

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

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  
SIRGO BROTHERS ENERGY CORP. AS AGENT  
FOR MOUNTAIN STATES PETROLEUM CORP. 15346

3. ADDRESS AND TELEPHONE NO.  
P. O. BOX 3531, MIDLAND, TX 79702 (915)685-0878

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)  
At surface  
2077' FSL & 317' FEL Unit I, Sec.22, T29N, R14W, NMPM  
2105' FSL & 851' FEL Unit I

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE\*  
5 MILES SOUTHWEST OF FARMINGTON

15. DISTANCE FROM PROPOSED\*  
LOCATION TO NEAREST 34,480' from unit  
PROPERTY OR LEASE LINE, FT.  
(Also to nearest drig. unit line, if any) boundary

16. NO. OF ACRES IN LEASE  
1632

17. NO. OF ACRES ASSIGNED  
TO THIS WELL  
80

18. DISTANCE FROM PROPOSED LOCATION\*  
TO NEAREST WELL, DRILLING, COMPLETED,  
OR APPLIED FOR, ON THIS LEASE, FT.  
1896' from  
Well #30

19. PROPOSED DEPTH  
5350'

20. ROTARY OR CABLE TOOLS  
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, ~~etc.~~)  
5494' GR

22. APPROX. DATE WORK WILL START\*  
March 20, 1994

23. PROPOSED CASING AND CEMENTING PROGRAM  
DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"GENERAL REQUIREMENTS"

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	GENERAL REQUIREMENTS
12-1/4"	J-55, 8-5/8"	24#	320 210+	265 sacks Surface
7-7/8"	J-55, 4-1/2"	10.5#	5350'	900 sacks Surface

1. Circulate cement to surface on 8-5/8" surface pipe.
2. Will two stage 4-1/2" casing to circulate cement back to surface pipe.
3. BOP Diagram attached.
4. Deviation Program attached.

RECEIVED  
SEP 26 1994

OIL CON. DIV.  
DIST. 3

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 prevention program, if any.

SIGNED M. A. Sirgo, III TITLE AGENT President DATE Mar. 17, 1994  
(This space for Federal or State office use)

PERMIT NO. \_\_\_\_\_ APPROVAL DATE \_\_\_\_\_  
Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would permit the applicant to conduct operations thereon.  
CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY DD-94 (NFBHL) TITLE \_\_\_\_\_ DATE SEP 23 1994  
Chip Haraden  
DISTRICT MANAGER

\*See Instructions On Reverse Side

District I  
PO Box 1980, Hobbs, NM 88241-1980  
District II  
PO Drawer D10, Artesia, NM 88211-0719  
District III  
1000 Via Hrazas Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies  
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT, NM

1 API Number 30-045-29187		2 Pool Code 11880		3 Pool Name Cha Cha Gallup		
4 Property Code 8095		5 Property Name NW Cha Cha Unit			6 Well Number 26	
7 OGRID No. 15346		8 Operator Name Mountain States Petroleum Corp.			9 Elevation 5494	

10 Surface Location

UL or lot no. I	Section 22	Township 29N	Range 14W	Lot Ida	Feet from the 2077	North/South line South	Feet from the 317	East/West line East	County San Juan
--------------------	---------------	-----------------	--------------	---------	-----------------------	---------------------------	----------------------	------------------------	--------------------

11 Bottom Hole Location If Different From Surface

UL or lot no. I	Section 22	Township 29N	Range 14W	Lot Ida	Feet from the 2105	North/South line South	Feet from the 851	East/West line East	County San Juan
12 Dedicated Acres 80		13 Joint or Infill N		14 Consolidation Code U		15 Order No.			

