

N. M. Oil Cons. Division

811 S. 1ST ST. SUBMIT IN TRIP

ARTESIA, NM 88210-2034 For instructions on reverse side)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB NO. 1004-0136  
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☐

GAS WELL ☒

OTHER

SINGLE ZONE ☐

MULTIPLE ZONE ☐

2. NAME OF OPERATOR

~~Santa Fe Snyder Corp.~~

New Devon Energy

20305

3. ADDRESS AND TELEPHONE NO.

550 W. Texas, Suite 1330; Midland, Texas 79701 (915)682-6373

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

At surface

1880'

(1) 1880' FSL & 660' FEL

At proposed prod. zone

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

3 miles N of Riverside, New Mexico

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

480

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.

NA

19. PROPOSED DEPTH

8600

20. ROTARY OR CABLE TOOLS

Rotary

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

3414' GR

22. APPROX. DATE WORK WILL START\*

July 15, 2000

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
11"	K-55 8 5/8"	24.0	1300'	400 sx to circulate
7 7/8"	K-55 4 1/2"	11.60	8700'	950 sx to circulate

We propose to drill to a depth sufficient to test the Morrow formation for gas. If productive, 4 1/2" casing will be cemented to TD. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as per Onshore Oil and Gas Order No. 1 are outlined in the following attachments:

Drilling Program

Exhibit A - Operations Plan

Exhibit B - BOP and Choke Schematics

Exhibit C - Drilling Fluid Program

Exhibit D - Auxiliary Equipment

Exhibit E - Topo Map at Location

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS

Exhibit F - Plat Showing Existing Wells  
Exhibit G - Well Site Layout  
Surface Use and Operations Plan

Santa Fe Snyder Corp. accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described above.

Bond Coverage: Blanket Bond

BLM Bond File No.: UT-0855

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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

James P. Philanson

Agent for Santa Fe Snyder Corp.

DATE

6-27-2000

(This sign)

PERMIT NO

85/8"

APPROVAL DATE

Application CONDITIONS

Operator to notify NMOC time of spud & time to witness 1 casing

itable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Assistant Field Manager,  
Lands And Minerals

APPROVED BY

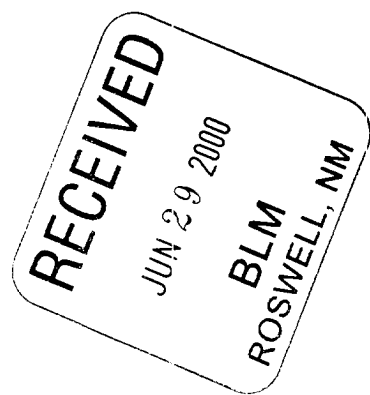
LARRY D. BRAY

TITLE

DATE

\*See Instructions On Reverse Side

APPROVED FOR



DISTRICT I  
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II  
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV  
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico  
Energy, Minerals and Natural Resources Departn.

Form C-102  
Revised February 10, 1994  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Wildcat (Morrow)
Property Code	Property Name	Well Number
	BLUFF "19" FEDERAL COM	1
OGRID No.	Operator Name	Elevation
20305	SANTA FE SNYDER CORPORATION	3416

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	19	16 S	27 E		1880	SOUTH	660	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						
320									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<b>OPERATOR CERTIFICATION</b>  <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i>  Signature James P. "Phil" Stinson Printed Name Agent for Santa Fe Snyder Title  Date
	<b>SURVEYOR CERTIFICATION</b>  <i>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 belief.</i>  JUNE 22, 2000 Date Surveyed Signature & Seal of Professional Surveyor RONALD J. EDISON 6/23/00 20-11-0683
	Certificate No. RONALD J. EDISON 3239 GARY EDISON 12641 MASON McDONALD 12185

**DRILLING PROGRAM**

**SANTA FE SNYDER CORP.**

**Bluff "19" Fed Com. #1**

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Snyder Corp. submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 1.

