API NUMBER: 087 22147

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: 06/11/2018 12/11/2018 Expiration Date:

PERMIT TO DRILL

WELL LOCATION: Sec: 05 Twp: 6N Rge: 4W County: MCCLAIN

FEET FROM QUARTER: FROM SPOT LOCATION: NE NW NW FROM NORTH WEST ll NE

SECTION LINES: 260 1700

Lease Name: LODI Well No: 3-5H Well will be 260 feet from nearest unit or lease boundary.

ECHO E & P LLC Operator OTC/OCC Number: Telephone: 4057534232 23925 0 Name:

ECHO E & P LLC

3817 NW EXPRESSWAY STE 840

OKLAHOMA CITY. OK 73112-1400 RILIEGH AND MARY LOU SEABOURN

116254 220TH STREET

BLANCHARD OK 73010

Increased Density Orders:

676024

PERMIT NO: 18-34571

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

Name Depth Name Depth WOODFORD 10822 1 6 2 7 3 8 4 9 10 671562 Spacing Orders:

Location Exception Orders: Pending CD Numbers: Special Orders:

Total Depth: 15700 Ground Elevation: 1265 Surface Casing: 1000 Depth to base of Treatable Water-Bearing FM: 300

Under Federal Jurisdiction: No Fresh Water Supply Well Drilled: No Surface Water used to Drill: No

Approved Method for disposal of Drilling Fluids: PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED Chlorides Max: 5000 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?

located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C Pit Location is BED AQUIFER Pit Location Formation: DUNCAN D. One time land application -- (REQUIRES PERMIT)

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 located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C
Pit Location is BED AQUIFER
Pit Location Formation: DUNCAN

HORIZONTAL HOLE 1

Sec 05 Twp 6N Rge 4W County MCCLAIN

Spot Location of End Point: SW SW SE SW
Feet From: SOUTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 1485

Depth of Deviation: 10323 Radius of Turn: 539 Direction: 185

Total Length: 4531

Measured Total Depth: 15700

True Vertical Depth: 10850

End Point Location from Lease,
Unit, or Property Line: 165

Notes:

Category Description

DEEP SURFACE CASING 6/5/2018 - 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 6/5/2018 - 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

INCREASED DENSITY - 676024 6/5/2018 - G58 - 5-6N-4W

X671652 WDFD 2 WELLS ECHO E&P, LLC 4/10/2018

MEMO 6/5/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

Category Description

SPACING - 671652 6/5/2018 - G58 - (640)(HOR) 5-6N

6/5/2018 - G58 - (640)(HOR) 5-6N-4W VAC OTHER EXT 652240 WDFD, OTHER

EXT 652240 WDFD, OTHER COMPL. INT. NCT 165' FNL & FSL, NCT 330' FEL & FWL

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
13800 Wireless Way, Okla. City, OK. 73134 (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS 087-22147 **MCCLAIN** _ County, Oklahoma 4<u>W</u>_1.M 260'FNL - 1700'FWL Section 5 Township 6N Range X= 2103965 Y= 617477 260' वृ T7N -R4W Township Line-P NOTE: information shown herein is construction purposes ONLY. TON -RAW 2106608 617495 1700 X= 2109250 Y= 617513 LANDING POINT 600'FNL-1485'FWL NAD-27 (US Feet) 35'01'40.6" N 97'38'52.0" W LANDING LOT 1 LOT LOT 2 35.027957552* 97.647779956* X=2105453 Y=616887 2393' 76 The 5/2-NE/ S/2-NW/4 X= 2109254 Y= 614868 X= 2103975 Y= 614820 PROPOSED OGRAD BOTTOM HOLE _5−N−5 165'FSL-1485'FWL NAD-27 (US Feet) 35'00'55.8" N 97'38'52.0" W 35.015508538' N 557 1958 DRILL 2477 PATH 97.647773333* X=2105470 Y = 612356GRID NAD-27 OK SOUTH US Feet X= 2106622 Y= 612201 500' 1000 X= 2103986 Y= 612178 1485 165' LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: ECHO E&P LLC. **ELEVATION:** Well No.: #3-5H 1265' Gr. at Stake Lease Name: LODI Topography & Vegetation <u>Loc. fell in sloping</u> pasture Reference Stakes or Alternate Location Yes Good Drill Site? _____ None Stakes Set _ Best Accessibility to Location _____From North off county road Distance & Direction From Jct. St. Hwy. 76 and St. Hwy. 39, go ±0.8 mi. South on St. Hwy. 76, from Hwy Jct or Town.___ T. T. to the NW Cor. of Sec. 5-T6N-R4W Revision X A Date of Drawing: May 14, 2018 Invoice # 292682B Date Staked: Apr. 26, 2018 DATUM: NAD-27 LAT: 35°01'44.0"N LONG: 97'38'49.4"W CERTIFICATE: d with a GPS foot Horiz./Vert. SURVE LAT: <u>35.028893595</u>° N I, T. Wayne Fisch an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land LONG: 97.647062669° W STATE PLANE Surveyors of Oklahoma, do hereby certify to the COORDINATES: (US Feet) information shown herein ZONE: OK SOUTH OKLAHOMA T. Ways Die 2105666 AHU MAN Oklahoma Lic. No. <u>1378</u> 617228