

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

API NUMBER: 051 24554

Approval Date: 01/18/2019

Expiration Date: 07/18/2020

Horizontal Hole
Multi Unit

Oil & Gas

PERMIT TO DRILL

WELL LOCATION: Sec: 17 Twp: 7N Rge: 6W

County: GRADY

SPOT LOCATION: ☐ SE ☐ SE ☐ SW ☐ SW

FEET FROM QUARTER: FROM SOUTH FROM WEST

SECTION LINES: 251 1234

Lease Name: WILKERSON

Well No: 2-17-20XHS

Well will be 251 feet from nearest unit or lease boundary.

Operator Name: CONTINENTAL RESOURCES INC

Telephone: 4052349020; 4052349

OTC/OCC Number: 3186 0

CONTINENTAL RESOURCES INC
PO BOX 268870
OKLAHOMA CITY, OK 73126-9000

PAUL & KAY BROWN
2185 COUNTRY STREET 2880
CHICKASHA OK 73018

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

Name	Depth	Name	Depth
1 SPRINGER	12445	6	
2		7	
3		8	
4		9	
5		10	

Spacing Orders: 136547
164772

Location Exception Orders:

Increased Density Orders: 688350

Pending CD Numbers: 201810717
201810716
201810866

Special Orders:

Total Depth: 18088

Ground Elevation: 1155

Surface Casing: 1500

Depth to base of Treatable Water-Bearing FM: 540

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

Chlorides Max: 3000 Average: 2000

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: CHICKASHA

D. One time land application -- (REQUIRES PERMIT)

PERMIT NO: 18-36050

H. SEE MEMO

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX 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.

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: CHICKASHA

HORIZONTAL HOLE 1

Sec 20 Twp 7N Rge 6W County GRADY

Spot Location of End Point: SE SE SW SW

Feet From: SOUTH 1/4 Section Line: 50

Feet From: WEST 1/4 Section Line: 1100

Depth of Deviation: 12360

Radius of Turn: 409

Direction: 181

Total Length: 5085

Measured Total Depth: 18088

True Vertical Depth: 12577

End Point Location from Lease,
Unit, or Property Line: 50

Notes:

Category

Description

DEEP SURFACE CASING

1/7/2019 - G71 - APPROVED; NOTIFY OCC FIELD INSPECTOR IMMEDIATELY OF ANY LOSS OF CIRCULATION OR FAILURE TO CIRCULATE CEMENT TO SURFACE ON ANY CONDUCTOR OR SURFACE CASING

HYDRAULIC FRACTURING

1/7/2019 - G71 - 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

INCREASED DENSITY - 688350

1/18/2019 - GA8 - 20-7N-6W
X136547 SPRG
5 WELLS
CONTINENTAL RESOURCES, INC.
12/14/2018

MEMO

1/7/2019 - G71 - PITS 1 & 2 - CLOSED SYSTEM=STEEL PITS PER OPERATOR REQUEST, PIT 2 - OBM RETURNED TO VENDOR, CUTTINGS PERMITTED PER DISTRICT

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX 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.

051 24554 WILKERSON 2-17-20XHS

Category	Description
PENDING CD - 201810716	1/18/2019 - GA8 - (I.O.) 17 & 20-7N-6W EST MULTUNIT HORIZONTAL WELL X164772 SPRG 17-7N-6W X136547 SPRG 20-7N-6W 6% 17-7N-6W 94% 20-7N-6W CONTINENTAL RESOURCES, INC. REC 1/14/2019 (NORRIS)
PENDING CD - 201810717	1/18/2019 - GA8 - (I.O.) 17 & 20-7N-6N X164772 SPRG 17-7N-6W X136547 SPRG 20-7N-6W X165:10-3-28(C)(2)(B) MAY BE CLOSER THAN 600' TO EXISTING/PROPOSED WELL COMPL. INT. (17-7N-6W) NCT 1320' FNL, NCT 0' FSL, NCT 660' FWL COMPL. INT. (20-7N-6W) NCT 0' FNL, NCT 150' FSL, NCT 660' FWL CONTINENTAL RESOURCES, INC. REC 1/14/2019 (NORRIS)
PENDING CD - 201810866	1/18/2019 - GA8 - 17-7N-6W X164772 SPRG 2 WELLS CONTINENTAL RESOURCES, INC. HEARING 1/22/2019
SPACING - 136547	1/18/2019 - GA8 - (640) 20-7N-6W EST OTHER EXT 107496 SPRG, OTHERS
SPACING - 164772	1/18/2019 - GA8 - (640) 17-7N-6W EST OTHERS EXT OTHERS EXT 136547 SPRG, OTHERS

This permit does not address the right of entry or settlement of surface damages.

The duration of this permit is SIX 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.

EXHIBIT: A (1 of 2)
SHEET: 8.5x14
SHL: 17-7N-6W
BHL-2 20-7N-6W
-- --



35-051-24554

COVER SHEET

CONTINENTAL RESOURCES, INC.

P.O. BOX 26900 OKLAHOMA CITY, OK 73126 * (T) 1-800-256-8955 (F) 405-234-9253


Section 17 Township 7N Range 6W I.M. Well: WILKERSON 2-17-20XHS
County GRADY State OK Well: --
Operator CONTINENTAL RESOURCES, INC.

