

API NUMBER: 087 22354

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

Approval Date: 05/02/2022

Expiration Date: 11/02/2023

Multi Unit

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 27 Township: 7N Range: 2W County: MCCLAIN

SPOT LOCATION: ☐ NW ☐ NW ☐ NE ☐ NE FEET FROM QUARTER: FROM NORTH FROM EAST
SECTION LINES: 238 1029

Lease Name: BRUEHL MU17-22 27-34

Well No: 4HX

Well will be 238 feet from nearest unit or lease boundary.

Operator Name: LRR IV OPERATING INC

Telephone: 7132929535

OTC/OCC Number: 24554 0

LRR IV OPERATING INC
1111 BAGBY STREET STE 4600
HOUSTON, TX 77002

ROBERT M. BRUEHL
1526 CARL STOKES RD.
PURCELL OK 73080

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

Name	Code	Depth
1 WOODFORD	319WDFD	7600

Spacing Orders: 698293
699023
724577

Location Exception Orders: 724579

Increased Density Orders: 724485
724580

Pending CD Numbers: No Pending

Working interest owners' notified: ***

Special Orders: No Special

Total Depth: 18501

Ground Elevation: 1188

Surface Casing: 580

Depth to base of Treatable Water-Bearing FM: 460

Under Federal Jurisdiction: No
Fresh Water Supply Well Drilled: No
Surface Water used to Drill: Yes

Approved Method for disposal of Drilling Fluids:

F. Haul to Commercial soil farming facility	Sec. 1 Twn. 7S Rng. 3E Cnty. 85 Order No: 549455
H. (Other)	SEE MEMO

PIT 1 INFORMATION

Type of Pit System: CLOSED Closed System Means Steel Pits

Type of Mud System: WATER BASED

Chlorides Max: 5000 Average: 3000

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is: NON HSA

Pit Location Formation: BISON

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 not located in a Hydrologically Sensitive Area.

Category of Pit: C

Liner not required for Category: C

Pit Location is: NON HSA

Pit Location Formation: BISON

This permit does not address the right of entry or settlement of surface damages. The duration of this permit is 18 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.

MULTI UNIT HOLE 1					
Section: 34	Township: 7N	Range: 2W	Meridian: IM	Total Length: 10347	
	County: MCCLAIN			Measured Total Depth: 18501	
Spot Location of End Point: S2	S2	SE	SE	True Vertical Depth: 7600	
Feet From: SOUTH		1/4 Section Line: 65		End Point Location from	
Feet From: EAST		1/4 Section Line: 660		Lease, Unit, or Property Line: 65	

NOTES:

