United States Department of the Interior

BUREAU OF LAND MANAGEMENT
ROSWELL DISTRICT OFFICE
P.O. BOX 1397
ROSWELL, NEW MEXICO 88201

NM-67102
3162.41 (065)

RECEIVED

NOV 14 '88

O. C. D.
ARTESIA, OFFICE

Santa Fe Energy Operating Partners, L.P.
500 W. Illinois, Suite 500
Midland, Texas 79701

Gentlemen:

Your Application for Permit to Drill the No. 1 Long Knife "35" Federal well in the SE¼SE¼ sec. 35, T. 19 S., R. 29 E., Eddy County, New Mexico, lease NM-67102, to a depth of 6000 feet to test the Delaware formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the Bureau of Land Management office checked on the attached special stipulation, in sufficient time for a representative to witness all cementing operations.

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Sincerely,

Francis R. Cherry, Jr.
District Manager

1 Enclosure

cc:
NMOCD-Artesia - 2

Form 3160-3
(November 1983)
(formerly 9-331C)

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 1004-0136
Expires August 31, 1985

30-015-26012

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
OCT 5 11 03 AM '88
CARLSBAD, NEW MEXICO
AREA MANAGER

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

5. LEASE DESIGNATION AND SERIAL NO.: NM-67102

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

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

b. TYPE OF WELL: OIL WELL [X] GAS WELL [ ] OTHER — SINGLE ZONE [ ] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME:

8. FARM OR LEASE NAME: Long Knife 35 Federal

2. NAME OF OPERATOR: Santa Fe Energy Operating Partners, L.P.

9. WELL NO.: 1

3. ADDRESS OF OPERATOR: 500 W. Illinois, Suite 500, Midland, TX 79701

10. FIELD AND POOL, OR WILDCAT: Wildcat ~~Undesignated~~ Delaware

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
At surface: 660' FSL, ~~660'~~ 810' FEL, Section 35, T-19S, R-29E
At proposed prod. zone: Same

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA: Section 35, T-19S, R-29E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*: 14 miles south of Loco Hills

12. COUNTY OR PARISH: Eddy

13. STATE: NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660'	40	40
18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	**19. PROPOSED DEPTH**	**20. ROTARY OR CABLE TOOLS**
N/A	6000'	Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.): ~~3323~~' GR 3819

22. APPROX. DATE WORK WILL START*: ASAP

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
14 3/4"	10 3/4"	40.5	350'	CIRCULATE
9 1/2"*	7"	20.0	3200'	CIRCULATE
7 7/8"	5 1/2"	15.5	6000'	

Move on location and rig up. Drill a 14 3/4" hole to 350'. Run and cement 10 3/4" casing with sufficient Class C containing 2% $CaCl_2$ to circulate cement to surface. Wait on cement 8 hours. Test casing to 600 psi. Drill a 9 1/2" hole to 3200'. If drilling conditions permit, reduce hole size to 7 7/8" and continue drilling to 6000'. Run logs. Run and cement 5 1/2" casing with sufficient lite weight cement to circulate to surface when followed by 262 cu.ft. Class C containing 2% calcium chloride. *If drilling conditions do not permit drilling past 2500', run and cement 7" casing with sufficient cement and stage tools to cement to surface. Drill a 6 1/2" hole to 6000'. Run and cement 4 1/2" casing with sufficient cement to tie back into previously set casing string.

POST 10-1
NL & API
11-18-88

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.

Map

24.

SIGNED Michael R. Burton TITLE District Drilling Engineer DATE 10-3-88

(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

NEW MEXICO OIL CONSERVATION COMMISSION

WELL LOCATION AND ACREAGE DEDICATION PLAT

Form C-102
Supersedes C-128
Effective 14-65

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

Operator	Lease	Well No.
SANTA FE ENERGY OPERATING PARTNERS, L. P.	LONG KNIFE "35" FEDERAL	1

Unit Letter	Section	Township	Range	County
P	35	19-SOUTH	29-EAST	EDDY

Actual Footage Location of well: 660 feet from the SOUTH line and 810 feet from the EAST line

Ground Level Elev.	Producing Formation	Pool	Dedicated Acreage:
3319'	Delaware	Wildcat ~~Undesignated~~ Delaware	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).

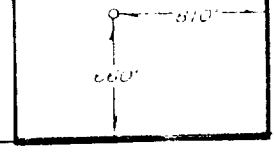
3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated by communitization, unitization, force-pooling. etc?

