Form 3160-3 (July 1992)

FORM APPROVED

OMB	NO.	1004-01	36
Expires:	Febr	nary 28,	199

DEPAR	RTMENT OF THE INT	ERIOR	reverse side	<b>=</b> )·	5. LEASE DESIGNATION A	ND SERIAL NO.
BUR	EAU OF LAND MANAGEM	ENT			NM-4314	
ΔΡ	PLICATION FOR PERMIT TO	DRILL O	R DEEPEN		6. IF INDIAN, ALLOTTES OF	R TRIBE NAME
1a. TYPE OF WORK					·	
1b. TYPE OF WELL	DRILL X	DEEPEN			7. UNIT AGREEMENT NAM	1E
OIL X	GAS	SINGLE	X MULTIPLE			10000
WELL 2. NAME OF OPERATOR	WELL OTHER	ZONE	ZONE		8. FARM OR LEASE NAME	:, WELL NO. 235 DO
Cimarex Energy C	o of Colorado		1	<u>۸</u>	Pipeline B 6 Federal	l No. 3
3. ADDRESS AND TELEPHO			<16260	13>	9. API WELL NO.	
	rving TX 75014 972-401-3111	,		1	30-025-	D45
4. LOCATION OF WELL	(Report location clearly and in accordance with a	ny State requirer	ments.*)		<b>-</b>	WILDCAT
					E-K; Bone Spring	AND CHOUSY
			,		11. SEC. T.,R.,M., BLOCK	AND SURVET
2310' FNL & 1980	0' FWL	1.	INIC		₩-6-19S-	-34E
14. DISTANCE IN MILES AND D	RECTION FROM NEAREST TOWN OR POST OFFICE	V	L/1(T/		12. COUNTY OR PARISH	13. STATE
34 miles West of Ho	obbs, NM				Lea	NM
15. DISTANCE FROM PROP LOCATION TO NEA		16. NO. OF AC	RES IN LEASE	17. NO. C	OF ACRES ASSIGNED	
PROPERTY OR LEAS	SE LINE, T.O	1114.24	•		40	
(Also to nearest drig. unit	mie, ii driy)	1114.36			ROTARY OR CABLE TOOLS	
TO NEAREST WELL,	DRILLING COMPLETED,		19. PROPOSED DEPTH	20.	RUTARY OR CABLE TOOLS	
OR APPLIED FOR, ON	N THIS LEASE, FT. N/A		11000'	R	otary	
					•	
21. ELEVATIONS (Show who 3804' GR	other DF, RT, GR, etc.)  Capital Co	ntrolled w	latar Besin		22. APPROX. DATE WORK 11-25-06	.WILL STARP
23	PROPOSED CASI	NG AND CE	MENTING PROGRAM		P	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIG	HT PER FOOT	SET	TING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13-3/8" ST&C	48#	•	450'		410 sx Prem circ surf
12-1/4"	J-55 9-5/8" LT&C	40#		3700'		1200 sx Prem circ surf
8-3/4"	P-110 5-1/2" LT&C	17#		11000'		2155 sx TOC 1250'
From the base of the su	rface pipe through the running of prod	luction casin	g, the well will be equi	pped wi	th a 5000 - psi BOP	
system. We are request	rface pipe through the running of proc ting a variance for the 13-3/8" surface	casing and F	ROP testing from Onsh	ore Orde	er No. 2 which states A	616171878
						· E
all casing strings below	the conductor shall be pressure tested	1 to 0.22 psi j	per 1001 or 1500#, Will	never is	greater, but not/to?	000 E
exceed 70% of the man	ufacturer's stated maximum internal y	ield. During	the running of the surf	face pipe	and the drilling of	Hobbs Hobbs
the intermediate hole, w	ve do not anticipate any pressures grea	ter than 100	0# and are requesting a	varianc	e to test the	2526   25
13-3/8" casing and BOI	P system to 1000# psi and to use rig p	umps instead	l of an independent ser	vice com	ipany.	~ 5/1/ 66/
-		-	•		134	F 60°
IN ABOVE SPACE, DI	ESCRIBE PROPOSED PROGRAM:	If proposal is to	deepen give data on pres	ent produ	∵ ctive zone and proposed ne	w productive zone.
If proposal is to drill or dee	pen directionally, give pertinent data on subsi					
SIGNED	Zeno fami	TITLE	Mgr. Ops. Admin		_ DATE 0	6-30-06
(This space for Federal or State of	ffice use)					
PERMIT No.			APPROVAL D	_		<del> </del>
Application approval does not wan CONDITIONS OF APPRO	rant or certify that the applicant holds legal or equitable title	to those rights in the				0 9600
APPROVED BY	/s/ Tony J. Herrell	TITLE	PIELD MAN	AGE	- DAIL	JUL 2 8 2006
Ti#6.4911.5.0			is On Reverse Side	to	APPROVA	
United States	<ul> <li>Section 1001, makes it a crime for any any false, fictitious or fraudulent statem</li> </ul>	ents or repre	sentations as to any mai	tter withir	n its jurisdiction.	New Control of the Co
				ΔR	തുവാത വരുപത്തിൽ	1 / የ ለ ም ም ል

