

OCD-HOBBS

SECRETARY'S POTASH

Form 3160-3
(April 2004)UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a Type of Work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-056376
1b Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2 Name of Operator Cimarex Energy Co. of Colorado		7. If Unit or CA Agreement, Name and No.
3a Address PO Box 140907 Irving, TX 75014		8. Lease Name and Well No. <u>29037</u> Mescalero 30 Federal No. 7
3b. Phone No (include area code) 972-401-3111		9. API Well No. 30-025- 38595
4 Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 760' FSL & 660' FWL At proposed prod Zone 760' FSL & 660' FWL Capitan Controlled Water Basin Unit 4 m		10 Field and Pool, or Exploratory Apache Ridge; Bone Spring
11 Sec., T R. M or Blk. and Survey or Area 30-19S-34E		12. County or Parish Lea
13 State NM		14 Distance in miles and direction from nearest town or post office* 32 miles West of Hobbs, NM
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line if any) 660'	16. No of acres in lease 1281.8	17. Spacing Unit dedicated to this well SWSW 40
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 10,400	20 BLM/BIA Bond No. on File NM-2575
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3630' GR	22 Approximate date work will start* 10/1/2007	23. Estimated duration 20-25 days

24 Attachments

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

- | | |
|--|--|
| 1 Well plat certified by a registered surveyor | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2 A Drilling Plan | 5 Operator Certification |
| 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25 Signature <i>Natalie Krueger</i>	Name (Printed/Typed) Natalie Krueger	Date 08.17.07
Title Regulatory Analyst		
Approved By (Signature) <i>Ron Danton</i>	Name (Printed/Typed) <i>15 Ron Danton</i>	Date 10-18-07
Title STATE DIRECTOR	Office NM STATE OFFICE	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon

Conditions of approval, if any, are attached

Title 18 U S S Section 1001 and Title 43 U S C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious, or fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

APPROVAL FOR TWO YEARS

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL 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 East Greene Street

Carlsbad, NM 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:

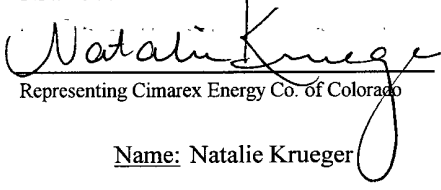
Lease No.: NM-056376 SWSW 30-19S-34E 40 acres

County: Lea County, NM

Formation(s): Wolfcamp

Bond Coverage: Statewide BLM Bond

BLM Bond File No.: NM-2575

Authorized Signature: 
Representing Cimarex Energy Co. of Colorado

Name: Natalie Krueger

Title: Regulatory Analyst

Date: August 17, 2007

DISTRICT I
1626 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 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
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-38595	Pool Code 2260 ✓	Pool Name Apache Ridge; Bone Spring
Property Code 29D32	Property Name MESCALERO "30" FEDERAL	Well Number 7
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3630'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	30	19 S	34 E		760	SOUTH	660	WEST	LEA

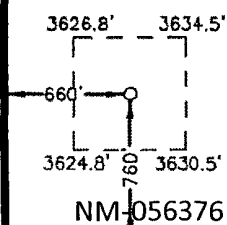
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

