API NUMBER: 045 23703

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: 11/17/2017
Expiration Date: 05/17/2018

PERMIT TO DRILL

							SECTION LINES:		2135		2104
SPOT LOCATION:	NW	SE	s	E	NW		FEET FROM QUARTER:	FROM	NORTH	FROM	WEST
WELL LOCATION:	Sec:	01	Twp:	17N	Rge:	24V	V County	: ELLI	S		

Lease Name: TEDDY Well No: 013625 7H Well will be 2104 feet from nearest unit or lease boundary.

Operator EOG RESOURCES INC Telephone: 4052463212 OTC/OCC Number: 16231 0

EOG RESOURCES INC 3817 NW EXPRESSWAY STE 500

OKLAHOMA CITY, OK 73112-1483

KENNETH K KNOWLES REVOCABLE TRUST 179228 EAST COUNTY ROAD 63

ARNETT OK 73832

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

	Name	Depth	Name	Depth
1	MARMATON	9650	6	
2			7	
3			8	
4			9	
5			10	
Spacing Orders:	579335 616856	Location Exception Orders:		Increased Density Orders:

Pending CD Numbers: 201706955 Special Orders:

Total Depth: 21700 Ground Elevation: 2442 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 730

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: 100000 Average: 5000

Is depth to top of ground water greater than 10ft below base of pit? Y

s depth to top of ground water greater than Tort below base of pit?

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: OGALLALA

D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 17-33390
E. Haul to Commercial pit facility: Sec. 21 Twn. 14N Rng. 21W Cnty. 129 Order No: 376462

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: OGALLALA

## **HORIZONTAL HOLE 1**

Sec 25 Twp 18N Rge 24W County **ELLIS** NW Spot Location of End Point: NW NF NF Feet From: NORTH 1/4 Section Line: 50 Feet From: WEST 1/4 Section Line: 2104

Depth of Deviation: 8965 Radius of Turn: 369 Direction: 360

Total Length: 12155

Measured Total Depth: 21700

True Vertical Depth: 9650

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

**MEMO** 

Category Description

DEEP SURFACE CASING 11/7/2017 - 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 11/7/2017 - 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

11/15/2017 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 1 - WBM CUTTINGS TO BE SOIL FARMED, PIT 2 - OBM CUTTINGS TO HAULED TO COMM PITS,

OBM TO VENDOR

PENDING CD - 201706955 11/16/2017 - G60 - (640)(HOR) 25-18N-24W

VAC 167865 OSWG EXT 616856 MRMN COMPL. INT. NLT 660' FB REC. 11/6/17 (MINMIER) Category Description

PENDING CD - 201706956 11/16/2017 - G60 - 1-17N-24W

X579335 MRMN 1 WELL

NO OP. NAMED

REC. 11/6/17 (MINMIER)

PENDING CD - 201706957 11/16/2017 - G60 - 36-18N-24W

X616856 MRMN

1 WELL

NO OP. NAMED

REC. 11/6/17 (MINMIER)

PENDING CD - 201706958 11/16/2017 - G60 - (I.O.) 1-17N-24W & 36 & 25-18N-24W

EST MULTIUNIT HORIZONTAL WELL X579335 (1-17N-24W) MRMN X616856 (36-18N-24W) MRMN X201706955 (25-18N-24W) MRMN

13% 1-17N-24W 44% 36-18N-24W 43% 25-18N-24W NO OP. NAMED

REC. 11/6/17 (MINMIER)

PENDING CD - 201706959 11/16/2017 - G60 - (I.O.) 1-17N-24W & 36 & 25-18N-24W

X579335 (1-17N-24W) MRMN X616856 (36-18N-24W) MRMN X201706955 (25-18N-24W) MRMN SHL NCT 2135' FNL, NCT 2104 FWL

COMPL. INT (1-17N-24W) NCT 1570' FNL, NCT 0' FNL, NCT 2104' FWL COMPL. INT. (36-18N-24W) NCT 0' FSL, NCT 0' FNL, NCT 2104' FWL COMPL. INT. (25-18N-24W) NCT 0' FSL, NCT 165' FNL, NCT 2104' FWL

NO OP. NAMÈD

REC. 11/6/17 (MINMIER)