Witness Surface Casing



approval subject to General requirements and special stipulations attached



Cimarex Energy Co. of Colorado

5215 North O'Connor Blvd. ☐ Suite 1500 ☐ Irving, TX 75039 ☐ (972) 401-3111 ☐ Fax (972) 443-6486 Mailing Address: P.O. Box 140907 ☐ Irving, TX 75014-0907 A wholly-owned subsidiary of Cimarex Energy Co., a NYSE Listed Company, "XEC"

### STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management

620 E. Greene St.

Carlsbad, New Mexico 88220 Attn: Ms. Linda Denniston

Cimarex Energy Co. of Colorado accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.:

NM-4314 – SE/4NW/4 6-19S-34E

County:

Lea County, New Mexico

Formation (S):

**Bone Spring** 

Bond Coverage:

Statewide BLM Bond

BLM Bond File No.: NM 2575

Authorized Signature: Zono La one

Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager, Operations Administration

Date: June 30, 2006

DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT III

State of New Mexico Energy, Minerals and 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

WELL LOCATION AND ACREAGE DEDICATION PLAT

1220 South St. Francis Dr. Santa Fe, New Mexico 87505

☐ AMENDED REPORT

#### DISTRICT IV 1220 S. St. Francis Dr., Santa Fe. NM 87505

30-025-38	045 2 1650	E-K; Bone Spring		
Property Code		erty Name 3–6" FEDERAL	Well Number	
ogrid No. 162683	Oper CIMAREX ENERGY	ator Name CO. OF COLORADO	Elevation 3804	

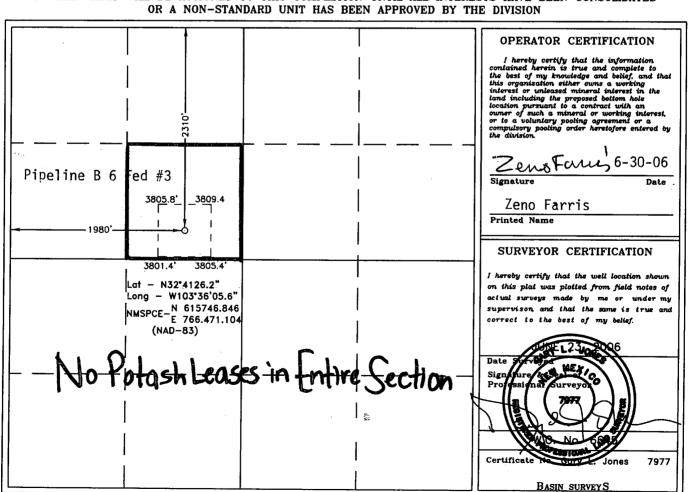
#### Surface Location

UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	6	19 S	34 E		2310	NORTH	1980	WEST	LEA

