

Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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. NM-04712	
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. 20788	
3a. Address P.O. Box 1799 Midland, TX 79702		8. Lease Name and Well No. Aspen Federal Com., Well No. 1	
3b. Phone No. (include area code) (915) 685-5001		9. API Well No. 30-015-31656	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 660' FNL & 1980' FWL At proposed prod. zone same		10. Field and Pool, or Exploratory Wildcat Morrow	
14. Distance in miles and direction from nearest town or post office* 6 road miles NW of Loco Hills, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec. 31-T16S-R30E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 660'		12. County or Parish Eddy	
16. No. of Acres in lease 160		13. State NM	
17. Spacing Unit dedicated to this well 300 306.84			
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'		20. BLM/BIA Bond No. on file NM-1616	
19. Proposed Depth 11,000'		21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3711' GL	
22. Approximate date work will start* Feb. 10, 2001		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 <i>George R. Smith</i>	Name (Printed Typed) George R. Smith	Date 01/19/01
Title Agent for Chi Operating, Inc.		
Approved by (Signature) <i>/s/ LESLIE A. THOMAS</i>	Name (Printed Typed) LESLIE A. THOMAS	Date MAR 2001
Title 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.

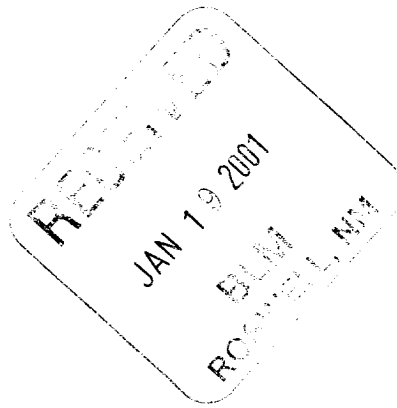
Conditions of approval, if any, are attached.

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



District I
1625 N. French Dr., Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 Rio Brazos Rd., Aztec, NM 87418

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 Morrow	
Property Code		Property Name ASPEN FEDERAL COM			Well Number 1
OGRID No.		Operator Name CHI OPERATING, INC.			Elevation 3711.

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
C	31	16-S	30-E		660	NORTH	1980	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 20	Joint or Infill	Consolidation Code Com	Order No.
-----------------------	-----------------	---------------------------	-----------

306.84

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

<p>36.63</p> <p>1980'</p> <p>NM-04712 → 40</p>				<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>George R. Smith</i></p> <p>Signature George R. Smith agent for:</p> <p>Printed Name Chi Operating, Inc.</p> <p>Title February 19, 2001</p> <p>Date</p>	
<p>36.68</p> <p>40</p>				<p>18 SURVEYOR CERTIFICATION</p> <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>DECEMBER 20, 2000</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><i>NR REDDY</i></p> <p>REGISTERED PROFESSIONAL SURVEYOR</p> <p>NO. 5412</p> <p>NEW MEXICO</p>	
<p>36.74</p> <p>40</p>					
<p>36.79</p> <p>40</p>					

APPLICATION FOR DRILLING

CHI OPERATING, INC.

Aspen Federal Com., Well No. 1
660' FNL & 1980' FWL, Sec. 31-T16S-R30E
Eddy County, New Mexico
Lease No.: NM-04712
(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:

Yates	1200'	Strawn	9980'
Queen	2000'	Atoka	10,300'
San Andres	2800'	Morrow Clastic	10,700'
Tubb	5500'	Mississippi Uncon.	10,870'
Wolfcamp	7600'	T.D.	11,000'
Upper Penn	8750'		

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 Upper Penn or Cisco below 8750'.

Gas: Possible in the Atoka below 10,300' and the Morrow below 10,700'.

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	450'	Circ. 450 sx "C"
11"	8 5/8"	32.0#	J-55	ST&C	2,900'	Circ. 850 sx "C" cement.
7 7/8"	5 1/2"	17.0#	N-80	LT&C	11,000'	675 sx of Super "C"

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 11" and will be tested daily. See Exhibit "E".

