

ATS-07-580

Form 3160-3
(April 2004)

OCD-HOBBS

SECRETARY'S POTASH

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No NM-056376
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ 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 Mescalero 30 Federal No. 6
3b. Phone No (include area code) 972-401-3111		9. API Well No 30-025- 38594
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At Surface 330' FSL & 2180' FEL At proposed prod Zone 330' FSL & 2180' FEL		10. Field and Pool, or Exploratory Apache Ridge; Bone Spring
14. Distance in miles and direction from nearest town or post office* 32 miles West of Hobbs, NM		11. Sec., T R M or Blk and Survey or Area 30-19S-34E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig unit line if any) 330'	16. No of acres in lease 1281.8	12. County or Parish Lea
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 10,400	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3640' GR	22. Approximate date work will start* 10/1/2007	17. Spacing Unit dedicated to this well SWSE 40'
23. Estimated duration 20-25 days		20. BLM/BIA Bond No on File NM-25

24. Attachments

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

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

25. Signature Zeno Farris	Name (Printed/Typed) Zeno Farris	Date 08.14.07
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Title

Manager Operations Administration

Approved By (Signature) Ron Danton	Name (Printed/Typed) SI Ron Danton	Date 10-18-07
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Title STATE DIRECTOR	Office NM STATE OFFICE
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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 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)

Witness Surface &
Intermediate Casing

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Capitan Controlled Water Basin

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 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 SWSE 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: Zeno Farris
Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager Operations Administration

Date: August 14, 2007

BASIN SURVEYS

Application to Drill
Cimarex Energy Co. of Colorado
Mescalero 30 Federal No. 6
Unit O Section 30
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: SHL 330' FSL & 2180' FEL
 BHL 330' FSL & 2180' FEL

- 2 Elevation above sea level: 3640' GR

- 3 Geologic name of surface formation. Quaternary Alluvium Deposits

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

- 5 Proposed drilling depth: 10,400

6 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

7 Possible mineral bearing formation:

Delaware	Oil
Bone Spring	Oil

8 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 gel 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, use hi-vis sweeps to keep hole clean

e- 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.

Application to Drill
Cimarex Energy Co. of Colorado
Mescalero 30 Federal No. 6
Unit O Section 30
T19S R34E Lea County, NM

9 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

0 *See COA*
0

10 Cementing & Setting Depth:

13-3/8 Surface Set 450 of 13-3/8 48# H-40 STC *See COA*
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)
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
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'**

Hydrocarbon zones will be protected by setting 5-1/2 casing at 10400 and cementing to 5180' *See COA*

Cimarex uses the following minimum safety factors.

Burst	Collapse	Tension
1.125	1.125	1.80

11 Pressure control Equipment:

See COA 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 through the running of production casing, the well will be equipped with a 5000 psi BOP system.

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

Application to Drill
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Mescalero 30 Federal No. 6
Unit O Section 30
T19S R34E Lea County, NM

12 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
- C. No DSTs or cores are planned at this time.

13 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**

- 14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 20-25 days

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.

