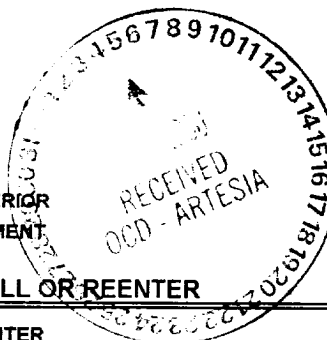


## N. M. Oil Cons. Division

ARTESIA, NM 88210-4334

d9f

Form 3160-3  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-050349(A)
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator EOG Resources, Inc.		7. If Unit or CA Agreement, Name and No. 2661A
3a. Address P.O. Box 2267, Midland, TX 79702	3b. Phone No. (include area code) (915)686-3714	8. Lease Name and Well No. Starbuck "19" Fed Com No. 1
4. Location of Well (Report location clearly and in accordance with any State requirements.)  At surface 1,140' FNL & 1,650' FWL  At proposed prod. Zone same as surface Unit C		9. API Well No. 30-015-31327
14. Distance in miles and direction from nearest town or post office*		10. Field and Pool, or Exploratory Wildcat Empire, Penn
15. Distance from proposed* location to nearest property or lease line, ft. 1140 (Also to nearest drlg. Unit line, if any) same		11. Sec., T., R., M., or Blk. And Survey or Area Sec 19, T17S, R28E
16. No. of Acres in lease 325.75	17. Spacing Unit dedicated to this well W/2 320	12. County or Parish Eddy
18. Distance from proposed location* to nearest well, drilling, completed applied for, on this lease, ft. 50	19. Proposed Depth 10,300'	13. State NM
20. BLM/BIA Bond No. on file NM-2308	21. Elevations (Show whether DF, KDB, RT, GL, etc) GL3597	22. Approximate date work will start* 9/1/2000
23. Estimated duration 30 days	24. Attachments	

The following completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- |  |  |
|--|--|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)     |
| 2. A Drilling Plan.  | 5. Operator certification.   |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office) | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

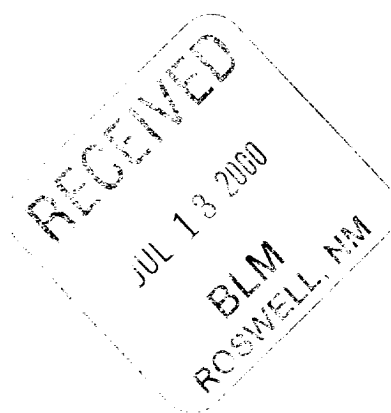
25. Signature 	Name (Printed/Typed) Mike Francis	Date 7/11/2000
Title Agent		
Approved by (Signature) 	Name (Printed/Typed) ARMANDO A. LINARES	Date 7/11/2000
Title Acting Assistant Field Manager, Lands And Minerals		
Office ARTESIA, NM		

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make 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.

\*(Instructions on reverse)



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 Department

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
Property Code	Property Name	Well Number
	Starbuck 19 FED. COM	1
OGRID No.	Operator Name	Elevation
7377	EOG Resources, Inc	3596

