

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Rec'd 11/30/2020 - NMOCD

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.**SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		5. Lease Serial No. NMNM16131
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY		6. If Indian, Allottee or Tribe Name
Contact: JENNY HARMS E-Mail: jennifer.harms@dnv.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405-552-6560	8. Well Name and No. SHIRE 22-15 FED COM 714H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 22 T25S R31E SESE 350FSL 845FEL 32.109520 N Lat, 103.760071 W Lon		9. API Well No. 30-015-47282-00-X1
		10. Field and Pool or Exploratory Area JENNINGS-BONE SPRING, WEST
		11. County or Parish, State EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

BHL/NAME CHANGE

Devon Energy Production Co., L.P. (Devon) respectfully requests to move the BHL and have a name change on the subject well. Please see attached revised C102, Drill plan, directional plan.

Permitted BHL: NENE 330 FNL, 990 FEL, 15-25S-31E
Proposed BHL: NENE 20 FNL, 990 FEL, 15-25S-31E

Permitted Well name: SHIRE 22-15 FED COM 714H
Proposed Well name: SHIRE 22-15 FED COM 618H

Entered - KMS NMOCD

14. I hereby certify that the foregoing is true and correct. Electronic Submission #537548 verified by the BLM Well Information System For DEVON ENERGY PRODUCTION COM LP, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 11/19/2020 (21PP0613SE)	
Name (Printed/Typed) JENNY HARMS	Title REGULATORY COMPLIANCE ANALYST
Signature (Electronic Submission)	Date 11/16/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By LONG VO	Title PETROLEUM ENGINEER	Date 11/22/2020
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.		Office Carlsbad

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Revisions to Operator-Submitted EC Data for Sundry Notice #537548

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMNM16131	NMNM16131
Agreement:		
Operator:	DEVON ENERGY PRODUCTION CO LP 333 W SHERIDAN AVE OKLAHOMA CITY, OK 73102 Ph: 405-552-6560	DEVON ENERGY PRODUCTION COM LP 333 WEST SHERIDAN AVENUE OKLAHOMA CITY, OK 73102 Ph: 405 552 6571
Admin Contact:	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dnv.com Ph: 405-552-6560	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dnv.com Ph: 405-552-6560
Tech Contact:	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dnv.com Ph: 405-552-6560	JENNY HARMS REGULATORY COMPLIANCE ANALYST E-Mail: jennifer.harms@dnv.com Ph: 405-552-6560
Location:		
State:	NM	NM
County:	EDDY	EDDY
Field/Pool:	PURPLE SAGE; WOLFCAMP	JENNINGS-BONE SPRING, WEST
Well/Facility:	SHIRE 22-15 FED COM 714H Sec 22 T25S R31E SESE 350FSL 845FEL	SHIRE 22-15 FED COM 714H Sec 22 T25S R31E SESE 350FSL 845FEL 32.109520 N Lat, 103.760071 W Lon

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 Road, 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, NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-47282	² Pool Code 98220	³ Pool Name PURPLE SAGE; WOLFCAMP (GAS)
⁴ Property Code 328885	⁵ Property Name SHIRE 22-15 FED COM	⁶ Well Number 618H
⁷ OGRID No. 6137	⁸ Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	⁹ Elevation 3336.5

¹⁰ Surface Location

UL or lot no. P	Section 22	Township 25 S	Range 31 E	Lot Idn	Feet from the 350	North/South line SOUTH	Feet from the 845	East/West line EAST	County EDDY
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. A	Section 15	Township 25 S	Range 31 E	Lot Idn	Feet from the 20	North/South line NORTH	Feet from the 990	East/West line EAST	County EDDY
¹² Dedicated Acres 640	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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.

