

CISF

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC-064490
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. 4378		7. If Unit or CA Agreement, Name and No. 29050
3a. Address P.O. Box 1799 Midland, TX 79702	3b. Phone No. (include area code) (915) 685-5001	8. Lease Name and Well No. Paloma Federal Com., Well # 1
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1980' FSL & 660' FWL At proposed prod. zone same Unit L		9. API Well No. 30-015-32090
14. Distance in miles and direction from nearest town or post office* 3 road miles W. of Carlsbad, NM		10. Field and Pool, or Exploratory Undesignated Carlsbad Morrow S
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 1800	11. Sec., T., R., M., or Bk. and Survey or Area Sec. 10-T22S-R26E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease. N/A	19. Proposed Depth 11,900'	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3261' GL	22. Approximate date work will start* 8/15/01	13. State NM
23. Estimated duration 4 weeks		
24. Attachments <b>Carlsbad Controlled Water Basin</b>		

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 07/9/01
Title Agent for Chi Operating, Inc.		
Approved by (Signature) <i>/s/ Joe G. Lara</i>	Name (Printed Typed) /s/ JOE G. LARA	Date NOV 01 2001
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

Application approval does not warrant or certify that 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.

**APPROVAL FOR 1 YEAR**

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.

DECLARED WATER BASIN  
CEMENT BEHIND THE 1376  
CASING MUST BE **CIRCULATED**

DECLARED WATER BASIN  
CEMENT BEHIND THE 993  
CASING MUST BE **CIRCULATED**



*George R. Smith*  
George R. Smith, agent

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS AND  
SPECIAL STIPULATIONS  
ATTACHED**

RECEIVED

2001 JUL -9 PM 1:45

BUREAU OF LAND MGMT.  
ROSSELL OFFICE

18 JUL 2001

18 JUL 2001

District I  
1825 N. French Dr., Hobbs, NM 88240

District II  
811 South First, Artesia, NM 88210

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

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

Form C-102  
Revised March 17, 1999

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number		Pool Code	Pool Name Undesignated Carlsbad Morrow So.
Property Code	Property Name PALOMA FEDERAL COM		Well Number 1
OGRID No.	Operator Name CHI OPERATING INC.		Elevation 3261.

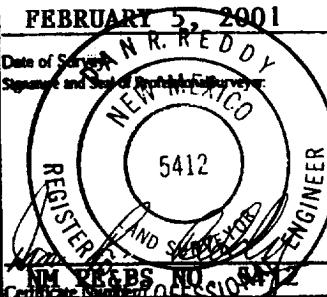
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	10	22-S	26-E		1980	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 In/In		Consolidation Code Com.		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					<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  <i>George R. Smith</i> Signature George R. Smith, agent for: Printed Name Chi Operating, Inc. Title July 9, 2001 Date	
	NMLC-064490				<b>18 SURVEYOR CERTIFICATION</b> 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 5, 2001 Date of Survey Signature and Seal of Registered Professional Engineer 	
	660'					

1980'

Form 3160-5  
(August 1999)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**FORM APPROVED  
OMR No. 1004-0113  
Expires November 30, 2000

5. Lease Serial No.

NMLC-064490

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Paloma Federal Com., Well No. 1

9. API Well No.

10. Field and Pool, or Exploratory Area

Undesig. Carlsbad Morrow South

11. County or Parish, State

Eddy

## 1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

## 2. Name of Operator

Chi Operating, Inc.

## 3a. Address

P.O. Box 1799 Midland, TX 79702

## 3b. Phone No. (Include area code)

915/685-5001

## 4. Location of Well (Footage, Sec., T. R., M., or Survey Description)

1980' FSL &amp; 660' FWL

Sec. 10-T22S-R26E

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

3. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Chi Operating, Inc. is proposing to change the proposed access road location of the Paloma Fed. Com., Well No. 1, as shown on the APD, from the original location starting on the southeast corner of the pad and running southwest; then west through Section 9. The new proposal is to start the proposed access road at the northeast corner of the pad and will run northwest for 1000 feet and then west through Federal surface in Section 9. A separate Right of Way Application has been submitted to cover the road and a pipeline parallel to the road. Archaeological Survey Consultants, P.O. Box D, Roswell, NM 88202, has conducted an archaeological survey and their report has been submitted to the appropriate government agencies. Everything else will remain the same as the original approved APD.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

George R. Smith

Title Agent for Chi Operating, Inc.

