AT5-11-864

OCD-HOBBS HOBBS OCD

Form 3160-3
(April 2004)

DEC 19 2011

RECEIVED

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NM-0392082-A

6 If Indian, Allotee or Tribe Name

1a Type of Work. ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8 Lease Name and Well No.
Hallertau 5 Federal No. 1 <38778>

2 Name of Operator
Cimarex Energy Co. of Colorado <162683>

9. API Well No.
30-025- 40436

3a Address
600 N. Marienfeld St., Ste. 600; Midland, TX 79701

3b Phone No. *(include area code)*
432-571-7800

10 Field and Pool, or Exploratory
Bone Spring Wildcat <97903>

4 Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At Surface 330 FSL & 330 FEL

At proposed prod Zone 330 FNL & 660 FEL *Horizontal Bone Spring test*

11 Sec., T R. M or Blk. and Survey or Area
5-26S-32E

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
Lea

13 State
NM

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line if any)	16 No of acres in lease	17. Spacing Unit dedicated to this well
330'	1720.49 acres	E2E2 160 acres
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19 Proposed Depth**	**20 BLM/BIA Bond No on File**
5165'	Pilot Hole 9750 MD 13544 TVD 8972	NM-2575
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22 Approximate date work will start***	**23 Estimated duration**
3253' GR	09.01.11	25-30 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
2. A Drilling Plan
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)
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator Certification
6. Such other site specific information and/or plans as may be required by the authorized officer

25. Signature	Name *(Printed/Typed)*	Date
Zeno Farris	Zeno Farris	07.18.11

Title
Manager Operations Administration.

Approved By *(Signature)*	Name (Printed/Typed)	Date
James A. Amos		DEC 14 2011
Title FIELD MANAGER	**Office** CARLSBAD FIELD 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

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)*

Carlsbad Controlled Water Basin

KZ 02/14/12

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Approval Subject to General Requirements & Special Stipulations Attached

