PI NUMBER: 153 23627 rizontal Hole Oil & Gas	OIL & GAS OKLAHO	CORPORATION COMMI CONSERVATION DIVIS P.O. BOX 52000 MA CITY, OK 73152-200 (Rule 165:10-3-1)	SION	Approval Date: Expiration Date:	06/20/2018 12/20/2018
	E	PERMIT TO DRILL			
WELL LOCATION: Sec: 13 Twp: 20N Rge	e: 17W County: WOOD	WARD			
SPOT LOCATION: S2 S2 SW SW		SOUTH FROM WEST			
	SECTION LINES: 3	660			
Lease Name: PATSY 13/12-20-17	Well No: 4	4H	Well will be	300 feet from neares	st unit or lease boundary.
Operator TAPSTONE ENERGY LLC Name:		Telephone: 4057021600	C	DTC/OCC Number:	23467 0
TAPSTONE ENERGY LLC					
100 E MAIN ST			S & PATSY SMAR		
OKLAHOMA CITY, OK	۲3104-2509	57041	S. COUNTY ROA	AD 2265	
		SEILI	NG	OK 73	3663
2 MISSISSIPPIAN 3 4 5 Spacing Orders: 672107 661944	9400 Location Exception O	7 8 9 10 rders: 678815	Incr	eased Density Orders:	676593
678936					676594
Pending CD Numbers:			Spe	cial Orders:	
Total Depth: 19100 Ground Elevatio	in: 1720 Surface C	asing: 370	Depth to	base of Treatable Water	-Bearing FM: 220
Under Federal Jurisdiction: No	Fresh Water S	Supply Well Drilled: No		Surface Water u	sed to Drill: Yes
PIT 1 INFORMATION		Approved Metho	d for disposal of Drilling	Fluids:	
Type of Pit System: CLOSED Closed System Me	eans Steel Pits				
Type of Mud System: WATER BASED		D. One time lan	d application (REQUI	RES PERMIT)	PERMIT NO: 18-3461
Chlorides Max: 8000 Average: 5000		H. SEE MEMO			
	ow base of pit? Y				
Is depth to top of ground water greater than 10ft bel					
-					
Is depth to top of ground water greater than 10ft bel					
Is depth to top of ground water greater than 10ft below Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit <b>is</b> located in a Hydrologically Sensitive Ar	rea.				
Is depth to top of ground water greater than 10ft below Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Ar Category of Pit: C	rea.				
Is depth to top of ground water greater than 10ft below Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Ar Category of Pit: C Liner not required for Category: C	rea.				
Is depth to top of ground water greater than 10ft below Within 1 mile of municipal water well? N Wellhead Protection Area? N Pit is located in a Hydrologically Sensitive Ar Category of Pit: C	rea.				

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 12	Twp	20N	Rge	17W	County	WOODWARD
Spot Location	n of En	d Point	: N2	2 N2	NW	NW
Feet From:	NOF	RTH	1/4 Sec	ction Lin	e: 16	65
Feet From:	WE:	ST	1/4 Seo	ction Lin	ie: 60	60
Depth of Deviation: 8791						
Radius of Turn: 477						
Direction: 360						
Total Length: 9560						
Measured Total Depth: 19100						
True Vertical Depth: 9400						
End Point Location from Lease,						
Unit, or Property Line: 165						

Notes:	
Category	Description
HYDRAULIC FRACTURING	5/29/2018 - 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
INCREASED DENSITY - 676593	6/20/2018 - G75 - 13-20N-17W X661944 MSSP 3 WELLS TAPSTONE ENERGY, LLC 4-20-2018
INCREASED DENSITY - 676594	6/20/2018 - G75 - 12-20N-17W X672107 MSNLC 3 WELLS TAPSTONE ENERGY, LLC 4-20-2018
INTERMEDIATE CASING	5/29/2018 - 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

153 23627 PATSY 13/12-20-17 4H

Category	Description
LOCATION EXCEPTION - 678815	6/20/2018 - G75 - (I.O.) 13 & 12-20N-17W X661944 MSSP 13-20N-17W X672107 MSNLC 12-20N-17W COMPL. INT. (13-20N-17W) NCT 165' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (12-20N-17W) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL TAPSTONE ENERGY, LLC 6-6-2018
MEMO	5/29/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS (REQUIRED - NORTH CANADIAN RIVER); PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
SPACING - 661944	6/20/2018 - G75 - (640)(HOR) 13-20N-17W VAC OTHER VAC 129845 STGV, STLS, SPWR, OSGE VAC 142459 CSTR EXT 658187 MSSP COMPL. INT. NLT 660' FB
SPACING - 672107	6/20/2018 - G75 - (640)(HOR) 12-20N-17W VAC 129845 STGV, STLS, SPWR, OSGE EST MSNLC COMPL. INT. NLT 660' FB
SPACING - 678936	6/20/2018 - G75 - (I.O.) 13 & 12-20N-17W EST MULTIUNIT HORIZONTAL WELL X661944 MSSP 13-20N-17W X672107 MSNLC 12-20N-17W 47% 13-20N-17W 53% 12-20N-17W TAPSTONE ENERGY, LLC 6-8-2018

