

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

API NUMBER: 029 21338 A

Approval Date: 04/22/2019
Expiration Date: 10/22/2020

Horizontal Hole
Multi Unit
Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 04 Twp: 1N Rge: 11E County: COAL
SPOT LOCATION: ☐ NW ☐ SW ☐ NE ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 1866 1031

Lease Name: PISTOL Well No: 2-9/16H Well will be 1031 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

TAMMY HOOE SHIRLEY
38524 STATE HWY. 31
COALGATE OK 74538

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	9929	6	
2	WOODFORD	10504	7	
3	HUNTON	10682	8	
4			9	
5			10	

Spacing Orders: 655780
655737

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201902227
201902228
201902229
201902230

Special Orders:

Total Depth: 23239 Ground Elevation: 639 Surface Casing: 1000 Depth to base of Treatable Water-Bearing FM: 210

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

Pit is not located in a Hydrologically Sensitive Area.

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

H. SEE MEMO

Category of Pit: 4

Liner not required for Category: 4

Pit Location is NON HSA

Pit Location Formation: MCALESTER

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is NON HSA

Pit Location Formation: MCALESTER

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

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Pit Location Formation: MCALESTER

HORIZONTAL HOLE 1

Sec 16 Twp 1N Rge 11E County COAL

Spot Location of End Point: SW SE SE SE

Feet From: SOUTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 370

Depth of Deviation: 10162

Radius of Turn: 1800

Direction: 175

Total Length: 10249

Measured Total Depth: 23239

True Vertical Depth: 10682

End Point Location from Lease,

Unit, or Property Line: 165

Notes:

Category

Description

DEEP SURFACE CASING

4/16/2019 - G75 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

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029 21338 PISTOL 2-9/16H

Category	Description
HYDRAULIC FRACTURING	<p>4/16/2019 - G75 - 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>
MEMO	4/16/2019 - G75 - PIT 2 & 3 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 3 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT;
PENDING CD - 201902227	<p>4/16/2019 - G75 - (E.O.)(640)(HOR) 9 & 16-1N-11E EST MSSP COMPL. INT. NLT 660' FB (COEXIST SP. ORDER # 655780 CNEY 9-1N-11E & ORDER # 655737 CNEY 16-1N-11E) REC 4-19-2019 (MOORE)</p>
PENDING CD - 201902228	<p>4/16/2019 - G75 - (E.O.) 9 & 16-1N-11E EST MULTIUNIT HORIZONTAL WELL X655780 WDFD, HNTN, OTHER 9-1N-11E X655737 WDFD, HNTN, OTHER 16-1N-11E X201902227 MSSP 9 & 16-1N-11E (DUE TO FAULTING, MSSP, HNTN ADJACENT COMMON SOURCES OF SUPPLY TO WDFD IN 9-1N-11E; WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP IN 16-1N-11E) 50% 9-1N-11E 50% 16-1N-11E BRAVO ARKOMA, LLC REC 4-19-2019 (MOORE)</p>
PENDING CD - 201902229	<p>4/16/2019 - G75 - (E.O.) 9 & 16-1N-11E X655780 WDFD, HNTN, OTHER 9-1N-11E X655737 WDFD, HNTN, OTHER 16-1N-11E X201902227 MSSP 9 & 16-1N-11E COMPL. INT. (9-1N-11E) NCT 165' FNL, NCT 0' FSL, NCT 330' FEL COMPL. INT. (16-1N-11E) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL BRAVO ARKOMA, LLC REC 4-19-2019 (MOORE)</p>
PENDING CD - 201902230	<p>4/16/2019 - G75 - 9-1N-11E X655780 WDFD 1 WELL NO OP. NAMED HEARING 5-6-2019</p>
SPACING - 655737	<p>4/16/2019 - G75 - (640)(HOR) 16-1N-11E EST WDFD, HNTN, OTHERS COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL COMPL. INT. (HNTN) NLT 660' FB</p>
SPACING - 655780	<p>4/16/2019 - G75 - (640)(HOR) 9-1N-11E EST WDFD, HNTN, OTHERS COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL COMPL. INT. (HNTN) NLT 660' FB</p>

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SECTION LINES: 1566 03

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Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201902227 spacing
201902228 multiunit
201902229 Location Exception } (E.O.) Hearings 4-19-2019
201902230 Increased Density Hearing 5-6-2019

Total Depth: 23239

Ground Elevation: 639

Surface Casing: 1000

Depth to base of Treatable Water-Bearing FM: 210

Deep surface casing has been approved

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Fresh Water Supply Well Drilled: No

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H. Pit 2+3 - closed system = steel pits

per operator request; Pit 3 - obm to vendor, obm cuttings per District

TEMPORARY AUTHORIZATION TO DRILL

Expiration Date: 4-23-2019

Signature: Virginia Hurlinger

OAC 165: 10-3-1 (L)

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Radius of Turn: 1800

Direction: 175

Total Length: 10,249

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True Vertical Depth: 10,682

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Unit, or Property Line: 165



Well Location Plat

S.H.L. Sec. 4-1N-11E I.M.
B.H.L. Sec. 16-1N-11E I.M.

Operator : BRAVO NATURAL RESOURCES

API 029-21338 A

Lease Name and No. : PISTOL 2-9/16H

Footage : 1866' FSL - 1031' FEL GR. ELEVATION : 639' Good Site? YES

Section : 4 Township : 1N Range : 11E I.M.