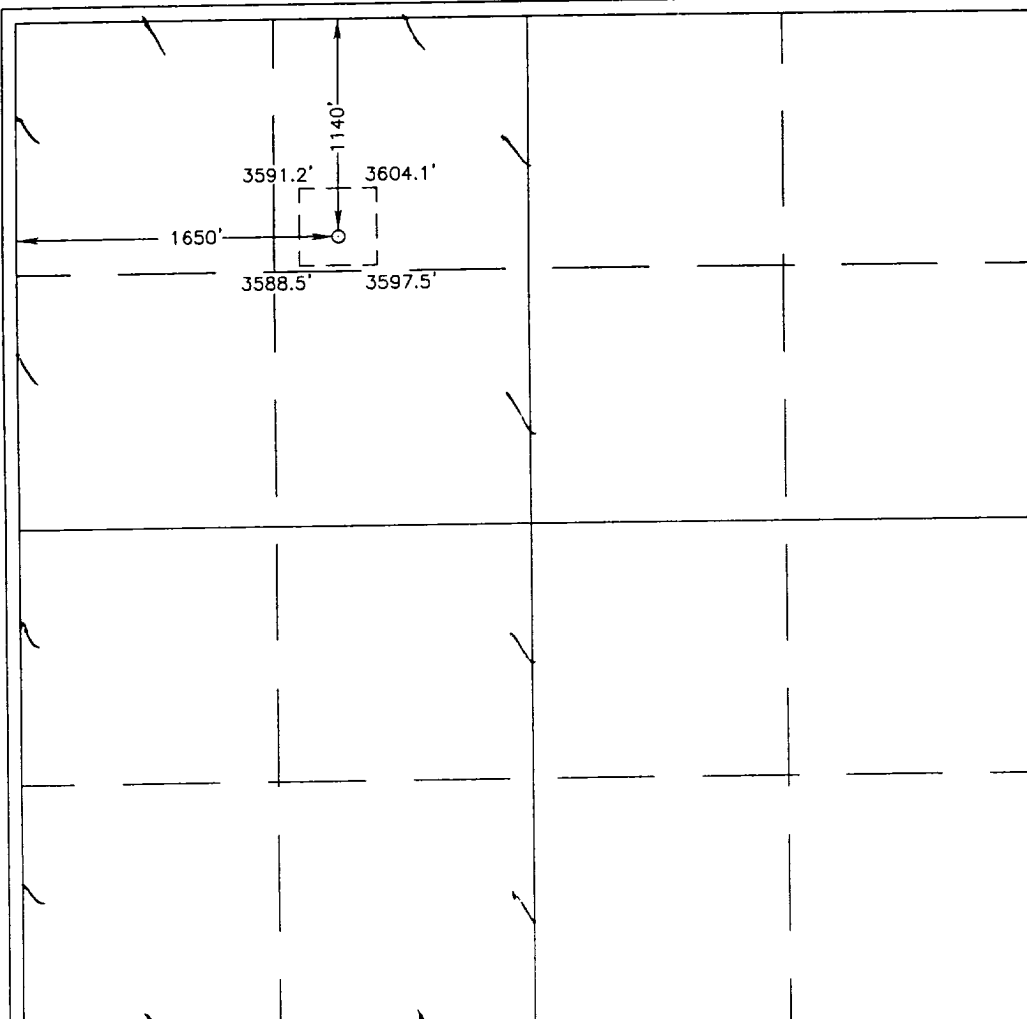
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	19	17 S	28 E		1140	NORTH	1650	WEST	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

	<h4>OPERATOR CERTIFICATION</h4> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Mike Francis</i> Signature</p> <p>Mike Francis Printed Name</p> <p>Agent Title</p> <p>7/12/00 Date</p> <h4>SURVEYOR CERTIFICATION</h4> <p>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.</p> <p>APRIL 11, 2000</p> <p>Date Surveyed DC</p> <p>Signature &amp; Seal of Professional Surveyor</p> <p><i>Ronald J. Eidson</i> 4/12/00 00-11-0463</p> <p>Certificate No. RONALD J. EIDSON 3239 GARY EIDSON 12641 MACON McDONALD 12185</p>
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## DRILLING PROGRAM

EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM

### 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

### 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Queen	1,025'
San Andres	1,780'
Abo	5,275'
Wolfcamp	6,350'
Atoka	9,175'
Morrow Clastics	9,500'
Chester	9,900'

### 3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	Above 300'	Fresh Water
Seven Rivers/Queen	550/1025	Oil
Grayburg/San Andres	1780'	Oil
Atoka	9175'	Gas
Morrow	9500'	Gas

### 4. CASING PROGRAM

Hole Size	Interval	OD Casing	Weight Grade Jt.	Cond. Type
14 3/4"	0-500'	11 3/4"	42# H-40 ST&C	<del>WITNESS</del>
11"	0-2800'	8 5/8"	32# J-55 LT&C	
7 7/8"	0-10100'	5 1/2"	17# N80/S95 L&TC	

#### Cementing Program:

11 3/4" Surface Casing:	Cement to surface with 200 sx Prem Plus, 3% Econolite, 25 Calcium Chloride, 0.25#/sx Flocele, 150 sx Prem Plus, 2% Calcium Chloride
8 5/8" Intermediate:	Cement to surface with 800 sx Interfill C, .25#/sx flocele, 250 sx Premium Plus, 2% Calcium Chloride
5 1/2" Production:	Cement w/930 sx Premium, 3% Econolite, 5#/sx Salt (3%), 0.2% HR5, .25#/sk Flocele, 250 sx Prem 50/50 Poz mix 'A', 2% Halliburton-Gel First 2%, 0.5% Halad-322. This is designed to bring TOC to 4500'.

