

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

API NUMBER: 063 24888 A

Approval Date: 03/08/2019
Expiration Date: 09/08/2020

Horizontal Hole Oil & Gas
Multi Unit

Amend reason: CHANGE DRILLING OPERATION TO HORIZONTAL
MULTI-UNIT; UPDATE ORDERS; UPDATE FORMATIONS;
UPDATE BHL & SHL

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 12 Twp: 8N Rge: 11E County: HUGHES
SPOT LOCATION: ☐ NW ☐ NE ☐ NE ☐ SW FEET FROM QUARTER: FROM SOUTH FROM WEST
SECTION LINES: 2447 2000

Lease Name: HOMSEY Well No: 2-12/13/24H Well will be 2015 feet from nearest unit or lease boundary.
Operator Name: BRAVO ARKOMA LLC Telephone: 9188944440; 9188944 OTC/OCC Number: 23562 0

BRAVO ARKOMA LLC
1323 E 71ST ST STE 400
TULSA, OK 74136-5067

MICHAEL T. BOSE AND CHERYL A. BOSE
7056 HACKBERRY COURT
TULSA OK 74132

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	4493	6	
2	WOODFORD	5014	7	
3	SYLVAN	5084	8	
4			9	
5			10	

Spacing Orders: 668135 Location Exception Orders: Increased Density Orders: 693598
668322 693599

Pending CD Numbers: 201900749
201900750
201900756

Special Orders:

Total Depth: 16250 Ground Elevation: 961 Surface Casing: 1300 Depth to base of Treatable Water-Bearing FM: 220

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: AIR

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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

F. Haul to Commercial soil farming facility: Sec. 14 Twn. 7N Rng. 9E Cnty. 63 Order No: 551649

H. SEE MEMO

Pit is located in a Hydrologically Sensitive Area.

Category of Pit: 4

Liner not required for Category: 4

Pit Location is BED AQUIFER

Pit Location Formation: CALVIN

Mud System Change to Water-Based or Oil-Based Mud Requires an Amended Intent (Form 1000).

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: WATER BASED

Chlorides Max: 8000 Average: 5000

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: CALVIN

PIT 3 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: CALVIN

HORIZONTAL HOLE 1

Sec 24 Twp 8N Rge 11E County HUGHES

Spot Location of End Point: N2 S2 SE NW

Feet From: NORTH 1/4 Section Line: 2185

Feet From: WEST 1/4 Section Line: 1980

Depth of Deviation: 4353

Radius of Turn: 900

Direction: 181

Total Length: 10483

Measured Total Depth: 16250

True Vertical Depth: 5084

End Point Location from Lease,
Unit, or Property Line: 1980

Notes:

Category

Description

DEEP SURFACE CASING

3/1/2019 - 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

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063 24888 HOMSEY 2-12/13/24H

Category	Description
HYDRAULIC FRACTURING	4/11/2019 - G56 - 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 - 693598	4/8/2019 - G56 - 12-8N-11E X668135 WDFD 5 WELLS BRAVO ARKOMA, LLC 3/27/2019
INCREASED DENSITY - 693599	4/8/2019 - G56 - 13-8N-11E X668322 WDFD 3 WELLS BRAVO ARKOMA, LLC 3/27/2019
MEMO	3/1/2019 - G71 - PIT 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, WBM & OBM CUTTINGS CAPTURED IN CONCRETE-LINED PIT, SOLIDIFIED AND HELD UNTIL DISPOSAL APPROVED BY OCC; PIT 3 - OBM TO VENDOR
PENDING CD - 201900749	4/8/2019 - G56 - (I.O.) 12, 13 & 24-8N-11E ESTABLISH MULTIUNIT HORIZONTAL WELL X668135 MSSP, WDFD, SLVN, OTHER 12-8N-11E X668322 MSSP, WDFD, SLVN, OTHER 13 & 24-8N-11E (MSSP, SLVN ARE ADJACENT COMMON SOURCES OF SUPPLY TO WDFD) 20% 12-8N-11E 40% 13-8N-11E 40% 24-8N-11E NO OP NAMED REC 2/22/2019 (JOHNSON)
PENDING CD - 201900750	4/8/2019 - G56 - (I.O.) 12, 13 & 24-8N-11E X668135 MSSP, WDFD, SLVN, OTHER 12-8N-11E X668322 MSSP, WDFD, SLVN, OTHER 13 & 24-8N-11E COMPL INT (12-8N-11E) NCT 2000' FNL, NCT 0' FSL, NCT 990' FWL COMPL INT (13-8N-11E) NCT 0' FSL, NCT 0' FNL, NCT 990' FWL COMPL INT (24-8N-11E) NCT 0' FNL, NCT 165' FSL, NCT 990' FWL NO OP NAMED REC 2/22/2019 (JOHNSON)
PENDING CD - 201900756	4/8/2019 - G56 - 24-8N-11E X668322 WDFD 3 WELLS NO OP NAMED REC 2/22/2019 (JOHNSON)
SPACING - 668135	4/8/2019 - G56 - (640)(HOR) 12-8N-11E EXT 659541 MSSP, WDFD, SLVN, OTHER COMPL INT (MSSP) NLT 660' FB COMPL INT (SLVN) NLT 330' FB COMPL INT (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL
SPACING - 668322	4/8/2019 - G56 - (640)(HOR) 13 & 24-8N-11E X659541 MSSP, WDFD, SLVN, OTHER COMPL INT (MSSP) NLT 660' FB COMPL INT (SLVN) NLT 330' FB COMPL INT (WDFD) NLT 165' FNL/FSL, NLT 330' FEL/FWL

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

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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.