#### 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	Joint or	Infill Co	nsolidation (	Code Or	der No.				
40	N								

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED



## **Application to Drill**

Cimarex Energy Co. of Colorado Pipeline B 6 Federal No. 3 Unit F Section 6 T19S-R34E Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

1 Location:

2310' FNL & 1980' FWL

2 Elevation above sea level:

GR 3804'

3 Geologic name of surface formation:

**Quaternery Alluvium Deposits** 

4 <u>Drilling tools and associated equipment:</u>

Conventional rotary drilling rig using fluid as a circulating

medium for solids removal.

5 Proposed drilling depth:

11000'

6 Estimated tops of geological markers:

Yates

3240'

Queen

4479'

Bone Spring

7817'

7 Possible mineral bearing formation:

**Bone Spring** 

Oil

## 8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade	
17-1/2"	0 - 450'	13-3/8"	48	8-R	ST&C	H-40	_
12-1/4"	0 - 3700'	9-5/8"	40	8-R	LT&C	J-55	
8-3/4"	0 - 11000'	5-1/2"	17	8-R	LT&C	P-110	

## **Application to Drill**

Cimarex Energy Co. of Colorado Pipeline B 6 Federal No. 3 Unit F Section 6 T19S-R34E Lea County, NM

#### 9 Cementing & Setting Depth:

13 3/8"	Surface	Set 450' of 13 3/8" H-40 48# ST&C casing. Cement lead with 270 Sx. Of Premium Plus + additives and tail with 140 sx Premium Plus + additives, circulate cement to surface.
9 5/8"	Intermediate	Set 3700' of 9 5/8" J-55 40# LT&C casing. Cement lead with 1000 Sx. Of Class Premium Plus + additives, tail with 200 Sx. Of Premium Plus + additives, circulate cement to surface.
5 1/2"	Production	Set 11000' of 5 1/2" P-110 17# LT&C casing. Cement in two stages, first stage cement with 1555 Sx. of Class POZ/C Cement + additives. Second stage cement with 600 Sx of Class "C". Estimated top of cement 1250'.

#### 10 Pressure control Equipment:

Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000 # annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nippled up on the 9 5/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

### 11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 450'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.
450' - 3700'	9.7 - 10.0	28 - 29	May lose circ.	Fresh water to the top of the 1st salt in Rustler, then switch to Brine. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
3700' - 8300'	8.4 - 9.9	28 - 29	NC	Brine water. Paper for seepage. Lime for PH (9 - 9.5)
8300' - 11000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

## **Application to Drill**

Cimarex Energy Co. of Colorado Pipeline B 6 Federal No. 3 Unit F Section 6 T19S-R34E Lea County, NM

## 12 Testing, Logging and Coring Program:

- A. Mud logging program: Two-man unit from 3000' to TD
- B. Electric logging program: CNL/LDT/CAL/GR, DLL/CAL/GR
- C. No DSTs or cores are planned at this time.

#### 13 Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potiential H2S hazard. An H2S drilling plan is attached. Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used. Estimated BHP 4000 PSI, estimated BHT 175.

### 14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take <u>35 - 45</u> days. If production casing is run an additional 30 days will be required to complete and construct surface facilities.

## 15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals. The <u>Bone Spring</u> pay will be perforated and stimulated. The well will be tested and potentialed as an oil well.