6. MUD PROGRAM:

	MUD WEIGHT	VIS.	W/L CONTROL
0' - 450': Fresh water mud:	8.4 - 8.7 ppg	32 - 36	No W/L control
450' - 2900': Brine mud:	10.0 - 10.2 ppg	29 - 30	No W/L control
2900' - 7500': Fresh water mud:	8.4 - 8.7 ppg	28 - 29	No W/L control
7500' - 8700': Cut Brine mud:	9.0 - 9.2 ppg	28 - 29	No W/L control
8700' - 10,600': Brine (starch) mud:	10.0 - 10.1 ppg	30 - 32	W/L control 15 cc +/-
10,600' - 11,000': Brine (XCD/etc)	10.0 - 10.2 ppg	36 - 42	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: As deemed necessary.

Logging: T.D. to 2900': (GR-CAL-CNL-LDT)(GR-CAL-DLL-MICRO)(FMI)
2900' to Surface: GR/NDL (if not previously logged.)

Coring: As dictated by logs.

Chi Operating, Inc.
Aspen Federal Com., Well No. 1
Page 2

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 = 4400 with a temperature of 170°.

10. H₂S: None expected.

11. Anticipated starting date: February 10, 2001.
Anticipated completion of drilling operations: Approximately 30 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC.
Aspen Federal Com., Well No. 1
660' FNL & 1980' FWL, Sec. 31-T16S-R30E
Eddy County, New Mexico
Lease No.: LC-04712
(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 minerals map showing the location of the proposed well as staked. The well site location is approximately 6 road miles northwest of Loco Hills, NM. Traveling east of Artesia, NM on U.S. Highway 82, there will be approximately 22 miles of paved highway and 5 miles of gravel County Roads #215 and 257.
- B. Directions: Travel east of Artesia, NM on U.S. Highway 82 for approximately 22 miles to County Rd# 215 (Kewanee Rd.). Turn north on #215 for 3.5 miles to County Rd. # 257 on the east. Take #257 east for 1.3 miles to the L & M Fed. "E" #2 pump jack on the north side of the road. Turn north at this well and continue past a tank battery and several injection wells to a two- track road north. This road will take you to the proposed location.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed upgraded access road will be approximately 1200 feet long. The proposed and existing roads are color coded on Exhibits "A" and "B".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche. The surface will be properly drained. An existing surface water pipeline runs on the west side of the access road in places and will either be moved away from the road or the road will be widened to clear the pipeline.
- C. Turnouts: There may be one turnout at midsection of the road, increasing the width to 20 feet for passing.
- D. Culverts: None.
- E. Cuts and Fills: None required, except leveling small dunes on each side of the two-track road.
- F. Gates, Cattle guards: None required.
- G. Off lease right of way: None required.

3. LOCATION OF EXISTING WELLS:

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

Chi Operating, Inc.

Aspen Federal Com., Well No. 1

Page 2

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, if available, or will use a State pit in NE4 Sec. 2-T17S-R28E. 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 landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

Chi Operating, Inc.

Aspen Federal Com., Well No. 1

Page 3

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 North.
- C. Cut & Fill: The location will require a 1.5-2 foot cut on the north with fill to the south.
- 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 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 northwest of Loco Hills on a slight .7% slope to the southwest from an elevation of 3711' GL. The area has 2 – 4 foot sand dunes and basins.
- B. Soil: The topsoil at the well site is a reddish brown sandy loam with a surface scatter of caliche rock and some exposed outcrops of caliche, possibly indicating underlying caliche material. The soil is part of the Berino complex with areas of eroded surface.
- C. Flora and Fauna: The vegetation cover has a poor grass stand consisting of three-awn, fluff grass and other miscellaneous grasses along with plants of mesquite, yucca, broomweed, shinnery oak brush, 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.
- E. Residences and Other Structures: None in the immediate vicinity except oil field facilities.
- F. Land Use: Cattle grazing.

Chi Operating, Inc.

Aspen Federal Com., Well No. 1

Page 4

11. OTHER INFORMATION: cont.....

- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is no visible 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:

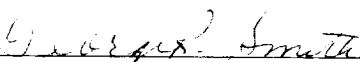
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

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.

