

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

API NUMBER: 087 22091

Approval Date: 11/29/2017

Expiration Date: 05/29/2018

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 16 Twp: 6N Rge: 2W

County: MCCLAIN

SPOT LOCATION: ☐ SE ☐ SW ☐ SW ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST

SECTION LINES: 251 2240

Lease Name: MURPHY 6N 2W 16

Well No: 1HX

Well will be 251 feet from nearest unit or lease boundary.

Operator Name: BP AMERICA PRODUCTION COMPANY

Telephone: 8326194857; 2813666

OTC/OCC Number: 1640 0

BP AMERICA PRODUCTION COMPANY
737 N ELDRIDGE PKWY
HOUSTON, TX 77079-4411

DAVID L. MURPHY, TRUSTEE OF THE DAVID L. MURPHY TRUST
23586 ST. HWY 39
PURCELL OK 73080

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

Name	Depth	Name	Depth
1 WOODFORD	6423	6	
2 WOODFORD-HUNTON	6430	7	
3		8	
4		9	
5		10	

Spacing Orders: 666114
635106
667087

Location Exception Orders: 666876

Increased Density Orders:

Pending CD Numbers:

Special Orders:

Total Depth: 15150

Ground Elevation: 1150

Surface Casing: 530

Depth to base of Treatable Water-Bearing FM: 280

Under Federal Jurisdiction: No

Fresh Water Supply Well Drilled: No

Surface Water used to Drill: Yes

PIT 1 INFORMATION

Type of Pit System: ON SITE

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 not located in a Hydrologically Sensitive Area.

Category of Pit: 2

Liner not required for Category: 2

Pit Location is NON HSA

Pit Location Formation: BISON

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

B. Solidification of pit contents.

C. Annular Injection -- (REQUIRES PERMIT and surface casing set 200 feet below base of treatable water-bearing formation.)

H. PIT 2 - MIN. 20-MIL PIT LINER REQUIRED, OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

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: ON SITE

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 not located in a Hydrologically Sensitive Area.

Category of Pit: 3

Liner required for Category: 3

Pit Location is NON HSA

Pit Location Formation: BISON

HORIZONTAL HOLE 1

Sec 09 Twp 6N Rge 2W County MCCLAIN

Spot Location of End Point: NW NE NW SE

Feet From: SOUTH 1/4 Section Line: 2587

Feet From: EAST 1/4 Section Line: 1681

Depth of Deviation: 6100

Radius of Turn: 987

Direction: 3

Total Length: 7500

Measured Total Depth: 15150

True Vertical Depth: 7650

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

Additional Surface Owner	Address	City, State, Zip
DAVID L. MURPHY, TRUSTEE OF TH	123 S. HUDSON	OKLAHOMA CITY, OK 73102

Notes:

Category

Description

HYDRAULIC FRACTURING

11/9/2017 - 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

LOCATION EXCEPTION - 666876

11/22/2017 - G60 - (I.O.) 9 & 16-6N-2W
X635106 WDHN (9-6N-2W)
X666114 WDFD (16-6N-2W)
COMPL. INT. (16-6N-2W) NCT 165' FSL, NCT 0' FNL, NCT 330' FEL
COMPL. INT. (9-6N-2W) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL
BP AMERICA PROD. CO.
8/11/17

SPACING - 635106

11/22/2017 - G60 - (640) 9-6N-2W
EXT 602578 MSRH
EST OTHERS
COMPL. INT. NCT 330' FB
(COEXIST WITH SP. ORDER 208085 HNTN)

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

087 22091 MURPHY 6N 2W 16 1HX

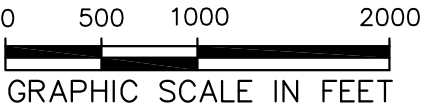
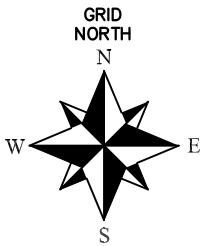
The duration of this permit is SIX MONTHS, except as otherwise provided by Rule 165: 10-3-1.

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
SPACING - 666114	11/22/2017 - G60 - (640)(HOR) 16-6N-2W EST WDFD COMPL. INT. NLT 165' FNL, NLT 165' FSL, NLT 330' FEL/FWL
SPACING - 667087	11/22/2017 - G60 - (I.O.) 9 & 16-6N-2W EST MULTIUNIT HORIZONTAL WELL X635106 WDHN (9-6N-2W) X666114 WDFD (16-6N-2W) 53% 9-6N-2W 47% 16-6N-2W BP AMERICA PROD. CO. 8/17/17

	OKS NAD'27	NAD'27	OKS NAD'83	NAD'83
PROPOSED SURFACE HOLE LOCATION (SHL)	N (Y) = 602,208' E (X) = 2,175,687'	LAT. = 34.98672910°N LON.= 97.41348441°W	N (Y) = 602,251' E (X) = 2,144,091'	LAT. = 34.98680098°N LON.= 97.41379126°W
PROPOSED LANDING POINT (LP)	N (Y) = 602,337' E (X) = 2,176,247'	LAT. = 34.98707551°N LON.= 97.41161087°W	N (Y) = 602,380' E (X) = 2,144,651'	LAT. = 34.98714740°N LON.= 97.41191768°W
PROPOSED TERMINUS POINT (TP)	N (Y) = 609,837' E (X) = 2,176,180'	LAT. = 35.00768319°N LON.= 97.41168842°W	N (Y) = 609,880' E (X) = 2,144,584'	LAT. = 35.00775459°N LON.= 97.41199550°W

3508722091



NAD83 N(Y): 2140954'
NAD83 E(X): 612555'
NAD27 N(Y): 2172550'
NAD27 E(X): 612512'

NAD83 N(Y): 2146245'
NAD83 E(X): 612584'
NAD27 N(Y): 2177841'
NAD27 E(X): 612541'

NAD83 N(Y): 2140994'
NAD83 E(X): 607281'
NAD27 N(Y): 2172590'
NAD27 E(X): 607239'

NAD83 N(Y): 2146284'
NAD83 E(X): 607298'
NAD27 N(Y): 2177880'
NAD27 E(X): 607255'

NAD83 N(Y): 2141049'
NAD83 E(X): 601984'
NAD27 N(Y): 2172645'
NAD27 E(X): 601942'


NAD83 N(Y): 2146333'
NAD83 E(X): 602010'
NAD27 N(Y): 2177929'
NAD27 E(X): 601967'

UNIT BOUNDARY
SURFACE HOLE LOCATION
NATURAL GROUND ELEVATION (NAVD88, GEOID 12B): 1150'

NOTES:

- BEARING BASIS FOR THIS SURVEY IS BASED ON THE NORTH AMERICAN DATUM OF 1983, OKLAHOMA STATE PLANE COORDINATE SYSTEM, SOUTH ZONE.
- ALL MEASURED DISTANCES ARE SHOWN IN GRID.
- THIS DOES NOT REPRESENT A BOUNDARY SURVEY AND IS SOLELY FOR THE PURPOSE OF PERMITTING A WELL WITH THE OKLAHOMA CORPORATION COMMISSION.

DRAWN BY BMR	CHECKED BY BMR	SCALE 1"=1000'	DATE 11/29/2017
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BP AMERICA
PRODUCTION COMPANY
US LOWER 48 ONSHORE

MURPHY 6N 2W 16 1HX PLAT

MURPHY
TOWNSHIP 6 NORTH,
RANGE 2 WEST,
SECTION 16,
INDIAN MERIDIAN,
MCCLAIN COUNTY, OKLAHOMA