District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101
August 1, 2011

Permit 288723

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address	2. OGRID Number
DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	6137
	3. API Number 30-015-47669

4. Property Code	5. Property Name	6. Well No.
329795	BENT TREE 9 11 STATE COM	334H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
M	9	21S	27E	M	1051	S	1098	W	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	11	21S	27E	K	2200	S	2659	W	Eddy

9. Pool Information

AVALON;BONE SPRING, EAST	3713

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3242
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	19893	Bone Spring		6/1/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	48	125	129	0
Int1	12.25	9.625	40	518	155	0
Prod	8.75	5.5	17	19893	2929	18

Casing/Cement Program: Additional Comments

Int 1 Intermediate Squeeze - see attached drilling plan for description

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	5000	5000	
Double Ram	5000	5000	
Annular	5000	5000	
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.

Signature:

OIL CONSERVATION DIVISION

Printed Name:	Electronically filed by Jeff Walla	Approved By:	Kurt Simmons
Title:	Supervisor Land	Title:	Petroleum Specialist - A
Email Address:	Jeff.Walla@dvn.com	Approved Date:	11/17/2020
Date:	11/11/2020	Phone: 575-748-9925	Conditions of Approval Attached

Expiration Date: 11/17/2022

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. FIRST ST., ARTESIA, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. ST. FRANCIS DR., SANTA FE, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	3713	AVALON; BONE SPRING EAST

Property Code	Property Name	Well Number
	BENT TREE 9-11 STATE COM	334H

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3241.7'

Surface Location

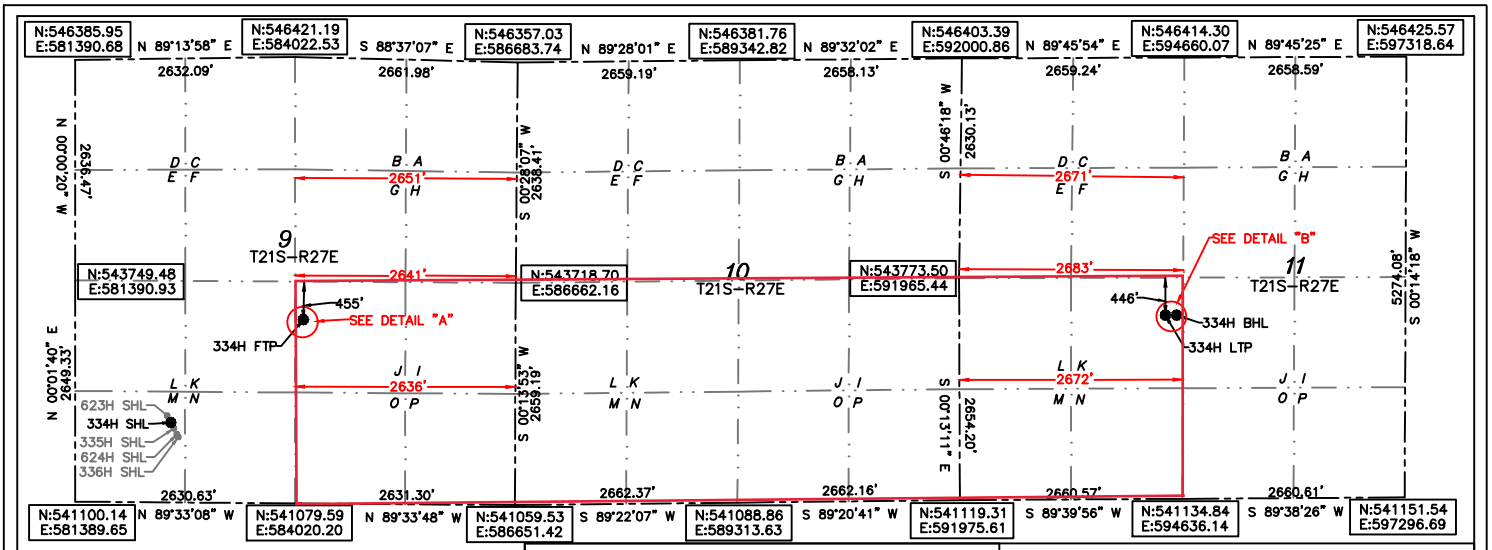
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	9	21-S	27-E		1051	SOUTH	1098	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	11	21-S	27-E		2200	SOUTH	2659	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



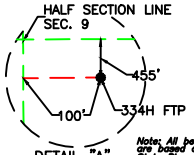
BENT TREE 9-11 STATE COM 334H
EL: 3241.7'
LAT:32.490342
LON:104.199869
N:542143.00
E:582488.30

FIRST TAKE POINT
2200' FSL 2539' FEL SEC. 9
LAT:32.493459
LON:104.194568
N:543278.88
E:584121.16

LAST TAKE POINT
2200' FSL 2579' FWL SEC. 11
LAT:32.493569
LON:104.160755
N:543334.36
E:594546.11

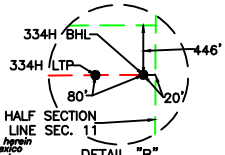
BOTTOM OF HOLE
LAT:32.493570
LON:104.160496
N:543334.82
E:594626.11

NOTE: ALL FTP'S ARE OFFSET 100' EAST OF THE HALF SECTION LINE



DETAIL "A" (N.T.S.)

NOTE: ALL BHL'S ARE OFFSET 20' WEST OF THE HALF SECTION LINE



DETAIL "B" (N.T.S.)

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83/New Mexico East Zone 3001, US Survey Feet, all distances are grid.

OPERATOR CERTIFICATION

I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Rebecca Deal 11/10/2020
Signature Date

Rebecca Deal, Regulatory Analyst
Printed Name

rebecca.deal@dvn.com
E-mail Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

9/17/2020
Signature & Seal of Professional Surveyor

B.L. LAMAN
NEW MEXICO
22404
PROFESSIONAL SURVEYOR

10/05/2020
Certificate No. 22404 B.L. LAMAN
DRAWN BY: CM

Intent ☐ As Drilled ☐

API #

Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County

Latitude	Longitude	NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

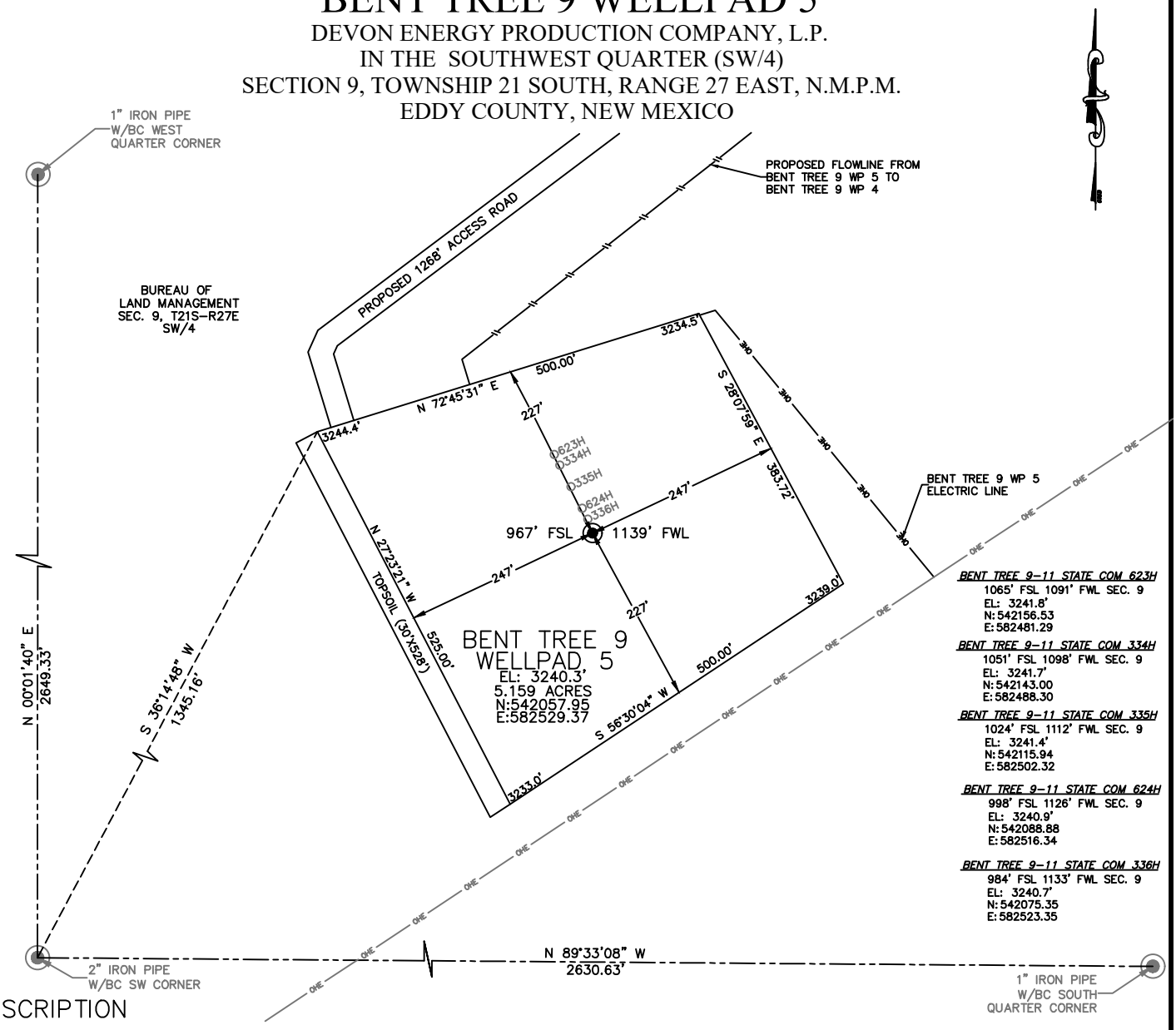
If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

BENT TREE 9 WELLPAD 5

DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE SOUTHWEST QUARTER (SW/4)
SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, NEW MEXICO



DESCRIPTION

BEING A SURFACE SITE EASEMENT LYING IN THE SOUTHWEST QUARTER (SW/4) OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST N.M.P.M., EDDY COUNTY, NEW MEXICO.

BEGINNING AT THE WEST CORNER OF SAID SITE EASEMENT, WHERE A 2" IRON PIPE W/BC FOR THE SOUTHWEST CORNER OF SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST N.M.P.M. BEARS S 36°14'48" W, A DISTANCE 1345.16';

THENCE N 72°45'31" E, A DISTANCE 500.00 FEET TO THE NORTH CORNER OF THIS EASEMENT;
THENCE S 28°07'59" E, A DISTANCE 383.72 FEET TO THE EAST CORNER OF THIS EASEMENT;
THENCE S 56°30'04" W, A DISTANCE 500.00 FEET TO THE SOUTH CORNER OF THIS EASEMENT;
THENCE N 27°23'21" W, A DISTANCE 525.00 FEET TO THE WEST CORNER OF THIS EASEMENT,
TO THE POINT OF BEGINNING; CONTAINING 5.159 ACRES.