January 18, 2001



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

R 28 E Example Township With Section Number

R 29 E

600,000 FEET (EAST)

104°00' 33'00" T 15 S









PUBLIC ACCESS ED (WITH INFORMATION ON BLM RESOUR)

Artesia NEW MEXICO



1990

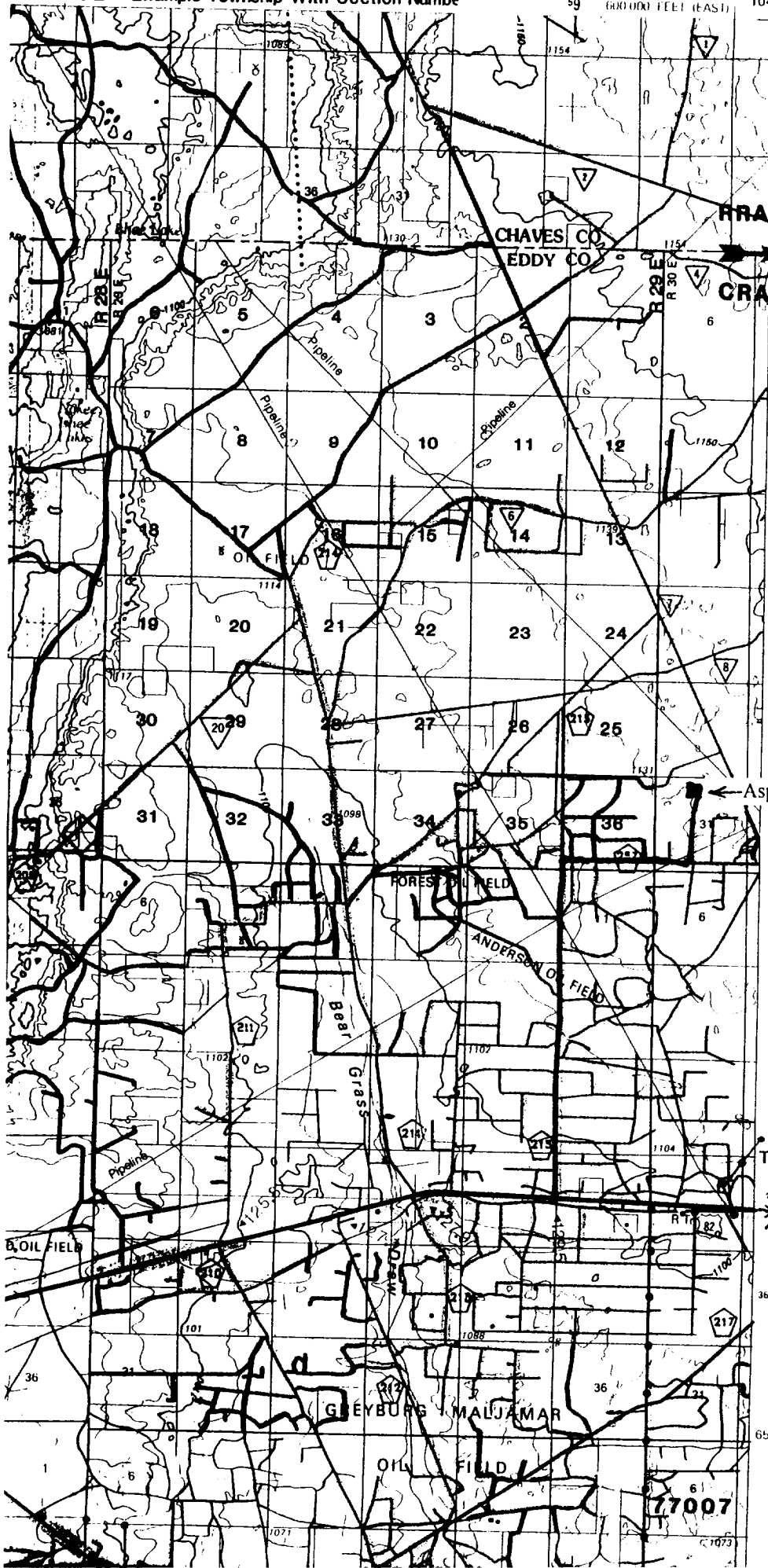
BUREAU OF LAND MANAGEMENT (B

LAND STATUS LEGEND

Public Lands (Administered By Bureau of Land Management)	
State Lands	
National Forest	
Bureau of Reclamation	
Aspen Federal Com., Well No. 1 (te) Lands	
Public Water Reserves	
Bankhead-Jones Lands (Admin. by BLM)	
State Park/Wildlife Area	

Welcome to your public lands in New Mexico. We hope this second Artesia Public Access Edition map will "use, share, appreciate," and enjoy from accessible oil fields in the east foothills of the Guadalupe Mountain. These lands contain a variety of re. If you have questions about this assistance from BLM, please contact offices for help.