## **Hydrogen Sulfide Drilling Operations Plan**

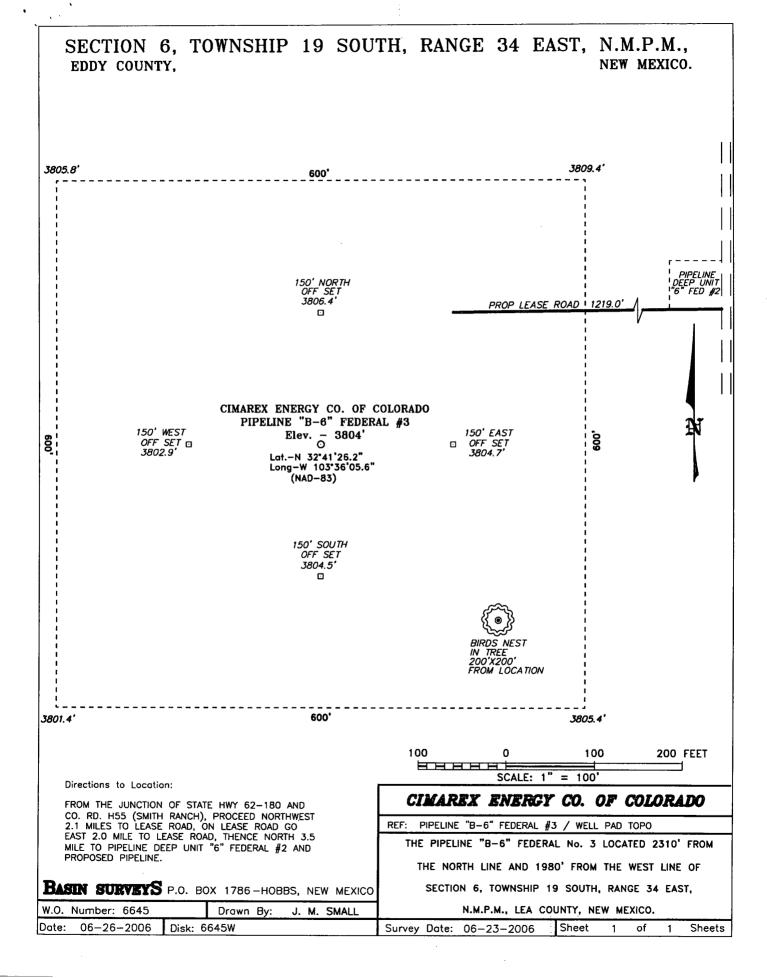
Cimarex Energy Co. of Colorado Pipeline B 6 Federal No. 3 Unit F Section 6 T19S-R34E Lea County, NM

