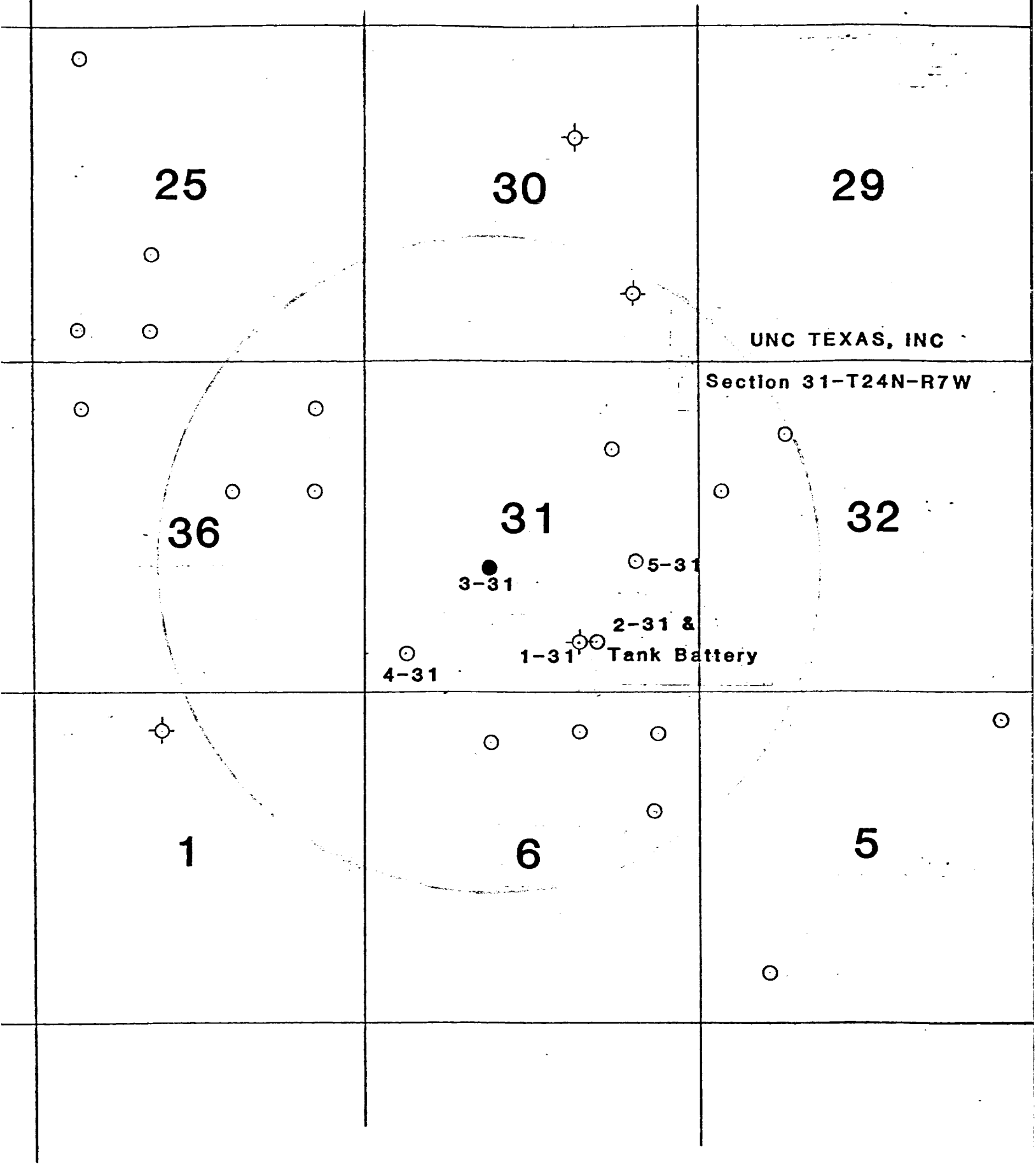
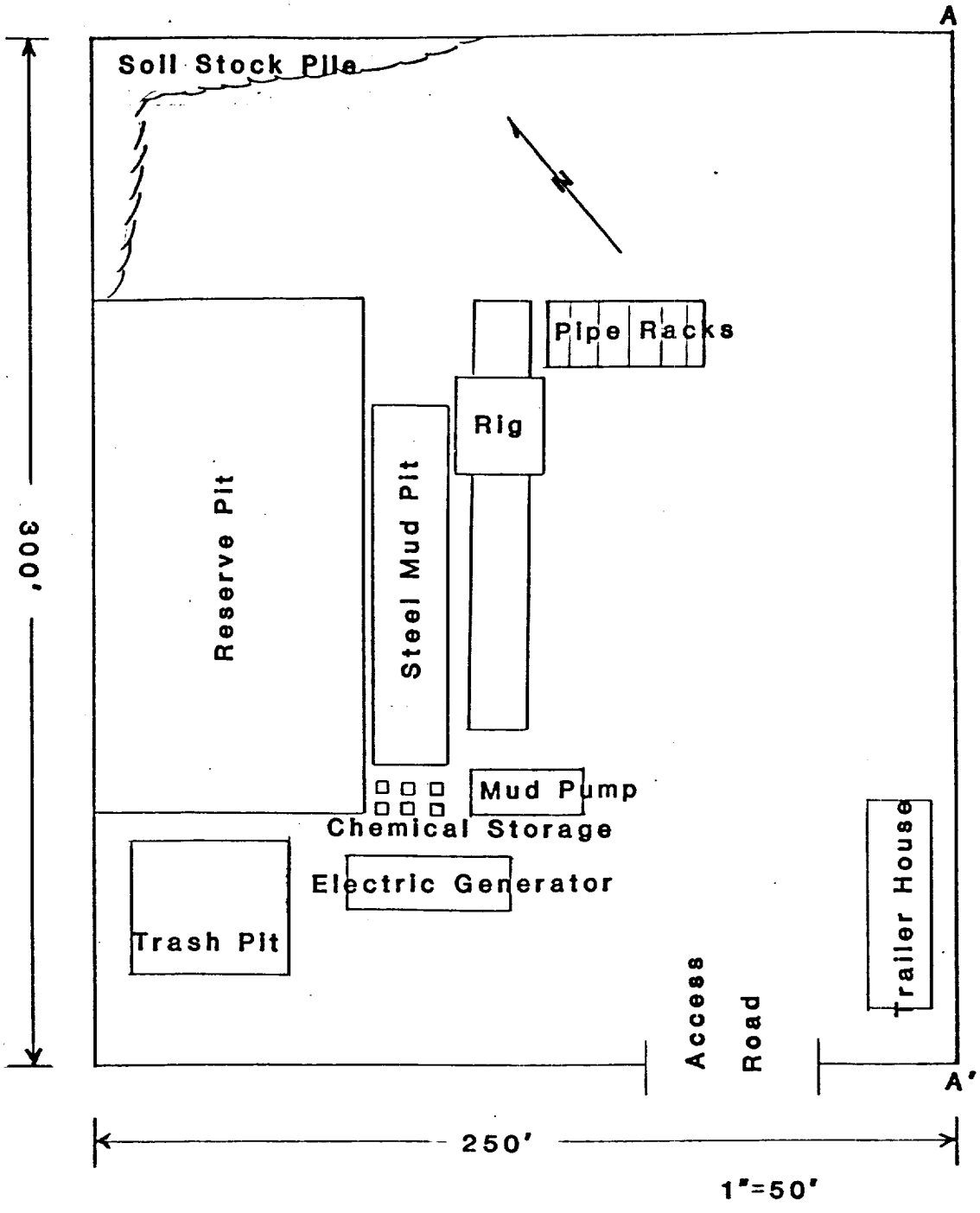
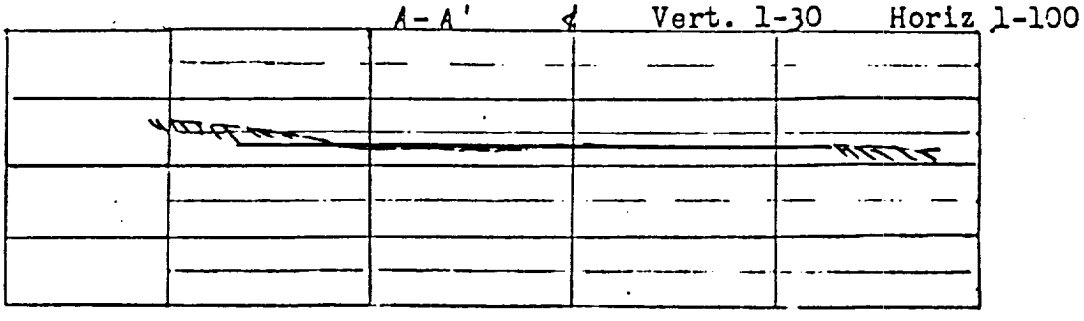