Signature

*George R. Smith*

Date September 24, 2001

Approved by (Signature)

/S/ JOE G. LARA

Name

JOE G. LARA

Title

FIELD MANAGER

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lands which would enable the applicant to conduct operations thereon.

Office

CARLSBAD FIELD OFFICE

Date

NOV 01 2001

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.

(Continued on next page)

Post-It Fax Note

7671

Date

9/24/01

# of

pages

2

To TIFFANY SULLIVAN

From

GEORGE R. SMITH

Co/Dept. BLM-ARCH

Co.

ENERGY ADM. SERV.

Phone # 234-5980

Phone #

505-623-4940

Fax # 1-505-885-9264

Fax #

1 1 1

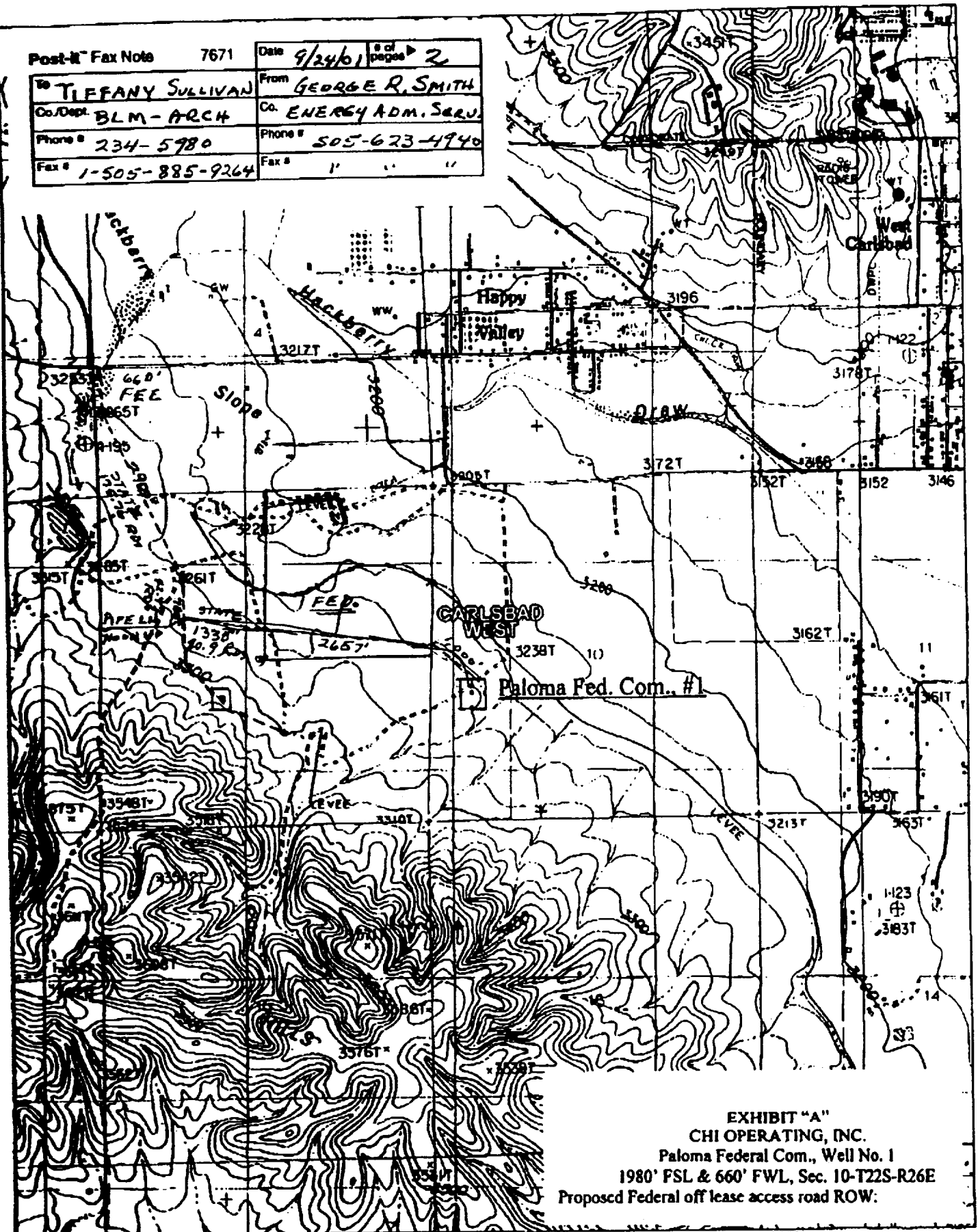


EXHIBIT "A"

CHI OPERATING, INC.

Paloma Federal Com., Well No. 1

1980' FSL &amp; 660' FWL, Sec. 10-T22S-R26E

Proposed Federal off lease access road ROW:

3-D TopoQuads Copyright © 1999 DeLorme, Yarmouth, ME 04096 Source Data: USGS

1:24,000 Scale: 1:24,000 Detail: 1:24,000 Datum: WGS84

NEW Rd.  
+ P.L.U.

STATE = 4936 = (1,395' NEW + 3600' EXISTING GOOD ROAD)

BLM = 3657' - NEW ROAD

## APPLICATION FOR DRILLING

**CHI OPERATING, INC.**  
Paloma Federal Com., Well No. 1  
1980' FSL & 660' FWL, Sec. 10-T22S-R26E  
Eddy County, New Mexico  
Lease No.: LC-064490  
(Exploratory 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:

Delaware	1930'	Strawn	9910'
Cherry Canyon	2240'	Atoka	10,316'
Bone Spring	4814'	Lower Atoka	10,550'
1st sand	5950'	Morrow Clastic	10,970'
2nd sand	6650'	Lower Morrow	11,320'
3rd sand	8080'	T.D.	11,900'
Wolfcamp	8620'		

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

Water: Surface water between 100' - 1400'.

Oil: Possible in the Delaware below 2200'.

