

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

API NUMBER: 017 25688

Approval Date: 06/16/2021

Expiration Date: 12/16/2022

Horizontal Hole Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Section: 04 Township: 12N Range: 7W County: CANADIAN

SPOT LOCATION: NE NW NW NW FEET FROM QUARTER: FROM NORTH FROM WEST
SECTION LINES: 287 534

Lease Name: SOUTHERN STAR 33-13N-7W Well No: 7MH Well will be 287 feet from nearest unit or lease boundary.

Operator Name: PALOMA OPERATING CO INC Telephone: 7136508509 OTC/OCC Number: 23932 0

PALOMA OPERATING CO INC
1100 LOUISIANA ST STE 5100
HOUSTON, TX 77002-5220

MACK CLAYTON/MCVEDA, LLC
1333 SOUTH NELMS DRIVE
MUSTANG OK 73064

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

Name	Code	Depth
1 MISSISSIPPIAN	359MSSP	8900

Spacing Orders: 141058

Location Exception Orders: 718457

Increased Density Orders: 705964

715265

Pending CD Numbers: No Pending

Working interest owners' notified: ***

Special Orders: No Special Orders

Total Depth: 17000

Ground Elevation: 1320

Surface Casing: 550

Depth to base of Treatable Water-Bearing FM: 300

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

Approved Method for disposal of Drilling Fluids:	
D. One time land application -- (REQUIRES PERMIT)	PERMIT NO: 21-37651
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? Y
Wellhead Protection Area? Y
Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C
Liner not required for Category: C
Pit Location is: ALLUVIAL
Pit Location Formation: ALLUVIUM

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? Y
Wellhead Protection Area? Y
Pit is located in a Hydrologically Sensitive Area.

Category of Pit: C
Liner not required for Category: C
Pit Location is: ALLUVIAL
Pit Location Formation: ALLUVIUM

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.

HORIZONTAL HOLE 1

Section: 33	Township: 13N	Range: 7W	Meridian: IM	Total Length: 5300
	County: CANADIAN			Measured Total Depth: 17000
Spot Location of End Point: NW	NE	NW	NE	True Vertical Depth: 9500
Feet From: NORTH		1/4 Section Line: 65		End Point Location from
Feet From: EAST		1/4 Section Line: 1840		Lease,Unit, or Property Line: 65

NOTES:

Category	Description
HYDRAULIC FRACTURING	<p>[6/14/2021 - 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: OCCWEB.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 - 705964	<p>[6/16/2021 - GC2] - 33-13N-7W X141058 MSSP 5 WELLS PALOMA OPERATING CO, INC 12-5-2019</p>
INCREASED DENSITY - 715265	<p>[6/16/2021 - GC2] - EXT OF TIME FOR ORDER 705964 UNTIL 12-5-2021</p>
LOCATION EXCEPTION - 718457	<p>[6/16/2021 - GC2] - (I.O.) 33-13N-7W X141058 MSSP X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO LOTTIE JONES 33-4 COMPL. INT. NCT 165' FSL, NCT 165' FNL, NCT 450' FEL PALOMA OPERATING COMPANY 5-20-2021</p>
MEMO	<p>[6/14/2021 - GC2] - CLOSED SYSTEM=STEEL PITS (REQUIRED - NORTH CANADIAN RIVER), OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT</p>
PUBLIC WATER SUPPLY	<p>[6/14/2021 - GC2] - EL RENO - 19 WELLS W/2 33-13N-7W</p>
SPACING - 141058	<p>[6/16/2021 - GC2] - (640) 33-13N-7W EXT OTHERS EXT 124533 MSSP</p>
SURFACE CASING	<p>[6/14/2021 - GC2] - NO DEEP SURFACE CASING DUE TO BEING INSIDE PUBLIC WATER SUPPLY BOUNDARY</p>

