

01

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

ARTESIA

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED
OCD - ARTESIA

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. LC-061465 (B)
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 Chi Operating, Inc		7. If Unit or CA Agreement, Name and No. 25499
3a. Address PO Box 1799 Midland, TX 79702		8. Lease Name and Well No. Iron Horse Federal Com. #1
3b. Phone No. (include area code) (915) 685-5001		9. API Well No. 30-015-31023
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 990' FSL & 660' FWL At proposed prod. zone Same Unit M		10. Field and Pool, or Exploratory WC Crow Flat; Morrow SE
14. Distance in miles and direction from nearest town or post office* 18 miles NE of Artesia, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 3-T17S-R28E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'	16. No. of Acres in lease 164.22	17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 10,250'	20. BLM/BIA Bond No. on file NM-1616
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3534'	22. Approximate date work will start* 03/15/00	23. Estimated duration 30 days
24. Attachments ROOSEVELT CONTROLLED WATER BASIN		

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 <i>George R. Smith</i>	Name (Printed/Typed) George R. Smith	Date 02/25/00
Title Agent for: Chi Operating, Inc.		
Approved by (Signature) <i>LARRY D. BRAY</i>	Name (Printed/Typed) LARRY D. BRAY	Date 02/25/00
Title Assistant Field Manager, Lands And Minerals		
Office LANDS AND MINERALS		

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)

Lease Responsibility Statement: Chi Operating, Inc. accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portion thereof.

George R. Smith
George R. Smith, agent

RECEIVED

2000 FEB 25 A 10: 02

BUREAU OF LAND MGMT.
ROSWELL OFFICE

District I

1625 N. French Dr., Hobbs, NM 88240

District II

811 South First, Artesia, NM 88210

District III

1888 Rio Brazos Rd., Aztec, NM 87410

District IV

2840 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural ResourcesOIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505Form C-102
Revised March 17, 1999Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code		Pool Name WC Crow Flat; Morrow SE Gas	
Property Code		Property Name IRON HORSE FEDERAL COM			Well Number 1
OGRID No.		Operator Name CHI OPERATING, INC.			Elevation 3534.

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	17-S	28-E		990	SOUTH	660	WEST	EDDY

11 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 320		Joint or Infill		Consolidation Code C		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: <i>George R. Smith</i> Printed Name: George R. Smith, agent Title: for Chi Operating, Inc. Date: Feb. 25, 2000	
					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 belief. FEBRUARY 19, 2000 Date of Sign Signature and Seal of Professional Engineer 5412 REGISTERED LAND SURVEYOR NEW MEXICO 5412	
	660'	990'	LC-061465(B) Burlington & Enron			