☐ 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.

Federal Lease No. NM-67102
T-19S, R-29E, N.M.P.M.
Section 35: SE/4 SE/4
USA - 12.5% - 25% Royalty
CNG Producing Company - 50% Working Interest
Santa Fe Energy Operating Partners, L.P. - 50% Working Interest



CERTIFICATION

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

Name: Richard L. Foster

Position: District Drilling Engineer

Company: Santa Fe Energy Operating Partners

Date: 1-19-93

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: OCTOBER 15, 1988

Registered Professional Engineer and/or Land Surveyor

Certificate No. 6883

APPLICATION FOR DRILLING
SANTA FE ENERGY OPERATING PARTNERS, L.P.
Long Knife 35 Federal No. 1

In conjunction with form 9-331C, Application to Drill subject well, Santa Fe Energy Operating Partners, L.P., submits the following ten items of pertinent information in accordance with BLM requirements.

1. The geologic surface formation is sand.

2. The estimated tops of geologic markers are as follows:

Base Salt	1270'
Yates	1580'
Queen	2642'
San Andres	3040'
Delaware	3810'
Bone Spring	5880'
TD	6000'

3. The estimated depth at which water, oil, or gas formations are expected to be encountered:

Water	Water is not expected to be encountered.
Oil or Gas	Delaware Bone Spring - 3810-5880'

4. Proposed casing program: See Form 9-331C and Exhibit A.

5. Pressure control Equipment: See Form 9-331C and Exhibit B.

6. Drilling Fluid Program: See Exhibit C.

7. Auxiliary Equipment: See Exhibit D.

8. Testing, Logging and Coring Programs:

Drill Stem Test (all DST's to be justified by a valid show of oil or gas):

Delaware 3810'

Logging:

Logging from 6000' - TD:
Dual Laterolog with Gamma Ray
Neutron-Density with Gamma Ray
Computer Process Log over selected intervals

9. Abnormally high pressured zones are not expected at this location.

10. Starting Date: As soon as possible.

Michael R. Burton
10-3-88

MRB:dw-796
Attachments

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
SANTA FE ENERGY OPERATING PARTNERS, L.P.
Long Knife 35 Federal No. 1
660' FSL, 660' FEL
Section 35, T-19S, R-29E
Eddy County, New Mexico

This plan is submitted with Form 9-331C, 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 topographic map of a scale of approximately one inch to 1000' which shows location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 25 miles east of Carlsbad, New Mexico.

      DIRECTIONS:

      1. From Pecos River Bridge - Carlsbad, NM, on Hwy 62-180, proceed east on 62-180 for 13.5 miles. Turn north (0.4 mile past mile marker 49) on county road 238 and proceed north for 6.2 miles. Turn east and proceed 1 mile. Turn southeast and go to location.

2. PLANNED ACCESS ROAD.

   An access road will be constructed from an existing road in section 35 into location.

3. LOCATION OF EXISTING WELLS.

   A. The well locations in the vicinity of the proposed well are shown in Exhibit F.

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES.

   A. There is no producing well 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. If the well is productive of oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

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 of waters 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 located off of the wellsite. The pit is located in the SW-NE of Section 3, T-20S, R-29E.

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 USGS for appropriate approval.

   D. Oil produced during operations will be stored in tanks until sold.

   E. Human waste will be buried.

   F. Trash, waste paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 36" 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 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 sloping up toward the northwest. 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 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 compiled 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 yucca, and miscellaneous weeds.

D. No wildlife was observed but it is likely that rabbits, lizards, insects, and rodents traverse the area.

E. The wellsite is located on federal surface.

F. There is no evidence of any archaeological, historical, or cultural sites in the vicinity of the location.

12. OPERATOR'S REPRESENTATIVES.

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

Hugh Boyt
District Production Manager
Santa Fe Energy Operating
Partners, L.P.
500 West Illinois, Suite 500
Midland, Texas 79701
915/687-3551 - office
915/697-4768 - home

Michael R. Burton
District Drilling Engineer
Santa Fe Energy Operating
Partners, L.P.
500 West Illinois, Suite 500
Midland, Texas 79701
915/687-3551 - office
915/699-1260 - home
915/683-1118 - mobile

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 Santa Fe Energy Operating Partners, L.P., and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed this 3rd day of October, 1988.