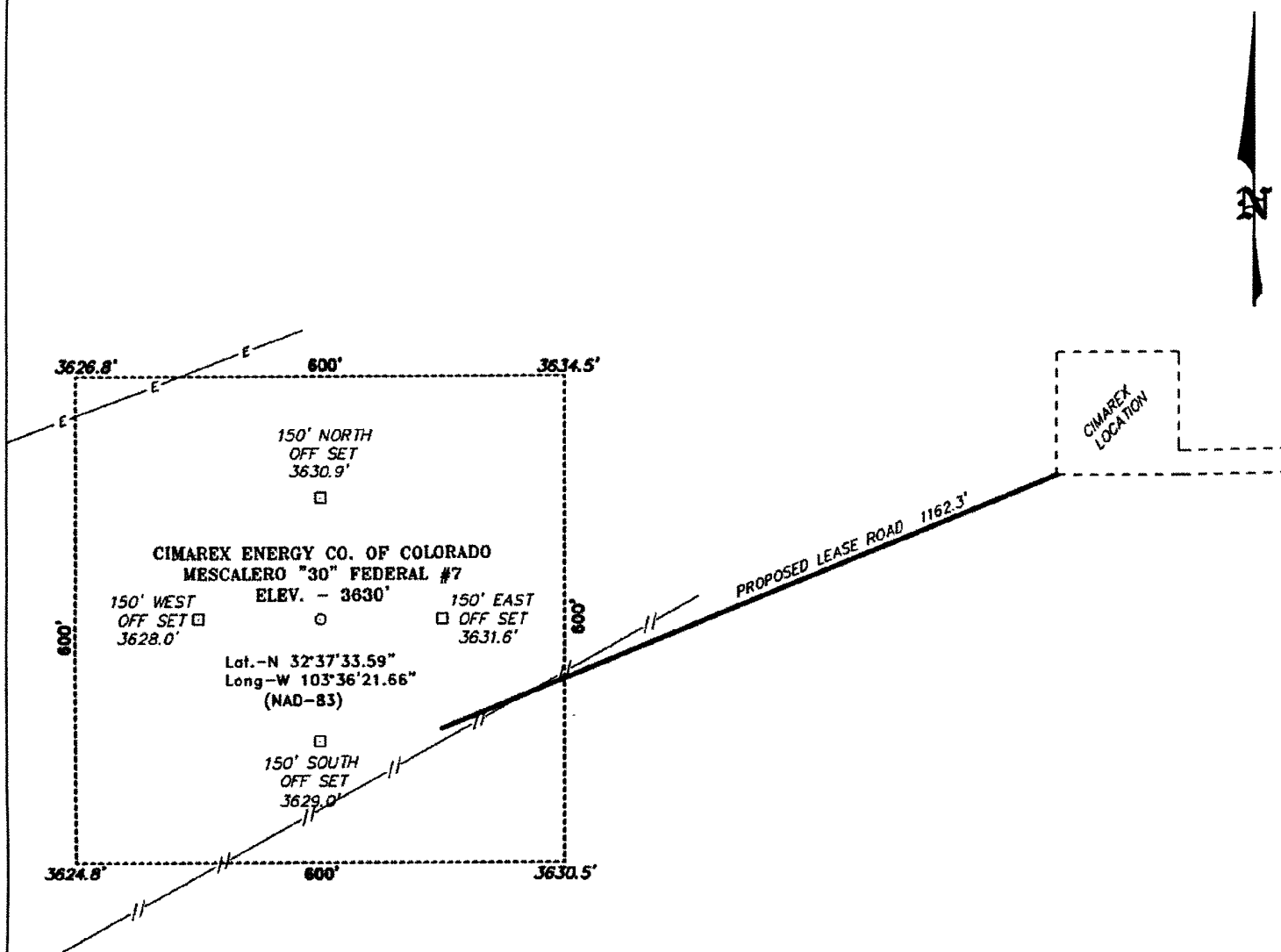
Dedicated Acres 40 ✓	Joint or Infill	Consolidation Code	Order No.
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**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**

<p>SURFACE LOCATION Lat - N32°37'33.59" Long - W103°36'21.66" NMSPEC - N 592232.519 E 765257.164 (NAD-83)</p>	<p>Mescalero 30 Fed #7</p>	<p>OPERATOR CERTIFICATION</p> <p>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 unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Natalie Krueger</i> 08-17-07 Signature Date</p> <p>Natalie Krueger Printed Name</p>
		<p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>AUGUST 13, 2007 Date Surveyed</p> <p><i>GARY L. JONES</i> Signature Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>

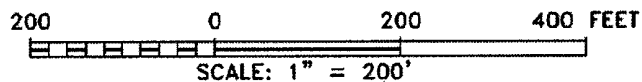


SECTION 30, TOWNSHIP 19 SOUTH, RANGE 34 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF U.S. HWY 62-180 AND CO.
RD. 55 (SMITH RANCH), GO NORTH 2.0 MILES TO
LEASE ROAD, THENCE NORTHEAST ON LEASE ROAD
2.0 MILES THENCE SOUTHWEST 0.7 MILES TO
PROPOSED LEASE ROAD.



CIMAREX ENERGY CO. OF COLORADO

REF: Mescalero "30" FEDERAL #7 / WELL PAD TOPO

THE Mescalero "30" FEDERAL #7 LOCATED 760' FROM
THE SOUTH LINE AND 660' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 19 SOUTH, RANGE 34 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO.

