

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

API NUMBER: 063 24830 A

Approval Date: 07/18/2018

Expiration Date: 01/18/2019

Horizontal Hole Oil & Gas

Amend reason: CHANGE TO HORIZONTAL OIL/GAS WELL; ADD FORMATIONS

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 08 Twp: 8N Rge: 11E County: HUGHES
SPOT LOCATION: ☐ SE ☐ SW ☐ NE ☐ SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 1498 829

Lease Name: JOHNSON TRUST Well No: 2-8/17/20H Well will be 829 feet from nearest unit or lease boundary.
Operator BRAVO ARKOMA LLC
Name: Telephone: 9188944440; 9188944 OTC/OCC Number: 23562 0

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

MARK L. MASENBRICK
16217 SE 119TH STREET
NEWALLA OK 74857

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	3759	6	
2	CANEY	3940	7	
3	WOODFORD	4299	8	
4	SYLVAN	4369	9	
5			10	

Spacing Orders: 662335 Location Exception Orders: Increased Density Orders: 670292
666137 667351
656362 658128
670829

Pending CD Numbers: 201703671
201703672

Special Orders:

Total Depth: 15728 Ground Elevation: 866 Surface Casing: 1000 Depth to base of Treatable Water-Bearing FM: 110

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 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. PIT 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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

HORIZONTAL HOLE 1

Sec 20 Twp 8N Rge 11E County HUGHES

Spot Location of End Point: SE SW SE SE

Feet From: SOUTH 1/4 Section Line: 165

Feet From: EAST 1/4 Section Line: 880

Depth of Deviation: 3786

Radius of Turn: 573

Direction: 181

Total Length: 11042

Measured Total Depth: 15728

True Vertical Depth: 4421

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

Notes:

Category

Description

DEEP SURFACE CASING

7/16/2018 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY FOR ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

7/20/2018 - 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

INCREASED DENSITY - 658128

7/30/2018 - G75 - 20-8N-11E
X656362 WDFD
3 WELLS
BRAVO ARKOMA, LLC
11-21-2016

INCREASED DENSITY - 667351

7/30/2018 - G75 - 17-8N-11E
X666137 WDFD
3 WELLS
BRAVO ARKOMA, LLC
8-23-2017

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.

063 24830 JOHNSON TRUST 2-8/17/20H

Category	Description
INCREASED DENSITY - 670292	7/30/2018 - G75 - 8-8N-11E X662335 WDFD 4 WELLS BRAVO ARKOMA, LLC 11-21-2017
INCREASED DENSITY - 670829	7/30/2018 - G75 - EXT 658128 UNTIL 11-21-2018
PENDING CD - 201703671	7/30/2018 - G75 - (E.O.) 8, 17 & 20-8N-11E EST MULTIUNIT HORIZONTAL WELL X662335 MSSP, WDFD, SLVN 8-8N-11E X666137 MSSP, WDFD, SLVN 17-8N-11E X656362 CNEY, WDFD, SLVN 20-8N-11E (MSSP, CNEY, SLVN ADJACENT COMMON SOURCES OF SUPPLY TO WDFD) 21% 8-8N-11E 46% 17-8N-11E 33% 20-8N-11E BRAVO ARKOMA, LLC REC 7-24-2018 (JOHNSON)
PENDING CD - 201703672	7/30/2018 - G75 - (E.O.) 8, 17 & 20-8N-11E X662335 MSSP, WDFD, SLVN 8-8N-11E X666137 MSSP, WDFD, SLVN 17-8N-11E X656362 CNEY, WDFD, SLVN 20-8N-11E COMPL. INT. (8-8N-11E) NCT 0' FSL, NCT 0' FSL, NCT 330' FEL COMPL. INT. (17-8N-11E) NCT 0' FNL, NCT 0' FSL, NCT 330' FEL COMPL. INT. (20-8N-11E) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL BRAVO ARKOMA, LLC REC 7-24-2018 (JOHNSON)
SPACING - 656362	7/30/2018 - G75 - (640)(HOR) 20-8N-11E EST CNEY, WDFD, SLVN COMPL. INT. (CNEY, SLVN) NLT 330' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 662335	7/30/2018 - G75 - (640)(HOR) 8-8N-11E EXT 659540 MSSP, WDFD, SLVN COMPL. INT. (MSSP) NLT 660' FB COMPL. INT. (SLVN) NLT 330' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL
SPACING - 666137	7/30/2018 - G75 - (640)(HOR) 17-8N-11E EXT 662335 MSSP, WDFD, SLVN 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.

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

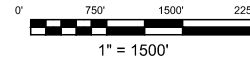
S.H.L. Sec. 8-8N-11E I.M.
B.H.L. Sec. 20-8N-11E I.M.