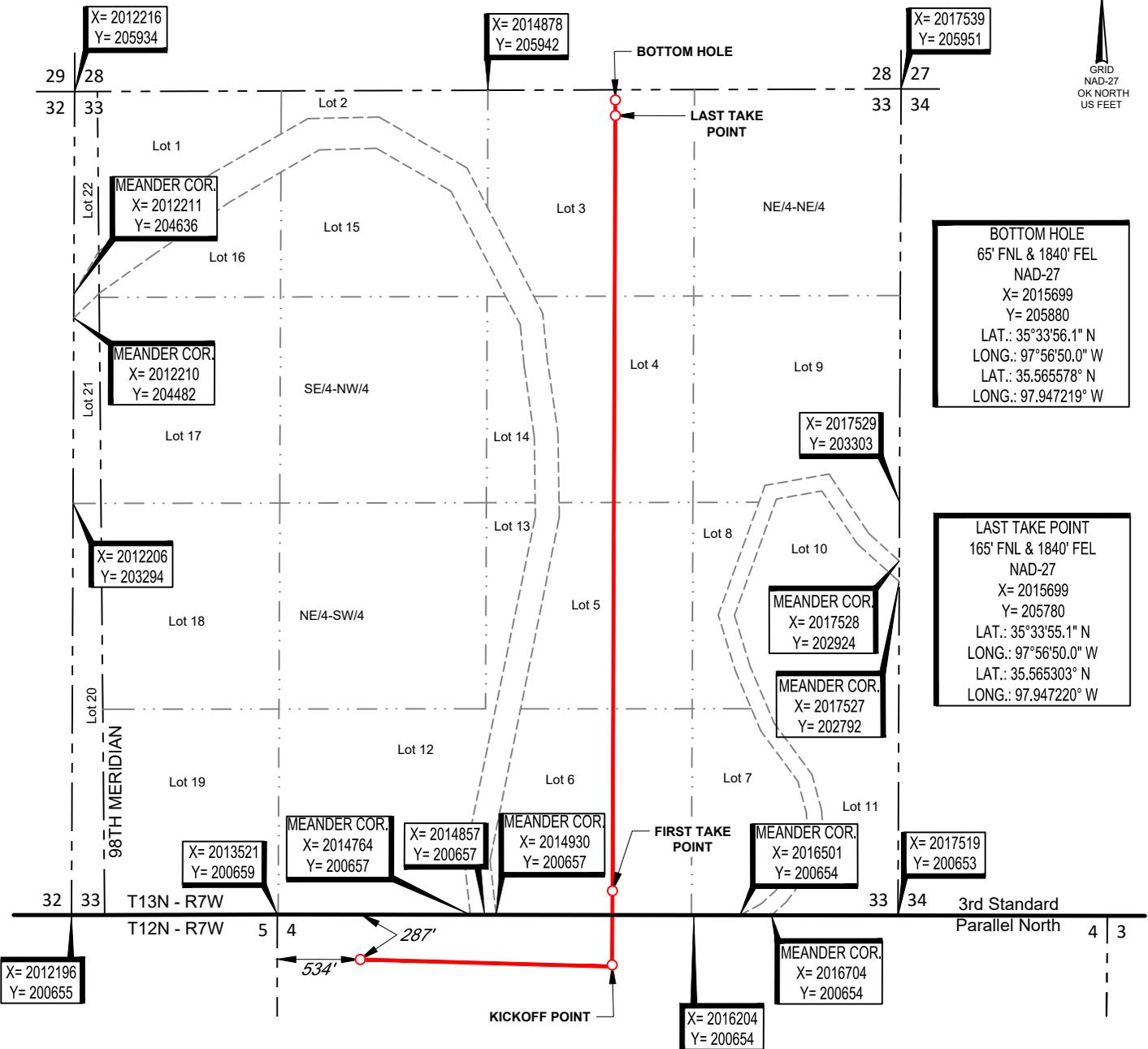
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LEGEND

- SECTION LINE
- TOWNSHIP LINE
- 16TH LINE
- PROPOSED WELL BORE

WELL LOCATION
 SOUTHERN STAR 33-13N-7W 7MH
 PALOMA OPERATING COMPANY, INC.
 SECTION 4, TOWNSHIP 12N, RANGE 7W, I.M.
 CANDIAN COUNTY, OKLAHOMA

SCALE: 1" = 1000'
 0' 500' 1000'



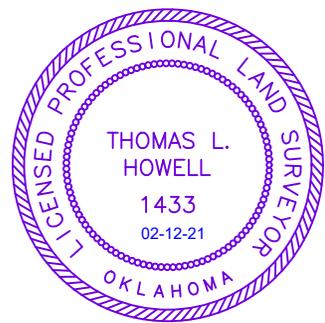
BOTTOM HOLE
 65' FNL & 1840' FEL
 NAD-27
 X= 2015699
 Y= 205880
 LAT.: 35°33'56.1" N
 LONG.: 97°56'50.0" W
 LAT.: 35.565578° N
 LONG.: 97.947219° W