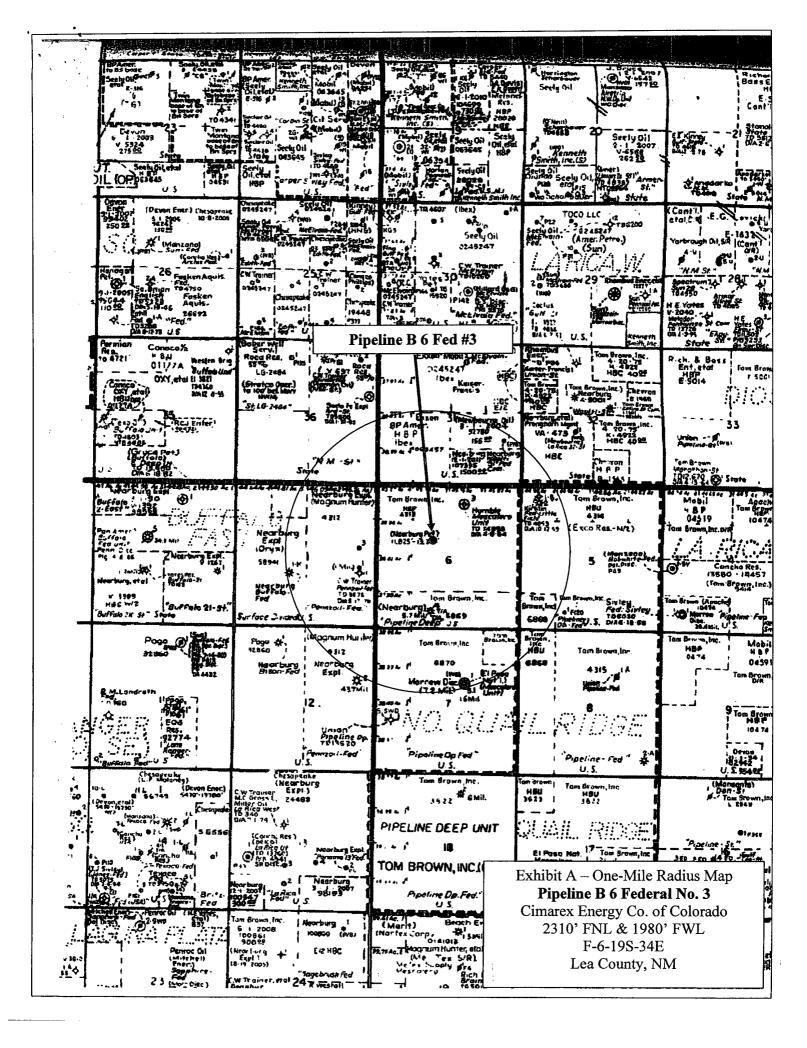
- 1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
  - A. Characteristics of H2S
  - B. Physical effects and hazards
  - C. Proper use of safety equipment and life support systems.
  - D. Principle and operation of H2S detectors, warning system and briefing
  - E. Evacuation procedure, routes and first aid.
  - F. Proper use of 30 minute pressure demand air pack.
- 2 H2S Detection and Alarm Systems
  - A. H2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.
- 3 Windsock and/or wind streamers
  - A. Windsock at mudpit area should be high enough to be visible.
  - B. Windsock at briefing area should be high enough to be visible.
- 4 Condition Flags and Signs
  - A. Warning sign on access road to location.
  - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.
- 5 Well control equipment
  - A. See exhibit "E"
- 6 Communication
  - A. While working under masks chalkboards will be used for communication.
  - B. Hand signals will be used where chalk board is inappropriate.
  - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foremen's trailers or living quarters.
- 7 Drillstem Testing not anticipated.

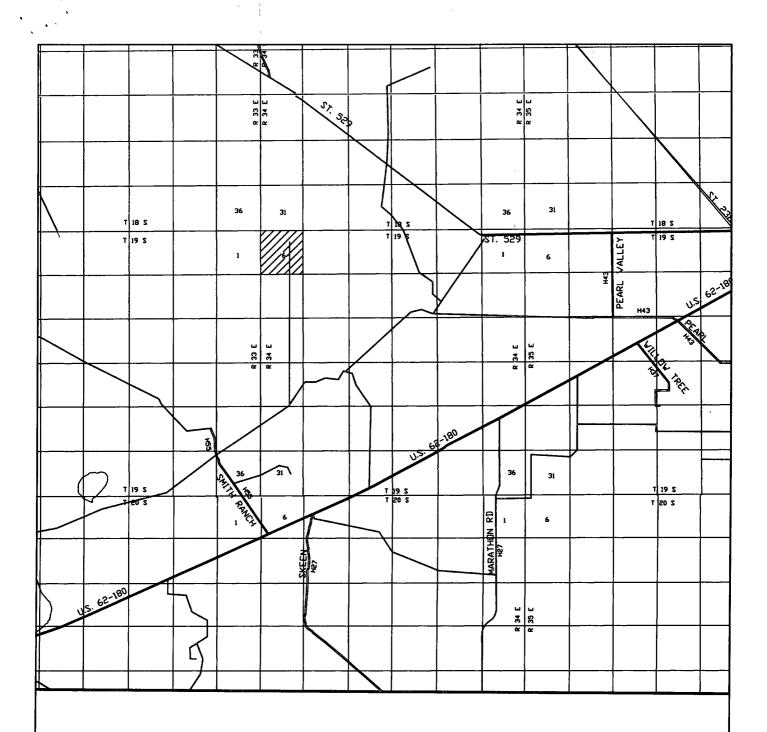
# **Hydrogen Sulfide Drilling Operations Plan**

Cimarex Energy Co. of Colorado Pipeline B 6 Federal No. 3 Unit F Section 6 T19S-R34E Lea County, NM

- 8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
- 9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H2S scavengers if necessary.