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



DRILLING PROGNOSIS

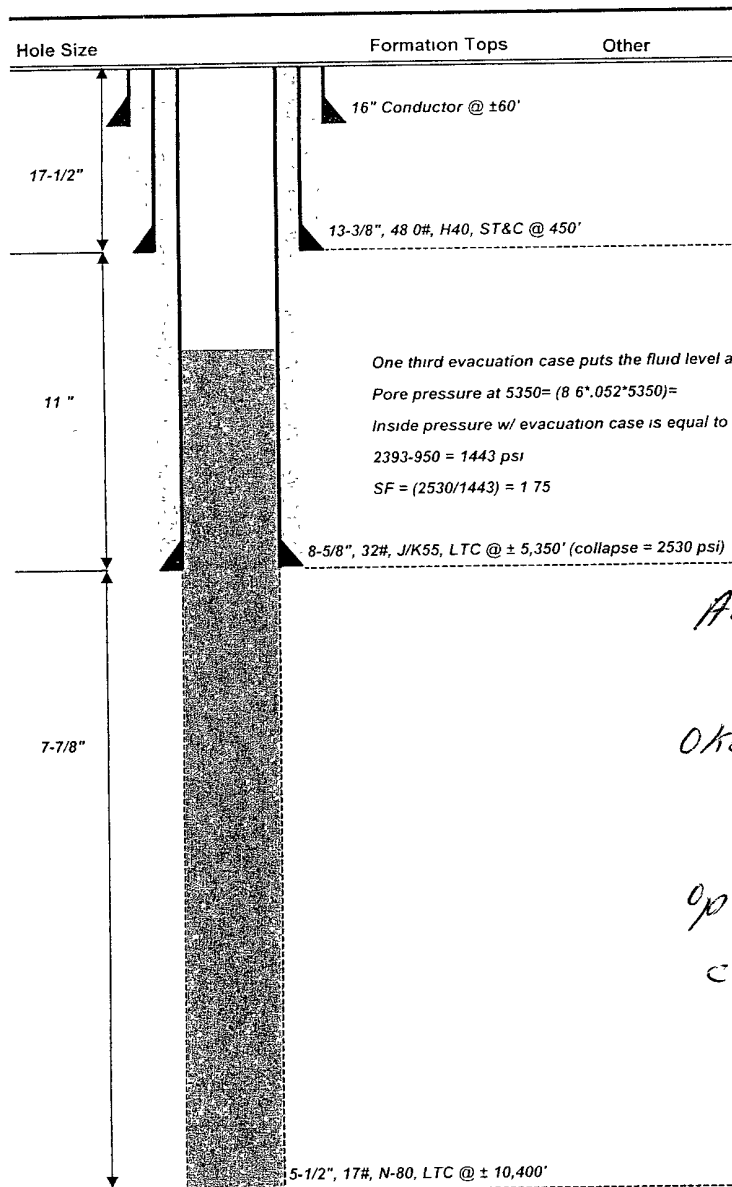
Cimarex Energy Company

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Well: Mescalero 30 Fed #6
Location: Sec 30, T19S, R34E
County, State: Lea County, NM
Surface Location: 660' FSL 1980' FEL
Bottomhole Loc: (same)
E-Mail:
Wellhead:

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 5380'

Okay on collapse based on operator presentation, operator states 1/3 evac, calculates with 2/3 evac.

