

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

API NUMBER: 063 24871 A

Approval Date: 12/21/2018
Expiration Date: 06/21/2020

Horizontal Hole Oil & Gas
Multi Unit

Amend reason: CHANGE TO HORIZONTAL MULTIUNIT OIL/GAS
WELL

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 10 Twp: 8N Rge: 11E County: HUGHES
SPOT LOCATION: ☐ SE ☐ SW ☐ NE ☐ NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 1050 1700

Lease Name: **ANDERSON WEST** Well No: **1-3/34H** Well will be **1050** feet from nearest unit or lease boundary.
Operator **BRAVO ARKOMA LLC** Telephone: 9188944440; 9188944 OTC/OCC Number: 23562 0
Name:

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

RAY ANDERSON & FELICIA ANDERSON
8616 E. 126 ROAD
WETUMKA OK 74883

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	4108	6	
2	WOODFORD	4400	7	
3			8	
4			9	
5			10	

Spacing Orders: 659540 Location Exception Orders: 667348 Increased Density Orders: 667975
666312 680668
666554
680667

Pending CD Numbers: 201810748

Special Orders:

Total Depth: 15345 Ground Elevation: 868 **Surface Casing: 1500** Depth to base of Treatable Water-Bearing FM: 120

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: 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

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

H. SEE MEMO

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: 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 34 Twp 9N Rge 11E County HUGHES

Spot Location of End Point: NE NE NW NW

Feet From: NORTH 1/4 Section Line: 165

Feet From: WEST 1/4 Section Line: 1000

Depth of Deviation: 3962

Radius of Turn: 750

Direction: 357

Total Length: 10205

Measured Total Depth: 15345

True Vertical Depth: 4400

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

Notes:

Category

Description

DEEP SURFACE CASING

12/19/2018 - 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

2/1/2019 - G75 - 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 - 667975

2/1/2019 - G75 - 34-9N-11E
X666312 WDFD
1 WELL
BRAVO ARKOMA, LLC
9-8-2017

INCREASED DENSITY - 680663

2/1/2019 - G75 - EXTEND 667975 UNTIL 9-8-2019

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

063 24871 ANDERSON WEST 1-3/34H

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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.

Category	Description
LOCATION EXCEPTION - 667348	2/1/2019 - G75 - (I.O.) 3-8N-11E & 34-9N-11E X659540 MSSP, WDFD, OTHER 3-8N-11E X666312 MSSP, WDFD, OTHER 34-9N-11E COMPL. INT. (3-8N-11E) NCT 165' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. (34-9N-11E) NCT 0' FSL, NCT 165' FNL, NCT 330' FWL BRAVO ARKOMA, LLC 8-23-2017
LOCATION EXCEPTION - 680668	2/1/2019 - G75 - EXTEND 667348 UNTIL 8-23-2019
MEMO	2/1/2019 - G75 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT
PENDING CD - 201810748	2/1/2019 - G75 - 3-8N-11E X659540 WDFD 1 WELL NO OP. NAMED REC 1-14-2019 (JOHNSON)
SPACING - 659540	2/1/2019 - G75 - (640)(HOR) 3-8N-11E EXT 641266 MSSP, WDFD, OTHERS COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 666312	2/1/2019 - G75 - (640)(HOR) 34-9N-11E EST OTHER EXT 663552 MSSP, WDFD, OTHER COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 666554	2/1/2019 - G75 - (I.O.) 3-8N-11E & 34-9N-11E EST MULTIUNIT HORIZONTAL WELL X659540 MSSP, WDFD, OTHER 3-8N-11E X666312 MSSP, WDFD, OTHER 34-9N-11E (MSSP ASSOCIATED COMMON SOURCE OF SUPPLY TO WDFD) 50% 3-8N-11E 50% 34-9N-11E BRAVO ARKOMA, LLC 8-2-2017
SPACING - 680667	2/1/2019 - G75 - EXTEND 666554 UNTIL 8-2-2019

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.



Well Location Plat

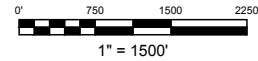
S.H.L. Sec. 10-8N-11E I.M.
B.H.L. Sec. 34-9N-11E I.M.

Operator: BRAVO NATURAL RESOURCES, LLC
Lease Name and No.: ANDERSON WEST 1-3/34H
Footage: 1050' FNL - 1700' FWL Gr. Elevation: 868'
Section: 10 Township: 8N Range: 11E I.M.
County: Hughes State of Oklahoma
Terrain at Loc.: Location fell in timber, sloping down from the Northeast corner to the South and West.

API 063-24871 A



All bearings shown
are grid bearings.