Category	Description
HYDRAULIC FRACTURING	<p>[4/20/2022 - GC2] - OCC 165:10-3-10 REQUIRES:</p> <p>1) NOTICE SHALL BE GIVEN AT LEAST 5 BUSINESS DAYS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS ON A HORIZONTAL WELL TO OPERATORS PRODUCING WELLS WITHIN 1 MILE OF THE COMPLETION INTERVAL OF THE SUBJECT WELL. THE NOTICE TO SUCH OPERATORS SHALL CONTAIN THE INFORMATION IN FORM 6000NOO. IF THE HYDRAULIC FRACTURING OPERATIONS SCHEDULE CHANGES AFTER NOTICE HAS BEEN PROVIDED, RESULTING IN A DELAY OF OPERATIONS OF MORE THAN 5 DAYS FROM THE INITIAL NOTICE, NEW NOTICE IS REQUIRED TO BE GIVEN;</p> <p>2) NOTICE WILL BE GIVEN TO THE OCC CENTRAL OFFICE AND LOCAL DISTRICT OFFICES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING OPERATIONS. FORM 6000NHF SHALL BE USED AND IS FOUND AT THIS LINK: OCCEWEB.COM/OG/OGFORMS.HTML; AND,</p> <p>3) THE CHEMICAL DISCLOSURE OF HYDRAULIC FRACTURING INGREDIENTS FOR ALL WELLS IS TO BE REPORTED TO FRACFOCUS WITHIN 60 DAYS AFTER THE CONCLUSION OF HYDRAULIC FRACTURING OPERATIONS, FOUND AT FRACFOCUS.ORG</p>
INCREASED DENSITY - 724485	<p>[4/28/2022 - G56] - 34-7N-2W X699023 WDFD 2 WELLS LRR IV OP INC 3/25/2022</p>
INCREASED DENSITY - 724580	<p>[4/28/2022 - G56] - (I.O.) 27-7N-2W X698293 WDFD 1 WELL LRR IV OP INC 3/30/2022</p>
LOCATION EXCEPTION - 724579	<p>[4/28/2022 - G56] - (I.O.) 27 & 34-7N-2W X698293 WDFD 27-7N-2W X699023 WDFD 34-7N-2W X165:10-3-28(C)(2)(B) WDFD (BRUEHL MU17-22 27-34 4HX) MAY BE CLOSER THAN 600' RICE 6N2W3 1HX WELL COMPL INT (27-7N-2W) NCT 165' FNL, NCT 0' FSL, NCT 330' FEL COMPL INT (34-7N-2W) NCT 0' FNL, NCT 165' FSL, NCT 330' FEL LRR IV OP INC 3/30/2022</p>
SPACING - 698293	<p>[4/28/2022 - G56] - (640)(HOR) 27-7N-2W EXT 652167 WDFD POE TO BHL NLT 165' FNL & FSL, NLT 330' FEL & FWL</p>
SPACING - 699023	<p>[4/28/2022 - G56] - (640)(HOR) 34-7N-2W EXT 652167 WDFD POE TO BHL NLT 165' FNL & FSL, NLT 330' FEL & FWL (COEXIST WITH SP # 616797 WDFD)</p>
SPACING - 724577	<p>[4/28/2022 - G56] - (I.O.) 27 & 34-7N-2W EST MULTIUNIT HORIZONTAL WELL X698293 WDFD 27-7N-2W X699023 WDFD 34-7N-2W 50% 27-7N-2W 50% 34-7N-2W LRR IV OP INC 3/30/2022</p>

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087 22354 BRUEHL MU17-22 27-34 4HX



Well Location Plat

S.H.L. Sec. 27-7N-2W I.M.
B.H.L. Sec. 34-7N-2W I.M.

Operator: LIME ROCK RESOURCES

Lease Name and No.: BRUEHL MU17-22 27-34 4HX

Surface Hole Location: 238' FNL - 1029' FEL Gr. Elevation: 1188'