PIPELINE "B-6" FEDERAL #3 Located at 2310' FNL AND 1980' FWL Section 6, Township 19 South, Range 34 East, N.M.P.M., LEA County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 — Office (505) 392-3074 — Fax basinsurveys.com

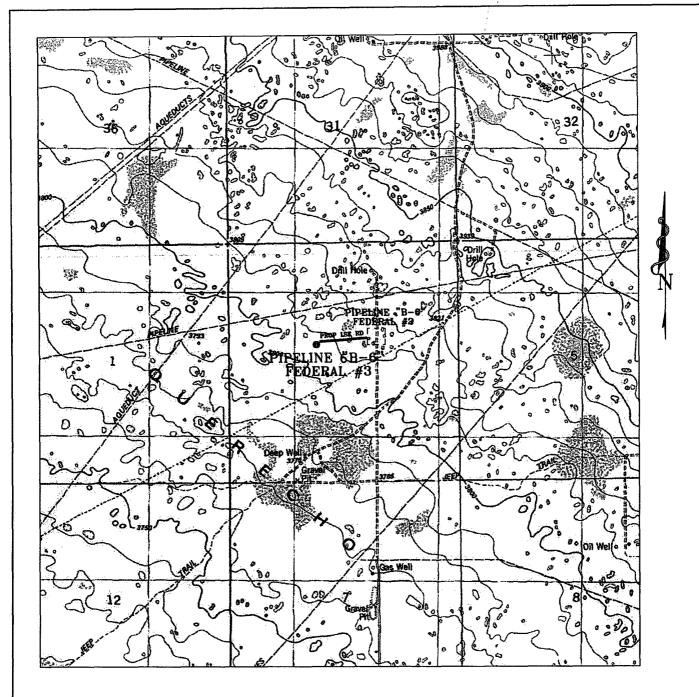
W.O. Number: JMS 6645T

Survey Date: 06-23-2006

Scale: 1" = 2 MILES

Date: 06-27-2006

CIMAREX ENERGY CO. OF COLORADO



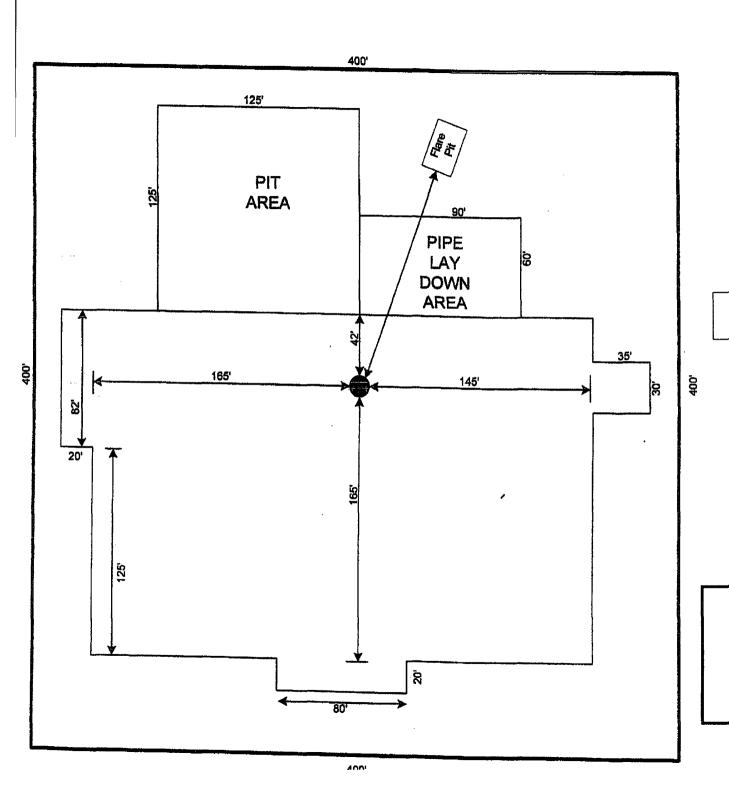
PIPELINE "B-6" FEDERAL #3 Located at 2310' FNL AND 1980' FWL Section 6, Township 19 South, Range 34 East, N.M.P.M., LEA County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (505) 393-7316 — Office (505) 392-3074 — Fax basinsurveys.com

