API NUMBER: 011 24030

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: 06/18/2018 12/18/2018 Expiration Date:

21194 0

Well will be 255 feet from nearest unit or lease boundary.

OTC/OCC Number:

PERMIT TO DRILL

WELL LOCATION:	Sec: 11	Twp: 15N	Rge:	11W	C	County	: BLAI	NE		
SPOT LOCATION:	SE SW	sw	SE	FEE	ET FROM QUAR	RTER:	FROM	SOUTH	FROM	EAST
				SE	CTION LINES:			255		2180
Lease Name: L	EHMAN COM					We	ell No:	7-11H		
Operator Name:	CIMAREX E	NERGY CO						Teleph	none:	9185851100

DON E & SANDRA A MADDUX RT 77479 NORTH 2560 ROAD

WATONGA OK 73772

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

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9860	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders	652593	Location Exception Orders:		Increased Density Orders:
Pending CD Nu	mbers: 201803405			Special Orders:

Pending CD Numbers: 201803405

201803404

Total Depth: 16079 Ground Elevation: 1519 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 70

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33763 H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

Chlorides Max: 10000 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?

is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C Pit Location is AP/TE DEPOSIT Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

BLAINE Sec 11 Twp 15N Rge 11W County Spot Location of End Point: NW NI\// NI\// NE Feet From: NORTH 1/4 Section Line: 150 Feet From: EAST 1/4 Section Line: 2376

Depth of Deviation: 10716
Radius of Turn: 597
Direction: 355
Total Length: 4425

Measured Total Depth: 16079

True Vertical Depth: 11237

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

Notes:

Category Description

DEEP SURFACE CASING 6/7/2018 - 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 6/7/2018 - 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 6/7/2018 - 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

PENDING CD - 201803404 6/18/2018 - G58 - (I.O.) 11-15N-11W

X652593 MSSP

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 2120' FEL

NO OP. NAMED REC 5/21/2018 (DUNN)

PENDING CD - 201803405 6/18/2018 - G58 - 11-15N-11W

X652593 MSSP 4 WELLS NO OP. NAMED REC 5/21/2018 (DUNN)

SPACING - 652593 6/18/2018 - G58 - (640)(HOR) 11-15N-11W

EST OTHERS

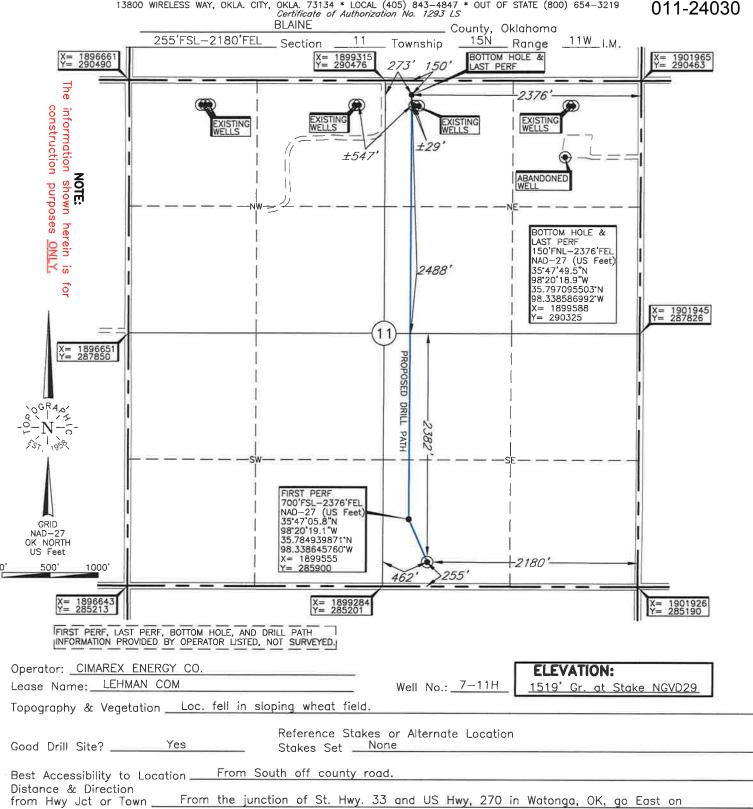
EXT 649479 MSSP, OTHERS COMPL. INT. NLT 660' FB

(COEXIST SP. ORDER 222673 CSTR; OTHER)

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



DATUM: NAD-27
LAT: 35°47'01.4"
LONG: 98°20'16.8" LAT: <u>35°47'01.4"N</u> LONG: 98°20'16.8"W LAT: 35.783716970°N LONG: 98.337990220°W STATE PLANE

COORDINATES: (US Feet) ZONE: OK NORTH

X:___1899748 285454

Date of Drawing: Jan. 10, 2018 Invoice # 286418A Date Staked: Dec. 29, 2017

CERTIFICATE:

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.