GENERAL NOTES:
1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A WELLPAD.
2.) All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. LAMAN NEW MEXICO 22404 PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Horizonrow, LLC
Date Signed: 10-01-2020
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

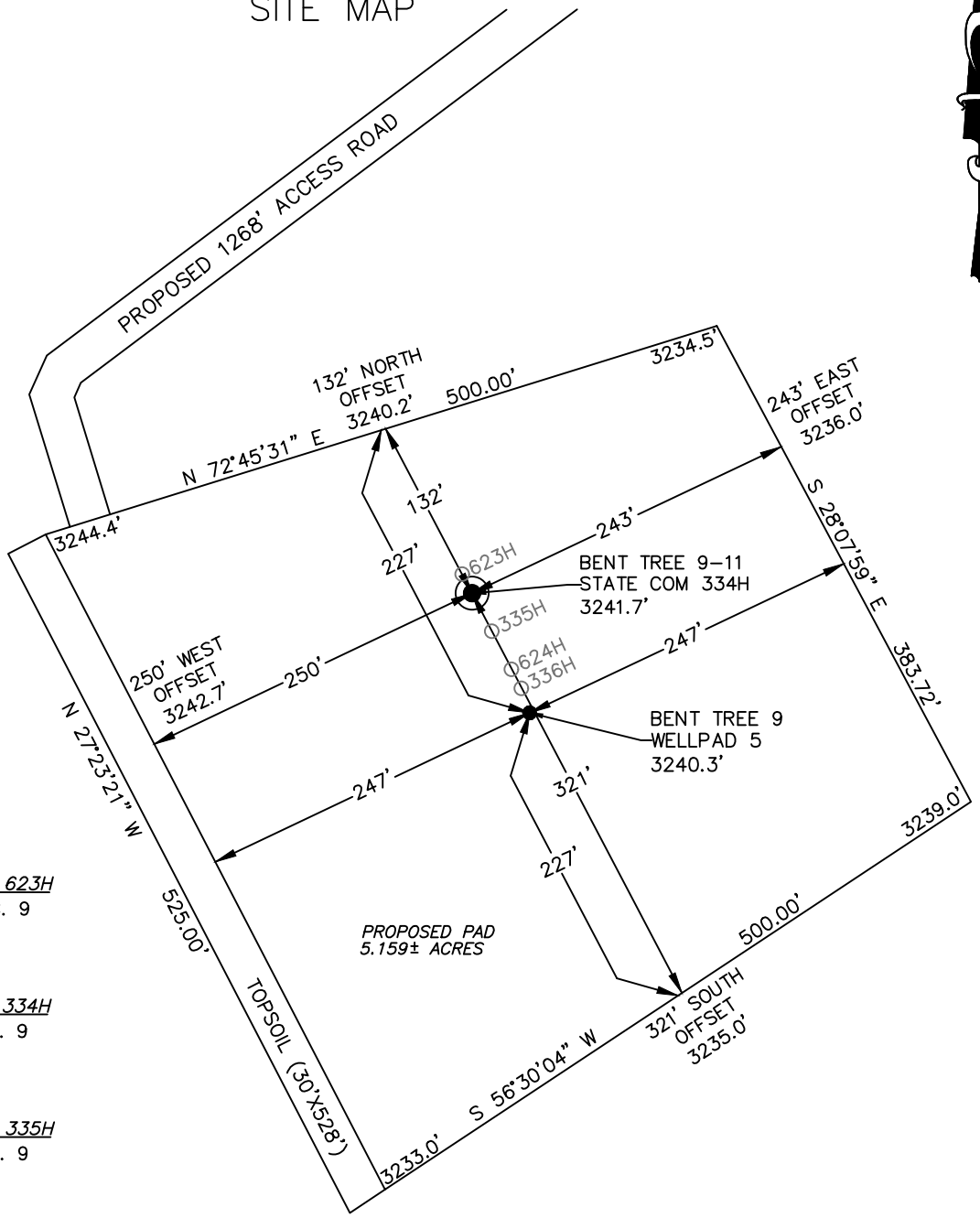
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ANGEL RANCH RD. AND RAINS RD., HEAD WEST ON RAINS ROAD FOR 0.6 MILES. TURN LEFT ONTO AN EXISTING ACCESS ROAD AND FOLLOW IT SOUTHWEST FOR 870' FEET TO THE WEST EDGE OF AN EXISTING WELLPAD. CONTINUE SOUTHWEST FOR 398' FEET ALONG THE PATH OF A STAKED ACCESS ROAD TO THE WEST CORNER OF THE BENT TREE 9 WELLPAD 5.

0 200 400

HORIZON ROW LLC Drawn for: devon	DEVON ENERGY PRODUCTION COMPANY, L.P. BENT TREE 9 WELLPAD 5	SITE NUMBER: AA000412609	
		WBS NUMBER: XX-134800.01.SLC	
	SURVEY PLAT SHOWING A WELLPAD ON THE PROPERTY OF THE BUREAU OF LAND MANAGEMENT	SCALE: 1" = 200'	
		REVISIONS:	
Drawn by: CHRIS MAAS	Date: 09/30/2020	DATE OF SURVEY: 9/2020	

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP



BENT TREE 9-11 STATE COM 623H
1065' FSL 1091' FWL SEC. 9
EL: 3241.8'
N: 542156.53
E: 582481.29

BENT TREE 9-11 STATE COM 334H
1051' FSL 1098' FWL SEC. 9
EL: 3241.7'
N: 542143.00
E: 582488.30

BENT TREE 9-11 STATE COM 335H
1024' FSL 1112' FWL SEC. 9
EL: 3241.4'
N: 542115.94
E: 582502.32

BENT TREE 9-11 STATE COM 624H
998' FSL 1126' FWL SEC. 9
EL: 3240.9'
N: 542088.88
E: 582516.34

BENT TREE 9-11 STATE COM 336H
984' FSL 1133' FWL SEC. 9
EL: 3240.7'
N: 542075.35
E: 582523.35

DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9-11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

0 125 250

DIRECTIONS TO LOCATION
FROM THE INTERSECTION OF ANGEL RANCH RD. AND RAINS RD., HEAD WEST ON RAINS ROAD FOR 0.6 MILES. TURN LEFT ONTO AN EXISTING ACCESS ROAD AND FOLLOW IT SOUTHWEST FOR 870' FEET TO THE WEST EDGE OF AN EXISTING WELLPAD. CONTINUE SOUTHWEST FOR 398' FEET ALONG THE PATH OF A STAKED ACCESS ROAD TO THE WEST CORNER OF THE BENT TREE 9 WELLPAD 5.

HORIZON ROW LLC

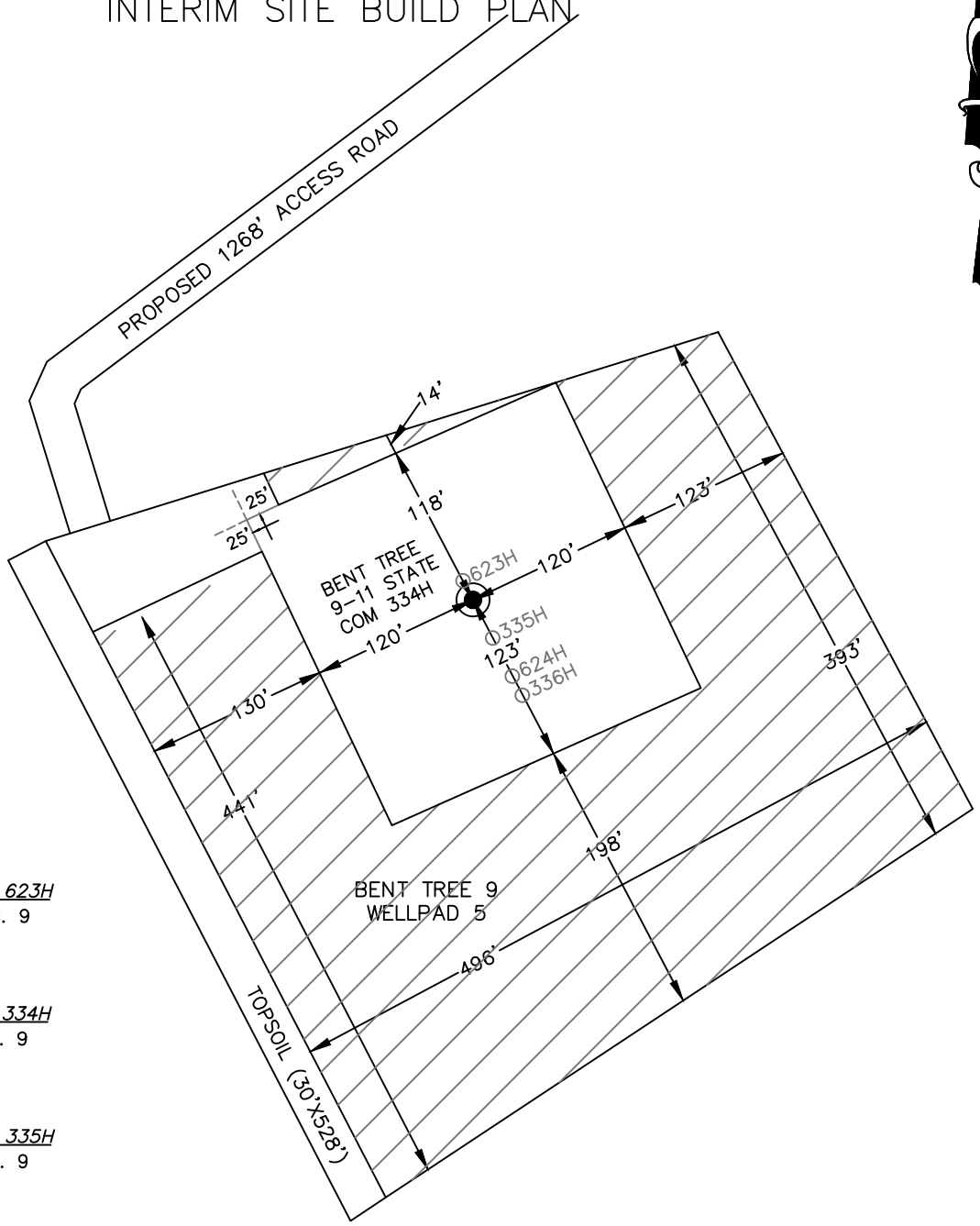
DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS

Date: 10/01/2020

Drawn for: devon

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
INTERIM SITE BUILD PLAN



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BENT TREE 9-11 STATE COM 336H
984' FSL 1133' FWL SEC. 9
EL: 3240.7'
N: 542075.35
E: 582523.35

DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9-11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