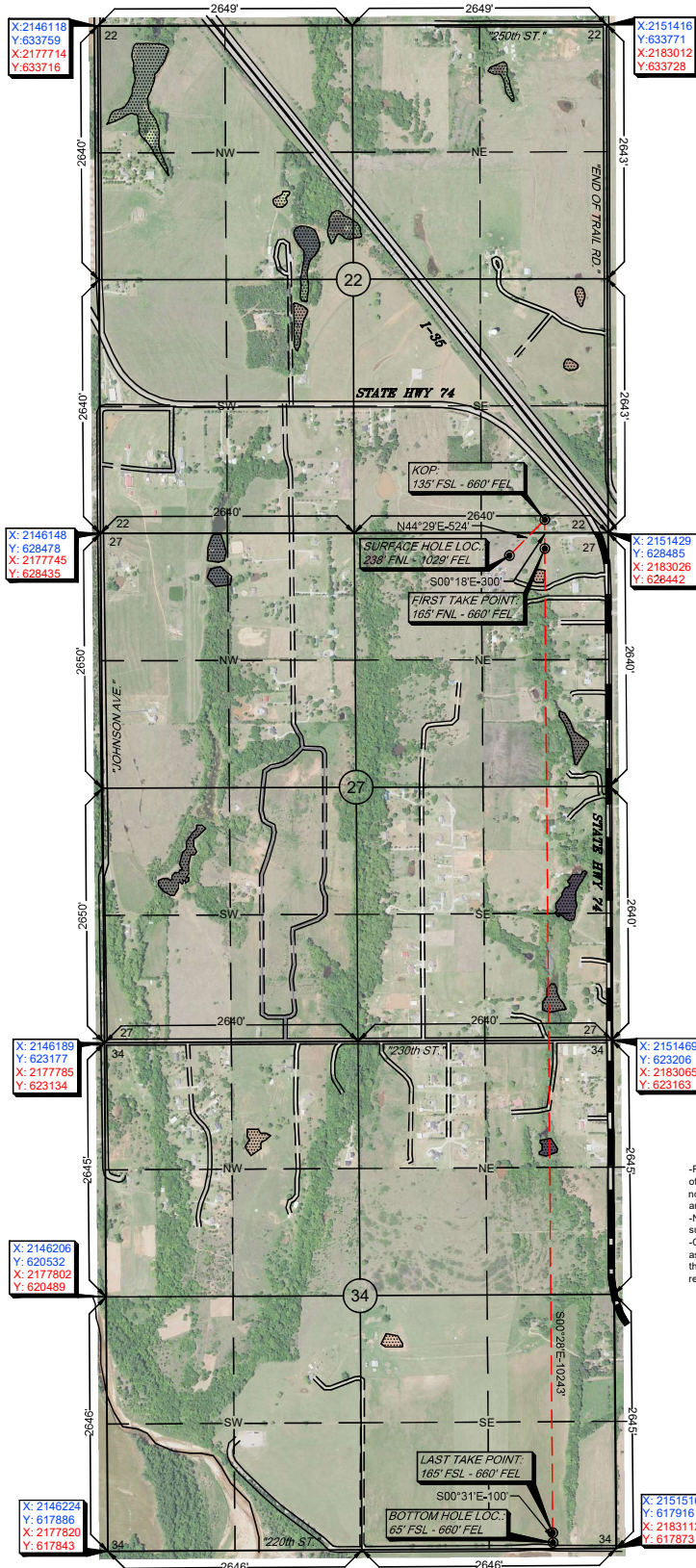
NW/4-NW/4-NE/4-NE/4 Section: 27 Township: 7N Range: 2W I.M.

Bottom Hole Location: 65' FSL - 660' FEL

SW/4-SE/4-SE/4-SE/4 Section: 34 Township: 7N Range: 2W I.M.

County: McClain State of Oklahoma

Terrain at Loc.: Location fell on an existing pad.



All bearings shown
are grid bearings.

0' 660' 1320' 1980'
1" = 1500'

GPS DATUM

NAD 83

NAD 27

OK SOUTH ZONE

Surface Hole Loc.: Lat: 35°03'29.23"N Lon: 97°23'31.91"W Lat: 35.05811910 Lon: -97.39219855 X: 2150402 Y: 628246	Surface Hole Loc.: Lat: 35°03'28.97"N Lon: 97°23'30.81"W Lat: 35.05804844 Lon: -97.39189114 X: 2181998 Y: 628203
Kick Off Point: Lat: 35°03'32.90"N Lon: 97°23'27.47"W Lat: 35.05913926 Lon: -97.39096507 X: 2150769 Y: 628619	Kick Off Point: Lat: 35°03'32.65"N Lon: 97°23'26.37"W Lat: 35.05906860 Lon: -97.39065767 X: 2182365 Y: 628576
First Take Point: Lat: 35°03'29.93"N Lon: 97°23'27.48"W Lat: 35.05831502 Lon: -97.39096593 X: 2150770 Y: 628319	First Take Point: Lat: 35°03'29.68"N Lon: 97°23'26.37"W Lat: 35.05824434 Lon: -97.39065854 X: 2182367 Y: 628276
Last Take Point: Lat: 35°01'48.62"N Lon: 97°23'27.21"W Lat: 35.03017324 Lon: -97.39089280 X: 2150854 Y: 618077	Last Take Point: Lat: 35°01'48.37"N Lon: 97°23'26.11"W Lat: 35.03010200 Lon: -97.39058581 X: 2182450 Y: 618034
Bottom Hole Loc.: Lat: 35°01'47.63"N Lon: 97°23'27.21"W Lat: 35.02989848 Lon: -97.39089184 X: 2150855 Y: 617977	Bottom Hole Loc.: Lat: 35°01'47.38"N Lon: 97°23'26.11"W Lat: 35.02982724 Lon: -97.39058486 X: 2182451 Y: 617934

-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 any inconsistency is determined. GPS data is observed 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.