9/15/07

WBF

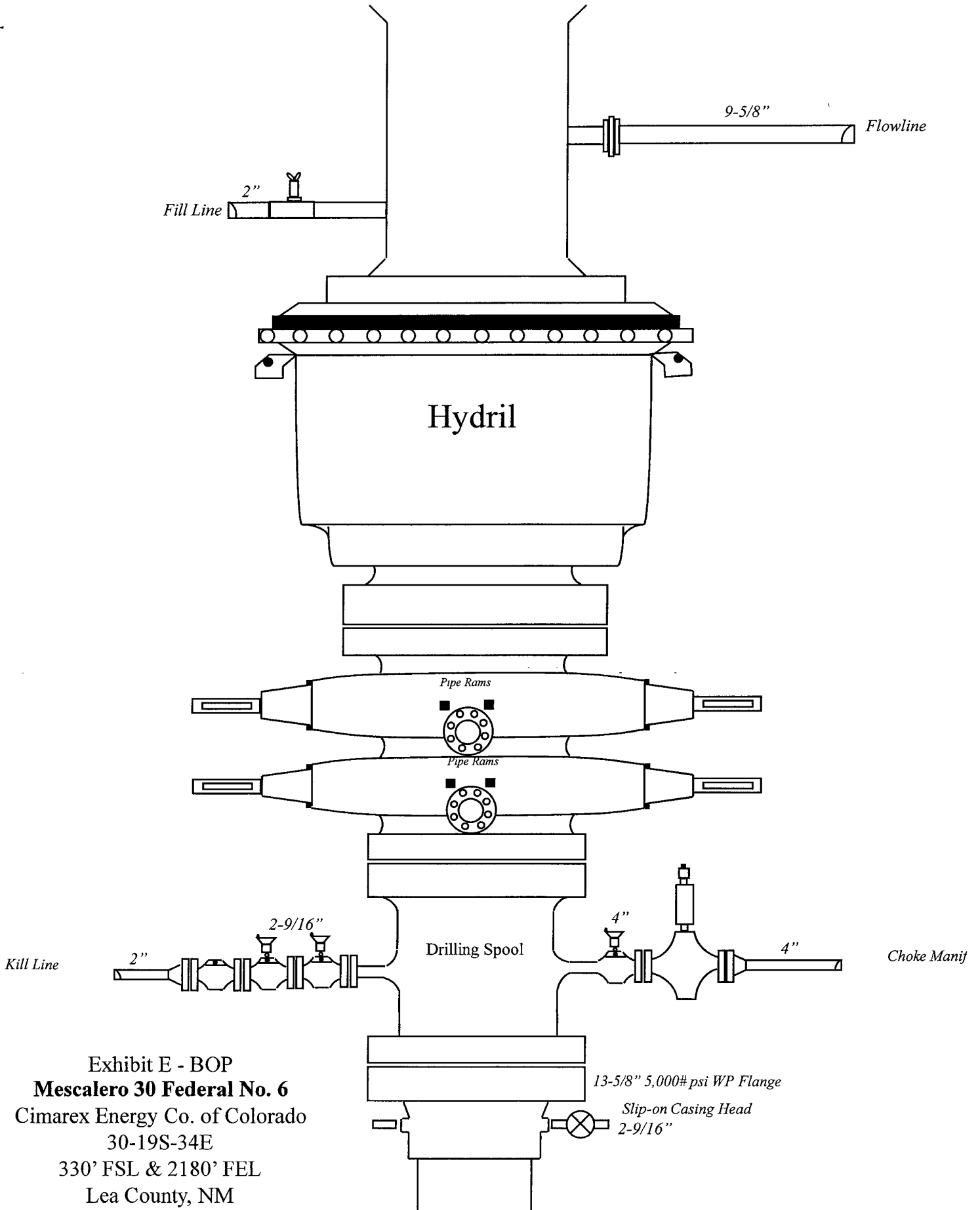
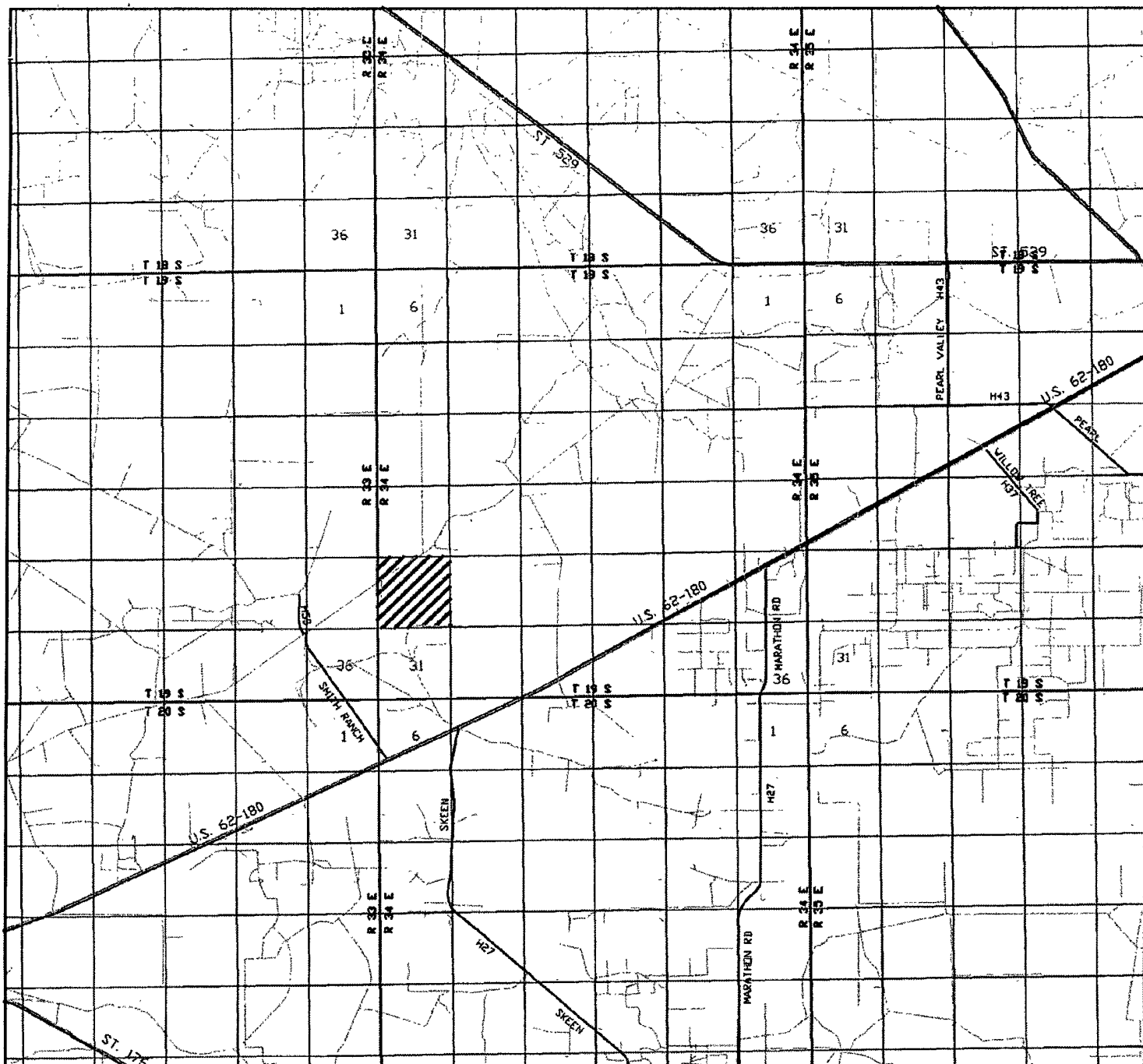


