

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

API NUMBER: 087 22141

Approval Date: 06/06/2018

Expiration Date: 12/06/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

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

County: MCCLAIN

SPOT LOCATION: ☐ NW ☐ NW ☐ NE ☐ NW

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 260 1640

Lease Name: LODI

Well No: 1-5H

Well will be 260 feet from nearest unit or lease boundary.

Operator Name: ECHO E & P LLC

Telephone: 4057534232

OTC/OCC Number: 23925 0

ECHO E & P LLC
3817 NW EXPRESSWAY STE 840
OKLAHOMA CITY, OK 73112-1400

RILIEGH AND MARY LOU SEABOURN
11624 220TH STREET
BLANCHARD OK 73010

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

Name	Depth	Name	Depth
1 WOODFORD	10750	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 671562

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 15300

Ground Elevation: 1266

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

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: 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? 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

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

PERMIT NO: 18-34569

H. SEE MEMO

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.

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: S2 SW SW SW

Feet From: SOUTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 330

Depth of Deviation: 9850

Radius of Turn: 477

Direction: 190

Total Length: 4701

Measured Total Depth: 15300

True Vertical Depth: 11000

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

Notes:

Category

Description

DEEP SURFACE CASING

5/23/2018 - 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

5/23/2018 - 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

MEMO

5/23/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 671652

6/1/2018 - G58 - (640)(HOR) 5-6N-4W
VAC OTHER
EXT 652240 WDFD, OTHER
COMPL. INT. NCT 165' FNL & FSL, NCT 330' FEL & FWL

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.

087 22141 LODI 1-5H

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

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

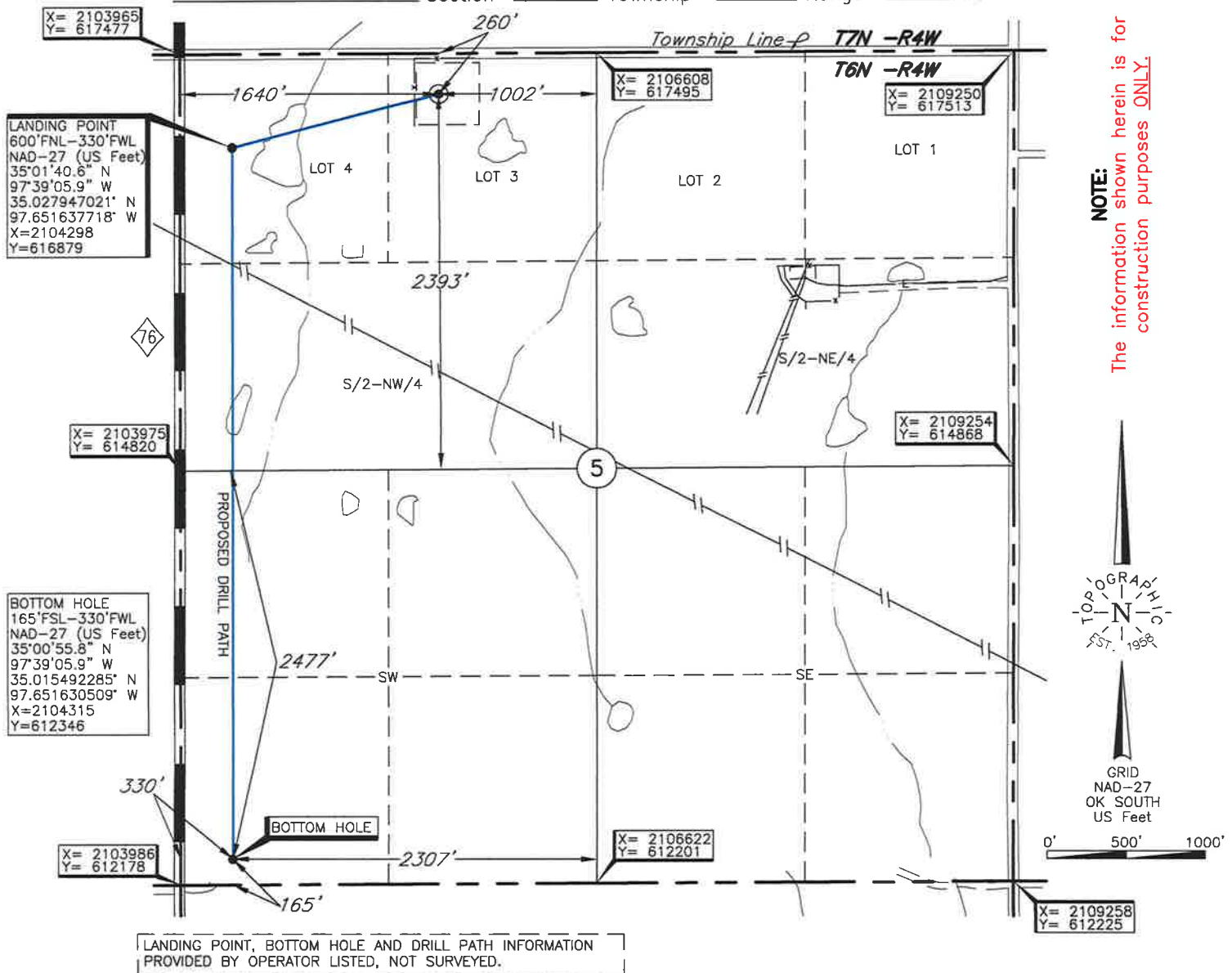
Certificate of Authorization No. 1293 LS

087-22141

MCCLAIN

County, Oklahoma

260'FNL - 1640'FWL Section 5 Township 6N Range 4W I.M.



Operator: ECHO E&P LLC.

Lease Name: LODI

Well No.: #1-5H

ELEVATION:

1266' Gr. at Stake

Topography & Vegetation Loc. fell in sloping pasture

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 Jct. St. Hwy. 76 and St. Hwy. 39, go ±0.8 mi. South on St. Hwy. 76,
to the NW Cor. of Sec. 5-T6N-R4W

Revision ☒ A

Date of Drawing: May 14, 2018

Invoice # 292682 Date Staked: Apr. 26, 2018

AC

CERTIFICATE:

I, T. Wayne Fisch an Oklahoma Licensed Land
Surveyor and an authorized agent of Topographic Land
Surveyors of Oklahoma, do hereby certify to the
information shown herein

T. Wayne Fisch
Oklahoma Lic. No. 1378



This information was
gathered with a GPS receiver
with ±1 foot Horiz./Vert. accuracy

DATUM: NAD-27
LAT: 35°01'44.0"N
LONG: 97°38'50.1"W
LAT: 35.028893077° N
LONG: 97.647262938° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK SOUTH
X: 2105606
Y: 617228