LAST TAKE POINT
 165' FNL & 1840' FEL
 NAD-27
 X= 2015699
 Y= 205780
 LAT.: 35°33'55.1" N
 LONG.: 97°56'50.0" W
 LAT.: 35.565303° N
 LONG.: 97.947220° W

SURFACE LOCATION
 287' FNL & 534' FWL
 NAD-27
 X= 2014055
 Y= 200371
 LAT.: 35°33'01.6" N
 LONG.: 97°57'09.9" W
 LAT.: 35.550446° N
 LONG.: 97.952756° W
 ELEV.: 1320'

FIRST TAKE POINT
 165' FSL & 1840' FEL
 NAD-27
 X= 2015680
 Y= 200820
 LAT.: 35°33'06.0" N
 LONG.: 97°56'50.3" W
 LAT.: 35.551678° N
 LONG.: 97.947292° W

KICKOFF POINT
 330' FNL & 2157' FWL
 NAD-27
 X= 2015678
 Y= 200325
 LAT.: 35°33'01.1" N
 LONG.: 97°56'50.3" W
 LAT.: 35.550318° N
 LONG.: 97.947299° W



SURVEYOR'S CERTIFICATE:
 I, THOMAS L. HOWELL, AN OKLAHOMA LICENSED LAND SURVEYOR AND AN AUTHORIZED AGENT OF TOPOGRAPHIC LAND SURVEYORS, DO HEREBY CERTIFY TO THE INFORMATION SHOWN HEREIN.

Thomas L. Howell
 Thomas L. Howell, P.L.S. No. 1433
 Authorized Agent of Topographic Land Surveyors

TOPOGRAPHIC
 LOYALTY INNOVATION LEGACY
 13800 WIRELESS WAY • OKLAHOMA CITY, OKLAHOMA 73134
 TELEPHONE: (405) 843-4847 OR (800) 654-3219
 CERTIFICATE OF AUTHORIZATION NO. 1292 LS
 WWW.TOPOGRAPHIC.COM

LEASE NAME & WELL NO. SOUTHERN STAR 33-13N-7W 7MH
 SECTION 4 TWP 12N RGE 7W MERIDIAN I.M.
 COUNTY CANDIAN STATE OKLAHOMA
 DESCRIPTION 287' FNL & 534' FWL

SOUTHERN STAR 33-13N-7W 7MH	REVISION:	
	INT	DATE
DATE: 02/11/2021		
FILE:LO_SOUTHERN_STAR_33-13N-7W_7MH_REV1		
DRAWN BY: KEU		
SHEET: 1 OF 2		