EXHIBIT B

WELL SITE LAYOUT





UNC Texas, Inc

Betty 'C' 3-31

Report 81-SJC-220

Permit 81-NM-083.

An Archaeological Clearance Survey of Three Proposed Well Locations & Access Roads Conducted for United Nuclear Corporation

L. Jean Hooton
Cultural Resource Management
San Juan Campus
New Mexico State University

June 19, 1981

An Archaeological Clearance Survey of Three Proposed Well Locations & Access Roads Conducted for United Nuclear Corporation

On June 18, 1981, L. Jean Hooton from the Cultural Resource Management Program, New Mexico State University, San Juan Campus, conducted an archaeological clearance survey of three proposed well locations and access roads for United Nuclear Corporation at the request of Mr. J. C. Ott of Atchison Construction Company.

Present during the survey were Mr. J. C. Ott, Atchison Construction, representing United Nuclear Corporation; Mr. Bob L. Ball, U. S. Bureau of Land Management, Farmington Office; and Mr. Bill Bingham, U. S. Geological Survey, Farmington Office.

The proposed well locations and access roads are on private land with Federal minerals and land administered by the U. S. Bureau of Land Management and were surveyed under Federal Antiquities Permit 81-NM-083.

METHODOLOGY

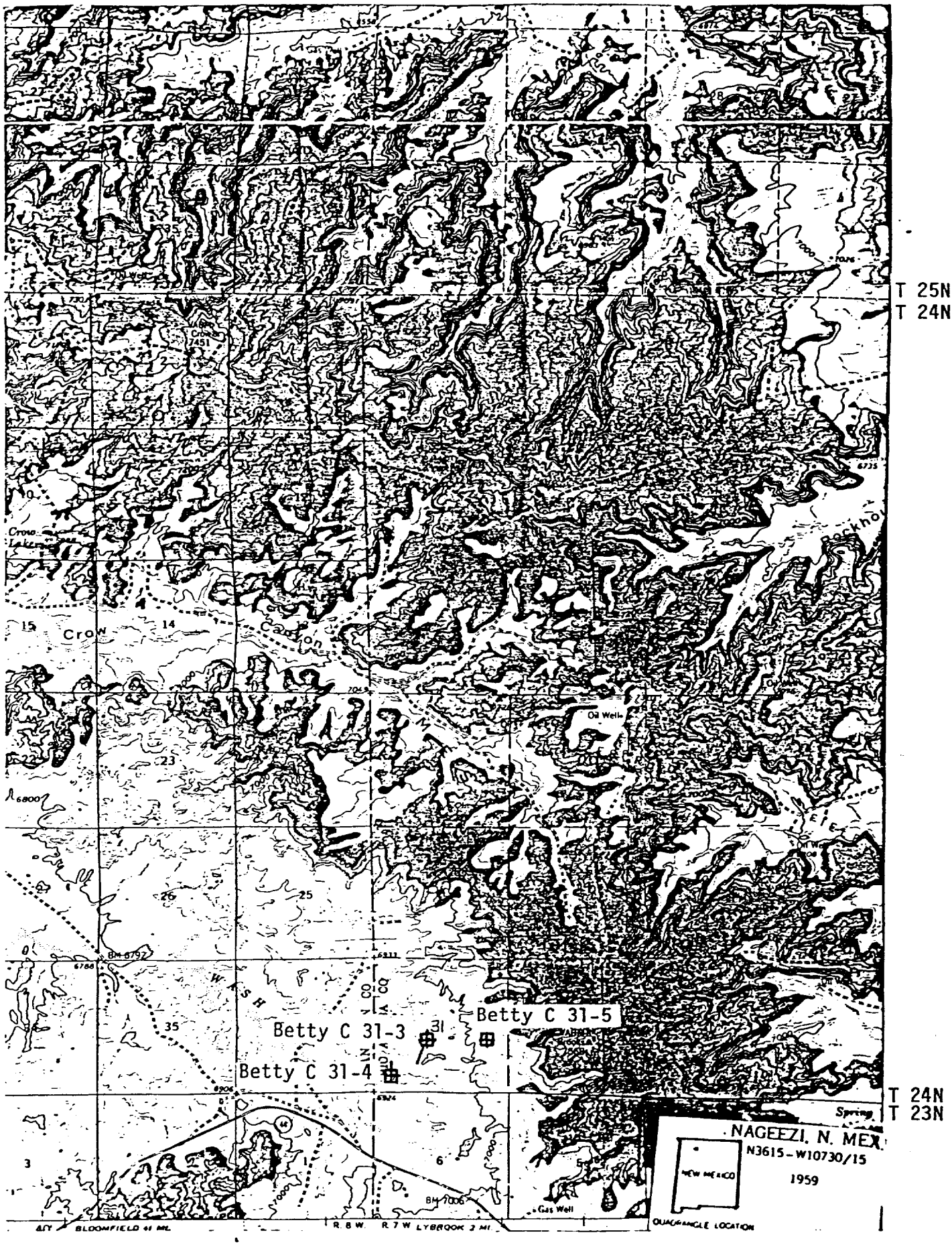