Michael R. Burton
Michael R. Burton
District Drilling Engineer

MRB:dw-796a

SANTA FE ENERGY OPERATING PARTNERS, L.P.
OPERATIONS PLAN
Long Knife 35 Federal No. 1

1. Drill a 14 3/4" hole to 350'.
2. Run 10 3/4" - 40.5 ppf H-40 ST&C casing and cement with 295 sx Class C cement containing 2% calcium chloride.
3. WOC 12 hours.
4. Test casing to 600 psi for 30 minutes.
5. Drill a 9 1/2" hole to 3200'.
6. Unless it is deemed too difficult, reduce hole size to 7 7/8" and continue to drill to 6000'.
7. Run logs.
8. Run 5 1/2" 15.5 ppf K-55 ST&C casing and cement with sufficient lite weight cement followed by 200 sx Class C with 2% calcium chloride to circulate to surface. Use of multiple stage cementing tools may be necessary.
9. If continuing to drill past 3200' is deemed too difficult, then run 7" 20.0 ppf K-55 ST&C casing and cement with sufficient lite weight cement followed by 200 sx Class C with 2% calcium chloride to circulate to surface.
10. Wait on cement for 12 hours.
11. Test casing to 1500 psi/30 minutes.
12. Drill a 6 1/4" hole to 6000'.
13. Run 4 1/2" 10.5 ppf K-55 ST&C casing and cement with sufficient Class C with 2% $CaCl_2$ to tie back into 7" casing and cover possible producing intervals with 500' of cement.

Exhibit A
Santa Fe Energy Operating Partners, L.P.
Long Knife 35 Federal No. 1
Section 35, T-19S, R-29E
Eddy County, New Mexico