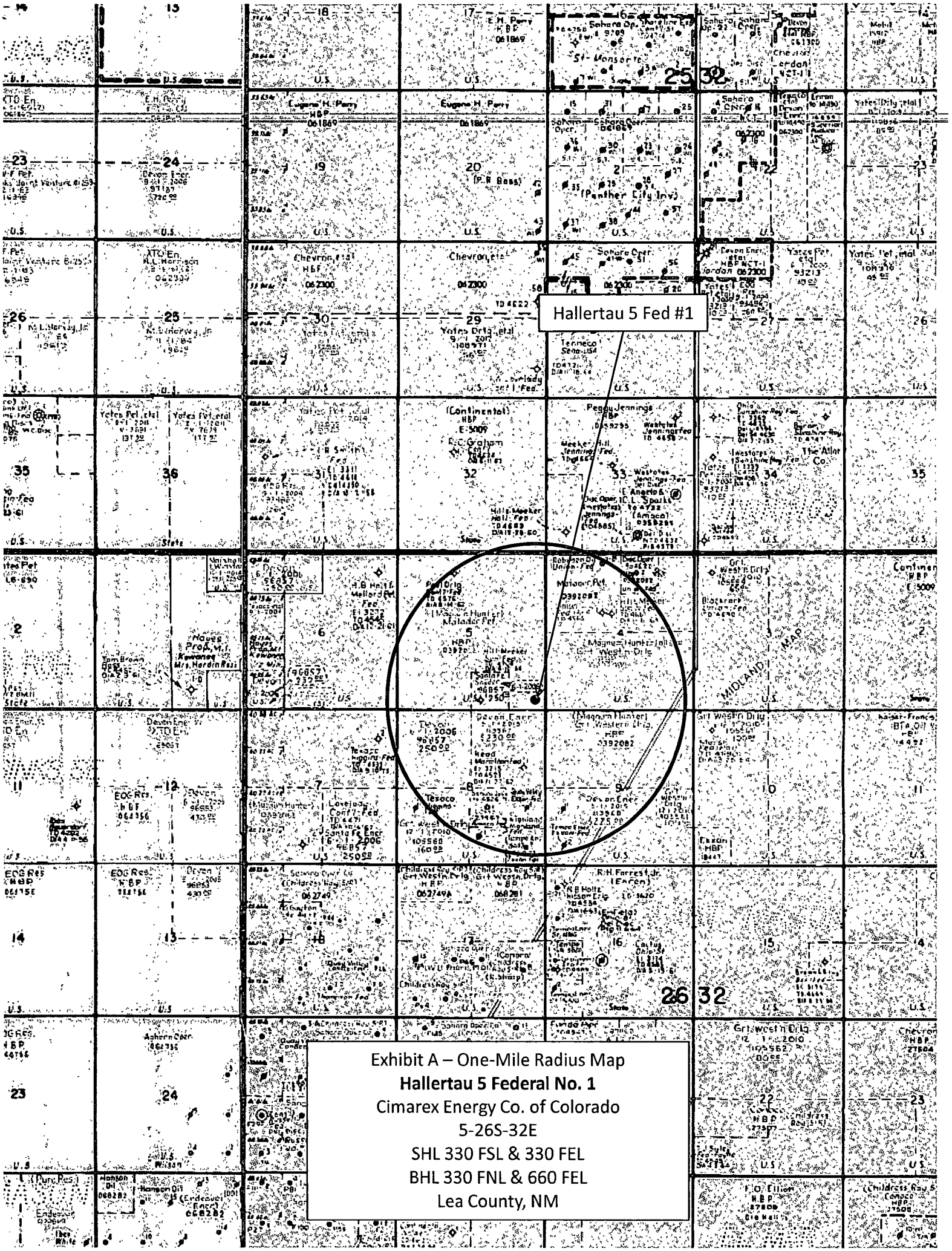


Exhibit A – One-Mile Radius Map

Hallertau 5 Federal No. 1

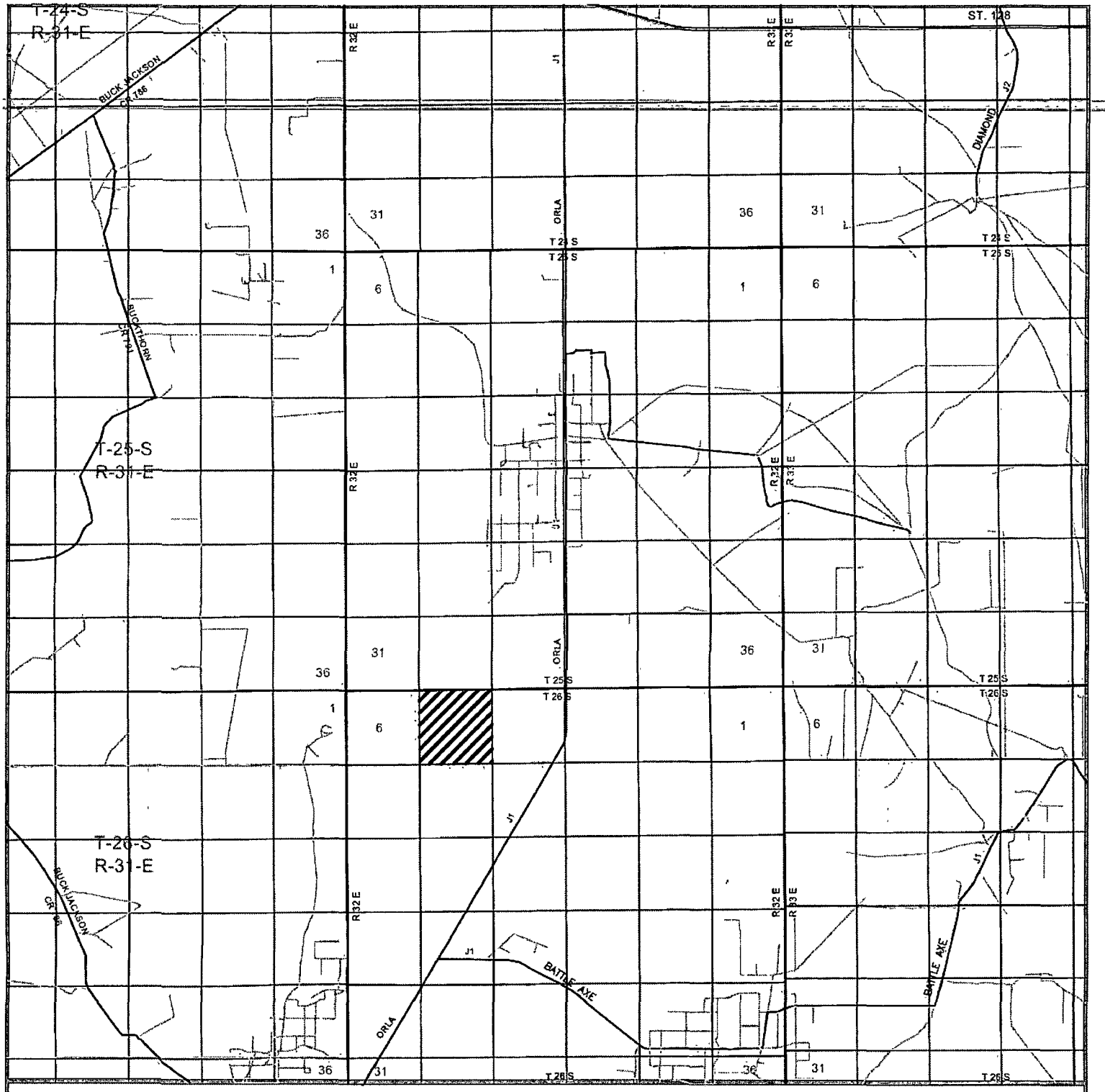
Cimarex Energy Co. of Colorado

5-26S-32E

