

DATE IN 10/1/07	SUSPENSE	ENGINEER D. BROOKS	LOGGED IN 10/3/07	TYPE NSL	APP NO. PTD5072754/8378
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RECEIVED  
ABOVE THIS LINE FOR DIVISION USE ONLY  
**NEW MEXICO OIL CONSERVATION DIVISION**  
 2007 OCT 1 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



*Ch*  
*Murchiekin Fed #12*

## ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

James Bruce  
 P.O. Box 1056  
 Santa Fe, New Mexico 87504

Signature

*James Bruce*

Attorney for Applicant  
 Title

Date

*9/29/07*

jamesbruc@aol.com  
 e-mail Address

**JAMES BRUCE**  
ATTORNEY AT LAW

POST OFFICE BOX 1056  
SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213  
SANTA FE, NEW MEXICO 87501

(505) 982-2043 (Phone)  
(505) 660-6612 (Cell)  
(505) 982-2151 (Fax)

[jamesbruc@aol.com](mailto:jamesbruc@aol.com)

September 29, 2007

Mark E. Fesmire, P.E.  
Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Dear Mr. Fesmire:

Pursuant to Division Rule 104.F(2), Chi Operating, Inc. applies for approval of an unorthodox oil well location for the following well:

<u>Well name:</u>	Munchkin Federal Well No. 12
<u>Surface location:</u>	2547 feet FNL & 519 feet FWL
<u>Top of Delaware:</u> <sup>1</sup>	2506 feet FSL & 671 feet FWL (approximate)
<u>Bottom hole location:</u>	2310 feet FSL & 800 feet FWL
<u>Well unit:</u>	NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 12, Township 19 South, Range 30 East, N.M.P.M., Eddy County, New Mexico

The well will be drilled to a depth sufficient to test the Delaware formation (Benson-Delaware Pool). The pool is spaced on statewide rules, with 40 acre spacing, and wells to be located no closer than 330 feet to a quarter-quarter section line. The APD, with a Form C-102, is attached as Exhibit A.

This portion of Section 12 is in the oil-potash area. In addition, the surface is part of a recreational area. The Bureau of Land Management required the surface location of the well to be in the SW $\frac{1}{4}$ NW $\frac{1}{4}$  of Section 12.

The bottom hole location will be orthodox, but the wellbore in the upper portion of the Delaware will be unorthodox. As noted below, ownership in the well unit and offset acreage is common. In addition, applicant desires to limit the directional portion of the wellbore to minimize drilling and operating costs.

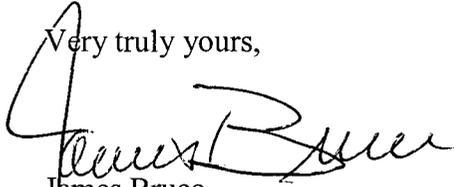
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<sup>1</sup> The top of the Delaware formation is at approximately 4570 feet subsurface.

The W<sup>1</sup>/<sub>2</sub> of Section 12, among other acreage, is subject to Federal Lease NM 0560353. Exhibits B and C. This acreage has common ownership in the Delaware formation, so notice of this application has not been given to anyone.

Please contact me if you need any further information on this application.

Very truly yours,

A handwritten signature in black ink, appearing to read "James Bruce". The signature is written in a cursive style with a large initial "J" and "B".

James Bruce

Attorney for Chi Operating, Inc.

883  
S

OOD-ARTESIA

R-111-POTASH

ATS-07-587

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SEP 13 2007

FORM APPROVED  
OMB No. 1004-0117  
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		7 If Unit or CA Agreement, Name and No.
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		8. Lease Name and Well No. <b>Munchkin Federal, Well No. 12</b>
2 Name of Operator <b>Chi Operating, Inc.</b>		9 API Well No. <b>30-015-35791</b>
3a. Address <b>P.O. Box 1799 Midland, TX 79702</b>	3b. Phone No. (include area code) <b>432-685-5001</b>	10 Field and Pool, or Exploratory <b>Benson Delaware</b>
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface <b>2547' FNL &amp; 519' FWL</b> At proposed prod. zone <b>2310' FSL &amp; 800' FWL</b>		11 Sec., T. R. M. or Blk and Survey or Area <b>Sec. 12-T19S-R30E</b>
14 Distance in miles and direction from nearest town or post office* <b>16 miles south of Loco Hills, NM</b>		12 County or Parish <b>Eddy</b>
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) <b>800'</b> <b>330'</b>		13 State <b>NM</b>
16 No. of acres in lease <b>2160.32</b>	17 Spacing Unit dedicated to this well <b>40 acres</b>	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft <b>1150'</b>	19 Proposed Depth <b>5500'</b>	20 BLM/BIA Bond No. on file <b>NM-1616</b>
21 Elevations (Show whether DF, KDB, RT, GL., etc) <b>3424' GL.</b>	22 Approximate date work will start* <b>09/26/2007</b>	23. Estimated duration <b>4-6 weeks</b>

24. Attachments

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

- |                                                                                                                                                   |                                                           |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|
| 1. Well plat certified by a registered surveyor.                                                                                                  | 4. Bond to cover the operations u<br>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<br>SUPO shall be filed with the appropriate Forest Service Office) | 6. Such other site specific inform<br>authorized officer. |

EXHIBIT **A**

25 Signature <i>George R. Smith</i>	Name (Printed Typed) <b>George R. Smith</b>	Date <b>08/03/2007</b>
Title <b>Agent for Chi Operating, Inc.</b>		
Approved by (Signature) <i>Jesse S Juen</i>	Name (Printed Typed) <b>Jesse S Juen</b>	Date <b>8-31-07</b>
Title <b>STATE DIRECTOR</b>	Office <b>NM STATE OFFICE</b>	