PENDING CD - 201706960 11/16/2017 - G60 - 1-17N-24W

X165:10-3-28(C)(2)(B) MRMN

MAY BE CLOSER THAN 600' TO TEDDY 1-5H

EOG RESOURCES, INC. REC. 11/6/17 (MINMIER)

SPACING - 579335 11/16/2017 - G60 - (640) 1-17N-24W

EST MRMN

COMPL. INT. NLT 660' FN

(COEXIST WITH NON-PRODUCING NON-HORIZONTAL DRILLING AND SPACING UNITS)

SPACING - 616856 11/16/2017 - G60 - (640)(HOR) 36-18N-24W

EXT 579707 MRMN, OTHER

**EST OTHER** 

COMPL. INT. NLT 660' FB

(COEXIST WITH NON-PRODUCING NON-HORIZONTAL DRILLING AND SPACING UNITS)

3504523703 X= 1491358 Y= 373401 X= 1493995 Y= 373378 X= 1496631 Y= 373354 ROTTOM HOLE Topography & Vegetation Loc. Distance & Direction from Hwy Jct or Town From the Best Accessibility to Location Good Drill Operator: US Hwy. 283 for ±10.5 miles, Lease Name: 180770M HOLE 50'FNL-2104'FW 36'00'48.0"N 99'42'46.1 W 36.013340217'N 99.712794277'W X= 1493461 Y= 373332 LAST PENF 165'FNL-2104'F 36'00'46.9"N 99'42'46.1"W 36.013024276'N 99.712794877'W X= 1493459 Y= 373217 Range Site? Line EOG RESOURCES, INC RANDING POINT, BOTTOM HOLE, TEDDY T18N-R23W Yes then East fell in junction of St. Hwy. 51 E-W and US From NOT on lease road rolling DRILL PATH INFORMATION West X= 1491306 Y= 370721 X= 1496588 Y= 370648 Reference Stakes or Stakes Set None brushy pasture on lease road ±2 miles to the TOPOGRAPHIC LAND SURVEYORS OF OKLAHOMA
6709 NORTH CLASSEN BLVD., DKLA. CITY, DKLA. 73116 . LOCAL (405) 843-4847 . DUT OF STATE (800) 654-3219
ELLIS Certificate of Authorization No. 1283 LS Columby Oklahoman ₩ell 9 Ï Alternate Location No.: NW Cor Hwy. -2104'FWL 013625#7H 283 9 go South Sec. Section 1-T17N-R24W X= 1491255 Y= 368041 X= 1493900 Y= 367991 X= 1496545 Y= 367941 9 PROPOSED DRILL PATH ELEVATION: Ł STATE PLANE
COORDINATES: (US I DATUM: NAD-27 LAT: 35'58'41.1"N LONG: 99'42'45.6"W LAT: 35.978085786'N LONG: 99.712654209'W Stake Township 1493276 County, Oklahoma 17N Ranae (US Feet) ₹he \_ Range construction This information was gathered with a GPS receivith ±1 foot Horiz./Vert. according 36 X= 1496504 Y= 365253 24W NOTE: Revision X A Date of Drawing: Invoice # 282274 Date Staked: Licensed Land Surveyor and ar of Topographic Land Surveyors hereby certify to "L 00 R44 .\_ ≪ CERTIFICATE: Oklahoma  $\forall$ certify to the information Ľċ. 11 Date of Drawing:\_ for <u>۷</u> GRID NAD-27 OK NORTH US Feet ļį // owell an Oklahoma or and an authorized agent Surveyors of Oklahoma, do ξ 1/ Oct. 9, 2017 Oct. 11, 2017 R24W X= 1493823 Y= 362624 shown herein. X= 1496464 Y= 362565 11 ЦП IIRange ЩI LOT 2 LOT 1 LOT 4 LOT 3 H餇 11 1111 2135 굶 CENSED HOMAS L. TO TAKE THE TOTAL TO THE TOTAL TO THE TOTAL THE 717N-R23W LANDING POINT 1570 FNL-2104 FWI 3558 46.7 N 99 42 45.6 W 35.979637276 N 99.712677936 W X= 1493279 Y= 361065 T17N-R24H OKL AHON S/2-NW/4 532 S/2-NE/4 X= 1496439 Y= 359939 490 X= 1491170 Y= 360059

er.