## **DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

### **5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:**

(SEE EXHIBIT #1)

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram-type (5000 psi WP) preventer and an annular preventer (5000-psi WP). Units will be hydraulically operated and the ram-type will be equipped with blind rams on top and drill pipe rams on bottom. All BOP's and accessory equipment will be tested to 600 psi before drilling out of surface casing. Before drilling out of 1st intermediate casing, the ram-type BOP and accessory equipment will be tested to 5000/1000 psi and the annular to 3500/5000-psi pressure.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

### **6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:**

The well will be drilled to TD with a combination of brine, cut brine, and polymer/KCL mud system. The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Wt (PPG)</u>	<u>Viscosity (sec)</u>	<u>Waterloss (cc)</u>
0-500'	Fresh Water (spud)	8.5	40-45	N.C.
500'-2800'	Brine Water	10.0	30	N.C.
2800'- TD	Cut Brine + Polymer/KCL	8.8 - 9.2	32	10

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

### **7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:**

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) A mud logging unit complete with H<sub>2</sub>S detector will be continuously monitoring drilling penetration rate and hydrocarbon shows from 5000' to TD.

## **DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

### **8. LOGGING, TESTING AND CORING PROGRAM:**

Electric logging will consist of GR-Dual Induction Focused and GR-Compensated Density-Neutron from TD to intermediate casing with a GR-Compensated Neutron run from intermediate casing to surface and optional Sonic from TD to Intermediate casing.

Possible sidewall cores based on shows.

### **9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:**

The estimated bottom hole temperature (BHT) at TD is 175 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 5000 psig. 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 loss circulation zones have been reported in offsetting wells.

### **10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:**

The drilling operation should be finished in approximately one month. If the well is productive, an additional 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

## **DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

## **SURFACE USE AND OPERATIONS PLAN**

### **1. EXISTING ROADS:**

Access to location will be made as shown on Exhibit #2

Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

### **2. PROPOSED ACCESS ROAD:**

0' of new road is required.

No turnouts necessary.

No culverts, cattleguards, gates, low-water crossings are necessary.

Surfacing material consists of native caliche to be obtained from the nearest BLM-approved caliche pit. Any additional materials required will be purchased from the dirt contractor.

### **3. LOCATION OF EXISTING WELLS:**

Exhibit #3 shows all existing wells within a one-mile radius of this well.

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

There are no existing production facilities. If production is encountered, a temporary facility will be established on the drill pad, and if warranted, a production facility would be built at a later date in the immediate area of the drill pad location. If the well is productive, the flowline would also be located on the drill-pad site and no additional disturbance will occur.

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

Fresh water and brine water for drilling will come from commercial sources and transported to the well site over the roads as shown on Exhibit #2.

## **DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

### **6. PLANS FOR RESTORATION OF THE SURFACE:**

After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. Location will be cleaned of all trash and junk to leave the well in an aesthetically pleasing condition as possible.

Any unguarded pits containing fluid will be fenced until they are dry and back filled.

After abandonment of the well, surface restoration will be in accordance with current federal laws and regulations. Location will be cleaned, and the wellpad removed to promote vegetation and disposal of human waste will be complied with. Trash, waste paper, garbage and junk will be hauled to an approved disposal site in an enclosed trash trailer.

All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

### **ANCILLARY FACILITIES:**

No airstrip, campsite, or other facilities will be built.

### **WELL SITE LAYOUT:**

Exhibit #4 shows the relative location and dimensions of the well pad.



**DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

**OTHER INFORMATION:**

The area around the well site is grassland and the topsoil is duned and sandy. The vegetation is native scrub grasses with abundant oakbrush, sagebrush, yucca, and prickly pear.

**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 EOG Resources, Inc. and its contractors and sub-contractors in conformity with this plan and the terms and conditions under which it is approved.