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 TWO YEARS**

Title 18 USC Section 1001 and Title 43 USC 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 page 2)

**Capitan Controlled Water Basin**

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

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

*KRS.*  
George R. Smith, agent

**NSL Required to  
Produce**

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

District I

1625 N. French Dr., Hobbs, NM 88240

District II

1301 W. Grand Avenue, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 pool Name
	97083	Benson Delaware
4 Property Code	5 Property Name	6 Well Number
36731	MUNCHKIN FEDERAL	12
7 OGRID No.	8 Operator Name	9 Elevation
4378	CHI OPERATING, INC.	3424

10 Surface Location

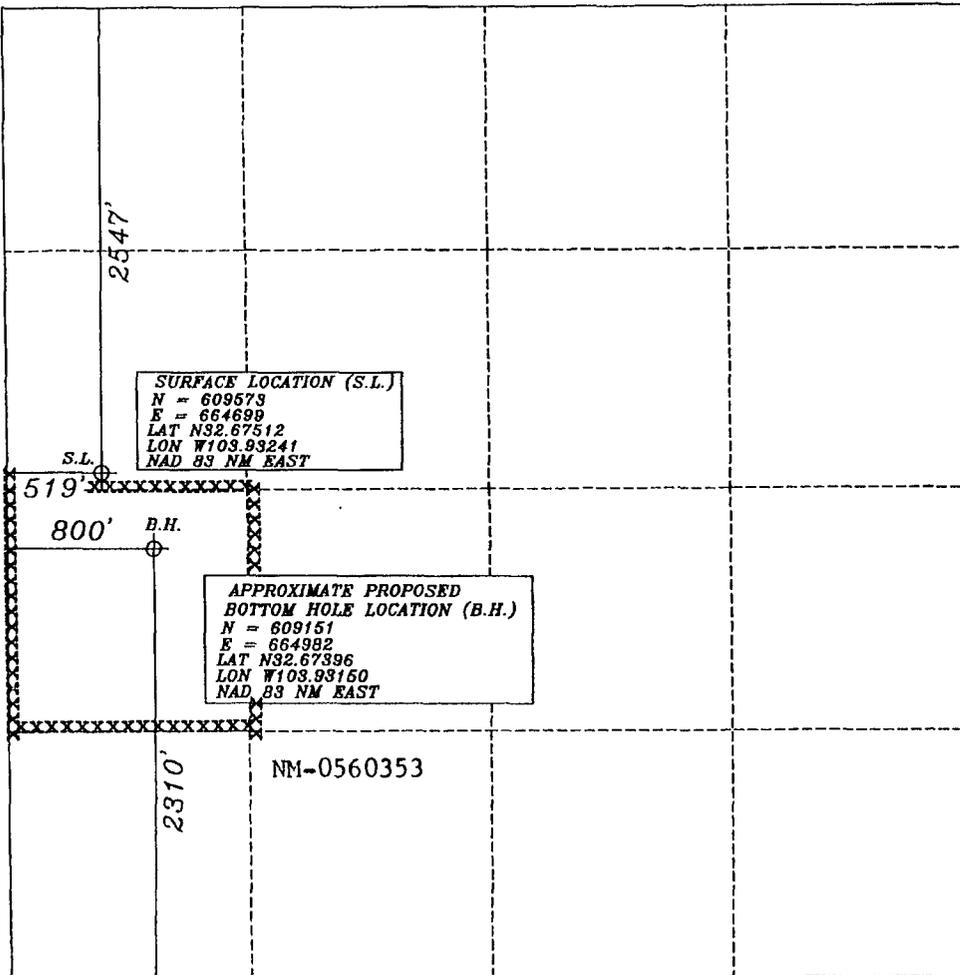
UL or lot no.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
E	12	19-S	30-E		2547	NORTH	519	WEST	EDDY

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
L	12	19-S	30-E		2310	SOUTH	800	WEST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
40			

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.



17 OPERATORS CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided mineral interest in the land including the proposed bottom hole location or has a right to drill this well of this location pursuant to a contract with an owner of such interest or working interest, or to voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature: George R. Smith, Date: 8/3/07

Printed Name: George R. Smith, agent

18 SURVEYOR CERTIFICATION SURFACE LOCATION ONLY

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. Signature and Seal of Professional Surveyor: JULY 13, 2007

Date of Survey: JULY 13, 2007

Professional Surveyor Seal: DAN R. REDDY, NEW MEXICO, 5412, REGISTERED LAND SURVEYOR, PROFESSIONAL ENGINEER

Certificate Number: DAN R. REDDY NM PE&PS #5412

## APPLICATION FOR DRILLING

### CHI OPERATING, INC.

Munchkin Federal, Well No. 11

Surface Location: 2418' FNL & 541' FWL, Sec. 12-T19S-R30E

Bottom Hole: 2100' FSL & 330' FEL, Sec. 11-T19S-R30E

Eddy County, New Mexico

Lease No.: NM-0560353

(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:

Anhydrite	400'	Queen	3050'
Yates	2240'	Delaware	4170'
Seven Rivers	2430'	T.D.	5500'

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 Queen, Delaware.

Gas: Possible in the Delaware.

4. Proposed Casing Program: (New Casing)

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	COLLAR	SETTING DEPTH	COLLAPSE DESIGN FACTOR	BURST DESIGN FACTOR	TENSION DESIGN FACTOR
17 1/2"	13 3/8"	48.0#	J-55	ST&C	500'	2.850	1.51	15.04J
11"	8 5/8"	32.0#	J-55	LT&C	2,050'	2.376	3.38	7.47J
7 7/8"	5 1/2"	17.0#	J-55	LT&C	5,500'	1.488	1.77	2.97J

Note: Deviation Requirements: Commencing at 2100': Kick off and build angle at 2.5 degrees per 100 feet. Drill and build curve section to 21.25 degrees to T.D. See Exhibit "F".