Gas: Possible in the Bone Spring below 5450' Wolfcamp, Strawn, Atoka and the Morrow below 11,000'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	54.5#	J-55	ST&C	500'	Circ. 400 sx "C" to surface.
12 1/4"	9 5/8 "	36.0#	K-55	ST&C	1,900'	Circ. 900 sx "C" to surface.
8 3/4"					9,000'	At 9,000 feet reduce hole size to: **
7 7/8"	5 1/2"	17.0#	N-80	LT&C	11,900'	500 sx of "H" to 500' above top prod zone

\*\*Note: If any problems occur drilling through the Wolfcamp the following casing program will be used:

8 3/4"	7"	26.0#	J-55	ST&C	9,000'	1000 sx "C" back to 1700'.
6 1/4"	4 1/2"	11.6 & 13.5#	N-80	ST&C	11,900'	400+ sx "H" back to 8800'

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 to maximum estimated surface pressures of 2618 psi, as per Onshore Oil & Gas Order #2, before drilling out with 7 7/8" and will be tested weekly. See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 500': Fresh water mud:	8.4 - 8.7 ppg	31 - 34	No W/L control
500' - 1900': Fresh water mud	8.4 - 8.5 ppg	28 - 38	No W/L control
1900' - 7500': Fresh water mud:	8.4 - 8.6 ppg	28 - 29	No W/L control
7500' - 9000': Cut Brine mud:	9.2 - 9.6 ppg	29 - 32	W/L control 18 cc +/-
9000' - 9900': Brine mud:	10.0 - 10.2 ppg	29 - 32	No W/L control
9900' - 11,900': Brine Mud	10.0 - 10.8 ppg	40 - 44	W/L control 8 cc +/-

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, and stabbing valve.

**Chi Operating, Inc.**

Paloma Federal Com., Well No. 1

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: As deemed necessary in Strawn, Wolfcamp, and Morrow

Logging: T.D.to1900': GR-CAL-CNL-LDT-CNL-MICRO

1900' to surface: GR/Neutron

Coring: Sidewall coring as dictated for the Morrow.

