API NUMBER: 093 25129

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: 02/14/2018 08/14/2018 Expiration Date:

20631 0

Well will be 210 feet from nearest unit or lease boundary.

OTC/OCC Number:

						<u>P</u>	<u>ERMIT</u>	<u> </u>	<u>DRILL</u>
WELL LOCATION:	Sec: 25	Twp: 20N	Rge: 15V	V	County: N	IAJOR			
SPOT LOCATION:	SW SE	SW	SW	FEET FROM QU	JARTER: FRO	м S	DUTH	FROM	WEST
				SECTION LINES	3:	21	0		714
Lease Name: LEO DEAN					Well N	o: 2	5-2H		
Operator Name:	COMANCHI	E EXPLORAT	ION CO LL	.c			Teleph	one: 4	4057555900
							1		

KEVIN R. & CARISSA LINN HURT 238259 E. COUNTY ROAD #58

CHESTER OK 73838

COMANCHE EXPLORATION CO LLC 6520 N WESTERN AVE STE 300 OKLAHOMA CITY. OK 73116-7334

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	8100	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	No Spacing	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201708672 Special Orders:

201708671

Total Depth: 13735 Ground Elevation: 1680 Surface Casing: 800 Depth to base of Treatable Water-Bearing FM: 330

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: 18-33816 H. SEE MEMO

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?

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

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 AP/TE DEPOSIT
Pit Location Formation: TERRACE

HORIZONTAL HOLE 1

Sec 25 Twp 20N Rge 15W County **MAJOR** NW Spot Location of End Point: NW NF NW Feet From: NORTH 1/4 Section Line: 135 WEST Feet From: 1/4 Section Line: 714

Depth of Deviation: 8430 Radius of Turn: 434

Direction: 1

Total Length: 4624

Measured Total Depth: 13735

True Vertical Depth: 9030

End Point Location from Lease,
Unit, or Property Line: 135

Notes:

Category Description

DEEP SURFACE CASING 1/24/2018 - 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 1/24/2018 - 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 1/24/2018 - 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 1/24/2018 - 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 - 201708671 1/25/2018 - G58 - (I.O.) 25-20N-15W

X635883/644741 MSSP

1 WELL

NO OP. NAMED

REC 1/23/2018 (MILLER)

PENDING CD - 201708672 1/25/2018 - G58 - (I.O.) 25-20N-15W

X635883/644741 MSSP

COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL

NO OP. NAMED

REC 1/23/2018 (MILLER)

PENDING CD - 201800775 1/26/2018 - G58 - (E.O.) 25-20N-15W

X165:10-3-28(C)(2)(B) MSSP (LEO DEAN 25-2H)

MAY BE CLOSÉR THAN 600' TO LEO DEAN 25-1H WELL

REC 2/2/2018 (THOMAS)

SPACING - 635883 1/25/2018 - G58 - (640)(HOR) 25-20N-15W

EST MSSP, OTHER POE TO BHL NCT 660' FB

**NPT TO COEXIST WITH SP. ORDER 102031/201755 CSTR, SP. ORDER 141045/201755 MSSLM

PREPARED BY OPERATOR ATTORNEY AND REVIEWED BY OCC TECHNICAL

SPACING - 644741 1/25/2018 - G58 - (640)(HOR) 25-20N-15W

NPT 635883 TO COEXIST SP ORDER 102031 AS REFORMED BY 201755 CSTR; COEXIST 141045

AS REFORMED BY 201755 MSSLM

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 MAJOR County, Oklahoma 210'FSL-714'FWL 093-25129 _Section _ 25 Township <u>20N</u> Range <u>15W</u> I.M. >135 714 X 1775616 Y 433263 X 1778244 Y 433257 X 1780872 Y 433251 1914 BOTTOM HOLE 135'FNL-714'FWL 36'11'14.9" N 98'45'28.6" W 36.187478475 98.757954106 X: 1776330 Y: 433126 2495 PATH DRILL 25 X 1775616 Y 430632 X 178086 Y 430623 1780862 GRID NAD - 27OK NORTH US FEET Scale: 1" = 1000' 2419 0 1000' LANDING POINT LANDING POINT 500'FSL-714'FWL 36'10'29.2" N 98'45'28.2" W 36.174775895' N 98.757827032' W X: 1776331 Y: 428502 11 11 П 11 11 714' П 1778237 H0 X 1775617 Y 428003 X 1780850 Y 427994 1780850 THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY BOTTOM HOLE, LANDING POINT, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED. Operator: COMANCHE RESOURCES CO. **ELEVATION:** Lease Name: LEO DEAN Well No.: <u>25</u>-2H 1680' Gr. at level pad Topography & Vegetation Location fell on existing level pad, ±155' NE of existing well head. Reference Stakes or Alternate Location Good Drill Site? = Yes Stakes Set None From county road south of well location. Best Accessibility to Location _ Distance & Direction from Hwy Jct or Town From Orion, OK., go ± 3.0 miles south, then ± 1.0 mile east to the Southwest Corner of Section 25, T20N-R15W. Date of Drawing: Jan. 15, 2018 DATUM: NAD-27 Invoice # 286878 Date Staked: Jan. 12. 2018 JGW LAT: 36"10'26,3"N (AND) LONG: 98'45'28.1"W **CERTIFICATE:** is information wed with a GPS refoot Horiz. Nert. a LAT: <u>36.1**739**78337°N</u> Thomas L. Howell SURVE LONG: 98,757818257'W 0 an Oklahoma Licensed Land THOMAS L. CENSEC Surveyor and an authorized agent of Topographic Land HOWELL STATE PLANE Surveyors of Oklahoma, do hereby certify to the 1433 COORDINATES (US FEET): information shown herein. OF LAHOMA here ±1 1 ZONE: OK NORTH 1776331 428212 Oklahoma Reg. No. .