5. Cement Program:

a. 13 3/8" casing: 500' Circ. to surface: 500sx "C" + additives, Yield 1.34

b. -8 5/8" casing: 2050' Circ. to surface: Lead: 375 sx "C" Lite, Tail: 150 Sx "C" + additives, Yield 1.34

c. 5 1/2" casing Stage 1: 5,500' Circ. to surface: Lead: 376 sx "C" + additives Yield 1.55

5 1/2" casing Stage 2: 5,500' Circ. Tail: 675 sx (35:65) Poz: Premium Plus "C" + add. Yield: 2.1 & 1.34

Note: If DV Tool is required, will start at +/- 3700'

6. Proposed Control Equipment: A 10" 3000 psi wp double hydraulic ram BOP will be installed on the 13 3/8" casing and will be used as a 2,000 psi system. Casing and BOP will be tested to 1000 psi before drilling out with 11". The BOP and casing will be tested according to Onshore Oil & Gas Order #2 before drilling out with 7 7/8". The pipe rams will be operated and checked daily plus each time drill pipe is out of hole. This will be documented on driller's log. See Exhibit "E".

7. **MUD PROGRAM:**

MUD WEIGHT	VIS.	W/L CONTROL
0' - 500': Fresh water/Spud:	8.4 - 8.7 ppg	32 - 34 No W/L control
500' - 2050': Brine mud:	10.0 ppg	29 - 30 No W/L control
2050' - 5500': Brine mud:	9.2 ppg	29 - 32 No W/L control
5500'	9.2 ppg	W/L cont. <15 cc @ TD

8. **Auxiliary Equipment:** Blowout Preventer, Kelly cock.

9. **Testing, Logging, and Coring Program:**

Mud Logging: 10' samples-2050' to TD (2 sets of samples)

Drill Stem Tests: As deemed necessary.

Logging: T.D thru pay: GR-CAL-CNL-LDT, GR-CAL DLL-MICRO and CMR

T.D. to Surface: GR-Neutron

Coring: Rotary Sidewall: as dictated by logs.

10. 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 = 2420 psi with a temperature of 115°.

11.  $H_2S$ : None expected. None in previous drilling of wells, but the Mud Log Unit will be cautioned to use a gas trap to detect  $H_2S$  and if any is detected the mud weight will be increased along with  $H_2S$  inhibitors sufficient to control the gas.

12. Anticipated starting date: August 23, 2007

Anticipated completion of drilling operations: Approximately 30 days.

# Planned Wellpath Report

Plan #1  
Page 1 of 3



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	Chi Operating, Inc.	Slot	#12_SHL
Area	Eddy County, NM	Well	#12
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#12_PWB
Facility	Munchkin Federal #12		

## REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect™ 1.2
North Reference	Grid	User	Jonebea
Scale	0.999927	Report Generated	08/02/07 at 10:58:55
Wellbore last revised	07/27/07	Database/Source file	WA_Midland/#12_PWB

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]
Slot Location	0.00	0.00	664699.00	609573.00	32 40 30.434N	103 55 56.689W
Facility Reference Pt			664699.00	609573.00	32 40 30.434N	103 55 56.689W
Field Reference Pt			664720.00	609701.00	32 40 31.700N	103 55 56.438W

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on #12_SHL (RT) to Facility Vertical Datum	0.00 feet
Horizontal Reference Pt	Slot	Rig on #12_SHL (RT) to GRN. ELEV.	3424.00 feet
Vertical Reference Pt	Rig on #12_SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00 feet
MD Reference Pt	Rig on #12_SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	146.15°

**EXHIBIT "F"**  
**Chi Operating, Inc.**  
**Munchkin Federal, Well No. 12**  
**Directional Drilling Program**  
**Surface Location: 2547' FNL & 519' FWL, Sec. 12-T19S-R30E**  
**Bottom Hole Location: 2310' FSL & 800' FWL, Sec. 12-T19S-R30E**

# Planned Wellpath Report

Plan #1  
Page 2 of 3



INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	Chi Operating, Inc.	Slot	#12_SHL
Area	Eddy County, NM	Well	#12
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#12_PWB
Facility	Munchkin Federal #12		

## WELLPATH DATA (58 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]
0.00	0.000	146.154	0.00	0.00	0.00	0.00	0.00
100.00†	0.000	0.000	100.00	0.00	0.00	0.00	0.00
200.00†	0.000	0.000	200.00	0.00	0.00	0.00	0.00
300.00†	0.000	0.000	300.00	0.00	0.00	0.00	0.00
400.00†	0.000	0.000	400.00	0.00	0.00	0.00	0.00
500.00†	0.000	0.000	500.00	0.00	0.00	0.00	0.00
600.00†	0.000	0.000	600.00	0.00	0.00	0.00	0.00
700.00†	0.000	0.000	700.00	0.00	0.00	0.00	0.00
800.00†	0.000	0.000	800.00	0.00	0.00	0.00	0.00
900.00†	0.000	0.000	900.00	0.00	0.00	0.00	0.00
1000.00†	0.000	0.000	1000.00	0.00	0.00	0.00	0.00
1100.00†	0.000	0.000	1100.00	0.00	0.00	0.00	0.00
1200.00†	0.000	0.000	1200.00	0.00	0.00	0.00	0.00
1300.00†	0.000	0.000	1300.00	0.00	0.00	0.00	0.00
1400.00†	0.000	0.000	1400.00	0.00	0.00	0.00	0.00
1500.00†	0.000	0.000	1500.00	0.00	0.00	0.00	0.00
1600.00†	0.000	0.000	1600.00	0.00	0.00	0.00	0.00
1700.00†	0.000	0.000	1700.00	0.00	0.00	0.00	0.00
1800.00†	0.000	0.000	1800.00	0.00	0.00	0.00	0.00
1900.00†	0.000	0.000	1900.00	0.00	0.00	0.00	0.00
2000.00†	0.000	0.000	2000.00	0.00	0.00	0.00	0.00
2100.00†	0.000	0.000	2100.00	0.00	0.00	0.00	0.00
2200.00†	0.000	0.000	2200.00	0.00	0.00	0.00	0.00
2300.00†	0.000	0.000	2300.00	0.00	0.00	0.00	0.00
2400.00†	0.000	0.000	2400.00	0.00	0.00	0.00	0.00
2500.00†	0.000	0.000	2500.00	0.00	0.00	0.00	0.00
2600.00†	0.000	0.000	2600.00	0.00	0.00	0.00	0.00
2700.00†	0.000	0.000	2700.00	0.00	0.00	0.00	0.00
2800.00†	0.000	0.000	2800.00	0.00	0.00	0.00	0.00
2900.00†	0.000	0.000	2900.00	0.00	0.00	0.00	0.00
3000.00†	0.000	0.000	3000.00	0.00	0.00	0.00	0.00
3100.00†	0.000	0.000	3100.00	0.00	0.00	0.00	0.00
3200.00	0.000	146.154	3200.00	0.00	0.00	0.00	0.00
3300.00†	2.500	146.154	3299.97	2.18	-1.81	1.21	2.50
3400.00†	5.000	146.154	3399.75	8.72	-7.24	4.86	2.50
3500.00†	7.500	146.154	3499.14	19.61	-16.28	10.92	2.50
3600.00†	10.000	146.154	3597.97	34.82	-28.92	19.39	2.50
3700.00†	12.500	146.154	3696.04	54.33	-45.12	30.26	2.50
3766.00	14.150	146.154	3760.27	69.54	-57.75	38.73	2.50
3800.00†	14.150	146.154	3793.23	77.85	-64.66	43.36	0.00

# Planned Wellpath Report

Plan #1  
Page 3 of 3



INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	Chi Operating, Inc.	Slot	#12_SHL
Area	Eddy County, NM	Well	#12
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#12_PWB
Facility	Munchkin Federal #12		

## WELLPATH DATA (58 stations) † = interpolated/extrapolated station

MD [feet]	Inclination [°]	Azimuth [°]	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]
3900.00†	14.150	146.154	3890.20	102.29	-84.96	56.97	0.00
4000.00†	14.150	146.154	3987.16	126.74	-105.26	70.59	0.00
4100.00†	14.150	146.154	4084.13	151.19	-125.57	84.21	0.00
4200.00†	14.150	146.154	4181.10	175.63	-145.87	97.82	0.00
4300.00†	14.150	146.154	4278.06	200.08	-166.17	111.44	0.00
4400.00†	14.150	146.154	4375.03	224.53	-186.48	125.05	0.00
4500.00†	14.150	146.154	4471.99	248.97	-206.78	138.67	0.00
4600.00†	14.150	146.154	4568.96	273.42	-227.08	152.29	0.00
4700.00†	14.150	146.154	4665.93	297.86	-247.39	165.90	0.00
4800.00†	14.150	146.154	4762.89	322.31	-267.69	179.52	0.00
4900.00†	14.150	146.154	4859.86	346.76	-287.99	193.13	0.00
5000.00†	14.150	146.154	4956.82	371.20	-308.30	206.75	0.00
5100.00†	14.150	146.154	5053.79	395.65	-328.60	220.36	0.00
5200.00†	14.150	146.154	5150.75	420.10	-348.90	233.98	0.00
5300.00†	14.150	146.154	5247.72	444.54	-369.21	247.60	0.00
5400.00†	14.150	146.154	5344.69	468.99	-389.51	261.21	0.00
5500.00†	14.150	146.154	5441.65	493.44	-409.81	274.83	0.00
5560.17	14.150	146.154	5500.00†	508.15	-422.03	283.02	0.00

## HOLE & CASING SECTIONS Ref Wellbore: #12\_PWB Ref Wellpath: Plan #1

String/Diameter	Start MD [feet]	End MD [feet]	Interval [feet]	Start TVD [feet]	End TVD [feet]	Start N/S [feet]	Start E/W [feet]	End N/S [feet]	End E/W [feet]
7.875in Open Hole	3200.00	5560.17	2360.17	3200.00	5500.00	0.00	0.00	-422.03	283.02

## TARGETS

Name	MD [feet]	TVD [feet]	North [feet]	East [feet]	Grid East [us survey feet]	Grid North [us survey feet]	Latitude [°]	Longitude [°]	Shape
1) #12_BHL	5560.17	5500.00	-422.03	283.02	664982.00	609151.00	32 40 26.248N	105 55 53.397W	point

2310' FSL & 800' FWL

## SURVEY PROGRAM Ref Wellbore: #12\_PWB Ref Wellpath: Plan #1

Start MD [feet]	End MD [feet]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	5560.17	NaviTrak (Standard)		#12_PWB

