د Form 3160-3		1	FORM A	4TS-07-0
(August 1999)	OCD-AKTES	IA	OMB No.	PPROVED 1004-0136 ember 30, 2000
DEPARTMENT OF THE IN BUREAU OF LAND MANAG	NTERIOR OUT		5. Lease Serial No. NM-7747	
APPLICATION FOR PERMIT TO DE		37	6. If Indian, Allottee	or Tribe Name
la. Type of Work: 🕢 DRILL 🔲 REENTED	R SHA	7 7 7 7 7 7	7. If Unit or CA Agre	ement, Name and No. $36273$
Ib. Type of Well: 🖸 Oil Well 🔽 Gas Well 🗖 Other	Single Zone	E Zone	8. Lease Name and We Fir Federal	
2. Name of Operator	E ST.	0 0	9. API Well No.	
Chi Operating, Inc. 4378		2	30-013	- 35405
3a. Address	3b. Phone No. (melude area code) (432) 685-5001	1 NN	10. Field and Pool, or I	
	(432) 685-5001 24 91 CI #1	ELC	Anderson Per	
4. Location of Well (Report location clearly and in accordance with a 990' FSL & 990' FWL	······································			Blk. and Survey or Area
At proposed prod. zone same ROSWELL CO	NTROLLED WATER BASIN	•	Sec. 7-T17S-R30E	
14. Distance in miles and direction from nearest town or post office* Four road miles NW of Loco Hills, NM		1	12. County or Parish Eddy	13. State
15. Distance from proposed*	16. No. of Acres in lease		Unit dedicated to this w	
location to nearest property or lease line, ft. (Also to nearest drig, unit line, if any) 9901	234.73	160		
18. Distance from proposed location*	19. Proposed Depth 20. BL		/BIA Bond No. on file	
to nearest well, drilling, completed, applied for, on this lease, ft. N/A	11,300'	NN	1-1616	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3660' GL	22. Approximate date work will s 3/19/07	tart*	23. Estimated duration 4-6 weeks	1
J	24. Attachments			
The following, completed in accordance with the requirements of Onshot	re Oil and Gas Order No.1, shall be at	tached to this	form:	
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	I and the 5. Operator certific	ation. specific info		existing bond on file (se s may be required by th
25. Signature	Name (Printed Typed)			Date
Bergrank. Amith	George R. Smith			12/12/06
Title				
Agent for Chi Operating, Inc.	A1			Data
Approved by (Signature) /s/ James Stovall	Name (Printed Typed)			Date JAN 2 3 2007
Title PCTING FIELD MANAGER	Office CARLSE	BAD FIE	LD OFFICE	
Application approval does not warrant or certify that the applicant holds operations thereon. Conditions of approval, if any, are attached.	legal or equitable title to those rights	in the subject		e the applicant to conduc LFOR 1 YEA

\*(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.

SEE ATTACHED FOR CONDITIONS OF APPROVAL

> APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

George R. Smith, agent

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

					State	of New	w Mexico			
DISTRICT I Shergy, Minerals and Natural Resources Department										
Form C DISTRICT II 1301 V. GRAND AVENUE, AFTERIA, NK 60210 1220 SOUTH ST FRANCIS DR 1220 SOUTH ST FRANCIS DR State Lease - 4 Cop							ber 12, 2005 istrict Office e — 4 Copies			
DISTRICT III For Lease - 3 Copies 1000 Rio Brazos Rd., Axtec, NM 87410										
DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT									ED REPORT	
API	Number	· .		Pool Code				Pool Name		
Property (	Zode	1 1		70200	Prop	erty Nam		rson Penn	Well Num	ıber
				F	IR FEI	DERAL	СОМ		2	
OGRID No 4378	». 			CH	Operator Name II OPERATING, INC.			1	Elevation 3660'	
			<u>_</u>		Surfa	ce Loca	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet fr		North/South line	Feet from the	Bast/West line	County
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UL or lot No.	Section	Township	Bottom	Hole Loo	Feet fr		rent From Sur	face Feet from the	East/West line	County
01 OF 101 NO.	Secuoli	Townamb	Kange	LOC IGU	Feet In	une une	North/South line	reet from the	PERI, MCRC 1116	county
Dedicated Acres	Joint o	or Infill Co	nsolidation	Code Or	der No.					L
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r		ORAN	ION-STAN	IDARD UN	IT HAS	BEEN	APPROVED BY	THE DIVISION	· · · · · · · · · · · · · · · · · · ·	
LOT 1								OPERATO	OR CERTIFICAT	TION
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	1							my knowledge organization el	and belief, and the ther owns a working	this interest
				1				including the point or has a right	ineral interest in th proposed bottom hol to drill this well at	e location t this
	1			I		1		owner of such	ant to a contract wi mineral or working ary pooling agreeme.	interest,
37.38 AC	<u> </u>	<u></u>		L		I		compulsory poo	oling order beretofol	re entered
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**************************************	xxxxxx	L XXXXXXXXXX	.0NG.=104 <b>KXXXXXX</b>		w	_		SURVEYO	OR CERTIFICAT	TION
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37.36 AC	anna I agagagad	******	*****	<u></u>					OFT SOLO	

#### **APPLICATION FOR DRILLING**

CHI OPERATING, INC. Fir Federal Com., Well No. 2 990' FSL & 990' FWL, Sec. 7-T17S-R30E Eddy County, New Mexico Lease No.: NM-7747 (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:

Yates	1,200'	Strawn Ls.	10,170'
Queen	1,970'	Atoka	10,380'
San Andres	2,830'	Morrow Clastic	10,790'
Glorieta	4,120'	Morrow Lower.	10,870'
Abo	6,220'	Mississippian	10,980'
Wolfcamp	7,570'	T.D	11,300'

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 San Andres/Grayburg below 2700', Upper Penn or Cisco below 8,750'.
- Gas: Possible in the Atoka below 10,380' and the Morrow below 10,790'.

#### 4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	<u>WEIGHT</u>	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48.0#	H-40	ST&C	450'	Circ. 450 sx "C" + add.
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	11,300'	675 sx of Super "C" + add.

### 5. Proposed Control Equipment:

A x 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested as described in Onshore Oil & Gas Order No. 2 before drilling out with 11" and will be tested as required. Request waiver to test to a maximum of 3000 psi wp, which is in excess of maximum expected surface pressure. See Exhibit "E".

6.	MUD PROGRAM	4:	MUD WEIGHT	VIS.	W/L CONTROL
:	0'- 450': I	Fresh water mud:	8.4 - 8.7 ppg	32 - 36	No W/L control
	450' - 2900': I	Brine mud:	10.0 - 10.2 ppg	29 - 30	No W/L control
÷	2900' - 7500': I	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
İ	8700' - 10,600': I	Brine (starch) mud:	10.0 - 10.1 ppg	30 - 32	W/L control 15 cc +/-
	10,600' - 11,300': 0	Controlled Brine	9.5 - 9.7 ppg	38 - 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/DLL/MSFL 2900' To surface: GR/Neutron Coring: As dictated by logs.



## RIG #2

# BLOWOUT PREVENTOR ARRANGEMENT

13 5/8" SHAFFER TYPE SL, 5000 psi WP 13 5/8" Hydril SPHERICAL, 5000 psi WP 80 GALLON, 6 STATION KOOMEY ACCUMULATOR 5000 psi WP CHOKE MANIFOLD



EXHIBIT "E" CHI OPERATING, INC. Fir Federal Com., Well No. 2 BOP Specifications