	W.O. Number: JMS 6645T
	Survey Date: 06-23-2006
	Scale: 1" = 2000'
۱	Date: 06-27-2006

CIMAREX ENERGY CO. OF COLORADO



Patterson-UTI Rig 75

SCALE 1"=60'

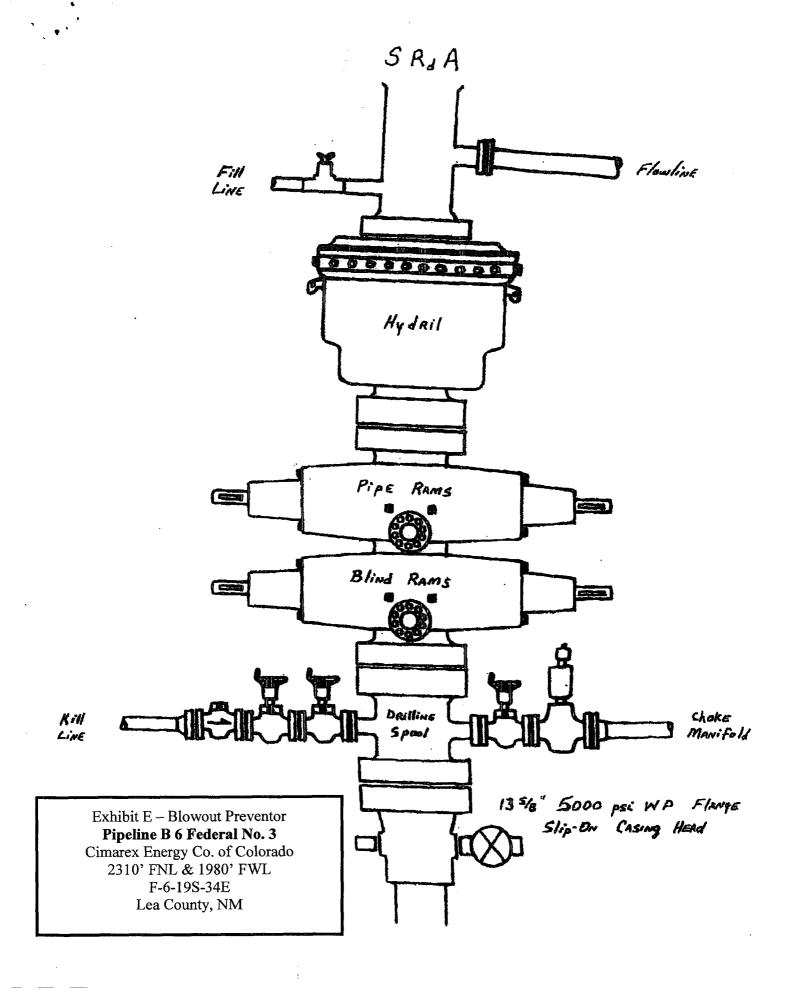
Exhibit D – Rig Layout

Pipeline B 6 Federal No. 3

Cimarex Energy Co. of Colorado
2310' FNL & 1980' FWL

F-6-19S-34E

Lea County, NM



## **ORILLING OPERATIONS** CHOKE MANIFOLD 5M SERVICE

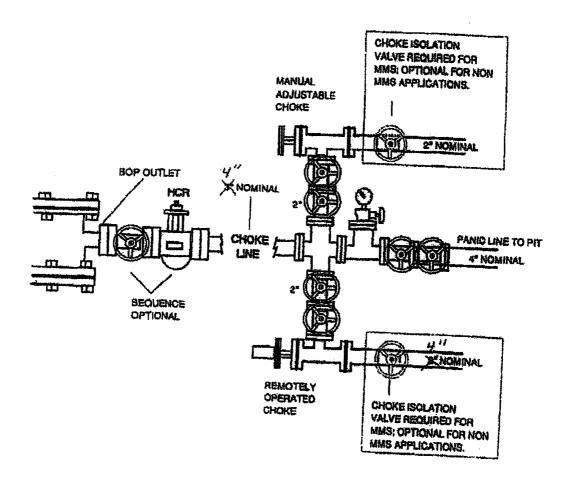


Exhibit E 1 – Chode Manifold Diagram

Pipeline B 6 Federal No. 3

Cimarex Energy Co. of Colorado 2310' FNL & 1980' FWL F-6-19S-34E Lea County, NM

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-144 March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe office

Pit or Below-Gra	<u>ide Tank Registration or Closur</u>	<u>e</u>	
Is pit or below-grade tan	k covered by a "general plan"? Yes No or below-grade tank Closure of a pit or below-grad	la tank	
P.O. Poy 140007 Invine Ty 75014 0007	2-443-6489 e-mail address: zfarris@cimarex.c		
Address: P.O. Box 140907, Irving, Tx 75014-0907	- 380 J. or Qtr/QtrF Sec 6 T19	0 24F	
Facility or well name: Pipeline B 6 Federal No. 3 API #: 30-025			
County: Lea Latitude 324126.2 N Longitude 1033	NAD: 1927 ☐ 1983 🔀 Surface Ow	rner Federal 🛮 State 🗌 Private 🔲 Indian 🗍	
Pit	Below-grade tank		
Type: Drilling ☑ Production ☐ Disposal ☐	Volume:bbl Type of fluid:		
Workover	Construction material:		
Lined ☑ Unlined ☐  Liner type: Synthetic ☒ Thickness _12_mil Clay ☐ Volume	Double-walled, with leak detection? Yes [] If not,	, explain why not.	
Liner type: Synthetic & Thickness 12 mil Clay   Volume  12000 bbl			
Depth to ground water (vertical distance from bottom of pit to seasonal high	Less than 50 feet	(20 points)	