W. Dewey Smeltzer  
Division Drilling Manager



Date: 7-12-00

## **DRILLING PROGRAM**

**EOG RESOURCES, INC.  
STARBUCK "19" FEDERAL COM NO. 1  
1,140' FNL & 1,650' FWL  
SEC. 19, T17S, R28E  
EDDY COUNTY, NM**

### **ATTACHMENT TO EXHIBIT #1**

1. Wear ring to be properly installed in head.
2. Blow out preventer and all fittings must be in good condition, 5000 psi W.P. minimum. Exhibit #1.
3. All fittings to be flanged
4. Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 5000 psi W.P. minimum.
5. All choke and fill lines to be securely anchored especially ends of choke lines.
6. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
7. Kelly cock on kelly.
8. Extension wrenches and hand wheels to be properly installed.
9. Blow out preventer control to be located as close to driller's position as feasible.
10. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.

EOG Resources, Inc.

Starbuck "19" Fed Com No. 1

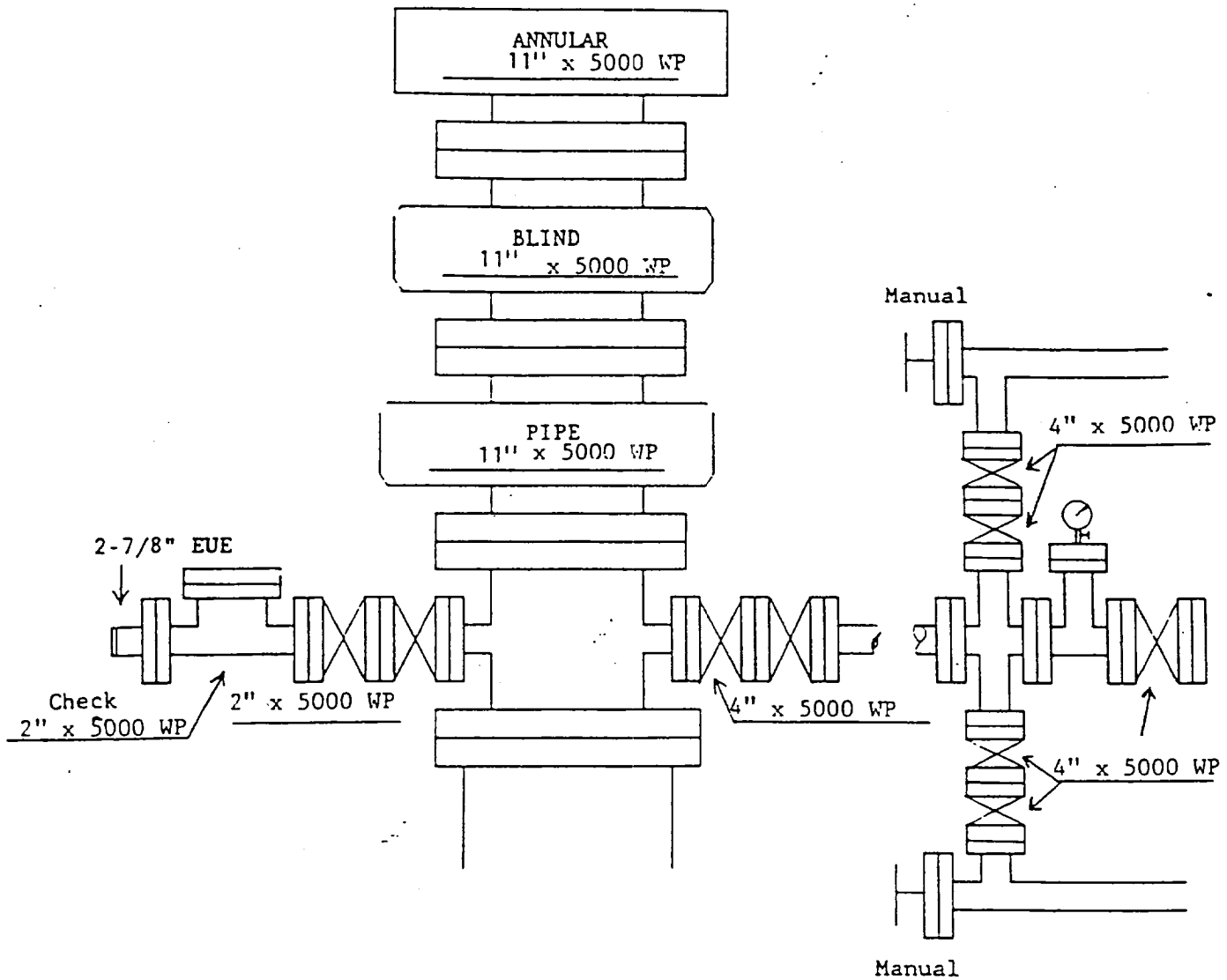
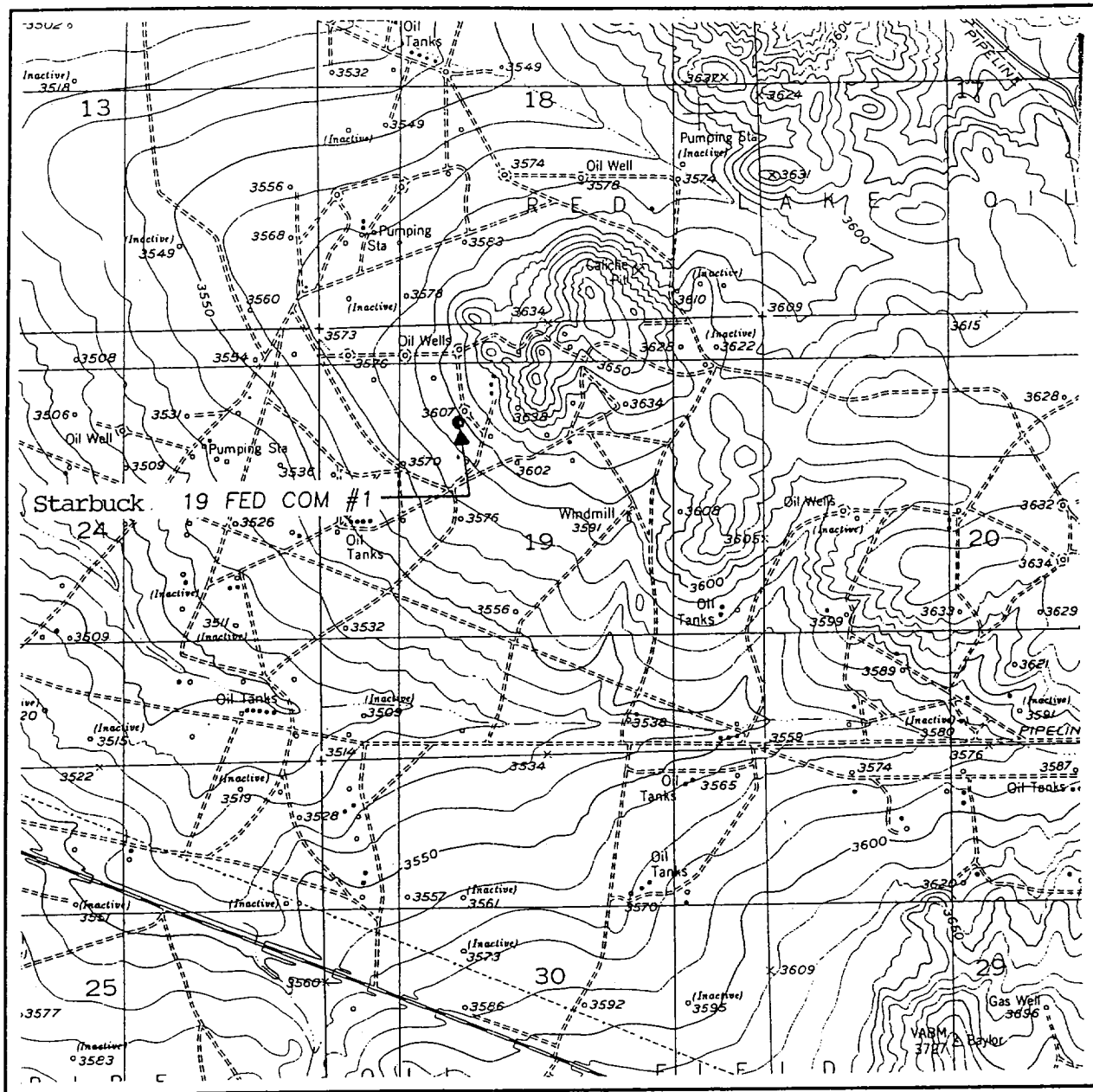


Exhibit 1

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
RED LAKE - 10'

SEC. 19 TWP. 17-S RGE. 28-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1140' FNL & 1650' FWL

ELEVATION 3596

OPERATOR EOG Resources, Inc.