NAD-83							EXISTING ELEVATION	DESIGN ELEVATION
POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE			
W2	WILKERSON 2-17-20XHS	633419	2010300	35° 04' 25.53" -97° 51' 37.09"	35.073758 -97.860304	251' FSL / 1234' FWL (SW4 SEC 17)	1154.10'	1154.84'
LP-2	LANDING POINT	633419	2010166	35° 04' 25.53" -97° 51' 38.71"	35.073759 -97.860752	251' FSL / 1100' FWL (SW/4 SEC 17)	--	--
BHL-2	BOTTOM HOLE LOCATION	627940	2010173	35° 03' 31.34" -97° 51' 38.72"	35.058705 -97.860756	50' FSL / 1100' FWL (SW/4 SEC 20)	--	--
X-1	BALLARD #17-1	637136	2013017	35° 05' 02.26" -97° 51' 04.35"	35.083960 -97.851208	17-7N-6W TD: 15,070' 1,321' FNL / 1,321' FEL	--	--
X-2	BALLARD #1-17H	633378	2013611	35° 04' 25.07" -97° 50' 57.27"	35.073631 -97.849242	17-7N-6W TD: 18,460' 200' FSL / 740' FEL	--	--
X-3	SCHOOOF #1-17H	633424	2014000	35° 04' 25.52" -97° 50' 52.58"	35.073756 -97.847939	17-7N-6W TD: 17,265' 245' FSL / 350' FEL	--	--
X-4	STEELMAN #4-18-7XHS	633397	2009355	35° 04' 25.32" -97° 51' 48.46"	35.073700 -97.863462	17-7N-6W TD: 22,773' 231' FSL / 289' FWL	--	--
X-5	BAILEY "B" #1	629711	2012539	35° 03' 48.82" -97° 51' 10.22"	35.063562 -97.852840	20-7N-6W TD: 12,750' 1,815' FSL / 1,819' FEL	--	--
X-6	WILKERSON #1-20H	628099	2013701	35° 03' 32.86" -97° 50' 56.28"	35.059128 -97.848967	20-7N-6W TD: 17,591' 200' FSL / 660' FEL	--	--
X-7	SCHOOOF #2-17-8-5XHS	632447	2010052	35° 04' 15.91" -97° 51' 40.10"	35.071087 -97.861139	20-7N-6W TD: 25,879' 721' FNL / 984' FWL	--	--
X-8	SCHOOOF #3-17-8-5XHS	632892	2010973	35° 04' 20.31" -97° 51' 29.01"	35.072308 -97.858057	20-7N-6W TD: 25,538' 278' FNL / 1,906' FWL	--	--
X-9	SCHOOOF #4-17-8-5XHS	632825	2012665	35° 04' 19.62" -97° 51' 08.66"	35.072116 -97.852405	20-7N-6W TD: 25,513' 350' FNL / 1,687' FEL	--	--

NAD-27							EXISTING ELEVATION	DESIGN ELEVATION
POINT	WELL NAME	NORTHING	EASTING	LATITUDE LONGITUDE	LATITUDE LONGITUDE			
W2	WILKERSON 2-17-20XHS	633377	2041897	35° 04' 25.29" -97° 51' 35.94"	35.073693 -97.859984	251' FSL / 1234' FWL (SW4 SEC 17)	1154.10'	1154.84'
LP-2	LANDING POINT	633377	2041763	35° 04' 25.30" -97° 51' 37.55"	35.073693 -97.860432	251' FSL / 1100' FWL (SW/4 SEC 17)	--	--
BHL-2	BOTTOM HOLE LOCATION	627898	2041770	35° 03' 31.10" -97° 51' 37.57"	35.058639 -97.860436	50' FSL / 1100' FWL (SW/4 SEC 20)	--	--
X-1	BALLARD #17-1	637095	2044613	35° 05' 02.02" -97° 51' 03.20"	35.083895 -97.850888	17-7N-6W TD: 15,070' 1,321' FNL / 1,321' FEL	--	--
X-2	BALLARD #1-17H	633336	2045207	35° 04' 24.83" -97° 50' 56.12"	35.073565 -97.848922	17-7N-6W TD: 18,460' 200' FSL / 740' FEL	--	--
X-3	SCHOOOF #1-17H	633382	2045597	35° 04' 25.28" -97° 50' 51.43"	35.073690 -97.847619	17-7N-6W TD: 17,265' 245' FSL / 350' FEL	--	--
X-4	STEELMAN #4-18-7XHS	633355	2040952	35° 04' 25.08" -97° 51' 47.31"	35.073635 -97.863142	17-7N-6W TD: 22,773' 231' FSL / 289' FWL	--	--
X-5	BAILEY "B" #1	629669	2044136	35° 03' 48.59" -97° 51' 09.07"	35.063496 -97.852520	20-7N-6W TD: 12,750' 1,815' FSL / 1,819' FEL	--	--
X-6	WILKERSON #1-20H	628057	2045297	35° 03' 32.62" -97° 50' 55.13"	35.059062 -97.848647	20-7N-6W TD: 17,591' 200' FSL / 660' FEL	--	--
X-7	SCHOOOF #2-17-8-5XHS	632405	2041649	35° 04' 15.68" -97° 51' 38.95"	35.071022 -97.860819	20-7N-6W TD: 25,879' 721' FNL / 984' FWL	--	--
X-8	SCHOOOF #3-17-8-5XHS	632851	2042570	35° 04' 20.07" -97° 51' 27.85"	35.072242 -97.857737	20-7N-6W TD: 25,538' 278' FNL / 1,906' FWL	--	--
X-9	SCHOOOF #4-17-8-5XHS	632783	2044262	35° 04' 19.38" -97° 51' 07.51"	35.072051 -97.852085	20-7N-6W TD: 25,513' 350' FNL / 1,687' FEL	--	--

Certificate of Authorization No. 7318

Date Staked: 12-13-18
Date Drawn: 12-12-18

 Prepared By:
Petro Land Services South
10400 Vineyard Blvd.
Suite C
Oklahoma City, OK 73120