RIG #22

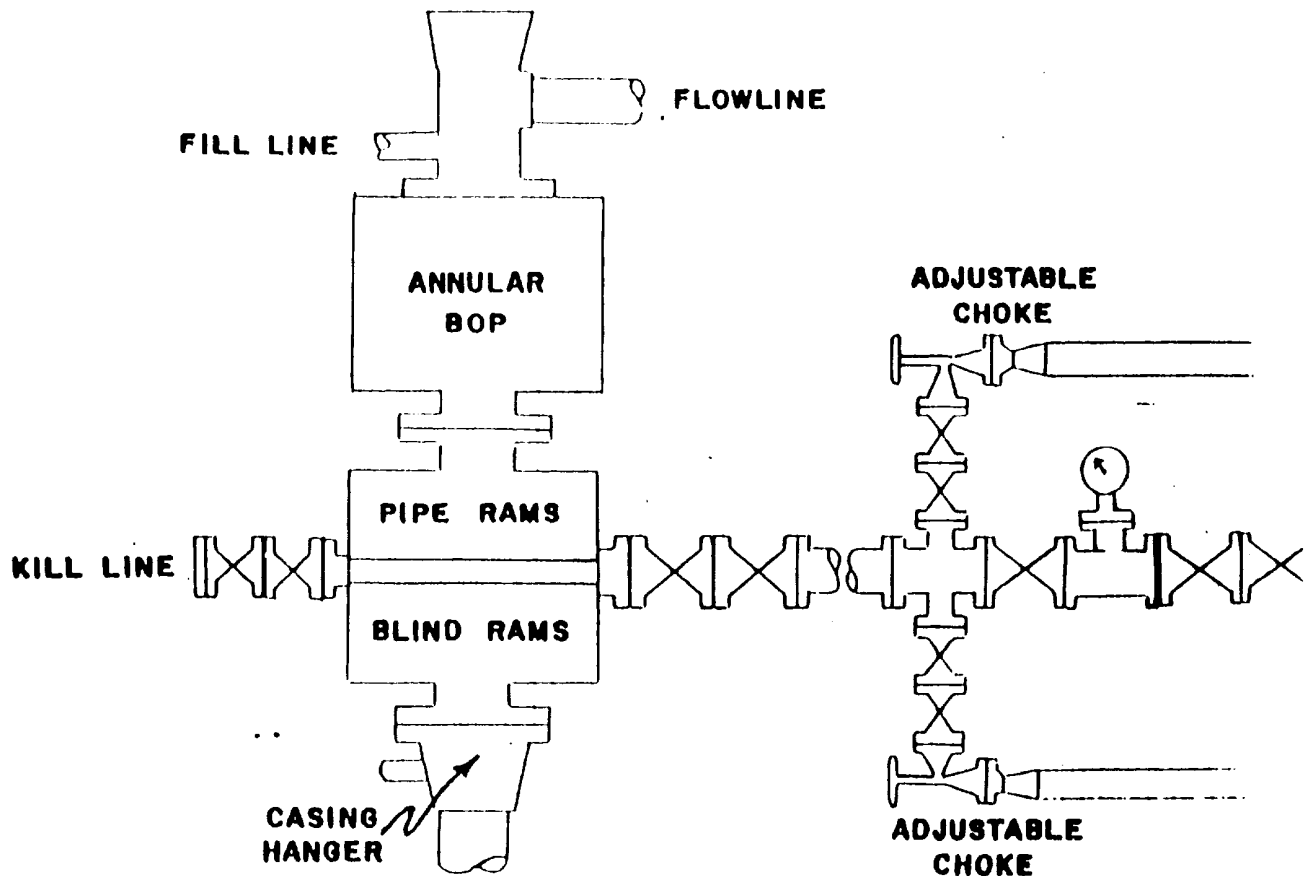
BLOWOUT PREVENTOR ARRANGEMENT

11" SHAFFER TYPE LWS, 5000 psi WP

11" CAMERON SPHERICAL, 5000 psi WP

120 GALLON, 5 STATION KOOMEY ACCUMULATOR

5000 psi WP CHOKE MANIFOLD



APPLICATION FOR DRILLING

CHI OPERATING, INC.

Iron Horse Federal Com., Well No. 1
990' FSL & 660' FWL, Sec. 3-T17S-R28E
Eddy County, New Mexico
Lease No.: LC-061465(B)
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Chi Operating, Inc. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

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

Greyburg	1750'	Atoka Morrow	9460'
San Andres	2000'	Morrow Clastic	9760'
Abo	5440'	Mississippian	9900'
Cisco	7850'	Chester	10,150'
Canyon	8420'	T.D.	10,250'
Strawn	8910'		

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

Water: Surface water between 100' - 300'.

Oil: Possible in the Cisco below 7850'.

Gas: Possible in the Grayburg below 1,750', Atoka below 9,460' and the Morrow below 9760'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	425'	Circ. 350 sx "C" WITNESS
12 1/4"	8 5/8 "	32.0#	J-55	ST&C	2,000'	Circ. 650 sx "C" cement.
7 7/8"	5 1/2"	15.3# 17	N-80	LT&C	10,250'	475 sx of "H" to 8,000'

5. Proposed Control Equipment: A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with 12 1/4" and will be tested daily. See Exhibit "E".

MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 425': Fresh water mud:	8.4 - 8.7 ppg	32 - 34	No W/L control
425' - 2000': Brine mud:	10.0 - 10.2 ppg	28 - 29	No W/L control
2000' - 6600': Fresh water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
6600' - 9100': Cut Brine mud:	9.6 - 10.0 ppg	28 - 29	No W/L control
9100' - 9500': Cut Brine mud:	9.6 - 10.0 ppg	32 - 36	W/L control 10 cc +/-
9500' - 10,250': Cut Brine mud:	9.6 - 10.0 ppg	42 - 48	W/L control 8 cc +/-

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, pit level monitor, flow sensors and stabbing valve.