-Quarter Section distances may be assumed from a Government Survey Plat or assumed at a proportionate distance from opposing section corners, 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

Invoice #7795-A-A

Date Staked: 01/30/2020 By: H.S.

Date Drawn: 02/05/2020 By: J.C.

Added KOP/LTP/BHL: 02/13/2020 By: J.C.

Rev. Lease No.: 02/26/2020 By: S.S.

Added Qtr Calls: 03/05/2020 By: R.S.

Rev. Bore Path: 11/12/2021 By: J.L.

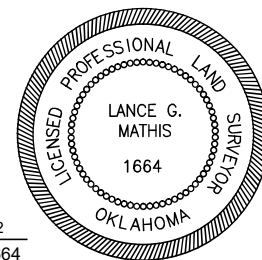
Certification:

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

05/02/2022

OK LPLS 1664





Well Location Plat

S.H.L. Sec. 27-7N-2W I.M.
B.H.L. Sec. 34-7N-2W I.M.

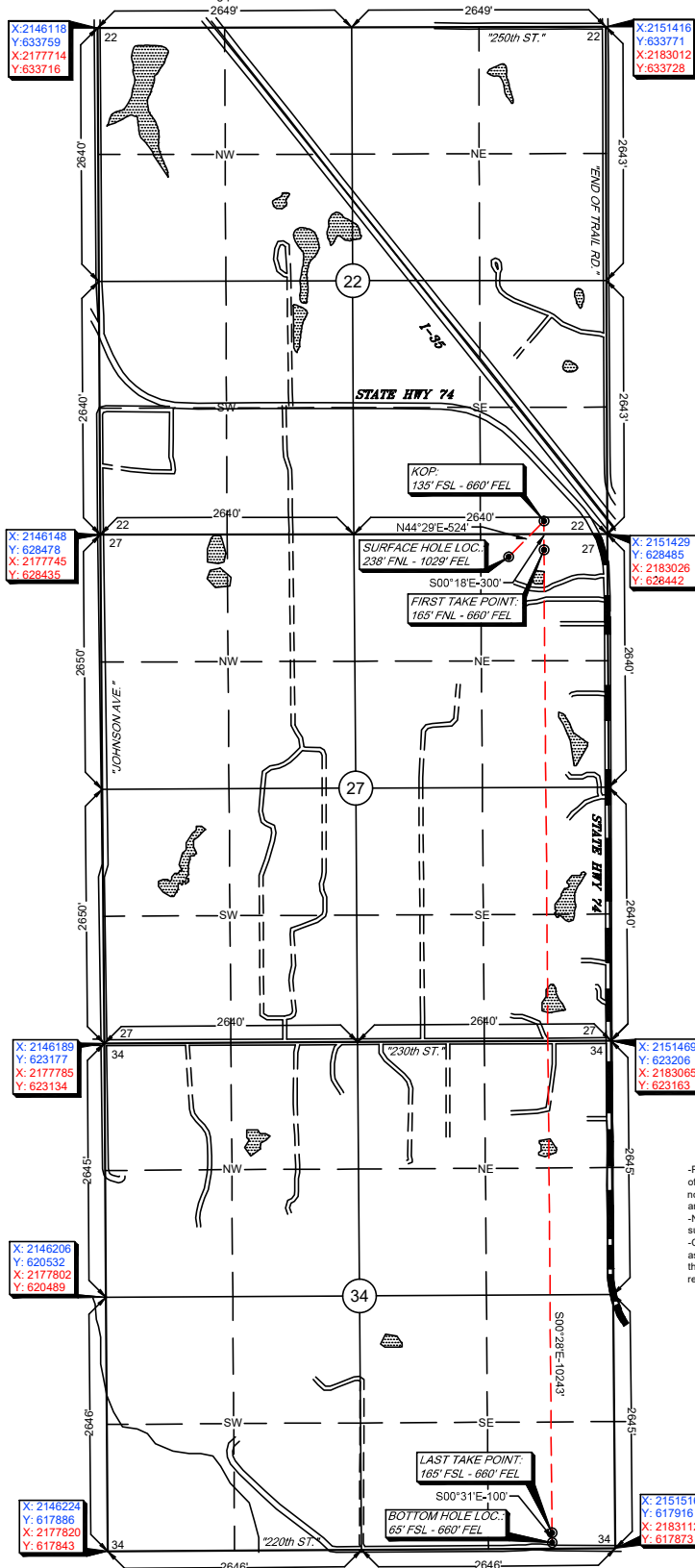
Operator: LIME ROCK RESOURCES
Lease Name and No.: BRUEHL MU17-22 27-34 4HX
Surface Hole Location: 238' FNL - 1029' FEL Gr. Elevation: 1188'
NW/4-NW/4-NE/4-NE/4 Section: 27 Township: 7N Range: 2W I.M.
Bottom Hole Location: 65' FSL - 660' FEL
SW/4-SE/4-SE/4-SE/4 Section: 34 Township: 7N Range: 2W I.M.
County: McClain State of Oklahoma
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Rev. Lease No.: 02/26/2020 By: S.S.
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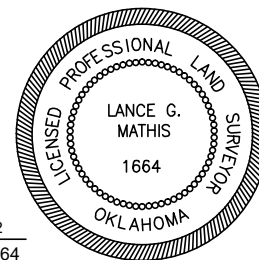
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LANCE G. MATHIS