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

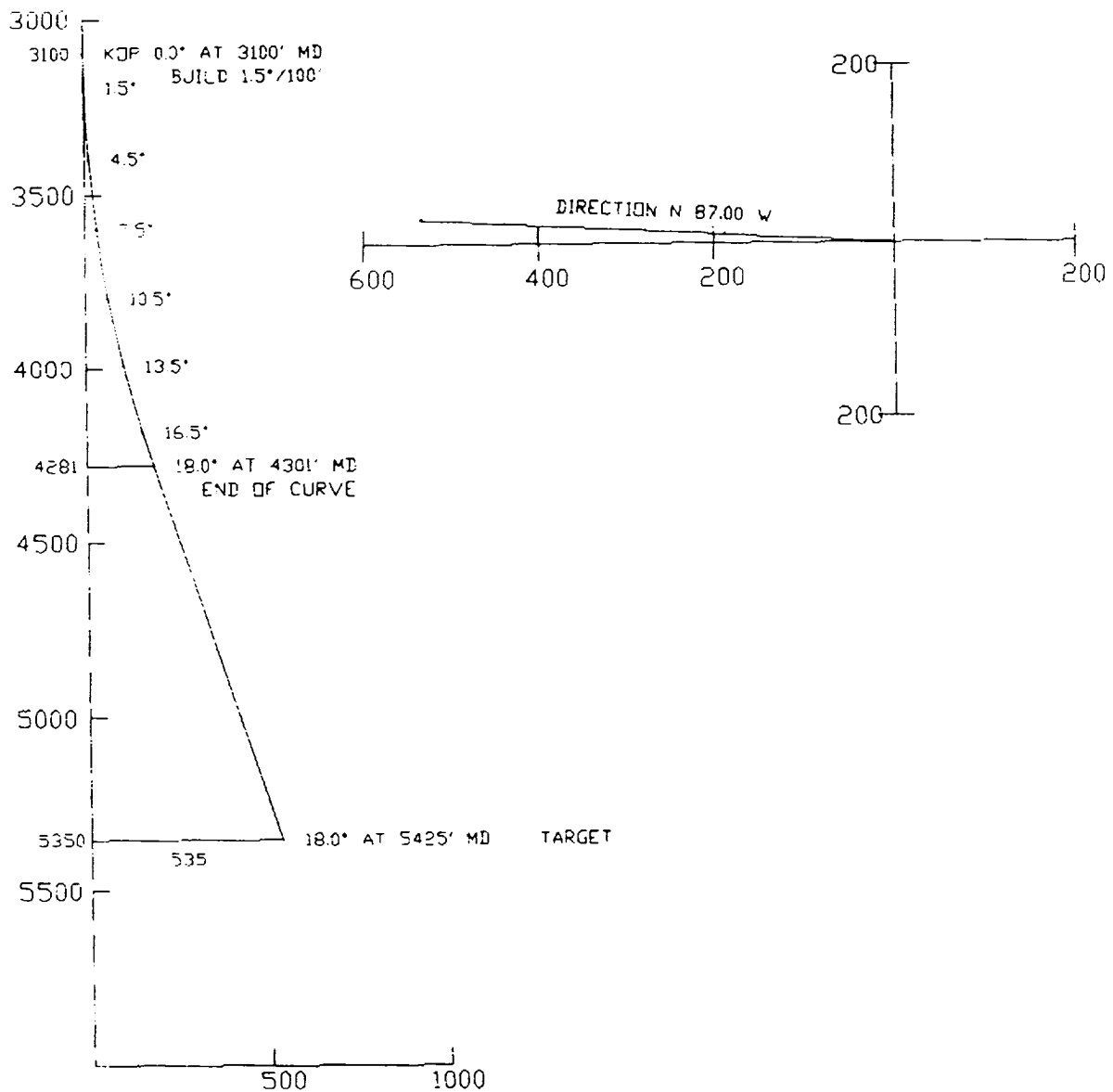
16		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature M. A. Sirgo, III Printed Name Agent Title Sept. 9, 1994 Date	
18 SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat 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 knowledge and belief. March 1994 Date of Survey Signature and Seal of Professional Surveyor 8894 Certificate Number		RECEIVED OCT - 6 1994 OIL CON. DIV. DIST. 3 SEC. 22 ACCEPTED FOR RECORD OCT 03 1994 FARMINGTON DISTRICT OFFICE BY	
N 7-28-57 W		5278.26'	

SIRGO OPERATING, INC  
NW CHA CHA #36  
FARMINGTON, NM



VERTICAL SECTION  
SCALE: 500 FEET/DIVISION

HORIZONTAL PLAN  
SCALE: 200 FEET/DIVISION



VERTICAL SECTION PLANE: N 87.00 W

## D.I.G., INC.

SIRGO OPERATING, INC.  
NW CHA CHA #26  
FARMINGTON, N.M.