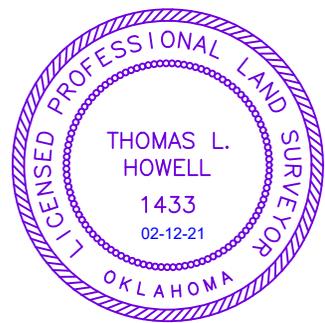
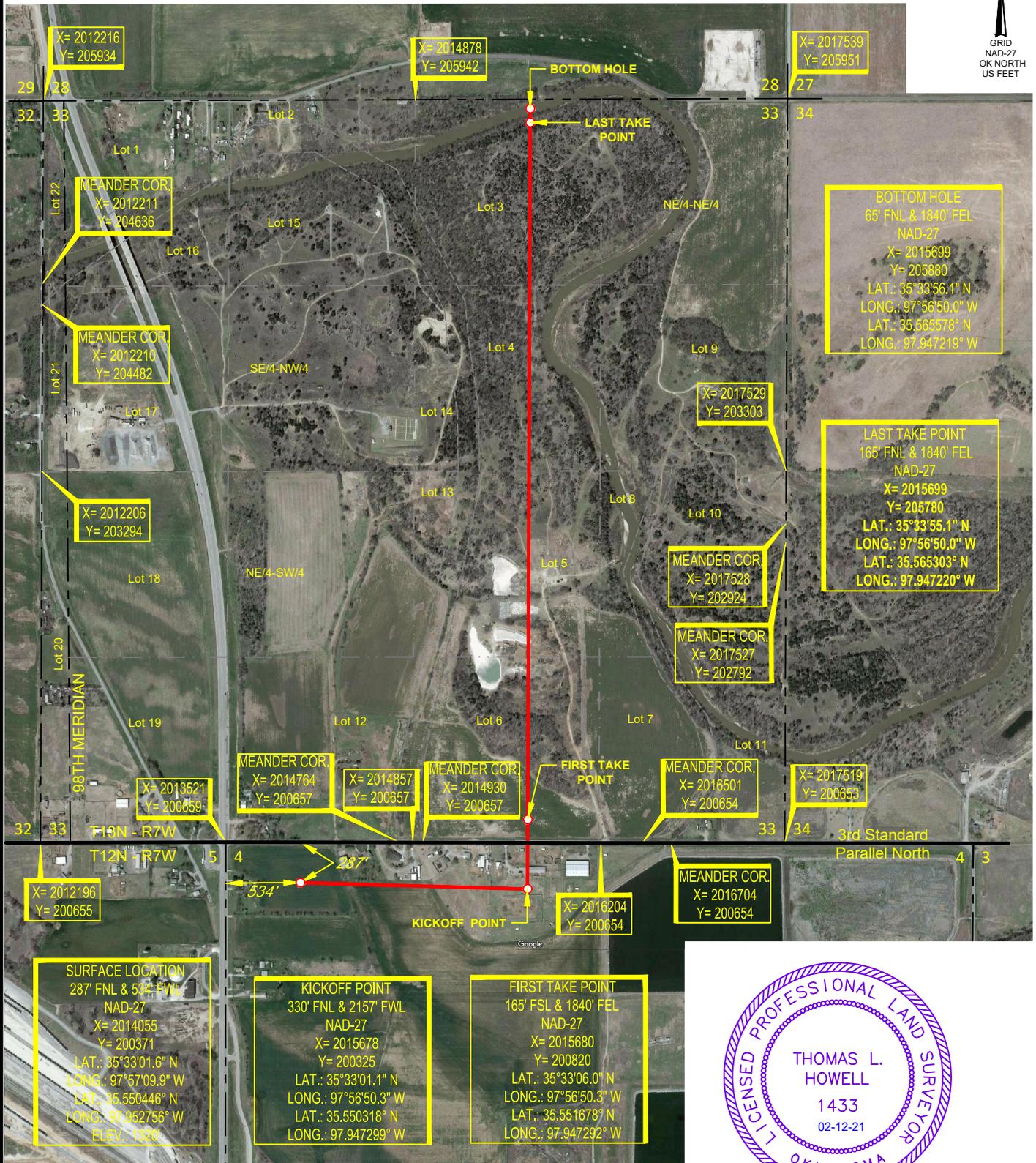
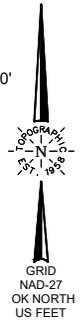
- NOTES:**
1. ORIGINAL DOCUMENT SIZE: 8.5" X 14"
 2. ALL BEARINGS SHOWN HEREON ARE GRID ACCORDING TO THE RESULTS OF STATIC GPS OBSERVATIONS PROCESSED THROUGH OPUS ON THE CONTROL POINT OCCUPIED WHILE MEASURING SAID LINES. OPUS RESULTS ARE CORRELATED TO OKLAHOMA, NORTH ZONE, NAD 27 - HORIZONTAL AND THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.
 3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT/LOCATION, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY PALOMA OPERATING COMPANY, INC. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT/LOCATION, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.
 4. KICKOFF POINT, FIRST TAKE POINT, LAST TAKE POINT, BOTTOM HOLE, AND DRILL PATH INFORMATION PROVIDED BY OPERATOR AS SHOWN AND ARE NOT SURVEYED LOCATIONS.
 5. THE INFORMATION SHOWN HEREIN IS FOR CONSTRUCTION PURPOSES ONLY