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated evacuated BHP = 5236 psi and estimated surface pressure of 2618 psi with a temperature of 173°.

10. H<sub>2</sub>S: None expected.

11. Anticipated starting date: September 1, 2001.

Anticipated completion of drilling operations: Approximately 30 - 40 days.

## **MULTI POINT SURFACE USE AND OPERATIONS PLAN**

**CHI OPERATING, INC.**  
Paloma Federal Com., Well No. 1  
1980' FSL & 660' FWL, Sec. 10-T22S-R26E  
Eddy County, New Mexico  
Lease No.: LC-064490  
(Exploratory Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan to be followed in rehabilitating the surface and environmental effects associated with the operations.

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

- A. Exhibit "A" is a portion of a BLM Topo map showing the location of the proposed well as staked. The well site location is approximately 4 road miles west of Carlsbad, NM. Traveling west of Carlsbad truck bypass and Happy Valley on Jones Rd. (Cnty Rd. # 427) there will be approximately 1.8 miles of paved County Rd. #427 and 2 miles of gravel ranch/oilfield road.
- B. Directions: Travel west of the west truck bypass in Carlsbad (Happy Valley) on Jones Rd. (Cnty Rd. # 427) for 1.8 miles to an El Paso Natural Gas Pipeline and gravel road on the south. Turn south through two gates for 1.1 miles to a P/A well site. Continue east and then northeast for 1 mile to the southeast corner of the proposed well site.

### **2. PLANNED ACCESS ROAD:**

- A. Length and Width: The proposed access roads will be approximately 600 feet long. The proposed and existing roads are color coded on Exhibits "A" and "B". The existing gravel ranch road will be by passed around the east side of the well pad.
- B. Construction: The existing access road will be repaired by grading and topping with compacted caliche. The surface will be properly drained.
- C. Turnouts: There will be at least 6 to 8 turnouts, as needed, increasing the width to 20 feet for passing.
- D. Culverts: None.
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: No new gates or cattle guards required. Existing cattle guards may be raised and repaired.
- G. Off lease right of way: No Federal Right of Way will be required.

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

- A. Existing wells within a two mile radius are shown on Exhibit "C".

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

- A. Chi Operating, Inc. has no production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities, gas separation-process equipment and tank battery, if required, will be installed on the drilling pad.



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

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads

**6. SOURCE OF CONSTRUCTION MATERIALS:**

- A. Caliche for surfacing the proposed access road and well site pad will be obtained from the location. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

**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. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.

**8. ANCILLARY FACILITIES:**

- A. None required.

**9. WELL SITE LAYOUT:**

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components. The pad and pit area has been staked and flagged, 400' X 400'.
- B. Mat Size: 250' X 175', plus 110' X 100' reserve pits on the West.
- C. Cut & Fill: The location will require a 2 – 3 foot cut on the southwest with fill to the northeast.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

**10. PLANS FOR RESTORATION OF THE SURFACE:**

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to be worked.

**11. OTHER INFORMATION:**

- A. Topography: The proposed well site and access road are located on a 3-4% slope to the northeast on the northeast lower slope of The Hackberry Hills and 900' southwest of the Hackberry Watershed Levee. The location has an elevation of 3264' GL.
- B. Soil: The topsoil at the well site is a moderately dark colored, calcareous, gravelly, very shallow soil with hard fractured caliche at a depth of one foot. The location has heavy weathered bedrock, which may require some blasting. The soil is part of the Upton Gravelly soil series.
- C. Flora and Fauna: The vegetation cover has a poor grass, with the primary cover being plants of mesquite, yucca, broomweed, sage, Javelina bush, creosote bush, cedar, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, deer, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None except intermittent running draws and canyons when it rains and the canal south of the levee, which is approximately 900 feet northeast of the well...
- E. Residences and Other Structures: None in the immediate vicinity, but Happy Valley is one mile to the north.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and part of the access road is on Federal surface and minerals.
- H. There is no evidence of archaeological, historical or cultural sites in the staked area. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, are conducting an archaeological survey and their report will be submitted to the appropriate government agencies.

