

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

API NUMBER: 093 25126

Approval Date: 02/06/2018

Expiration Date: 08/06/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 28 Twp: 20N Rge: 15W County: MAJOR

SPOT LOCATION: FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 280 1540

Lease Name: KASPER 2015 Well No: 4-28H Well will be 280 feet from nearest unit or lease boundary.

Operator Name: SANDRIDGE EXPLORATION & PRODUCTION LLC

Telephone: 4054295610

OTC/OCC Number: 22281 0

SANDRIDGE EXPLORATION & PRODUCTION LLC
123 ROBERT S KERR AVE STE 1702
OKLAHOMA CITY, OK 73102-6406

THE UNWIN FAMILY TRUST
861 COUNTY ROAD R
PLAINVIEW TX 79072

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

Name	Depth	Name	Depth
1 MERAMEC	9295	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 132765

Location Exception Orders:

Increased Density Orders: 666888

Pending CD Numbers: 201800197
201800198

Special Orders:

Total Depth: 13972 Ground Elevation: 1708 Surface Casing: 1500 Depth to base of Treatable Water-Bearing FM: 380

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: 10000 Average: 5000

E. Haul to Commercial pit facility: Sec. 33 Twn. 26N Rng. 15W Cnty. 151 Order No: 627651

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

H. SEE MEMO

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

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 28 Twp 20N Rge 15W County MAJOR

Spot Location of End Point: N2 N2 NW NW

Feet From: NORTH 1/4 Section Line: 150

Feet From: WEST 1/4 Section Line: 660

Depth of Deviation: 8963

Radius of Turn: 750

Direction: 350

Total Length: 3831

Measured Total Depth: 13972

True Vertical Depth: 9295

End Point Location from Lease,
Unit, or Property Line: 150

Notes:

Category

Description

DEEP SURFACE CASING

1/18/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

1/18/2018 - 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 - 666888

1/24/2018 - G75 - 28-20N-15W
X132765 MRMCM, OTHER
5 WELLS
SANDRIDGE EXPLOR. & PROD., L.L.C.
8-11-2017

INTERMEDIATE CASING

1/18/2018 - 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

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

093 25126 KASPER 2015 4-28H

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.

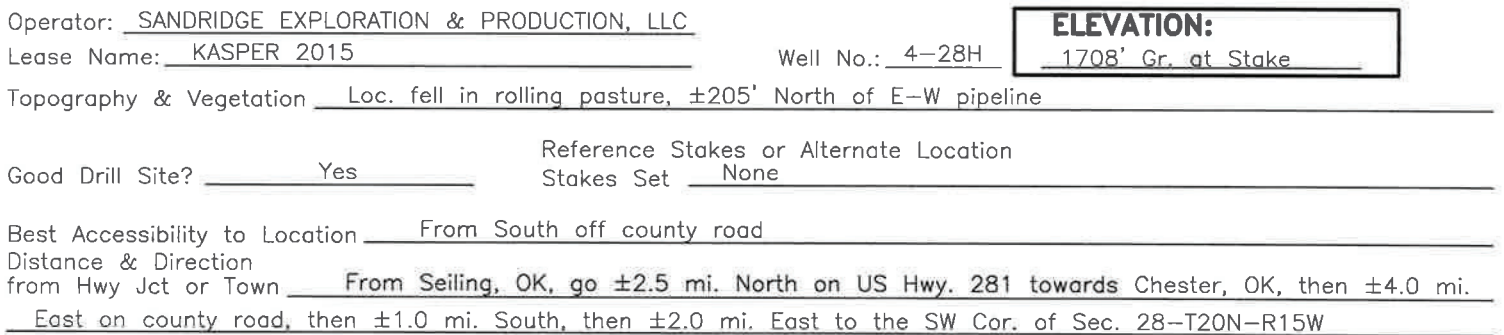
Category	Description
MEMO	1/18/2018 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201800197	1/24/2018 - G75 - (I.O.) 28-20N-15W X132765 MPMC COMPL. INT. NCT 150' FSL, NCT 150' FNL, NCT 560' FWL NO OP. NAMED REC 2-5-2018 (NORRIS)
PENDING CD - 201800198	1/24/2018 - G75 - (I.O.) 28-20N-15W X165:10-3-28(C)(2)(B) MPMC (KASPER 2015 4-28H) MAY BE CLOSER THAN 250' FROM GARD 1-28 NO OP. NAMED REC 2-5-2018 (NORRIS)
SPACING - 132765	1/23/2018 - G75 - (640) 28-20N-15W EST OTHER EXT OTHER EXT 128899 MPMC, OTHERS

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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.

6709 NORTH CLASSEN BLVD., OKLA. CITY, OKLA. 73116 * LOCAL (405) 843-4847 * OUT OF STATE (800) 654-3219
Certificate of Authorization No. 1293 LS

MAJOR _____ County, Oklahoma

280'FSL - 1540'FWL Section 28 Township 20N Range 15W I.M.



This information was gathered with a GPS receiver with ± 1 foot Horiz./Vert. accuracy.

DATUM: NAD-27
LAT: 36°10'26.3"N
LONG: 98°48'30.0"W
LAT: 36.173957311° N
LONG: 98.808326844° W
STATE PLANE
COORDINATES: (US Feet)
ZONE: OK NORTH
X: 1761424
Y: 428324

Invoice # 286420C Date of Drawing: Jan. 02, 2018
Date Staked: Dec. 28, 2017 TR

I, Thomas L. Howell an Oklahoma Licensed Land Surveyor and an authorized agent of Topographic Land Surveyors of Oklahoma, do hereby certify to the information shown herein

Thomas L. Nave
Oklahoma Lic. No. 1433

