

District I
PO Box 1980, Hobbs, NM 88241-1980
District II
811 S. 1st Street, Artesia, NM 88210-2834
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C-101
Revised October 18, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator name and Address Santa Fe Energy Resources, Inc. 550 W. Texas, Suite 1330 Midland, TX 79701		² OGRID Number 020305
⁴ Property Code 16629	⁵ Property Name Thistle Unit	³ API Number 30-025-34580
		⁶ Well No. 5

⁷ Surface Location									
UL or lot no.	Section	Township	Range	Lot. Idn	Feet from the	North/South Line	Feet from the	East/West line	County
F	34	23S	33E		1980	North	1980	West	Lea

⁸ Proposed 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
⁹ Proposed Pool 1 Johnson Ranch; Wildcat (Wolfcamp)					¹⁰ Proposed Pool 2				

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3656' GL
¹⁶ Multiple NO	¹⁷ Proposed Depth 13,900'	¹⁸ Formation Wolfcamp	¹⁹ Contractor To be determined	²⁰ Spud Date 04/01/99

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
17-1/2"	13-3/8"	48.0	600'	600 sx	Surface
12-1/4"	9-5/8"	40.0	5,100'	1600 sx	Surface
8-3/4"	7"	26.0	12,500'	950 sx	6,000'
6-1/8"	4-1/2"	13.5	13,900'	350 sx	Circ to liner top

²² Describe the proposed program. If this application is to DEEPEN or PLUG BACK give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary

RU drilling rig & rotary tools. Dr1 17-1/2" hole to 600' & set 13-3/8" csg. WOC 12 hrs. NU annular BOP.
Test casing and BOP to 700 psi. Dr1 12-1/4" hole to 5,100' & set 9-5/8" csg. WOC 12 hrs. NU 10M ram BOP with annular. Test casing and BOP's to 1500 psi. Dr1 8-3/4" hole to 12,500' & set 7" csg. Install a rotating head and test BOP stack and choke manifold to 10,000 psi. Test casing to 3,000 psi. Drill 6-1/8" hole to a TD of +13,900'. Run logs and evaluate for completion or P&A.

²³ I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Michael R. Burton*

Printed name: Michael R. Burton

Title: Division Manager - Drilling

OIL CONSERVATION DIVISION

Approved by: ORIGINAL SIGNED BY C. FIS WILLIAMS
DISTRICT SUPERVISOR

Title:

Approval Date: Feb 25 1999 Expiration Date:

Permit Expires 1 Year From Approval
Date Unless Drilling Underway

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

State of New Mexico
Energy, Minerals, and Natural Resources Department

Form C-102
Revised 02-10-94

Instructions on back

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

OIL CONSERVATION DIVISION

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

Submit to the Appropriate
District Office
State Lease - 4 copies
Fee Lease - 3 copies

☐ AMENDED REPORT

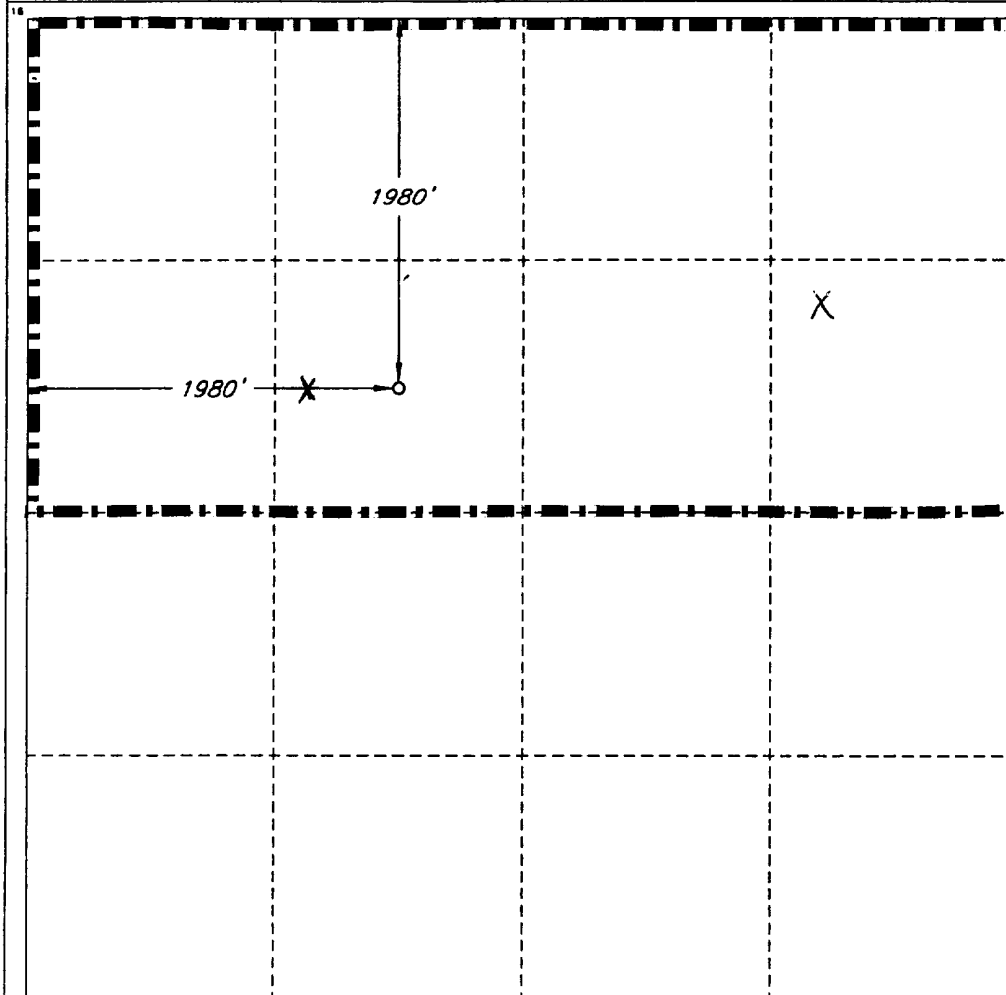
DISTRICT III
1000 Rio Brazos Rd.
Aztec, NM 87410

