API NUMBER: 093 25119

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: 01/18/2018
Expiration Date: 07/18/2018

PERMIT TO DRILL

WELL LOCATION:	Sec:	15	Twp:	20N	Rge:	15W	County:	MAJOR

SPOT LOCATION: NE NW NW NE FEET FROM QUARTER: FROM NORTH FROM EAST SECTION LINES: 230 2155

Lease Name: MARK Well No: 15-1H Well will be 230 feet from nearest unit or lease boundary.

Operator COMANCHE EXPLORATION CO LLC Telephone: 4057555900 OTC/OCC Number: 20631 0

COMANCHE EXPLORATION CO LLC 6520 N WESTERN AVE STE 300

OKLAHOMA CITY, OK 73116-7334

MARY & SHERRY MILES 55373 S. COUNTY RD

CHESTER OK 73838

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

	Name	Depth	Name	Depth
1	MISSISSIPPI LIME	9300	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	128955	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201800266 Special Orders:

201800267

Total Depth: 13599 Ground Elevation: 1772 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 460

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-33720

Chlorides Max: 8000 Average: 5000 H. SEE MEMO

Is depth to top of ground water greater than 10ft below base of pit? Y

Within 1 mile of municipal water well? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Wellhead Protection Area?

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. 15 Twp 20N Rge 15W County **MAJOR** SE Spot Location of End Point: SE SW SW Feet From: SOUTH 1/4 Section Line: 135 EAST Feet From: 1/4 Section Line: 2155

Depth of Deviation: 8318
Radius of Turn: 382
Direction: 180
Total Length: 4681

Measured Total Depth: 13599
True Vertical Depth: 9300
End Point Location from Lease,
Unit, or Property Line: 135

Notes:

Category Description

DEEP SURFACE CASING 1/10/2018 - 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 1/10/2018 - 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 1/10/2018 - 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 1/10/2018 - 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 - 201800266 1/16/2018 - G57 - (E.O.) 15-20N-15W

X128955 MSSLM (MRMC & OSGE)

1 WELL

NO OP. NAMED

REC 1-16-2018 (M. PORTER)

PENDING CD - 201800267 1/16/2018 - G57 - (E.O.) 15-20N-15W

X128955 MSSLM (MRMC & OSGE)

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

NO OP. NAMED

REC 1-16-2018 (M. PORTER)

SPACING - 128955 1/11/2018 - G57 - (640) 15-20N-15W

EST OTHER EXT OTHER

EXT 110453/118138 MSSLM (MRMC & OSGE)