R E V I S I O N S				
No.	DATE	BY	DESCRIPTION	COMMENTS
00	12-12-18	TJW	ISSUED FOR APPROVAL	--

Oklahoma PLS No.1196 DATE

EXHIBIT: B
SHEET: 8.5x11
SHL: 17-7N-6W
BHL-2 20-7N-6W

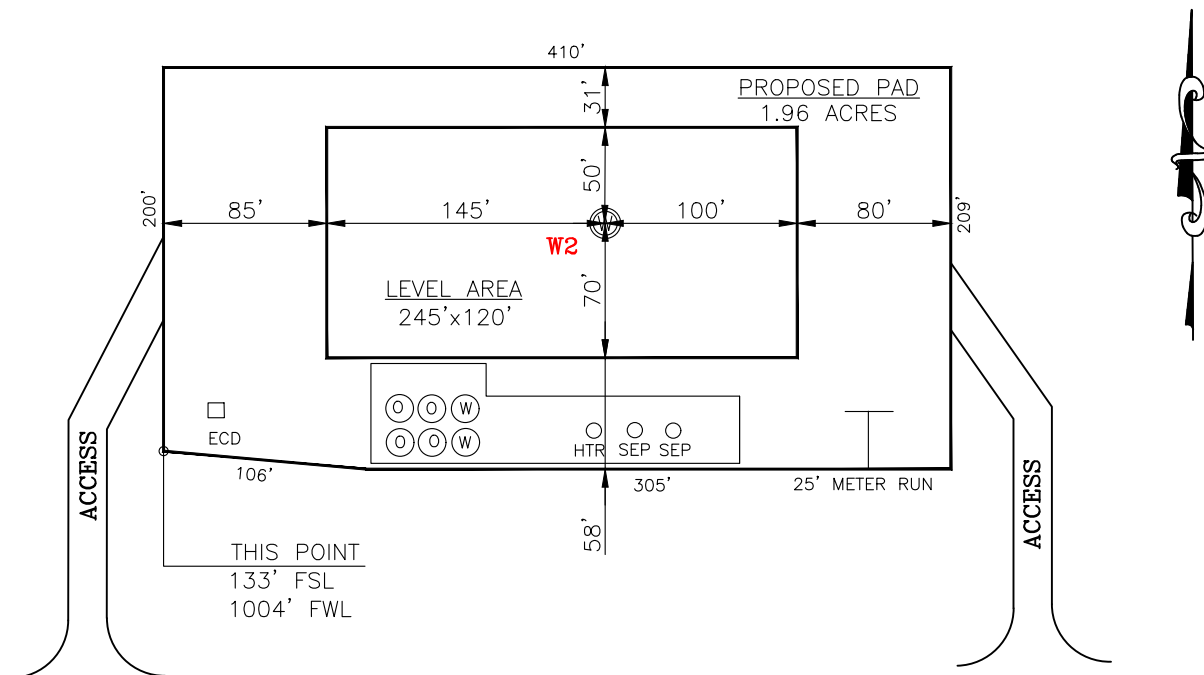
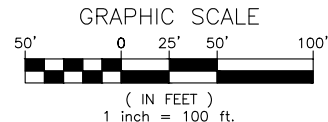
PETRO LAND SERVICES SOUTH, LLC

10400 VINEYARD BLVD. SUITE C, OKLA. CITY, OKLA. 73120 * OFFICE (405) 212-3108
Certificate of Authorization No. 7318



CONTINENTAL
RESOURCES, INC
(OPERATOR)

GRADY County Oklahoma
251' FSL-1234' FWL Section 17 Township 7N Range 6W I.M.



CURRENT REV.: 0

DATUM: NAD-83
LAT: 35°04'25.53"
LONG: -97°51'37.09"
LAT: 35.073758°
LONG: -97.860304°

STATE PLANE
COORDINATES
(US FEET): OK SOUTH

X: 2010300
Y: 633419

Operator: CONTINENTAL RESOURCES, INC.

Lease Name: --

Topography & Vegetation: Pasture

Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set: No

Best Accessibility to Location: From The South Line

Distance & Direction From Hwy. or Town: Leaving Chickasha, OK, head east on SH-9 for 3.0 miles & turn left on SH-92. Head north for 2.0 miles & turn right on E1340 Rd. Head east on E1340 Rd. for 1.17 miles to the proposed access on the north side of E1340 Rd.

THE INFORMATION SHOWN HEREIN IS FOR
CONSTRUCTION PURPOSES ONLY

LANDING POINT, BOTTOM HOLE AND DRILL PATH
INFORMATION PROVIDED BY OPERATOR LISTED,
NOT SURVEYED.

Well W2: WILKERSON 2-17-20XHS

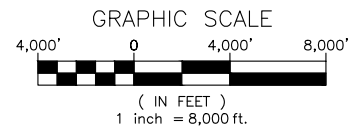
Well --: --

(This Information Was Gathered
With a GPS Receiver With ±1
Foot Horiz./Vert. Accuracy)