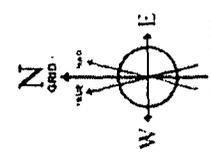
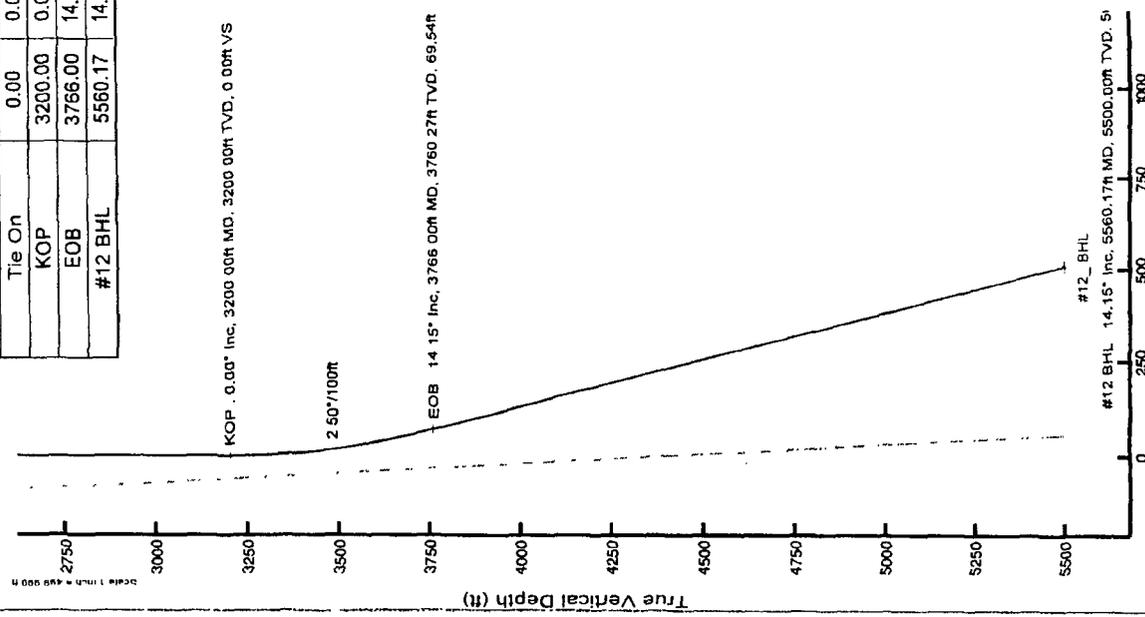


# Chi Operating, Inc.

Location: Eddy County, NM  
 Field: (Munchkin) Section 12 T19S R30E  
 Facility: Munchkin Federal #12

Slot: #12\_SHL  
 Well: #12  
 Wellbore: #12\_PWB

Well Profile Data								
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tile On	0.00	0.000	146.154	0.00	0.00	0.00	0.00	0.00
KOP	3200.00	0.000	146.154	3200.00	0.00	0.00	0.00	0.00
EOB	3766.00	14.150	146.154	3760.27	-57.75	38.73	2.50	69.54
#12 BHL	5560.17	14.150	146.154	5500.00	-422.03	283.02	0.00	508.15



BGGM (1945.0 to 2008.0) Dip: 60.66° Field: 49286.1 nT  
 Magnetic North is 8.28 degrees East of True North (at 07/27/07)  
 Grid North is 0.22 degrees East of True North  
 To correct azimuth from True to Grid subtract 0.22 degrees  
 To correct azimuth from Magnetic to Grid add 0.07 degrees

Pit reference verticals at Plan #1	
True vertical depths are referenced to Rig on #12_SHL (RT)	Grid System: NAD83 / The New Mexico State Plane, Eastern Zone (3003) US feet
Measured depths are referenced to Rig on #12_SHL (RT)	North Reference: Grid north
Rig on #12_SHL (RT) to GRN ELEV: 3424 feet	Scale: True distance
GRN ELEV to Mudline (Facility - Munchkin Federal #12): 3424 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by gribble on 02/Aug/2007

#12\_BHL 14.15° Inc. 5560.17 ft MD. 5500.00 ft TVD. 51  
 #12 BHL 146.15° with reference 0.00 N, 0.00 E from wellhead  
 Scale: 1 inch = 500 ft

## MULTI POINT SURFACE USE AND OPERATIONS PLAN

*2547/N* CHI OPERATING, INC *519/W*  
Munchkin Federal, Well No.12  
Surface Location: ~~2600'~~ FNL & ~~520'~~ FWL, Sec. 12 -T19S-R30E  
Bottom Hole: 2310' FSL & 800' FWL, Sec. 12 -T19S-R30E  
Eddy County, New Mexico  
Lease No.: NM-0560353  
(Development 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 environmental effects associated with the operations.

### 1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a BLM Hackberry Lake Topo map showing the location of the proposed well as staked. The well site location is approximately 36 road miles southeast of Artesia, NM. Traveling east of Artesia on U.S. Highway 82, NM Hwy 360 and county roads No. 250 and 251, there will be 33 miles of paved highway, plus 3 miles of existing gravel oilfield roads.
- B. Directions: Travel east from U. S. Highway #285 in Artesia, NM on U. S. Highway 82 for approximately 14 miles, turn southeast on NM Hwy 360 for approximately 13 miles to paved County Rd #251. Turn north on #251 for 1.8 mile to County Rd. # 250, then turn right on #250 for 3.8 miles to top of Nimenim Ridge. Turn south onto a gravel oilfield road just west of a cattle guard with a pipeline buried near the road. Continue south for .8 mile to a large tank battery and water injection pump house; turn right (west) for .25 mile to a pump jack, then south (left) for .63 mile to a P/A well site with a gas line tap. Turn right (west) for .3 mile, then south .25 mile to the Munchkin Fed. #1 well site. Turn west, north of the #1, for .2 mile to the access road on the left (south) side. Follow this road southeast then south to the southwest corner of the Munchkin Fed. #4 well pad. The access road continues at the southwest corner of the pad and runs southeast for 1000 feet to the southeast corner of the Munchkin Fed. #5 well pad. Continue south on the access road from the southeast corner of this well pad for 900' to the pipeline; then 1,100' west, south of the pipeline, to the northeast corner of the Munchkin Federal #8 well pad. The proposed well is on the SW corner the No. 8 well pad.

