API NUMBER: 085 21324 A

Multi Unit Oil & Gas

Amend reason: OCC CORRECTION - UPDATE WELL NAME

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

Approval Date: 04/21/2021
Expiration Date: 10/21/2022

AMEND PERMIT TO DRILL

WELL LOCATION: Section: 06 Township: 8S Range: 3E County: LOVE

SPOT LOCATION: NE NW SW SW FEET FROM QUARTER: FROM **SOUTH** FROM **WEST**

SECTION LINES: **993** **407**

Lease Name: **THE JUDGE** **Well No:** **1-6H7X18** **Well will be** **407** **feet from nearest unit or lease boundary.**

Operator Name: **TRAILHEAD EXPLORATION LLC** Telephone: 8173306172 OTC/OCC Number: 24401 0

TRAILHEAD EXPLORATION LLC
505 MAIN ST STE 340
FORT WORTH, TX 76102-5417

MASC LLC
9515 LOVES VALLEY ROAD
MARIETTA OK 73448

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

	Name	Code	Depth
1	MISSISSIPPIAN	359MSSP	15675
2	WOODFORD	319WDFD	17975
3	SYLVAN	203SLVN	18175

Spacing Orders: 716038
716037
716353

Location Exception Orders: No Exceptions

Increased Density Orders: No Density Orders

Pending CD Numbers: 202100355
202100356

Working interest owners' notified: ***

Special Orders: No Special Orders

Total Depth: 26750 Ground Elevation: 703 **Surface Casing: 3600** Depth to base of Treatable Water-Bearing FM: 670

Deep surface casing has been approved

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

Approved Method for disposal of Drilling Fluids:

D. One time land application -- (REQUIRES PERMIT)	PERMIT NO: 21-37687
H. (Other)	CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST

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** located in a Hydrologically Sensitive Area.

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

MULTI UNIT HOLE 1

Section: 18 Township: 8S Range: 3E Meridian: IM
County: LOVE
Spot Location of End Point: SE SW SW NW
Feet From: **NORTH** 1/4 Section Line: 2500
Feet From: **WEST** 1/4 Section Line: 500

Total Length: 8600
Measured Total Depth: 26750
True Vertical Depth: 20000
End Point Location from Lease,Unit, or Property Line: 500

NOTES:

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.

Category	Description
DEEP SURFACE CASING	[4/16/2021 - GC2] - APPROVED; (1) NOTIFYING OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING (2) 2-STAGE CEMENTING TOOL TO BE SET AT 330'*** BELOW BTW ***OKAY PER BOB MCCOY AND VIRGINIA HULLINGER
HYDRAULIC FRACTURING	[4/16/2021 - GC2] - OCC 165:10-3-10 REQUIRES: 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; 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, 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
PENDING CD - 202100355	[4/20/2021 - GC2] - (I.O.) 6, 7, & 18-8S-3E EST MULTIUNIT HORIZONTAL WELL X716038 MSSP, WDFD, SLVN 6-8S-3E X716037 MSSP, WDFD, SLVN 7-8S-3E X716353 MSSP, WDFD, 18-8S-3E (SLVN AND MSSP ADJACENT COMMON SOURCE OF SUPPLIES TO WDFD) 9% 6-8S-3E 61% 7-8S-3E 30% 18-8S-3E NO OP. NAMED REC. 4-5-2021 (THOMAS)
PENDING CD - 202100356	[4/20/2021 - GC2] - (I.O.) 6, 7, & 18-8S-3E X716038 MSSP, WDFD, SLVN 6-8S-3E X716037 MSSP, WDFD, SLVN 7-8S-3E X716353 MSSP, WDFD, 18-8S-3E COMPL. INT. (6-8S-3E) NCT 2640' FNL, NCT 0' FSL, NCT 330' FWL COMPL. INT. (7-8S-3E) NCT 0' FNL, NCT 0' FSL, NCT 330' FWL COMPL. INT. (18-8S-3E) NCT 0' FNL, NCT 2640' FSL, NCT 330' FWL NO OP. NAMED REC. 4-5-2021 (THOMAS)
SPACING - 716037	[4/20/2021 - GC2] - (640)(HOR) 7-8S-3E VAC 230504 MSCST, WDFDP, OSGDP EXT 711600 MSSP, WDFD EST SLVN COMPL. INT. (MSSP) NCT 660' FB COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL COMPL. INT. (SLVN) NCT 330' FB
SPACING - 716038	[4/20/2021 - GC2] - (640)(HOR) 6-8S-3E VAC 230504 MSCST, WDFDP, OSGDP EXT 711600 MSSP, WDFD EST SLVN COMPL. INT. (MSSP) NCT 660' FB COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL COMPL. INT. (SLVN) NCT 330' FB
SPACING - 716353	[4/20/2021 - GC2] - (640)(HOR) 18-8S-3E VAC 230504 MSCST, WDFDP, OSGDP EXT 711600 MSSP, WDFD COMPL. INT. (MSSP) NCT 660' FB COMPL. INT. (WDFD) NCT 165' FNL/FSL, NCT 330' FEL/FWL

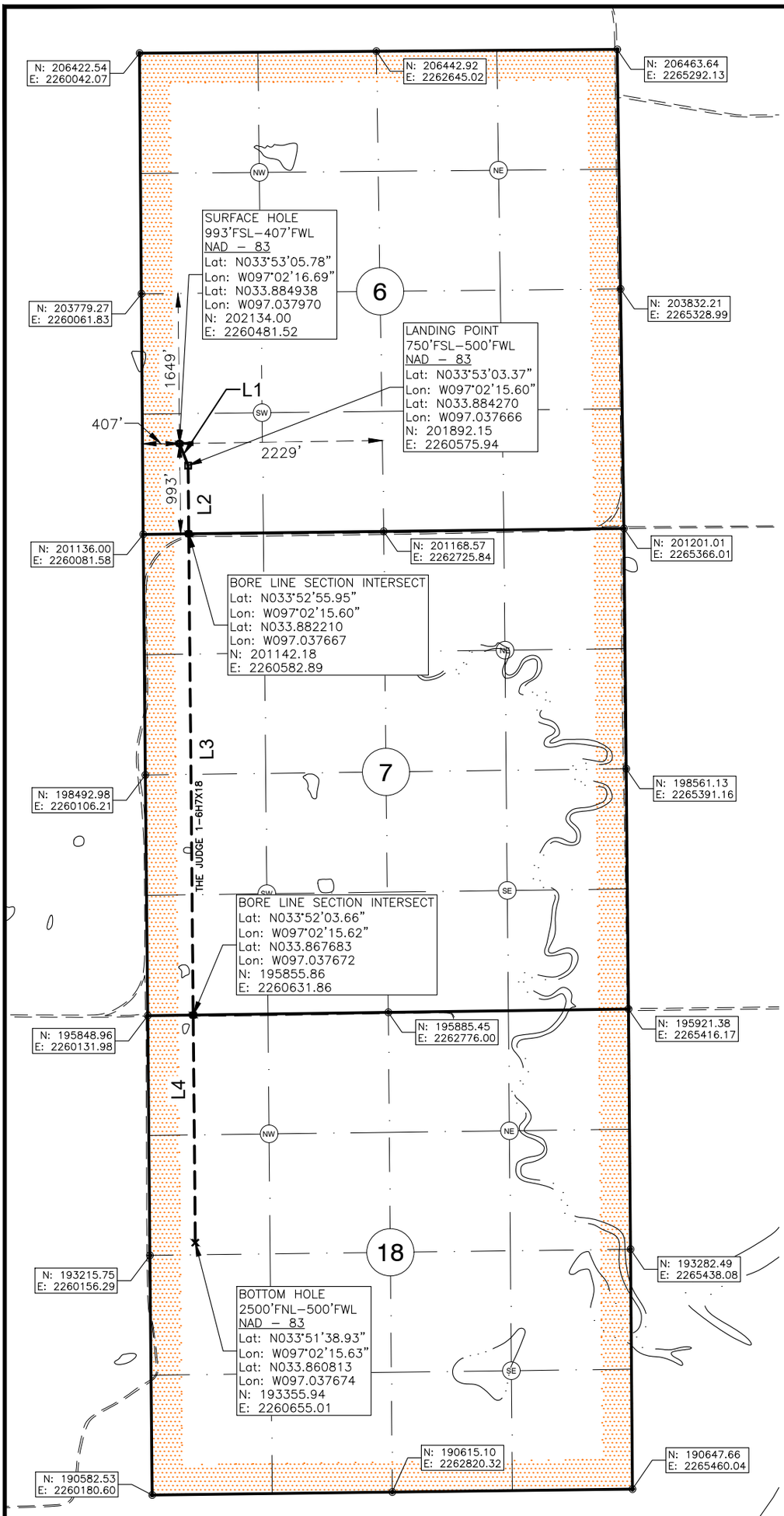
This permit does not address the right of entry or settlement of surface damages. The duration of this permit is 18 MONTHS, except as otherwise provided by Rule 165: 10-3-1. Rule 165: 10-3-4 (c) (7) (e) - The Operator shall give 24 Hours notice by telephone to the appropriate District Office of the Conservation Division as to when Surface Casing will be run.

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA

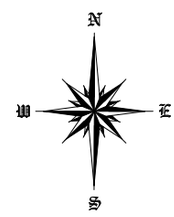
API:085-21324A

OPERATOR:
TRAILHEAD EXPLORATION

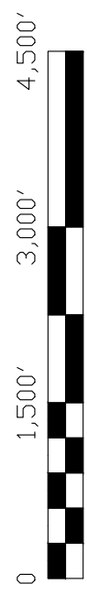


LEGEND:

- EXISTING WELL HEAD/PRODUCTION WELL
- PROPOSED SURFACE HOLE (PSHL)
- SECTION CORNER
- PROPOSED LANDING POINT (LP)
- PROPOSED DIVERSION POINT
- PROPOSED BOTTOM HOLE (PBHL)
- BORE LINE SECTION LINE INTERSECT
- EXISTING WELL BORE
- PROPOSED WELL BORE
- SUBJECT WELL BORE
- DRILLING UNIT



Line Table		
Line #	Azimuth	Length
L1	158.673130	259.63
L2	179.469283	750.00
L3	179.469283	5286.55
L4	179.469283	2500.03



NOTES:
1. This survey does not represent a boundary survey. It is for Geographical Information Systems (GIS) purposes only as instructed by the client and is not to be relied upon for the establishment of fences, buildings or other further improvement lines. Positions were taken with Survey Grade RTK GPS and NGS OPUS processed control using the NAD83 Oklahoma South State Plane Coordinate System.

2. Bottom hole information provided by operator listed, not surveyed and corner coordinates are taken from points surveyed in field.

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

I, Chad Fox, a duly registered Professional Land Surveyor in the State of OKLAHOMA, do hereby certify that the drawing shown hereon was completed and represents a good and accurate survey made upon the ground by me or under my direct supervision.

LICENSED PROFESSIONAL LAND SURVEYOR
CHAD FOX
1758
OKLAHOMA

CHAD FOX P.L.S. NO. 1758
EX. DATE: 31JAN22 C.O.A. NO. 6186

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

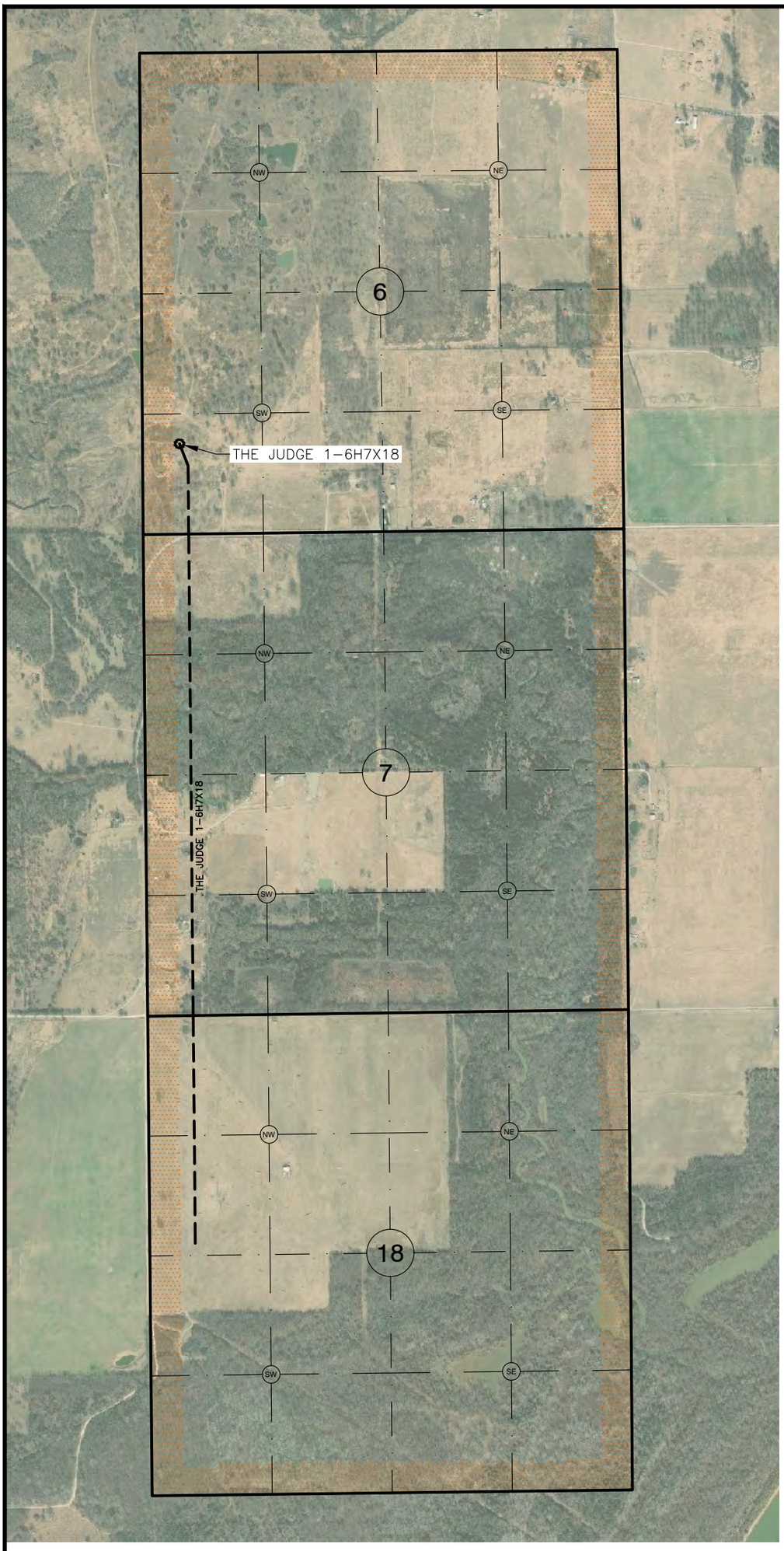
JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: 1" = 1,500'	Sht 1

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA

OPERATOR:

TRAILHEAD EXPLORATION



LEGEND:

- EXISTING WELL HEAD/PRODUCTION WELL
- PROPOSED SURFACE HOLE (PSHL)
- SECTION CORNER
- PROPOSED LANDING POINT (LP)
- PROPOSED DIVERSION POINT
- PROPOSED BOTTOM HOLE (PBHL)
- BORE LINE SECTION LINE INTERSECT
- EXISTING WELL BORE
- PROPOSED WELL BORE
- SUBJECT WELL BORE
- DRILLING UNIT

N
W E
S

0 1,500′ 3,000′ 4,500′

NOTES:
1. This survey does not represent a boundary survey. It is for Geographical Information Systems (GIS) purposes only as instructed by the client and is not to be relied upon for the establishment of fences, buildings or other further improvement lines. Positions were taken with Survey Grade RTK GPS and NGS OPUS processed control using the NAD83 Oklahoma South State Plane Coordinate System.

2. Bottom hole information provided by operator listed, not surveyed and corner coordinates are taken from points surveyed in field.

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

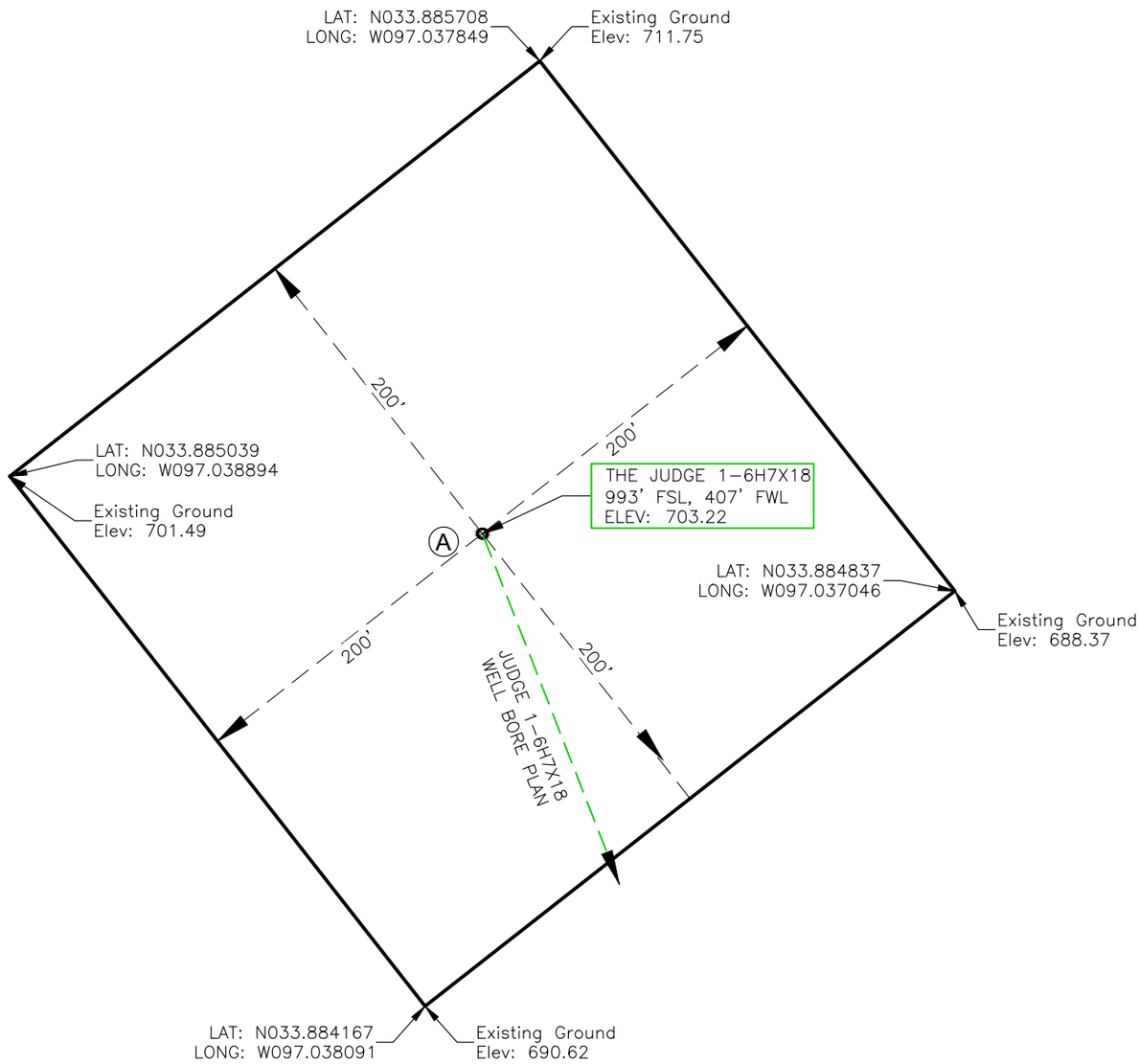
JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: 1" = 1,500'	Sht 2

OPERATOR:

TRAILHEAD EXPLORATION

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA



SLOT

(A) THE JUDGE 1-6H7X18, 993' FSL, 407' FWL, ELEV: 703.22

LEGEND:

- PROPOSED SURFACE HOLE (PSHL)
- PROPOSED LANDING POINT (LP)
- PROPOSED BOTTOM HOLE (PBHL)

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

0 100' 200' 300'

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

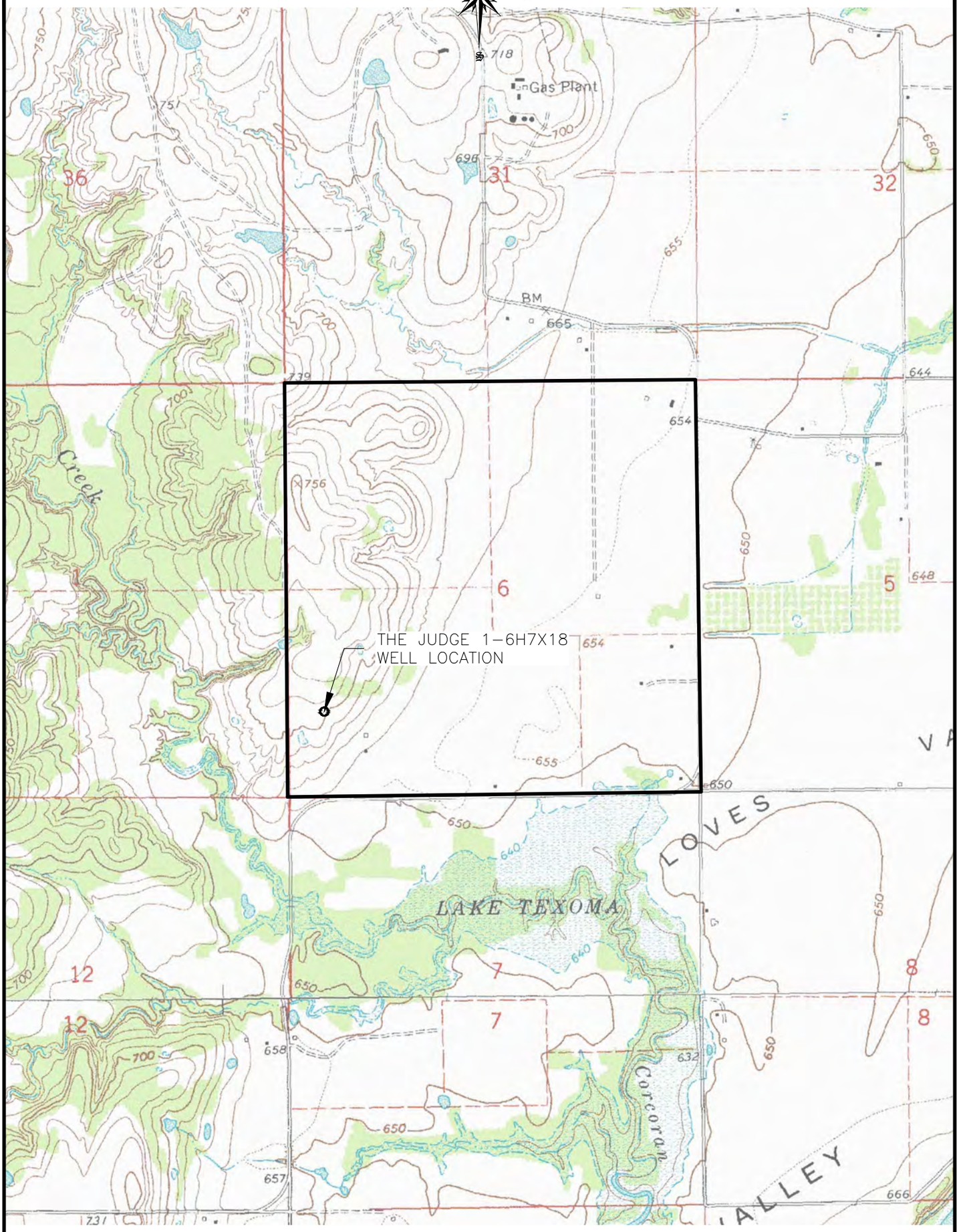
JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: 1" = 100'	Sht 3

OPERATOR:

TRAILHEAD EXPLORATION

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA



Location and Elevation Verification

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

0 1,500' 3,000' 4,500'

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

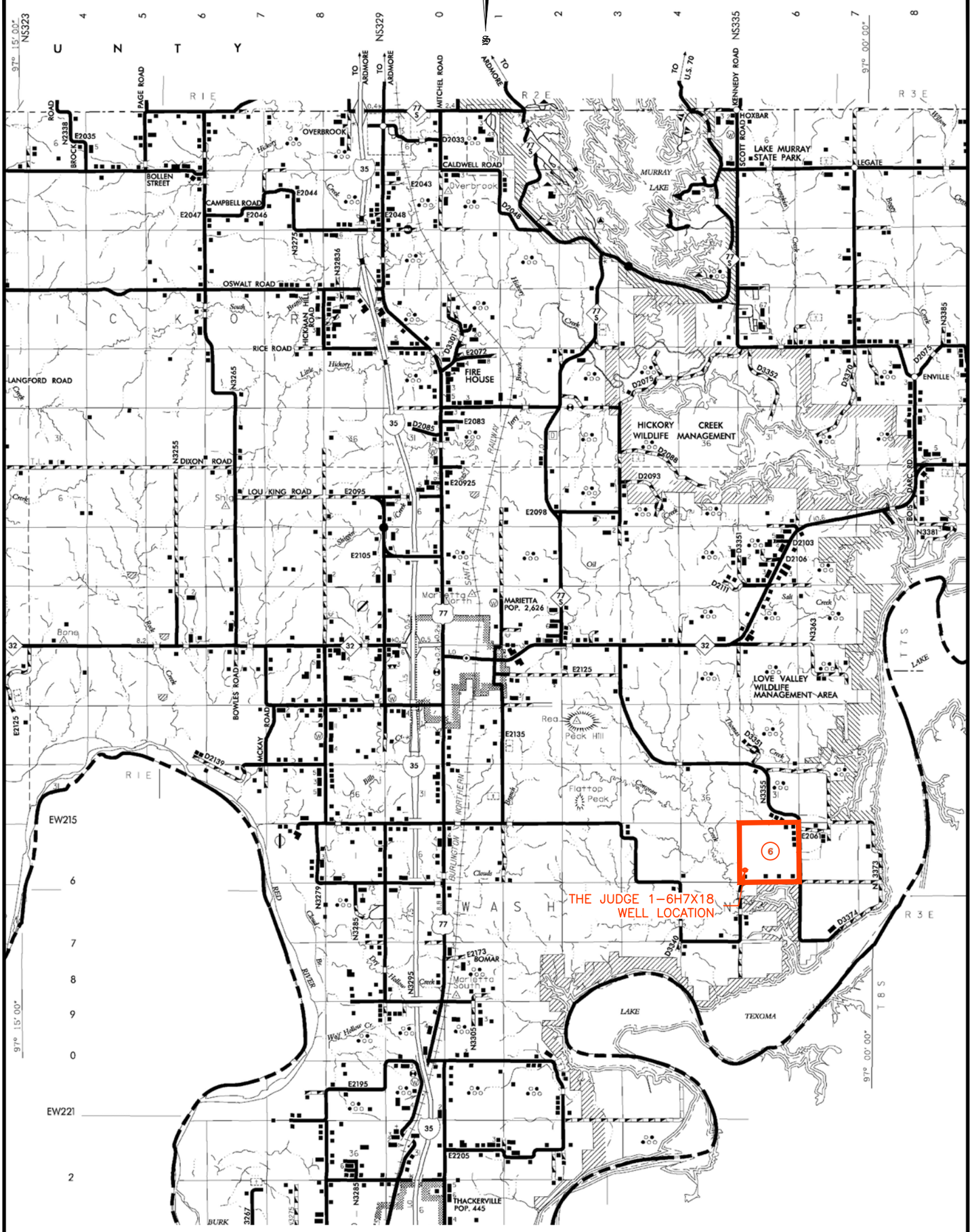
JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: 1" = 1,500'	Sht 4

OPERATOR:

TRAILHEAD EXPLORATION

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA



VICINITY MAP

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

0 2 miles 4 miles 6 miles

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

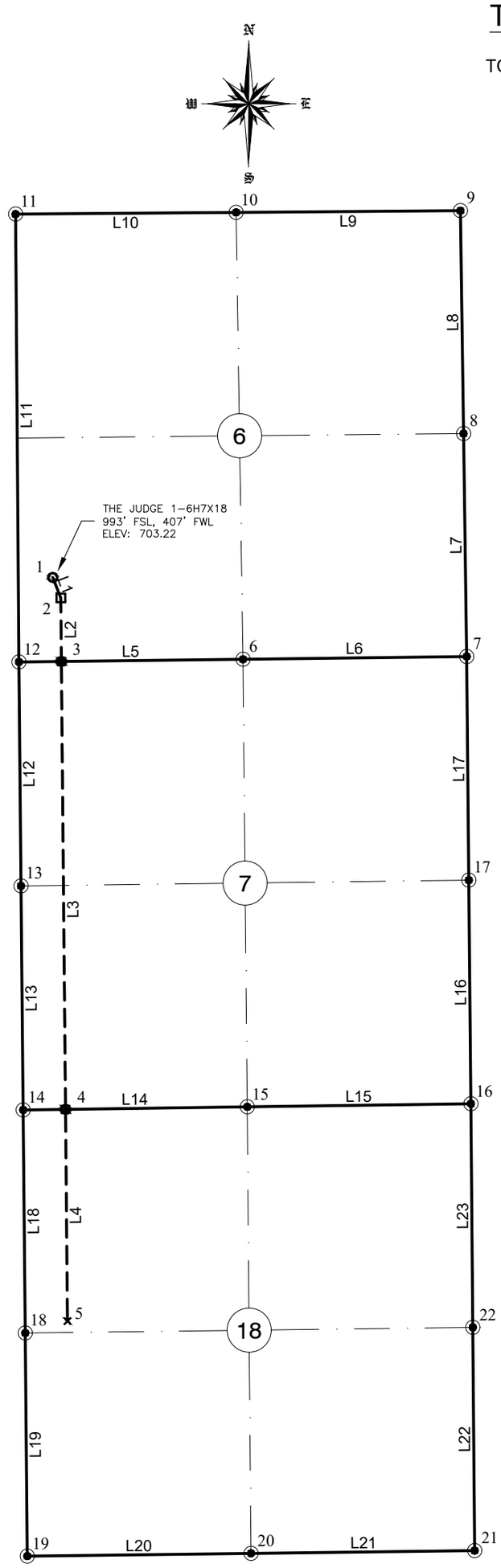
JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: 1" = 2miles	Sht 5

OPERATOR:

TRAILHEAD EXPLORATION

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA



NAD-27
Not to Scale

LEGEND:

- PROPOSED SURFACE HOLE (PSHL)
- PROPOSED LANDING POINT (LP)
- PROPOSED DIVERSION POINT
- PROPOSED BOTTOM HOLE (PBHL)
- BORE LINE SECTION INTERSECT

SPCS/GEODETIC MAP

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

This survey does not represent a boundary survey. It is for Geographical Information Systems (GIS) purposes only as instructed by the client and is not to be relied upon for the establishment of fences, buildings or other further improvement lines. Positions were taken with Survey Grade RTK GPS and NGS OPUS processed control using the NAD27 Oklahoma South State Plane Coordinate System.

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: N/A	Sht 6

OPERATOR:

TRAILHEAD EXPLORATION

THE JUDGE 1-6H7X18

SECTION 6
TOWNSHIP 8 SOUTH, RANGE 3 EAST
LOVE COUNTY, OKLAHOMA

Line Table		
Line #	Azimuth	Length
L1	158.673130	259.63
L2	179.469283	750.00
L3	179.469283	5286.55
L4	179.469283	2500.03
L5	089.294243	2644.46
L6	089.296125	2640.37
L7	359.193858	2631.46
L8	359.197607	2631.69
L9	269.551490	2647.20
L10	269.551561	2603.02
L11	179.571808	5286.69
L12	179.466128	2643.13
L13	179.441647	2644.15
L14	089.209249	2644.27
L15	089.220423	2640.42
L16	359.457089	2639.88
L17	359.454162	2640.00
L18	179.471013	2633.32
L19	179.471013	2633.32
L20	089.293238	2639.92
L21	089.293238	2639.92
L22	359.522436	2634.92
L23	359.524363	2638.97

Point Table

POINT	DESCRIPTION	NORTHING (NAD83)	EASTING (NAD83)	LATITUDE (NAD83)	LONGITUDE (NAD83)
1	THE JUDGE 1-6H7X18	202134.00 (usft)	2260481.52 (usft)	33.884938	-97.037970
2	LANDING POINT	201892.15 (usft)	2260575.94 (usft)	33.884270	-97.037666
3	BORE LINE SECTION INTERSECT	201142.18 (usft)	2260582.89 (usft)	33.882210	-97.037667
4	BORE LINE SECTION INTERSECT	195855.86 (usft)	2260631.86 (usft)	33.867683	-97.037672
5	BOTTOM HOLE	193355.94 (usft)	2260655.01 (usft)	33.860813	-97.037674
6	S/4 CORNER SEC 6	201168.57 (usft)	2262725.84 (usft)	33.882226	-97.030606
8	E/4 CORNER SEC 6	203832.21 (usft)	2265328.99 (usft)	33.889476	-97.021945
9	NE CORNER SEC 6	206463.64 (usft)	2265292.13 (usft)	33.896707	-97.021982
10	N/4 CORNER SEC 6	206442.92 (usft)	2262645.02 (usft)	33.896721	-97.030705
11	NW CORNER SEC 6	206422.54 (usft)	2260042.07 (usft)	33.896733	-97.039283
12	SW CORNER SEC 6	201136.00 (usft)	2260081.58 (usft)	33.882206	-97.039319
13	W/4 CORNER SEC 6	198492.98 (usft)	2260106.21 (usft)	33.874943	-97.039320
14	SW CORNER SEC 6	195848.96 (usft)	2260131.98 (usft)	33.867677	-97.039318
15	S/4 CORNER SEC 6	195885.45 (usft)	2262776.00 (usft)	33.867708	-97.030608
16	SE CORNER SEC 6	195921.38 (usft)	2265416.17 (usft)	33.867736	-97.021910
17	E/4 CORNER SEC 6	198561.13 (usft)	2265391.16 (usft)	33.874990	-97.021908
18	W/4 CORNER SEC 6	193215.75 (usft)	2260156.29 (usft)	33.860441	-97.039321
19	SW CORNER SEC 6	190582.53 (usft)	2260180.60 (usft)	33.853205	-97.039323
20	S/4 CORNER SEC 6	190615.10 (usft)	2262820.32 (usft)	33.853225	-97.030629
21	SE CORNER SEC 6	190647.66 (usft)	2265460.04 (usft)	33.853244	-97.021934
22	E/4 CORNER SEC 6	193282.49 (usft)	2265438.08 (usft)	33.860485	-97.021922

SPCS/GEODETIC TABLES

Surface Hole Location:	993' From South Line Section 6 407' From West Line Section 6
	Latitude: N33.884938° (NAD 83) Longitude: W97.037970° (NAD 83)
	Ground Elev: 703.22
Landing Point Location:	750' From South Line of Section 6 500' From West Line of Section 6
Bottom Hole Location:	2500' From North Line Section 18 500' From West Line Section 18
Drilling Unit:	Sec 6, 7 and 18, T8S, R3E

Operator: Trailhead Exploration

Best Accessibility to Location: From South

Distance & Direction from Hwy Jct or Town: From the intersection of Grove Rd and Loves Valley Rd, then West on Grove Rd 0.9mi to Access Rd. Well Location to the North.

CDF AND ASSOCIATES, LLC.
208 Dewey Ave. Poteau, OK 74953 (918) 649-3303
Certificate of Authorization No. 6186

JOB NO: TRAILHEAD/WP21/THEJUDGE1-6H7X18		DRAWN BY:	LD
DATE: 24/FEB/21	REV: C	SCALE: N/A	Sht 7