API NUMBER: 011 24054

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: 07/24/2018 01/24/2019 **Expiration Date**

PERMIT TO DRILL

WELL LOCATION: Sec: Twp: 15N Rge: 11W County: BLAINE

FEET FROM QUARTER: SPOT LOCATION: lsw FROM SOUTH FROM WEST Isw SE lsw SECTION LINES: 255 730

Lease Name: LEHMAN BIA Well No: 2-11H Well will be 255 feet from nearest unit or lease boundary.

CIMAREX ENERGY CO Operator OTC/OCC Number: Telephone: 9185851100 21194 0 Name:

CIMAREX ENERGY CO

202 S CHEYENNE AVE STE 1000

TULSA. OK 74103-3001 **BUREAU OF INDIAN AFFAIRS**

P O BOX 68

CONCHO AGENCY

EL RENO OK 73036

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

Name Depth Name Depth MISSISSIPPIAN 1 9860 6 2 WOODFORD 11375 7 3 8 4 9 5 10 652593 Spacing Orders: Location Exception Orders: Increased Density Orders:

Pending CD Numbers: 201803405 Special Orders:

201803401

Total Depth: 15891 Ground Elevation: 1504 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 60

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

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

PERMIT NO: 18-33758

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

HORIZONTAL HOLE 1

BLAINE Sec 11 Twp 15N Rge 11W County Spot Location of End Point: NF NI\// NI\// NΙ\Λ Feet From: NORTH 1/4 Section Line: 150 Feet From: WEST 1/4 Section Line: 450

Depth of Deviation: 10537 Radius of Turn: 591 Direction: 355 Total Length: 4426

Measured Total Depth: 15891

True Vertical Depth: 11375

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 - 201803401 6/18/2018 - G58 - (I.O.) 11-15N-11W

X652593 MSSP

COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 370' FWL

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, WDFD COMPL. INT. (MSSP) NLT 660' FB

COMPL. INT. (WDFD) NLT 165' FNL & FSL, NCT 330' FEL & FWL

(COEXIST WITH 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

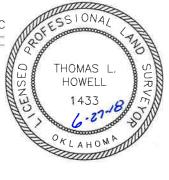
Certificate of Authorization No. 1293 LS BLAINE County, Oklahoma 11W_LM. 255'FSL - 730'FWL 15N Section Township Range X= 1896661 Y= 290490 BOTTOM HOLE & LAST PERF 2204 construction purposes LAST FERF 150'FNL-450'FWL NAD-27 (US Feet) 35'47'49.6"N 98'20'49.0"W 35.797107573' N information EXISTING WELLS EXISTING WELLS 98.346940928* X= 1897110 NOTE: Y= 290338 ABANDONED WELL PATH nerein 2490 PROPOSED DRILL OGR40 2-N-5 FIRST PERF 700'FSL-450'FWL NAD-27 (US Feet) 2381 35*47'05.8"N 98*20'49.0"W 35.784947216* 98.346939448* X= 1897095 Y= 285911 GRID NAD-27 OK NORTH US Feet 500' 1000 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: CIMAREX ENERGY CO. **ELEVATION:** Lease Name: LEHMAN BIA Well No.: 2-11H 1504' Gr. at Stake NGVD29 Topography & Vegetation Loc. fell in sloping wheat field. Reference Stakes or Alternate Location Yes Stakes Set None Good Drill Site? __ From South off county road. Best Accessibility to Location ___ Distance & Direction From the junction of St. Hwy. 33 and US Hwy, 270 in Watonga, OK, from Hwy Jct or Town_ go East on St. Hwy, 33 ±4 miles, then South ±4 miles to the SW Cor. of Sec. 11-T15N-R11W. POFESSIONAL Revision X B Date of Drawing: Jun. 26, 2018 Invoice # 288030 Date Staked: Feb. 07, DATUM: NAD-27 LAT: 35°47'01.4"N LONG: 98°20'45.6"W **CERTIFICATE:**