### 2. PLANNED ACCESS ROAD:

- A. Length and Width: There will be no new proposed access road. The existing roads are color coded on Exhibit "A".
- B. Construction: The existing access roads will be repaired, as needed, by grading and topping with compacted caliche and will be properly drained.
- C. Turnouts: None required.
- D. Culverts: None required
- E. Cuts and Fills: None required.
- F. Gates, Cattle guards: None required.
- G. Off Lease ROW: An off lease ROW No. NM-102279 was issued with a previous APD covering the existing access road in the E2 of Sec. 1-T19S-R30E.

**3. LOCATION OF EXISTING WELLS:**

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

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

- A. Chi Operating, Inc. has production facilities on the lease at this time.
- B. If the well proves to be commercial, the necessary production facilities and gas production-process equipment will be installed on the drilling pad of the Munchkin Fed. #8 well, which also has storage facilities and pipelines available on the well pad. Additional storage may be added if required.

**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 and maintenance of the existing access road and construction of the well site pad will be obtained from a pit on the location, if available, or from a BLM approved pit on the drill site for the Wizard Federal #3 in the NW $\frac{1}{4}$ SE $\frac{1}{4}$ , Sec. 1-T19S-R30E. The archaeologist has cleared this pit. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access roads.

**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.

**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 was originally staked and flagged, 600' X 600'.
- B. Mat Size: 245' X 165', plus 100' X 100' reserve pits on the west.
- C. Cut & Fill: The location will require a 2 - 3 foot cut on the west, undisturbed area, for the pits with fill to the east. There are undulating sand dunes 2 - 3 feet high that will need to be leveled.
- 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 location and access road are located in an area on top of and east of the Niminem Ridge. The location has an overall 2% slope to the east/northeast from an elevation of 3424' GL.
- B. Soil: The topsoil at the well site is a deep yellowish red colored noncalcareous sandy loam with some caliche scatter on the surface. The soil is of the Berino loamy fine sands series.
- C. Flora and Fauna: The vegetation cover is a fair to good grass cover of threeawn, grama, dropseed, fluff grass and bush muhly along with plants of mesquite, broomweed, yucca, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, antelope, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None in the area.
- E. Residences and Other Structures: None in the area except oil field equipment and tank batteries.
- F. Land Use: Cattle grazing.
- G. Surface Ownership: The proposed well site and access road is on Federal surface and minerals.
- H. There is some evidence of archaeological, historical or cultural sites in the area. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202 have conducted an archaeological survey and submitted their report No. ASC 05-013 on September 6, 2005 to the appropriate government agencies. Another report will be furnished after an additional 100' X 600' area is to be cleared on the west side, which will take care of the re-route of the bike trail and give a 120' buffer west of the mud pits.

**12. OPERATOR'S REPRESENTATIVE:**

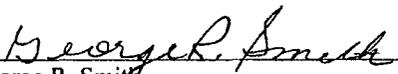
- A. The field representative for assuring compliance with the approved use and operations plan is as follows:

John Qualls  
Chi Operating, Inc.  
P. O. Box 1799  
Midland, Texas 79701  
Office Phone: (432) 685-5001  
Cell Phone: (432) 557-8774