1. **Geologic Name of Surface Formation:** Alluvium

2. **Estimated Tops of Significant Geologic Markers:**

Queen	650'
Glorietta	2650'
Tubb	3950
Abo	4700'
Wolfcamp	5900'
Atoka	8200'
Morrow	8300'
Mississippian	8600'
Total Depth	8700'

3. **The estimated depths at which water, oil or gas formations are expected:**

Water	None expected in area
Gas	Morrow @ 8200'- 8400'

4. **Proposed Casing Program:** See Form 3160-3 and Exhibit A

5. **Pressure Control Equipment:** See Exhibit B

6. **Drilling Fluid Program:** See Exhibit C

7. **Auxiliary Equipment:** A mud logging unit will be utilized to monitor penetration rate and hydrocarbon shows while drilling below 1300' to TD.

8. **Testing, Logging and Coring Program:**

Drill Stem Tests: (all DST's to be justified on the basis of valid show of oil or gas):

Morrow 8200'- 8400'

Logging:

Dual Laterolog W/MSFL and Gamma Ray	1300' - 8700'
Compensated Neutron/Litho-Density/Gamma Ray	1300' - 8700'
Compensated Neutron/Gamma Ray (thru csg)	Surface-1300'

Coring: No conventional cores are planned.

9. **Abnormal Conditions, Pressures, Temperatures & Potential Hazards:**

No abnormal pressures are anticipated. The estimated bottom hole temperature is 140° and the estimated bottom hole pressure is 4100 psi. No Hydrogen Sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major lost circulation zones have been reported in the offsetting wells.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the B.L.M. The anticipated spud date is July 15, 2000. Once spudded, the drilling operation should be completed in approximately 20 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

**EXHIBIT A**  
**OPERATIONS PLAN**  
**SANTA FE SNYDER CORP.**  
**Bluff "19" Fed Com. #1**  
**Section 19, T-16-S, R-27-E**  
**Eddy County, New Mexico**

1. Drill a 11" hole to approximately 1300'.
2. Run 1300' 8 5/8" 24 ppf J-55 ST&C casing. Cement with 200 sx Cl "C" Lite containing 1/4 pps celloflake followed by 200 sx Class "C" with 2% CaCl<sub>2</sub>. Run guide shoe on bottom and float collar two joints from bottom. Centralize every other joint for bottom 400' of casing. Thread lock bottom 2 joints.
3. Wait on cement for twelve hours prior to cutting off.
4. Nipple up and install a Double Ram and Annular BOP system with choke manifold.
5. Test BOP system to 1500 psi with the rig pump. Test casing to 1500 psi.
6. Drill 7-7/8" hole to 8700'. Run logs.
7. Either run and cement 8700' of 4-1/2" 11.60 ppf K-55 LT&C casing or plug and abandon as per BLM requirements.

# PROPOSED 3-M BOPE AND CHOKE ARRANGEMENT

## EXHIBIT B

SANTA FE SNYDER CORP.