05/02/2022

OK LPLS 1664





Anti-Collision

Sec(s). 22, 27, & 34-7N-2W I.M.

Operator: LIME ROCK RESOURCES

Lease Name and No.: BRUEHL MU17-22 27-34 4HX

Surface Hole Location: 238' FNL - 1029' FEL

Sec. 27 Twp. 7N Rng. 2W I.M.

Kick Off Point: 135' FSL - 660' FEL

Sec. 22 Twp. 7N Rng. 2W I.M.

First Take Point: 165' FNL - 660' FEL

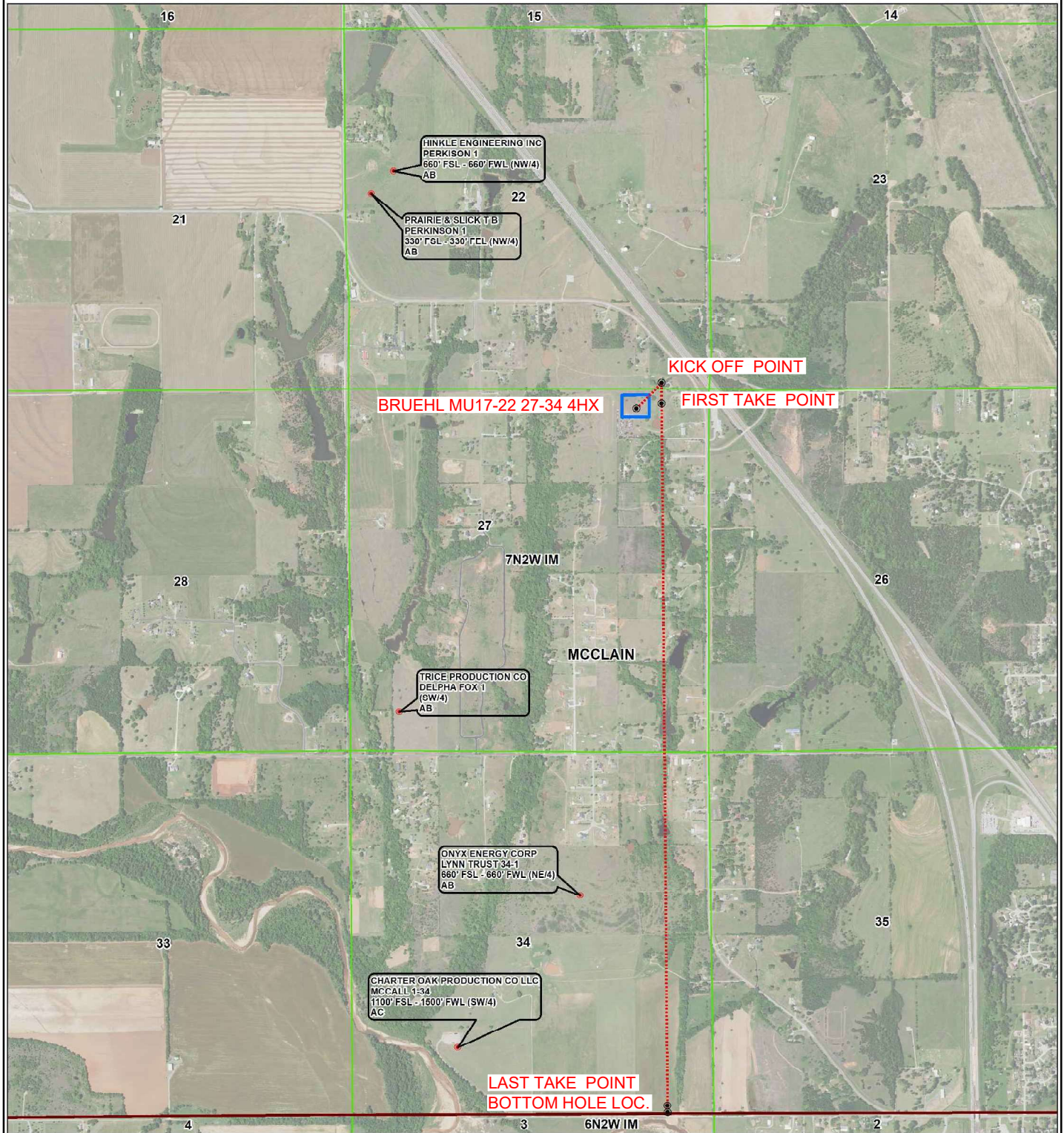
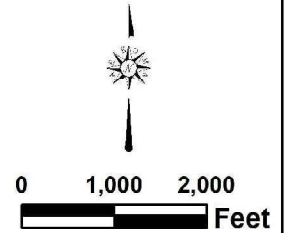
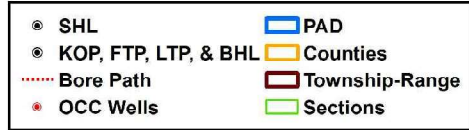
Sec. 27 Twp. 7N Rng. 2W I.M.

Last Take Point: 165' FSL - 660' FEL

Bottom Hole Location: 65' FSL - 660' FEL

Sec. 34 Twp. 7N Rng. 2W I.M.