SHL 330 FSL & 330 FEL

BHL 330 FNL & 660 FEL

Lea County, NM



HALLERTAU "5" FEDERAL #1H
Located 330' FSL and 330' FEL
Section 5, Township 26 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.

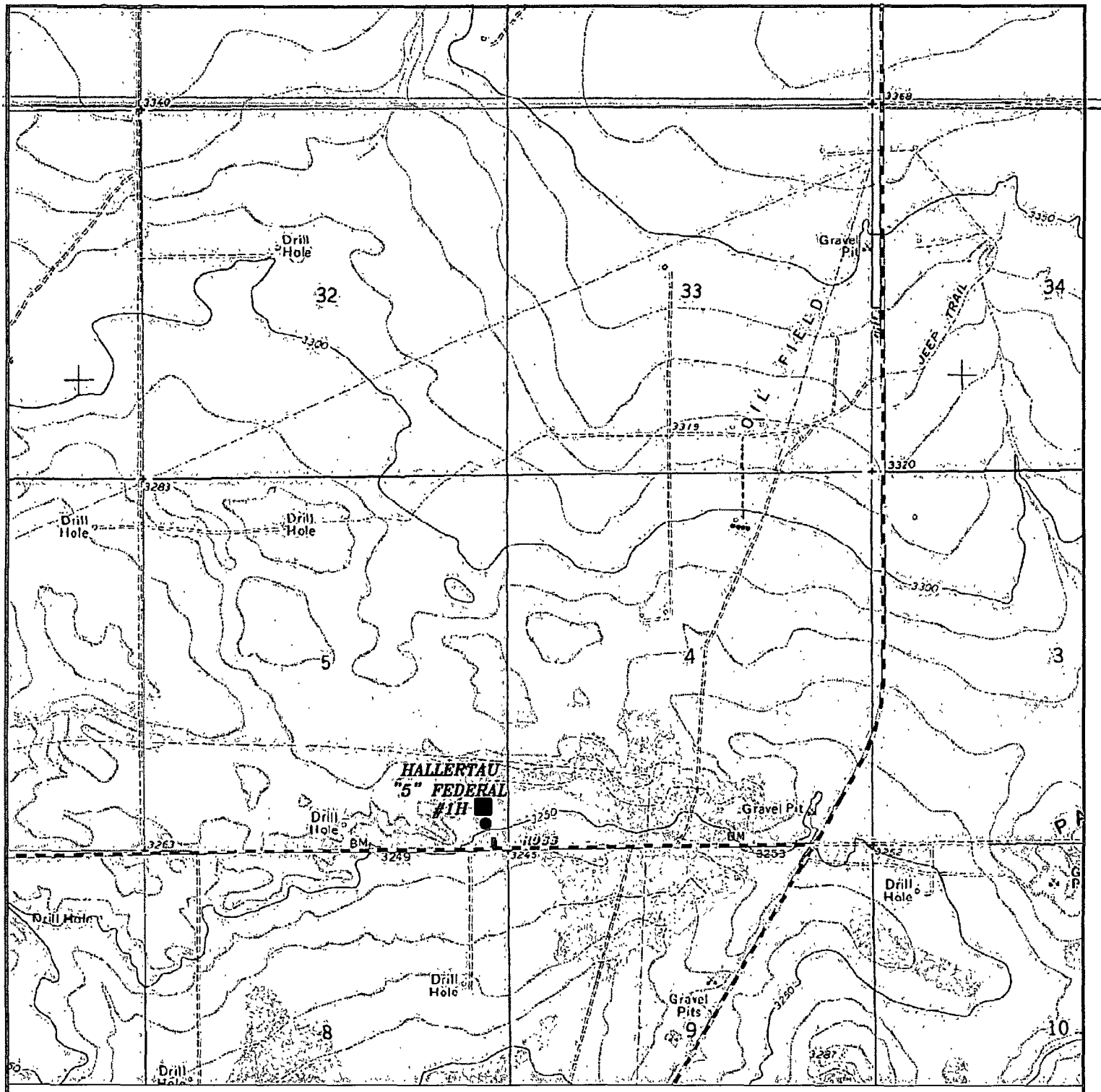
basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: JMS 24494
Survey Date: 05-02-2011
Scale: 1" = 2 Miles
Date: 05-04-2011