N89°42'57"E 2652.44 FT N89°37'34"E 2664.18 FT NW CORNER SEC. 15 LAT. = 32.1376857°N LONG. = 103.7743767°W NMSP EAST (FT) N = 414274.67 E = 714349.16 W/4 CORNER SEC. 15 LAT. = 32.1303992°N LONG. = 103.7744266°W NMSP EAST (FT) N = 411623.90 E = 714347.47 SECTION CORNER LAT. = 32.1230977°N LONG. = 103.7744128°W NMSP EAST (FT) N = 408967.74 E = 714365.52 W/4 CORNER SEC. 22 LAT. = 32.1158227°N LONG. = 103.7744477°W NMSP EAST (FT) N = 406321.16 E = 714369.37 SW CORNER SEC. 22 LAT. = 32.1085472°N LONG. = 103.7744766°W NMSP EAST (FT) N = 403674.44 E = 714373.22 N/4 CORNER SEC. 15 LAT. = 32.1376837°N LONG. = 103.7658094°W NMSP EAST (FT) N = 414287.82 E = 717000.99 LAST TAKE POINT 100' FNL, 990' FEL LAT. = 32.1374146°N LONG. = 103.7604046°W SEC. 15 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. ELEVATION VALUES ARE NAVD88. QUARTER CORNER LAT. = 32.1230874°N LONG. = 103.7659304°W NMSP EAST (FT) N = 408977.73 E = 716991.53 2626.60 FT 2664.80 FT SEC. 22 FIRST TAKE POINT 100' FSL, 990' FEL LAT. = 32.1088321°N LONG. = 103.7605403°W SHIRE 22-15 FED COM 618H ELEV. = 3336.5' LAT. = 32.1095195°N (NAD83) LONG. = 103.7600721°W NMSP EAST (FT) N = 404051.54 E = 718831.39 S/4 CORNER SEC. 22 LAT. = 32.1085528°N LONG. = 103.7659126°W NMSP EAST (FT) N = 403690.32 E = 717024.86 SURFACE LOCATION FTP 845' S89°39'25"W 2652.26 FT S89°38'30"W 2653.78 FT	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Jenny Harms</i> 11-16-2020 Signature Date JENNY HARMS Printed Name JENNY.HARMS@DVN.COM E-mail Address ¹⁸ 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. SEPTEMBER 30, 2020 Date of Survey Signature and Seal of Professional Surveyor: Certificate Number: F. J. MONTE JARAMILLO, PLS 12797 SURVEY NO. 7575A
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Intent ☒ As Drilled ☐

API #		
Operator Name: DEVON ENERGY PRODUCTION COMPANY, L.P.	Property Name: SHIRE 22-15 FED COM	Well Number 618H

Kick Off Point (KOP)

UL	Section 22	Township 25S	Range 31E	Lot	Feet 44 FSL	From N/S	Feet 990 FEL	From E/W	County EDDY
Latitude 32.10856643					Longitude -103.76054448			NAD 83	

First Take Point (FTP)

UL P	Section 22	Township 25S	Range 31E	Lot	Feet 100	From N/S SOUTH	Feet 990	From E/W EAST	County EDDY
Latitude 32.1088321					Longitude 103.7605403			NAD 83	

Last Take Point (LTP)

UL A	Section 15	Township 25S	Range 31E	Lot	Feet 100	From N/S NORTH	Feet 990	From E/W EAST	County EDDY
Latitude 32.1374146					Longitude 103.7604046			NAD 83	

