Form 3160-3 (November 1983) (formerly 9-331C)	UN DEPARTME	NT OF THE IND TO DRILL, I	3210 NTERIOF SEMENT	(Oth)	T IN TRAFLICAT	E. Form approved. Budget Bureau N Expires August 3 5. LEASE DESIGNATION A MAC-77046 6. IF INDIAN, ALLOTTES	31, 1985		
la. TYPE OF WORK	ILL 🖾	DEEPEN [G BACK 🗌	7. UNIT AGEREMENT NA	MB		
OIL X	WELL OTHER		SINGLE Zone	$\overline{\mathbf{X}}$	MULTIPLE	8. FARM OR LEASE NAM	R		
2. NAME OF OPERATOR			-	·		North Pure Gold "9" Federal			
Santa	Fe Energy Ope	erating Partn	ers, L.P			9. WELL NO.			
3. ADDRESS OF OPERATOR						1			
	. Texas, Suite					10. FIELD AND POOL, OR WILDCAT			
4. LOCATION OF WELL () At surface	Report location clearly	and in accordance wit	th any State i			Sand Dunes West (Delaware)			
1980' FWL &	330' FSL			K	CEIVED	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA			
At proposed prod. zo		0 1992	Sec. 9, T-23S, R-31E						
14. DISTANCE IN MILES	AND DIRECTION FROM		12. COUNTY OR PARISH	13. STATE					
	t of Loving, N	MM		ABT	C. D.	Eddy	NM		
10. DISTANCE FROM PRO LOCATION TO NEARE PROPERTY OR LEASE (Also to Degrest dr	8T		OF ACRES ASSIGNED THIS WELL 40						
13. DISTANCE FROM FROMOSED LOCATION* 19. PROPOSED DEPTH TO NEAREST WELL, DRILLING, COMPLETED, 2661' OR APPLIED FOR, ON THIS LEASE, FT. 2661'						Rotary			
21. ELEVATIONS (Show w	hether DF, RT, GR, etc.	.)				22. APPROL. DATE WO	AK WILL START*		
3359.3' GR	October 18	, 1992							
23.		Secretary's Pote	ash						
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT SETTING DEPTH			СРТН	QUANTITY OF CEMENT			
17-1/2"	13-3/8"	48.0		60	0' 600) sx to <u>circulat</u>	e		
12-1/4"	8-5/8"			413		sx to <u>circulate</u>			
7-7/8"	5-1/2"	15.50		820	0' To t	ie back to 4130	(200'into 85/8")		

We propose to drill to a depth sufficient to test the Delaware formation for oil. If productive, 5-1/2" casing will be cemented at 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 Schematic Exhibit C - Drilling Fluid Program Exhibit D - Auxiliary Equipment Exhibit E - Topo Map of Location

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

Post ID-1 11-6-92 New Loc & API

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM : If proposal is to deepen or plug back, give data on present productive sone 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 Daniel Poberts	TITLE Sr. Drilling Engineer	DATE 8-28-92
(This space for Federal or State office use)		
PERMIT NO.	APPROVAL DATE	
APPROVED BY	TITLE	- DATE 10-20-92
APPROVATE OSUBJECTL. TO ANY :		
GENERAL REQUIREMENTS AND		
SPECIAL STIPULATIONS		

*See Instructions On Reverse Side

ATTACHED 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

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

DISTRICT III

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State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised 1-1-89

OIL CONSERVATION DIVISION

<u>DISTRICT I</u> P.O. Box 1980, Hobbs, NM 88240

1000 Rio Brazos Rd., Aztec, NM 87410

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

<u>DISTRICT II</u> P.O. Drawer DD, Artesia, NM 88210

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator SANTA FE ENERGY RESOURCES, INC.				Le	NO	RTH	PURE	വോ	9 FE	DE	RAL	Well No.	1				
Unit Letter	er Section Township		R	Range				County									
N		9		1	23 SO	HTU			3	1 EAS	Т	NMPM	(EDDY		
Actual Footage Loc	ation	of Well	:														
330 feet	t from	the	SOU	TH	line and	I		1980)			feet from	m _1	the WES	T line		
Ground Level Elev					P	pol							Dedicated	Acresge:			
3359.3'			Delaw	vare				Sand	Dune	es Wes	st D	elawa	re		40	Acre	8
1. Outline the ac	crenge	dedica	ted to 1	he subj	ect well	by colo	red pend	il or had	hure	marks o	n the	plat belo	. , we				
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 interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?																	
🗌 Yes		X	No	If and	swer is	yes ty	ype of c	onsolida	Lion								
If answer is "no this form necess		of own	ACTS AD	i tract o	descript	ions wh	ich hav	e actuali	y beer	a consol	idated.	(Use re	:ve	rse side of			
No allowable w otherwise) or u															nitization,	forced-pooli	Dg.
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DRILLING PROGRAM SANTA FE ENERGY OPERATING PARTNERS, L.P. North Pure Gold "9" Federal No.1