N

CIMAREX ENERGY CO. OF COLORADO

Exhibit B



■Battery

HALLERTAU "5" FEDERAL #1H
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(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	JMS 24494
Survey Date:	05-02-2011
Scale:	1" = 2000'
Date:	05-04-2011

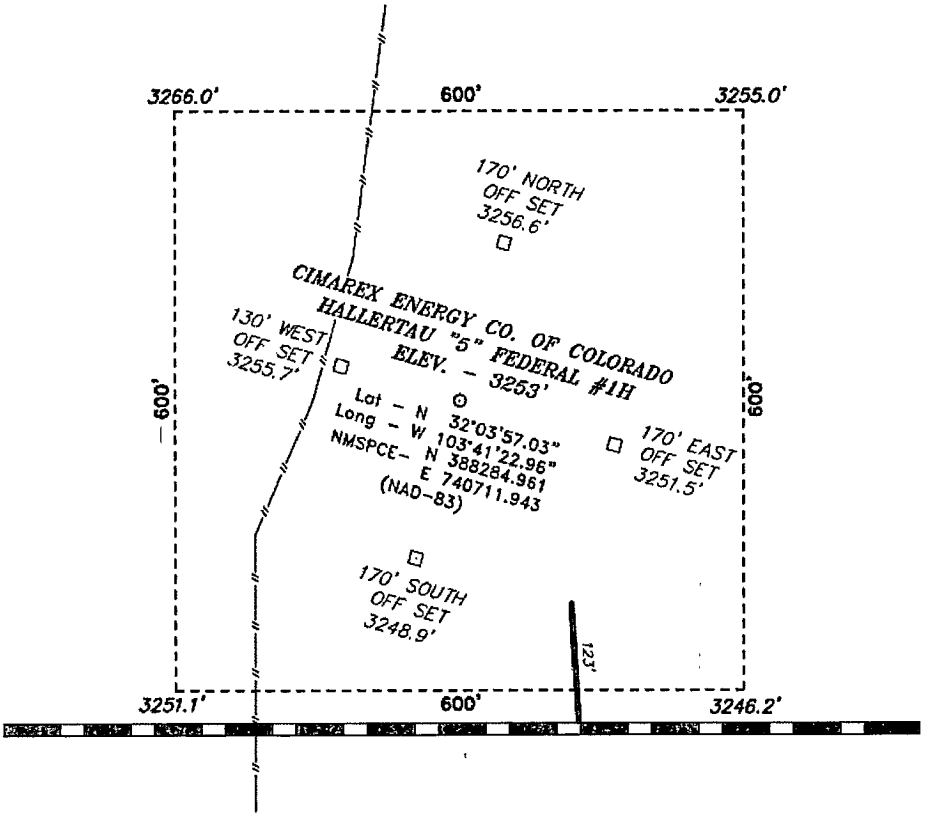
N

CIMAREX ENERGY CO. OF COLORADO

Exhibit C

SECTION 5, TOWNSHIP 26 SOUTH, RANGE 32 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF ORLA AND ROSS, GO WEST ON ROSS FOR 0.9 MILES TO PROPOSED LEASE ROAD.

CIMAREX ENERGY CO. OF COLORADO

REF: HALLERTAU "5" FEDERAL #1H / WELL PAD TOPO

THE HALLERTAU "5" FEDERAL #1H LOCATED 330' FROM THE SOUTH LINE AND 330 FROM THE EAST LINE OF SECTION 5, TOWNSHIP 26 SOUTH, RANGE 32 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 – HOBBS, NEW MEXICO

W.O. Number: 24494	Drawn By: J. SMALL		
Date: 05-04-2011	Disk: JMS 24494	Survey Date: 05-02-2011	Sheet 1 of 1 Sheets

Exhibit C-1

Application to Drill

Hallertau 5 Federal No. 1

Cimarex Energy Co. of Colorado

Unit P, Section 5

T26S-R32E; 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 & 330 FEL
BHL 330 FNL & 660 FEL

2 Elevation above sea level: 3253 GR

3 Geologic name of surface formation: Quaternery 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: Pilot Hole 9750 MD 13544 TVD 8972

6 Estimated tops of geological markers:

Rustler	1100	Cherry Canyon	5577
T. Salt	1542	Basal Brushy Canyon	8267
B. Salt	4237	Bone Spring	8467
Delaware	4447	FBSS	9452

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	~~1100'~~ 1115	8.4 - 8.6	28	NC	FW
1100'	to	~~4800'~~ 4400	10.0	30-32	NC	Brine water
4800'	to	13544'	8.4 - 9.5	30-32	NC	FW, brine

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.

Proposed drilling Plan

Drill 8¾" pilot hole to 9750 and log. Pump cement plug from 9750-~~8626~~: 495 sks Type H Cement, D080 (Dispersant) 0.080 gal/sk, D177 (Retarder) 0.045gal/sk17.5 ppg yield 0.94 & 0% Excess, must tag cement prior to setting the whipstock for KOP. Set whipstock and kick off 8¾" lateral @ 8686 and drill to TD @ 13544 MD, 8972 TVD. Run 5½" 17# P-110 LTC from 0-13544 and cement.

Application to Drill
Hallertau 5 Federal No. 1
Cimarex Energy Co. of Colorado
Unit P, Section 5
T26S-R32E; Lea County, NM

9 Casing & Cementing Program:

String	Hole Size	Depth		Casing OD		Weight	Collar	Grade
Surface	17½"	0'	to 1115 ~~1100~~'	New	13⅜"	54.5#	STC	J-55
Intermediate	12¼"	0'	to 4400 ~~4800~~'	New	9⅝"	40 ~~36#~~	LTC	J-55
Production	8¾"	0'	to 13544'	New	5½"	17#	LTC	P-110

Per Operator 8/16/11

10 Cementing:

Surface 835SKS Class C Cement + 4% Bentomite + 2% CaCl 13.5ppg 1.75yield 100% Excess, Circulate Cmnt to Surface
TOC Surface Centralizers per Onshorder 2.III.B.1.f