MRB:dw-796b

PROPOSED BOPE AND CHOKE ARRANGEMENT

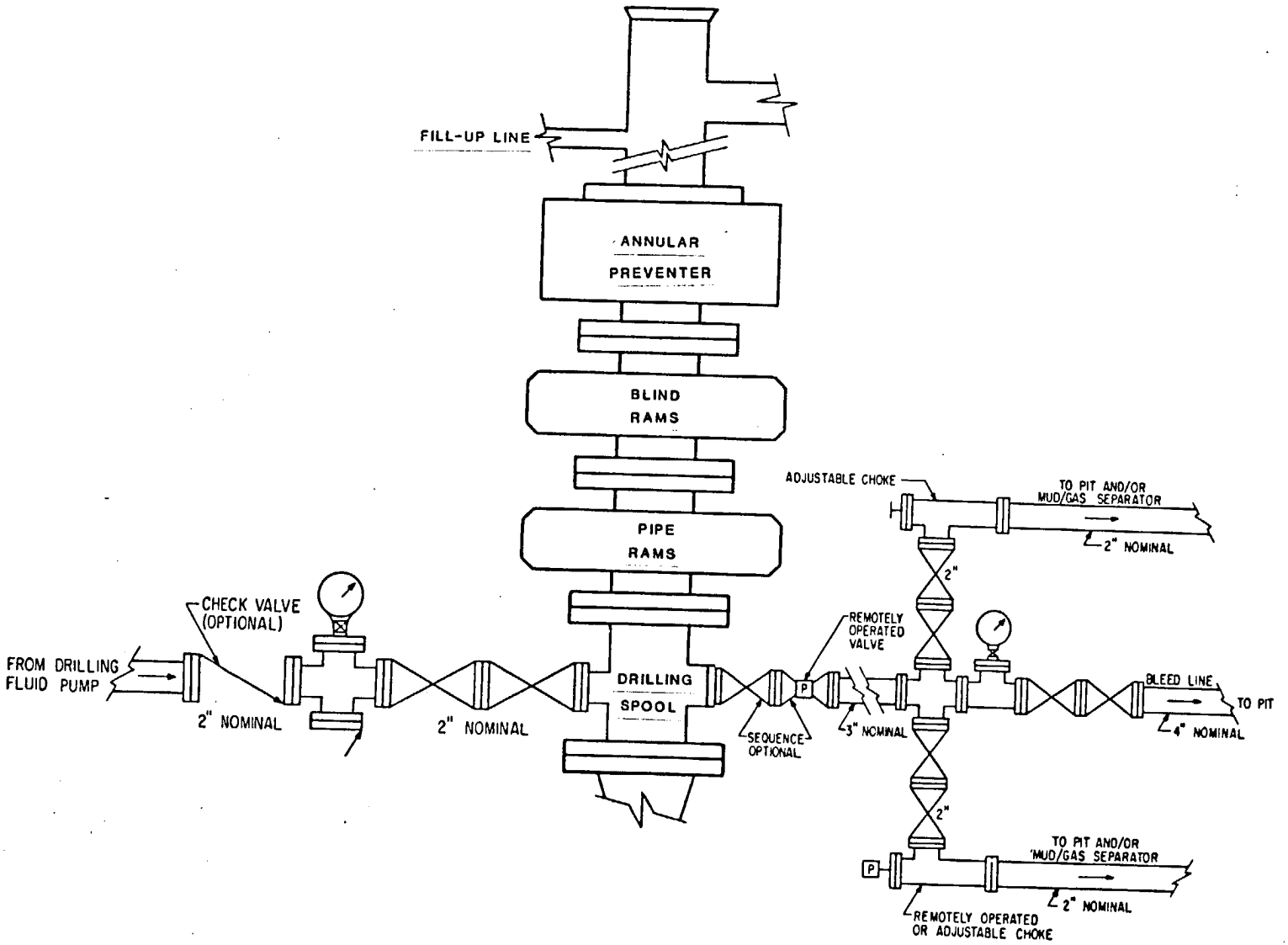


EXHIBIT B

SANTA FE ENERGY OPERATING PARTNERS, LP.
LONGKNIFE 35 FEDERAL No. 1
660' FSL, 660' FEL, SECTION 35, T 19 S, R 29 E
EDDY CO., NEW MEXICO

PROPOSED DRILLING FULID PROGRAM

0 - 350'

Spud mud consisting of AQUAGEL flocculated with Lime. Use ground paper for seepage loss of fluid and KWIK-SEAL, FIBERTEX and Cottonseed Hulls for severe or total loss.

If total loss of circulation occurs, we suggest mixing two or three 150-200 barrel pills of viscous AQUAGEL/Lime mud treated with 10-15 ppb KWIK-SEAL and/or Cottonseed Hulls. If this does not regain circulation, we suggest drilling to casing point without returns and spotting a similar pill on bottom prior to logging and running casing.

350 - 6000'

Drill out with brine water and treat with CON DET and BEN-EX/MF-1 to flocculate solids. Circulate controlled section of the reserve pit. Use ground paper for seepage loss. Use pre-hydrated AQUAGEL or ZEOGEL/paper slugs as needed to sweep hole. For corrosion control, use Sodium Bichromate.

Exhibit C
Santa Fe Energy Operating Partners, L.P.
Long Knife 35 Federal No. 1
Section 35, T-19S, R-29E
Eddy County, New Mexico