Calculated by Minimum Curvature Method  
Vert Sect Plane: N 87.00 W

## - DIRECTIONAL WELLPLAN -

MEASURED DEPTH (FT)	INCL ANGLE (DEG)	D R I F T DIRECTION (DEG)	COURSE LENGTH (FT)	TRUE VERTICAL DEPTH	T O T A L RECTANGULAR COORDINATES (FT)	VERTICAL SECTION (FT)	C L O S U R E DISTANCE (FT)	DIRECTION (DEG)	DOGLEG SEVERITY (DG/100')
3100.00	0.00	N 0.00 E	0.00	3100.00	0.00 N 0.00 E	0.00	0.00	N 0.00 E	0.00
3200.00	1.50	N 87.00 W	100.00	3199.99	0.07 N 1.31 W	1.31	1.31	N 87.00 W	1.50
3300.00	3.00	N 87.00 W	100.00	3299.91	0.27 N 5.23 W	5.23	5.23	N 87.00 W	1.50
3400.00	4.50	N 87.00 W	100.00	3399.69	0.62 N 11.76 W	11.77	11.77	N 87.00 W	1.50
3500.00	6.00	N 87.00 W	100.00	3499.27	1.10 N 20.90 W	20.92	20.92	N 87.00 W	1.50
3600.00	7.50	N 87.00 W	100.00	3598.57	1.71 N 32.63 W	32.68	32.68	N 87.00 W	1.50
3700.00	9.00	N 87.00 W	100.00	3697.54	2.46 N 46.96 W	47.03	47.03	N 87.00 W	1.50
3800.00	10.50	N 87.00 W	100.00	3796.09	3.35 N 63.87 W	63.96	63.96	N 87.00 W	1.50
3900.00	12.00	N 87.00 W	100.00	3894.16	4.37 N 83.36 W	83.47	83.47	N 87.00 W	1.50
4000.00	13.50	N 87.00 W	100.00	3991.70	5.53 N 105.39 W	105.54	105.54	N 87.00 W	1.50
4100.00	15.00	N 87.00 W	100.00	4088.62	6.82 N 129.98 W	130.15	130.15	N 87.00 W	1.50
4200.00	16.50	N 87.00 W	100.00	4184.86	8.24 N 157.08 W	157.30	157.30	N 87.00 W	1.50
4300.00	18.00	N 87.00 W	100.00	4280.36	9.79 N 186.69 W	186.95	186.95	N 87.00 W	1.50
END OF CURVE									
4300.76	18.01	N 87.00 W	0.76	4281.08	9.80 N 186.93 W	187.19	187.19	N 87.00 W	1.50
TARGET									
5424.76	18.01	N 87.00 W	1124.00	5350.00	28.00 N 534.00 W	534.73	534.73	N 87.00 W	0.00

Survey Ref: Well Head Closure Ref: Well Head  
Wed Mar 16 1994 18:05:06

Vert Sect Ref: Well Head  
File: SIRGO26.DAT

SIRGO BROTHERS ENERGY CORP.

NW CHA CHA UNIT WELL NO. 26  
2077' FSL & 317' FEL UNIT I  
Sec. 22, T29N, R14W, NMPM  
SAN JUAN COUNTY, NEW MEXICO

A. DRILLING PROGRAM

1. Surface Formation: San Jose

Estimated tops of Geological Markers

Ungraded Ground Elevation - 5494'

<u>FORMATION</u>	<u>DEPTH BELOW G.L.</u>
San Jose	Surface
Picture Cliffs	1066'
Lewis	1265'
Chacra	2001'
Cliffhouse	2638'
Point Lookout	3557'
Mancos	3837'
Gallup	4767'
U. Horseshoe	5087'
L. Horseshoe	5113'
Cha Cha	5132'
Tocito	5189'
Sanastee	5221'
Total Depth	5350'

