

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

API NUMBER: 011 24099 A

Approval Date: 10/10/2018
Expiration Date: 04/10/2020

Horizontal Hole Oil & Gas

Amend reason: SHL CHANGE

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 29 Twp: 15N Rge: 10W

County: BLAINE

SPOT LOCATION:

FEET FROM QUARTER: FROM NORTH FROM WEST

SECTION LINES: 340 470

Lease Name: HAMMERHEAD 20-15N-10W

Well No: 3MH

Well will be 310 feet from nearest unit or lease boundary.

Operator Name: PALOMA OPERATING CO INC

Telephone: 7136508509

OTC/OCC Number: 23932 0

PALOMA OPERATING CO INC
1100 LOUISIANA ST STE 5100
HOUSTON, TX 77002-5220

GEORGE SCHULTE AND THERESA SCHULTE
PO BOX 543
OKARCHE OK 73762

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

Name	Depth	Name	Depth
1 MISSISSIPPIAN	10069	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 648300
660911

Location Exception Orders:

Increased Density Orders: 684007

Pending CD Numbers: 201806952
201805847

Special Orders:

Total Depth: 16375

Ground Elevation: 1501

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 130

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

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: C

Liner not required for Category: C

Pit Location is AP/TE DEPOSIT

Pit Location Formation: TERRACE

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35167
G. Haul to recycling/re-use facility: Sec. 22 Twn. 16N Rng. 9W Cnty. 73 Order No: 647741
H. SEE MEMO

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.

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 20 Twp 15N Rge 10W County BLAINE

Spot Location of End Point: NE NW NW NW

Feet From: NORTH 1/4 Section Line: 65

Feet From: WEST 1/4 Section Line: 360

Depth of Deviation: 10682

Radius of Turn: 394

Direction: 358

Total Length: 5074

Measured Total Depth: 16375

True Vertical Depth: 11092

End Point Location from Lease,
Unit, or Property Line: 65

Additional Surface Owner	Address	City, State, Zip
JOHN D. SCHULTE	PO BOX 246	OKARCHIE,, OK 73762
PAUL I. SCHULTE CAROLYN SCHUL	1002 TEAL RIDGE LANE	KINGFISHER, OK 73750
STEPHEN A. SCHULTE	PO BOX 246	OKARCHIE, OK 73762
MARY SCHULTE PARRISH AND DAN	3900 DERBY RUN DRIVE	EDMOND, OK 73034

Notes:

Category

Description

DEEP SURFACE CASING

9/12/2018 - 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

9/12/2018 - 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 - 684007

10/10/2018 - G58 - 20-15N-10W
X648300 MSSP
6 WELLS
NO OP. NAMED
9/28/2018

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

011 24099 HAMMERHEAD 20-15N-10W 3MH

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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.

Category	Description
INTERMEDIATE CASING	9/12/2018 - 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	9/12/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PENDING CD - 201805847	10/10/2018 - G58 - (I.O.) 20-15N-10W X648300 MSSP COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 330' FWL NO OP. NAMED REC 9/17/2018 (DENTON)
PENDING CD - 201806952	10/10/2018 - G58 - (I.O.) 20-15N-10W X165:10-3-28(C)(2)(B) MSSP (HAMMERHEAD 20-15N-10W 3MH) NO CLOSER THAN 250 FEET FROM THE HAMMERHEAD 20-15N-10W 7MH WELL REC 9/17/2018 (DENTON)
SPACING - 648300	10/10/2018 - G58 - (640) 20-15N-10W EST MSSP EXT OTHERS
SPACING - 660911	10/10/2018 - G58 - (640) 20-15N-10W NPT 648300 TO CORRECT SCRIVNER'S ERROR IN PARAGRAPH F AND EXHIBIT A AS VERTICAL SPACING

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