

OKLAHOMA CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
P.O. BOX 52000
OKLAHOMA CITY, OK 73152-2000
(Rule 165:10-3-1)

API NUMBER: 073 26319

Approval Date: 10/16/2018

Expiration Date: 04/16/2020

Horizontal Hole

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 15N Rge: 9W

County: KINGFISHER

SPOT LOCATION: ☐ NW ☐ NE ☐ NW ☐ NE

FEET FROM QUARTER: FROM NORTH FROM EAST

SECTION LINES: 250 1960

Lease Name: BILLY

Well No: 4-20H

Well will be 250 feet from nearest unit or lease boundary.

Operator
Name: CIMAREX ENERGY CO

Telephone: 9185851100

OTC/OCC Number: 21194 0

CIMAREX ENERGY CO
202 S CHEYENNE AVE STE 1000
TULSA, OK 74103-3001

MERLE BERNHARDT
15051 E 202ND STREET
BIXBT OK 74008

Formation(s) (Permit Valid for Listed Formations Only):

| | Name | Depth | Name | Depth |
|---|-------------------|-------|------|-------|
| 1 | MISSISSIPPI SOLID | 9500 | 6 | |
| 2 | | | 7 | |
| 3 | | | 8 | |
| 4 | | | 9 | |
| 5 | | | 10 | |

Spacing Orders: 139333

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201806990
201806985

Special Orders:

Total Depth: 14198

Ground Elevation: 1264

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 440

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Approved Method for disposal of Drilling Fluids:

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 10000 Average: 3000

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N

Wellhead Protection Area? N

Pit is not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: CHICKASHA

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 18-35467

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

HORIZONTAL HOLE 1

Sec 20 Twp 15N Rge 9W County KINGFISHER

Spot Location of End Point: SW SW SE SE

Feet From: SOUTH 1/4 Section Line: 150

Feet From: EAST 1/4 Section Line: 1300

Depth of Deviation: 9069

Radius of Turn: 477

Direction: 175

Total Length: 4980

Measured Total Depth: 14798

True Vertical Depth: 9931

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

| Category | Description |
|------------------------|--|
| DEEP SURFACE CASING | 10/15/2018 - GA8 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING |
| HYDRAULIC FRACTURING | 10/15/2018 - GA8 - OCC 165:10-3-10 REQUIRES: 1) PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS FOR HORIZONTAL WELLS, NOTICE GIVEN FIVE BUSINESS DAYS IN ADVANCE TO OFFSET OPERATORS WITH WELLS COMPLETED IN THE SAME COMMON SOURCE OF SUPPLY WITHIN 1/2 MILE; 2) WITH NOTICE ALSO GIVEN 48 HOURS IN ADVANCE OF HYDRAULIC FRACTURING ALL WELLS TO BOTH THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES, USING THE "FRAC NOTICE FORM" FOUND AT THE FOLLOWING LINK: OCCEWEB.COM/OG/OGFORMS.HTML ; AND, 3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION THE HYDRAULIC FRACTURING OPERATIONS, USING THE FOLLOWING LINK: FRACFOCUS.ORG |
| INTERMEDIATE CASING | 10/15/2018 - GA8 - DUE TO THE KNOWN POTENTIAL RISK OF ENCOUNTERING AN OVER-PRESSURED ZONE IN THE MORROW SERIES IN THIS AREA, THE TECHNICAL MANAGER RECOMMENDS SETTING AN INTERMEDIATE STRING OF CASING IMMEDIATELY ABOVE THE MORROW SERIES |
| PENDING CD - 201806985 | 10/16/2018 - G58 - 20-15-9W X139333 MSSSD 4 WELLS NO OP. NAMED REC 9/17/2018 (THOMAS) |
| PENDING CD - 201806990 | 10/16/2018 - G58 - (I.O.) 20-15N-9W X139333 MSSSD COMPL. INT. NCT 150' FNL, NCT 150' FSL, NCT 330' FEL, NO OP. NAMED REC 9/17/2018 (THOMAS) |
| SPACING - 139333 | 10/16/2018 - G58 - (640) 20-15N-9W EXT OTHERS EXT 125914/137756 MSSSD, OTHERS |

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Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