Is this well the defining well for the Horizontal Spacing Unit? ☐ NO

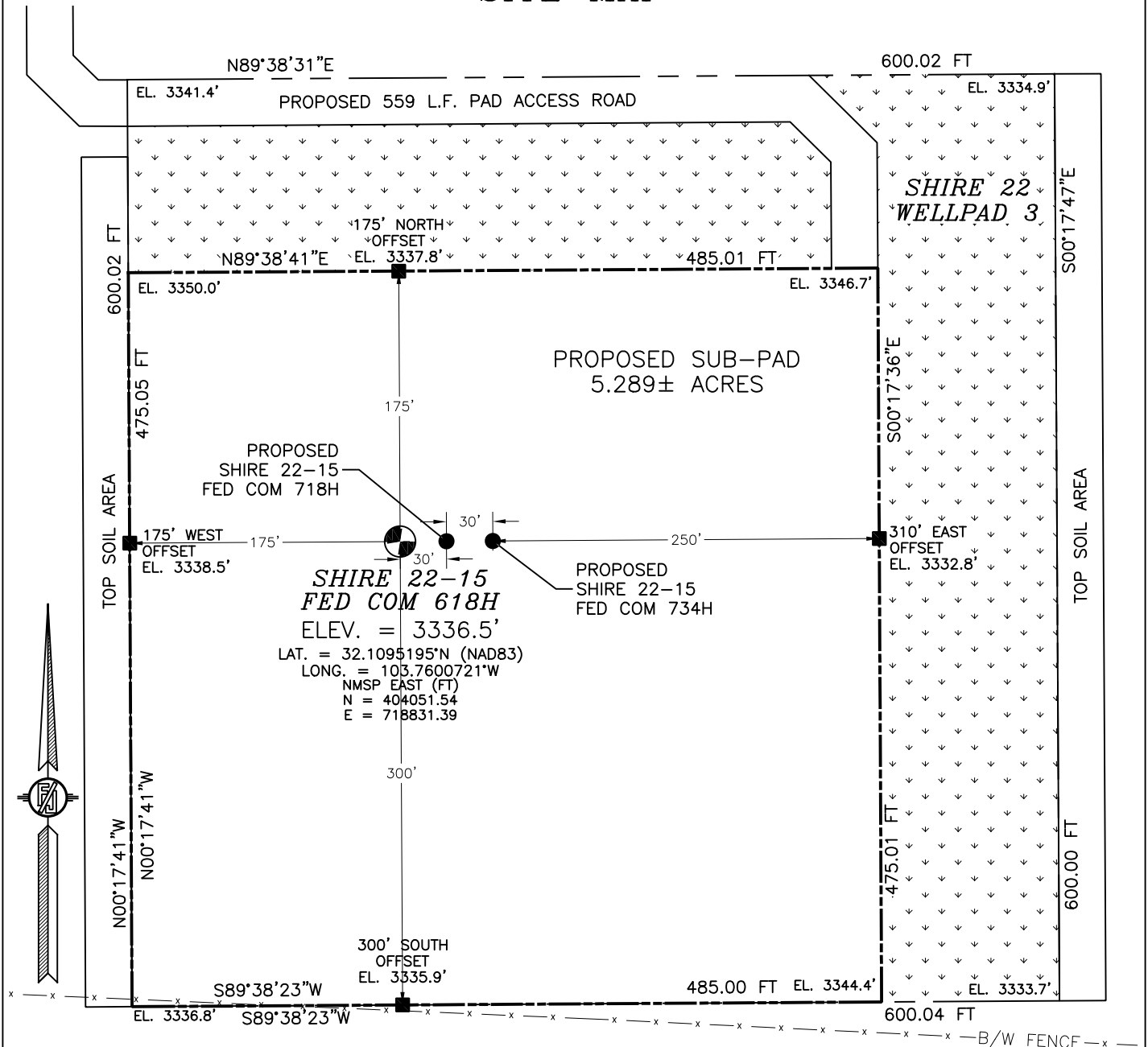
Is this well an infill well? ☐ YES

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

KZ 06/29/2018

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SITE MAP



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. 128 & CR. 1 (ORLA) GO SOUTH ON CR.1 APPROX 6.2 MILES, TURN RIGHT (WEST) ON EXISTING CALICHE ROAD (MONSANTO) AND GO APPROX 2.2 MILES, ROAD TURNS RIGHT (NORTH) AND GO APPROX 0.8 MILES, ROAD TURNS LEFT (WEST) AND GO APPROX. 2 MILES, TURN LEFT (SOUTHWEST) AND GO APPROX. 0.7 MILES, ROAD TURNS LEFT (SOUTH) AND GO APPROX. 0.2 MILES, TURN LEFT AND GO WEST APPROX. 0.2 MILES TO A PROPOSED ROAD LATH ON SOUTH SIDE OF ROAD, FOLLOW ROAD LATHS 1224' SOUTH, THEN EAST 485', THEN SOUTHEAST 50', THEN SOUTH 75' TO THE NORTHEAST RAIL CORNER FOR THIS LOCATION.