Bluff "19" Fed Com #1

1880' FSL & 660' FEL

Section 19, T-16-S, R-27-E

Eddy County, New Mexico

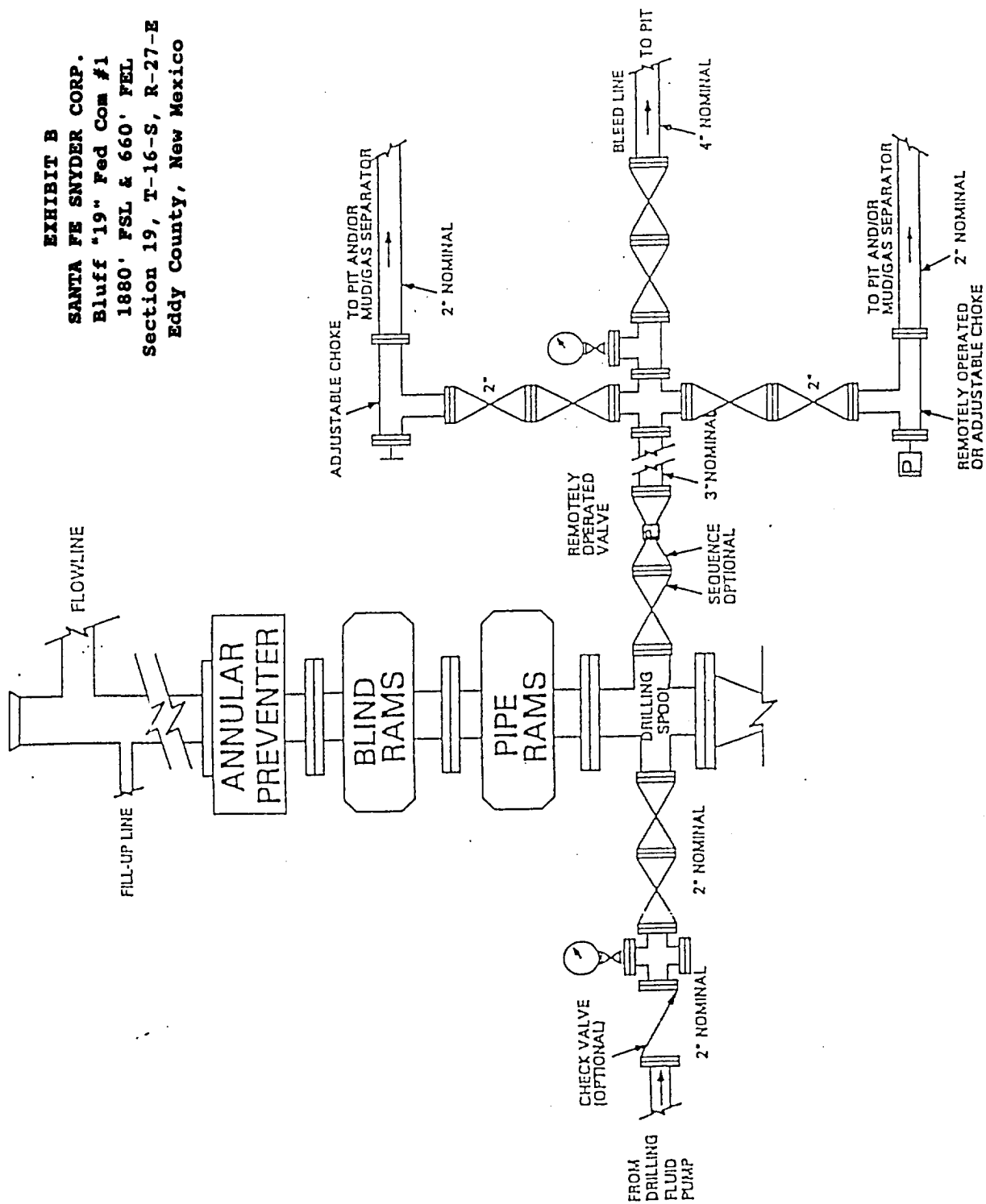


EXHIBIT C  
DRILLING FLUID PROGRAM  
SANTA FE SNYDER CORP.  
Bluff "19" Fed Com. #1  
Section 19, T-16-S, R-27-E  
Eddy County, New Mexico

0 - 1300'

Spud mud consisting of fresh water gel flocculated with Lime. Use ground paper for seepage control and to sweep the hole. MW-8.5 ppg and Vis-40.

1300 - 8700'

