

ATS-07-586

	CD-ART	LHA	SEP 1	3 2007	,	
Form 3169.		-			APPROVED	
(Appd2004) UNITED STATES		·	الم-الراق	RTESIA OMB N	lo 1004-0137 March 31, 2007	
DEPARTMENT OF THE BUREAU OF LAND MAN	INTERIOR	R:III:POT/	4sh	5 Lease Serial No. NM-0560353		
APPLICATION FOR PERMIT TO	DRILL OR	REENTER		6. If Indian, Allotee	or Tribe Name	
la. Type of work: DRILL REENTI	ER			7 If Unit or CA Agr	eement, Name and N	lo.
lb. Type of Well: ✓Oil Well Gas Well Other	Sing	le ZoneMultip	ole Zone	8. Lease Name and Munchkin Fe	Well No. deral, Well No. 11	I
2. Name of Operator Chi Operating, Inc.				9 API Well No.	,	70.
3a. Address P.O. Box 1799 Midland, TX 79702	3b Phone No. ((include area code) -5001		10 Field and Pool, or Benson Delaw		1 10
4. Location of Well (Report location clearly and in accordance with an	ty State requiremen	ts *)		11. Sec., T. R. M. or E	31k. and Survey or Ar	ea
At surface 2418' FNL \$\frac{7}{2}\$ 541' FWL At proposed prod. zone 2100' FSL & 330' FEL, Sec. 11-T19	9S-R30E			Sec. Sec. 12 T	19S-R30E	
4 Distance in miles and direction from nearest town or post office* 16 road miles south of Loco Hills				12 County or Parish Eddy	13. State	NM
Distance from proposed* location to nearest property or lease line, ft	16 No. of acr			ing Unit dedicated to this well		
(Also to nearest drig. unit line, if any)	2160.3		40 20 BLM/5	1/BIA Bond No. on file		
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1100' to BH loc.	,	Proposed Depth 20 BLM/BIA E NM-1616				
Elevations (Show whether DF, KDB, RT, GL, etc.) 3424' GL	22. Approxima	nte date work will sta 08/22/2007	rt*	23. Estimated duration 30-40 days	on	
	24. Attach	ments				
he following, completed in accordance with the requirements of Onsho	ore Oil and Gas O	rdei No.1, shall be a	ttached to thi	is form:		
Well plat certified by a registered surveyor. A Drilling Plan.		4 Bond to cover t Item 20 above).	he operation	ns unless covered by an	n existing bond on fi	ile (see
3 A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office)	Lands, the	5 Operator certifie6. Such other site authorized office	specific info	ormation and/or plans a	s may be required by	y the
25 Signature Reverge R Smith		Printed Typed) George R. Smith			Date 08/02/2007	
Fitle Agent for Chi Operating, Inc.						
Approved by (Signature)		Printed Typed)			Date 8-31	
JESSE 2 I'M		· · · · · · · · · · · · · · · · · · ·				
STATE DIRECTOR	Office	\				
Title _		MMII STIBIT STI	(OFFICE		entitle the applicant	

*(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 or portion thereof.