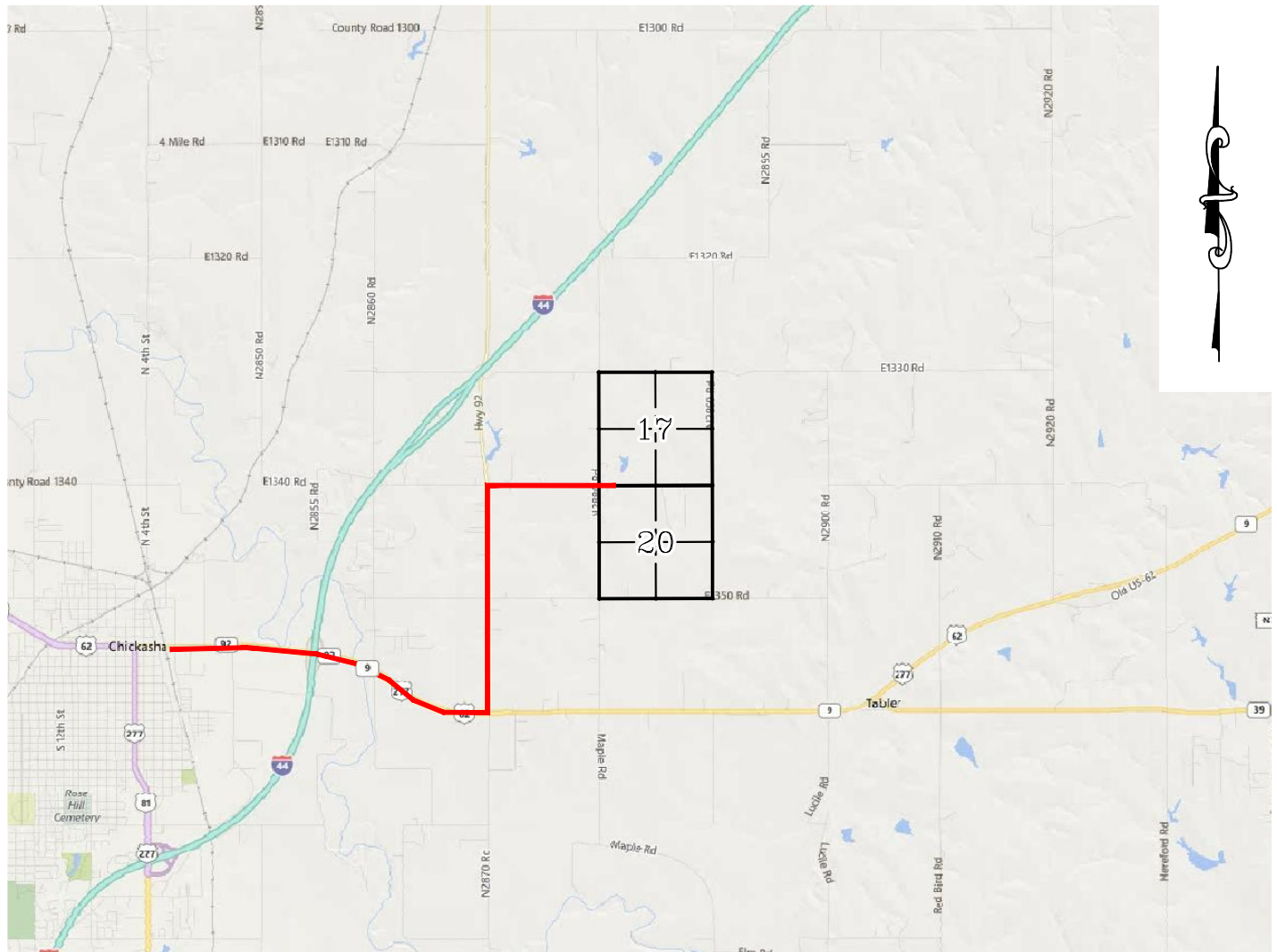
Certificate of Authorization No. 7318



Prepared By:
Petro Land Services South
10400 Vineyard Blvd.
Suite C
Oklahoma City, OK 73120



VICINITY MAP



LEAVING CHICKASHA, OK, HEAD EAST ON SH-9 FOR 3.0 MILES & TURN LEFT ON SH-92. HEAD NORTH FOR 2.0 MILES AND TURN RIGHT ON E1340 RD. HEAD EAST ON E1340 RD. FOR 1.17 MILES TO THE PROPOSED ACCESS ON THE NORTH SIDE OF E1340 RD.

CONTINENTAL RESOURCES, INC.

P.O. BOX 26900 OKLAHOMA CITY, OK 73126 * (T) 1-800-256-8955 (F) 405-234-9253

Certificate of Authorization No. 7318

Section 17 Township 7N Range 6W I.M. Well W2: WILKERSON 2-17-20XHS

County GRADY State OK Well --: --

Operator CONTINENTAL RESOURCES, INC.



Prepared By: Petro Land Services South
10400 Vineyard Blvd.
Suite C
Oklahoma City, OK 73120

CURRENT REV.: 0

EXHIBIT: D
 SHEET: 8.5x11
 SHL: 17-7N-6W
 BHL-2 20-7N-6W



WELL W2: WILKERSON 2-17-20XHS
 WELL --: --

FACING NORTH



FACING SOUTH



CURRENT REV.: 0



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120

TERRAIN

DRAWN BY:	TJW	SCALE:	N.T.S.
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	TERRAIN-1
DATE ISSUED:	12-12-18	SHEET:	1 OF 2

EXHIBIT: E
 SHEET: 8.5x11
 SHL: 17-7N-6W
 BHL-2 20-7N-6W



WELL W2: WILKERSON 2-17-20XHS
 WELL --: --

FACING EAST



FACING WEST



CURRENT REV.: 0



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120

TERRAIN

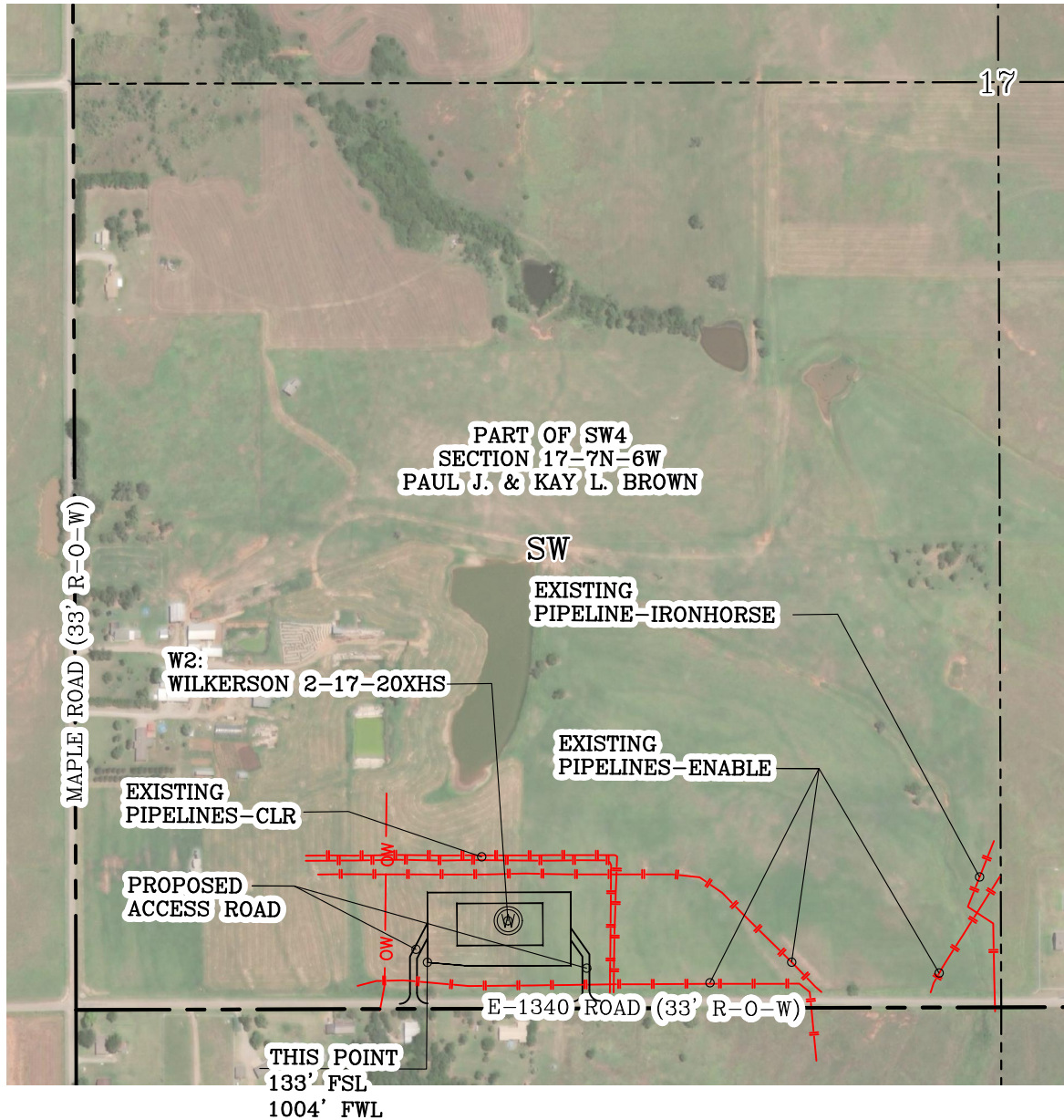
DRAWN BY:	TJW	SCALE:	N.T.S.
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	TERRAIN-2
DATE ISSUED:	12-12-18	SHEET:	2 OF 2

