API NUMBER: 063 24856

Oil & Gas

Horizontal Hole

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

Approval Date: 10/25/2018 04/25/2020 **Expiration Date** 

PERMIT TO DRILL

WELL LOCATION: Sec: 26 Twp: 8N Rge: 10E County: HUGHES

FEET FROM QUARTER: FROM SPOT LOCATION: NORTH EAST SE NE ll NE NE SECTION LINES: 347

Lease Name: PRICE Well No: 2413-1HXW Well will be 315 feet from nearest unit or lease boundary.

315

ANTIOCH OPERATING LLC Operator OTC/OCC Number: Telephone: 4052360080 23947 0 Name:

ANTIOCH OPERATING LLC

PO BOX 1557

OKLAHOMA CITY. OK 73101-1557

HARVEY L PRICE 8121 E 129 ROAD

WETUMKA OK 74883

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

Name Depth Name Depth 3985 1 MAYES 6 2 WOODFORD 4100 7 3 SYLVAN 4178 8 9 10 672211 Spacing Orders: Location Exception Orders: 673987 Increased Density Orders: 674872

Pending CD Numbers: Special Orders:

Total Depth: 15000 Depth to base of Treatable Water-Bearing FM: 240 Ground Elevation: 851 Surface Casing: 290

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 D. One time land application -- (REQUIRES PERMIT) PERMIT NO: 18-35532 H SEE MEMO 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?

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

## 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 14 Twp 8N Rge 10E County HUGHES

Spot Location of End Point: NE NW NW NW
Feet From: NORTH 1/4 Section Line: 165
Feet From: WEST 1/4 Section Line: 440

Depth of Deviation: 3800 Radius of Turn: 603

Direction: 10

Total Length: 10253

Measured Total Depth: 15000

True Vertical Depth: 4680

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

Notes:

Category Description

HYDRAULIC FRACTURING 10/17/2018 - GA8 - 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

LOCATION EXCEPTION - 673987 10/24/2018 - G58 - (I.O.) 13 & 24-8N-10E

X672211 MYES, WDFD, SLVN 13 & 24-8N-10E

COMPL. INT. 24-8N-10E NCT 165' FSL, NCT 0' FNL, NCT 330' FWL COMPL. INT. 13-8N-10E NCT 0' FSL, NCT 165' FNL, NCT 330' FWL