EXHIBIT "A"
CHI OPERATING, INC.
Aspen Federal Com., Well No. 1
660' FNL & 1980' FWL, Sec. 31-T16S-R30E
Existing Access Roads: 
Proposed Access Road: 



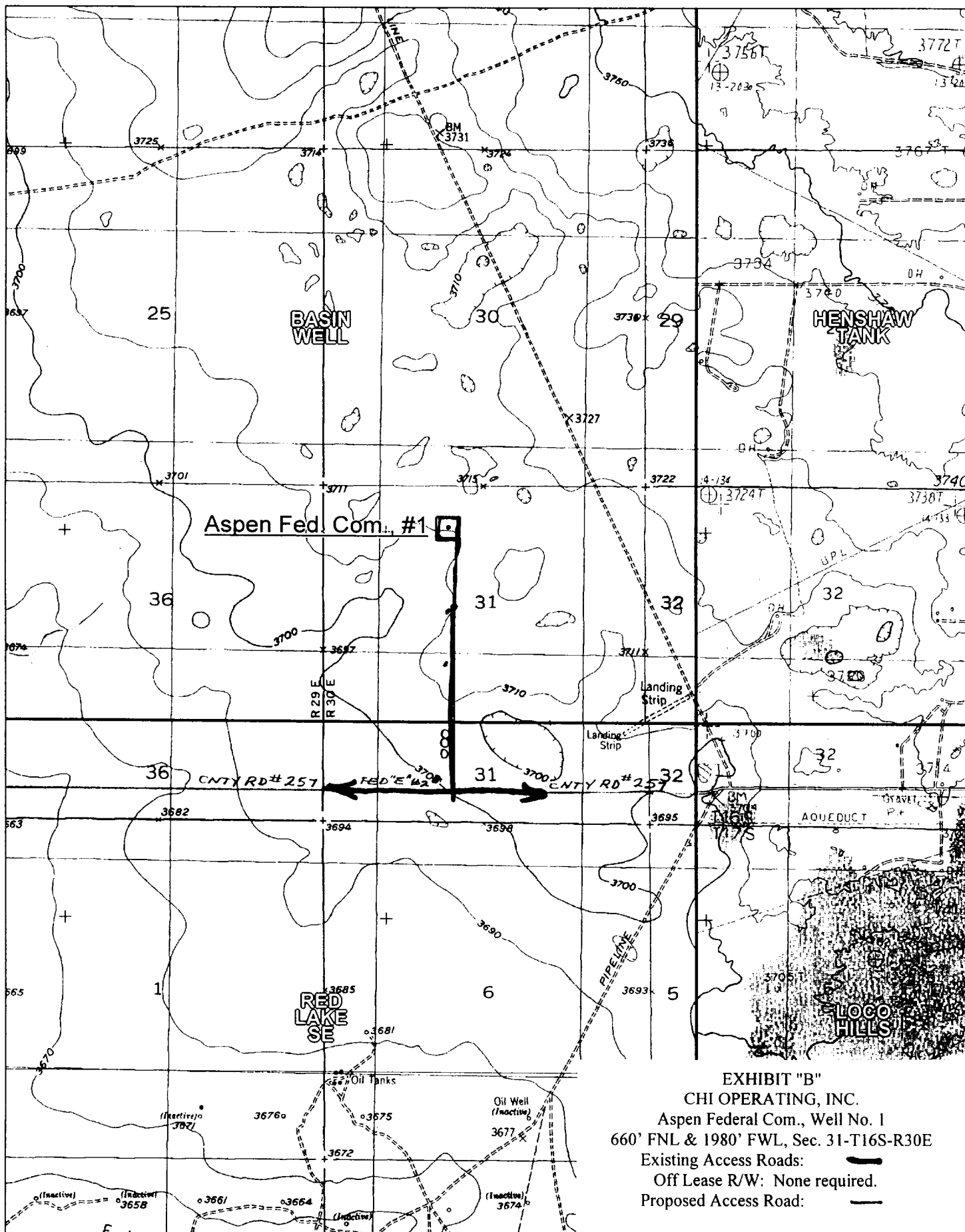


EXHIBIT "B"
 CHI OPERATING, INC.
 Aspen Federal Com., Well No. 1
 660' FNL & 1980' FWL, Sec. 31-T16S-R30E
 Existing Access Roads:
 Off Lease R/W: None required.
 Proposed Access Road:

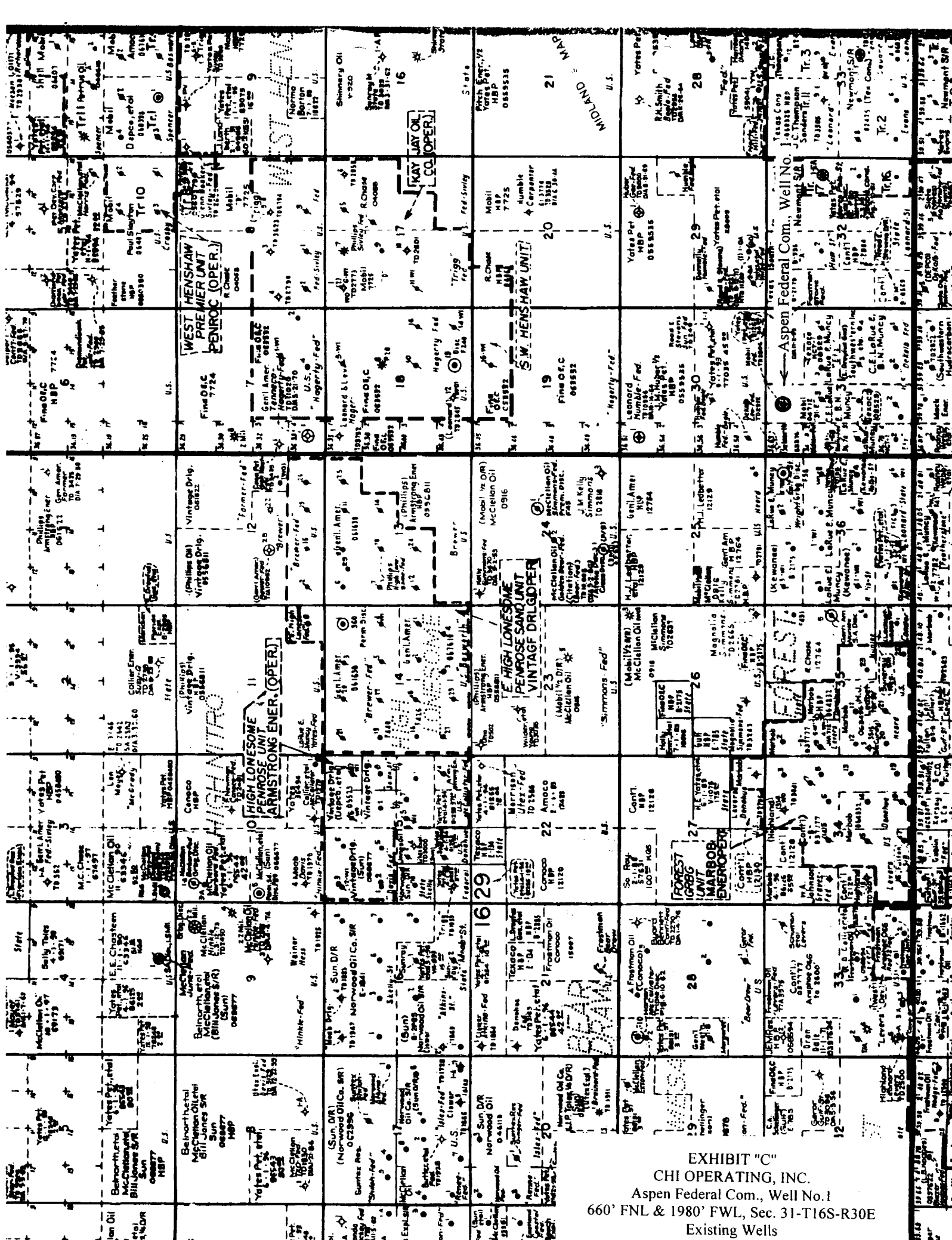