**12. OPERATOR'S REPRESENTATIVE:**


- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

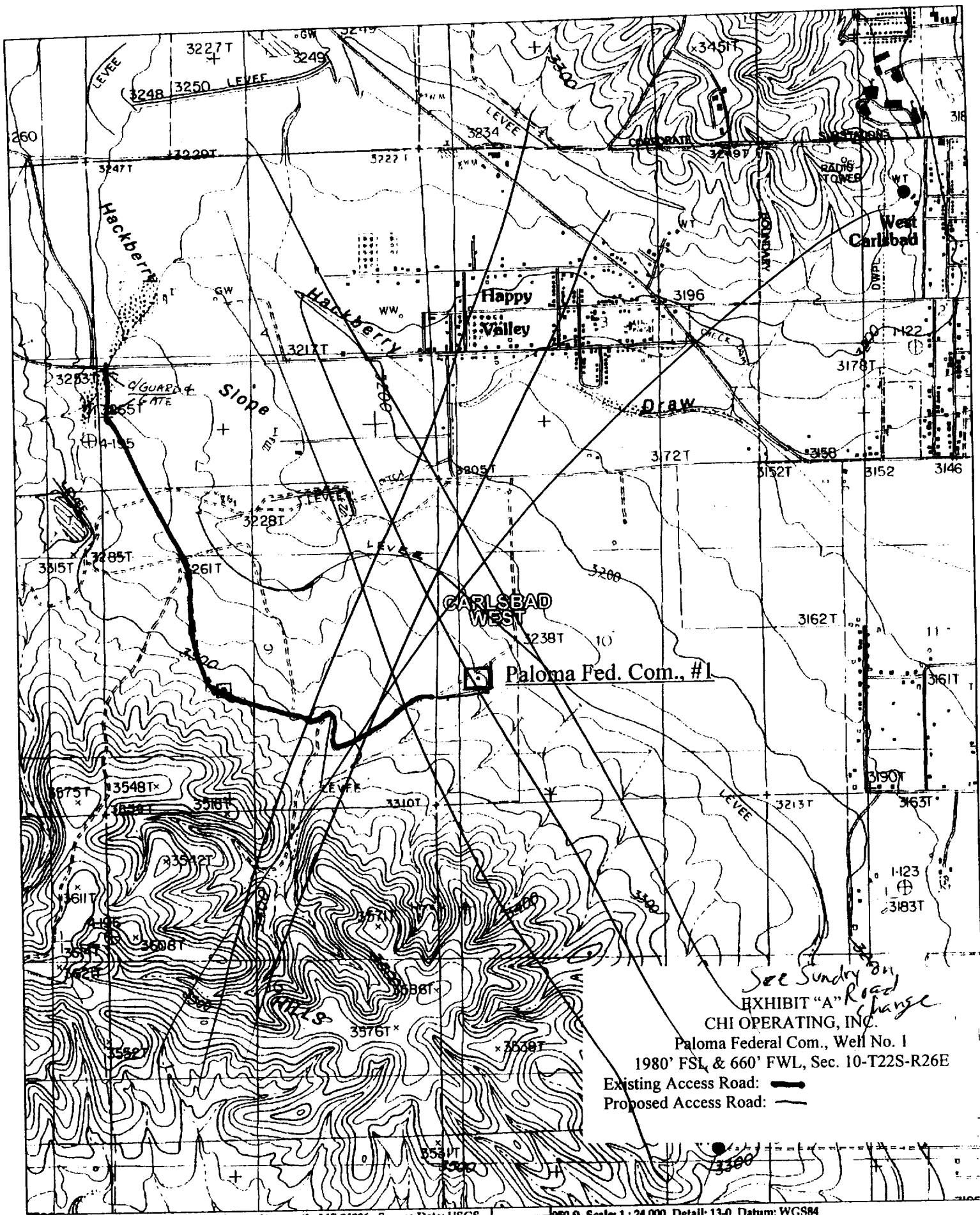
John Qualls  
Chi Operating, Inc.  
P. O. Box 1799  
Midland, Texas 79701  
Office Phone: (915) 685-5001  
Home Phone: (915) 684-8825

**13. CERTIFICATION:**

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the 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 Chi Operating, Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

July 9, 2001

  
George R. Smith  
Agent for: Chi Operating, Inc.