DISTRICT IV
P. O. Box 2088
Santa Fe, NM 87507-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-025-34580		2 Pool Code 79335		3 Pool Name Johnson Ranch; Wildcat (Wolfcamp)					
4 Property Code 16629		5 Property Name THISTLE UNIT						6 Well Number 5	
7 OGRID No. 020305		8 Operator Name SANTA FE ENERGY RESOURCES, INC.						9 Elevation 3656'	
10 SURFACE LOCATION									
UL or lot no. F	Section 34	Township 23 SOUTH	Range 33 EAST, N.M.P.M.	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
					1980'	NORTH	1980'	WEST	LEA
11 BOTTOM HOLE LOCATION IF DIFFERENT FROM SURFACE									
UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 320		13 Joint or Infill		14 Consolidation Code		15 Order No.			

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



OPERATOR CERTIFICATION

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

Signature
Michael R. Burton
Printed Name
Michael R. Burton
Title
DIVISION Mgr. Drilling
Date
2/19/99

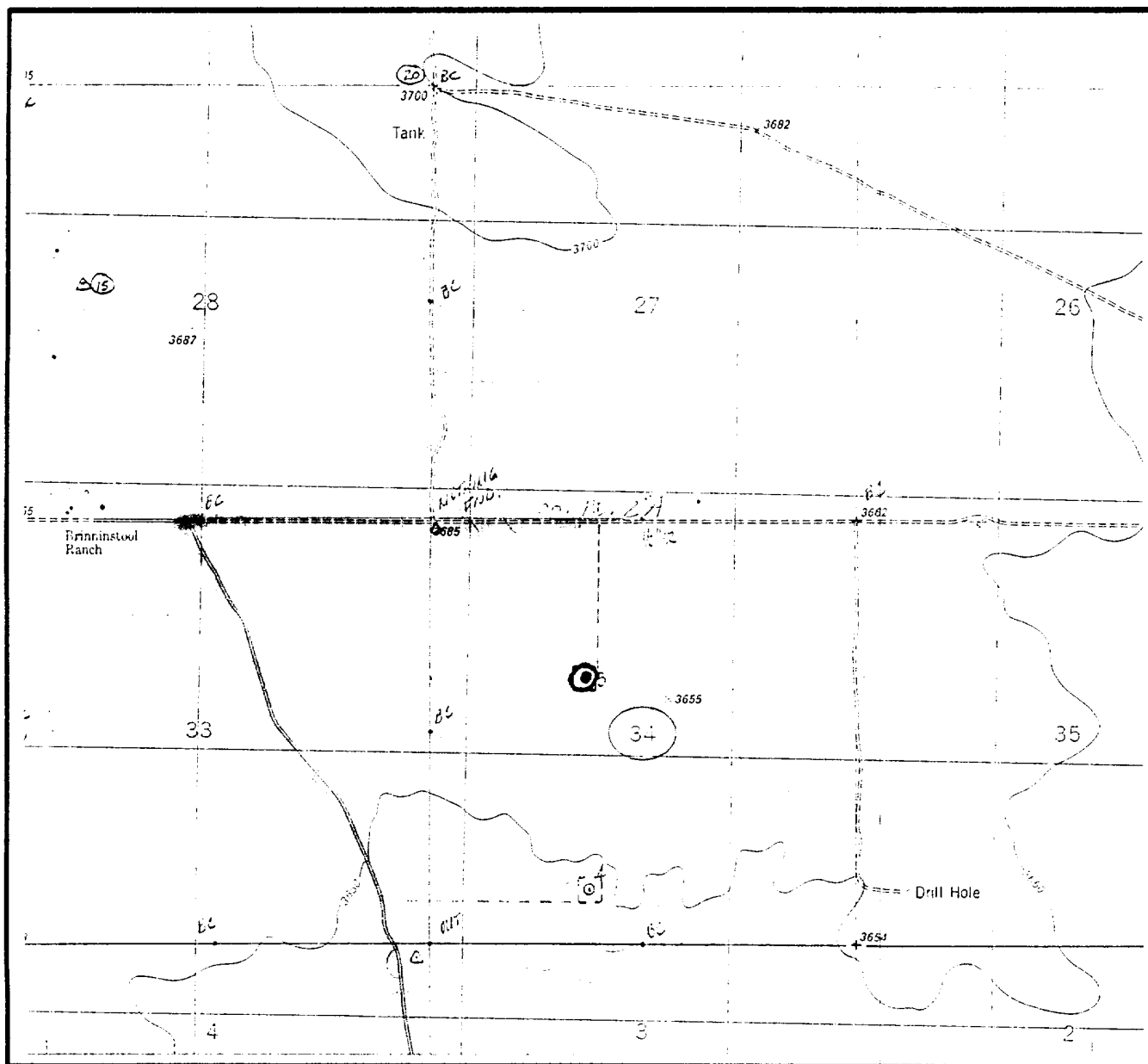
SURVEYOR CERTIFICATION

I hereby certify that the well
location shown on this plat was
plotted from field notes of actual
surveys made by me or under
my supervision, and that the
same is true and correct to the
best of my belief.

Date of Survey
FEBRUARY 15, 1999

Signature and
Professional Seal
ROGER M. ROBBINS
REGISTERED SURVEYOR
NEW MEXICO
12128
Certified
ROGER M. ROBBINS #12128
JOB #62463 / MUSE / V.H.B.

LOCATION & ELEVATION VERIFICATION MAP



SCALE : 1" = 2000'

CONTOUR INTERVAL 10'

SECTION 34 TWP 23-S RGE 33-E

SURVEY NEW MEXICO PRINCIPAL MERIDIAN

COUNTY LEA STATE NM

DESCRIPTION 1980' FNL & 1980' FWL

ELEVATION 3656'

OPERATOR SANTA FE ENERGY RESOURCES, INC.

LEASE THISTLE UNIT #5

U.S.G.S. TOPOGRAPHIC MAP

TIP TOP WELLS, NEW MEXICO

LAT. N 32°15'46.3"

LONG. W 103°33'42.7"