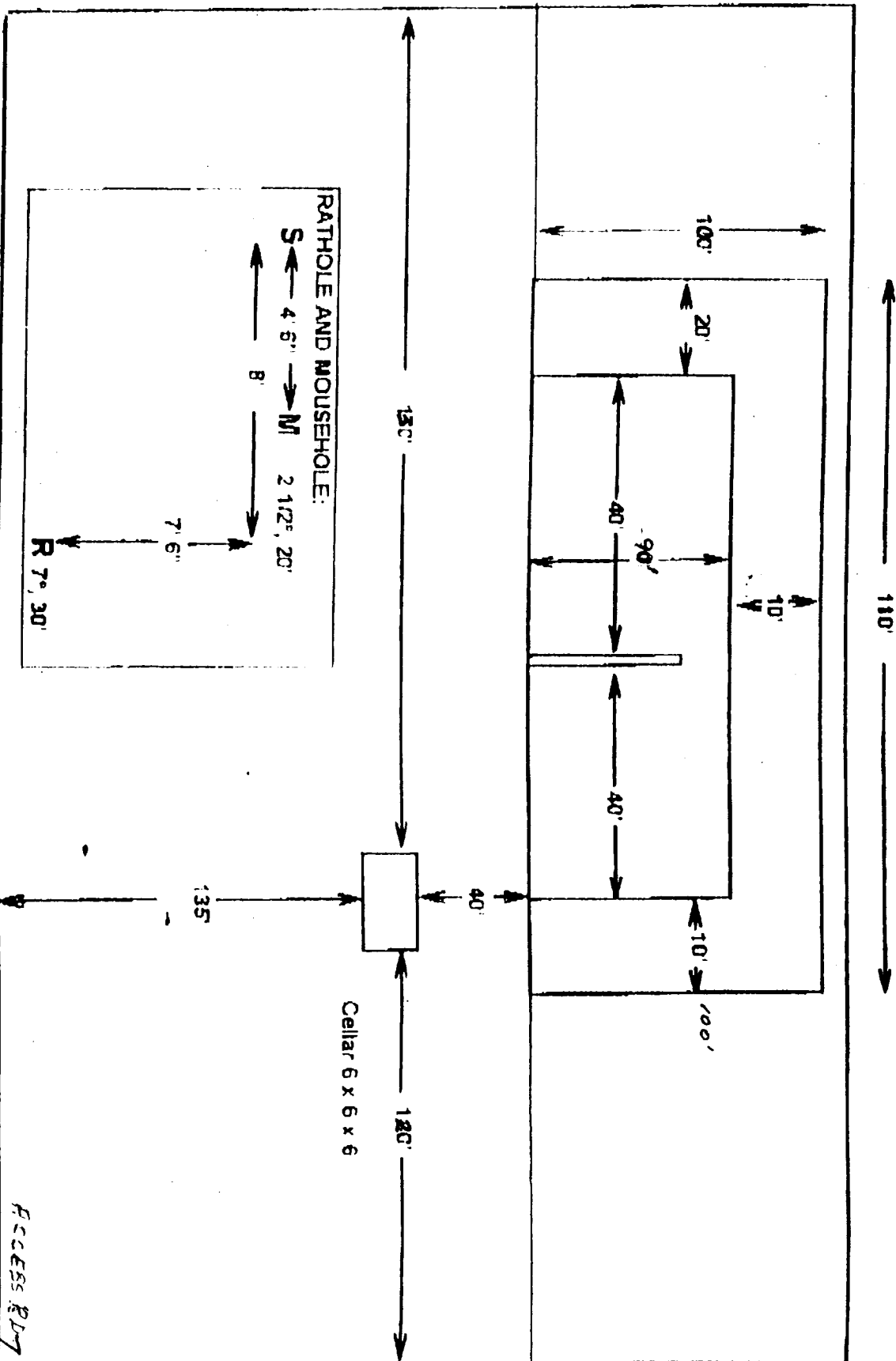