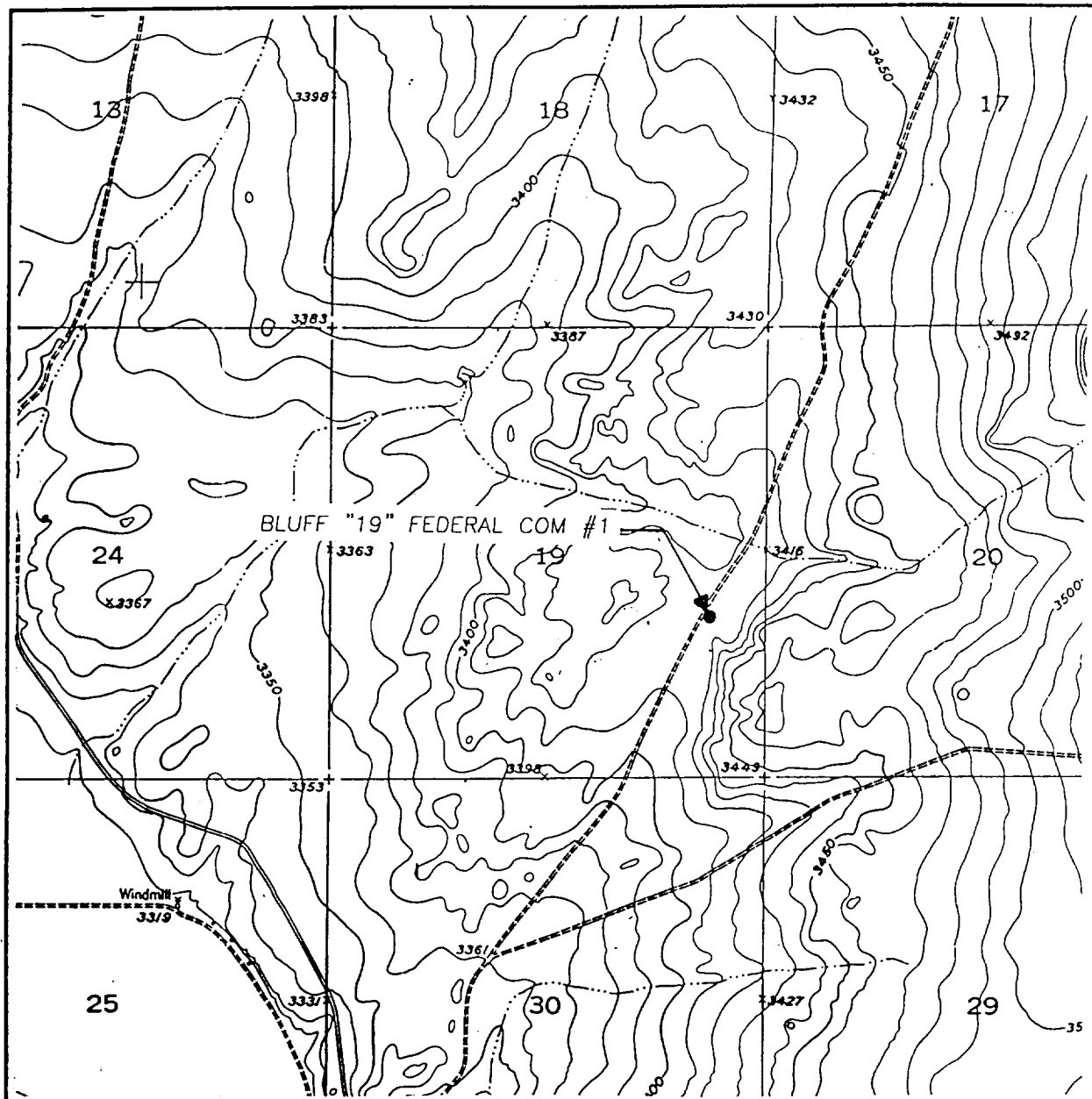
Drill out with fresh water circulating the outer portion of the reserve pit. Maintain pH at 8.5-9.5 with caustic and sweep the hole as necessary with ground paper. At  $\pm$  6500' begin increasing mud weight with brine water. Increase weight to 10 ppg by 8000' and begin circulating the steel pits. If it becomes necessary to mud up due to hole conditions, utilize a brine water XCD Polymer/Drispac Plus mud system with a 38-40 vis. and 15-20 cc WL. MW 9.5-10.0 ppg.



**EXHIBIT D  
AUXILIARY EQUIPMENT  
SANTA FE SNYDER CORP.  
Bluff "19" Fed Com. #1  
Section 19, T-16-S, R-27-E  
Eddy County, New Mexico**

<b>DRAWWORKS</b>	BDW 650M 650 HP, with Parmac Hydromatic brake
<b>ENGINES</b>	Two Caterpillar D-353 diesels rated at 425 HP each
<b>ROTARY</b>	Ideco 23", 300 ton capacity
<b>MAST/SUB</b>	Ideal 132', 550,000 lb rated static hook load with 10 lines. Wagner 15' high substructure
<b>TRAVELLING EQUIPMENT</b>	Gardner-Denver, 300 ton, 5 sheave w/BJ 250 ton hook. Brewster Model 7 SX 300 ton swivel
<b>PUMPS</b>	Continental-EMSCO DC-700 and DB-550, 5-12 x 16" Duplex, Compound driven
<b>PIT SYSTEM</b>	1-Shale Pit 6X7X35', 1-Setting Pit 6X7X38', 1-Suction Pit 6X7X34' w/5 mud agitators. Two centrifugal mud mixing pumps and a Double Screen Shale Shaker.
<b>LIGHT PLANT</b>	Two CAT 3306 diesel electric sets 180 KW prime power
<b>BOP EQUIP</b>	13-5/8" 3000 psi WP double ram and 13-5/8" 3000 psi WP Shaffer Annular Preventer. Choke manifold rated at 3000 psi. Valvcon 5-station 80 gallon closing unit