I, FILIMON F. JARAMILLO, A NEW MEXICO LICENSED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT I HAVE COMPLIED WITH THE MINIMUM STANDARDS FOR SURVEYING IN THE STATE OF NEW MEXICO.

FILIMON F. JARAMILLO, LICENSE NO. 7084

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

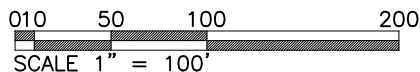
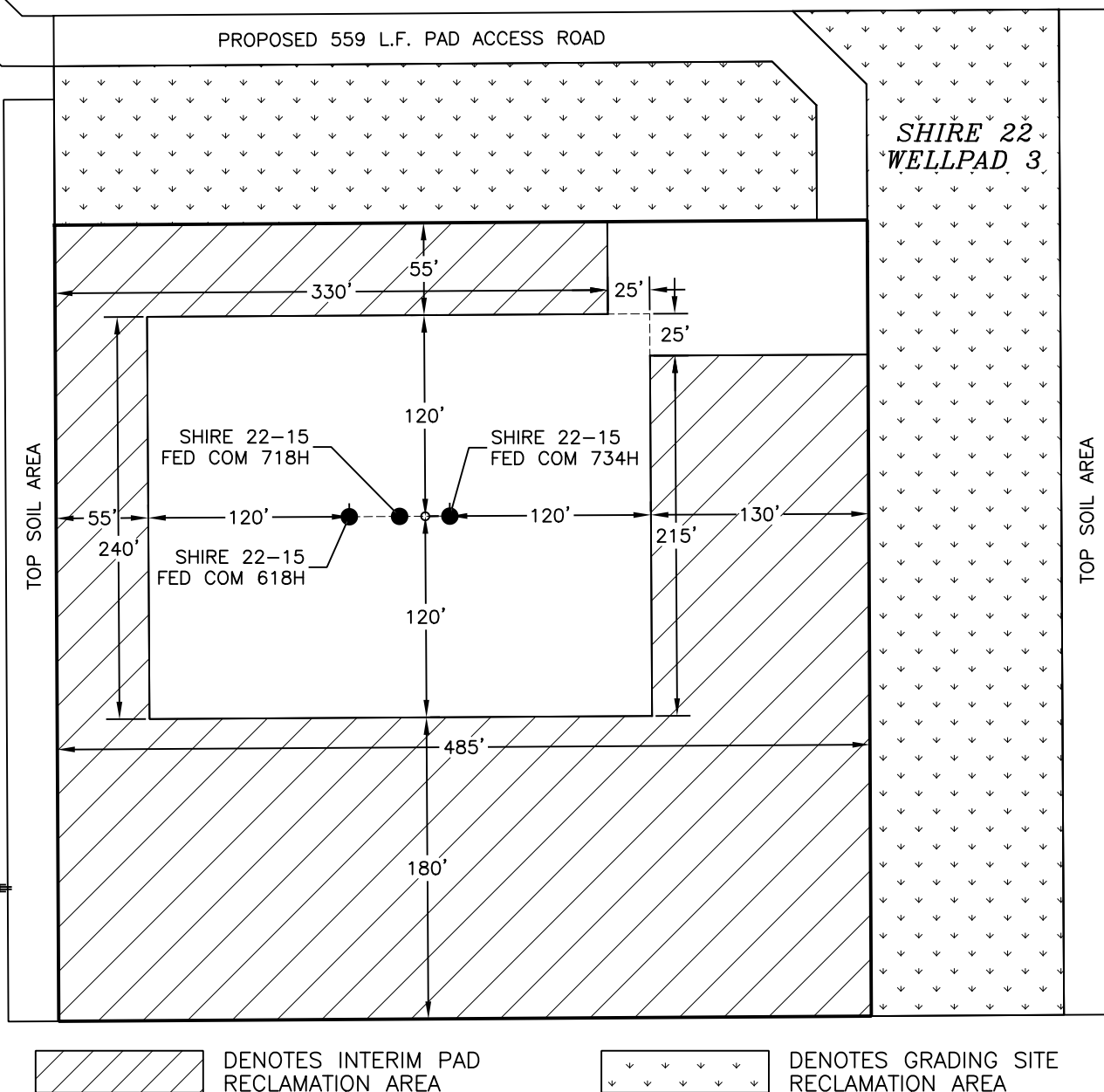
DEVON ENERGY PRODUCTION COMPANY, L.P.
SHIRE 22-15 FED COM 618H
LOCATED 350 FT. FROM THE SOUTH LINE
AND 845 FT. FROM THE EAST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