Basin Surveys P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 18351 Drawn By: J. SMALL

Date: 08-15-2007 Disk: JMS 18351W

Survey Date: 08-13-2007 Sheet 1 of 1 Sheets

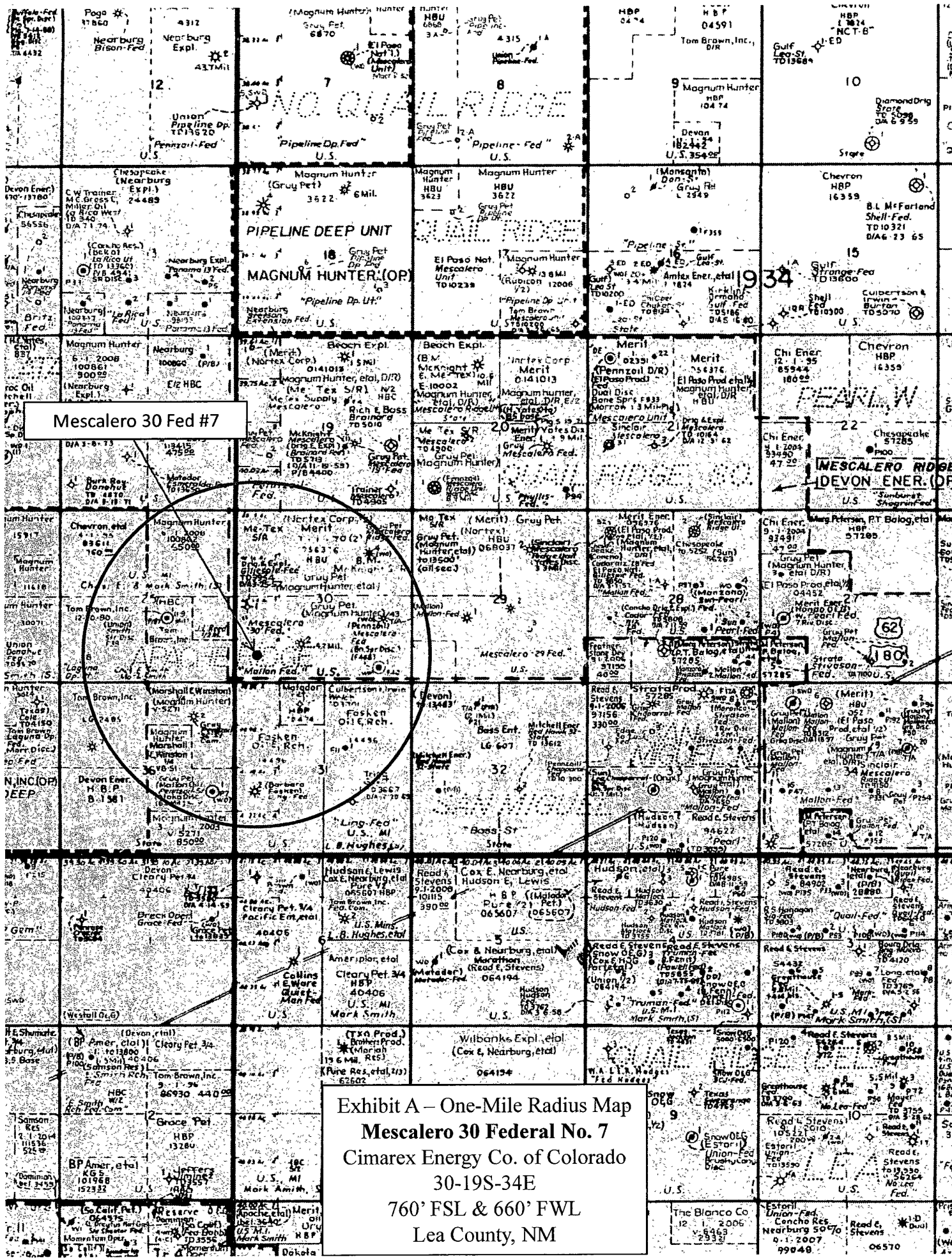
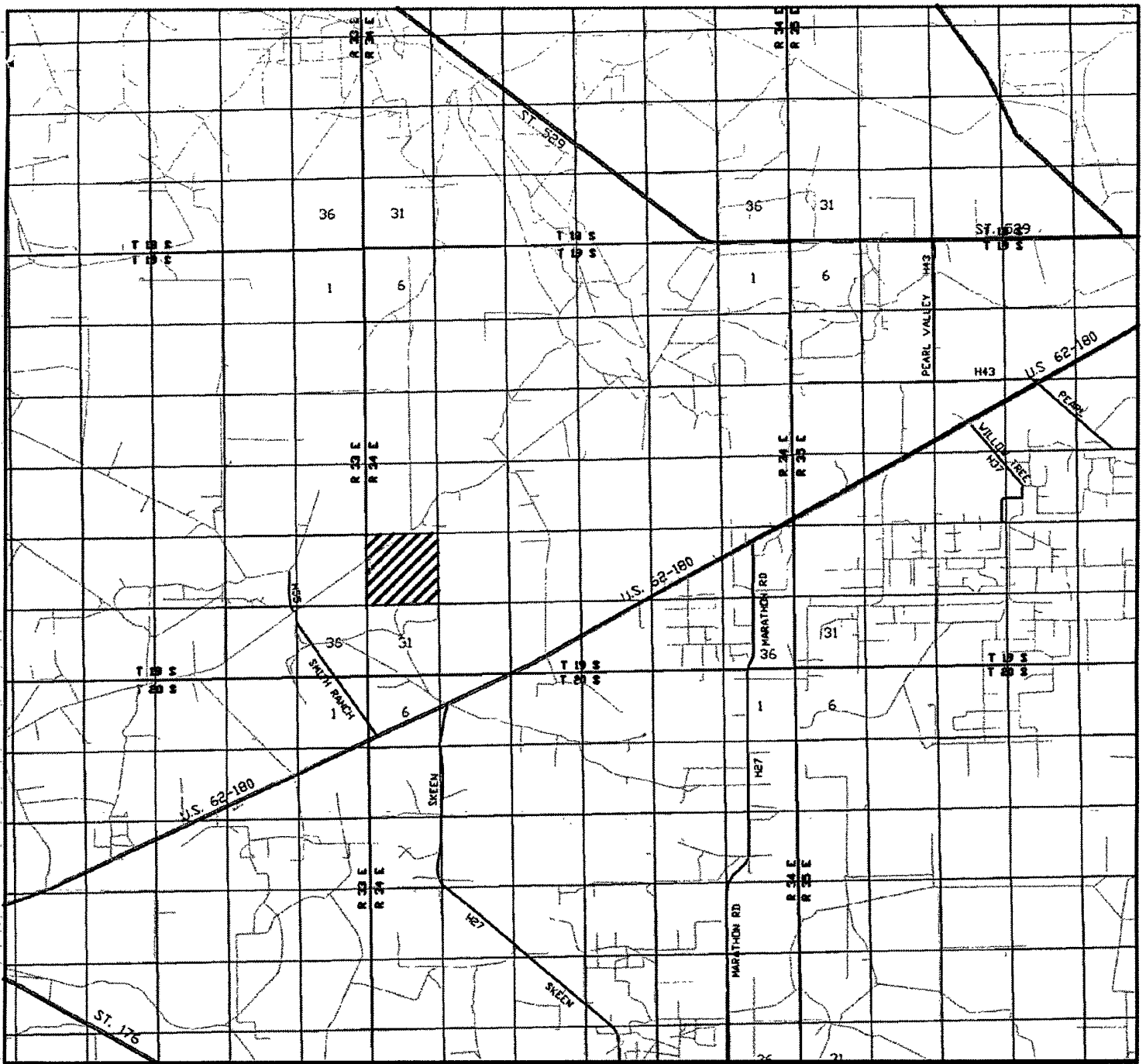