Exhibit E - BOP
Mescalero 30 Federal No. 6
 Cimarex Energy Co. of Colorado
 30-19S-34E
 330' FSL & 2180' FEL
 Lea County, NM



MESCALERO "30" FEDERAL #6
 Located 330' FSL and 2180' FEL
 Section 30, 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 18350TR

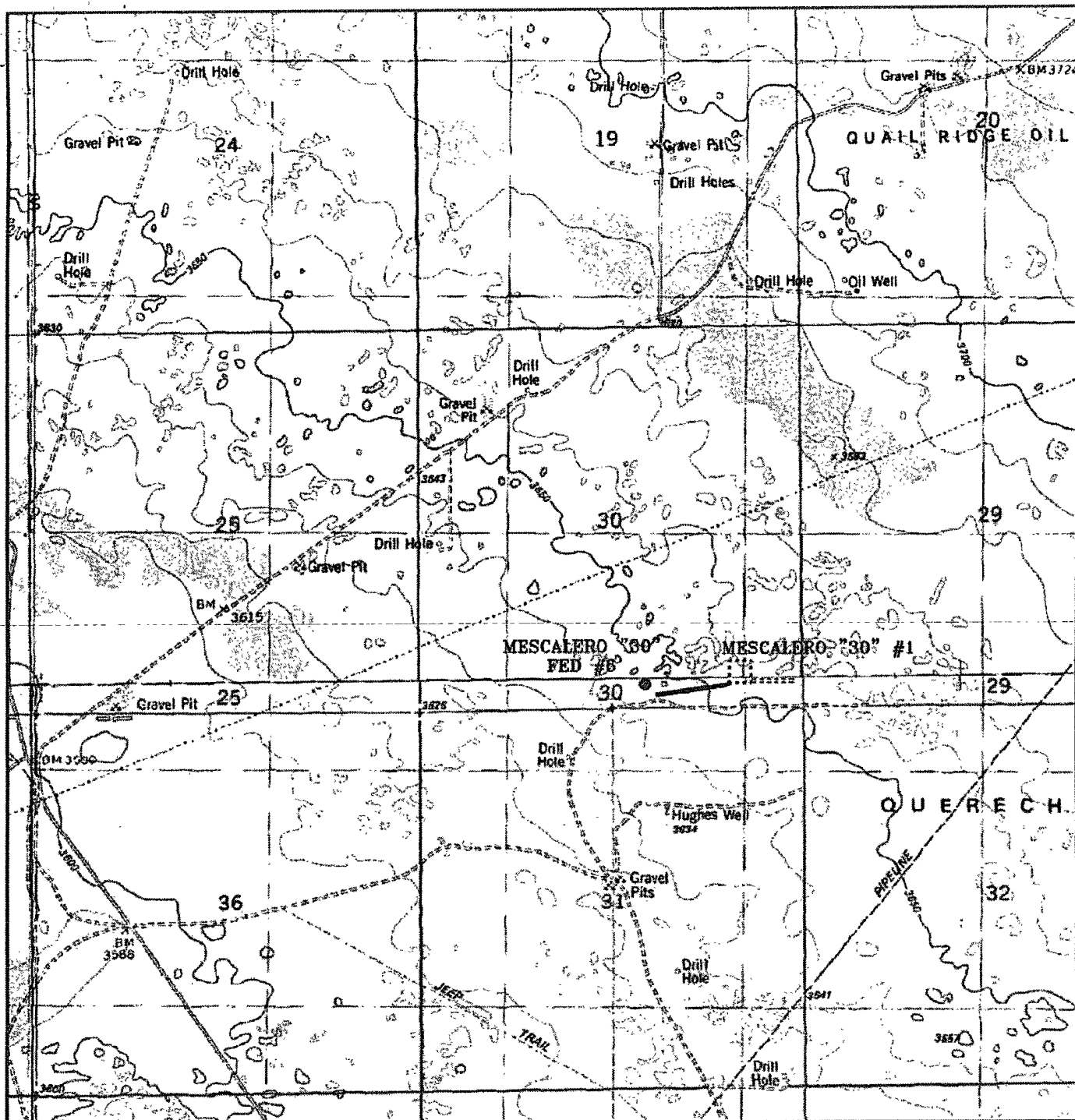
Survey Date: 08-13-2007

Scale: 1" = 2 MILES

Date: 08-14-2007

CIMAREX
 ENERGY CO.
 OF COLORADO

Exhibit R



MESCALERO "30" FEDERAL #6
 Located 330' FSL and 2180' FEL
 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
 basin-surveys.com

W.O. Number JMS 18350T

Survey Date: 08-13-2007

Scale: 1" = 2000'

Date: 08-14-2007

CIMAREX
ENERGY CO.
OF COLORADO

Exhibit C