Operator: BRAVO NATURAL RESOURCES, LLC
Lease Name and No.: JOHNSON TRUST 2-8/17/20H
Footage: 1498' FSL - 829' FEL Gr. Elevation: 866'
Section: 8 Township: 8N Range: 11E I.M.
County: Hughes State of Oklahoma
Terrain at Loc.: Location fell on an existing location.

API 063-24830 A



All bearings shown
are grid bearings.



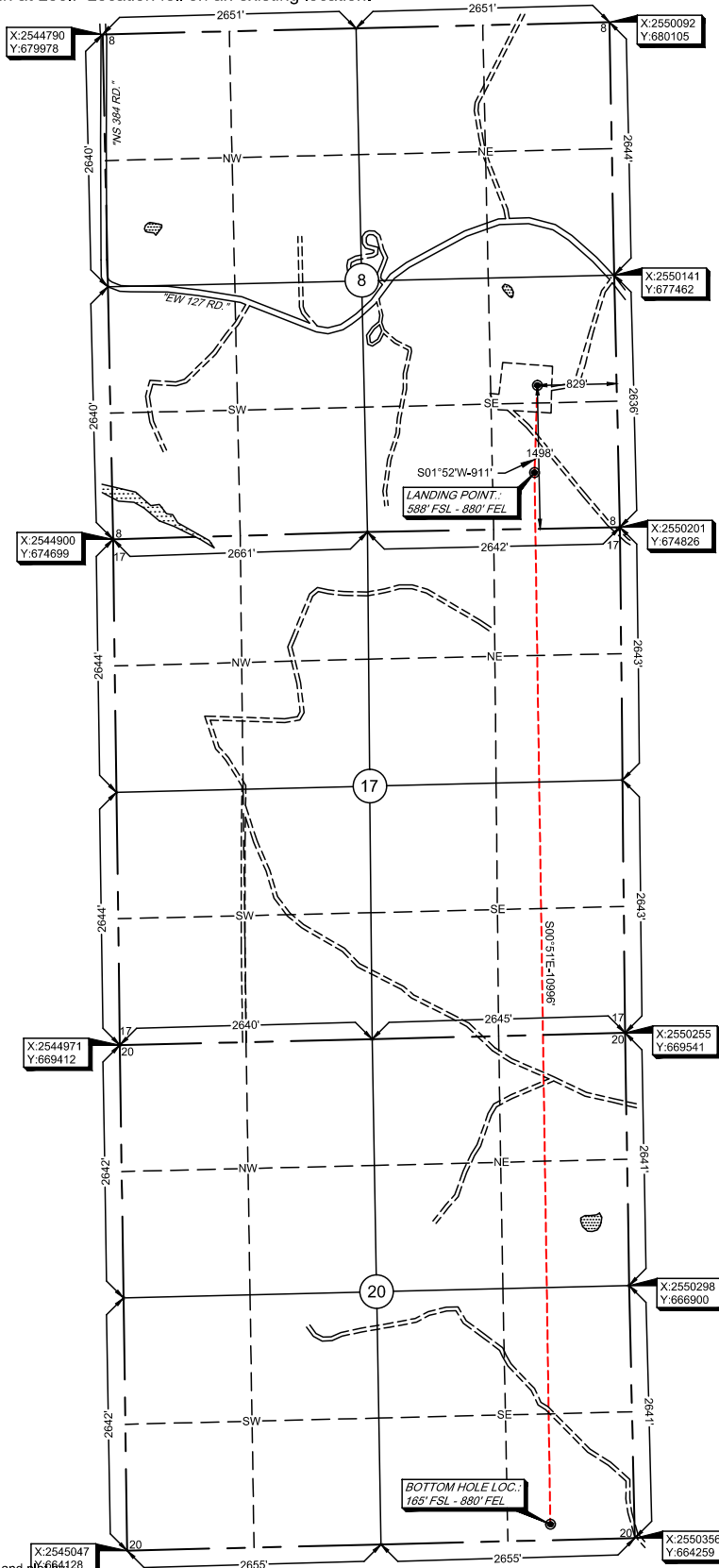
GPS DATUM
NAD 27
OK SOUTH ZONE

Surface Hole Loc.:
Lat: 35°10'40.72"N
Lon: 96°09'42.33"W
X: 2549338
Y: 676307

Landing Point:
Lat: 35°10'31.73"N
Lon: 96°09'42.89"W
X: 2549308
Y: 675397

Bottom Hole Loc.:
Lat: 35°08'42.97"N
Lon: 96°09'43.31"W
X: 2549473
Y: 664402

*Please note that this location was staked on the ground under the supervision of the surveyor and is not guaranteed. Please contact Arkoma Surveying and Mapping, PLLC for any inconsistency 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, and may not have been measured on-the-ground, and further, does not represent a true boundary survey.



Survey and Mapping
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 #6954-B-B
Date Staked: 07/09/18 By: D.A.
Date Drawn: 07/11/18 By: C.K.
Added LP & BHL: 07/23/18 By: K.B.

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

07/25/18
OK LPLS 1664