Exhibit A - One-Mile Radius Map
Mescalero 30 Federal No. 7
Cimarex Energy Co. of Colorado
30-19S-34E
760' FSL & 660' FWL
Lea County, NM



MESCALERO "30" FEDERAL #7
 Located 760' FSL and 660' FWL
 Section 30, Township 19 South, Range 34 East,
 N.M.P.M., Lea County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

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 18351TR

Survey Date: 08-13-2007

Scale: 1" = 2 MILES

Date: 08-15-2007

CIMAREX
ENERGY CO.
OF COLORADO

Exhibit R

Drilling Plan
Mescalero 30 Federal No. 7
Cimarex Energy Co. of Colorado
Unit M; Section 30
T19S R34E; Lea County, NM

Location: SHL 760' FSL & 660' FWL
BHL 760' FSL & 660' FWL

Elevation above sea level: 3630' GR

Geologic name of surface formation: Quaternary Alluvium Deposits

Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

Proposed drilling depth: 10,400

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

A. Estimated tops of geological markers:

Yates	3,320
Capitan Reef	4,170
Delaware	5,400
Bone Spring	8,250
FBSS	9,325
SBSS	9,830
TBSC	10,280

B. Possible mineral bearing formation:

Capitan Reef	oil water
Delaware	Oil
Bone Spring	Oil

Per operator 9-14-07

C. Pressure control Equipment:

Exhibit "E". A 13 5/8" 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 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. From the base of the surface pipe

The BOP will be tested to 5000 PSI by an independent service company.

Drilling Plan
Mescalero 30 Federal No. 7
Cimarex Energy Co. of Colorado
Unit M; Section 30
T19S R34E; Lea County, NM

D. Casing & Cementing Program:

Hole Size	Depth	Casing OD	Weight	Thread	Collar	Grade
17-1/2	0 to 450	New 13-3/8	48#	8-R	STC	H-40
11	0 to 5380	New 8-5/8	32#	8-R	LTC	J-55
7-7/8	0 to 10400	New 5-1/2	17#	8-R	LTC	N-80

← see CoA

E. Cementing & Setting Depth:

13-3/8 Surface Set 450 of 13-3/8 48# H-40 STC
Lead: 350 sx (120 bbl) 50/50 POZ-C + 6% D-20 + 3% S-1 + 5# D-24 + 0.125# D-130 (wt 12.6, yld 1.93)
Tail: 200 sx (47.4 bbl) Class C + 2% S-1 + 0.125# D-130 (wt 14.8, yld 1.33)

← see CoA

TOC Surface

8-5/8 Intermediate Set 5380 of 8-5/8 32# J-55 LTC
Lead: 762 sx (336 bbl) 50/50 POZ-C + 5% D-44 (BWOW) + 10% D-20 + 5# D-24 + 0.125# D-130 + 0.2% D-46 (wt 11.9, yld 2.47)
Tail: 200 sx (47.4 bbl) Class C + 2% S-1 (wt 14.8, yld 1.34)
TOC Surface

5-1/2 Production Set 10400 of 5-1/2 17# N-80 LTC
First Stage
Lead: 403 sx (179 bbl) 50/50 POZ-H + 10% D-20 + 0.125# D-130 + 2% D-167 + 2% D-65 + 2% D-13 + 5% D-44 (BWOW) + 2% D-46 (wt 11.9, yld 2.5)
Tail: 232 sx (58 bbl) PVL + 1.33% D-44 (BWOW) + .% D-167 + 2% D-65 + 3% D-13 (wt 13, yld 1.41)
Second Stage (DV Tool @ 6560')
Lead: 490 sx (218 bbl) 50/50 POZ-H + 10% D-20 + 0.125# D-130 + 0.2% D-167 + 0.2% D-65 + 0.2% D-13 + 5% D-44 (BWOW) + 0.2% D-46 (wt 11.9, yld 2.5)
Tail: 100 sx (21 bbl) Class H + 0.1% D-65 + 0.1% D-167 + 0.1% D-13 (wt 15.6, yld 1.18)

TOC 5180'

← see CoA

Fresh water zones will be protected by setting 13-3/8 casing at 450 and cementing to Surface
Hydrocarbon zones will be protected by setting 8-5/8 casing at 5,380 and cementing to Surface
and by setti 5-1/2 casing at 10,400 and cementing to 5180'

← see CoA

Cimarex uses the following minimum safety factors:

Burst	Collapse	Tension
1.125	1.125	1.80

Drilling Plan
Mescalero 30 Federal No. 7
Cimarex Energy Co. of Colorado
Unit M; Section 30
T19S R34E; Lea County, NM

F. Proposed Mud Circulating System:

Depth			Mud Wt	Visc	Fluid Loss	Type Mud
0	to	450	8.4 - 8.6	30-32	May lose circ	Fresh water spud mud
450	to	5,380	8.4 - 8.6	28-29	May lose circ	Fresh water mud
5,380	to	10,400	8.4 - 9.7	28-29	NC	Fresh water mud, use hi-vis sweeps to keep hole clean

← *see COA*

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, 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.