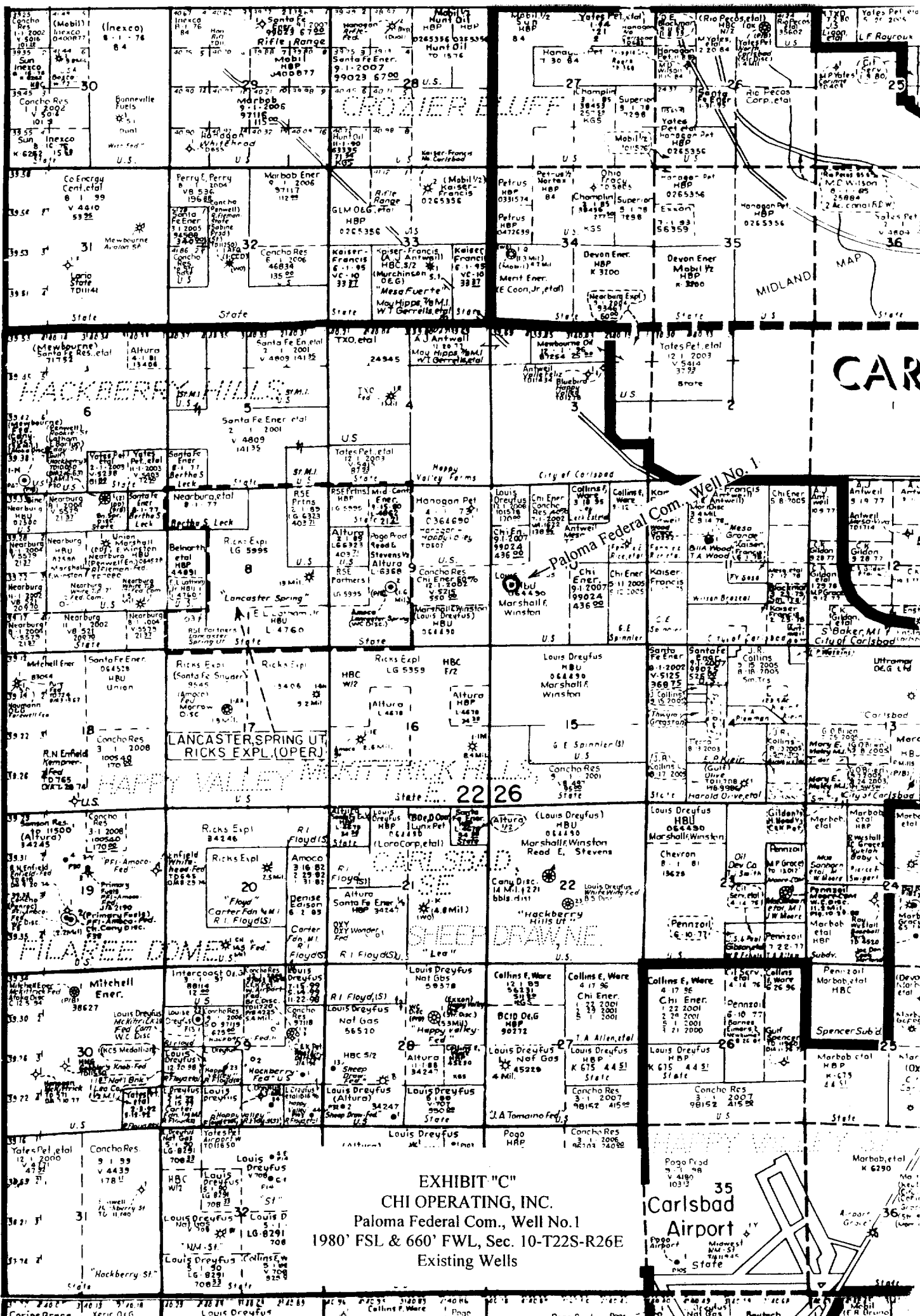
