API NUMBER: 063 24839 A

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

Approval Date: 08/07/2018
Expiration Date: 02/07/2019

Horizontal Hole Oil & Gas

Amend reason: CHANGE DRILLING OPERATION TO HORIZONTAL OIL/GAS WELL; UPDATE ORDERS; UPDATE FORMATIONS; UPDATE BOTTOM HOLE LOCATION

AMEND PERMIT TO DRILL

LL LOCATION: Sec: 13 Twp: 8N	Rge:	11E County: HUC	GHES				
OT LOCATION: SW NE SE	NE	FEET FROM QUARTER: FROM	NORTH FROM	EAST			
		SECTION LINES:	1855	625			
Lease Name: JERRY		Well No:	1-13/12/1H	Well will b	625	feet from neare	st unit or lease boundary
Operator BRAVO ARKOMA LLC Name:			Telephone: 9	188944440; 9188944	OTC/	OCC Number:	23562 0
BRAVO ARKOMA LLC							
1323 E 71ST ST STE 400				SUE E. ANDERSON	REVO	CABLE TRUS	ST .
	OK 74136-5067		311 COUNTRY CLU	B DRIV	Έ		
TULSA,	OK	74130-3007		HOLDENVILLE		OK 7	4848

Formation(s) (Permit Valid for Listed Formations Only):								
	Name	Depth	Name	Depth				
1	MISSISSIPPIAN	4564	6					
2	WOODFORD	4881	7					
3	SYLVAN	4954	8					
4			9					
5			10					
Spacing Orders: 668135 668322		Location Exception Orders:		Increased Density Orders:				
Pending CD Nun	nbers: 201805855 201805854			Special Orders:				
Total Depth:	13744 Ground Elevation: 731	Surface Casing: 10	00	epth to base of Treatable Water-Bearing FM: 170				

		January January, 1995				
	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: ON SITE	of Pit System: ON SITE A. Evaporation/dewater and backfilling of reserve pit.				
	Type of Mud System: AIR					
	Is depth to top of ground water greater than 10ft below base of pit? Ye Within 1 mile of municipal water well?	F. Haul to Commercial so 551649	F. Haul to Commercial soil farming facility: Sec. 14 Twn. 7N Rng. 9E Cnty. 63 Order No: 551649			
Wellhead Protection Area? N		H. PIT 2 - CLOSED SYS	TEM=STEEL PITS PER OPERATOR REQUEST			
	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: SENORA

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

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

Womineda i Totochom / Trod.

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: SENORA

HORIZONTAL HOLE 1

Sec 01 Twp 8N Rge 11E County HUGHES

Spot Location of End Point: NW SE NE SE
Feet From: SOUTH 1/4 Section Line: 1960
Feet From: EAST 1/4 Section Line: 370

Depth of Deviation: 3815
Radius of Turn: 528

Direction: 1

Total Length: 9097

Measured Total Depth: 13744

True Vertical Depth: 4954

End Point Location from Lease,
Unit, or Property Line: 370

Notes:

Category Description

DEEP SURFACE CASING 8/3/2018 - 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 8/30/2018 - 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

PENDING CD - 201805854 9/6/2018 - G57 - (I.O.) 1, 12, 13-8N-11E

EST MULTIUNIT HORIZONTAL WELL X668135 MSSP, WDFD, SLVN 1 & 12-8N-11E X668322 MSSP, WDFD, SLVN 13-8N-11E

(MSSP, SLVN ARE ADJACENT COMMON SOURCES OF SUPPLY TO THE WDFD)

19% 13-8N-11E 58% 12-8N-11E 23% 1-8N-11E BRAVO ARKOMA, LLC. REC 8-13-2018 (DUNN)

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.

063 24839 JERRY 1-13/12/1H

Category Description

PENDING CD - 201805855

9/6/2018 - G57 - (I.O.) 1, 12, 13-8N-11E X668135 MSSP, WDFD, SLVN 1 & 12-8N-11E X668322 MSSP, WDFD, SLVN 13-8N-11E

COMPL. INT. (13-8N-11E) NFT 1870' FNL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (12-8N-11E) NCT 0' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (1-8N-11E) NCT 0' FSL, NCT 2640' FNL, NCT 330' FEL

BRAVO ARKOMA, LLC. REC 8-13-2018 (DUNN)

SPACING - 668135 9/6/2018 - G57 - (640)(HOR) 1 & 12-8N-11E

EXT 659541 MSSP, WDFD, SLVN, OTHER

POE TO BHL (MSSP) NLT 660' FB

POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

POE TO BHL (SLVN) NLT 330' FB

9/6/2018 - G57 - (640)(HOR) 13-8N-11E SPACING - 668322

EXT 659541 MSSP, WDFD, SLVN, OTHER POE TO BHL (MSSP) NLT 660' FB

POE TO BHL (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL

POE TO BHL (SLVN) NLT 330' FB