SEE ATTACHED FOR CONDITIONS OF APPROVAL APPROVAL SUBJECT TO

GENERAL REQUIREMENTS

George R. Smith, agent NSL - Required To AND SPECIAL STIPULATIONS ATTACHED

1625 N. French Dr., Hobbs, NN 88240 Energy, Minerals & Natural Resources Department Revised October 12, 2005 District II

Submit to Appropriate District Office

OIL CONSERVATION DIVISION 1301 W. Crand Avenue, Artesia, NM 88210

State Lease - 4 Copies

District III District IV

1000 Rio Brazos Rd., Astec, NM 87410

1220 S. St. Francis Dr., Santa Fe. NM 87605

1220 South St. Francis Dr.

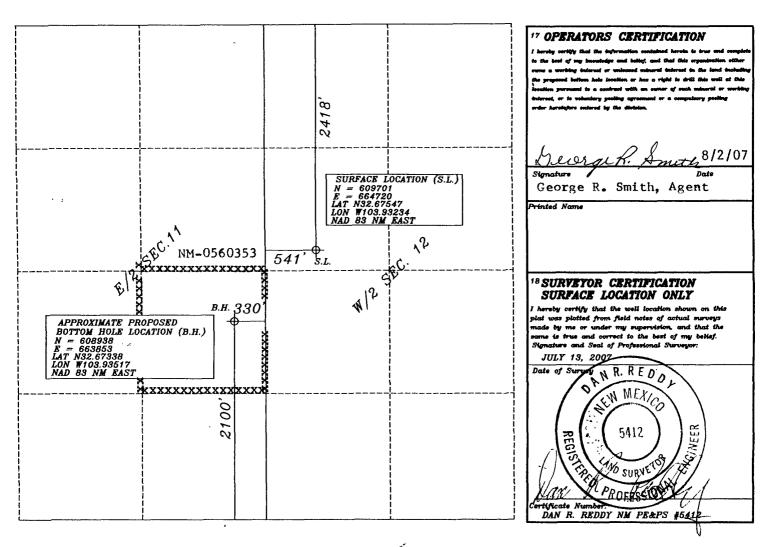
Santa Fe, NM 87505

Fee Lease - 3 Copies

□ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT 1 API Number 97083 Benson Delaware 4 Property Code 6 Property Name 6 Well Number MUNCHKIN FEDERAL 11 OGRID No. 8 Operator Name 9 Elevation 4378 CHI OPERATING, INC. 3424 10 Surface Location 12 WEST 19-5 30-E**EDDY** 2418 541 NORTH ${\it ''Bottom\ Hole\ Location\ If}$ DifferentFrom Surface North/South line UL or lot no. Section Feet from the Feet from the East/West Une County Range 11 19-5 30-E330 **EAST EDDY** 2100 **SOUTH** 12 Dedicated Acres 18 Joint or Infill 14 Consolidation Code 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



APPLICATION FOR DRILLING

CHI OPERATING, INC.

Munchkin Federal, Well No. 12

Surface Location: 2547' FNL & 519' 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)

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:

HOLE	CASING	WEIGHT	GRADE	COLLAR	SETTING	COLLAPSE	BURST	TENSION
SIZE	SIZE				<u>DEPTH</u>	DESIGN	DESIGN	DESIGN
						FACTOR	FACTOR	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 3200": Kick off and build angle at 2.5 degrees per 100 feet. Drill and build curve section to 14.15 degrees to T.D. See Exhibit "F".

5. Cement Program:

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

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

Chi Operating, Inc. Munchkin Federal, Well No. 12 Page 2

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.

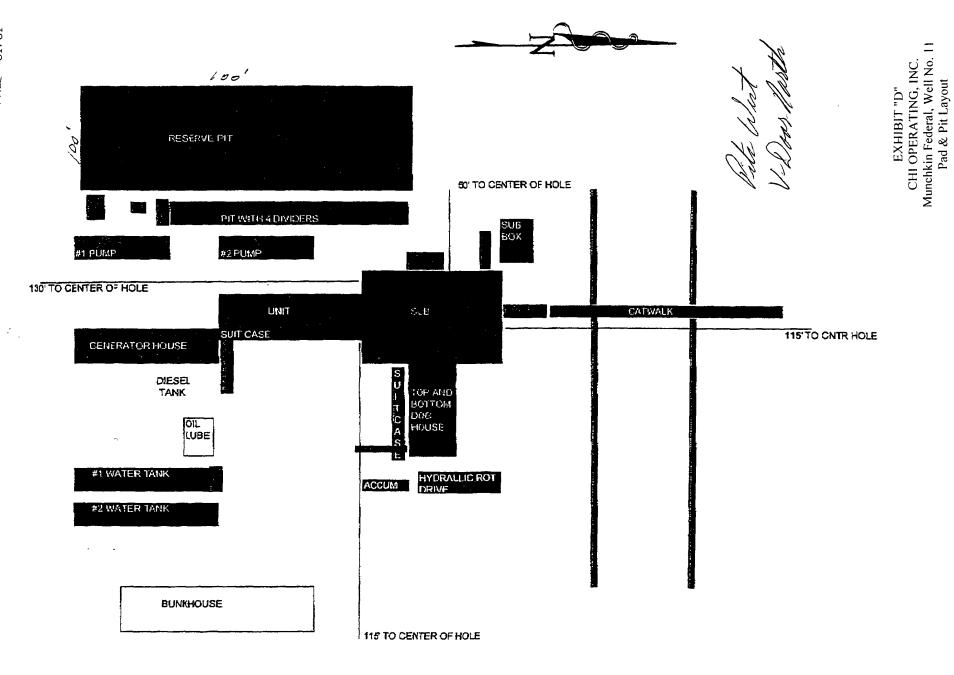
Logging: T.D thru pay: GR-CAL-CNL-LDT, GR-CAL DLL-MICRO and CMR

