API NUMBER: 011 23987

Oil & Gas

Horizontal Hole

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

Approval Date: 04/16/2018

Expiration Date: 10/16/2018

PERMIT TO DRILL

WELL LOCATION: S	Sec:	04	Twp:	15N	Rge:	10W	County:	BLAINE
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SPOT LOCATION: NE NE NE NW FEET FROM QUARTER: FROM NORTH FROM WEST SECTION LINES: 250 2380

Lease Name: DOPPELGANGER 4_9-15N-10W Well No: 6HX Well will be 250 feet from nearest unit or lease boundary.

Operator DEVON ENERGY PRODUCTION CO LP Telephone: 4052353611; 4052353 OTC/OCC Number: 20751 0

DEVON ENERGY PRODUCTION CO LP 333 W SHERIDAN AVE

OKLAHOMA CITY, OK 73102-5015

LOOSEN FAMILY LIMITED PARTNERSHIP

P.O. BOX 1337

OKLAHOMA CITY OK 73101-

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

Depth Name Depth MISSISSIPPIAN (EX CHESTER) 1 10138 6 2 WOODFORD 10768 7 3 8 4 9 10 658265 Spacing Orders: Location Exception Orders: Increased Density Orders: 658264

Pending CD Numbers: 201801345 Special Orders:

201801346 201801335 201801336

Total Depth: 20454 Ground Elevation: 1309 Surface Casing: 1999 Depth to base of Treatable Water-Bearing FM: 40

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: 8000 Average: 5000

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: CPit Location is NON HSA

Pit Location Formation: FLOWERPOT

One time land application -- (PEOLIDES DEPMIT) PERMIT NO: 19.3

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34191

H SEE MEMO

PIT 2 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: OIL BASED
Chlorides Max: 300000 Average: 200000

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: FLOWERPOT

HORIZONTAL HOLE 1

Sec 09 Twp 15N Rge 10W County **BLAINE** Spot Location of End Point: SE SW SW SF Feet From: SOUTH 1/4 Section Line: 50 EAST Feet From: 1/4 Section Line: 2075

Depth of Deviation: 9459 Radius of Turn: 477 Direction: 176

Total Length: 10246

Measured Total Depth: 20454

True Vertical Depth: 10768

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 3/23/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF

CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR

SURFACE CASING

HYDRAULIC FRACTURING 3/23/2018 - G71 - 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 3/23/2018 - G71 - 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

MEMO 3/23/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description PENDING CD - 201801335 4/10/2018 - G58 - 4-15N-10W X658265 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801336 4/10/2018 - G58 - 9-15N-10W X658264 MSNLC, WDFD 10 WELLS NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801345 4/10/2018 - G58 - (I.O.) 4 & 9-15N-10W **EST MULTIUNIT HORIZONTAL WELL** X658265 MSNLC, WDFD (4-15N-10W) X658264 MSNLC, WDFD (9-15N-10W) 50% 4-15N-10W 50% 9-15N-10W NO OP. NAMED REC 4/3/2018 (MINMIER) PENDING CD - 201801346 4/10/2018 - G58 - (I.O.) 4 & 9-15N-10W X658265 MSNLC, WDFD (4-15N-10W) X658264 MSNLC, WDFD (9-15N-10W) X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO PROPOSED WELL COMPL. INT (4-15N-10W) NCT 0' FNL, NCT 0' FSL, NCT 330' FEL COMPL. INT (9-15N-10W) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL

SPACING – 658264 4/10/2018 - G58 - (640)(HOR) 9-15N-10W

NO OP. NAMED REC 4/3/2018 (MINMIER)

EST MSNLC EXT 643729 WDFD

POE TO BHL (MSNLC) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

SPACING - 658265 4/10/2018 - G58 - (640)(HOR) 4-15N-10W

EXT 644506 MSNLC, WDFD POE TO BHL (MSNLC) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
S WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS 13800 WIRELESS 011-23987 BLAINE County, Oklahoma 250'FNL-2380'FWL 15N 10W 1.M. Township X 1920292.2 Y 295681.0 Section Range T16N-R10W Line-P Township -R10W T15N-250.0 construction purposes information X 1917662.8 Y 295694.9 2380.0 FIRST PERF 165'FNL-2075'FEL NAD-27 (US Feet) 35'48'41,5"N 98'16'01.1"W 35.811531401'N 98.266958888'W X= 1920844 Y= 295513 NAD-83 (US Feet) 35'48'41,7"N 98'16'02.3"W 35.81157659'N 98.26730024'W X= 1889245 Y= 295537 LOT 2 V-DOOR SOUTH 250.5 OGRANA O-N-C LOT 1 LOT 4 LOT 3 shown 557 1958 herein 2289.7 SURFACE HOLE 250'FNL-2380'FWL NAD-83 (US Feet) 35'48'40.9"N 98'16'12.1"W 35.81134884'N 98.27001881'W X= 1888438 Y= 295456 rein is Y= 295537 GRID NAD-27 S/2-NW/4 ġ OK NORTH US Feet S/2-NE/4 500' 1000 295456 4 from Good Distance Operator: Lease Name: fopography & Vegetation South t Accessibility to l ance & Direction n Hwy Jct or Tow Drill ō DEVON Site? the DOPPELGANGER ZE lown ENERGY Cor. Location of, Yes PRODU From Loc. 4 fell 9-1 4-T15N-R10W Kingfisher/ NOIT ≅. 15N-10W sloping 8 East X 1922858.4 Y 290502.7 1917582.3 290512.1 Stakes /Blaine Reference off 5 wheat county Set County Stakes or None field. road Line PROPOSED on Ve∥ Alternate Şţ <u>И</u>0. DRILL Hwy. PATH 1922846.3 287857.8 Location 6HX 1917569.0 33 287868.4 9 go ±3 LAST PERF 165'FSL-2075'FEL NAD-27 (US Feet) 35'47'01.3"N 98'16'01.7"W 35.783700266'N 98.267150179'W X= 1920760 Y= 285383 NAD-83 (US Feet) 35'47'01.5"N 98'16'03.0"W 35.78374624'N AST PERF 1309 309 **ELEVATION:** miles 0 Gr. BOTTOM HOLE 50'FSL-2075'FEL NAD-27 (US Feet) 35'47'0.2"N 98'16'1.7"W 35.783384335'N 98.267150895'W X= 1920759 Y= 285268 NAD-83 (US Feet) 35'47'00.3"N 98'16'03.0"W 35.78343031'N 98.26749153'W X= 1889160 Y= 285291 Gr. West a Q. 2594.4" Stake Stake then 35.78374624'N 98.26749082'W X= 1889160 Y= 285406 NAVD88 ±2 NGVD29 miles 564.2 1917555.7 285224.8 2075.0 CALCULATED X 1922834. Y 285213.0 X 1920194.9 Y 285218.9 285213.0 285213.0 20FESSIONAL FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. 2018 Mar. 2, Date of Drawing: Invoice # 288614C Date Staked: Feb. 26, 2018 was receiver accuracy. DATUM: NAD-27 LAT: 35°48'40.7"N TR LONG: 98°16'10.8"W **CERTIFICATE:** is information wide with a GPS refoot Horiz./Vert. a LAT: <u>35.811303620°N</u> SURVE) Dan W. Rogers DAN W. an Oklahoma Licensed Land ROGERS LONG: 98.269677310'W Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the STATE PLANE 1200 COORDINATES: (US Feet) information shown herein This gathered with ±1 fo ZONE: OK NORTH 1208 X:___1920038 TLAHOMA 295432 Oklahoma Lic. No.