0 125 250

DENOTES INTERIM PAD RECLAMATION AREA

3.624± ACRES INTERIM PAD RECLAMATION AREA
1.535± ACRES NON-RECLAIMED AREA
5.159± ACRES GRADING SITE RECLAMATION AREA

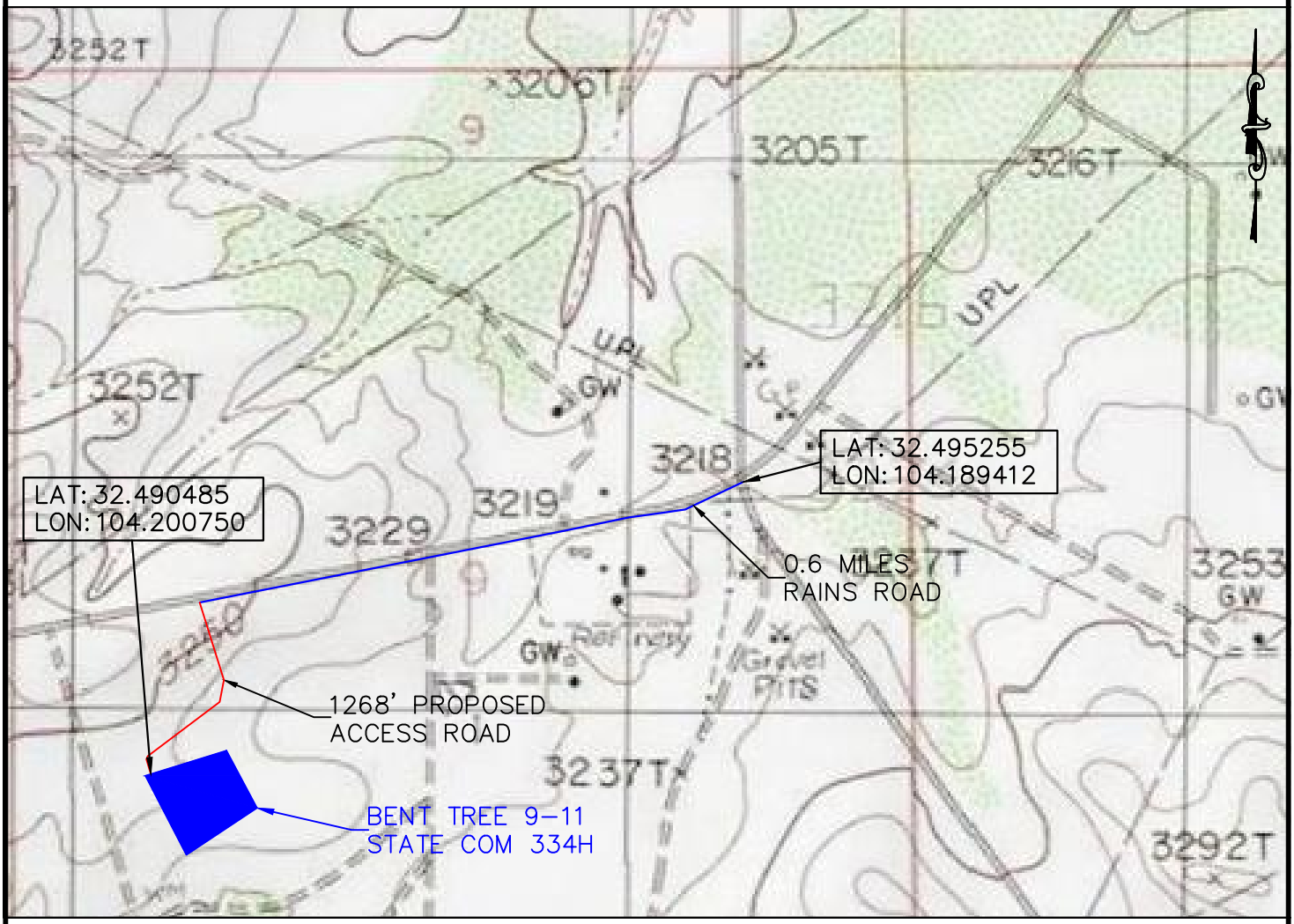
HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS
Date: 10/01/2020

Drawn for: devon

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9-11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

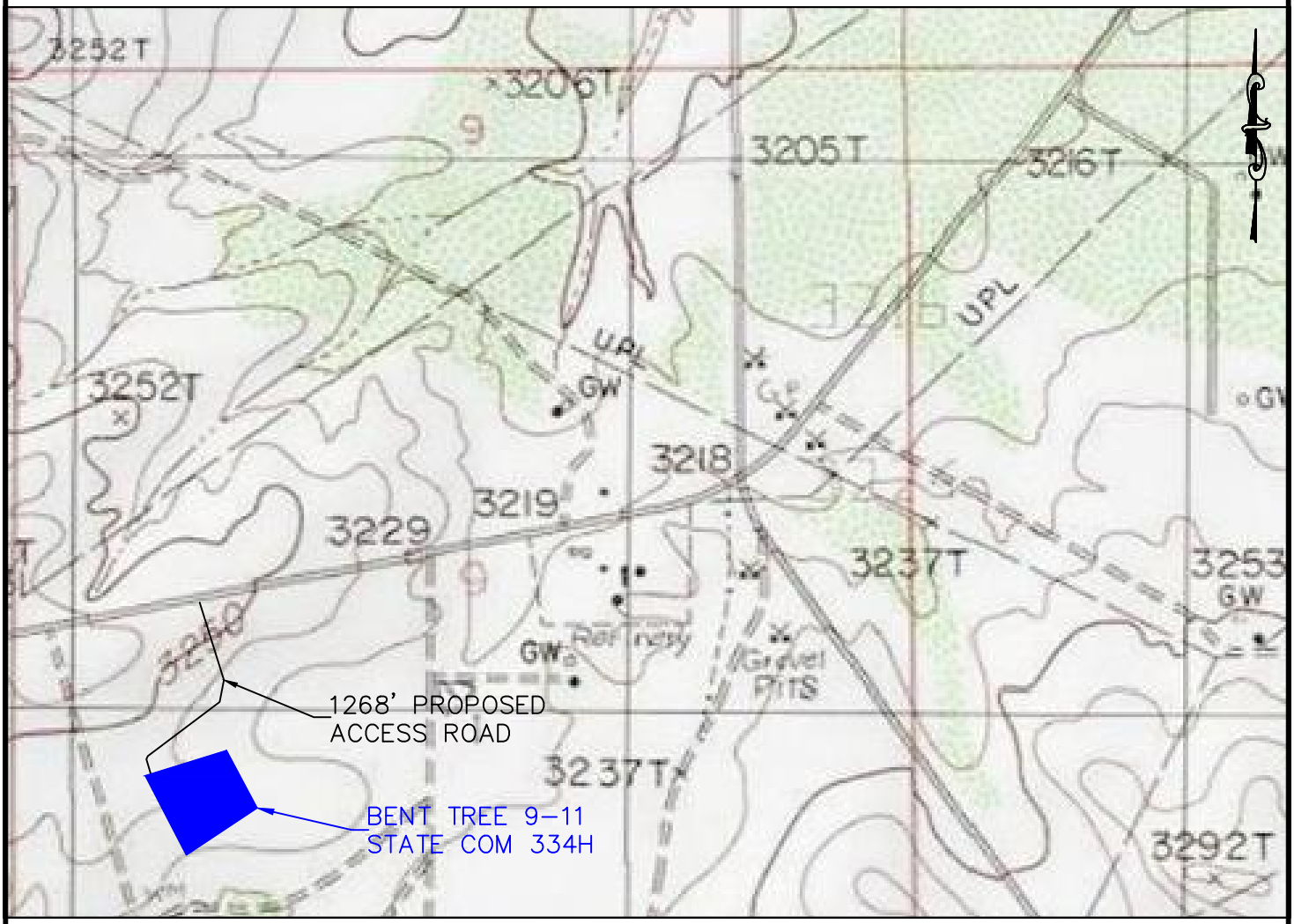
DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ANGEL RANCH RD. AND RAINS RD., HEAD WEST ON RAINS ROAD FOR 0.6 MILES. TURN LEFT ONTO AN EXISTING ACCESS ROAD AND FOLLOW IT SOUTHWEST FOR 870' FEET TO THE WEST EDGE OF AN EXISTING WELLPAD. CONTINUE SOUTHWEST FOR 398' FEET ALONG THE PATH OF A STAKED ACCESS ROAD TO THE WEST CORNER OF THE BENT TREE 9 WELLPAD 5.

NOT TO SCALE

HORIZON ROW LLC		Drawn for: devon
DEVON ENERGY PRODUCTION CO., L.P.		
Drawn by: CHRIS MAAS	Date: 10/01/2020	

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP

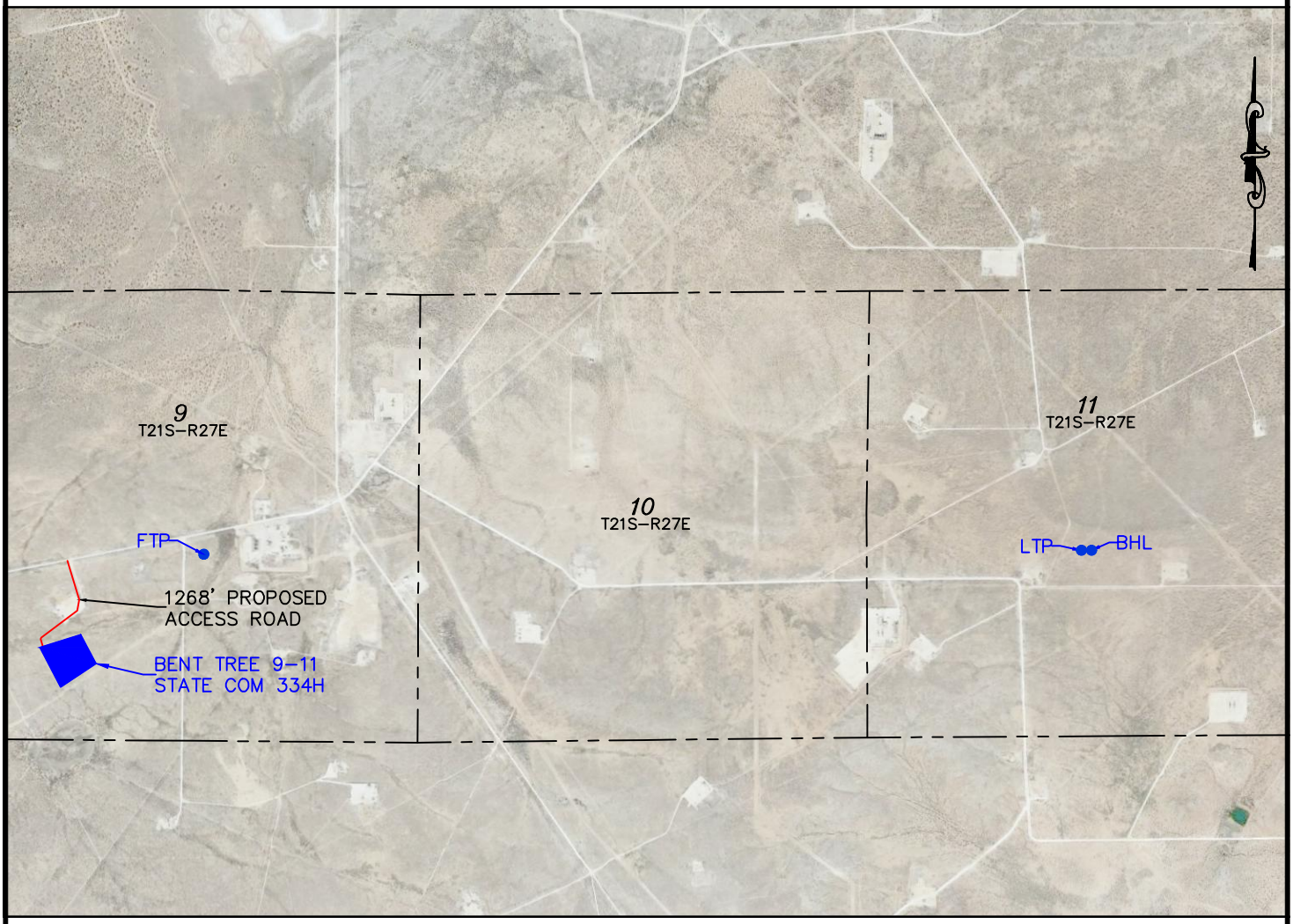


DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9-11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