ANTIOCH OPERATING, LLC

2/23/2018

MEMO 10/17/2018 - GA8 - PIT 1 & 2 - CLOSED SYSTEM=STEEL PITS REQUIRED PER LITTLE WEWOKA

CREEK; PIT 2 - OBM TO VENDOR, OBM CUTTINGS PER DISTRICT

Category Description

**SPACING - 672211** 10/24/2018 - G58 - (640)(HOR) 13 & 24-8N-10E

VAC 185892/189993 WDFD

VAC 289144/303752/313113 WDFD

VAC 529616 WDFD EST MYES, OTHER EXT 656698 WDFD, SLVN POE TO BHL (MYES) NCT 660' FB

POE TO BHL (WDFD) NCT 165' FNL & FSL, NCT 330' FEL & FWL

POE TO BHL (SLVN) NCT 330' FB

**SPACING - 674872** 10/24/2018 - G58 - (I.O.) 13 & 24-8N-10E

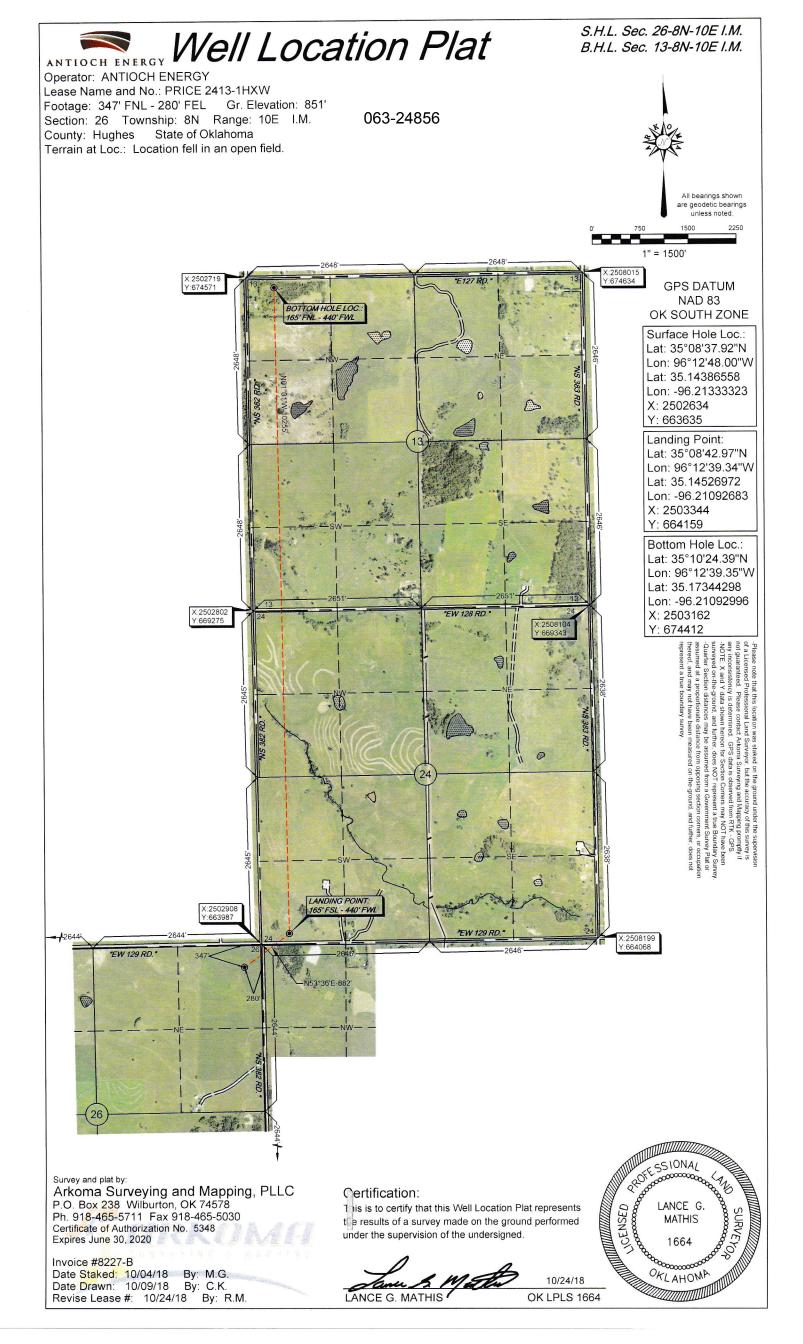
EST MULTIUNIT HORIZONTAL WELL