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. H₂S: None expected. None in previous drilling of wells, but the Mud Log Unit will be cautioned to use a gas trap to detect H₂S and if any is detected the mud weight will be increased along with H₂S inhibitors sufficient to control the gas.
- **12.** Anticipated starting date: September 26, 2007
 Anticipated completion of drilling operations: Approximately 30 days.



BLOWOUT PREVENTOR ARRANGEMENT

10" SHAFFER TYPE "E", 3000 psi WP 80 GALLON, 4 STATION KOOMEY ACCUMULATOR 3000 psi WP CHOKE MANIFOLD

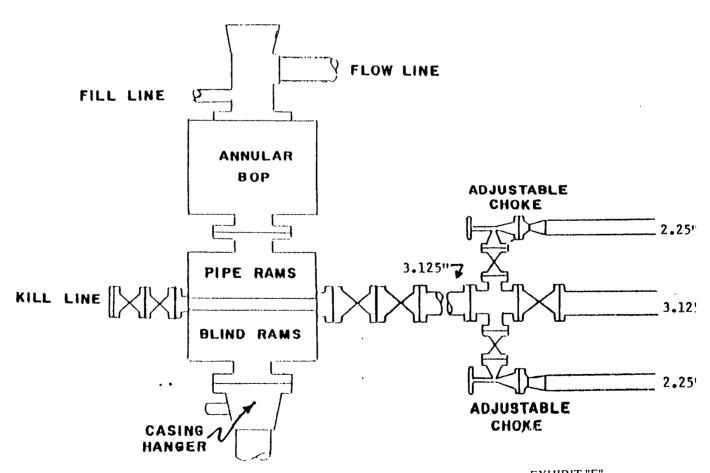
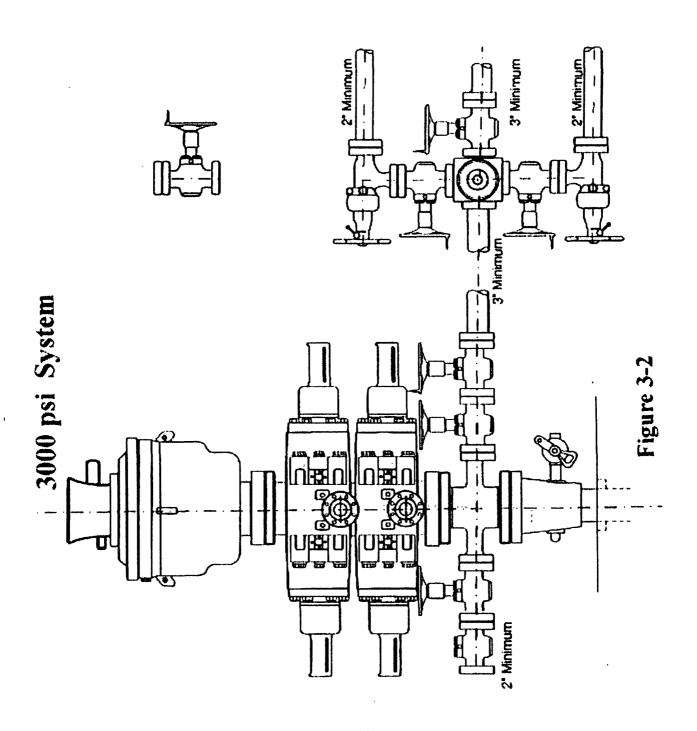