HORIZON ROW LLC	Drawn for: devon
DEVON ENERGY PRODUCTION CO., L.P.	
Drawn by: CHRIS MAAS	Date: 10/01/2020

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



DEVON ENERGY PRODUCTION COMPANY, L.P.
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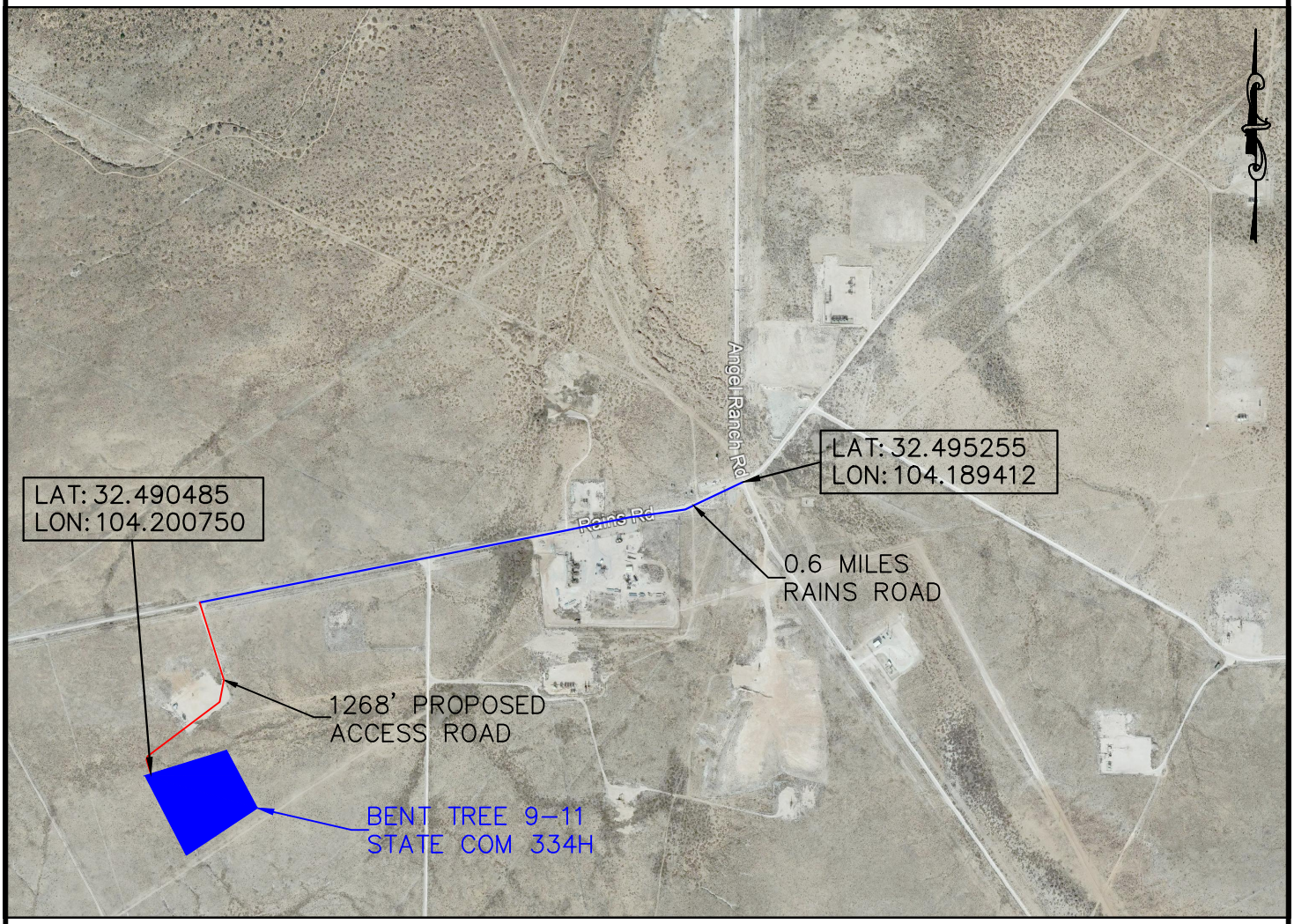
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

0 2000 4000

HORIZON ROW LLC	Drawn for: devon
DEVON ENERGY PRODUCTION CO., L.P.	
Drawn by: CHRIS MAAS	Date: 10/01/2020

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



DEVON ENERGY PRODUCTION COMPANY, L.P.
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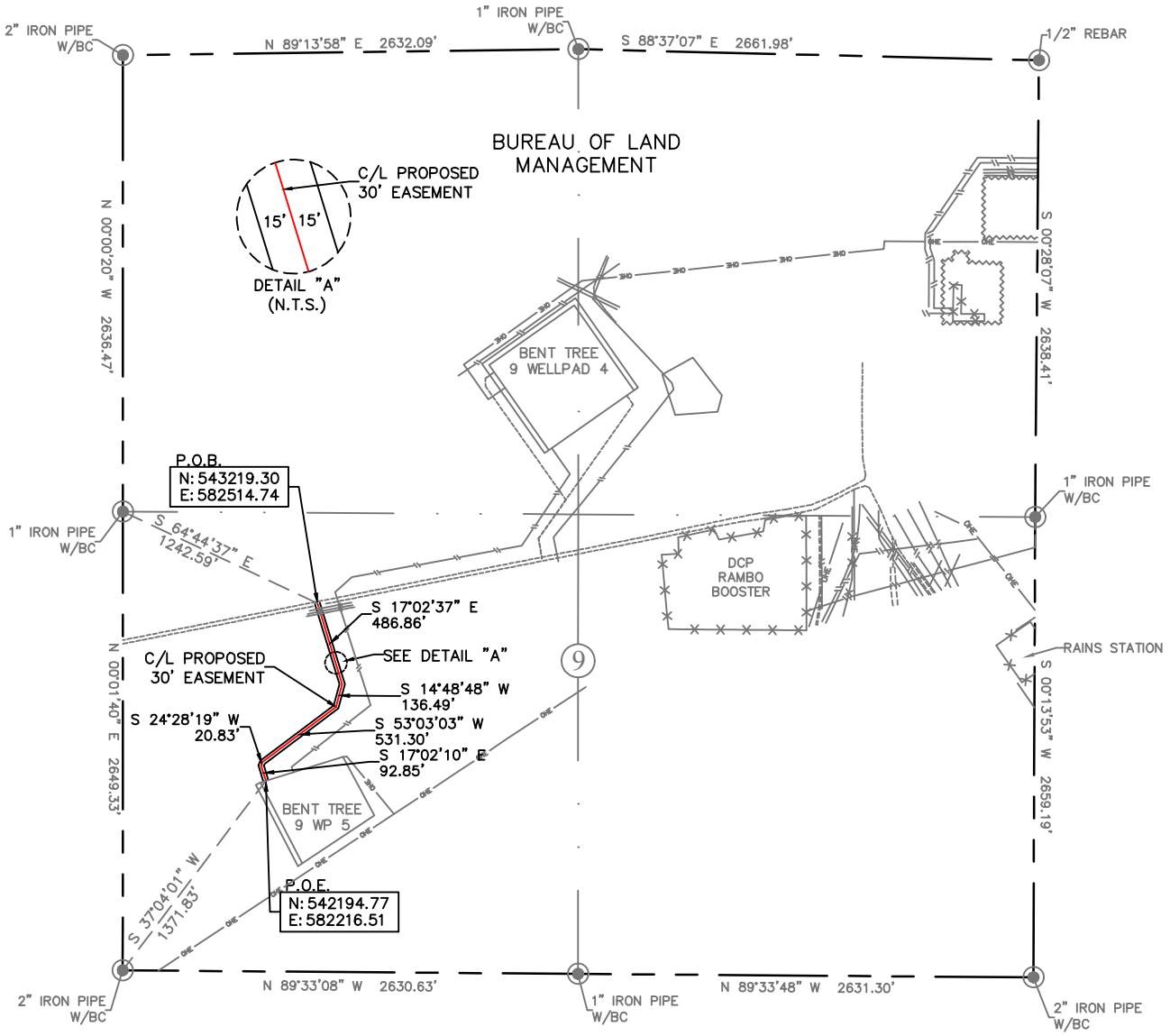
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

NOT TO SCALE

HORIZON ROW LLC	Drawn for: devon
DEVON ENERGY PRODUCTION CO., L.P.	
Drawn by: CHRIS MAAS	Date: 10/01/2020

EXHIBIT "A"
ACCESS ROAD PLAT
SECTION 9, T21S–R27E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



0+00.0 P.O.B./RAINS ROAD
0+11.2 EDGE OF ROAD
0+33.8 BURIED PIPELINE
0+49.0 BURIED PIPELINE
0+63.4 BURIED PIPELINE
8+03.3 BURIED PIPELINE
12+68.4 P.O.E./BENT TREE 9 WELLPAD 5

30' EASEMENT AREA = 0.874 ACRE(S)
1268.33 FEET OR 76.87 RODS

SEE THE ATTACHED LEGAL DESCRIPTION

Note: All bearings recited herein are based on the New Mexico State Plane Coordinate System, NAD 83, New Mexico East Zone 3001, US Survey Feet, all distances are grid.

0 1000 2000

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

NEW MEXICO 22404 PROFESSIONAL SURVEYOR

B.L. Laman PLS #22404
Date Signed: 10-01-2020
P.O. BOX 548 Dry Creek, La.
(903) 388-3045 70637
Employee of Horizonrow, LLC

HORIZON ROW LLC	DEVON ENERGY PRODUCTION COMPANY, L.P.	LINE NUMBER: 7670058R
Drawn for: devon	BENT TREE 9 WELLPAD 5 ACCESS ROAD	WBS NUMBER: XX–134800.01.SLC
		SCALE: 1" = 1000'
	30' EASEMENT ON THE PROPERTY OF BUREAU OF LAND MANAGEMENT SECTION 9, T21S–R27E, N.M.P.M.	REVISIONS:
Drawn by: JEANNIE PERRY	Date: 05/23/2019	DATE OF SURVEY: 5/2020

SECTION 9, T21S-R27E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ACCESS ROAD PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of the southwest quarter (SW ¼) of Section 9, Township 21 South, Range 27 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 1" iron pipe w/BC for the west quarter corner of Section 9;

Thence S 64°44'37" E a distance of 1242.59' to the **Point of Beginning** of this easement having coordinates of Northing=543219.30, Easting=582514.74 feet and continuing the following courses;

Thence S 17°02'37" E a distance of 486.86' to an angle point;

Thence S 14°48'48" W a distance of 136.49' to an angle point;

Thence S 53°03'03" W a distance of 531.30' to an angle point;

Thence S 24°28'19" W a distance of 20.83' to an angle point;

Thence S 17°02'10" E a distance of 92.85' to the **Point of Ending** having coordinates of Northing=542194.77, Easting=582216.51 feet from said point a 2" iron pipe w/BC for the southwest corner of Section 9, T21S-R27E bears S 37°04'01" W a distance of 1371.83', covering **1268.33' or 76.87 rods** and having an area of **0.874 acres**.