Intermediate Lead:1240SKS Type C Cement, 5% NACl WOW, D132 (ext) 27.522 lb/sk, D020 (ext) 6%, D042 (ext) 3lb/sk, D130 (LCM) 0.125lb/sk 12.6ppg 2.06yield 70% Excess
Tail:200SKS Type C Cement 14.8ppg 1.33 yield 25% Excess
TOC Surface

Production Lead:945SKS Type H cement, NaCl 5% WOW, D132 (ext) 39.39lb/sk, D020 (ext) 10%, D046 Antifoam 0.20%, D130 LCM 0.125lb/sk, D112 1% 11.8ppg 2.56 yield 45% Excess
Tail:745SKS D049 Cement, 1.3% NaCl, 0.4% D207 fluid loss, 0.2% AnitFoam, 0.3% retarder, 2.0% D174 Expanding Agent 14.5ppg 1.44 yield 25% Excess
TOC ~~4600~~' 4200 Centralizers every 3rd joint in lateral to provide adequate cement coverage every 100' unless lateral doglegs require greater spacing between centralizers.

Depth to ground water is 275 according to the State Engineer. Fresh water zones will be protected by setting 13⅜" casing at ~~1400~~ and cementing to surface. Hydrocarbon zones will be protected by setting 9⅝" casing at ~~4800~~ and cementing to surface, and by setting 5½" casing at 13544 and cementing to 4600.

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

11 Pressure control Equipment:

A 13⅝" 5000 PSI working pressure BOP tested to 3000 psi 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 as needed. 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. Mud gas separator to be used when drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be nippled up and 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 13⅜ casing through the running of production casing, the well will be equipped with a 5000 psi BOP system tested to 3000 psi.

BOPs will be tested by an independent service company to 250 psi low and 3000 psi high. Hydril will be tested to 250 psi low and 1500 psi high.

Cimarex Energy Co. of Colorado (operator) requests a variance if Cactus 101 (rig name) is used to drill this well to use a co-flex line between the BOP and choke manifold.
Manufacturer: Midwest Hose & Specialty
Serial Number: 59473
Length: 35' Size: 4-1/16" Ends (flanges/clamps)
WP rating: 10,000 psi Anchors required by manufacturer – Yes/(No)

12 Testing, Logging and Coring Program: See COA

A. Mud logging program: 2 man unit from 4800' 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. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S Drilling Operations Plan." 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 **4037 psi** Estimated BHT **150°**

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 30-35 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.
Bone Spring pay will be perforated and stimulated.
The proposed well will be tested and potentialed as **an oil well.**

Cimarex Energy Co.

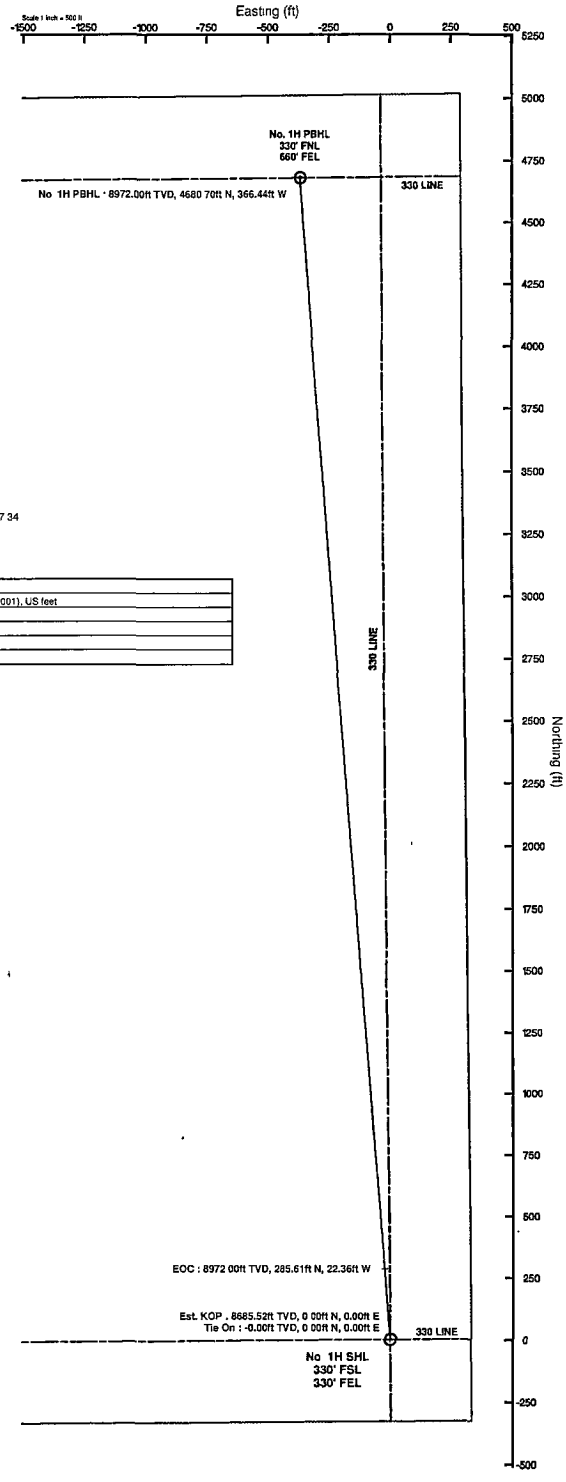
Location: Lea County, NM
Field: (Hallertau) Sec5, T26S, R32E
Facility: Hallertau 5 Federal No 4H