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
ARTESIA NE - 10'

SEC. 19 TWP. 16-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1880' FSL & 660' FEL

ELEVATION 3416

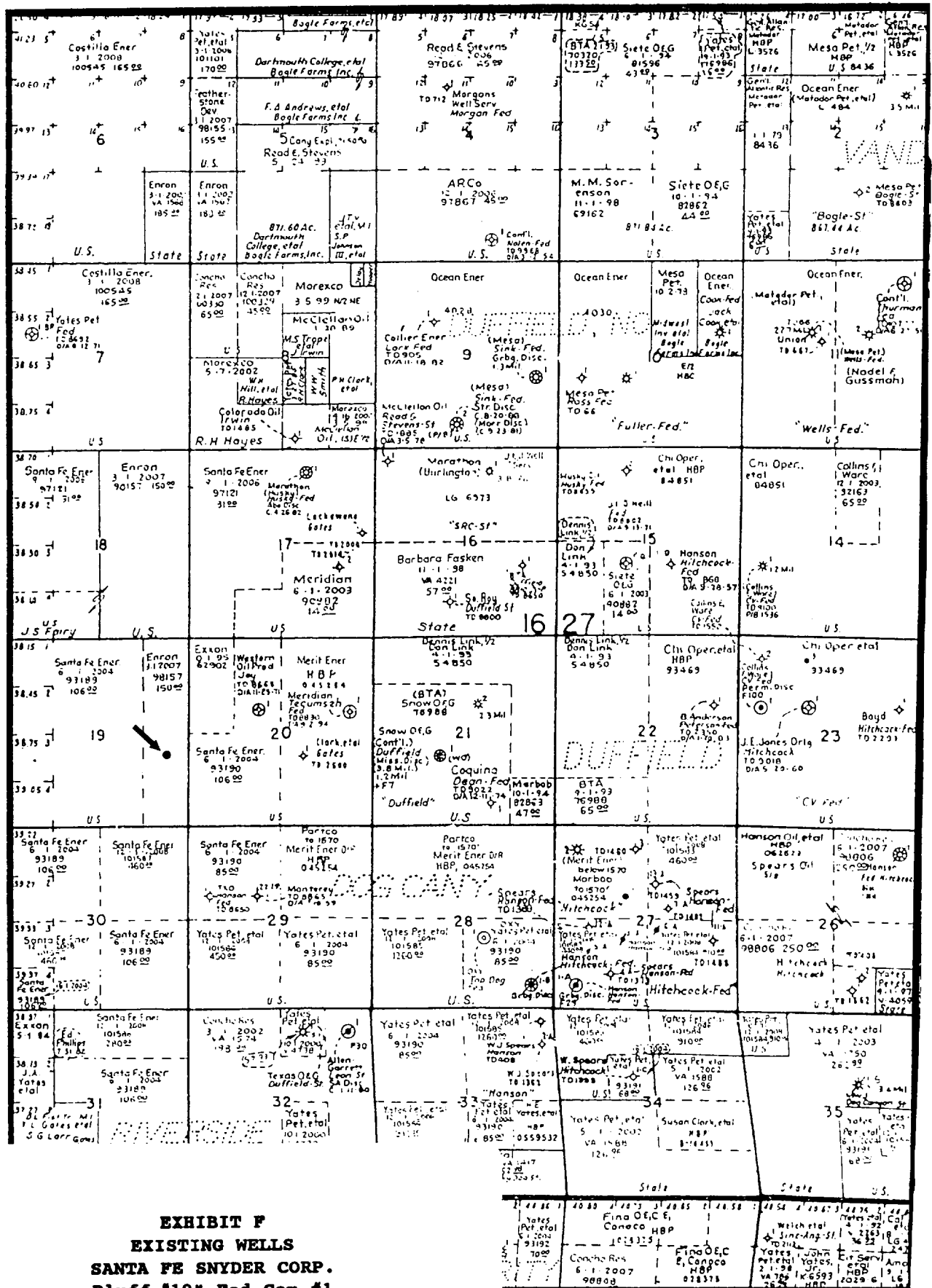
OPERATOR SANTA FE SNYDER CORPORATION

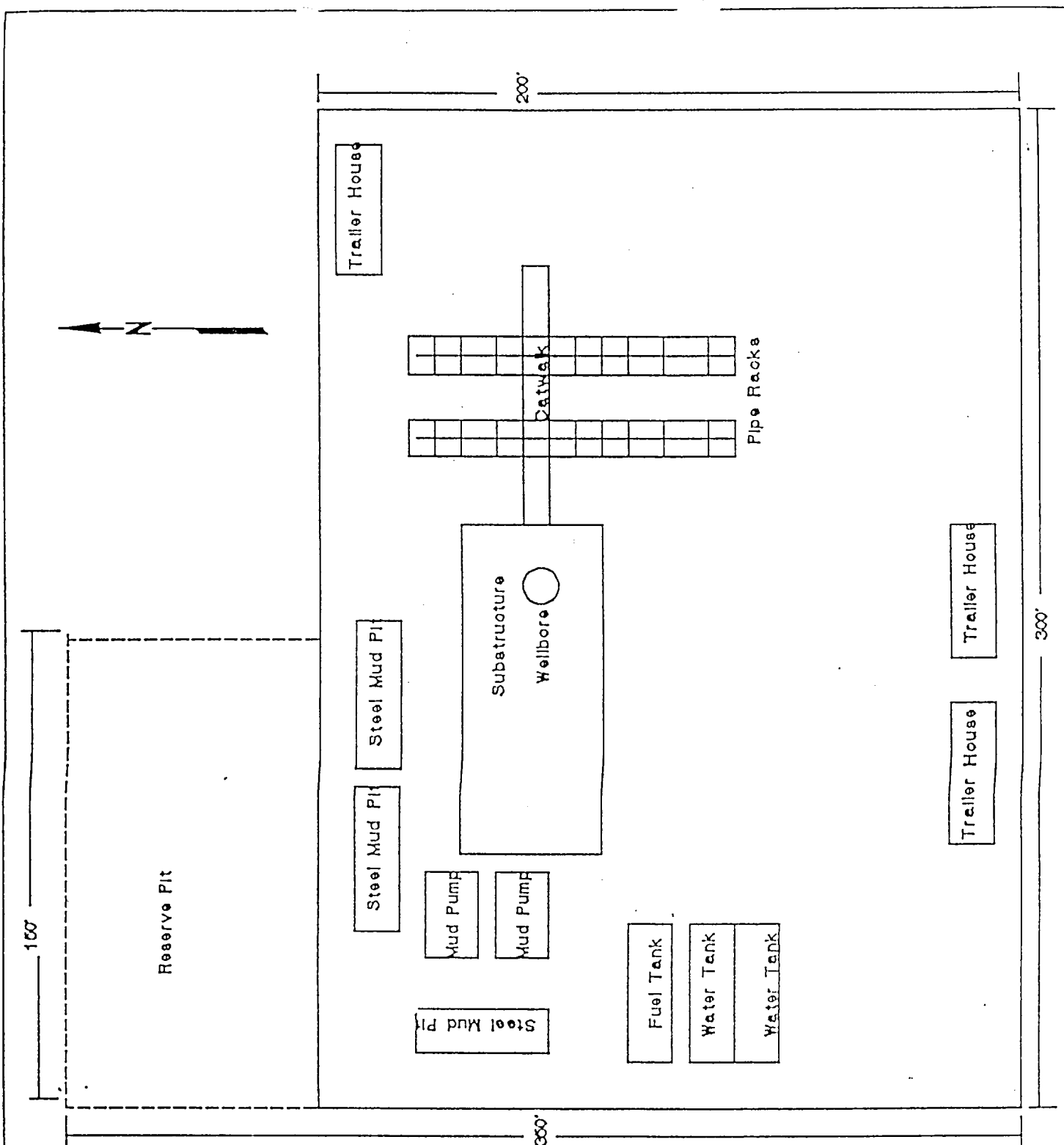
LEASE BLUFF "19" FEDERAL COM

U.S.G.S. TOPOGRAPHIC MAP

ARTESIA NE, N.M.