8. Testing, Logging, and Coring Program:

Drill Stem Tests: Possible in the Strawn and Atoka.

Logging: T.D. to 6500': GR-CAL-CNL-LDT-DLL-MICRO

T.D. to Surface: GR-Neutron

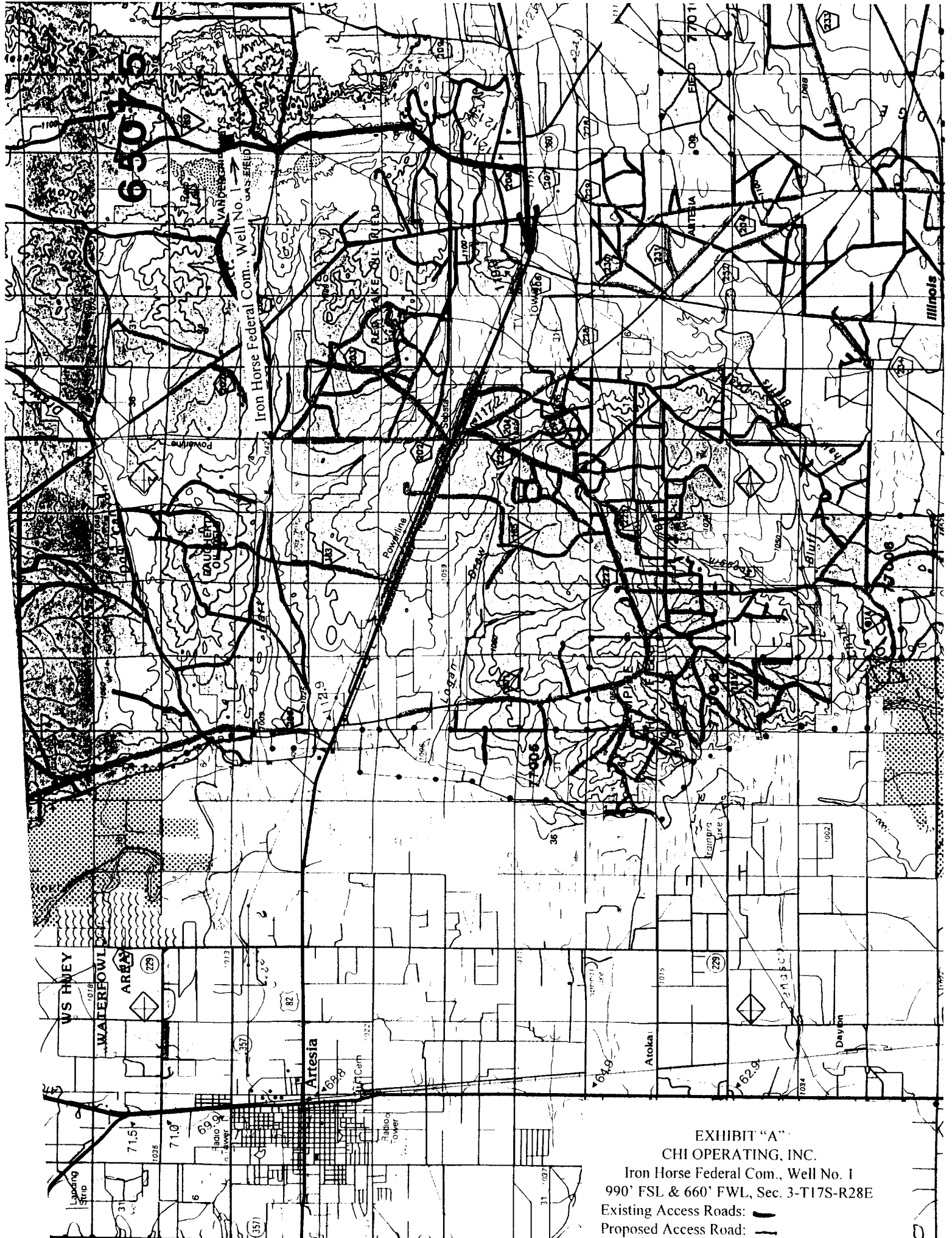


EXHIBIT "A"
CHI OPERATING, INC.
Iron Horse Federal Com., Well No. 1
990' FSL & 660' FWL, Sec. 3-T17S-R28E
Existing Access Roads: —
Proposed Access Road: —