EXHIBIT "E"
CHI OPERATING, INC.
Munchkin Federal, Well No. 11
BOP Specifications



Planned Wellpath Report

Plan #1 Page 1 of 3



RIDIDIR	ENCE WELLPATH IDENTIFICATION					
Operator	Chi Operating, Inc.	Slot	#11_SHL		, , , , , , , , , , , , , , , , , , , ,	
Area	Eddy County, NM	Well	#11			,
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#11 PWB	• •		
Facility	Munchkin Federal #11		;	,		

REPORT SETUI	PINFORMATION		
	NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US fee		WellArchitect™ 1.2
North Reference	Grid	User	Jonebea
Scale	0.999927	Report Generated	08/02/07 at 10:19:29
Wellbore last revise	d 11/30/06	Database/Source file	WA_Midland/#11_PWB

WELLPATH LOCATION										
• • • • • • • • • • • • • • • • • • • •	Local coordinates Grid coordinates Geographic coor									
	North [feet]	East [feet]	Easting [US feet]	Northing [US feet]	Latitude [°]	Longitude [°]				
Slot Location	0.00	0.00	664720.00	609701.00	32 40 31.700N	103 55 56.438W				
Facility Reference Pt	1		664720.00	609701.00	32 40 31.700N	103 55 56.438W				
Field Reference Pt		, , , , , ,	664720.00	609701.00	32 40 31.700N	103 55 56.438W				

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on #11_SHL (RT) to Facility Vertical Datum	0.00 feet
Horizontal Reference Pt	Slot	Rig on #11_SHL (RT) to GRN. ELEV.	3424.00 feet
Vertical Reference Pt	Rig on #11_SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00 feet
MD Reference Pt	Rig on #11_SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	228.65°

EXHIBIT "F"
Chi Operating, Inc.
Munchkin Federal, Well No. 11

Directional Drilling Program

Surface Location: 2418' FNL & 541' FWL, Sec. 12-T19S-R30E Bottom Hole Location: 2100' FSL & 330' FEL, Sec. 11-T19S-R30E

Planned Wellpath Report

Page 2 of 3



RIDIDICR	ENCE WELLPATH IDENTIFICATION		
Operator	Chi Operating, Inc.	Slot	#11_SHL
	Eddy County, NM	Well	#11
Field	(Munchkin) Section 12 T19S R30E	Wellbore	#11 PWB
Facility	Munchkin Federal #11	/ ٧٨٠	the converse was some commental and the converse of the conver