LEGEND

- SECTION LINE
- TOWNSHIP LINE
- 16TH LINE
- PROPOSED WELL BORE

WELL LOCATION
 SOUTHERN STAR 33-13N-7W 7MH
 PALOMA OPERATING COMPANY, INC.
 SECTION 4, TOWNSHIP 12N, RANGE 7W, I.M.
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SCALE: 1" = 1000'
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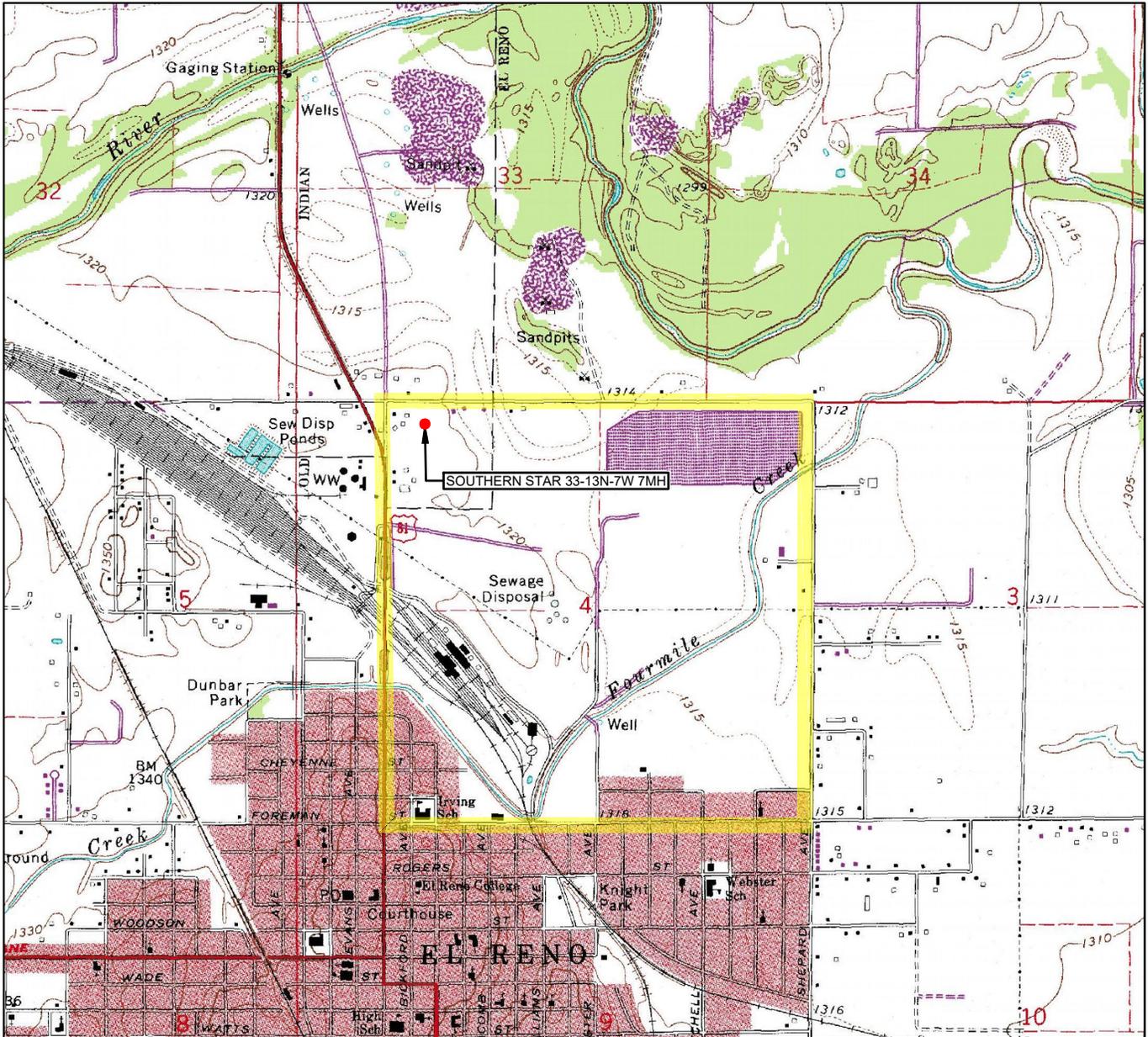
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LEASE NAME & WELL NO. SOUTHERN STAR 33-13N-7W 7MH
 SECTION 4 TWP 12N RGE 7W MERIDIAN I.M.
 COUNTY CANDIAN STATE OKLAHOMA
 DESCRIPTION 287' FNL & 534' FWL

SOUTHERN STAR 33-13N-7W 7MH	REVISION:	
	INT	DATE
DATE: 02/11/2021		
FILE:LO_SOUTHERN_STAR_33-13N-7W_7MH_REV1		
DRAWN BY: KEU		
SHEET: 2 OF 2		

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LOCATION & ELEVATION VERIFICATION MAP



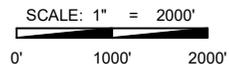
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SECTION 4 TWP 12N RGE 7W MERIDIAN I.M.

