API NUMBER: 011 23997

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: 04/19/2018
Expiration Date: 10/19/2018

PERMIT TO DRILL

POT LOCATION: NE Lease Name: HR PO	SE SW SE	FEET FROM QUARTER: FROM SECTION LINES: Well No:		AST 418 Well will l	be 395 feet from nearest unit or lease boundary
	RATHON OIL COMPANY	well No:	Telephone: 7132		be 395 feet from nearest unit or lease boundary OTC/OCC Number: 1363 0
MARATHON O 5555 SAN FELI HOUSTON,		77056-2701		TIMOTHY C. PIERO 1520 E 4TH STREE WATONGA	
Formation(s) (Po	ermit Valid for Listed Fo	rmations Only): Depth		Name	Depth
1 MISSIS	SIPPI	10000	6		
2			7		
2			7		
2 3 4			7 8 9		
3			8		
3 4		Location Exception	8 9 10		Increased Density Orders:
3 4 5 pacing Orders: 65826		Location Exception	8 9 10		Increased Density Orders: Special Orders:

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

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
Chlorides Max: 8000 Average: 5000

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

E. Haul to Commercial pit facility: Sec. 31 Twn. 12N Rng. 8W Cnty. 17 Order No: 587498

H. SEE MEMO

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 34 Twp 16N Rge 11W County **BLAINE** Spot Location of End Point: ΝE NF NW NF Feet From: NORTH 1/4 Section Line: 50 EAST Feet From: 1/4 Section Line: 1530

Depth of Deviation: 9933 Radius of Turn: 800 Direction: 358

Total Length: 10372

Measured Total Depth: 21562
True Vertical Depth: 11758
End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category Description

DEEP SURFACE CASING 4/13/2018 - 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 4/13/2018 - 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 4/13/2018 - 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 4/13/2018 - 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 - 201800688 4/13/2018 - G57 - 34-16N-11W

X158951 MISS 9 WELLS NO OP. NAMED

REC 2-16-2018 (P. PORTER)

PENDING CD - 201800691 4/18/2018 - G57 - (I.O.) 3-15N-11W & 34-16N-11W

X165:10-3-28(C)(2)(B) MISS (HR POTTER 8-3-34MXH) MAY BE CLOSER THAN 600' TO AN

EXISTING WELLBORE

NO OP. NAMED

REC 2-16-2018 (P. PORTER)

PENDING CD - 201800698 4/13/2018 - G57 - (I.O.) 3-15N-11W & 34-16N-11W

X658269 MISS 3-15N-11W X158951 MISS 34-16N-11W

COMPL. INT. (3-15N-11W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL & FWL COMPL. INT. (34-16N-11W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL & FWL

NO OP. NAMÈD

REC 2-16-2018 (M. PORTER)

PENDING CD - 201800703 4/13/2018 - G57 - 3-15N-11W

X658269 MISS 9 WELLS NO OP. NAMED

REC 2-16-2018 (M. PORTER)

PENDING CD - 201800711 4/17/2018 - G57 - (I.O.) 3-15N-11W & 34-16N-11W

EST A MULTIUNIT HORIZONTAL WELL

X658269 MISS 3-15N-11W X158951 MISS 34-16N-11W

50% 3-15N-11W 50% 34-16N-11W

REC 1-16-2018 (M. PORTER)

SPACING - 158951 4/13/2018 - G57 - (640) 34-16N-11W

EXT OTHER EST MISS, OTHER

SPACING - 658269 4/13/2018 - G57 - (640) 3-15N-11W

EXT 158951 MISS EXT OTHERS



Buford, GA 30518 C.O.A. No. CA 6036

API: 011 23997