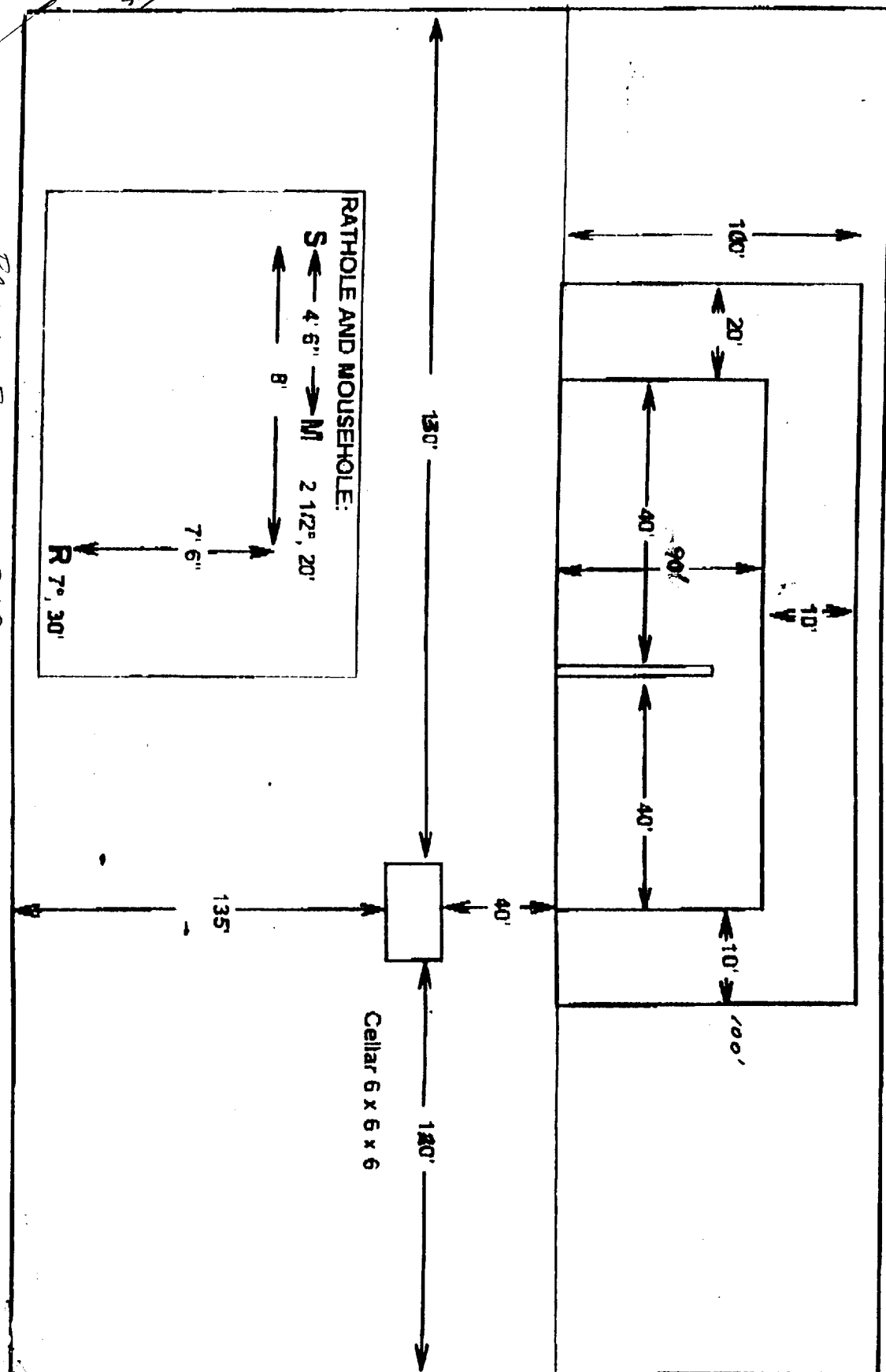