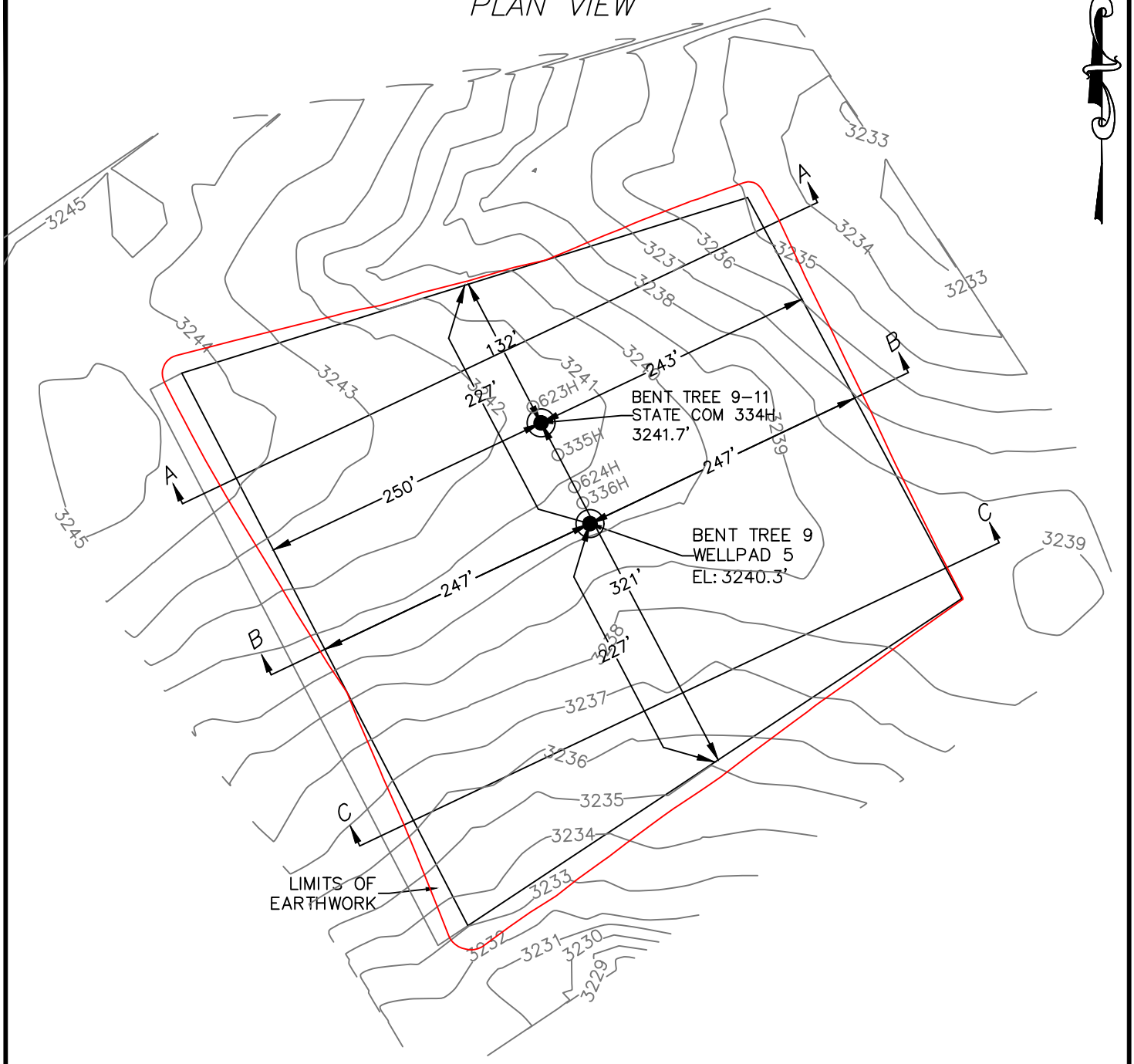
NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.

B.L. Laman PLS 22404
Date Signed: 10/01/2020
Horizon Row, LLC
P.O. Box 548, Dry Creek, La.
(903) 388-3045 70637
Employee of Horizon Row, LLC

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9-11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

0 125 250

EARTHWORK QUANTITIES FOR
BENT TREE 9 WELLPAD 5

CUT	FILL	NET
8,989 CY	8,989 CY	0 CY

EARTHWORK QUANTITIES ARE ESTIMATED

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

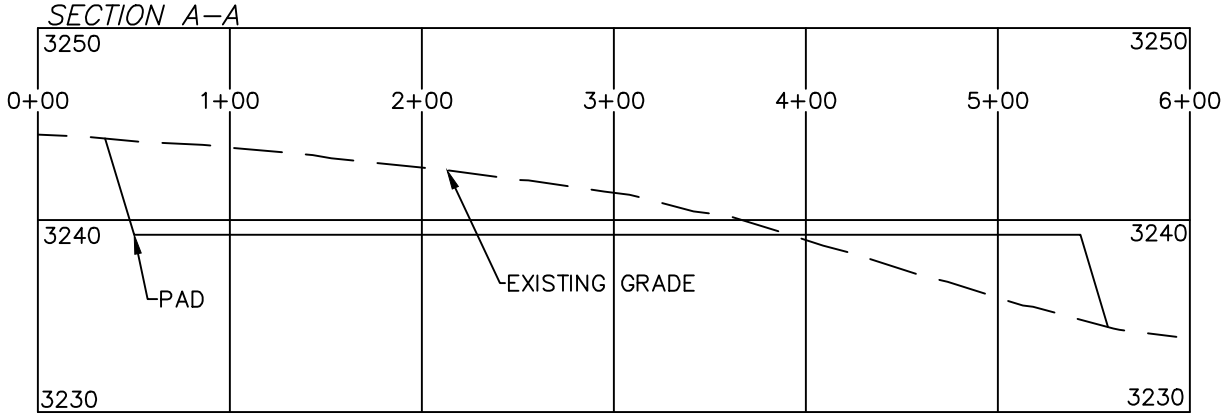
Drawn by: CHRIS MAAS

Date: 10/01/2020

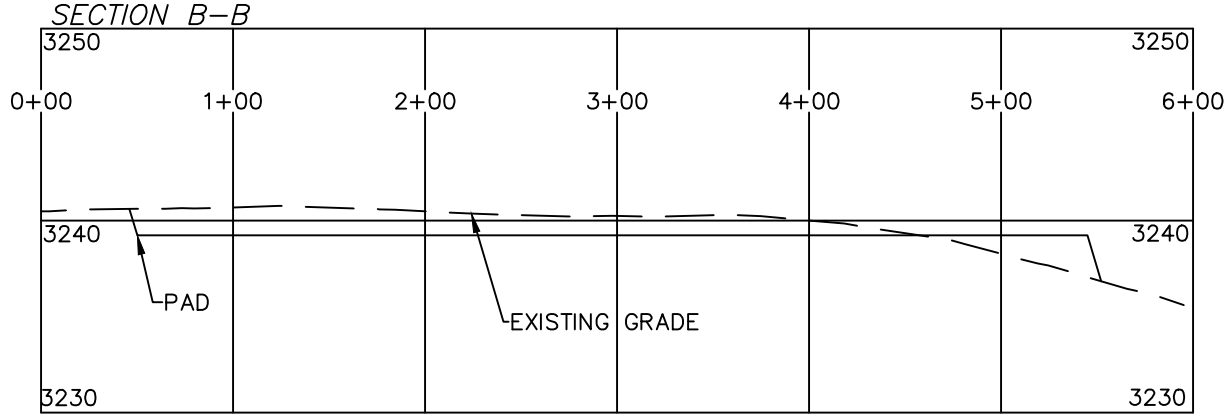
Drawn for: devon

SECTION 9, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
CROSS SECTIONS

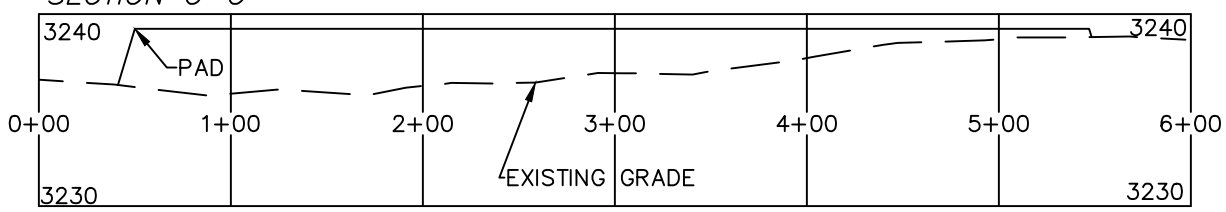
SECTION A–A



SECTION B–B



SECTION C–C



DEVON ENERGY PRODUCTION COMPANY, L.P.
BENT TREE 9–11 STATE COM 334H
LOCATED 1051 FT. FROM THE SOUTH LINE
AND 1098 FT. FROM THE WEST LINE OF
SECTION 9, TOWNSHIP 21 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SCALE 1" = 100' HORIZONTAL
SCALE 1" = 10' VERTICAL

EARTHWORK QUANTITIES FOR
BENT TREE 9 WELLPAD 5

CUT	FILL	NET
8,989 CY	8,989 CY	0 CY

EARTHWORK QUANTITIES ARE ESTIMATED

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

Drawn by: CHRIS MAAS

Date: 10/01/2020

Drawn for: devon

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

GAS CAPTURE PLAN

Date: 11/17/2020

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: [6137] DEVON ENERGY PRODUCTION COMPANY, LP

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
BENT TREE 9 11 STATE COM #334H	30-015-47669	M-9-21S-27E	1051S 1098W	3	None	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to DCP OPERATING COMPANY, LP and will be connected to DCP OPERATING COMPANY, LP High/Low Pressure gathering system located in Eddy County, New Mexico. It will require 727' of pipeline to connect the facility to High/Low Pressure gathering system. DEVON ENERGY PRODUCTION COMPANY, LP provides (periodically) to DCP OPERATING COMPANY, LP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, DEVON ENERGY PRODUCTION COMPANY, LP and DCP OPERATING COMPANY, LP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP OPERATING COMPANY, LP Processing Plant located in Sec. 14, Twn. 21S, Rng. 27E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP OPERATING COMPANY, LP system at that time. Based on current information, it is DEVON ENERGY PRODUCTION COMPANY, LP's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 288723

PERMIT COMMENTS

Operator Name and Address:	API Number:
DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102	30-015-47669
	Well: BENT TREE 9 11 STATE COM #334H

Created By	Comment	Comment Date

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 288723

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
DEVON ENERGY PRODUCTION COMPANY, LP [6137] 333 West Sheridan Ave. Oklahoma City, OK 73102	30-015-47669
	Well: BENT TREE 9 11 STATE COM #334H

OCD Reviewer	Condition
ksimmons	Operator shall notify in writing other operator(s) in same quarter quarter section before commencing both drilling and completing operations.
ksimmons	Cement is required to circulate on both surface and intermediate1 strings of casing
ksimmons	Will require a directional survey with the C-104
kpickford	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days
kpickford	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
kpickford	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system

Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015

Hydrogen Sulfide (H_2S) Contingency Plan

For

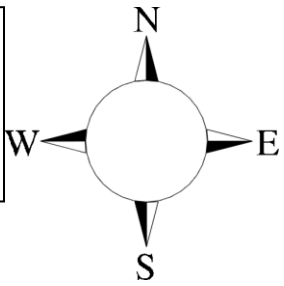
Bent Tree 9-11 State Com 334H

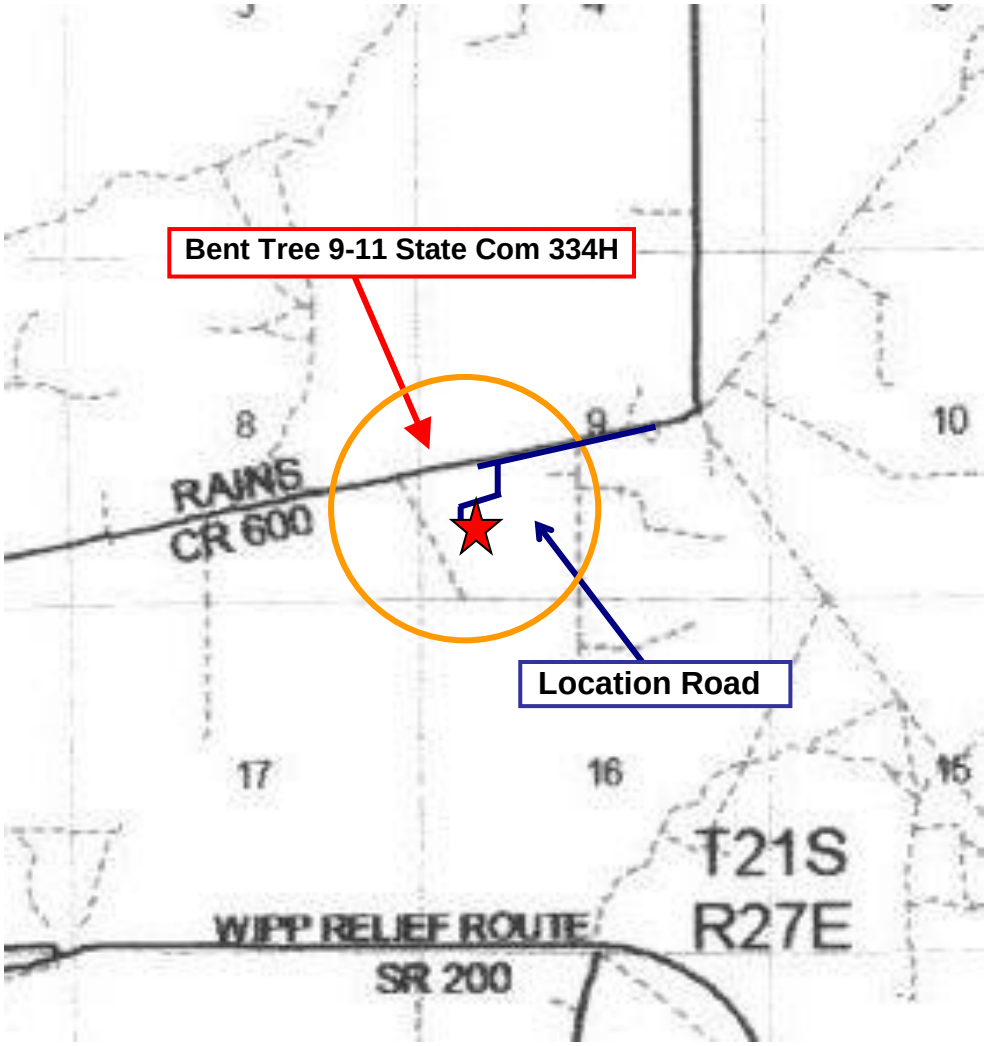
Sec-9 T-21S R-27E
1051’ FSL & 1098’ FWL
LAT. = 32.490342’ N (NAD83)
LONG = 104.199869’ W

Eddy County NM

Bent Tree 9-11 State Com 334H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H_2S monitors and air packs in order to control the release.**
- **Use the "buddy system" to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
  - **Detection of H_2S, and**
  - **Measures for protection against the gas,**
  - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H_2S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H_2S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H_2S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H_2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H_2S.

1. **Well Control Equipment**

   A. Flare line

   B. Choke manifold – Remotely Operated

   C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit

   D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

   E. Mud/Gas Separator

2. **Protective equipment for essential personnel:**

   30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

3. **H_2S detection and monitoring equipment:**

   Portable H_2S monitors positioned on location for best coverage and response. These units have warning lights which activate when H_2S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

   - **Bell nipple**
   - **Rig floor**
   - **Cellar**
   - **Possum Belly/Shale shaker**
   - **Choke manifold**

   Visual warning systems:

   A. Wind direction indicators as shown on well site diagram

   B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. **Mud program:**

   The mud program has been designed to minimize the volume of H_2S circulated to surface. Proper mud weight, safe drilling practices and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

5. **Metallurgy:**

   A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H_2S trim.

   B. All elastomers used for packing and seals shall be H_2S trim.

6. **Communication:**

   A. Company personnel have/use cellular telephones in the field.

   B. Land line (telephone) communications at Office

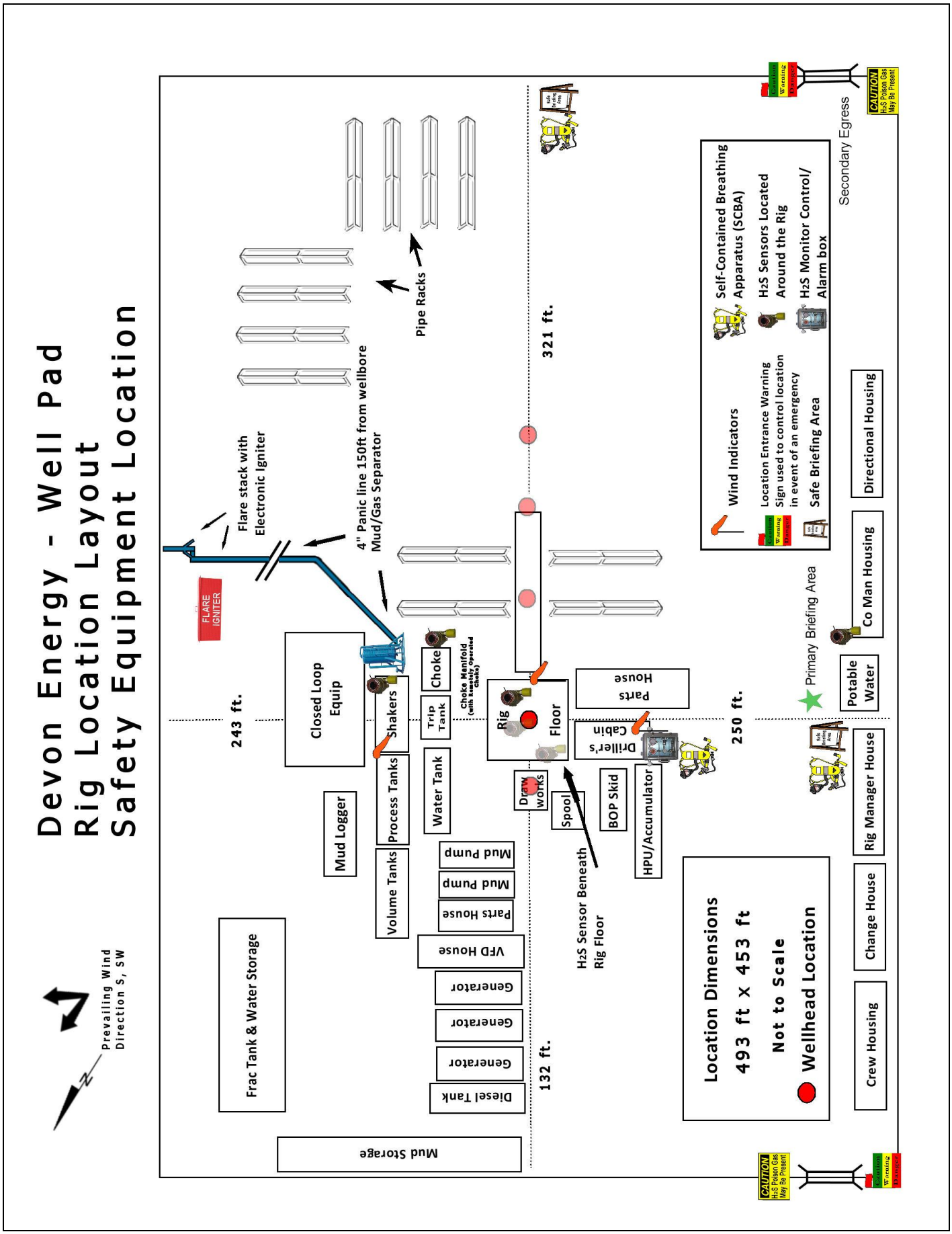
7. **Well testing:**

   A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H_2S environment will use the closed chamber method of testing.

   B. There will be no drill stem testing.

Devon Energy Corp. Company Call List		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
Agency Call List		
Lea County (575)	**Hobbs**	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	**911**
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
Eddy County (575)	**Carlsbad**	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	**911**
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control (915) 699-0139	(915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
Give GPS position:	Native Air – Emergency Helicopter – Hobbs (TX & NM)	(800) 642-7828
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	

Prepared in conjunction with
Dave Small

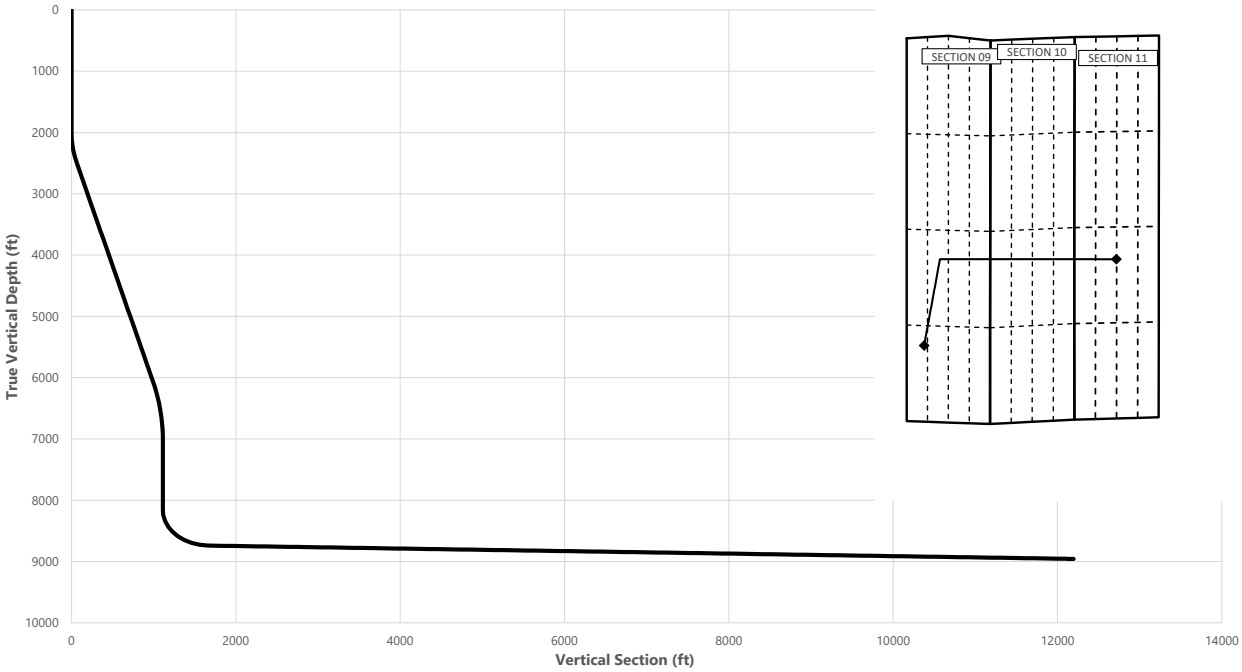

Devon Energy - Well Pad
Rig Location Layout
Safety Equipment Location
Prevailing Wind
Direction S, SW
Frac Tank & Water Storage
Mud Storage
Diesel Tank
Generator
Generator
Generator
VFD House
Parts House
Mud Pump
Mud Pump
Volume Tanks
Process Tanks
Mud Logger
Water Tank
Trip Tank
Choke
Choke Manifold (with Remotely Operated Choke)
Shakers
Closed Loop Equip
243 ft.
FLARE IGNITER
Flare stack with Electronic Igniter
4" Panic line 150ft from wellbore Mud/Gas Separator
Pipe Racks
321 ft.
Rig Floor
Draw works
Spool
BOP Skid
HPU/Accumulator
Driller's Cabin
Parts House
H2S Sensor Beneath Rig Floor
132 ft.
250 ft.
Primary Briefing Area
Secondary Egress
Wind Indicators
Location Entrance Warning Sign used to control location in event of an emergency
Safe Briefing Area
Self-Contained Breathing Apparatus (SCBA)
H2S Sensors Located Around the Rig
H2S Monitor Control/ Alarm box
Directional Housing
Co Man Housing
Potable Water
Rig Manager House
Change House
Crew Housing
Location Dimensions
493 ft x 453 ft
Not to Scale
Wellhead Location
CAUTION
H2S Poison Gas May Be Present

