API NUMBER: 063 24868 Α

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

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

Horizontal Hole Multi Unit

Amend reason: CHANGE TO HORIZONTAL MULTIUNIT OIL/GAS WELL

Oil & Gas

AMEND PERMIT TO DRILL

WELL LOCATION:	Sec:	10	Twp:	8N	Rge:	11E	County:	HUGHES
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FEET FROM QUARTER: SPOT LOCATION: SE SW NE NW NORTH WEST FROM 1670 1050

Lease Name: ANDERSON WEST Well No: 2-3/34H Well will be 1050 feet from nearest unit or lease boundary.

BRAVO ARKOMA LLC Operator Telephone: 9188944440; 9188944 OTC/OCC Number: 23562 0

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 MISSISSIPPIAN 1 4108 6 2 WOODFORD 4400 7 3 8 4 9 5 10 659540 Spacing Orders: Location Exception Orders: Increased Density Orders: 666312

Pending CD Numbers: 201810726 Special Orders:

201810727

Total Depth: 15345 Ground Elevation: 867 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

Approved Method for disposal of Drilling Fluids: PIT 1 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?

Wellhead Protection Area?

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

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 NW NE NW
Feet From: NORTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 1680

Depth of Deviation: 3963 Radius of Turn: 750

Direction: 5

Total Length: 10204

Measured Total Depth: 15345

True Vertical Depth: 4400

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

Notes:

MEMO

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 1/25/2019 - 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

1/28/2019 - G71 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST; PIT 2 -

OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

Category Description

PENDING CD - 201810726 2/1/2019 - G75 - (I.O.) 3-8N-11E & 34-9N-11E

EST MULTIUNIT HORIZONTAL WELL X659540 MSSP, WDFD 3-8N-11E X666312 MSSP, WDFD 34-9N-11E

(WDFD ADJACENT COMMON SOURCE OF SUPPLY TO MSSP)

50% 3-8N-11E 50% 34-9N-11E NO OP. NAMED

REC 1-14-2019 (JOHNSON)

PENDING CD - 201810727 2/1/2019 - G75 - (I.O.) 3-8N-11E & 34-9N-11E

X659540 MSSP, WDFD 3-8N-11E X666312 MSSP, WDFD 34-9N-11E

COMPL. INT. (3-8N-11E) NCT 165' FSL, NCT 0' FNL, NCT 660' FWL COMPL. INT. (34-9N-11E) NCT 0' FSL, NCT 165' FNL, NCT 660' FWL

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

