API NUMBER: 093 25287

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

Approval Date:	09/20/2022
Expiration Date:	03/20/2024

Horizontal Hole Oil & Gas

## **PERMIT TO DRILL**

WELL LOCATION:	Section:	12	Township:	20N Ra	inge: 16W	County: N	MAJOR		1			
SPOT LOCATION:	SW SE	SE	SE	FEET FROM QUA	RTER: FROM	SOUTH	FROM EAST		_			
				SECTION	LINES:	275	600					
Lease Name:	GRAVES				Well No	: 12-1H		Well	will be 275	feet from nearest unit	or lease boundary.	
Operator Name:	COMANCHE E	XPLORAT	ION CO LL	С	Telephone	e: 40575559	900			OTC/OCC Num	nber: 20631 0	
COMANCHE EXPLORATION CO LLC						MARY G. GRAVES AND MARGIE E. MARNEY						
6520 N WES	TERN AVE S	TE 300					1200 WILD	1200 WILD PLUM COURT				
OKLAHOMA CITY, OK 73116-7334					EDMOND			OK 73025				
Formation(s)	(Permit Vali	d for Lis	sted Form	nations Only	/):							
Name			Code		Depth							
1 MISSISSIPE	PIAN (LESS CHES	STER)	359MS	NLC	9550							
Spacing Orders:	723626			_	Location Exce	eption Orders	: 723909		I	ncreased Density Orders:	No Density	
Pending CD Numb	ers: No Pe	nding			Working in	nterest owne	rs' notified: ***			Special Orders:	No Special	
Total Depth: 1	14030	Ground Ele	evation: 17	88	Surface	Casing:	800		Depth to base	of Treatable Water-Beari	ng FM: 460	
									I	Deep surface casing	g has been approved	
Under	Federal Jurisdicti	on: No					Approved Met	hod for disposal	of Drilling Flu	ıids:		
Fresh Water Supply Well Drilled: No					D. One time land application (REQUIRES PERMIT) PERMIT NO: 22-38592							
Surfac	e Water used to D	rill: No					H. (Other)		SEE M	ИЕМО		
							_		_			
PIT 1 INFOR		SED Clo	sed System	Means Steel F	Pite			ategory of Pit:				
Type of Pit System: CLOSED Closed System Means Steel Pits  Type of Mud System: WATER BASED						Liner not required for Category: C  Pit Location is: AP/TE DEPOSIT						
Chlorides Max: 80								on Formation:		•••		
	top of ground wa		than 10ft be	elow base of pit	? Y							
	mile of municipal											
	Wellhead Protect											
Pit <u>is</u> l	ocated in a Hydro	ogically Se	ensitive Area	а.								
PIT 2 INFOR	MATION						C	ategory of Pit:	С			
Type of Pit System: CLOSED Closed System Means Steel Pits					Liner not required for Category: C							
Type of Mud System: OIL BASED					P	it Location is:	AP/TE DEPOS	SIT				
Chlorides Max: 300000 Average: 200000					Pit Location	on Formation:	TERRACE					
Is depth to	top of ground war	ter greater	than 10ft be	elow base of pit	? Y							
Within 1	mile of municipal	water well?	P N									
	Wellhead Protec	ction Area?	P N									
Pit <b>is</b> le	ocated in a Hvdro	ogically Se	ensitive Area	a.								

HORIZONTAL HOLE 1

Total Length: 4800 Section: 12 Township: 20N Range: 16W Meridian: IM

> County: MAJOR Measured Total Depth: 14030 True Vertical Depth: 10000

Spot Location of End Point: NE NW NE NE

> Feet From: NORTH 1/4 Section Line: 135 End Point Location from Lease, Unit, or Property Line: 135 1/4 Section Line: 760 Feet From: EAST

NOTES:
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NOTES:	
Category	Description
DEEP SURFACE CASING	[9/20/2022 - GC2] - 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	[9/20/2022 - GC2] - OCC 165:10-3-10 REQUIRES:
	1) NOTICE SHALL BE GIVEN AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS ON A HORIZONTAL WELL TO OPERATORS PRODUCING WELLS WITHIN 1 MILE OF THE COMPLETION INTERVAL OF THE SUBJECT WELL. THE NOTICE TO SUCH OPERATORS SHALL CONTAIN THE INFORMATION IN FORM 6000NOO. IF THE HYDRAULIC FRACTURING OPERATIONS SCHEDULE CHANGES AFTER NOTICE HAS BEEN PROVIDED, RESULTING IN A DELAY OF OPERATIONS OF MORE THAN 5 DAYS FROM THE INITIAL NOTICE, NEW NOTICE IS REQUIRED TO BE GIVEN;
	2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS. FORM 6000NHF SHALL BE USED AND IS FOUND AT THIS LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,
	3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS IS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION OF HYDRAULIC FRACTURING OPERATIONS, FOUND AT FRACFOCUS.ORG
INTERMEDIATE CASING	[9/20/2022 - GC2] - 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
LOCATION EXCEPTION - 723909 (CD2021- 002319)	[9/20/2022 - GB6] - (I.O.) 12-20N-16W X723626 MSNLC COMPL. INT. NCT 165' FNL, NCT 165' FSL, NCT 330' FEL 12-20N-16W COMANCHE EXPLORATION COMPANY, L.L.C. 03/03/2022
MEMO	[9/20/2022 - GC2] - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
SPACING - 723626	[9/20/2022 - GB6] - (640)(HOR) 12-20N-16W EXT OTHER EST MSNLC, OTHER COMPL. INT. (MSNLC, OTHER) NCT 660' FB