

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

API NUMBER: 063 24881 A

Approval Date: 02/15/2019
Expiration Date: 08/15/2020

Horizontal Hole Oil & Gas
Multi Unit

Amend reason: CHANGE TO HORIZONTAL OIL/GAS WELL;
CHANGE SURFACE LOCATION; ADD FORMATION; UPDATE
ORDERS;

AMEND PERMIT TO DRILL

WELL LOCATION: Sec: 26 Twp: 8N Rge: 11E County: HUGHES
SPOT LOCATION: NW NW NE SE FEET FROM QUARTER: FROM SOUTH FROM EAST
SECTION LINES: 2350 1126

Lease Name: BROWN Well No: 1-26/23/14H Well will be 1126 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

RYAN BROWN & RACHEL BROWN
7940 E. 138 ROAD
HOLDENVILLE OK 74848

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

	Name	Depth	Name	Depth
1	MISSISSIPPIAN	4194	6	
2	CANEY	4380	7	
3	WOODFORD	4709	8	
4	SYLVAN	4794	9	
5			10	

Spacing Orders: 657005
659541

Location Exception Orders:

Increased Density Orders:

Pending CD Numbers: 201900892
201900895
201900896
201900897
201900899

Special Orders:

Total Depth: 15321 Ground Elevation: 762

Surface Casing: 1000

Depth to base of Treatable Water-Bearing FM: 190

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

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: 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).

Approved Method for disposal of Drilling Fluids:

A. Evaporation/dewater and backfilling of reserve pit.

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: 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: SENORA

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: SENORA

HORIZONTAL HOLE 1

Sec 14 Twp 8N Rge 11E County HUGHES

Spot Location of End Point: N2 S2 SE NE

Feet From: NORTH 1/4 Section Line: 1990

Feet From: EAST 1/4 Section Line: 660

Depth of Deviation: 4186

Radius of Turn: 750

Direction: 5

Total Length: 9957

Measured Total Depth: 15321

True Vertical Depth: 4794

End Point Location from Lease,
Unit, or Property Line: 660

Notes:

Category	Description
DEEP SURFACE CASING	2/12/2019 - G71 - 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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Category	Description
HYDRAULIC FRACTURING	2/25/2019 - 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
MEMO	2/12/2019 - 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 - 201900892	2/25/2019 - G75 - (640)(HOR) 23-8N-11E EXT 668322 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 REC 2-25-2019 (M. PORTER)
PENDING CD - 201900895	2/25/2019 - G75 - (I.O.) 26, 23 & 14-8N-11E EST MULTIUNIT HORIZONTAL WELL X657005 CNEY, WDFD, SLVN 26-8N-11E X201900892 MSSP, WDFD, SLVN 23-8N-11E X659541 MSSP, WDFD, SLVN 14-8N-11E (CNEY, MSSP, SLVN ADJACENT COMMON SOURCES OF SUPPLY TO WDFD) 10% 26-8N-11E 45% 23-8N-11E 45% 14-8N-11E NO OP. NAMED REC 2-25-2019 (M. PORTER)
PENDING CD - 201900896	2/25/2019 - G75 - (I.O.) 26, 23 & 14-8N-11E X657005 CNEY, WDFD, SLVN 26-8N-11E X201900892 MSSP, WDFD, SLVN 23-8N-11E X659541 MSSP, WDFD, SLVN 14-8N-11E COMPL. INT. (26-8N-11E) NFT 2089' FNL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (23-8N-11E) NCT 0' FSL, NCT 0' FNL, NCT 330' FEL COMPL. INT. (14-8N-11E) NCT 0' FSL, NCT 165' FNL, NCT 330' FEL NO OP. NAMED REC 2-25-2019 (M. PORTER)
PENDING CD - 201900897	2/25/2019 - G75 - (I.O.) 14-8N-11E X659541 WDFD 2 WELLS NO OP. NAMED REC 2-25-2019 (M. PORTER)
PENDING CD - 201900899	2/25/2019 - G75 - 26-8N-11E X657005 WDFD 2 WELLS NO OP. NAMED REC 2-25-2019 (M. PORTER)
SPACING - 657005	2/25/2019 - G75 - (640)(HOR) 26-8N-11E EXT 616553 CNEY EXT 642100 WDFD, SLVN COMPL. INT. (CNEY, SLVN) NLT 330' FB COMPL. INT. (WDFD) NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST SP. ORDER # 524633 CNEY, WDFD)
SPACING - 659541	2/25/2019 - G75 - (640)(HOR) 14-8N-11E EXT 641266 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

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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.

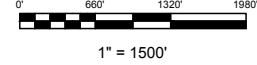


Well Location Plat

S.H.L. Sec. 26-8N-11E I.M.
B.H.L. Sec. 14-8N-11E I.M.

Operator: BRAVO NATURAL RESOURCES, LLC
Lease Name and No.: BROWN 1-26/23/14H
Footage: 2350' FSL - 1126' FEL Gr. Elevation: 762'
Section: 26 Township: 8N Range: 11E I.M.
County: Hughes State of Oklahoma
Terrain at Loc.: Location fell in a pasture with light timber.