WELLPATH	DATA (60 sta	ntions) †=	interpolated	l/extrapolate	d station				,
MD feet	Inclination (°)	Azimuth	TVD [feet]	Vert Sect [feet]	North [feet]	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
0.00	0.000	1°1 228.651	0.00		0.00	0.00		Tie On	Comment
100.00†	0.000	0.000	100.00		0.00	0.00	0.00		
200.00†	0.000	0.000	200.00		0.00	0.00	0.00	4	
300.00†	0.000	0.000	300.00	0.00	0.00	0.00	0.00	1	464
400.00†		0.000	400.00	. . 0.00	3 As and 33 WYS SWA WAY 14 WWW.	W	0.00		
500.00†	0.000	0.000	500.00	0.00	0.00	0.00	0.00		1
600.00†	0.000	0.000	600.00	0.00 €	0.00	0.00	0.00	î	
700.00†	0.000	0.000	700.00	0.00	0.00	0.00	0.00		,
\$00.00†	0.000	0.000	800.00	0.00	0.00	0.00	0.00	\$ 8	
900.00†	0.000	0.000	900.00	🤌 🐬 0.00.4	·	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		
1300.00†	0.000	0.000	1300.00		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		Ì
1800.00†	0.000	0.000	1800.00		0.00	0.00	0.00	1 7 1 1 1 1 7 1 1 1 1 1	
1900.00†	0.000		1900.00		A 1771	0:00	0,00		
2000.00†	0.000	0.000	2000.00		0.00	0.00	0.00		
2100.00	0.000	228.651	2100.00		0.00	0.00		KOP	
2200.00†	2.500	228.651	2199.97	2.18	-1.44	-1.64	2.50	1	
2300.00†	5.000	228.651	2299.75	8.72	-5.76	-6.55	2.50	n's est e man a material man a	
2400.00†		228.651		19.61			2,50		
2500.00†	10.000	228.651	2497.97	34.82	-23.00	-26.14	2.50	CONTRACT YARM O	
2600.00†	,	228.651	2596.04	54.33	-35.89	-40.78	2.50		
2700.00†		228.651	2693.17	78.09	-51.59	-58.62	2.50	*	,
2800.00†	A	228.651	2789.17		-70.08	-79.63	2.50		
2900.00†	A 4	228.651	2883.85						
2950.02	21.250	228.651	2930.66	155.83	-102.95	-116.98		EOB	
3000.00†		228.651	2977.25		-114.92	-130.58	0.00	· \$ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	, and the 1990 to 1990 to
3100.00†		228.651	3070.45		-138.86	-157.79	0.00	2	
3200.00†	بالإمرامينية مام المراوية	228.651	3163.65	246.44	-162.81	-185.00	0.00	ar forcement representation of the con-	ralletter sterritoristi praese, matalitet ili ausera
3300.00†	" " " " " " " " " " " " " " " " " " "			282.68	,	-212:21	*** * * * ** **	/ // V V Y Y WYWW AND	
3400.00†	\$/		3350.05	N 7	-210.70	-239.42	0.00		w «
3500.00†	No.	,	3443.25	355.17	-234.64	-266.63	0.00	4	8
3600.00†	,		3536.45	391.42	-258.59	-293.83	0.00		,
3700.00†		228.651	3629.65	427.66	-282.53	-321.04	0.00	age was own to make the	
3800.00†	11.250 (21.250)	228.651	3722.85	463.90	-306.48	-348,25	0.00		

Planned Wellpath Report Plan #1 Page 3 of 3



REFERENCE WELLPATH IDENTIFICATION		
Operator Chi Operating, Inc.	Slot	#11_SHL
Area Eddy County, NM	Well	#11
Field (Munchkin) Section 12 T19S R30E	Wellbore	#11 PWB
Facility Munchkin Federal #11		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