MRB:dw-796c

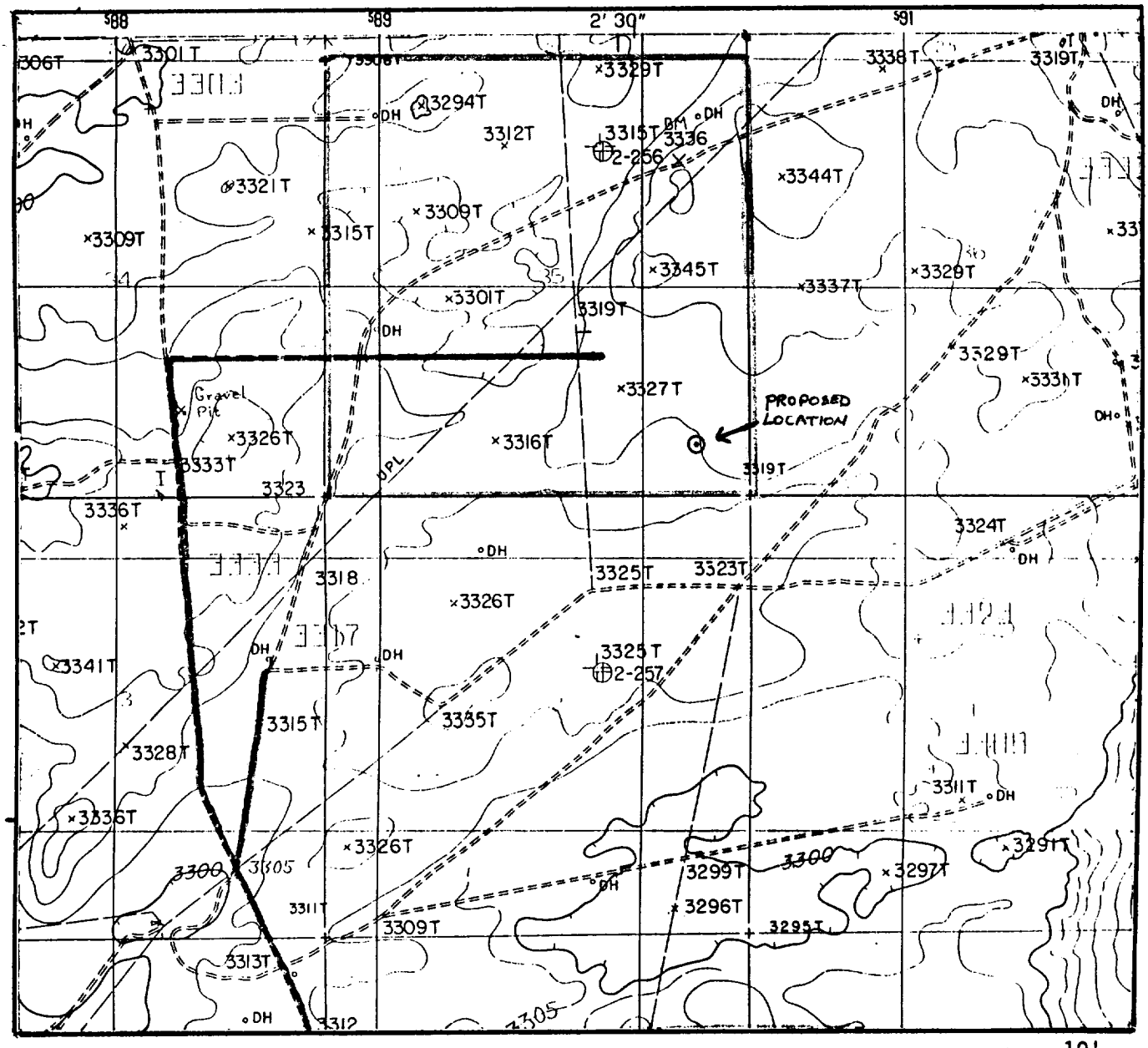
AUXILLIARY EQUIPMENT

DRAW WORKS	National 80-B
COMPOUND/ENGINES	National 3 Section compound Three Caterpillar D379 diesel engines.
ROTARY	27 1/2" National C-275
MAST/SUBSTRUCTURE	Derrick Service International 142' jacknife. 25' high substructure.
TRAVELING EQUIPMENT	National 545-G 350 ton hook and block. National P-400 400 ton swivel.
PUMPS	Two National 8-P-80, 6 1/4" X 8 1/2" 800 HP triplex pumps charged by 6" X 8" centrifugal pump.
PIT SYSTEM	Three steel mud pits with lightning mixers. Two 6" X 8" centrifugal pumps each driven by a 75 HP electric motor.
GENERATORS	Two 320KW AC generators each powered by a turbo-charged diesel engine.
BOP EQUIPMENT	One annular and two ram preventers rated at 5000 psi. Choke Manifold rated at 5000 psi.

Exhibit D
Santa Fe Energy Operating Partners, L.P.
Long Knife 35 Federal No. 1
Section 35, T-19S, R-29E
Eddy County, New Mexico

MRB:dw-796d

LOCATION & ELEVATION VERIFICATION MAP



SCALE 1" = 2000'

CONTOUR INTERVAL 10'

Section 35 T-19-S R-29-E

SURVEY

COUNTY EDDY STATE N.MEX.

DESCRIPTION 660' FSL & 660' FEL

ELEVATION 3323'

OPERATOR SANTA FE ENERGY OPER. PARTNERS

LEASE LONG KNIFE "35" FEDERAL # 1

U.S.G.S. TOPOGRAPHIC MAP
ILLINOIS CAMP SE, N. MEX.

SCALED LAT: N 32°36'41"

LONG: W 104°02'19"

N

EXHIBIT E

This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us, but its accuracy is not guaranteed.

Review this plat and notify us immediately of any possible discrepancy.

