

API NUMBER: 017 25687 A

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

Approval Date: 06/16/2021  
Expiration Date: 12/16/2022

Horizontal Hole Oil & Gas

Amend reason: CHANGE BHL

**AMEND 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: 287 514

Lease Name: SOUTHERN STAR 33-13N-7W Well No: 6MH 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: 718456

Increased Density Orders: 705964

715265

Pending CD Numbers: No Pending

Working interest owners' notified: \*\*\*

Special Orders: No Special

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: 21-37650

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: 5200
	County: CANADIAN			Measured Total Depth: 17000
Spot Location of End Point: NW	NW	NE	NW	True Vertical Depth: 9500
Feet From: <b>NORTH</b>	1/4 Section Line: 65			End Point Location from
Feet From: <b>WEST</b>	1/4 Section Line: 1643			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: <a href="http://OCCEWEB.COM/OG/OGFORMS.HTML">OCCEWEB.COM/OG/OGFORMS.HTML</a>; 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 <a href="http://FRACFOCUS.ORG">FRACFOCUS.ORG</a></p>
INCREASED DENSITY - 705964	<p>[6/15/2021 - GC2] - 33-13N-7W X141058 MSSP 5 WELLS PALOMA OPERATING CO, INC 12-5-2019</p>
INCREASED DENSITY - 715265	[6/15/2021 - GC2] - EXT OF TIME FOR ORDER 705964 UNTIL 12-5-2021
LOCATION EXCEPTION - 718456	<p>[6/15/2021 - 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' FWL PALOMA OPERATING COMPANY 5-20-2021</p>
MEMO	[6/14/2021 - GC2] - CLOSED SYSTEM=STEEL PITS (REQUIRED - NORTH CANADIAN RIVER), OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT
PUBLIC WATER SUPPLY	[6/14/2021 - GC2] - EL RENO - 19 WELLS W/2 33-13N-7W
SPACING - 141058	<p>[6/15/2021 - GC2] - (640) 33-13N-7W EXT OTHERS EXT 124533 MSSP</p>
SURFACE CASING	[6/14/2021 - GC2] - NO DEEP SURFACE CASING DUE TO BEING INSIDE PUBLIC WATER SUPPLY BOUNDARY

Q:\SURVEY\PALOMA OPERATING COMPANY INC\SOUTHERN STAR\FINAL PRODUCTS\SPAD.DWG Q:\SOUTHERN STAR 33-13N-7W 6MH REV3 DWG 9/21/2021 8:20:28 AM tyler rogers



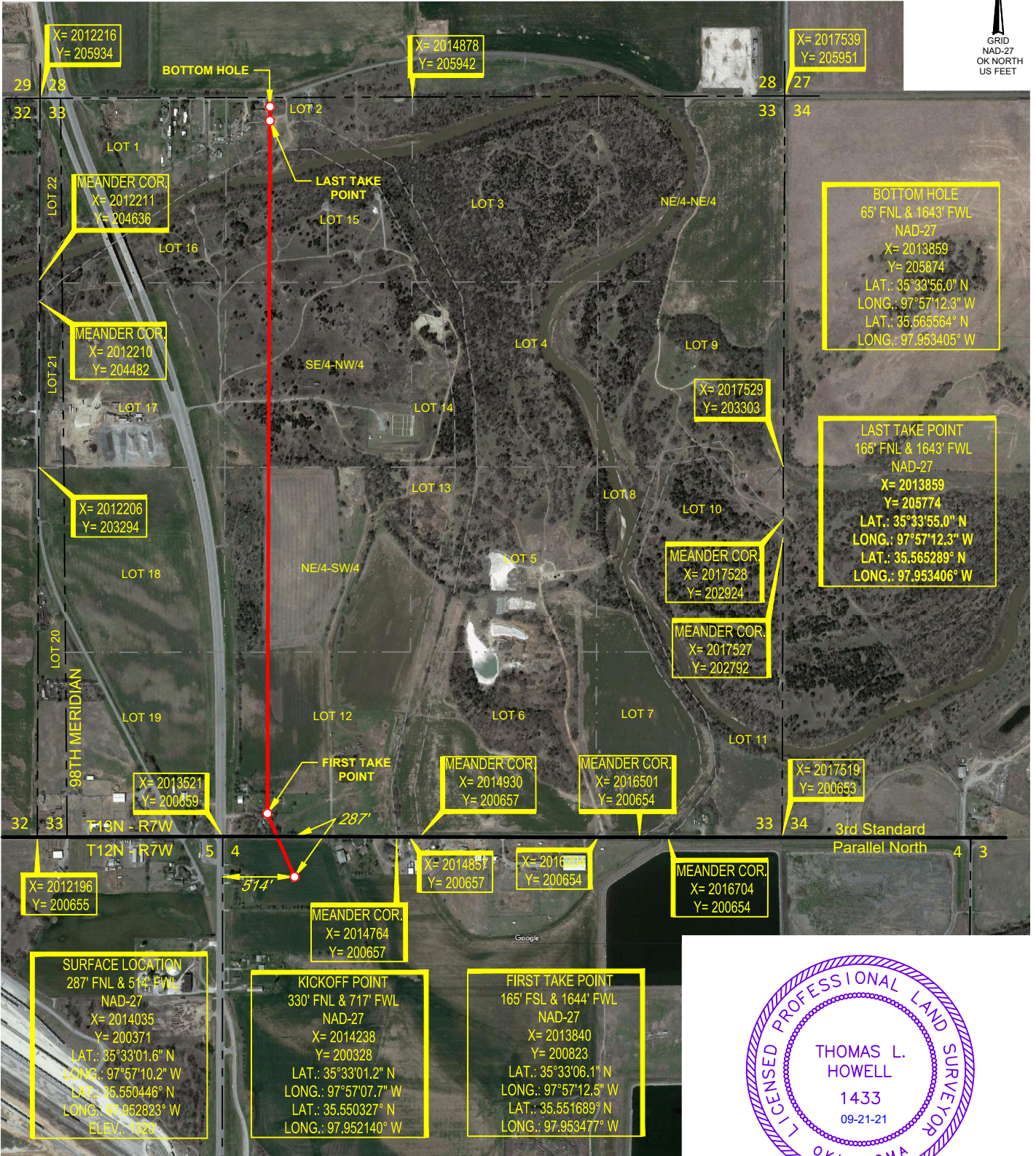
LEGEND

SECTION LINE  
TOWNSHIP LINE  
16TH LINE  
PROPOSED WELL BORE

WELL LOCATION

SOUTHERN STAR 33-13N-7W 6MH  
PALOMA OPERATING COMPANY, INC.  
SECTION 4, TOWNSHIP 12N, RANGE 7W, I.M.  
CANDIAN COUNTY, OKLAHOMA

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



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



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 6MH  
SECTION 4 TWP 12N RGE 7W MERIDIAN I.M.  
COUNTY CANDIAN STATE OKLAHOMA  
DESCRIPTION 287' FNL & 514' FWL

SOUTHERN STAR  
33-13N-7W 6MH

REVISION:

INT	DATE
JS	07/01/2021
KEU	09/20/2021

DATE: 02/11/2021  
FILE:LO\_SOUTHERN\_STAR\_33-13N-7W\_6MH\_REV3

DRAWN BY: KEU

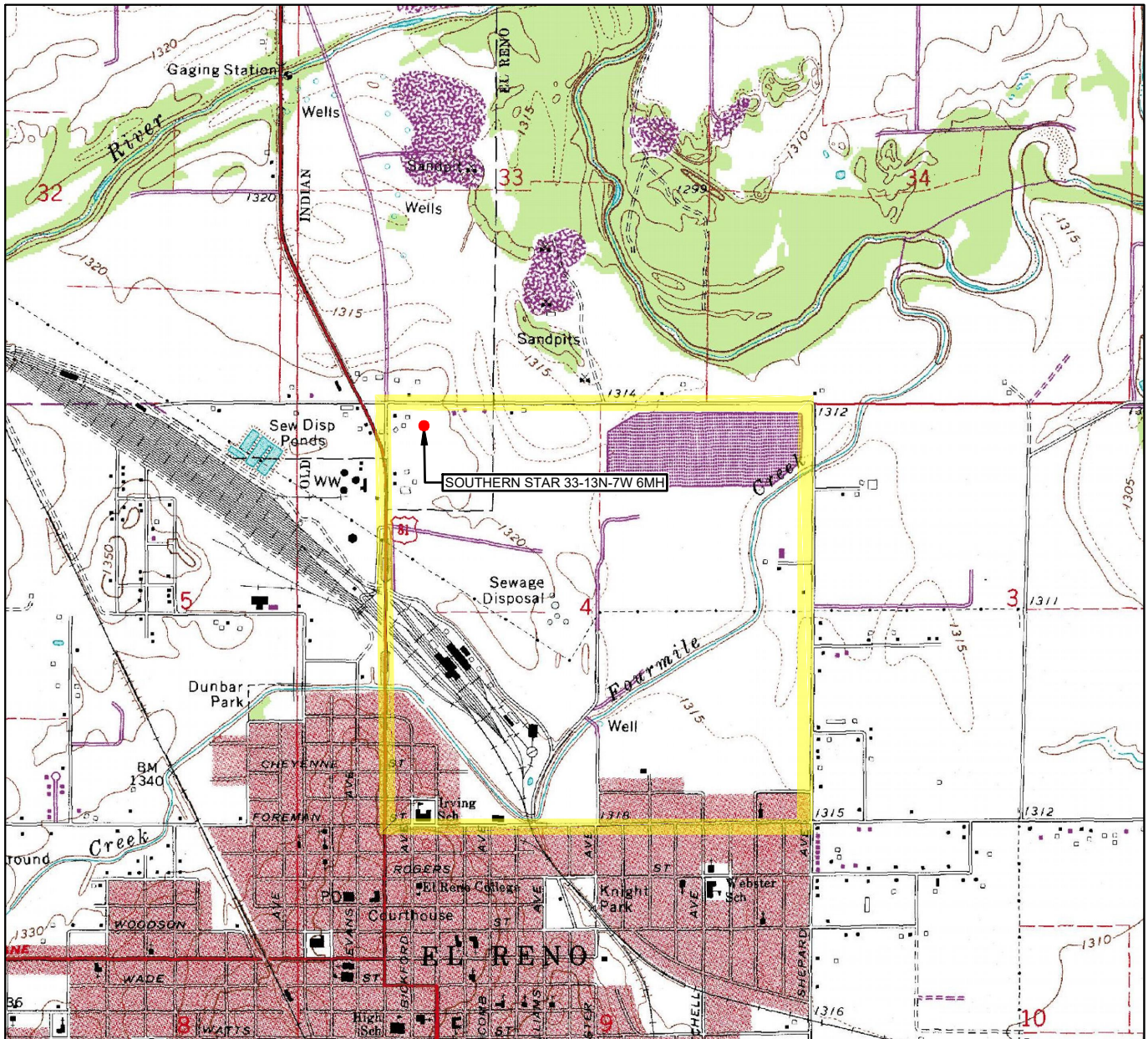
SHEET : 2 OF 2

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



# LOCATION & ELEVATION VERIFICATION MAP



LEASE NAME & WELL NO. SOUTHERN STAR 33-13N-7W 6MH

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

COUNTY CANDIAN STATE OKLAHOMA

DESCRIPTION 287' FNL & 514' FWL

ELEVATION 1320'



SCALE: 1" = 2000'  
0' 1000' 2000'

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.

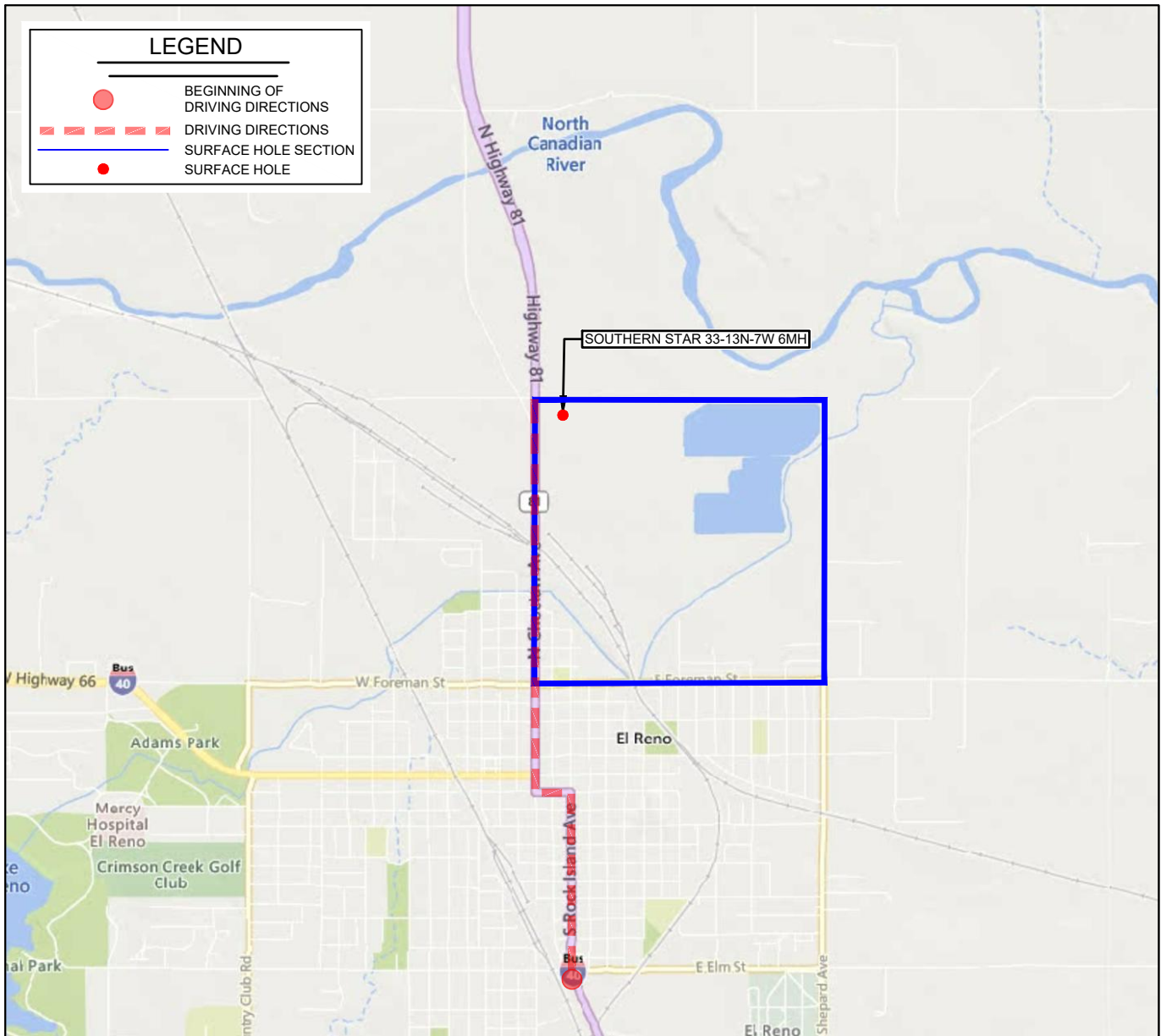
ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE OKLAHOMA STATE PLANE COORDINATE SYSTEM, NORTH ZONE OF THE NORTH AMERICAN DATUM 1927, U.S. SURVEY FEET AND THE NATIONAL GEODETIC VERTICAL DATUM OF 1929.



**TOPOGRAPHIC**  
LOYALTY INNOVATION LEGACY

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

# VICINITY MAP



LEASE NAME & WELL NO. SOUTHERN STAR 33-13N-7W 6MH

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

COUNTY CANDIAN STATE OKLAHOMA

DESCRIPTION 287' FNL & 514' FWL

DISTANCE & DIRECTION

FROM EL RENO, OK, GO  $\pm 2.0$  MI. NORTH ON US-81 TO THE  
NORTHWEST CORNER OF SECTION 4-T12N-R7W.

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.

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SCALE: 1" = 3000'  
0' 1500' 3000'



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