**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.

August 3, 2007

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



## **Conditions of Approval Recreation**

EA#: NM-520-07-0883

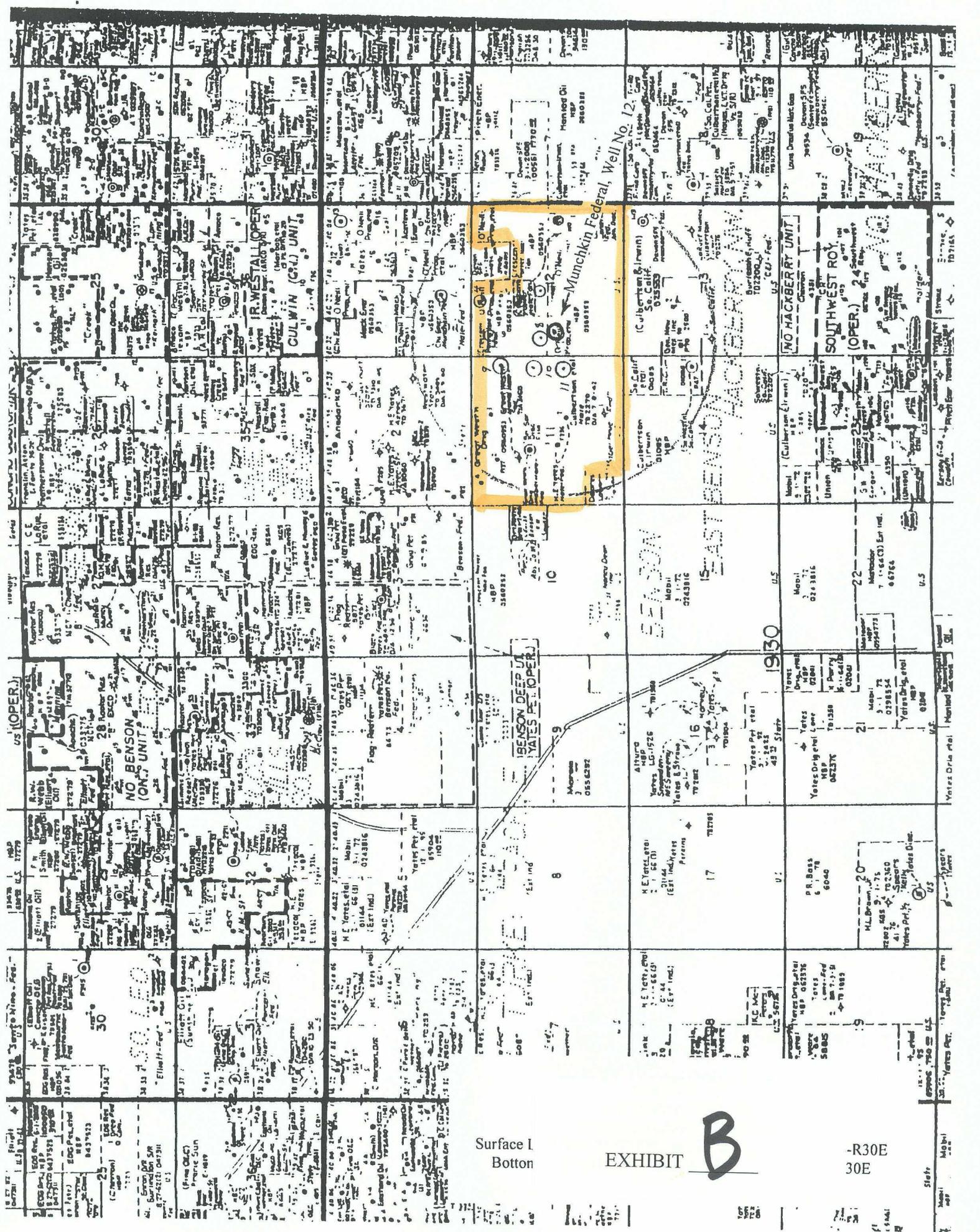
Lease #: NM-0560353

**Chi Operating, Inc.**

**Munchkin Fed. #11 & #12**

The proposed action lies on one of the trails to the Hackberry OHV recreation area. The company will be responsible for rerouting these trails safely around the proposed pads. This may be as simple as flagging a new route to the blading of a new route. These new routes will be completed before the existing routes are closed.

Please call Jon Jasper (505) 234-2221 to discuss routing proposals, before beginning pad construction.



Surface I  
Bottom

EXHIBIT

**B**

-R30E  
30E

Steff  
Mobi

**DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CASE RECORDATION  
(MASS) Serial Register Page**

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**01 02-25-1920;041STAT0437;30USC226**  
**Case Type 311111: O&G LSE NONCOMP PUB LAND**  
**Commodity 459: OIL & GAS L**  
**Case Disposition: AUTHORIZED**

**Total Acres**  
**2,160.320**

**Serial Number**  
**NMNM-- 0 560353**

Serial Number: NMNM-- 0 560353

Name & Address			Int	Rel	% Interest
ANDERSON OIL CORP	5005 WOODWAY #300	HOUSTON TX 77056			OPERATING RIGHTS 0.000000000
ASTON FAMILY	PO BOX 1090	ROSWELL NM 882021090			OPERATING RIGHTS 0.000000000
ASTON ROGERS	PO BOX 1090	ROSWELL NM 882021090			OPERATING RIGHTS 0.000000000
BRAZOS LP	PO BOX 911	BRECKENRIDGE TX 76424			OPERATING RIGHTS 0.000000000
BROWN L Z	PO BOX 179	ANDREWS TX 79714			OPERATING RIGHTS 0.000000000
BYRNE JOSEPH H	21 BRENTWOOD CLUB	LUBBOCK TX 79407			OPERATING RIGHTS 0.000000000
CANNON EXPL CO	3608 S COUNTY RD #1184	MIDLAND TX 79701			OPERATING RIGHTS 0.000000000
CHASE OIL CORP	PO BOX 1767	ARTESIA NM 882111767			OPERATING RIGHTS 0.000000000
CLIFTON THOMAS OIL	PO BOX 1071	SAN ANGELO TX 76902			OPERATING RIGHTS 0.000000000
COLKELAN CORP	906 S ST FRANCIS #C	SANTA FE NM 87501			OPERATING RIGHTS 0.000000000
CRESCENT PORTER HALE	1705 1ST CITY NATIONAL BK	HOUSTON TX 77002			OPERATING RIGHTS 0.000000000
CRESCENT PORTER HALE	1705 1ST CITY NATIONAL BK	HOUSTON TX 77002			LESSEE 100.000000000
DEVON ENERGY PROD CO LP	20 N BROADWAY #1500	OKLAHOMA CITY OK 73102			OPERATING RIGHTS 0.000000000
DIAMOND HEAD PROP	PO BOX 2127	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
DOMINION OK TX EXPL & PROD INC	14000 QUAIL SPGS PKY #600	OKLAHOMA CITY OK 73134			OPERATING RIGHTS 0.000000000
EAKO LLC	PO BOX 1090	ROSWELL NM 882021090			OPERATING RIGHTS 0.000000000
EXBY LTD	PO BOX 1933	ROSWELL NM 88202			OPERATING RIGHTS 0.000000000
EXPLORERS PETRO CORP	PO BOX 1933	ROSWELL NM 882021933			OPERATING RIGHTS 0.000000000
FLAG REDFERN OIL CO	PO BOX 11050	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
GREAT WESTERN DRLG CO	PO BOX 1659	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
GREEN GARY	PO BOX 1799	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
GROVER ROSALIND R	PO BOX 2127	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
HARVEY E YATES CO	1007 MARQUETTE NW	ALBUQUERQUE NM 87102			OPERATING RIGHTS 0.000000000
HARVEY E YATES CO	PO BOX 1933	ROSWELL NM 882021933			OPERATING RIGHTS 0.000000000
JAMES H YATES INC	906 S ST FRANCIS DR	SANTA FE NM 87501			OPERATING RIGHTS 0.000000000
JOHN REDFERN JR EST	BOX 50896	MIDLAND TX 79710			OPERATING RIGHTS 0.000000000
LARIO OIL & GAS CO	BOX 155	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
MALONEY ROSE ANN	810 STANOLIND	MIDLAND TX 79705			OPERATING RIGHTS 0.000000000
MANN CLIFTON	307 PEARSON RD	LAKE ARTHUR NM 88253			OPERATING RIGHTS 0.000000000
MCCOMBS ENERGY LLC	5599 SAN FELIPE #1220	HOUSTON TX 770562794			OPERATING RIGHTS 0.000000000
MURCHISON OIL & GAS INC	1100 MIRA VISTA BLVD	PLANO TX 750934698			OPERATING RIGHTS 0.000000000
NEARBURG EXPL CO LLC	3300 N A ST #120	MIDLAND TX 79705			OPERATING RIGHTS 0.000000000
OWEN MARK T	3323 PROVIDENCE	MIDLAND TX 79705			OPERATING RIGHTS 0.000000000
POCAHONTAS OIL CO INC	PO BOX 60476	MIDLAND TX 79710			OPERATING RIGHTS 0.000000000
QUALLS JOHN W	PO BOX 1799	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
REDFERN OIL CO	PO BOX 50890	MIDLAND TX 79710			OPERATING RIGHTS 0.000000000
REDFERN ROSALIND	PO BOX 2127	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
RIO LOBO RESOURCES	2006 NORTH H	MIDLAND TX 79705			OPERATING RIGHTS 0.000000000
RYAN JO ANN	PO BOX 1503	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
SELIGMAN KEN	PO BOX 545	ALBANY TX 76430			OPERATING RIGHTS 0.000000000
SHUMATE GENE	BOX 2473	MIDLAND TX 79702			OPERATING RIGHTS 0.000000000
SPELL INC	BOX 50890	MIDLAND TX 79710			OPERATING RIGHTS 0.000000000
SPIRAL INC	BOX 1933	ROSWELL NM 882021933			OPERATING RIGHTS 0.000000000
STEPHENS TOM P	BOX 698	ROSWELL NM 882020698			OPERATING RIGHTS 0.000000000