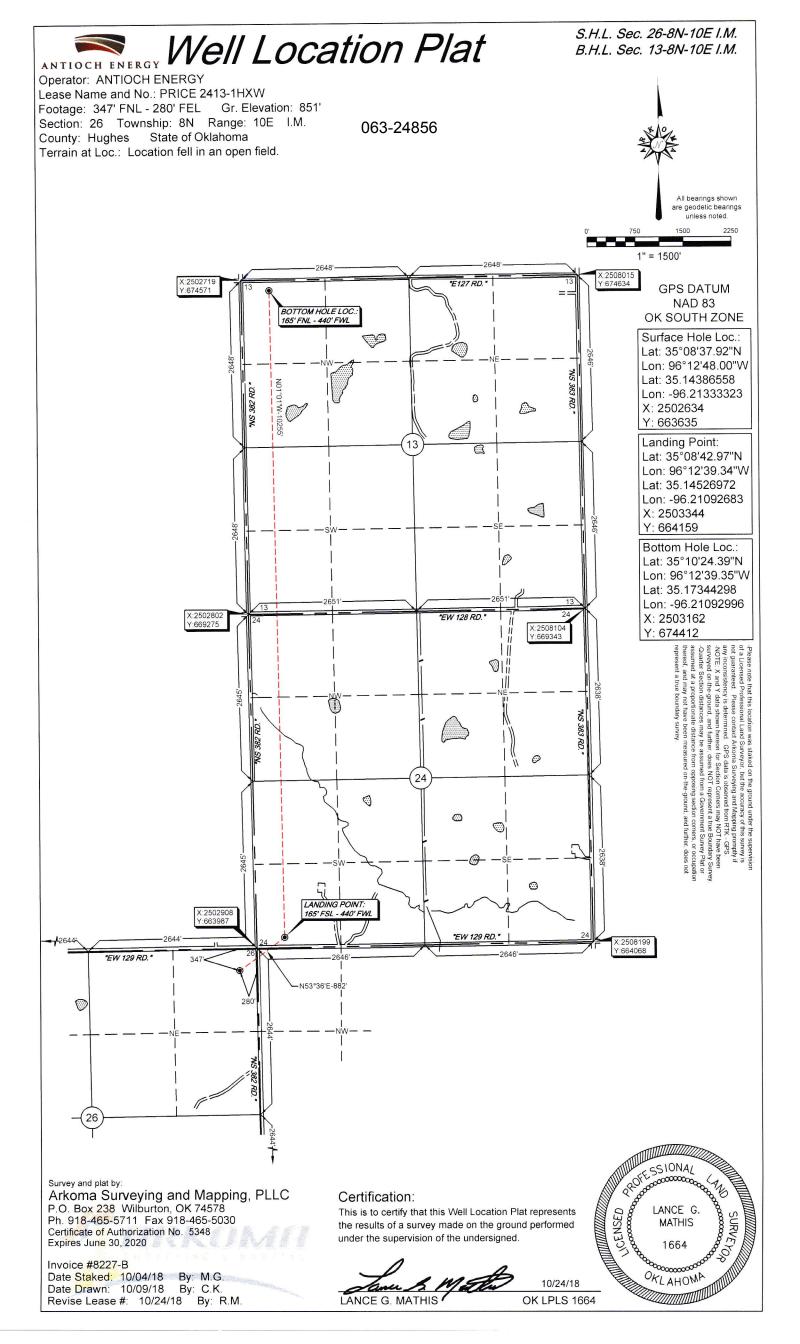
X672211 MYES, WDFD, SLVN 13 & 24-8N-10E

50% 13-8N-10E 50% 24-8N-10E

ANTIOCH OPERATING, LLC

3/20/2018





S.H.L. Sec. 26-8N-10E I.M. B.H.L. Sec. 14-8N-10E I.M.

Operator: ANTIOCH ENERGY

Lease Name and No.: PRICE 2413-1HXW

Footage: 347' FNL - 280' FEL Gr. Elevation: 851'

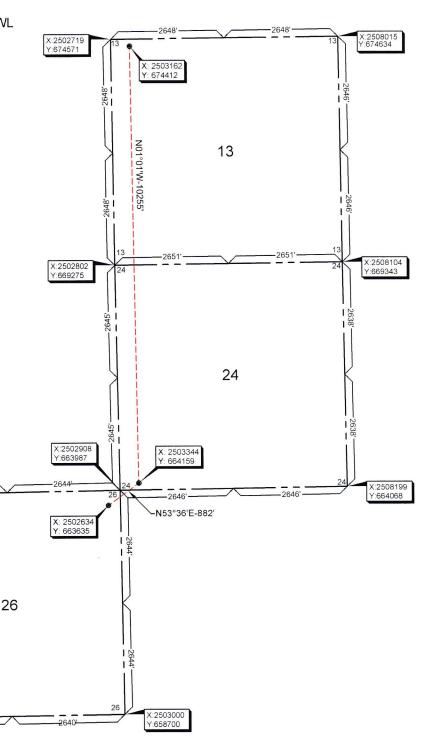
State of Oklahoma

Sec. 26 Twp. 8N Rng. 10E I.M. Landing Point: 165' FSL - 440' FWL Sec. 24 Twp. 8N Rng. 10E I.M. Bottom Hole Location: 165' FNL - 440' FWL Sec. 13 Twp. 8N Rng. 10E I.M.

County: Hughes

NO SCALE GPS DATUM NAD 83 OK SOUTH ZONE

X:2497620



Provided by:

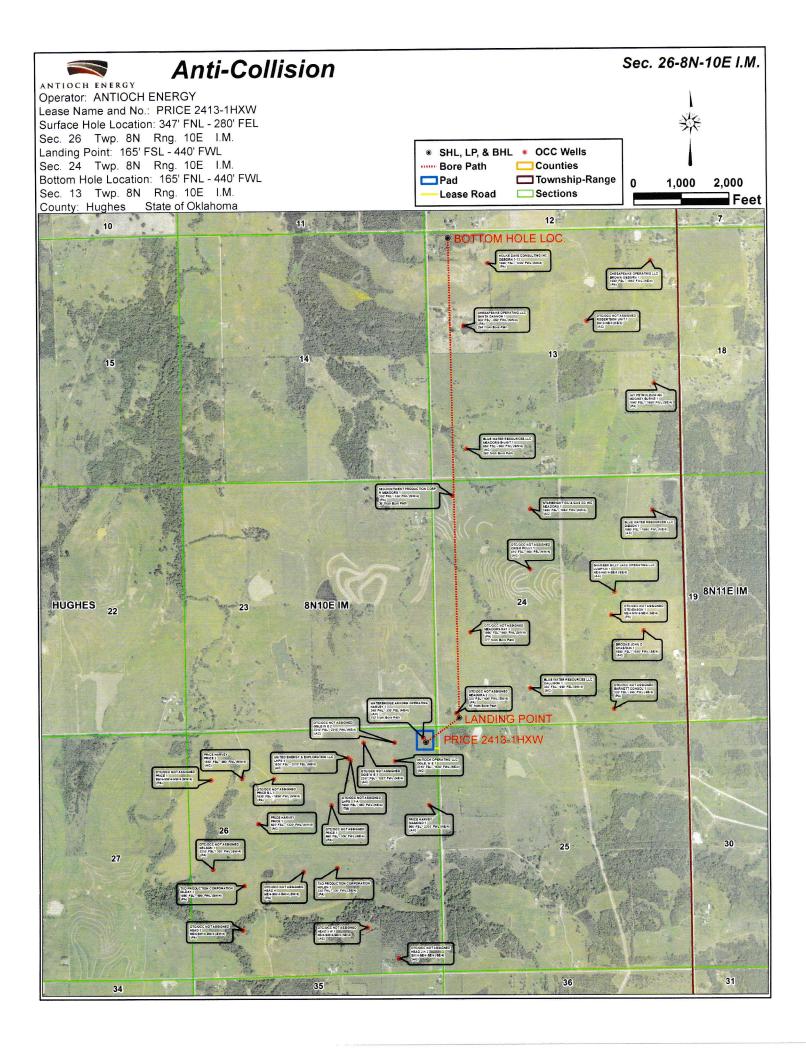
Arkoma Surveying and Mapping, PLLC P.O. Box 238 Wilburton, OK 74578 Ph. 918-465-5711 Fax 918-465-5030

2640'

X:2497720 Y:658627

Certificate of Authorization No. 5348 Expires June 30, 2020

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.





## Topographic Vicinity Map

Operator: ANTIOCH ENERGY

Lease Name and No.: PRICE 2413-1HXW

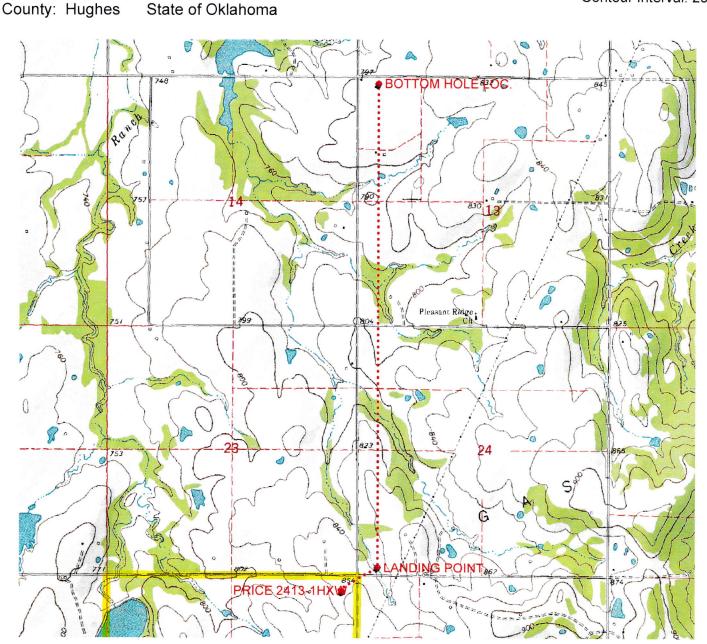
Surface Hole Location: 347' FNL - 280' FEL

Sec. 26 Twp. 8N Rng. 10E I.M. Landing Point: 165' FSL - 440' FWL Sec. 24 Twp. 8N Rng. 10E I.M. Bottom Hole Location: 165' FNL - 440' FWL Sec. 13 Twp. 8N Rng. 10E I.M.

Gr. Elevation: 851'



Scale 1" = 2000' Contour Interval: 20'



Provided 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

Date Staked: 10/04/18

The purpose of this map is to verify the location and elevation as staked on the ground and to show the surrounding Topographic features. The footage shown hereon is only as SCALED onto a U.S.G.S. Topographic Map.

Please note that this location was staked carefully 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.