County: McClain State of Oklahoma



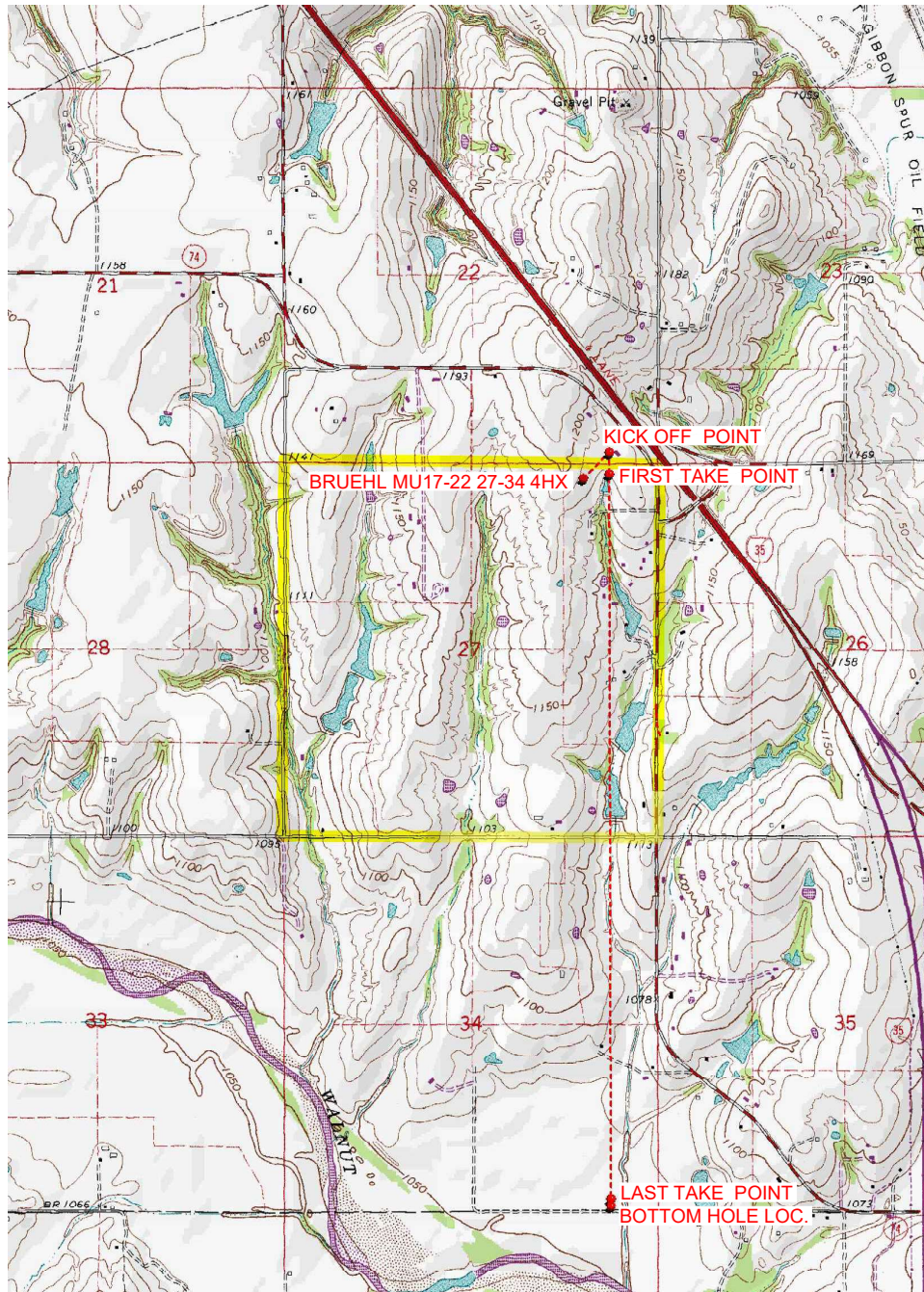


Topographic Vicinity Map

Operator: LIME ROCK RESOURCES
Lease Name and No.: BRUEHL MU17-22 27-34 4HX
Surface Hole Location: 238' FNL - 1029' FEL
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Last Take Point: 165' FSL - 660' FEL
Bottom Hole Location: 65' FSL - 660' FEL
Sec. 34 Twp. 7N Rng. 2W I.M.
County: McClain State of Oklahoma
Ground Elevation at Surface Hole Location: 1188'



Scale 1" = 2000'
Contour Interval: 10'



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, 2022

Date Staked: 01/30/2020

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.

County Highway Vicinity Map

Job #:7795-A-A

Operator: LIME ROCK RESOURCES

Lease Name and No.: BRUEHL MU17-22 27-34 4HX

Accessibility: From the South.

Directions: From the junction of "N Green Ave" & US HWY 77 in the town of Purcell, OK, go 1.1 miles North on "N Green Ave", then go 3.2 miles Northwest on State HWY 74 to a proposed lease road in the Southeast Quarter of Section 22-7N-2W on the South side of the road.



1 inch = 0.5 mile

provided by,
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