SURVEY NO. 7575A

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
INTERIM SITE BUILD PLAN



3.365± ACRES	INTERIM PAD RECLAMATION AREA
2.590± ACRES	GRADING SITE RECLAMATION AREA
2.310± ACRES	NON-RECLAIMED AREA
8.265± ACRES	SHIRE 22 WELLPAD 3

*DEVON ENERGY PRODUCTION COMPANY, L.P.
SHIRE 22-15 FED COM 618H
LOCATED 350 FT. FROM THE SOUTH LINE
AND 845 FT. FROM THE EAST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO*

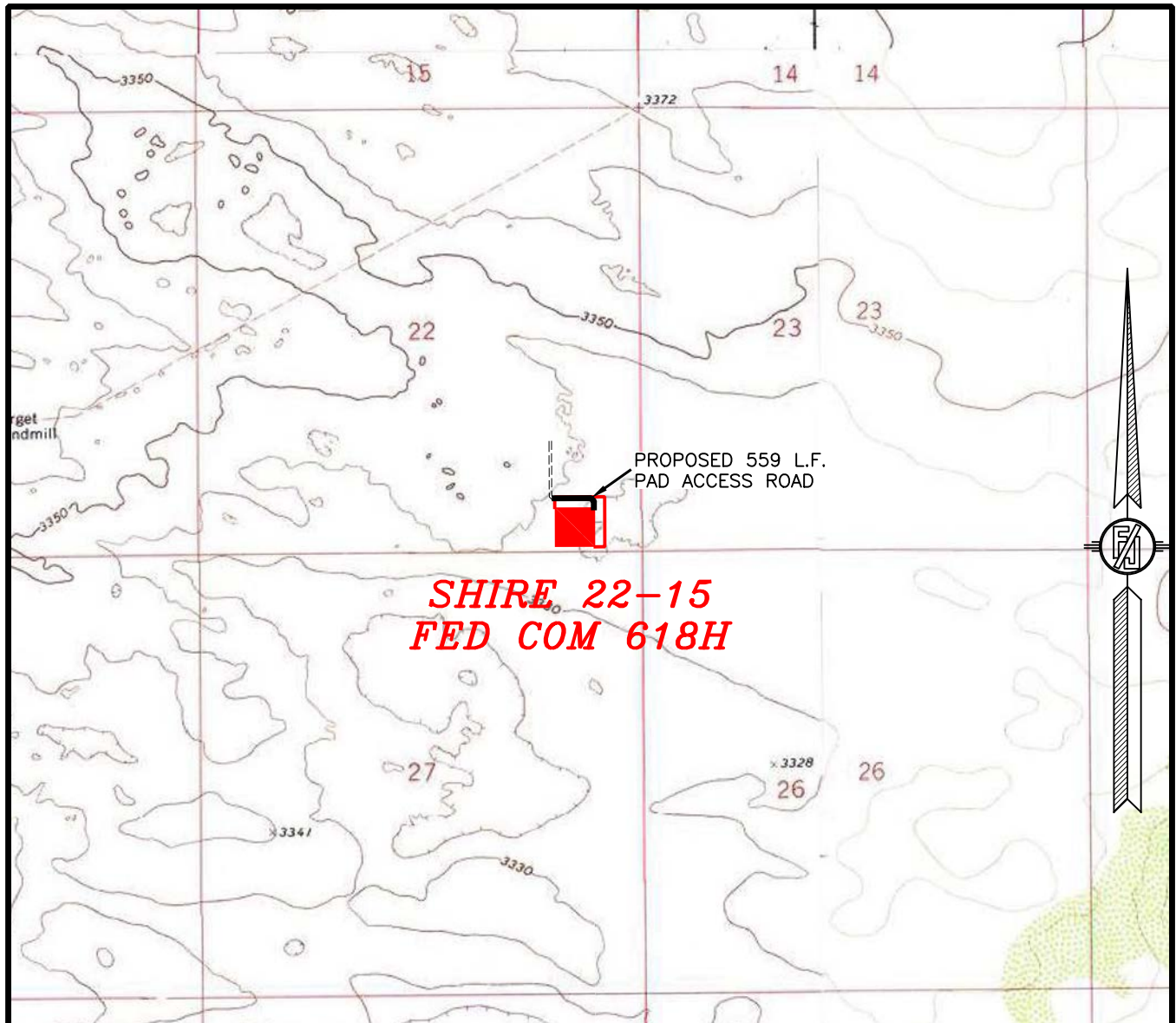
SEPTEMBER 30, 2020

SURVEY NO. 7575A

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
PHANTOM BANKS

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
SHIRE 22-15 FED COM 618H
LOCATED 350 FT. FROM THE SOUTH LINE
AND 845 FT. FROM THE EAST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

