API NUMBER: 049 25202

Oil & Gas

Horizontal Hole

Name:

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

Approval Date: 05/18/2018
Expiration Date: 11/18/2018

300 feet from nearest unit or lease boundary.

22649 0

OTC/OCC Number:

PERMIT TO DRILL

WELL LOCATION:	Sec: 09	Twp: 3N	Rge: 3W	Count	y: GAR	RVIN		
SPOT LOCATION:	NW	NW NE	NE	FEET FROM QUARTER:	FROM	NORTH	FROM	EAST
				SECTION LINES:		300		1260
Lease Name: (CUDD			w	ell No:	1-9H		
Operator	RED RO	CKS OIL & GAS	OPERATIN	IG LLC		Teleph	none:	4056003065

RED ROCKS OIL & GAS OPERATING LLC 1141 N ROBINSON AVE STE 301

OKLAHOMA CITY, OK 73103-4919

JERRY & THELMA CUDD 18837 EAST COUNTY ROAD 1540

Well will be

LINDSAY OK 73052

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

	Name	Depth	Name	Depth
1	WOODFORD	9350 6		
2		7		
3		8		
4		9		
5		1	0	
Spacing Orders:	672400	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: Special Orders:

Total Depth: 15100 Ground Elevation: 1036 **Surface Casing: 1500** 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 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: 5000 Average: 3000

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 BED AQUIFER
Pit Location Formation: PURCELL

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-34439

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 BED AQUIFER
Pit Location Formation: PURCELL

HORIZONTAL HOLE 1

Sec 09 Twp 3N Rge 3W County GARVIN

Spot Location of End Point: SW SW SW SE
Feet From: SOUTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 20

Depth of Deviation: 9038 Radius of Turn: 700 Direction: 190

Total Length: 4962

Measured Total Depth: 15100

True Vertical Depth: 9435

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

Notes:

MEMO

Category Description

COMPLETION INTERVAL 5/18/2018 - G57 - THE COMPLETION INTERVAL (FIRST PERFORATION TO LAST PERFORATION

OR POINT OF ENTRY TO TERMINUS) FOR THE WOODFORD WILL BE GREATER THAN 165' FNL & FSL; GREATER THAN 330' FEL & FWL OF 9-3N-3W PER SPACING ORDER #672400 PER

OPERATOR

DEEP SURFACE CASING 5/9/2018 - 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 5/9/2018 - 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

5/9/2018 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 -

OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

SPACING - 672400 5/18/2018 - G57 - (640)(HOR) 9-3N-3W

EXT 655157 WDFD

POE TO BHL NCT 165' FNL & FSL, NCT 330' FEL & FWL

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.

049 25202 CUDD 1-9H

TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA

13800 WIRELESS WAY, OKLA. CITY, OKLA. 73134 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219

Certificate of Authorization No. 1293 LS API: 049 25202 GARVIN ... County, Oklahoma 300'FNL-1260'FEL Section _ __Township ___<u>3N</u>__Range __<u>3W__</u>I.M. X 2144530 Y 517217 X 2147170 Y 51**723**2 2141890 Y 517203 ROPOSED PROPOSED LANDING POINT 165 FNL-2660 FWL 34 45 11.5" N 97 31 07.6" W 34.753202847 N 97.518778410' W X: 2144552 Y: 517052 PROPOSED SURFACE HOLE NAD-83 (US FEET) 34.752911184' N 97.514556665° W 11 X 2147186 Y 514572 X 2141908 11 Y 514556 GRID NAD-27 OK SOUTH US FEET H11 Scale: 1" = 1000' 11 1000' PROPOSED BOTTOM HOLE 165'FSL-2660'FWL 34'44'22.4" N 97'31'07.5" W 34.739566592' N 97.518746587 2144585 512090 X 2147201 Y 511932 X 2144567 X 2141926 Y 511910 Y 511925 LANDING POINT, BOTTOM HOLE AND DRILL PATH INFORMATION PROVIDED BY OPERATOR LISTED, NOT SURVEYED, THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY **ELEVATION:** Operator: RED ROCK OIL & GAS OPERATING, LLC. 1036' Gr. at Stake (NAVD 88) 1036' Gr. at Stake (NGVD 29) CUDD Well No.: 1-9H Lease Name: ___ Topography & Vegetation Loc. fell in pasture Reference Stakes or Alternate Location Good Drill Site? ____ Yes Stakes Set ___ From East off county road Best Accessibility to Location ___ Distance & Direction from Hwy Jct or Town ____ From Wallville, Oklahoma, go ± 1 mile South to the Northeast Corner of Section 9. SEO TESSIONAL T3N-R3W. March 7, 2018 Date of Drawing: __ DATUM: NAD-27 Invoice # 289888 Date Staked: Jan. 29, 2018 LAT: 34'45'10.2" N LONG: 97'30'51.3" W **CERTIFICATE:** LAT: <u>34.752834326° N</u> LONG: <u>97.514250555° W</u> Thomas L. Howell __an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land STATE PLANE Surveyors of Oklahoma, do hereby certify to the COORDINATES (US FEET); information shown herein. ZONE: OK SOUTH OK LAHOMA X: 2145912 Y: 516925 Oklahoma Reg. No. 1433