EXHIBIT: F
SHEET: 8.5x11
SHL: 17-7N-6W
BHL-2 20-7N-6W



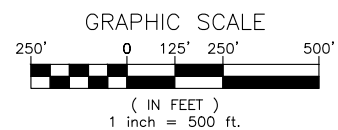
WELL W2: WILKERSON 2-17-20XHS
WELL --: --

PROPOSED ACCESS ROAD WEST = 225' | 13.64 RODS (TOTAL)
PROPOSED ACCESS ROAD EAST = 216' | 13.10 RODS (TOTAL)



GPS DATUM - OK SOUTH ZONE
US FEET SCALE: 1" = 500'

Section 17 Township 7N Range 6W I.M.
County GRADY State OK
Operator CONTINENTAL RESOURCES, INC.



CURRENT REV.: 0



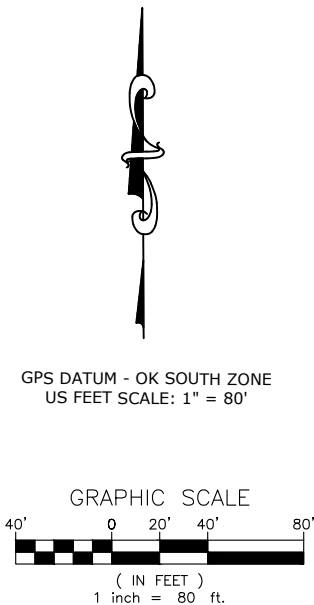
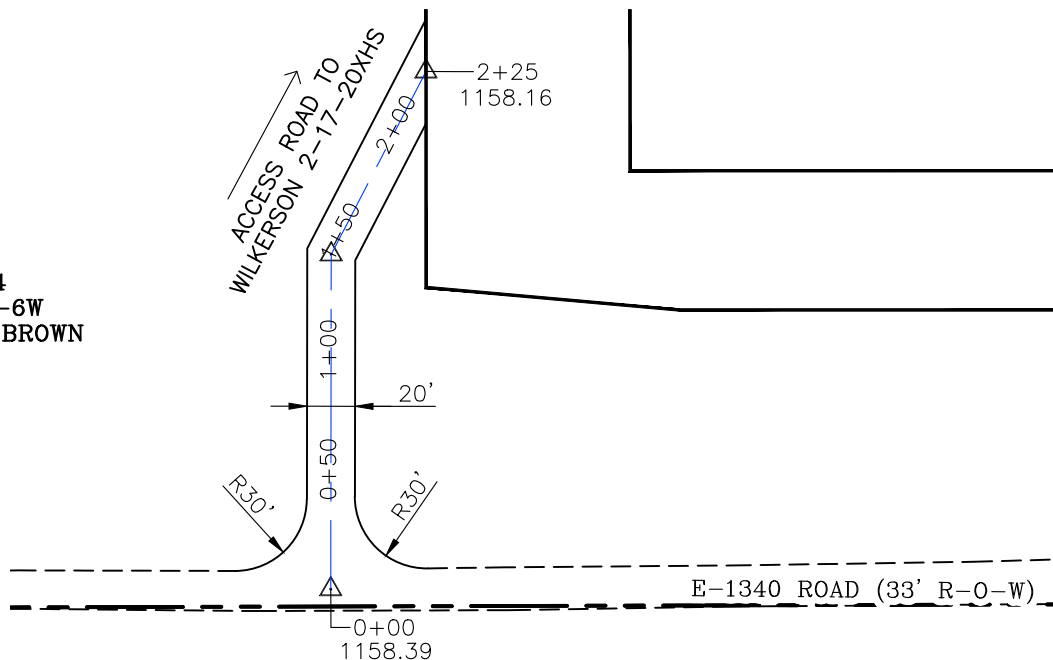
Prepared By:
Petro Land Services South
10400 Vineyard Blvd.
Suite C
Oklahoma City, OK 73120

AERIAL PLAT

DRAWN BY:	TJW	SCALE:	1" = 500'
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	AERIAL-1
DATE ISSUED:	12-12-18	SHEET:	1 OF 5

