

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

API NUMBER: 099 20666 A

Approval Date: 01/06/2017

Expiration Date: 07/06/2017

Directional Hole Oil & Gas

Amend reason: CHANGE TO DIRECTIONAL WELL

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 33 Twp: 1N Rge: 2E

County: MURRAY

SPOT LOCATION: ☐ NE ☐ SE ☐ NE ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 1664 2417

Lease Name: CRIPPEN-MASTERS

Well No: 2-33

Well will be 223 feet from nearest unit or lease boundary.

Operator Name: SOUTHSTAR EXPLORATION LLC

Telephone: 4052321719

OTC/OCC Number: 23709 0

SOUTHSTAR EXPLORATION LLC
6701 BROADWAY EXT STE 301
OKLAHOMA CITY, OK 73116-8236

DOROTHY V MASTERS
PO BOX 397
DAVIS OK 73030

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

	Name	Depth		Name	Depth
1	SPRINGER	1895	6	2ND BROMIDE	4616
2	SYCAMORE	3899	7	3RD BROMIDE	4692
3	HUNTON	4273	8	MCLISH	4944
4	VIOLA	4428	9	OIL CREEK	5410
5	1ST BROMIDE	4522	10		

Spacing Orders: 50308
342907

Location Exception Orders: 662446
201605142

Increased Density Orders: 662724

Pending CD Numbers:

Special Orders:

Total Depth: 5515

Ground Elevation: 830

Surface Casing: 650

Depth to base of Treatable Water-Bearing FM: 560

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 4000 Average: 2500

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 ALLUVIAL

Pit Location Formation: ALLUVIUM

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 16-31976

H. CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

DIRECTIONAL HOLE 1

Sec 33 Twp 1N Rge 2E County MURRAY

Spot Location of End Point: NE SE NE SW

Feet From: SOUTH 1/4 Section Line: 1685

Feet From: WEST 1/4 Section Line: 2469

Measured Total Depth: 6100

True Vertical Depth: 6100

End Point Location from Lease,

Unit, or Property Line: 171

Notes:

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.

Category	Description
FORMATIONS	1/6/2017 - G60 - REMOVED ARBUCKLE PER OPERATOR
HYDRAULIC FRACTURING	<p>10/13/2017 - G71 - OCC 165:10-3-10 REQUIRES:</p> <p>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;</p> <p>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,</p> <p>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</p>
INCREASED DENSITY - 662724	<p>1/6/2017 - G60 - NE4 SW4 33-1N-2E</p> <p>X342907 BRMD 1</p> <p>X50308 BRMD3</p> <p>1 WELL</p> <p>NO OP. NAMED</p> <p>4/12/17</p>
LOCATION EXCEPTION - 201605142	9/4/2018 - G60 - NPT 668742 TO CORRECT SPACING ORDER NUMBER 50308 FOR THE BRMD3 AND MCLS
LOCATION EXCEPTION - 668742	<p>12/30/2016 - G60 - (F.O.) NE4 SW4 33-1N-2E</p> <p>X342907 SPRG, SCMR, HNTN, VIOL, BRMD1, OLCK, OTHER</p> <p>X50308 MCLS, BRMD3 ** CORRECTED BY NPT</p> <p>SHL 223' FEL, 344' FSL</p> <p>SPRG POE TO BHL 351' FSL, 195' FEL TO 345' FNL, 178' FEL</p> <p>SCMR POE TO BHL 341' FSL, 178' FEL TO 340' FSL, 176' FEL</p> <p>HNTN POE TO BHL 337' FSL, 176' FEL, 338 FSL, 176' FEL</p> <p>VIOL POE TO BHL 339' FSL, 174' FEL</p> <p>BRMD1 POE TO BHL 340' FSL, 173' FEL</p> <p>BRMD2 341' FSL, 173' FEL</p> <p>BRMD3 343' FSL, 172' FEL</p> <p>MCLS 349' FNL, 171' FEL</p> <p>OLCK 355' FNL, 170' FEL</p> <p>SOUTHSTAR EXPLORATION, LLC.</p> <p>10/3/17</p>
SPACING - 342907	<p>12/29/2016 - G60 - (40) SE4 NW4, NE4 SW4 33-1N-2E</p> <p>EXT 39855/50308 HNTN, VIOL,</p> <p>VAC 50314 BRMU2, BRML2</p> <p>EXT 39855/50308/78532 BRMD2</p> <p>EXT 122265/221563 BRMD1</p> <p>EXT 288407 SCMR, SPRG, OLCK</p> <p>EST OTHER</p>
SPACING - 50308	<p>12/29/2016 - G60 - (40) NE4 SW4 33-1N-2E</p> <p>VAC E2 SW4 39855 HNTN, VIOL, BRMD, MCLS</p> <p>EST BRMD3, MCLS</p>