devon

Well: Bent Tree 9-11 State Com 334H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	40.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	20.00	40.00	2489.91	66.17	55.53	61.73	1.00	Hold Tangent
6291.20	20.00	40.00	6052.47	1059.48	889.01	988.28	0.00	Drop to Vertical
7291.20	0.00	40.00	7032.28	1191.83	1000.06	1111.74	2.00	Hold Vertical
8426.08	0.00	90.00	8167.16	1191.83	1000.06	1111.74	0.00	KOP
9314.32	88.82	90.00	8740.00	1191.83	1561.27	1670.26	10.00	Landing Point
19893.09	88.82	90.00	8957.00	1191.83	12137.81	12196.18	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	0.00	0.00
Salt	189.00	189.00
Base of Salt	418.00	418.00
Capitan	842.00	842.00
Capitan Base	2617.16	2600.00
Delaware	2709.74	2687.00
Bone Spring 1st	6657.77	6404.00
Bone Spring 2nd	7378.91	7120.00
Bone Spring 3rd / Point of Penetratic	8703.64	8434.00
exit	19813.09	8955.37

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.4902	-104.1999	1051' FSL, 1098' FWL of Sec 09 in T21S, R27E
KOP	8426.08	8167.16	32.4935	-104.1967	2251' FSL, 2539' FWL of Sec 09 in T21S, R27E
Point of Penetration	8703.64	8434.00	32.4935	-104.1946	2200' FSL, 2539' FEL of Sec 09 in T21S, R27E
Exit	19813.09	8955.37	32.4936	-104.1608	2200' FSL, 2579' FWL of Sec 11 in T21S, R27E
BHL	19893.09	8957.00	32.4935	-104.1606	2200' FSL, 2659' FWL of Sec 11 in T21S, R27E

devon

Well: Bent Tree 9-11 State Com 334H
County: Eddy
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	40.00	100.00	0.00	0.00	0.00	0.00	Rustler,
189.00	0.00	40.00	189.00	0.00	0.00	0.00	0.00	Salt
200.00	0.00	40.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	40.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	40.00	400.00	0.00	0.00	0.00	0.00	
418.00	0.00	40.00	418.00	0.00	0.00	0.00	0.00	Base of Salt
500.00	0.00	40.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	40.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	40.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	40.00	800.00	0.00	0.00	0.00	0.00	
842.00	0.00	40.00	842.00	0.00	0.00	0.00	0.00	Capitan
900.00	0.00	40.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	40.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	40.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	40.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	40.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	40.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	40.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	40.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	40.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	40.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	40.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	40.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	4.00	40.00	2099.92	2.67	2.24	2.49	4.00	
2200.00	8.00	40.00	2199.35	10.68	8.96	9.96	4.00	
2300.00	12.00	40.00	2297.81	23.98	20.12	22.37	4.00	
2400.00	16.00	40.00	2394.82	42.51	35.67	39.65	4.00	
2500.00	20.00	40.00	2489.91	66.17	55.53	61.73	1.00	Hold Tangent
2600.00	20.00	40.00	2583.88	92.37	77.51	86.17	0.00	
2617.16	20.00	40.00	2600.00	96.87	81.28	90.36	0.00	Capitan Base
2700.00	20.00	40.00	2677.85	118.57	99.50	110.61	0.00	
2709.74	20.00	40.00	2687.00	121.13	101.64	112.99	0.00	Delaware
2800.00	20.00	40.00	2771.82	144.77	121.48	135.05	0.00	
2900.00	20.00	40.00	2865.78	170.97	143.46	159.49	0.00	
3000.00	20.00	40.00	2959.75	197.18	165.45	183.93	0.00	
3100.00	20.00	40.00	3053.72	223.38	187.43	208.37	0.00	
3200.00	20.00	40.00	3147.69	249.58	209.42	232.81	0.00	
3300.00	20.00	40.00	3241.66	275.78	231.40	257.24	0.00	
3400.00	20.00	40.00	3335.63	301.98	253.39	281.68	0.00	
3500.00	20.00	40.00	3429.60	328.18	275.37	306.12	0.00	
3600.00	20.00	40.00	3523.57	354.38	297.36	330.56	0.00	
3700.00	20.00	40.00	3617.54	380.58	319.34	355.00	0.00	
3800.00	20.00	40.00	3711.51	406.78	341.33	379.44	0.00	
3900.00	20.00	40.00	3805.48	432.98	363.31	403.88	0.00	
4000.00	20.00	40.00	3899.45	459.18	385.30	428.32	0.00	
4100.00	20.00	40.00	3993.42	485.38	407.28	452.76	0.00	
4200.00	20.00	40.00	4087.39	511.58	429.26	477.20	0.00	
4300.00	20.00	40.00	4181.35	537.78	451.25	501.64	0.00	
4400.00	20.00	40.00	4275.32	563.98	473.23	526.08	0.00	
4500.00	20.00	40.00	4369.29	590.18	495.22	550.52	0.00	
4600.00	20.00	40.00	4463.26	616.38	517.20	574.96	0.00	
4700.00	20.00	40.00	4557.23	642.58	539.19	599.40	0.00	
4800.00	20.00	40.00	4651.20	668.78	561.17	623.84	0.00	
4900.00	20.00	40.00	4745.17	694.98	583.16	648.28	0.00	
5000.00	20.00	40.00	4839.14	721.18	605.14	672.72	0.00	
5100.00	20.00	40.00	4933.11	747.38	627.13	697.16	0.00	
5200.00	20.00	40.00	5027.08	773.58	649.11	721.60	0.00	
5300.00	20.00	40.00	5121.05	799.78	671.10	746.04	0.00	
5400.00	20.00	40.00	5215.02	825.98	693.08	770.48	0.00	
5500.00	20.00	40.00	5308.99	852.18	715.06	794.92	0.00	
5600.00	20.00	40.00	5402.96	878.38	737.05	819.36	0.00	
5700.00	20.00	40.00	5496.92	904.58	759.03	843.80	0.00	
5800.00	20.00	40.00	5590.89	930.78	781.02	868.24	0.00	
5900.00	20.00	40.00	5684.86	956.98	803.00	892.68	0.00	
6000.00	20.00	40.00	5778.83	983.18	824.99	917.12	0.00	
6100.00	20.00	40.00	5872.80	1009.38	846.97	941.56	0.00	
6200.00	20.00	40.00	5966.77	1035.58	868.96	966.00	0.00	
6291.20	20.00	40.00	6052.47	1059.48	889.01	988.28	0.00	Drop to Vertical
6300.00	19.82	40.00	6060.74	1061.77	890.93	990.43	2.00	