The proposed well locations were surveyed by walking parallel transects, 75 feet apart, over a 300 x 300 foot easement. Access roads were surveyed by walking the proposed route from existing access to the well.

GENERAL RECOMMENDATIONS

There were no cultural resources encountered during the course of the survey; therefore, archaeological clearance is recommended.

Proposed Well:	UNITED NUCLEAR - BETTY C 31-3
Land Status:	Fee Surface - Chapman/Federal Minerals
Location:	The proposed well location is in the Center of the NE¼ of the SW¼ of Section 31, Township 24 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico. The well will be 1980 feet from the south line and 1980 feet from the west line of Section 31. (Figure 1)
U.T.M.:	Center - 13; 2,64,920 mE; 40,16,770 mN.
Access:	20 feet wide by 700 feet long, approaching location from the southwest.
Area Surveyed:	2.39 acres.
Terrain:	Broad, open canyon bottom, with westerly drainage and alluvial surface deposits.
Soil:	Sandy clayey loam.
Vegetation:	Sagebrush, mustard, snakeweed, scattered juniper and pinon, rabbitbrush, narrowleaf yucca, prickly pear cactus, needle & thread, squirreltail, six-weeks fescue, galleta.
Cultural Resources:	None found.
Recommendations:	Clearance recommended.

Figure 1


R 8W
R 7W
T 25N
T 24N
T 24N
T 23N
Betty C 31-5
Betty C 31-3
Betty C 31-4
Crow Canyon
Oil Well
Gas Well
NAGEEZI, N. MEX.
N3615-W10730/15
1959
NEW MEXICO
QUADRANGLE LOCATION
R. 8 W.
R. 7 W.
LYBROOK 2 MI.
BLOOMFIELD 41 MI.