NO WARRANTY IS MADE BY BLM  
FOR USE OF THE DATA FOR  
PURPOSES NOT INTENDED BY BLM

EXHIBIT 

**DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
CASE RECORDATION  
(MASS) Serial Register Page**

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**01 02-25-1920;041STAT0437;30USC226**  
**Case Type 311111: O&G LSE NONCOMP PUB LAND**  
**Commodity 459: OIL & GAS L**  
**Case Disposition: AUTHORIZED**

**Total Acres**  
**2,160.320**

**Serial Number**  
**NMNM-- 0 560353**

TOM P STPEHENS TRUST	PO BOX 698	ROSWELL NM 882020698	OPERATING RIGHTS	0.000000000
VALKO LLC	PO BOX 1090	ROSWELL NM 882021090	OPERATING RIGHTS	0.000000000
WELCH DANA L	PO BOX 1700	MIDLAND TX 79702	OPERATING RIGHTS	0.000000000
WOMACK KIM	1900 NORTH I ST	MIDLAND TX 79705	OPERATING RIGHTS	0.000000000
YATES CAROLYN BULOVAS	600 N WYOMING	ROSWELL NM 88201	OPERATING RIGHTS	0.000000000
YATES ENERGY CORP	PO BOX 2323	ROSWELL NM 882022323	OPERATING RIGHTS	0.000000000
YATES STEVEN M	BOX 1933	SAN FRANCISCO CA 94104	OPERATING RIGHTS	0.000000000

Serial Number: NMNM-- 0 560353

Mer Twp Rng Sec	S Typ SNr Suff	Subdivision	District/Resource Area	County	Mgmt Agency
23 0190S 0300E 001	ALIQ	S2NW,SW,S2SE;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT
23 0190S 0300E 001	LOT:	4;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT
23 0190S 0300E 010	ALIQ	N2NE,SWNE,W2,SE;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT
23 0190S 0300E 011	ALIQ	N2,N2SW,SESW,SE;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT
23 0190S 0300E 012	ALIQ	E2NE,SWNE,W2,SE,;	CARLSBAD FO	EDDY	BUREAU OF LAND MGMT

Serial Number: NMNM-- 0 560353

Act Date	Code	Action	Action Remarks	Pending Office
10/31/1947	387	CASE ESTABLISHED		
11/01/1947	496	FUND CODE	05;145003	
11/01/1947	530	RLTY RATE - 12 1/2%		
11/01/1947	868	EFFECTIVE DATE		
06/20/1966	553	CASE CREATED BY ASGN	OUT OF NMLC063613;	
09/15/1966	500	GEOGRAPHIC NAME	UNDEFINED FLD;	
09/15/1966	510	KMA CLASSIFIED		
09/20/1966	315	RENTAL RATE DET/ADJ	\$1.00;	
03/19/1971	817	MERGER RECOGNIZED	FLAG OIL/FLAG-REDFERN	
03/19/1971	817	MERGER RECOGNIZED	REDFERN DEV/FLAG-REDF	
03/19/1971	817	MERGER RECOGNIZED	REDFERN OIL/FLAG-REDF	
03/19/1971	817	MERGER RECOGNIZED	REDFERN&SONS/FLAG-RED	
01/20/1975	284	REINSTATEMENT FILED		
02/07/1975	282	REINSTATEMENT APPROVED		
06/28/1982	650	HELD BY PROD - ACTUAL		
09/27/1982	102	NOTICE SENT-PROD STATUS		
11/19/1982	246	LEASE COMMITTED TO CA	SCR 390	
12/29/1982	932	TRF OPER RGTS FILED		
12/30/1982	932	TRF OPER RGTS FILED	(1)	
12/30/1982	932	TRF OPER RGTS FILED	(2)	
01/18/1983	932	TRF OPER RGTS FILED	(1)	
01/18/1983	932	TRF OPER RGTS FILED	(10)	
01/18/1983	932	TRF OPER RGTS FILED	(11)	
01/18/1983	932	TRF OPER RGTS FILED	(12)	
01/18/1983	932	TRF OPER RGTS FILED	(2)	
01/18/1983	932	TRF OPER RGTS FILED	(3)	

**NO WARRANTY IS MADE BY BLM  
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