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

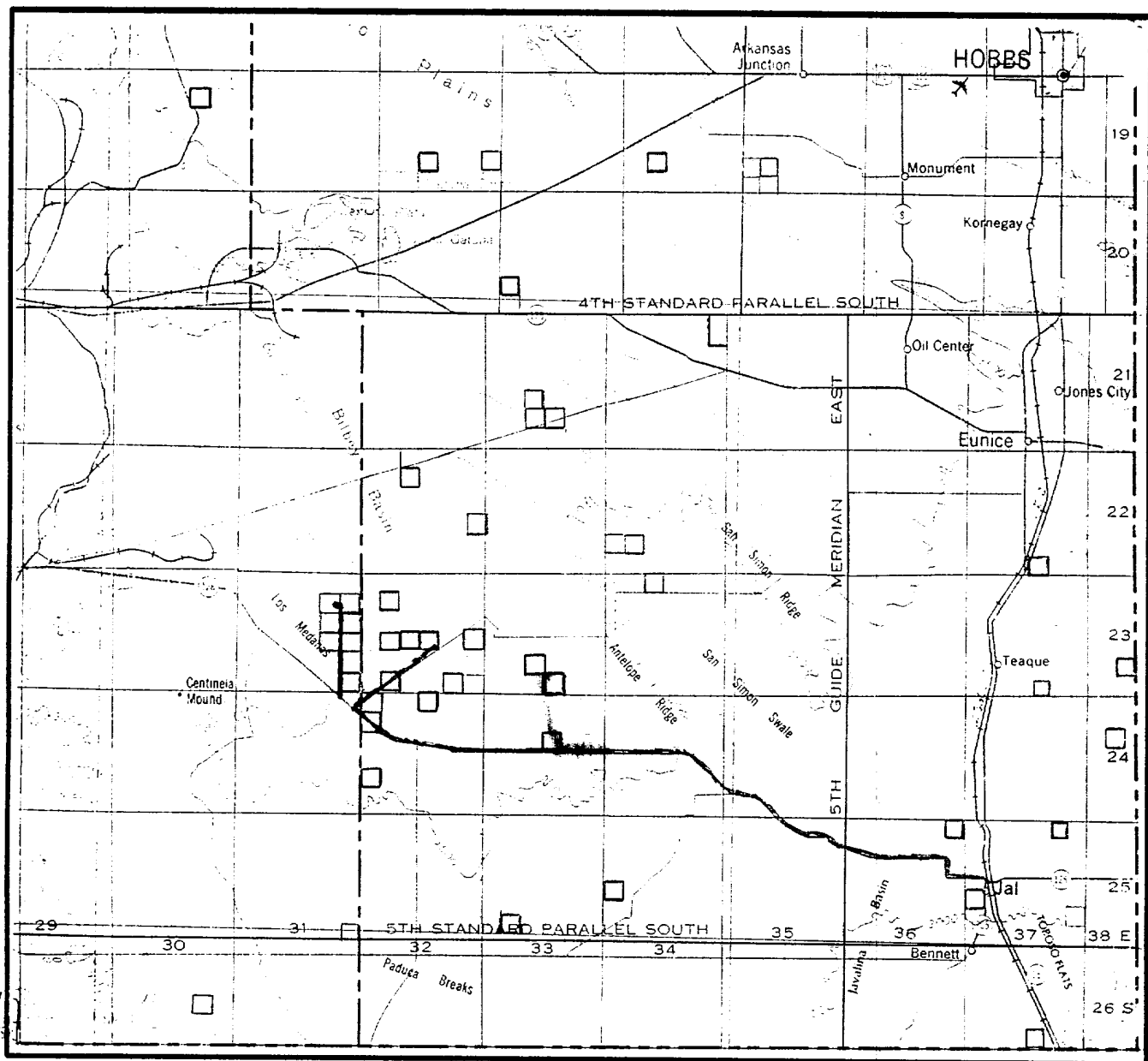
Surveying & Mapping for the Oil & Gas Industry

1307 N. HOBART
PAMPA, TX. 79065
(800) 658-6382

6709 N. CLASSEN BLVD.
OKLAHOMA CITY, OK. 73116
(800) 654-3219

2903 N. BIG SPRING
MIDLAND, TX. 79705
(800) 767-1653

VICINITY MAP



SECTION 34 TWP 23-S RGE 33-E
SURVEY NEW MEXICO PRINCIPAL MERIDIAN
COUNTY LEA STATE NM
DESCRIPTION 1980' FNL & 1980' FWL

OPERATOR SANTA FE ENERGY RESOURCES, INC.
LEASE THISTLE UNIT #5

DISTANCE & DIRECTION FROM THE JCT. OF CO. RD. 21
& HWY. 128, 21 MILES WEST OF JAL, GO WEST 3.0
MILES ON HWY. 128, THENCE NORTH 4.0 MILES ON
LEASE ROAD, THENCE EAST 1.0 MILE ON COUNTY ROAD
TO A POINT ±2000' NORTH OF THE LOCATION.



This location has been very carefully staked on the ground according to the best official survey records, maps, and other data available to us.