County : Coal State of Oklahoma

Alternate Loc. : N/A

Terrain at Loc. : Location fell in open pasture.

Accessibility : From the Southwest.

Directions : From the junction of U.S. Hwy 75 & State Hwy 31 in Coalgate, OK, go 5.4 miles Northeast on Hwy 31 to the proposed location in the Southeast Quarter of Section 4-1N-11E.



0' 750' 1500' 2250'

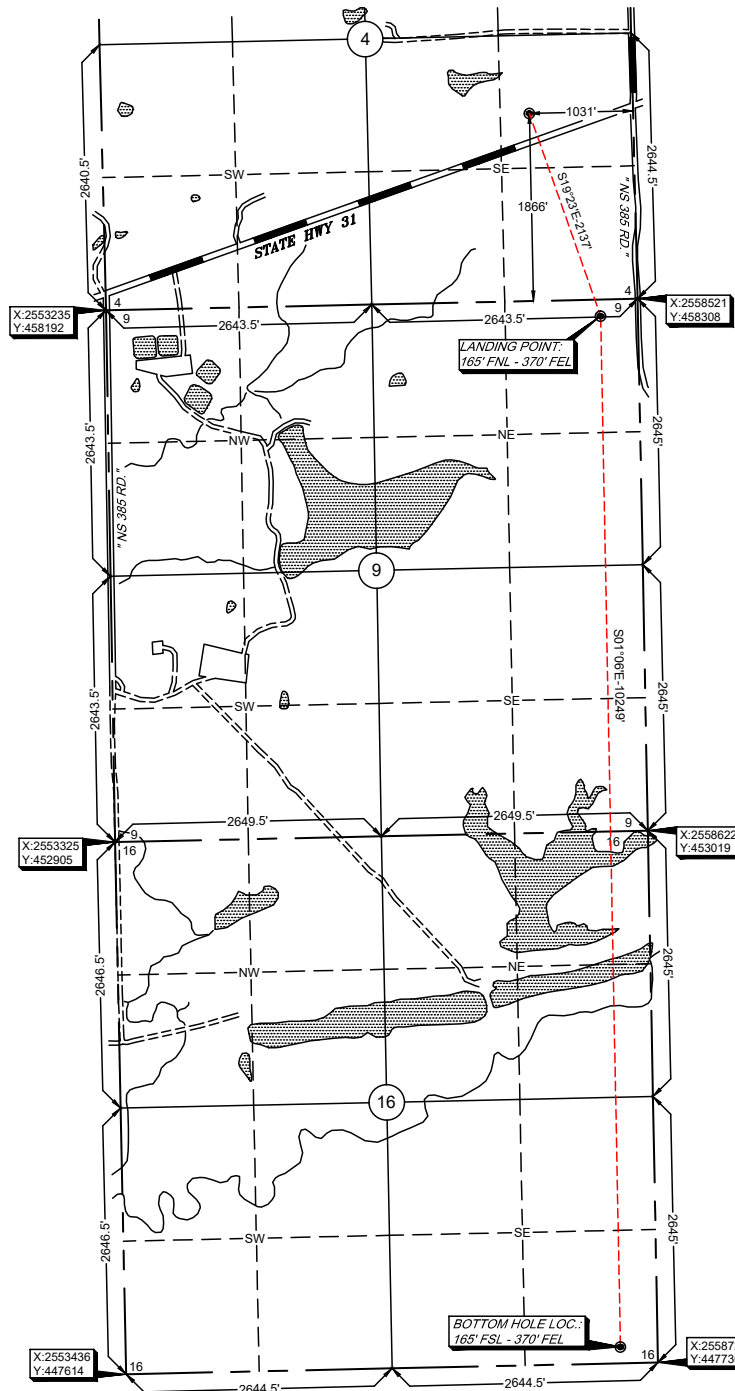
1"=1500'

GPS DATUM
NAD - 27
OK SOUTH ZONE

Surface Hole Loc.:
Lat: 34°35'01.47"N
Lon: 96°08'52.46"W
Lat: 34.58374043
Lon: -96.14790605
X: 2557445
Y: 460150

Landing Point:
Lat: 34°34'41.40"N
Lon: 96°08'44.42"W
Lat: 34.57816681
Lon: -96.14567310
X: 2558154
Y: 458135

Bottom Hole Loc.:
Lat: 34°33'00.01"N
Lon: 96°08'44.32"W
Lat: 34.55000355
Lon: -96.14564573
X: 2558350
Y: 447887



Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation thereof, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.

Please note that this location was staked on the ground under the supervision of a Licensed Professional Land Surveyor, but the accuracy of this survey is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inconsistency is determined. GPS data is observed from RTK - GPS.

NOTE: X and Y data shown herefor for Section Corners may NOT have been surveyed on-the-ground, and further, does NOT represent a true Boundary Survey.

survey and plat by,

Arkoma Surveying and Mapping, PLLC

P.O. Box 238 Wilburton, OK 74578

Ph. 918-465-5711 Fax 918-465-5030

Certificate of Authorization No. 5348

Expires June 30, 2020

Invoice #6504-B

Date Staked : 07/11/16 By : D.A.

Date Drawn : 07/13/16 By : K.M.

Add LP/BHL, Lease Name : 04/12/19 By : R.S.

Certification:

This is to certify that this Well Location Plat represents the results of a survey made on the ground performed under the supervision of the undersigned.

Lance G. Mathis
LANCE G. MATHIS

04/12/19

OK LPLS 1664