2. Estimated Depth at which oil, gas, water or other mineral-bearing zones are expected to be encountered.

	<u>Formation</u>	<u>Top</u>	<u>Bottom</u>
Expected oil zones:	Gallup	4767'	5189'
Expected gas zones:	Fruitland		
	Picture Cliffs	1066'	1166'
	Mesa Verde	2638'	3837'

Expected water zones: May encounter water flows from the Menefee formation between the Cliffhouse at 2638' and the Point Lookout at 3557'

Expected Mineral Zones: None

3. Pressure Control - BOP (See Attachment No. 1)

Wellhead: Casinghead 8-5/8" x 10" - 3000 psi w.p.  
(See Attachment No. 2)

BOP Stack and Related Equipment (See Attachment No. 1)

One double-gate BOP with 4-1/2" pipe rams and blind rams. The BOP will be hydraulically operated by an accumulator with 1-1/2 times the necessary capacity to close all rams and retain a minimum of 200 psi above precharge. The remote unit (accumulator) will be located in the bottom "dog house" or on the ground between the "dog house" and toolpusher's trailer. A rotating head on top of the BOP stack will be utilized.

A kelly cock will be utilized and a stabbing valve will be on the rig floor.

Two-choke manifold with adjustable and positive chokes.

The choke line will be as straight as possible and turns, if required, will use "T" blocks.

Although 3000 psi BOP equipment will be used, equipment determination (BOP & manifold), line sizing and testing are based on the requirements for 2000 psi BOP equipment due to the known drilling and reservoir conditions.

Testing Procedure:

BOP (pipe and blind rams) and choke manifold will be tested at the rated working pressure of the stack or to 70% of the internal yield of the surface casing as required by the provisions of Onshore Oil and Gas Order No. 2. Tests will be performed at time of installation, following all repairs, prior to drilling out each casing shoe, and at least every 30 days. BOP's will be operationally tested daily and each test will be logged in the IADC Daily Drilling Report. All related requirements of Onshore Oil and Gas Order No. 2 will be met.

Blooie Line:

The blooie line and related equipment will meet all requirements of Onshore Oil and Gas Order No. 2.

4. Casing Program

Surface Casing - 8-5/8" @ 210'  
(Mud wt. +- 8.6-8.8 ppg)

<u>Depth</u>	<u>Size</u>	<u>Wt.</u>	<u>Grade</u>	<u>Thread</u>	<u>New/Used</u>
210'	8-5/8"	24#	J-55	8RD-ST&C	*Used

\*Drifted and Tested

Note: Surface casing shall have centralizers on every joint starting at the shoe joint and ending on the last joint at surface.

Production Casing 4-1/2" at TD  
(Mud wt. +- 8.4-8.6 ppg)

<u>Depth</u>	<u>Size</u>	<u>Wt.</u>	<u>Grade</u>	<u>Thread</u>	<u>New/Used</u>
TD-Surf	4-1/2"	10.5#	J-55	8RD-LT&C & ST&C	*Used

\*Drifted and tested

Minimum Safety Factors

Collapse: 1.125

Tension: 1.8

Burst: 1.0

Casing Testing:

All casing strings will be pressure tested to 0.22 psi/ft or 1500 psi (whichever is greater) but not to exceed 70% of the minimum internal yield.

Cementing Program:

A.) Surface Casing - The surface casing will be cemented to surface to isolate any fresh water zones w/165 sks 2% CaCl<sub>2</sub> + 1/4# sk Flocele per sack. (Volume plus 100% excess) slurry weight 15.60 lb/gal, yield 1.19 cu ft/sk. Cement hardware to include guide shoe, insert float valve and centralizers.

B.) Production Casing - The production casing will be cemented in 2 stages as follows: DV tool @ +- 1000'

1st Stage: 630 sks w/2% CaCl plus .375#/sk Flocele (lost circulation additive) slurry weight 12.40#/gal, slurry yield 1.83 ft<sup>3</sup>/sk (50% excess).

2nd Stage: 230 sks w/1% CaCl plus .5% HALAD-322 (fluid loss additive) slurry weight 15.6#/gal, slurry yield 1.19 ft 3/sk (50% excess).

Casing hardware for production string to include guide shoe, insert float collar, centralized shoe joint and bottom five joints. Centralizers above and below stage tool, oil and gas zones as needed and across Menefee formation.

Auxiliary Equipment:

1. Kelly Cock
2. Stabbing valve when kelly is out of string
3. Rotating head

5. Drilling Fluid:

<u>Depth</u>	<u>Type</u>	<u>Wt.</u>	<u>Vis.</u>	<u>WL</u>
0-300'	Fresh wtr/spud mud lime gel	8.6-8.8	45.50	NC
300'-TD	Fresh wtr/new drill	8.6-9.0	35-45	NC

(50' from TD add gel for viscosity 50-60 to insure logging and casing operations).  
Actual mud volume and/or mud reserve material will be equal to or greater than the active system capacity. System volume (steel tanks only) will be approx. 400 bbls. Sufficient LCM material will be on location and utilized to control loss circulation problems if any.

**Note:** Because of the highly developed area surrounding the proposed well and the well-known drilling conditions, flow sensors and PVT's will not be utilized.

6. Testing, Logging and Coring Program:

DST's: None planned

Logging: Surface casing to TD: GR/CNL

Coring: None planned

Completion: After drilling and running and cementing the production casing, the drilling rig will be removed and a service unit will be moved in. BOP's of similar pressure rating as those used to drill with will be used. The Gallup formation will be selectively perforated and hydraulically fracture stimulated. The well will then be rod pumped through tubing.



7. Abnormal Pressures, Temperatures and Potential Hazards:

- A.) Due to numerous wells drilled in the unit, no above normal pressure zones are anticipated.
- B.) No above normal temperatures are anticipated.
- C.) No hydrogen sulfide gas is anticipated.

8. Additional Information:

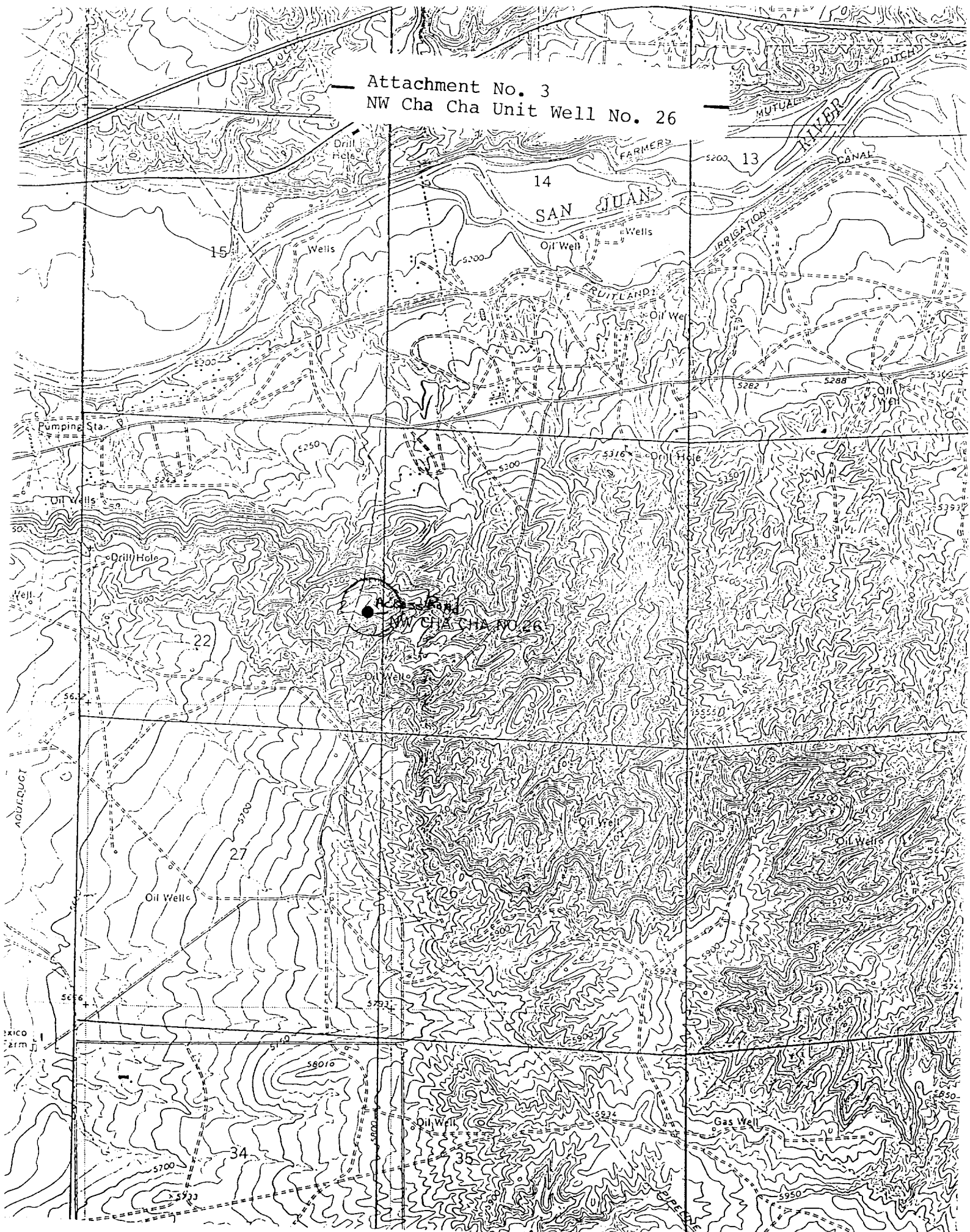
Starting Date:

Road and location work will begin (with appropriate approvals) between March 20, 1994 and April 10, 1994 - weather permitting. Drilling will commence shortly after completion of the road and location.

Duration of Operation:

Drilling - 10 days  
Completion - 4 days

Attachment No. 3  
NW Cha Cha Unit Well No. 26



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
Budget Bureau No. 1004-0135  
Expires: March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.  
Use "APPLICATION FOR PERMIT—" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other	5. Lease Designation and Serial No. 14-20-603-2199
2. Name of Operator Sargo Brothers Energy Corp Agent for Mountain States Petroleum Corp.	6. If Indian, Allottee or Tribe Name Navajo Nation
3. Address and Telephone No. P O Box 3531, Midland TX 79702 915/685-0878	7. If Unit or CA, Agreement Designation NW Cha Cha Unit
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 2077' FSL & 317' FEL Unit I Sec. 22, T29N, R14W, NMPM 2105' FSL & 851' FEL Unit I Sec. 22, T29N, R14W, NMPM	8. Well Name and No. NW Cha Cha Unit #26
	9. API Well No. 30-045-29187
	10. Field and Pool, or Exploratory Area Cha Cha Gallup
	11. County or Parish, State San Juan, NM

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input type="checkbox"/> Notice of Intent	<input type="checkbox"/> Abandonment
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Recompletion
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Plugging Back
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> Altering Casing
	<input checked="" type="checkbox"/> Other Spud & Run Casing
	<input type="checkbox"/> Change of Plans
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Non-Routine Fracturing
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Conversion to Injection
	<input type="checkbox"/> Dispose Water

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

1. MI&RU United Drilling. Spud at 4:00 p.m. 10-4-94.
2. Drilled to 240'. Set 5 jts. 8-5/8" OD 24# J55 casing at 225'. Cemented w/195 sx Class B + 1/4# Celloseal + 2% CaCl. Yield 1.18 cu. ft. Circulated 50 sx to surface.
3. WOC 18 hrs. Tested casing to 1000# for 30 min., held okay.
4. Drilled to 5346' TD 10-14-94.
5. Set 157 jts. 5-1/2" OD J55 casing at 5346'. Cemented w/455 sx 65/35 12% gel + 2% CaCl + 1/4#/sx Celloseal. Yield 2.36 cu. ft. Tail in w/100 sx B + 2% CaCl. Yield 1.18 cu. ft. Cement circulated to surface. WOC.
6. Waiting on completion unit.

14. I hereby certify that the foregoing is true and correct

Signed L. A. Sargo Title Agent Date 10-28-94

(This space for Federal or State office use)

Approved by \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
Conditions of approval, if any: \_\_\_\_\_

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*See Instruction on Reverse Side

FARMINGTON DISTRICT OFFICE