WELLPATH	DATA (60 s	tations) †=	interpolated	l/extrapolate	d station				, , ,
MD feet	Inclination °	Azimuth [°]	TVĎ feet	Vert Sect	North feet	East [feet]	DLS [°/100ft]	Design Comments	Path Comment
3900.00†	21.250		3816.05	500.15	-330.42	-375.46	0.00		Comment
4000.00†	21.250	228.651	3909.25	536.39	-354.37	-402.67	0.00	V . V . W .	
4100.00†	21.250	228.651	4002.45	572.64	-378.31	-429.88	0.00		
4200.00†	21.250	m / / // / / / / / / / / / / / / / / /	4095.65	608.88	-402.26	-457.09	0.00		
4300.00†	21.250	228.651	4188.85	645.13	-426.20	;	0.00	o successive de la company	
4400.00†	21.250	228.651	4282.05	681.37	-450.15	-511.50	0.00	, , , , , , , , , , , , , , , , , , , ,	
4500.00†	21.250	228.651	4375.25	717.62	-474.09	-538.71	0.00		
4600.00†	21.250	228.651	4468.46	753.86	-498.04	-565.92	0.00		
4700.00†	21.250	was to the second	4561.66	790.10	-521.98	-593.13	0.00		
4800.00†	21.250	228.651	4654.86	্ট ি 826.35 ্র	-545.93	-620.34	0.00		
4900.00†	21.250	228.651	4748.06	862.59	-569.87	-647.55	0.00		
5000.00†	21.250	228.651	4841.26	898.84	-593.82	-674.75	0.00	7 (7 99 7 9 7)	
5100.00†	21.250	228.651,	4934.46	935.08 }	-617.76	-701.96	0.00	•	
5200.00†	21.250	228.651	5027.66	971.33	-641.70	-729.17	0.00		
5300.00†	21.250	228.651	5120:86 m	9 - 1007.57	-665.65	-756.38	0.00		
5400.00†	21.250	228.651	5214.06	1043.82	-689.59	-783.59	0.00	**	
5500.00†	21.250	228.651	5307.26	1080.06	-713.54	-810.80	0.00		-
5600.00†	21.250	228.651	5400.46	1116.31	-737.48	-838.01	0.00		***************************************
5700.00†	21.250	228.651	5493.66	1152.55	-761.43	-865.21	0.00		
5706.80	21.250	228.651	5500.00 ¹	1155.01	-763.06	-867.07 _i	0.00	#11 PBHL	

HOLE & CASING SE	CTIONS	Ref Wellbor	e: #11 PV	VB Ref We	ellpath: Pla	ın #1			
String/Diameter	Start MD	End MD	Interval	Start TVD	End TVD	Start N/S	Start E/W	End N/S	End E/W
, , , , , , , , , , , , , , , , , , , ,	[feet]	[feet]	[feet]	[feet]	[feet]	[feet]	[feet]	[feet]	[feet]
7.875in Open Hole	2000.00	5706.80	3706.80	2000.00	5500.00	0.00	0.00	-763.06	-867.07

TARGETS Name	MD TVD North East [feet] [feet]	Grid East Grid North	Latitude Longitude Shape
1)#11_BHL	5706.80 5500.00 -763.06 -867.07 2100' FSL & 330' FEL	663853.00 608938.00	32 40 24.182N 103 56 06.615W point

SURVEY PROC	GRAM Ref	Wellbore: #11 PWB	Ref Wellpath:	Plan #1		
Start MD	End MD	Positional Unc	ertainty Model	·	Log Name/Comment	Wellbore
0.00	5713.40	NaviTrak (Standard)	, 41	construction of the second	and the same of th	#11 PWB

Chi Operating, Inc.

2400

Scale 1 inch = 600 ft

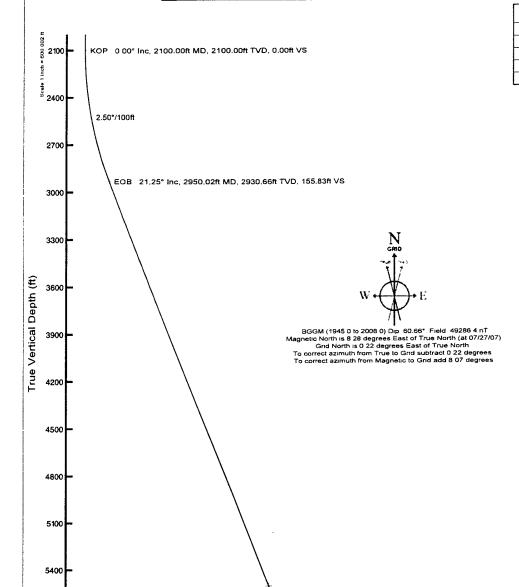
2100

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

Munchkin Federal #11

Slot: #11_SHL Well. #11 Wellbore: #11 PWB





#11 BHL

1200

Vertical Section (ft) Azimuth 228.65° with reference 0.00 N, 0.00 E from wellhead