EXHIBIT "C"
CHI OPERATING, INC.
Aspen Federal Com., Well No.1
660' FNL & 1980' FWL, Sec. 31-T16S-R30E
Existing Wells

TMBR/Sharp Rig #22



REV 2/7/95



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

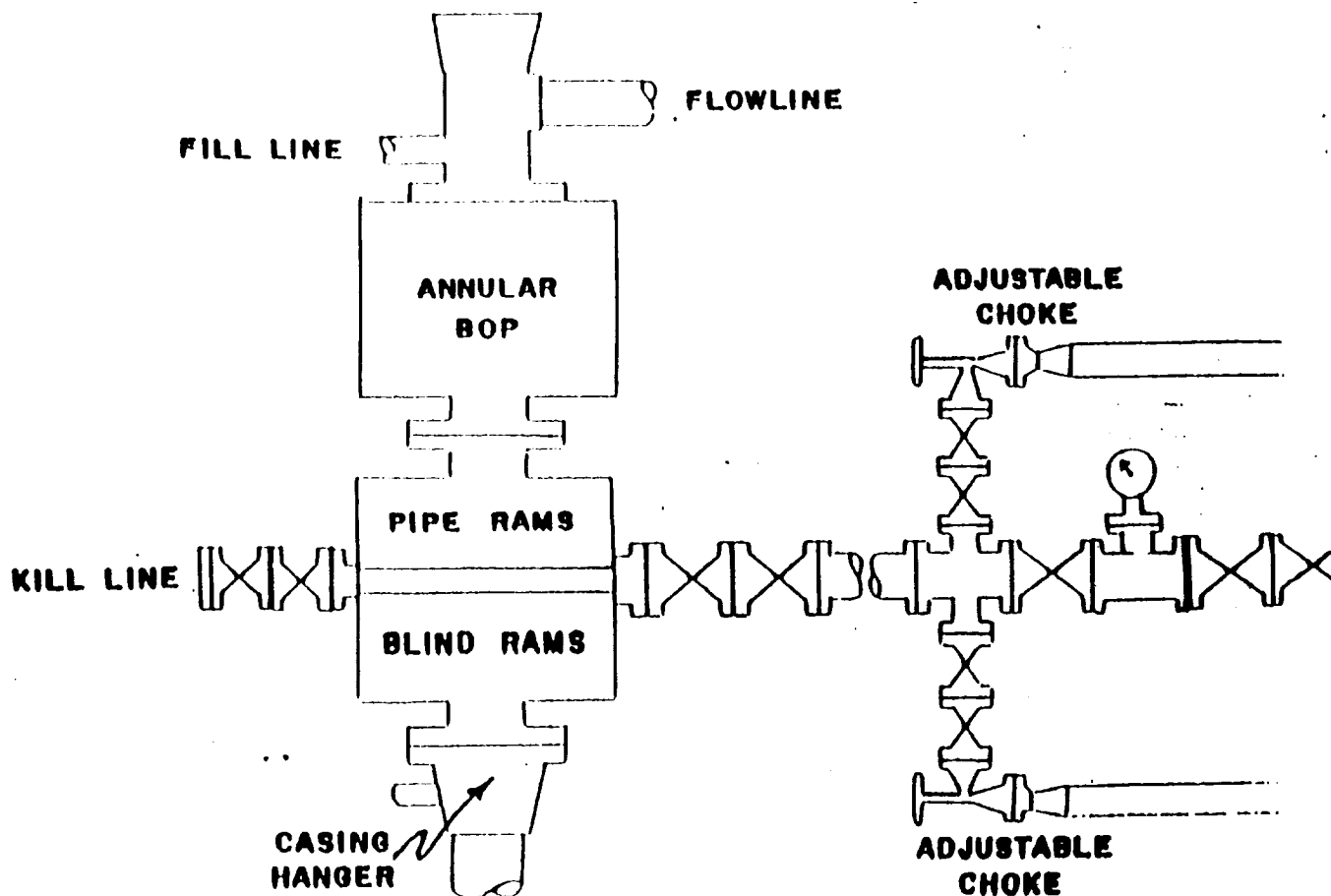


EXHIBIT "E"
CHI OPERATING, INC.
Aspen Federal Com., Well No. 1
BOP Specifications