Review this plot and notify us immediately of any possible discrepancy.

TOPOGRAPHIC LAND SURVEYORS

Surveying & Mapping for the Oil & Gas Industry

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N 00°02' W - M
 2642.4' - M
 N 00°02' W - R
 2640.0' - R
 S 89°59' W - R
 N 89°51' W - M
 2636.9' - M
 2636.7' - R
 N 00°02' W, 2640.0' - R
 N 00°01' W, 2642.4' - M
 N 00°02' W, 2640.0' - R
 N 00°02' W, 2645.2' - M
 N 89°56' W, 2640.8' - M
 N 89°56' W, 2640.0' - R
 RECORD BEARING FROM G.L.O. TOWNSHIP PLAT
 ACCEPTED FEB. 7, 1914, AND BASIS OF BEARINGS
 FOR THIS SURVEY.

S 89°58' W, 5280.0' - R
 N 89°59' W, 5280.4' - M
 EXISTING LEASE ROAD
 PROPOSED LEASE ROAD
 1980'
 N 00°01' E
 1745'
 1980'
 SANTA FE ENERGY RESOURCES, INC.
 THISTLE UNIT #5
 GROUND ELEVATION: 3656'

26
 27
 34
 35
 FND. BRASS CAP
 (TYPICAL)
 T-23-S
 T-24-S
 34
 35
 4
 3
 3
 2

SCALE:	AS SHOWN
DATE:	FEBRUARY 15, 1999
JOB NO.:	62463-F
QUAD NO.:	47 SE
SHEET :	1 OF 1