LAT: 35.783723957°N LONG: 98.345995261°W STATE PLANE COORDINATES: (US Feet) ZONE: OK NORTH X: 1897373

285465

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. __



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 BLAINE 011-24054 _ County, Oklahoma 255'FSL - 730'FWL 11___Township <u>15N</u> Range <u>11W</u> I.M. _ Section _ X= 1896661 Y= 290490 X= 1899315 Y= 290476 X= 1901965 Y= 290463 150 BOTTOM HOLE & LAST PERF 150'FNL-450'FWL NAD-27 (US Feet) 35'47'49.6"N 98'20'49.0"N 2204' construction purposes information EXISTING WELLS EXISTING WELLS ±297 35.797107573° 98.346940928° 1897110 ABANDONED WELL 290338 PATH 2490' DRILL PROPOSED X= 1901945 Y= 287826 11 OGR40' FIRST PERF -N-5 700 FSL - 450 FWL NAD - 27 (US Feet) 35'47'05.8"N 98'20'49.0"W 537 1950 2381' 35.784947216* 98.346939448* X= 1897095 GRID 730 NAD-27 OK NORTH US Feet 500 1000° 255 X= 1899284 Y= 285201 1901926 285190 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: CIMAREX ENERGY CO. **ELEVATION:** Lease Name: __LEHMAN BIA Well No.: _2-11H 1504' Gr. at Stake NGVD29 Topography & Vegetation <u>Loc. fell in sloping wheat field.</u> Reference Stakes or Alternate Location Yes Good Drill Site? Stakes Set None Best Accessibility to Location From South off county road. Distance & Direction From the junction of St. Hwy. 33 and US Hwy, 270 in Watonga, OK, from Hwy Jct or Town_ qo East on St. Hwy, 33 ±4 miles, then South ±4 miles to the SW Cor. of Sec. 11-T15N-R11W Revision X B Date of Drawing: Jun. 26, 2018 DATUM: NAD-27
LAT: 35°47'01.4"
LONG: 98°20'45.6" Invoice # 288030 Date Staked Feb. 07, 2018 AC LAT: 35°47'01.4"N LONG: 98°20'45.6"W **CERTIFICATE:** CENSED LAT: __35.783723957°N THOMAS L. Thomas L. Howell ___an Oklahoma Licensed Land LONG: 98.345995261°W HOWELL Surveyor and an authorized agent of Topographic Land STATE PLANE Surveyors of Oklahoma, do hereby certify to the COORDINATES: (US Feet) information shown herein ZONE: OK NORTH Memo J. Navery Oklahoma Lic. No. 1433 OKLAHOMA X:___1897373 285465

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 BLAINE



FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED.

Operator: <u>CIMAREX ENERGY CO.</u> Lease Name: <u>LEHMAN BIA</u>	Well No.: 2-11H	ELEVATION: 1504' Gr. at Stake NAVD88
Topography & Vegetation <u>Loc. fell in sloping wheat field.</u>		
Good Drill Site? Yes Stakes Set None		
Best Accessibility to Location From South off county road.		
Distance & Direction from the junction of St. Hwy. 3.	3 and US Hwy, 270 in	Watonga, OK,
go East on St. Hwy, 33 ±4 miles, then South ±4 miles	to the SW Cor. of Sec	c. 11-T15N-R11W.

DATUM: NAD-83 LAT: 35°47'01.6"N LONG: 98°20'46.8"W LAT: 35.78377053°N LONG: 98.34633933°W STATE PLANE

COORDINATES: (US Feet) ZONE: OK NORTH

1865773 285489

Revision X B

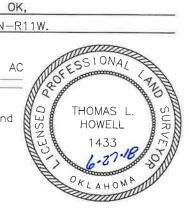
Date of Drawing: Jun. 26, 2018

Invoice # 288030 Date Staked: Feb. 07.

CERTIFICATE:

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

Memo J. Nove Oklahoma Lic. No. 1433



TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

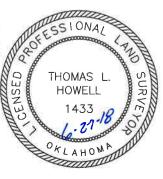
13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843–4847 * OUT OF STATE (800) 654–3219