In conjunction with Form 3160-3, Application to Drill the subject well, Santa Fe Energy Operating Partners, L.P., submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 10.

1. Geologic Name of Surface Formation: Alluvium

2. Estimated Tops of Significant Geologic Markers:

Rustler Anhydrite	750'
Base of Salt	3840'
Delaware "Ramsey" Sand	4170'
Cherry Canyon	5070'
Brushy Canyon	7790'
Bone Spring	8060'
Total Depth	8200'

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

Water	None expected in area
Oil	Delaware Sand @ 4170'
Oil	Lower Brushy Canyon @ 7790'

- 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 the intermediate casing at 4100'.
- 8. Testing, Logging and Coring Program:

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

Ramsey Sand	4170'-4300'
Lower Brushy Canyon	7790'-7900'

Logging:

Dual Laterolog w/MSFL and Gamma Ray4100'-8200'Compensated Neutron/Litho-Density/Gamma Ray4100'-8200'Compensated Neutron/Gamma Ray (thru csg)Surface-4100'

Coring: No conventional cores are planned.

DRILLING PROGRAM North Pure Gold "9" Federal No.1 Page 2

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

No abnormal pressures or temperatures are anticipated. The estimated bottom hole temperature is 135 °F and the estimated bottom hole pressure is 3500 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 BLM. The anticipated spud date is October 18, 1992. Once spudded, the drilling operation should be completed in approximately 16 days. If the well is productive, an additional 30 days will be required for completion and testing before permanent facilities are installed.

SANTA FE ENERGY OPERATING PARTNERS,L.P. OPERATIONS PLAN North Pure Gold "9" Federal No.1

- 1. Drill a 17 1/2" hole to approximately 600'.
- Run 13 3/8" 48.0 ppf H-40 ST&C casing. Cement with 600 sx Class "C" cement containing 2% CaCl₂. Run centralizers on every other joint above the shoe. Apply thread lock to bottom two joints and guide shoe.
- 3. Wait on cement four hours prior to cutting off.
- 4. Nipple up a annular BOP system and test casing to 600 psi.
- 5. Drill a 12 1/4" hole to approximately 4130'.
- 6. Run 8 5/8" 32.0 ppf K-55 ST&C casing. Cement with 1750 sx Cl "C" Lite containing 12 pps salt and 1/4 pps celloflake followed by 250 sx Class "C" with 2% CaCl₂. Run guide shoe on bottom and float collar two joints of bottom. Centralize every other joint for bottom 400' of casing and place two centralizers in surface casing. Thread lock bottom 2 joints.
- 7. Wait on cement for six hours prior to cutting off.
- 8. Nipple up and install a 3000 psi. Double Ram and Annular BOP system with choke manifold.
- 9. Test BOP system to 3000 psi. Test casing to 1500 psi.
- 10. Drill 7 7/8" hole to 8200'. Run logs.
- 11. Either run and cement 5 1/2" 15.50 ppf K-55 LT&C casing or plug and abandon as per BLM requirements.

Exhibit A Santa Fe Energy Operating Partners,L.P. North Pure Gold "9" Federal No.1 Section 9,T-23S,R-31E Eddy County, New Mexico

DDR:NPG91

PROPOSED 3-M BOPE AND CHOKE ARRANGEMENT



PROPOSED DRILLING FLUID PROGRAM

<u>0 - 600'</u>

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.

<u>600-4130'</u>

Drill out with brine water circulating the inner portion of the reserve pit. Utilize ground paper mixed in prehydrated fresh gel to sweep the hole. MW-10.0 ppg and Vis-28.

4130-8200'

Drill out with cut brine (30,000 ppm chlorides minimum) 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. If it becomes necessary to mud up due to hole conditions, utilize a cut brine/Drispac system for 15-20 WL and a Vis of 30-32. MW-8.5/8.9 ppg.