G. Testing, Logging and Coring Program:

- A. Mud logging program: 1 man unit from 5380' to TD
- B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.
- C. No DSTs or cores are planned at this time.

H. Potential Hazards:

No abnormal pressures or temperatures are expected. The area has a potential 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
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I. Other Facets of Operations:

Bone Spring pay will be perforated and stimulated.
The proposed well will be tested and potential as **an oil well**.



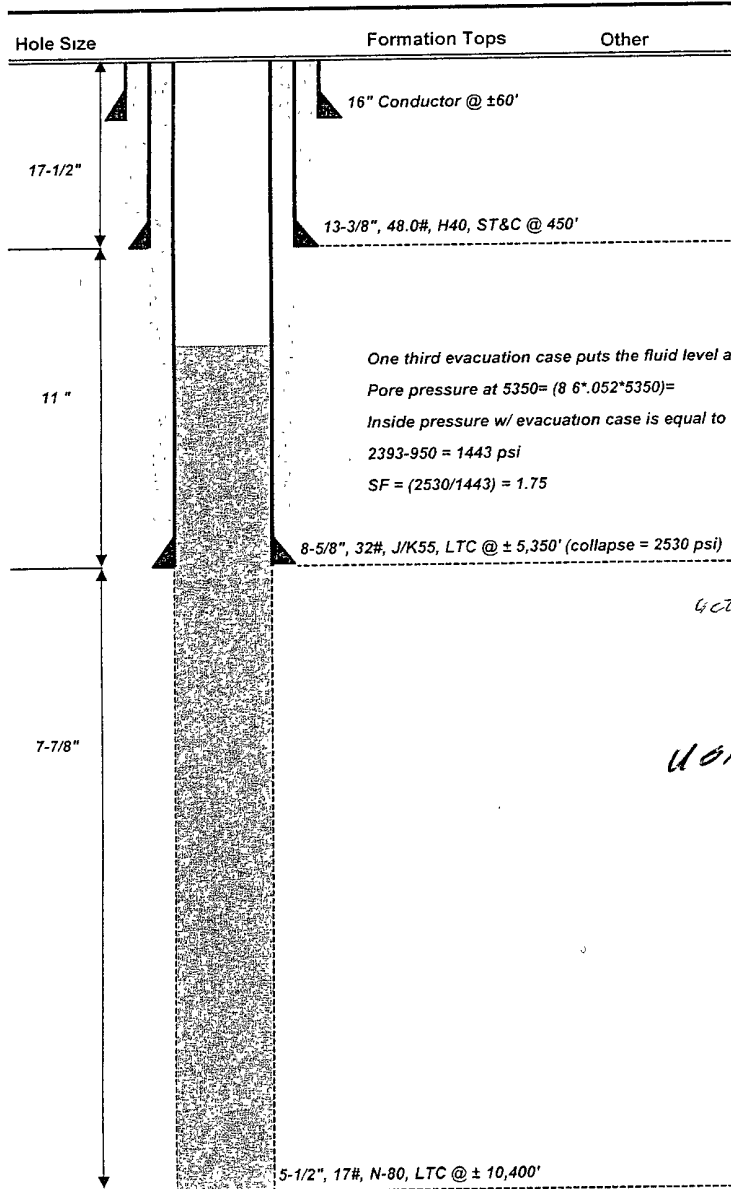
DRILLING PROGNOSIS
Cimarex Energy Company

###

Well: ~~Mescalero 30 Fed #6~~
Location: ~~Sec 30, T19S, R34E~~
County, State: ~~Lea County, NM~~
Surface Location: ~~660 FSL 1988 FEL~~
Bottomhole Loc: ~~(same)~~
E-Mail:
Wellhead: **#7**

Lse Serial #:
Field: Quail Ridge
Objective: Bone Springs
TVD/MD: 10,400
Cementing: Halliburton
Mud: MI
Motors:
OH Logs: Halliburton
Rig: Pat Rig 80
Offset Wells:

Xmas Tree: 5M tree 2 9/16"
Tubing: 2 7/8" L80 EUE
Superintendent: Jim Evans
Engineer: Ryan Braxton