LEASE MANDALAY 19 FED. COM

U.S.G.S. TOPOGRAPHIC MAP

RED LAKE, N.M.

JOHN WEST SURVEYING  
HOBBS, NEW MEXICO  
(505 393-3117)

Exhibit 2

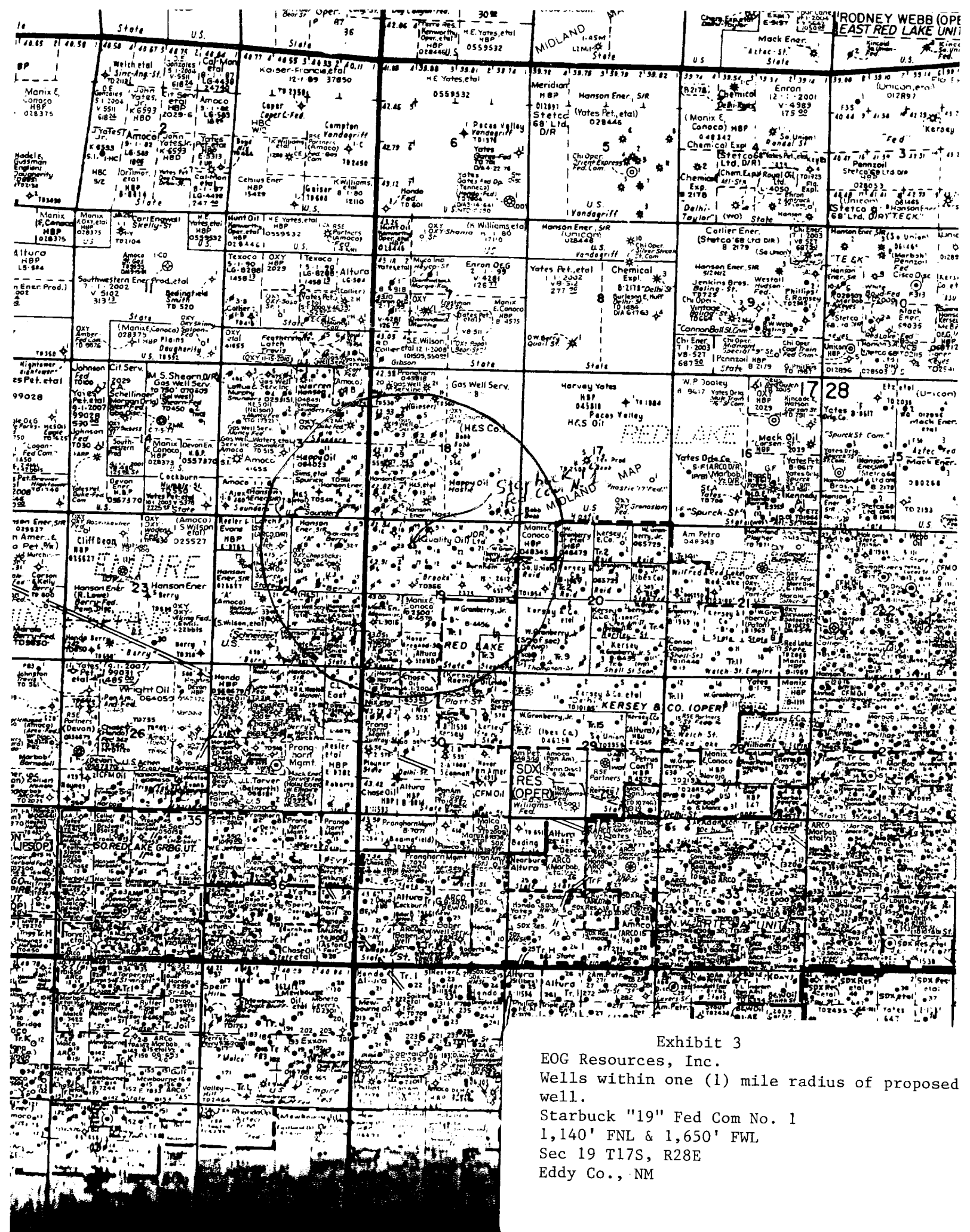
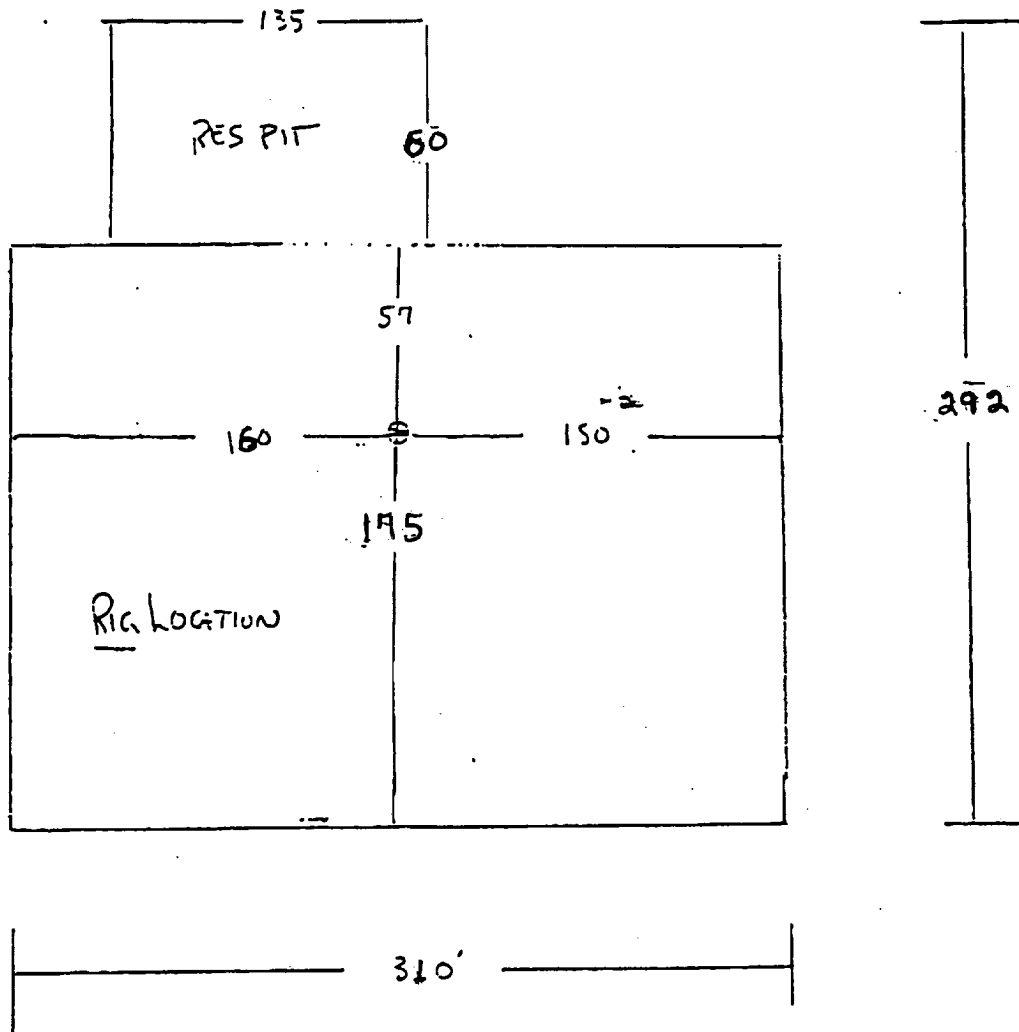


Exhibit 4



### Statement Accepting Responsibility For Operations

The undersigned accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof, as described below:


**Lease No.:** LC-050349(A)

**Legal Description:** Section 19, T17S, R28E  
Eddy Co., NM

**Formation(s):**

**Bond Coverage:** Individually with Endorsement to State of New Mexico

**BLM Bond File No.:** NM-2308

**Authorized Signature:**   
Mike Francis

**Title:** Agent

**Date:** 7/12/2000