water elevation of ground water.)	50 feet or more, but less than 100 feet	(10 points)	
water execution of Storiet Mater?	100 feet or more	(0 points)	
Wellhead protection area: (Less than 200 feet from a private domestic	Yes	(20 points)	
•	(No)	( 0 points)	
water source, or less than 1000 feet from all other water sources.)	<u> </u>		
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)	
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)	
meganon canais, circures, and percuinal and epitemolal watercourses,	1000 feet or more	0 points	
	Ranking Score (Total Points)	0	
If this is a pit closure; (1) attach a diagram of the facility showing the pit's	relationship to other equipment and tanks. (2) Indicat	e disposal location:	
onsite 🔲 offsite 🗍 If offsite, name of facility	(3) Attach a general description of remedial action	n taken including remediation start date and end	
date. (4) Groundwater encountered: No 🗌 Yes 🔲 If yes, show depth belo	w ground surfaceft. and attach sample	results. (5) Attach soil sample results and a	
diagram of sample locations and excavations.			
I hereby certify that the information above is true and complete to the best of been/will be constructed or closed according to NMOCD guidelines , a Date: 06-30-06			
Printed Name/Titl Zeno Farris Manager Operations Administration	1 Signature - Ino 1- and	<u> </u>	
Your certification and NMOCD approval of this application/closure does not otherwise endanger public health or the environment. Nor does it relieve the regulations.	relieve the operator of liability should the contents of t	he pit or tank contaminate ground water or	
Approval: AUG 0 7 2006			
Date.			
Printed Name/Title PETROLEUM ENGINEER	Signature		