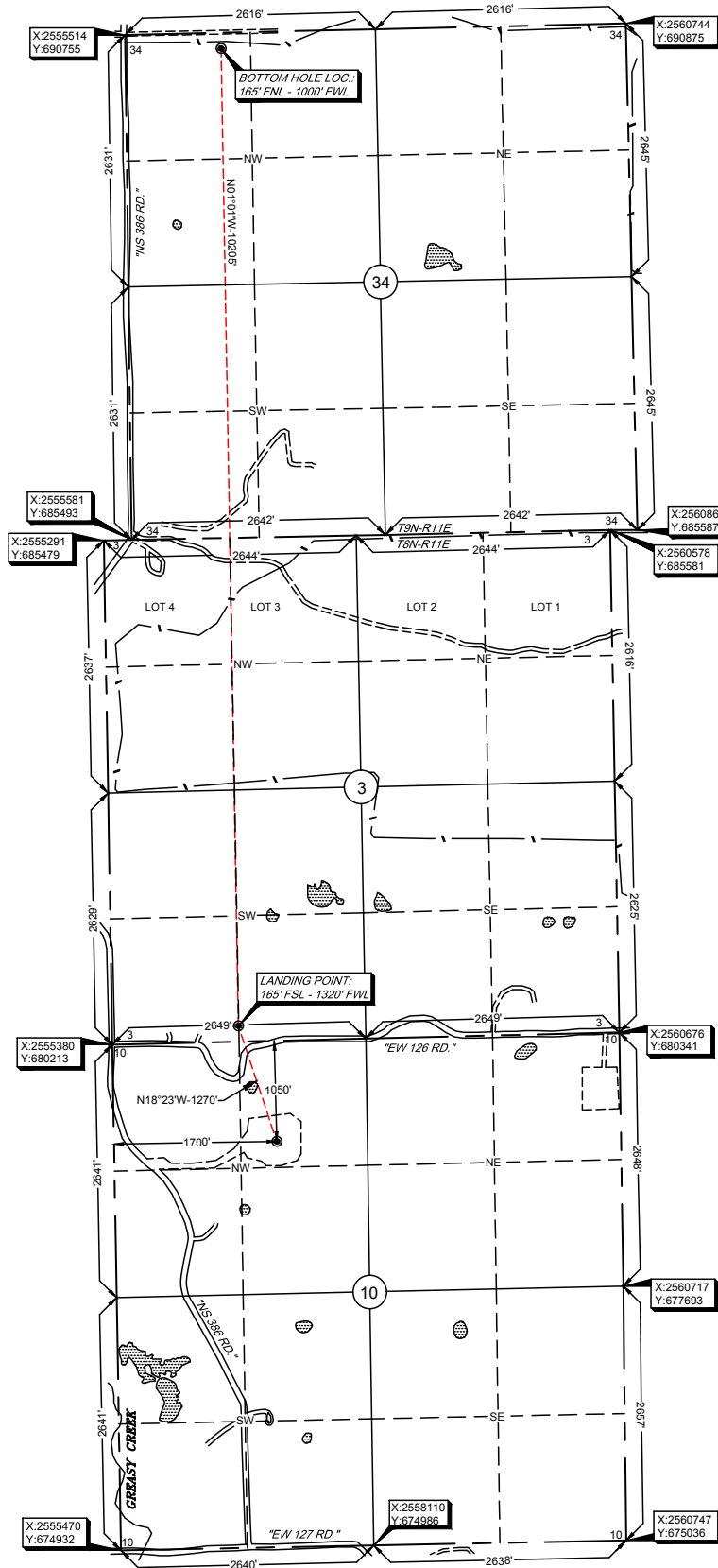
GPS DATUM
NAD 27
OK SOUTH ZONE

Surface Hole Loc.:
Lat: 35°11'07.96"N
Lon: 96°08'08.23"W
Lat: 35.18554511
Lon: -96.13561950
X: 2557097
Y: 679204

Landing Point:
Lat: 35°11'19.96"N
Lon: 96°08'12.79"W
Lat: 35.18887725
Lon: -96.13688562
X: 2556696
Y: 680410

Bottom Hole Loc.:
Lat: 35°13'00.89"N
Lon: 96°08'12.70"W
Lat: 35.21691496
Lon: -96.13686030
X: 2556516
Y: 690613

Please note that this location was staked on the ground under the supervision of a licensed professional land surveyor and is not a true boundary survey. It is not guaranteed. Please contact Arkoma Surveying and Mapping promptly if any inaccuracy is determined. GPS data is obtained from RTK - GPS. NOTE: X and Y data shown hereon for Section Corners may NOT have been surveyed on the ground, and further, does NOT represent a true boundary survey. It is assumed that the distance from the section corner, or occupation thereof, and may not have been measured 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

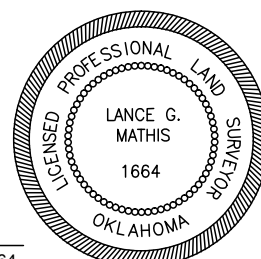
Certification:

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

01/30/19

OK LPLS 1664



Invoice #7197-A
Date Staked: 06/16/17 By: H.S.
Date Drawn: 06/26/17 By: C.K.
Rev. LP & BHL: 01/29/19 By: C.K.