900

5700

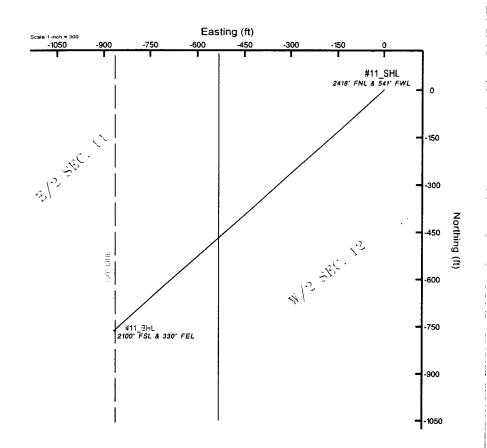
300

600

#11 PBHL 21.25° Inc, 5706.80ft MD, 5500.00ft TVD, 1155.01ft VS

1500

			W	ell Profi	le Data			· · · · · · ·
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0 000	228,651	0 00	0.00	0 00	0.00	0 00
KOP	2100.00	0.000	228.651	2100.00	0.00	0.00	0.00	0 00
EOB	2950 02	21,250	228,651	2930.66	-102.95	-116 98	2.50	155.83
#11 PBHL	5706.80	21 250	228.651	5500.00	-763,06	-867 07	0.00	1155.01



Plot reference wellpath is Plan #1	
True vertical depths are referenced to Rig on #11_SHL (RT)	Grid System NAD83 / TM New Mexico State Planes, Eastern Zone (3001) US feet
Measured depths are referenced to Rig on #11_SHL (RT)	North Reference Grid north
Rig on #11_SHL (RT) to GRN ELEV 3424 feet	Scale True distance
GRN ELEV to Mud line (Facility - Munchkin Federal #11) -3424 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by jonebes on 02/Aug/2007

MULTI POINT SURFACE USE AND OPERATIONS PLAN

CHI OPERATING, INC
Munchkin Federal, Well No.11

Surface Location: 2600° FNL & 520° 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)

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 NW 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.

Chi Operating, Inc. Munchkin Federal, Well No. 11 Page 2

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. Currently there are existing storage and pipeline facilities available on the No. 8 well 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 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 NW¼SE¼, Sec. 1-T19S-R30E. The archaeologist has cleared this pit. The caliche may also come from a P/A well pad on the Munchkin Fed. #7, 2475' FNL & 2310' FWL Sec. 12-T19S-R30E. 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 on 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 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 location and access roads 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 multy 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. An additional report will be furnished for an additional 100' X 600' area to be cleared on the west side, which will also take care of the re-route of the bike trail. This will give approximately 120' buffer for the pits.