Exhibit C Santa Fe Energy Operating Partners,L.P. North Pure Gold "9" Federal No.1 Section 9,T-23S,R-31E Eddy County, New Mexico

DDR:NPG91

AUXILIARY EQUIPMENT

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DRAWWORKS	BDW 650M 650 HP, with Parmac Hydromatic brake
ENGINES	Two Caterpillar D-353 diesels rated at 425 HP each
ROTARY	Ideco 23", 300 ton capacity
MAST/SUB	Ideal 132',550,000 lb rated static hook load with 10 line Wagner 15' high substructure
TRAVELLING EQUIPMENT	Gardner-Denver,300 ton,5 sheave w/ BJ 250 ton hook. Brewster Model 7 SX 300 ton swivel.
PUMPS	Continental-EMSCO DC-700 and DB-550, 5 1/2 X 16" Duplex, Compound driven.
PIT SYSTEM	1-Shale Pit 6X7X35',1-Settling Pit 6X7X38', 1-Suction Pit 6X7X34' w/ 5 mud agitators. Two centrifugal mud mixing pumps and a Double Screen Shale Shaker.
LIGHT PLANT	Two CAT 3306 diesel electric sets 180 KW prime power.
BOP EQUIP	13 5/8" 5000 psi WP double ram and 13 5/8" 5000 psi WP Shaffer Annular Preventer. Choke manifold rated at 5000 psi. Valvcon 5-station 80 gallon closing unit.

Exhibit D Santa Fe Energy Operating Partners,L.P. North Pure Gold "9" Federal No.1 Section 9,T-23S,R-31E Eddy County, New Mexico

DDR:NPG91

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EXHIBIT F

SANTA FE ENERGY OPERATING PARTNERS, LP North Pure Gold "9" Fed. #1 1980' FWL & 330' FSL Sec. 17, T23S,R31E EDDY COUNTY, NEW MEXICO



MULTI-POINT SURFACE USE AND OPERATIONS PLAN SANTA FE ENERGY OPERATING PARTNERS,L.P. North Pure Gold "9" Federal No.1 1980' FWL & 330' FSL Section 9, T-23S, R-31E 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 location of the proposed wellsite and roads in the vicinity. The proposed location is situated approximately 18 miles northeast of Loving, New Mexico.

DIRECTIONS:

- 1. From the junction of Highway 31 and Highway 128, go east on Highway 128 for 12.8 miles.
- 2. Turn left (North) onto lease road and continue 3/4 mile to the Pure Gold C-17 No.2 location and go another 1/4 mile north and turn east and go 3000' to location.
- 2. PLANNED ACCESS ROAD.

A 14' wide access road will extend from an existing lease road 3000' west of the proposed well.

- 3. LOCATION OF EXISTING WELLS.
 - A. The well Locations in the vicinity of the proposed well are shown Exhibits E & F.
- 4. LOCATION OF EXISTING AND/ OR PROPOSED FACILITIES.
 - A. There are no existing 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. If the well is productive of oil, a gas or diesel self-contained unit will be used to the necessary power.

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.

Multi-Point Surface Use and Operations Plan

North Pure Gold "9" Federal No.1 Page 2

- 6. SOURCES OF CONSTRUCTION MATERIALS.
 - A. Any caliche required for construction of the drilling pad will be obtained from a pit located of the wellsite.
- 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 buried.
 - 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 contain all of the material 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 located among several sand dunes with vegetation growing on them. The location will constructed by leveling the necessary dune and covering the sand 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.

Multi-Point Surface Use and Operations Plan North Pure Gold "9" Federal No.1 Page 3

- 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.

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11. TOPOGRAPHY

- A. The wellsite and access route are 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.
- E. There are no ponds, lakes, streams, or rivers within one mile of the wellsite.
- 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 representatives responsible for assuring compliance with the approved surface use plan are:

Michael R. Burton	Darrell Roberts
Division Operations Manager	Senior Drilling Engineer
Santa Fe Energy Operating	Santa Fe Energy Operating
Partners, L.P.	Partners, L.P.
550 W. Texas, Suite 1330	550 W. Texas, Suite 1330
Midland, Texas 79701	Midland, Texas 79701
915-687-3551 - office	915-687-3551 - office
915-699-1260 - home	915-684-4130 - home
915-523-1474 - cellular	915-553-1214 - cellular

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 31 day of August 1992. Dancel Polato

Darrell Roberts, Senior Drilling Engineer