EXHIBIT "C"  
CHI OPERATING, INC.  
Paloma Federal Com., Well No.1  
1980' FSL & 660' FWL, Sec. 10-T22S-R26E  
Existing Wells

Carlsbad  
Airport

# TMBR/Sharp Rig #22

110'



REV 2/1/56

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

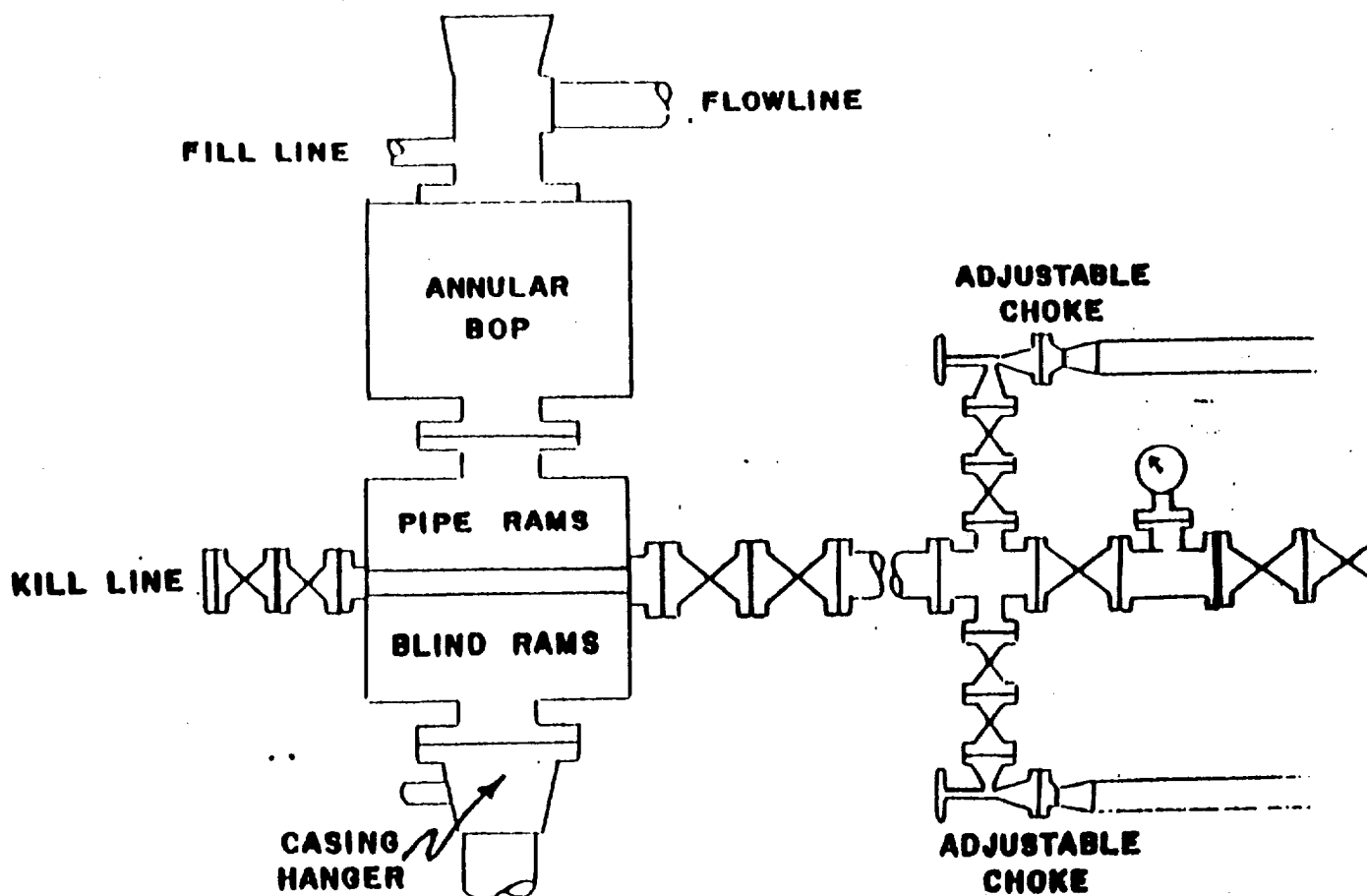


EXHIBIT "E"  
CHI OPERATING, INC.  
Paloma Federal Com., Well No. 1  
BOP Specifications