**EXHIBIT E**  
**TOPO MAP OF LOCATION AREA**  
**SANTA FE SNYDER CORP.**  
**Bluff "19" Fed Com #1**  
**1880' FSL & 660' FEL**  
**Section 19, T-16-S, R-27-E**  
**Eddy County, New Mexico**





**EXHIBIT G**  
**WELL SITE LAYOUT**  
**SANTA FE SNYDER CORP.**  
**Bluff "19" Fed Com #1**  
**1880' FSL & 660' FEL**  
**Section 19, T-16-S, R-27-E**  
**Eddy County, New Mexico**

**SANTA FE SNYDER CORP.**  
**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**Bluff "19" Fed Com. #1**  
**Section 19, T-16-S, R-27-E**  
**Eddy County, New Mexico**

This plan is submitted with Form 3160-3, Application for Permit to Drill, 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 by 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.**

- A. Exhibit E is a 15 minute topographic map which shows the location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 3 miles north of Riverside, New Mexico.

**DIRECTIONS**

- 1. From Artesia, go east on Hwy 82 4 3/4 miles to County Road 200 (Karr Ranch Rd) turn left and go 4 miles turn right thru cattle guard and go 1.4 miles to proposed location.

**2. PLANNED ACCESS ROAD.**

- A. No new access road will be required.

**3. LOCATION OF EXISTING WELLS.**

- A. The well locations in the vicinity of the proposed well are shown in Exhibits E.

**4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES**

- A. There are no producing gas wells on this lease at this time.
- B. In the event the well is productive, the necessary production equipment will be installed on the drilling pad.

**5. LOCATION AND TYPE OF WATER SUPPLY.**

- A. It is planned to drill the well with both fresh water and brine water systems. Both types of waters will be hauled to the location by truck over existing roads. Both types will be obtained from commercial sources.

**6. SOURCES OF CONSTRUCTION MATERIALS.**

- A. Any caliche required for construction of the drilling pad will be obtained from a pit approved by the BLM.

**7. METHODS OF HANDLING WASTE DISPOSAL.**

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be either placed in the reserve pits and allowed to evaporate or collected in tanks until hauled to an approved disposal system or a separate disposal application will be submitted to the BLM for appropriate approval.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Human waste will be disposed of per current standards.
- F. Trash, waste paper, garbage, and junk will be collected in trash trailers and disposed of in an approved waste facility such as a land fill. The trash trailers will contain all of the material to prevent scattering by the wind.
- G. All trash and debris will be removed from the wellsite within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES**

None Required at this time.

**9. WELLSITE LAYOUT**

- A. Exhibit G shows the dimensions of the well pad and reserve pits, and the location of major rig components.
- B. The ground surface of the location is relatively flat. Minor cutting will be required to level the pad area, which will be covered with at least six inches of compacted caliche.
- C. The reserve pits will be plastic lined.
- D. A 400' X 400' work area which will contain the pad and pit area has been staked and flagged.

**10. PLAN 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 fluid 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 levelled within 300 days after abandonment.

11. TOPOGRAPHY

- A. The wellsite is located in a relatively flat area.
- B. The top soil at the wellsite is sandy.
- C. The vegetation cover at the wellsite is moderately sparse, with prairie grasses, some mesquite bushes, and shinnery oak.
- D. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

OPERATOR'S REPRESENTATIVES

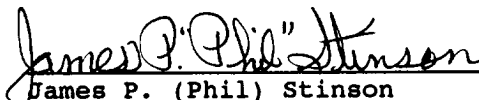
- A. The field representatives responsible for assuring compliance with the approved surface use plan are:

Michael R. Burton  
Division Drilling Manager  
Santa Fe Snyder Corp.  
550 W. Texas, Suite 1330  
Midland, Texas 79701  
915-686-6616 - office  
915-556-7063 - cellular

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 Santa Snyder Corp. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which is approved.

SIGNED this 27<sup>th</sup> day of June, 2000.

  
James P. (Phil) Stinson  
Agent for Santa Fe Snyder Corp.