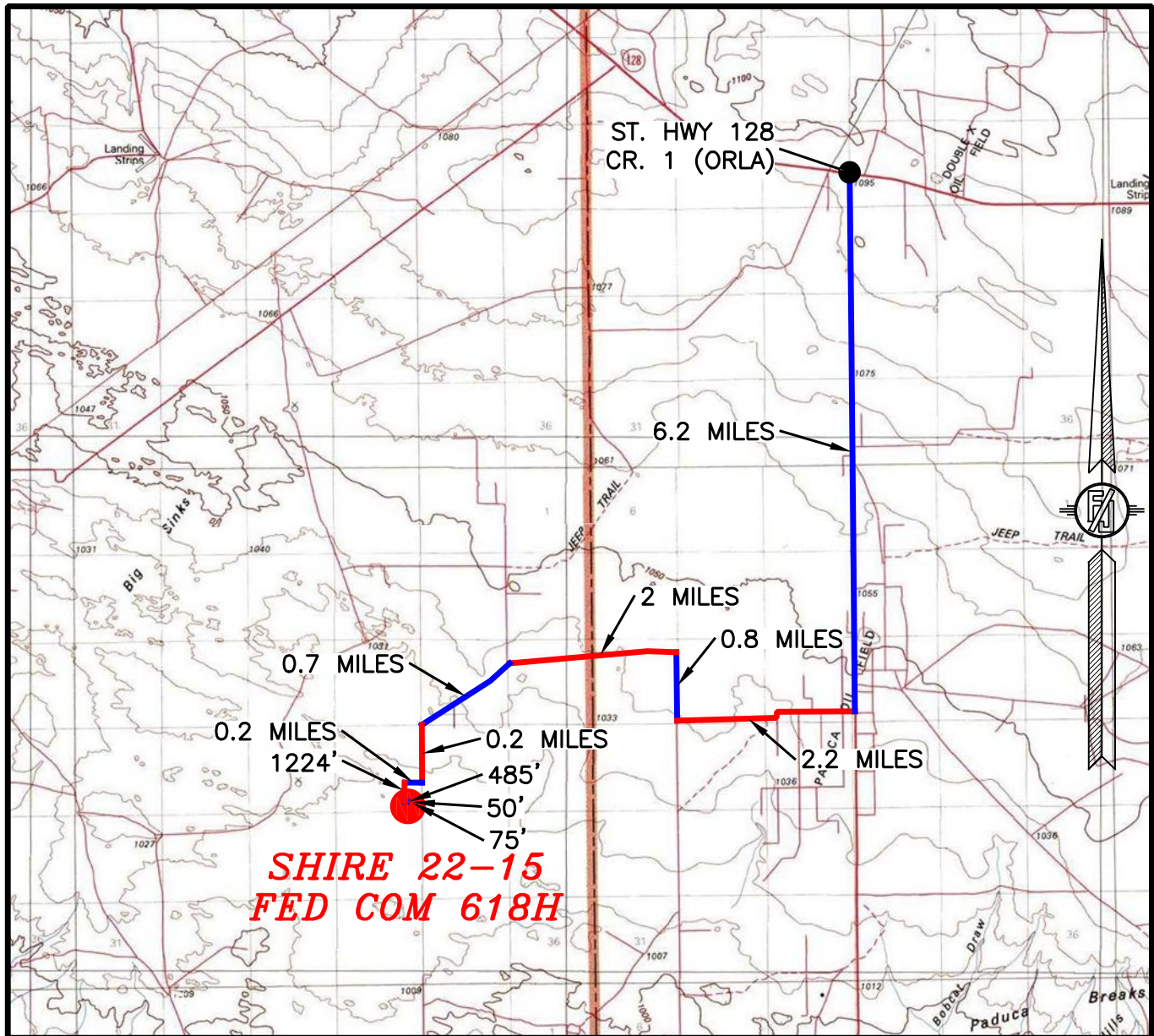
MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 7575A

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF ST. HWY. 128 & CR. 1 (ORLA) GO SOUTH ON CR.1 APPROX 6.2 MILES, TURN RIGHT (WEST) ON EXISTING CALICHE ROAD (MONSANTO) AND GO APPROX 2.2 MILES, ROAD TURNS RIGHT (NORTH) AND GO APPROX 0.8 MILES, ROAD TURNS LEFT (WEST) AND GO APPROX. 2 MILES, TURN LEFT (SOUTHWEST) AND GO APPROX. 0.7 MILES, ROAD TURNS LEFT (SOUTH) AND GO APPROX. 0.2 MILES, TURN LEFT AND GO WEST APPROX. 0.2 MILES TO A PROPOSED ROAD LATH ON SOUTH SIDE OF ROAD, FOLLOW ROAD LATHS 1224' SOUTH, THEN EAST 485', THEN SOUTHEAST 50', THEN SOUTH 75' TO THE NORTHEAST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

SHIRE 22-15 FED COM 618H

LOCATED 350 FT. FROM THE SOUTH LINE
AND 845 FT. FROM THE EAST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

SURVEY NO. 7575A

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
FEB. 2019

DEVON ENERGY PRODUCTION COMPANY, L.P.
SHIRE 22-15 FED COM 618H
LOCATED 350 FT. FROM THE SOUTH LINE
AND 845 FT. FROM THE EAST LINE OF
SECTION 22, TOWNSHIP 25 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