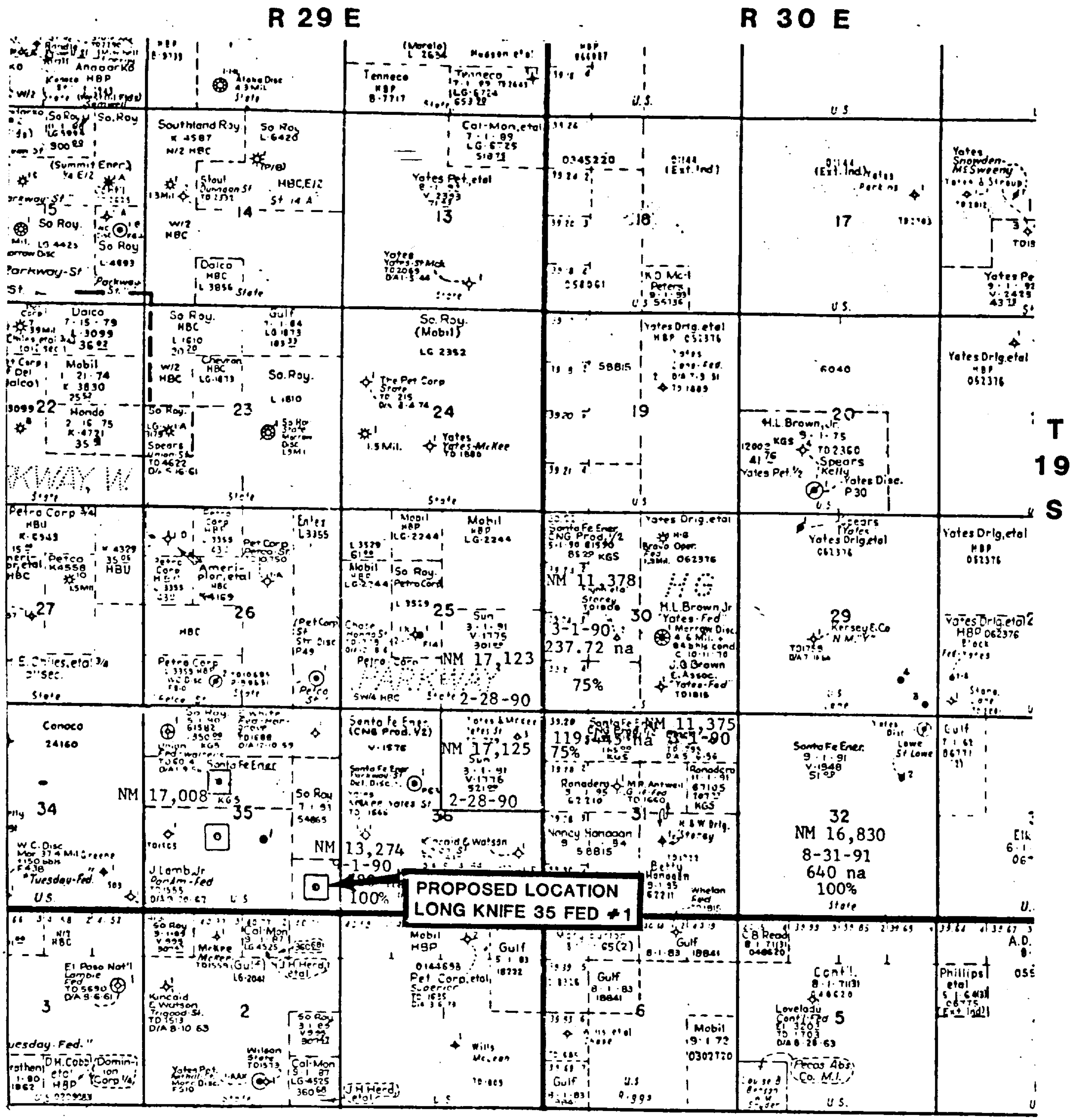


EXHIBIT F

SANTA FE ENERGY OPERATING PARTNERS, LP.
LONGKNIFE 35 FEDERAL No. 1
660' FSL, 660' FEL, SECTION 35, T 19 S, R 29 E
EDDY CO., NEW MEXICO

EXHIBIT G
WELL SITE LAYOUT

SANTA FE ENERGY OPERATING PARTNERS, LP.
LONGKNIFE 35 FEDERAL No. 1
660' FSL, 660' FEL, SECTION 35, T 19 S, R 29 E
EDDY CO., NEW MEXICO