API 063-24881 A



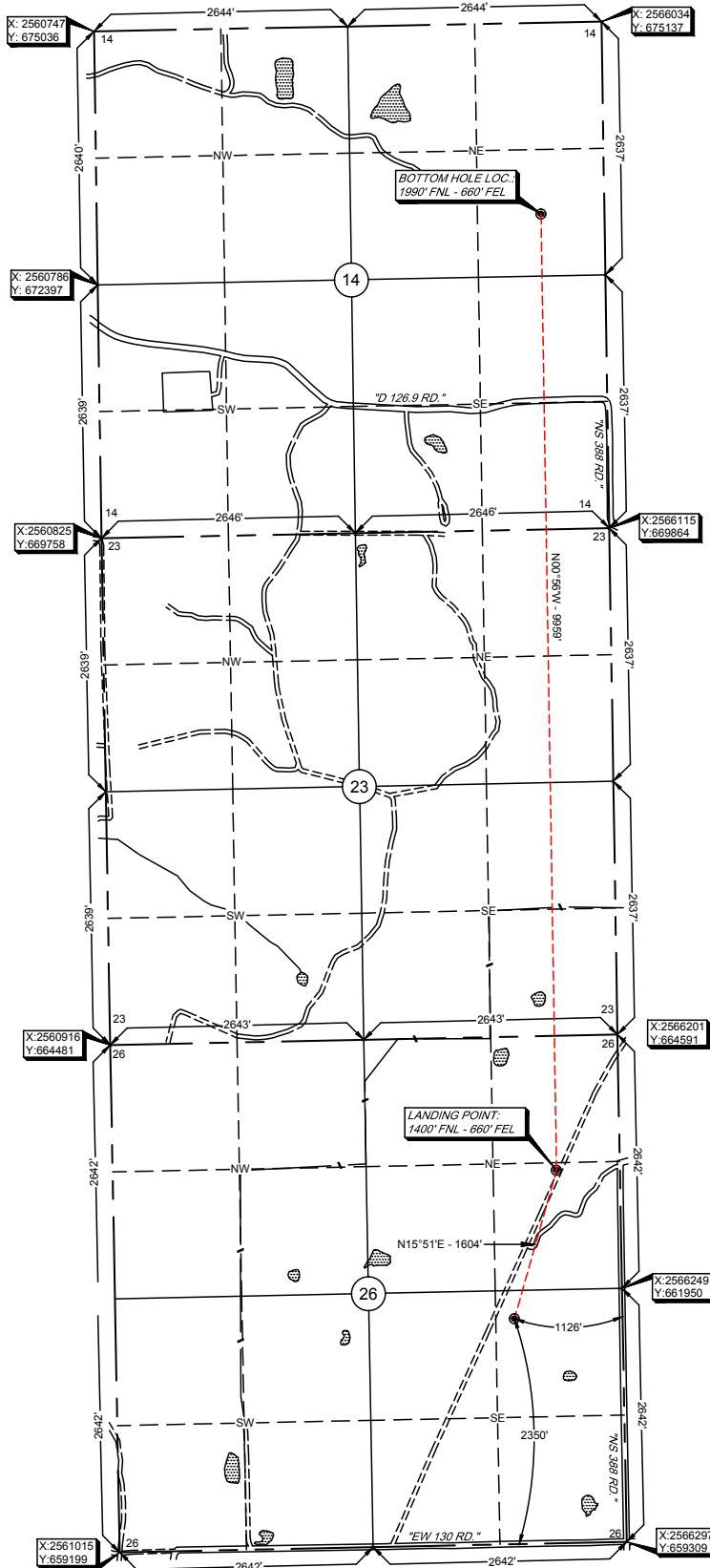
1" = 1500'

GPS DATUM
NAD 27
OK SOUTH ZONE

Surface Hole Loc.:
Lat: 35°08'12.74"N
Lon: 96°06'35.46"W
Lat: 35.13687100
Lon: -96.10984916
X: 2565128
Y: 661634

Landing Point:
Lat: 35°08'27.92"N
Lon: 96°06'29.84"W
Lat: 35.14108798
Lon: -96.10828762
X: 2565566
Y: 663178

Bottom Hole Loc.:
Lat: 35°10'06.42"N
Lon: 96°06'29.53"W
Lat: 35.16844870
Lon: -96.10820349
X: 2565405
Y: 673135



-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 you have any questions or concerns regarding this survey. This survey was performed on the ground and the location of the well is NOT guaranteed. X and Y data shown herein for Station Control are NOT guaranteed. Quarter section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, or occupation present at 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 #8384-A-A
Date Staked: 02/08/19 By: D.W.
Date Drawn: 02/12/19 By: J.K.
Rev. SHL: 02/22/19 By: J.H.
Rev. Footage Call: 02/25/19 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
02/25/19
OK LPLS 1664