EXHIBIT: G
 SHEET: 8.5x11
 SHL: 17-7N-6W
 BHL-2 20-7N-6W

PART OF SW4
 SECTION 17-7N-6W
 PAUL J. & KAY L. BROWN

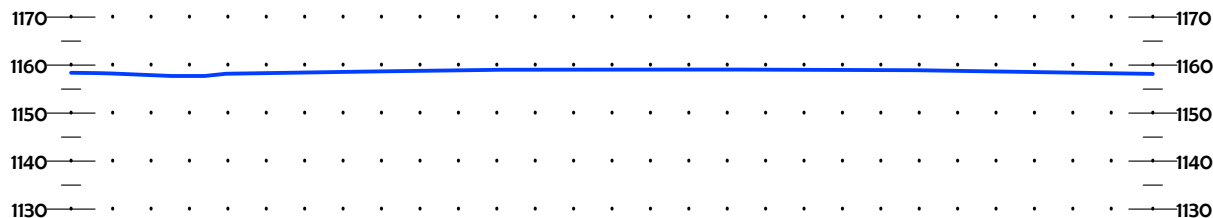
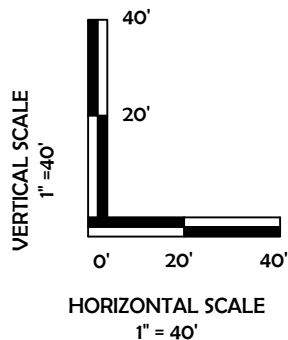


- * THIS PROPOSED LEASE ROAD PLAT DOES NOT REPRESENT A TRUE BOUNDARY SURVEY.
- * THE FOOTAGES AND TIES SHOWN HEREON ARE FROM LINES OF OCCUPATION AND MAY NOT BE FROM ACTUAL PROPERTY CORNERS.

Well W2: WILKERSON 2-17-20XHS

Well --: ---

PROPOSED ACCESS ROAD = 225' | 13.64 RODS (TOTAL)



CURRENT REV.: 0



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120



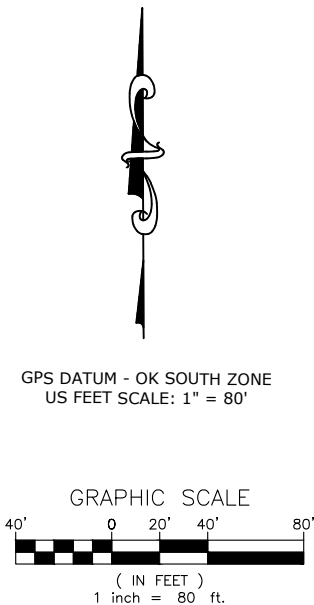
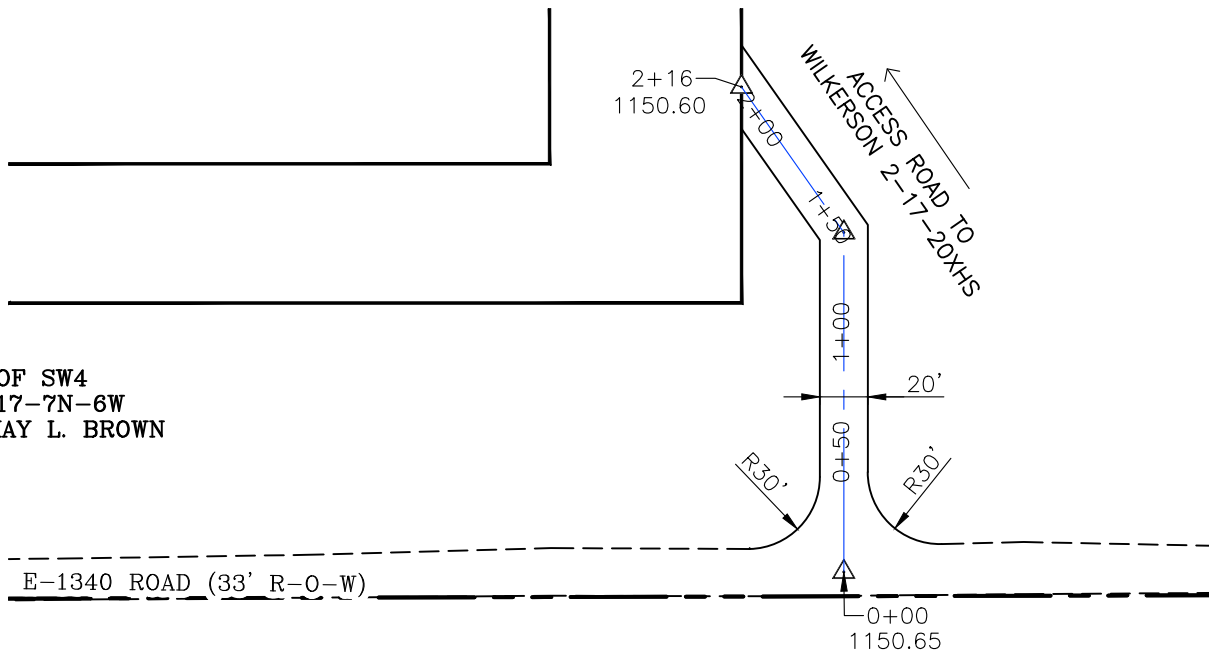
P.O. Box 26900
 Oklahoma City
 Oklahoma, 73126
 (T) 1-800-256-8955
 (F) 405-234-9253

LEASE ROAD PLAN & PROFILE

DRAWN BY:	TJW	SCALE:	AS NOTED
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	P&P
DATE ISSUED:	12-12-18	SHEET:	2 OF 5