devon

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Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6400.00	17.82	40.00	6155.39	1086.49	911.67	1013.48	2.00	
6500.00	15.82	40.00	6251.11	1108.66	930.28	1034.16	2.00	
6600.00	13.82	40.00	6347.77	1128.26	946.72	1052.45	2.00	
6657.77	12.67	40.00	6404.00	1138.40	955.23	1061.90	2.00	Bone Spring 1st
6700.00	11.82	40.00	6445.27	1145.26	960.99	1068.30	2.00	
6800.00	9.82	40.00	6543.49	1159.65	973.06	1081.72	2.00	
6900.00	7.82	40.00	6642.30	1171.40	982.92	1092.68	2.00	
7000.00	5.82	40.00	6741.59	1180.50	990.56	1101.17	2.00	
7100.00	3.82	40.00	6841.23	1186.94	995.96	1107.18	2.00	
7200.00	1.82	40.00	6941.10	1190.71	999.13	1110.70	2.00	
7291.20	0.00	40.00	7032.28	1191.83	1000.06	1111.74	2.00	Hold Vertical
7300.00	0.00	90.00	7041.09	1191.83	1000.06	1111.74	0.00	
7378.91	0.00	90.00	7120.00	1191.83	1000.06	1111.74	0.00	Bone Spring 2nd
7400.00	0.00	90.00	7141.09	1191.83	1000.06	1111.74	0.00	
7500.00	0.00	90.00	7241.09	1191.83	1000.06	1111.74	0.00	
7600.00	0.00	90.00	7341.09	1191.83	1000.06	1111.74	0.00	
7700.00	0.00	90.00	7441.09	1191.83	1000.06	1111.74	0.00	
7800.00	0.00	90.00	7541.09	1191.83	1000.06	1111.74	0.00	
7900.00	0.00	90.00	7641.09	1191.83	1000.06	1111.74	0.00	
8000.00	0.00	90.00	7741.09	1191.83	1000.06	1111.74	0.00	
8100.00	0.00	90.00	7841.09	1191.83	1000.06	1111.74	0.00	
8200.00	0.00	90.00	7941.09	1191.83	1000.06	1111.74	0.00	
8300.00	0.00	90.00	8041.09	1191.83	1000.06	1111.74	0.00	
8400.00	0.00	90.00	8141.09	1191.83	1000.06	1111.74	0.00	
8426.08	0.00	90.00	8167.16	1191.83	1000.06	1111.74	0.00	KOP
8500.00	7.39	90.00	8240.88	1191.83	1004.82	1116.48	10.00	
8600.00	17.39	90.00	8338.43	1191.83	1026.26	1137.81	10.00	
8700.00	27.39	90.00	8430.77	1191.83	1064.30	1175.67	10.00	
8703.64	27.76	90.00	8434.00	1191.83	1065.99	1177.35	10.00	Bone Spring 3rd / Point of Penetration
8800.00	37.39	90.00	8515.10	1191.83	1117.81	1228.92	10.00	
8900.00	47.39	90.00	8588.86	1191.83	1185.14	1295.93	10.00	
9000.00	57.39	90.00	8649.81	1191.83	1264.26	1374.68	10.00	
9100.00	67.39	90.00	8696.09	1191.83	1352.76	1462.75	10.00	
9200.00	77.39	90.00	8726.31	1191.83	1447.96	1557.49	10.00	
9300.00	87.39	90.00	8739.53	1191.83	1546.95	1656.01	10.00	
9314.32	88.82	90.00	8740.00	1191.83	1561.27	1670.26	10.00	Landing Point
9400.00	88.82	90.00	8741.76	1191.83	1646.92	1755.51	0.00	
9500.00	88.82	90.00	8743.81	1191.83	1746.90	1855.01	0.00	
9600.00	88.82	90.00	8745.86	1191.83	1846.88	1954.51	0.00	
9700.00	88.82	90.00	8747.91	1191.83	1946.86	2054.01	0.00	
9800.00	88.82	90.00	8749.96	1191.83	2046.84	2153.51	0.00	
9900.00	88.82	90.00	8752.01	1191.83	2146.82	2253.01	0.00	
10000.00	88.82	90.00	8754.07	1191.83	2246.80	2352.51	0.00	
10100.00	88.82	90.00	8756.12	1191.83	2346.78	2452.01	0.00	
10200.00	88.82	90.00	8758.17	1191.83	2446.76	2551.51	0.00	
10300.00	88.82	90.00	8760.22	1191.83	2546.74	2651.01	0.00	
10400.00	88.82	90.00	8762.27	1191.83	2646.71	2750.51	0.00	
10500.00	88.82	90.00	8764.32	1191.83	2746.69	2850.01	0.00	
10600.00	88.82	90.00	8766.37	1191.83	2846.67	2949.51	0.00	
10700.00	88.82	90.00	8768.43	1191.83	2946.65	3049.01	0.00	
10800.00	88.82	90.00	8770.48	1191.83	3046.63	3148.52	0.00	
10900.00	88.82	90.00	8772.53	1191.83	3146.61	3248.02	0.00	
11000.00	88.82	90.00	8774.58	1191.83	3246.59	3347.52	0.00	
11100.00	88.82	90.00	8776.63	1191.83	3346.57	3447.02	0.00	
11200.00	88.82	90.00	8778.68	1191.83	3446.55	3546.52	0.00	
11300.00	88.82	90.00	8780.73	1191.83	3546.52	3646.02	0.00	
11400.00	88.82	90.00	8782.79	1191.83	3646.50	3745.52	0.00	
11500.00	88.82	90.00	8784.84	1191.83	3746.48	3845.02	0.00	
11600.00	88.82	90.00	8786.89	1191.83	3846.46	3944.52	0.00	
11700.00	88.82	90.00	8788.94	1191.83	3946.44	4044.02	0.00	
11800.00	88.82	90.00	8790.99	1191.83	4046.42	4143.52	0.00	
11900.00	88.82	90.00	8793.04	1191.83	4146.40	4243.02	0.00	
12000.00	88.82	90.00	8795.09	1191.83	4246.38	4342.52	0.00	
12100.00	88.82	90.00	8797.15	1191.83	4346.36	4442.02	0.00	
12200.00	88.82	90.00	8799.20	1191.83	4446.34	4541.52	0.00	
12300.00	88.82	90.00	8801.25	1191.83	4546.31	4641.02	0.00	
12400.00	88.82	90.00	8803.30	1191.83	4646.29	4740.52	0.00	
12500.00	88.82	90.00	8805.35	1191.83	4746.27	4840.02	0.00	
12600.00	88.82	90.00	8807.40	1191.83	4846.25	4939.52	0.00	
12700.00	88.82	90.00	8809.45	1191.83	4946.23	5039.02	0.00	

devon

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12800.00	88.82	90.00	8811.51	1191.83	5046.21	5138.52	0.00	
12900.00	88.82	90.00	8813.56	1191.83	5146.19	5238.02	0.00	
13000.00	88.82	90.00	8815.61	1191.83	5246.17	5337.53	0.00	
13100.00	88.82	90.00	8817.66	1191.83	5346.15	5437.03	0.00	
13200.00	88.82	90.00	8819.71	1191.83	5446.13	5536.53	0.00	
13300.00	88.82	90.00	8821.76	1191.83	5546.10	5636.03	0.00	
13400.00	88.82	90.00	8823.81	1191.83	5646.08	5735.53	0.00	
13500.00	88.82	90.00	8825.87	1191.83	5746.06	5835.03	0.00	
13600.00	88.82	90.00	8827.92	1191.83	5846.04	5934.53	0.00	
13700.00	88.82	90.00	8829.97	1191.83	5946.02	6034.03	0.00	
13800.00	88.82	90.00	8832.02	1191.83	6046.00	6133.53	0.00	
13900.00	88.82	90.00	8834.07	1191.83	6145.98	6233.03	0.00	
14000.00	88.82	90.00	8836.12	1191.83	6245.96	6332.53	0.00	
14100.00	88.82	90.00	8838.17	1191.83	6345.94	6432.03	0.00	
14200.00	88.82	90.00	8840.23	1191.83	6445.91	6531.53	0.00	
14300.00	88.82	90.00	8842.28	1191.83	6545.89	6631.03	0.00	
14400.00	88.82	90.00	8844.33	1191.83	6645.87	6730.53	0.00	
14500.00	88.82	90.00	8846.38	1191.83	6745.85	6830.03	0.00	
14600.00	88.82	90.00	8848.43	1191.83	6845.83	6929.53	0.00	
14700.00	88.82	90.00	8850.48	1191.83	6945.81	7029.03	0.00	
14800.00	88.82	90.00	8852.53	1191.83	7045.79	7128.53	0.00	
14900.00	88.82	90.00	8854.59	1191.83	7145.77	7228.03	0.00	
15000.00	88.82	90.00	8856.64	1191.83	7245.75	7327.53	0.00	
15100.00	88.82	90.00	8858.69	1191.83	7345.73	7427.03	0.00	
15200.00	88.82	90.00	8860.74	1191.83	7445.70	7526.54	0.00	
15300.00	88.82	90.00	8862.79	1191.83	7545.68	7626.04	0.00	
15400.00	88.82	90.00	8864.84	1191.83	7645.66	7725.54	0.00	
15500.00	88.82	90.00	8866.89	1191.83	7745.64	7825.04	0.00	
15600.00	88.82	90.00	8868.94	1191.83	7845.62	7924.54	0.00	
15700.00	88.82	90.00	8871.00	1191.83	7945.60	8024.04	0.00	
15800.00	88.82	90.00	8873.05	1191.83	8045.58	8123.54	0.00	
15900.00	88.82	90.00	8875.10	1191.83	8145.56	8223.04	0.00	
16000.00	88.82	90.00	8877.15	1191.83	8245.54	8322.54	0.00	
16100.00	88.82	90.00	8879.20	1191.83	8345.51	8422.04	0.00	
16200.00	88.82	90.00	8881.25	1191.83	8445.49	8521.54	0.00	
16300.00	88.82	90.00	8883.30	1191.83	8545.47	8621.04	0.00	
16400.00	88.82	90.00	8885.36	1191.83	8645.45	8720.54	0.00	
16500.00	88.82	90.00	8887.41	1191.83	8745.43	8820.04	0.00	
16600.00	88.82	90.00	8889.46	1191.83	8845.41	8919.54	0.00	
16700.00	88.82	90.00	8891.51	1191.84	8945.39	9019.04	0.00	
16800.00	88.82	90.00	8893.56	1191.84	9045.37	9118.54	0.00	
16900.00	88.82	90.00	8895.61	1191.84	9145.35	9218.04	0.00	
17000.00	88.82	90.00	8897.66	1191.84	9245.33	9317.54	0.00	
17100.00	88.82	90.00	8899.72	1191.84	9345.30	9417.04	0.00	
17200.00	88.82	90.00	8901.77	1191.84	9445.28	9516.54	0.00	
17300.00	88.82	90.00	8903.82	1191.84	9545.26	9616.04	0.00	
17400.00	88.82	90.00	8905.87	1191.84	9645.24	9715.55	0.00	
17500.00	88.82	90.00	8907.92	1191.84	9745.22	9815.05	0.00	
17600.00	88.82	90.00	8909.97	1191.84	9845.20	9914.55	0.00	
17700.00	88.82	90.00	8912.02	1191.84	9945.18	10014.05	0.00	
17800.00	88.82	90.00	8914.08	1191.84	10045.16	10113.55	0.00	
17900.00	88.82	90.00	8916.13	1191.84	10145.14	10213.05	0.00	
18000.00	88.82	90.00	8918.18	1191.84	10245.11	10312.55	0.00	
18100.00	88.82	90.00	8920.23	1191.84	10345.09	10412.05	0.00	
18200.00	88.82	90.00	8922.28	1191.84	10445.07	10511.55	0.00	
18300.00	88.82	90.00	8924.33	1191.84	10545.05	10611.05	0.00	
18400.00	88.82	90.00	8926.38	1191.84	10645.03	10710.55	0.00	
18500.00	88.82	90.00	8928.44	1191.84	10745.01	10810.05	0.00	
18600.00	88.82	90.00	8930.49	1191.84	10844.99	10909.55	0.00	
18700.00	88.82	90.00	8932.54	1191.84	10944.97	11009.05	0.00	
18800.00	88.82	90.00	8934.59	1191.84	11044.95	11108.55	0.00	
18900.00	88.82	90.00	8936.64	1191.84	11144.93	11208.05	0.00	
19000.00	88.82	90.00	8938.69	1191.84	11244.90	11307.55	0.00	
19100.00	88.82	90.00	8940.74	1191.84	11344.88	11407.05	0.00	
19200.00	88.82	90.00	8942.80	1191.84	11444.86	11506.55	0.00	
19300.00	88.82	90.00	8944.85	1191.84	11544.84	11606.05	0.00	
19400.00	88.82	90.00	8946.90	1191.84	11644.82	11705.55	0.00	
19500.00	88.82	90.00	8948.95	1191.84	11744.80	11805.05	0.00	
19600.00	88.82	90.00	8951.00	1191.84	11844.78	11904.56	0.00	
19700.00	88.82	90.00	8953.05	1191.84	11944.76	12004.06	0.00	

devon

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19800.00	88.82	90.00	8955.10	1191.84	12044.74	12103.56	0.00	
19813.09	88.82	90.00	8955.37	1191.84	12057.83	12116.58	0.00	exit
19893.09	88.82	90.00	8957.00	1191.83	12137.81	12196.18	0.00	BHL

Bent Tree 9-11 State Com 334H

1. Geologic Formations

TVD of target	8955	Pilot hole depth	N/A
MD at TD:	19893	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	100		
Salt	189		
Base of Salt	418		
Capitan	842		
Capitan Base	2600		
Delaware	2687		
Bone Spring 1st	6404		
Bone Spring 2nd	7120		
Bone Spring 3rd	8434		

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	BTC	0	125	0	125
12 1/4	9 5/8	40	J-55	BTC	0	518	0	518
8 3/4	5 1/2	17	P110	BTC	0	19893	0	8955

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for continengcy casing.

3. Cementing Program (3-String Primary Design)

Casing	# Sks	TOC	Wt. (lb/gal)	Yld (ft3/sack)	Slurry Description
Surface	129	Surf	13.2	1.4	Lead: Class C Cement + additives
Int 1	1	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
	1	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	716	500' tieback	9.0	3.3	Lead: Class H /C + additives
	2213	KOP	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-58"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and sbumitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned		Interval
	Resistivity	
	Density	
X	CBL	Production casing
X	Mud log	KOP to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	4191
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogren Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

1 Spudder rig will move in and batch drill surface hole.
    a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

X Directional Plan
_____ Other, describe