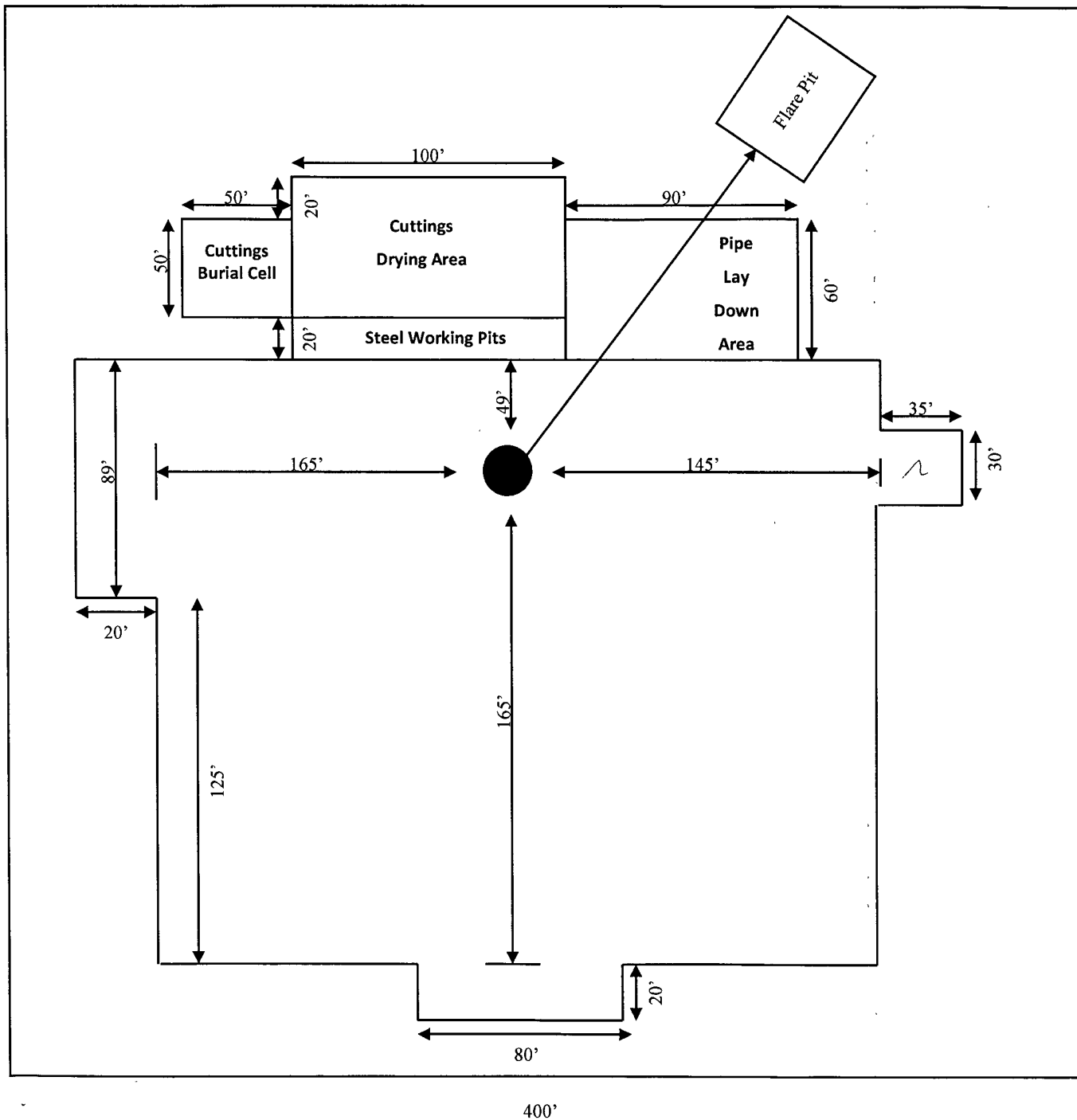
actual depth
5360' for #7
using 3/4 evacuated
inside 678 psi
w/1345' fluid

$$2406 - 678 = 1728 \text{ psi}$$

$$2530 / 1728 = 1.46 \checkmark$$

same calculations
for surface well
allow it to meet
collapse

WRT 9/15/07



Rig 80

**Cimarex Energy Co. of
Colorado**

Irving, TX

Exhibit D – Rig Layout
Mescalero 30 Federal No. 7
 Cimarex Energy Co. of Colorado
 30-19S-34E
 760' FSL & 660' FWL
 Lea County, NM

SR & A