EXHIBIT: H
 SHEET: 8.5x11
 SHL: 17-7N-6W
 BHL-2 20-7N-6W

PART OF SW4
 SECTION 17-7N-6W
 PAUL J. & KAY L. BROWN

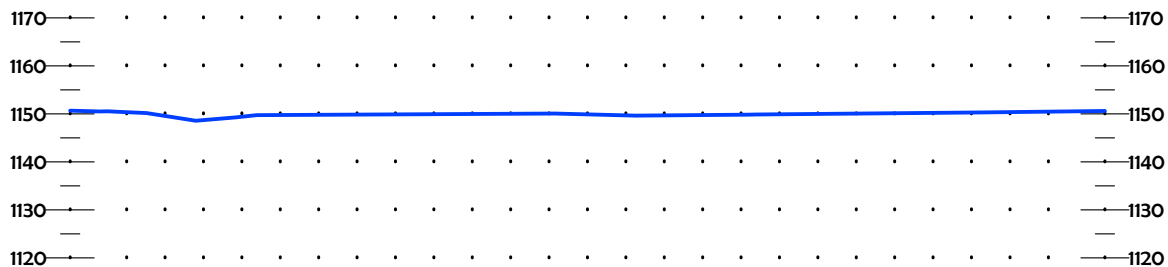
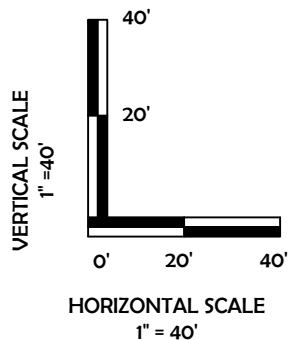


- * THIS PROPOSED LEASE ROAD PLAT DOES NOT REPRESENT A TRUE BOUNDARY SURVEY.
- * THE FOOTAGES AND TIES SHOWN HEREON ARE FROM LINES OF OCCUPATION AND MAY NOT BE FROM ACTUAL PROPERTY CORNERS.

Well W2: WILKERSON 2-17-20XHS

Well --: ---

PROPOSED ACCESS ROAD = 216' | 13.10 RODS (TOTAL)



CURRENT REV.: 0



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120



P.O. Box 26900
 Oklahoma City
 Oklahoma, 73126
 (T) 1-800-256-8955
 (F) 405-234-9253

LEASE ROAD PLAN & PROFILE

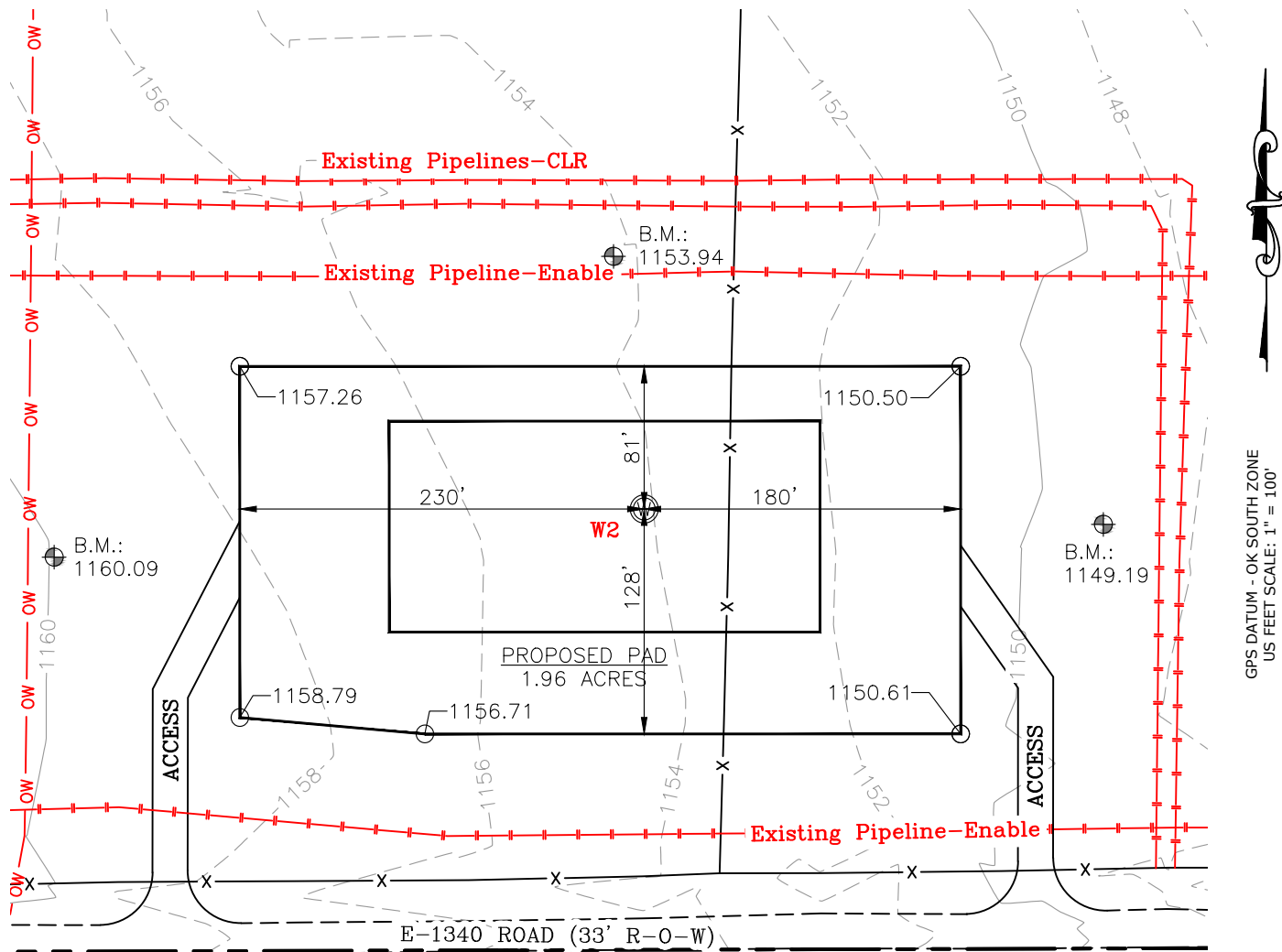
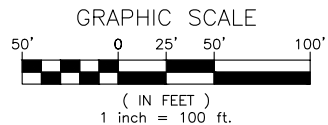
DRAWN BY:	TJW	SCALE:	AS NOTED
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	P&P
DATE ISSUED:	12-12-18	SHEET:	3 OF 5