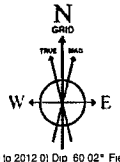
Slot No. 1H SHL
Well No. 1H
Wellbore No 1H PWB

BAKER HUGHES

Well Profile Data

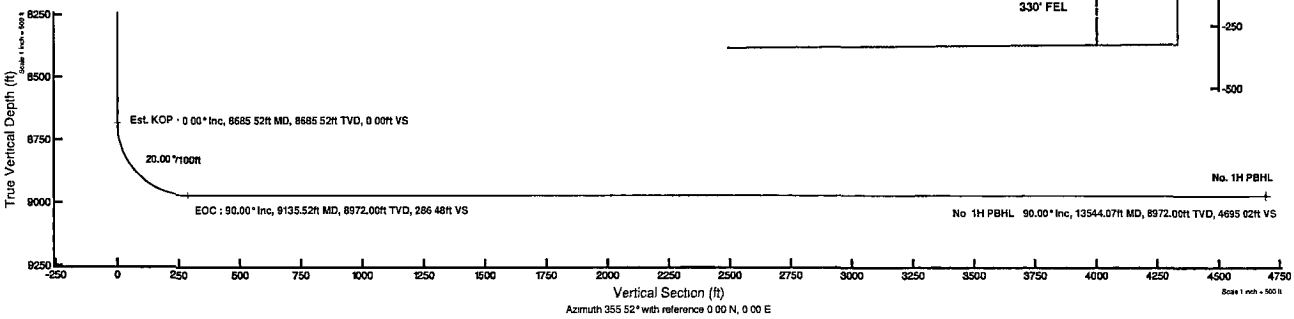
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	355 524	0 00	0.00	0.00	0 00	0.00
Est. KOP	8685 52	0.000	355 524	8685.52	0.00	0.00	0.00	0.00
EOC	9135.52	90 000	355.524	8972.00	285.61	-22 36	20.00	286.48
No. 1H PBHL	13544.07	90.000	355 524	8972.00	4680.70	-366.44	0.00	4695 02





BGGM (1945 0 to 2012 0) Dip 60 02° Field 48580 3 nT
Magnetic North is 7 68 degrees East of True North (at 6/20/2011)
Grid North is 0 34 degrees East of True North
To correct azimuth from True to Grid subtract 0 34 degrees
To correct azimuth from Magnetic to Grid add 7 34 degrees
For example if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7 34 = 97 34

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No 1H SHL (RT)	Grid System NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 1H SHL (RT)	North Reference Grid north
Rig on No 1H SHL (RT) to Mean Sea Level 3253 feet	Scale True distance
Mean Sea Level to Mud line (At Slot: No 1H SHL) 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by calhphik on 6/22/2011



Azimuth 355 52° with reference 0 00 N, 0 00 E