COUNTY CANDIAN STATE OKLAHOMA

DESCRIPTION 287' FNL & 534' FWL

ELEVATION 1320'



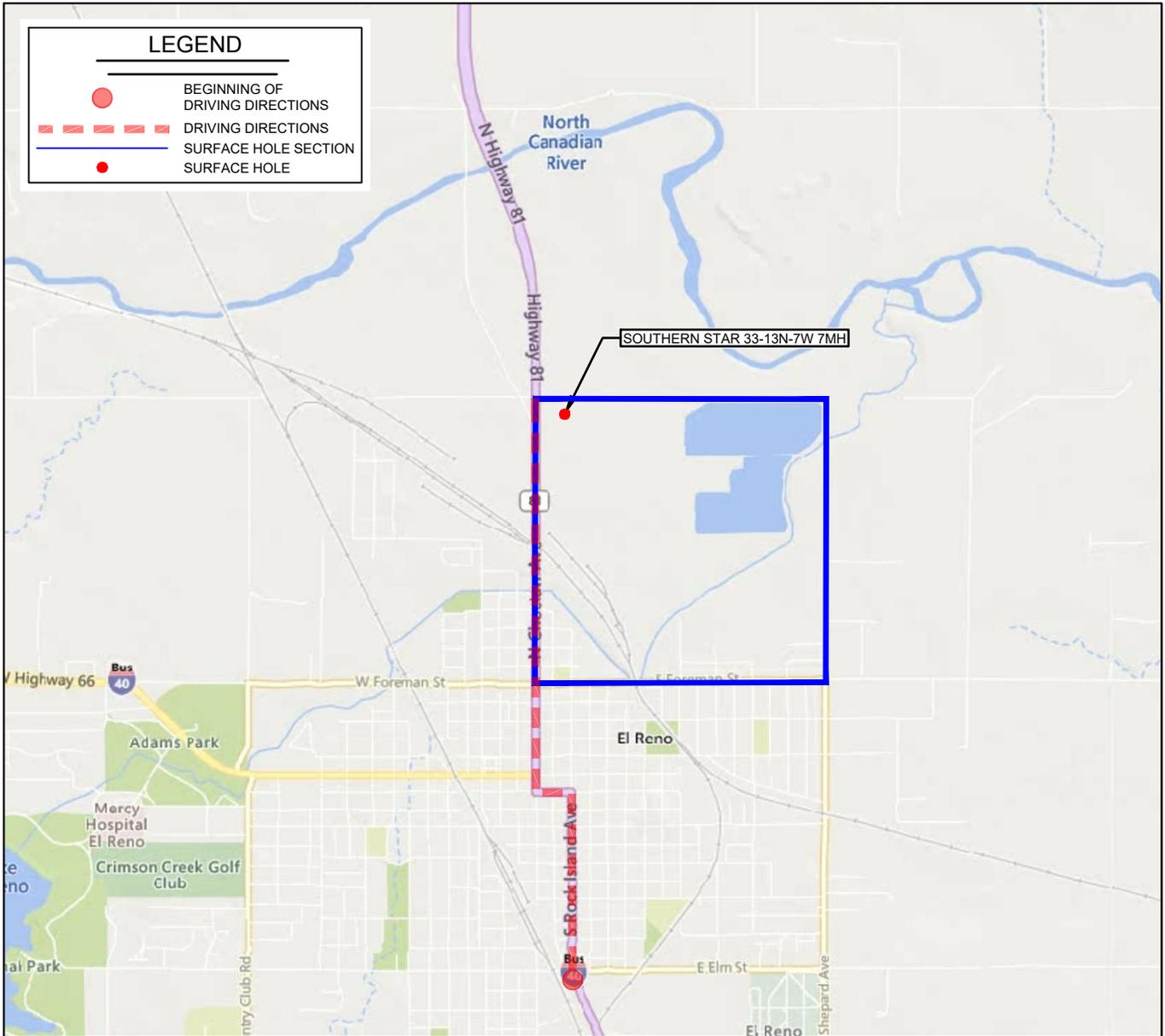
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY PALOMA OPERATING COMPANY, INC.. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, NORTH ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET AND THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

13800 WIRELESS WAY • OKLAHOMA CITY, OKLAHOMA 73134
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VICINITY MAP



LEASE NAME & WELL NO. SOUTHERN STAR 33-13N-7W 7MH

SECTION 4 TWP 12N RGE 7W MERIDIAN I.M.

COUNTY CANDIAN STATE OKLAHOMA

DESCRIPTION 287' FNL & 534' FWL

DISTANCE & DIRECTION
 FROM EL RENO, OK, GO ±2.0 MI. NORTH ON US-81 TO THE
 NORTHWEST CORNER OF SECTION 4-T12N-R7W.

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