Certificate of Authorization No. 1293 LS BLAINE County, Oklahoma 255'FSL -730'FWL 15N Range 11W I.M. Section Township 1867715 X= 1870365 Y= 290487 X= 1865061 Y= 290514 150' BOTTOM HOLE & LAST PERF 150'FNL-450'FWL NAD-83 (US Feet) 35'47'49.8"N 98'20'50.2"W 2204 construction purposes ONLY information EXISTING WELL'S EXISTING ±297 35.79715378°N 98.34728538°W X= 1865510 ABANDONED WELL NOTE: Y= 290362 PATH herein 2490' DRILL PROPOSED ġ X= 1870345 Y= 287850 11 X= 1865051 Y= 287874 OGR40 8-N-5-FIRST PERF 700'FSL-450'FWL NAD-83 (US Feet) 35'47'06.0"N 98'20'50.2"W 1950 2381' 35.78499376°N 98.34728362°W X=1865495 Y=285935 GRID 730 NAD-83 OK NORTH US Feet 500' 1000 255 X= 1867684 Y= 285225 FIRST PERF, LAST PERF, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: CIMAREX ENERGY CO. **ELEVATION:** Lease Name: <u>LEHMAN</u> BIA Well No.: 2-11H 1504' Gr. at Stake NAVD88 Topography & Vegetation <u>Loc. fell in sloping wheat field.</u> Reference Stakes or Alternate Location Good Drill Site? _ Yes Stakes Set None From South off county road. Best Accessibility to Location ____ Distance & Direction From the junction of St. Hwy. 33 and US Hwy, 270 in Watonga, OK, from Hwy Jct or Town go East on St. Hwy, 33 ±4 miles, then South ±4 miles to the SW Cor. of Sec. 11-T15N-R11W. DESSIONAL PROPERTY OF THE PROP Revision X B Jun. 26, 2018 Date of Drawing: _ Invoice # 288030 Date Staked: Feb. 07, NAD-83 AC LAT: <u>35°47'01.6"</u>N LONG: 98'20'46.8"W **CERTIFICATE:** THOMAS L LAT: _35.78377053°N Thomas L. Howell ___an Oklahoma Licensed Land

LONG: 98.34633933°W STATE PLANE COORDINATES: (US Feet) ZONE: OK NORTH X: 1865773 285489

Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

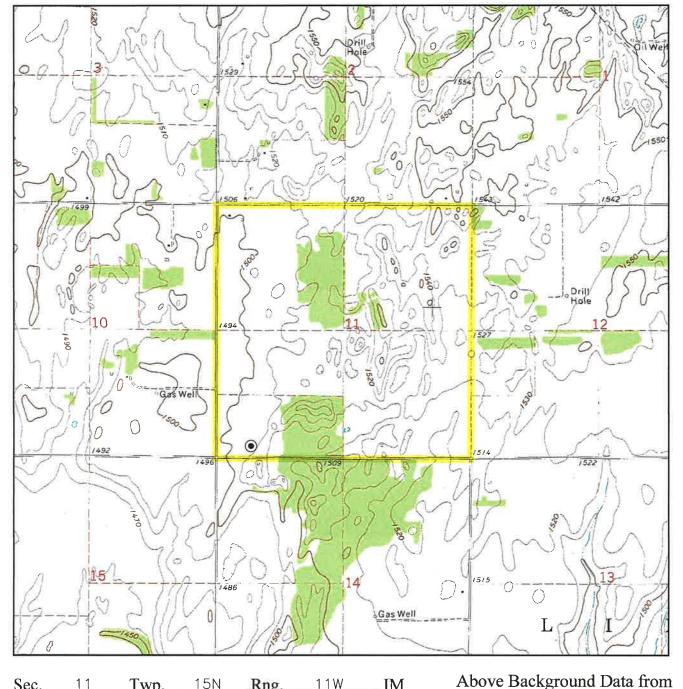
Oklahoma Lic. No. _



TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry 13800 Wireless Way, Oklahoma City, OK 73134 www.topographic.com Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

LOCATION & ELEVATION VERIFICATION MAP



Sec. 11 Twp. 15N Rng. 11W IM

County BLAINE State OK

Operator CIMAREX ENERGY CO.

Description 255'FSL - 730'FWL

Lease LEHMAN BIA 2-11H

1504' Gr. at Stake NGVD29

Elevation 1504' Gr. at Stake NAVD88

WATONGA SE, OK

U.S.G.S. Topographic

Quadrangle Map

U.S.G.S. Topographic Map Scale: 1"=2000'

Contour Interval 10'

When elevation is shown hereon it is the ground elevation of the location stake.

Review this plat and inform us immediately of any possible discrepancy.