Chi Operating, Inc. Munchkin Federal, Well No. 11 Page 4

12. **OPERATOR'S REPRESENTATIVE:**

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

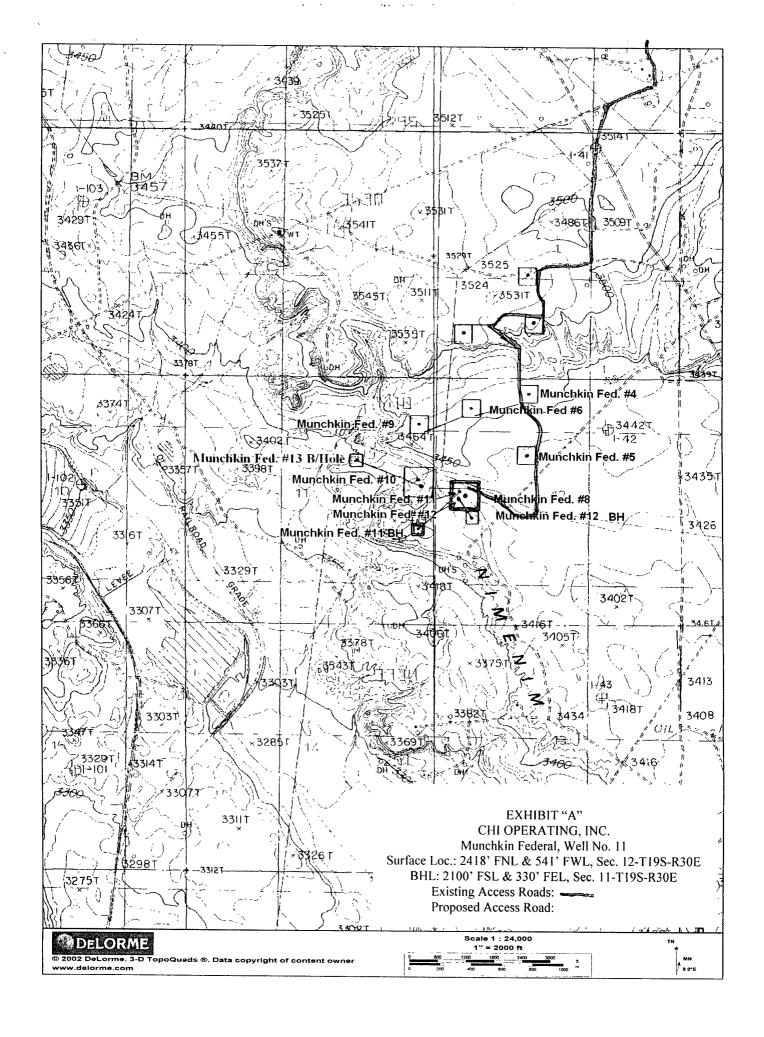
> John Qualls Chi Operating, Inc. P. O. Box 1799 Midland, Texas 79701 Office Phone: (432) 685-5001 (432) 557-8774 Cell Phone:

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 2, 2007

Deorge 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.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Chi Operating Inc Well Name & No. 12-Munchkin Federal

Location (SHL): 2547' FNL, 0519' FWL, Sec. 12, T-19-S, R-30-E, Eddy County, NM Location (BHL): 2310' FSL, 0800' FWL, Sec. 12, T-19-S, R-30-E, Eddy County, NM

Lease: NM-0560353

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 2 hours in advance for a representative to witness:

- 1. Spudding well
- 2. Setting and/or Cementing of all casing strings
- 3. BOPE tests
 - Eddy County call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822
- B. Although Hydrogen Sulfide has not been reported in this section, it is always a potential hazard and has been detected in Township 32E measuring 200-3000 ppm in gas streams and 200-3000 ppm in STVs from the Yates and Delaware formations.
- C. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- **D.** Gamma-Ray/Neutron logs shall be run from the base of the Salado formation to the surface. The logs shall be run at a speed which allows the logs to be legible and no faster than manufacturers of the logging tools recommended speed. (R-111-P area only)

II. CASING: If used casing is used, certification required.

A. The 13-3/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite at approximately 500 feet and cemented to the surface.

- 1. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- 2. Wait on cement (WOC) time for a primary cement job will be a minimum of 24 hours in the potash area or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- 3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- 4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Artesia Group and Capitan Reef. Possible water flows in the Artesia and Salado Groups.

- **B.** The minimum required fill of cement behind the <u>8-5/8</u> inch intermediate casing is **for cement to come to surface.** If cement does not circulate see A.1 thru 4.
- C. The minimum required fill of cement behind the <u>5-1/2</u> inch production casing is **for cement to come to surface.** If cement does not circulate see A.1 thru 4.
- **D.** If hardband drill pipe is rotated inside casing; returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- E. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed, which includes all cement seal tests prior to and after drilling out each string.

III. PRESSURE CONTROL:

- A. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- **B.** The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - 1. The tests shall be done by an independent service company.
 - 2. The results of the test shall be reported to the appropriate BLM office.
 - 3. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - 4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - 5. A variance to test the surface casing and BOP/BOPE to the reduced pressure of 1000 psi with the rig pumps is approved.

IV. Drill Stem Test

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

Engineer on call phone (after hours): Carlsbad - 505-706-2779

WWI 081707