EXHIBIT: I
 SHEET: 8.5x11
 SHL: 17-7N-6W
 BHL-2: 20-7N-6W



WELL W2: WILKERSON 2-17-20XHS

WELL --: --



GPS DATUM - OK SOUTH ZONE
 US FEET SCALE: 1" = 100'

CURRENT REV.: 0



Prepared By:
 Petro Land Services South
 10400 Vineyard Blvd.
 Suite C
 Oklahoma City, OK 73120

EXISTING GRADING PLAN

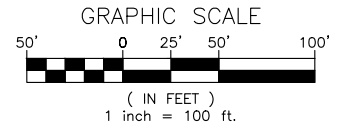
DRAWN BY:	TJW	SCALE:	1" = 100'
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	EX-GR.
DATE ISSUED:	12-12-18	SHEET:	4 OF 5

EXHIBIT: J
SHEET: 8.5x11
SHL: 17-7N-6W
BHL-2 20-7N-6W

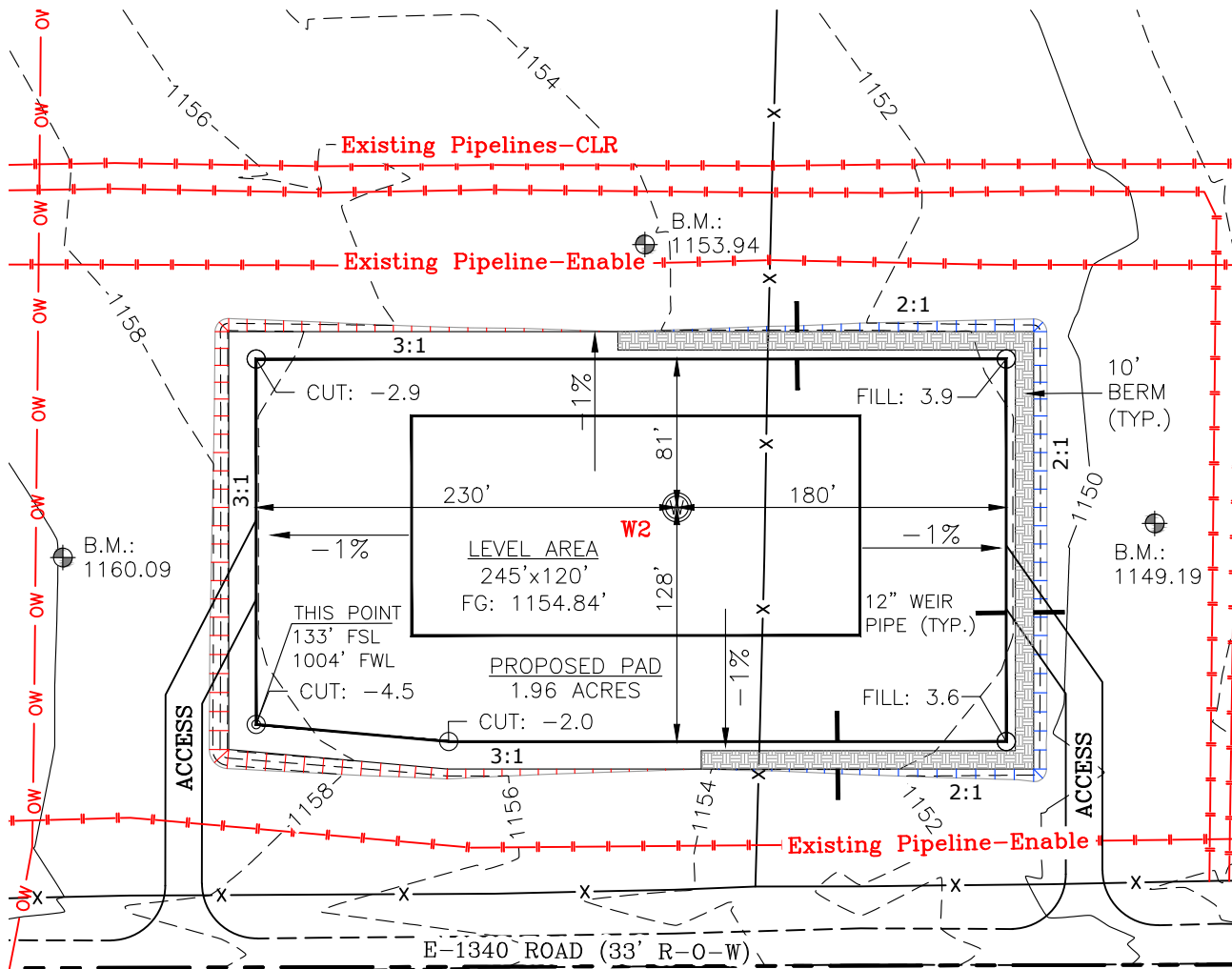


WELL W2: WILKERSON 2-17-20XHS

WELL --: --



TOTAL PROPOSED DISTURBED AREA: 2.57 ACRES



GPS DATUM - OK SOUTH ZONE
US FEET SCALE: 1" = 100'

CUT VOLUME 5282.61 CU. YD. | 6" OF STRIPPED TOP SOIL: 2,074.81 CU. YD.
FILL VOLUME 5283.51 CU. YD. | BERM LENGTH: 628' (420.76 CU. YD.)

(CUT/FILL VOLUMES INCLUDE 6" OF STRIPPED TOP SOIL)

CURRENT REV.: 0



Prepared By:
Petro Land Services South
10400 Vineyard Blvd.
Suite C
Oklahoma City, OK 73120

PROPOSED GRADING PLAN

DRAWN BY:	TJW	SCALE:	1" = 100'
CHECKED BY:	MJL	JOB No.:	--
APPROVED BY:	--	DWG. NO.:	PRO-GR.
DATE ISSUED:	12-12-18	SHEET:	5 OF 5