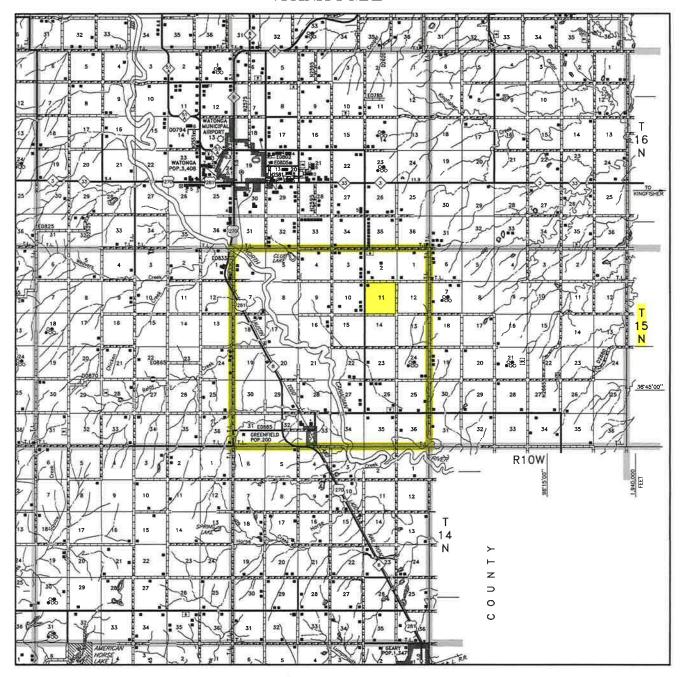


LAND SURVEYORS OF OKLAHOMA

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

Surveying and Mapping for the Energy Industry 13800 Wireless Way, Oklahoma City, OK 73134 www.topographic.com Telephone Numbers: Local (405) 843-4847 Toll Free (800) 654-3219

VICINITY MAP



Scale: 1'' = 3 Miles

Sec. 11 Twp. 15N Rng. 11W IM

County BLAINE State OK

Operator CIMAREX ENERGY CO.

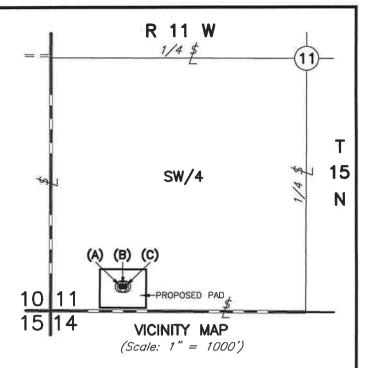


T 15 N - R 11 W (INDIAN MERIDIAN)

PLAT SHOWING

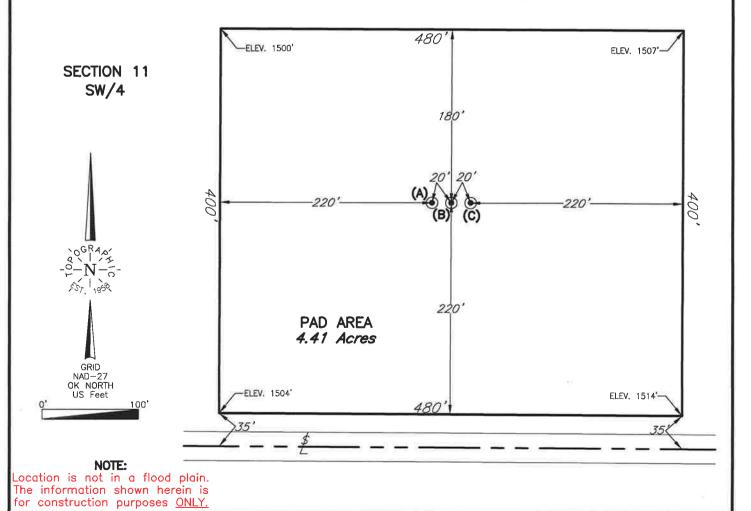
PROPOSED PAD AREA IN THE SW/4 OF SECTION 11, T15N — R11W BLAINE COUNTY, OKLAHOMA





- (A) CIMAREX ENERGY CO. *LEHMAN BIA 2-11H* 255'FSL-730'FWL *Elev. 1504' Gr.*
- (B) CIMAREX ENERGY CO.

 HOPPINSCOTCH BIA 1-11H
 255'FSL-750'FWL
 Elev. 1505' Gr.
- (C) CIMAREX ENERGY CO. *LEHMAN BIA 3-11H*255'FSL-770'FWL *Elev. 1505' Gr.*



prepared exclusively
ENERGY

CO.

OKLAHOMA

OF

DATE:

INVOICE NO .:

FILE NAME: L2170B.DWG

DWG NO.:103134-L2-170-B SHEET 1 OF 1

This plat was CIMAREX

TOPOGRAPHIC LAND SURVEYORS

NO. REVISION DATE BY

ES 2/15/18

SUR. BY:

DRAWN BY: APPROVED BY: