

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

API NUMBER: 153 23552

Approval Date: 12/23/2013  
Expiration Date: 06/23/2014

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 20 Twp: 23N Rge: 21W County: WOODWARD  
SPOT LOCATION:  S2  S2  SE  SE FEET FROM QUARTER: FROM SOUTH FROM EAST  
SECTION LINES: 230 660

Lease Name: COOPER Well No: 1-20H Well will be 230 feet from nearest unit or lease boundary.

Operator Name: RANGE PRODUCTION COMPANY Telephone: 4058107341; 4058107 OTC/OCC Number: 22664 0

RANGE PRODUCTION COMPANY  
5600 N MAY AVE STE 350  
OKLAHOMA CITY, OK 73112-3967

BETTY M. ROBERTS, TRUSTEE  
2817 CHARDY DR  
WOODWARD OK 73801

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

Name	Depth	Name	Depth
1 MERAMEC	9022	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 101245  
101496

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201307659

Special Orders:

Total Depth: 13000

Ground Elevation: 2026

Surface Casing: 300

Depth to base of Treatable Water-Bearing FM: 250

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE

Type of Mud System: WATER BASED

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? N

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 1B

Liner required for Category: 1B

Pit Location is BED AQUIFER

Pit Location Formation: RUSH SPRINGS

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 13-25042  
H. SOIL COMPACTED PIT, NOTIFY DISTRICT PRIOR TO TESTING SOIL PIT LINER

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

HORIZONTAL HOLE 1

Sec 20 Twp 23N Rge 21W County WOODWARD

Spot Location of End Point: N2 N2 NE NE

Feet From: NORTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 8380

Radius of Turn: 780

Direction: 360

Total Length: 3442

Measured Total Depth: 13000

True Vertical Depth: 9160

End Point Location from Lease,  
Unit, or Property Line: 165

Notes:

Category	Description
PENDING CD - 201307659	12/23/2013 - G30 - 20-23N-21W X101245/101496 MRMC SHL 230 FSL, 660 FEL COMP. INT. NCT 600 FSL, NCT 165 FNL, NCT 660 FEL NO OP. NAMED REC 12/16/13 (M.PORTER)
SPACING - 101245	12/23/2013 - G30 - (640) 20-23N-21W EXT OTHERS
SPACING - 101496	12/23/2013 - G30 - NPT 101245 EXT 87359 MRMC EXT OTHERS