073 26319 BILLY 4-20H

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS

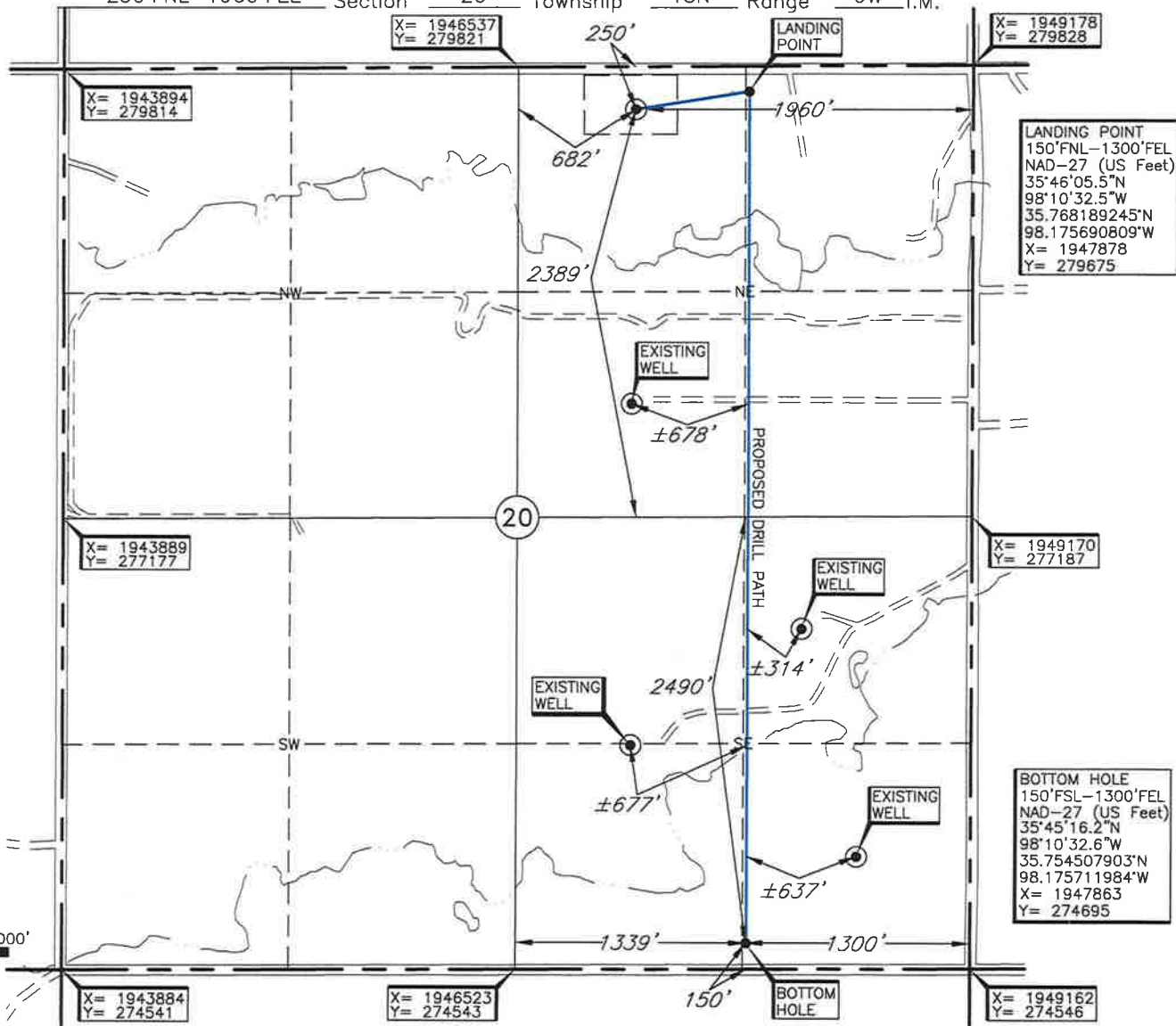
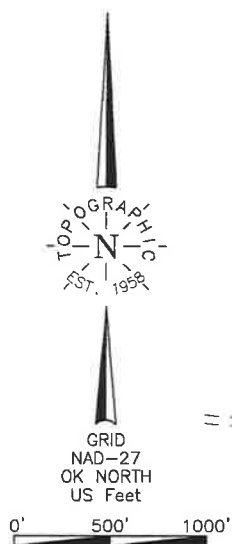
KINGFISHER

County, Oklahoma

073-26319

250'FNL-1960'FEL Section 20 Township 15N Range 9W I.M.

NOTE:
The information shown herein is for
construction purposes ONLY.



LANDING POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION
PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

Operator: CIMAREX ENERGY CO.

Lease Name: BILLY

Well No.: 4-20H

ELEVATION:

1264' Gr. at Stake (NGVD29)

Topography & Vegetation Loc. fell in sloped field.

Good Drill Site? Yes Reference Stakes or Alternate Location
Stakes Set None

Best Accessibility to Location From North off county road.

Distance & Direction
from Hwy Jct or Town From junction of St. Hwy. 33 E-W and Calumet Rd., go South ±6
miles on Calumet Rd., then West ± 3 miles to the NE Cor. of Sec. 20-T15N-R9W.

DATUM: NAD-27
LAT: 35°46'04.5"N
LONG: 98°10'40.5"W
LAT: 35.767906643°N
LONG: 98.177915446°W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1947218
Y: 279573

Revision ☒ A

Date of Drawing: Oct. 12, 2018

Invoice # 303977A Date Staked: Sept. 14, 2018

TR

CERTIFICATE:

I, Thomas L. Howell an Oklahoma Licensed Land
Surveyor and an authorized agent of Topographic Land
Surveyors of Oklahoma, do hereby certify to the
information shown herein

Oklahoma Lic. No. 1433