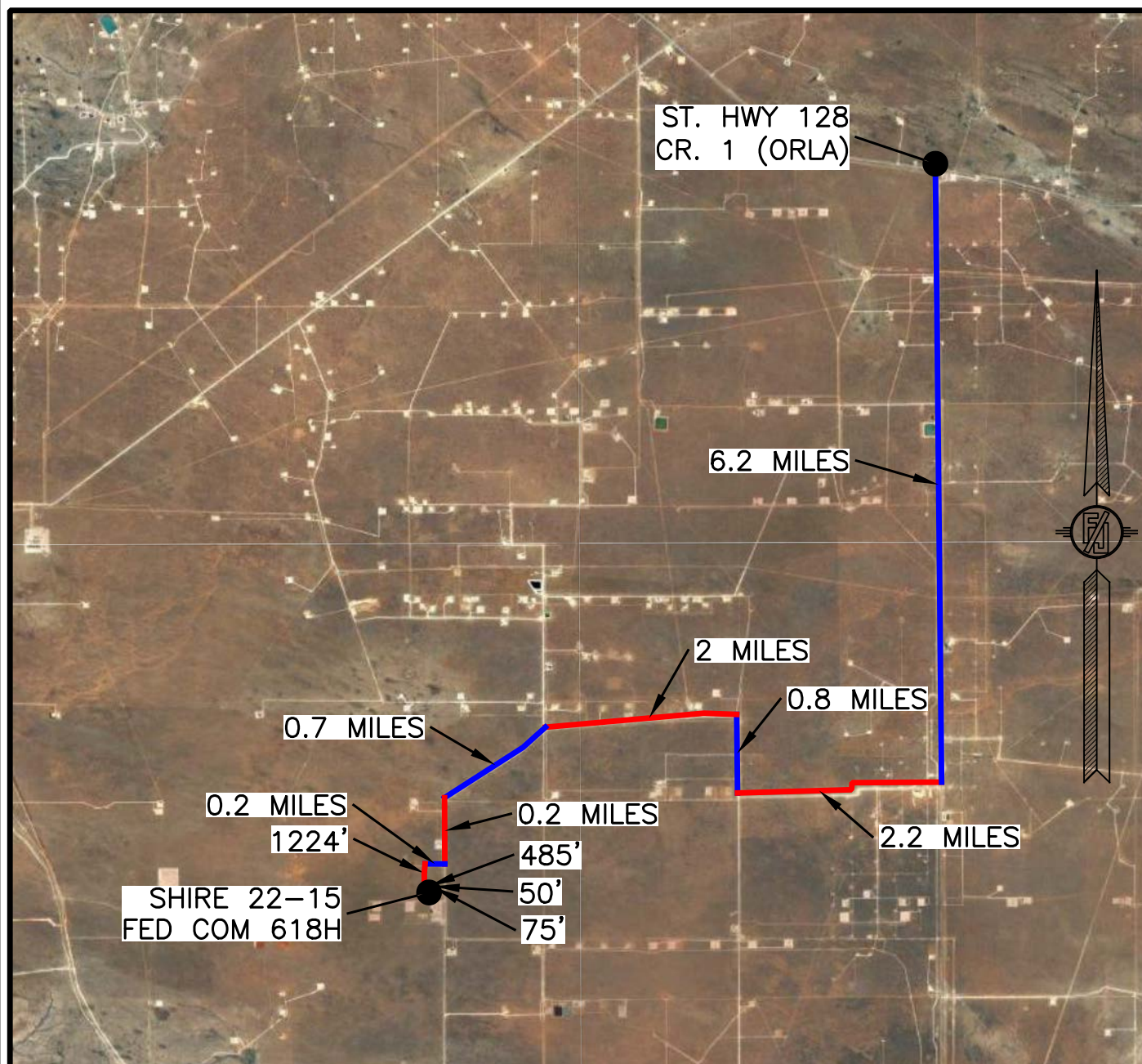
SEPTEMBER 30, 2020

MADRON SURVEYING, INC.

301 SOUTH CANAL
(575) 234-3341

SURVEY NO. 7575A
CARLSBAD, NEW MEXICO

SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 AERIAL ACCESS ROUTE MAP



NOT TO SCALE
 AERIAL PHOTO:
 GOOGLE EARTH
 FEB. 2019

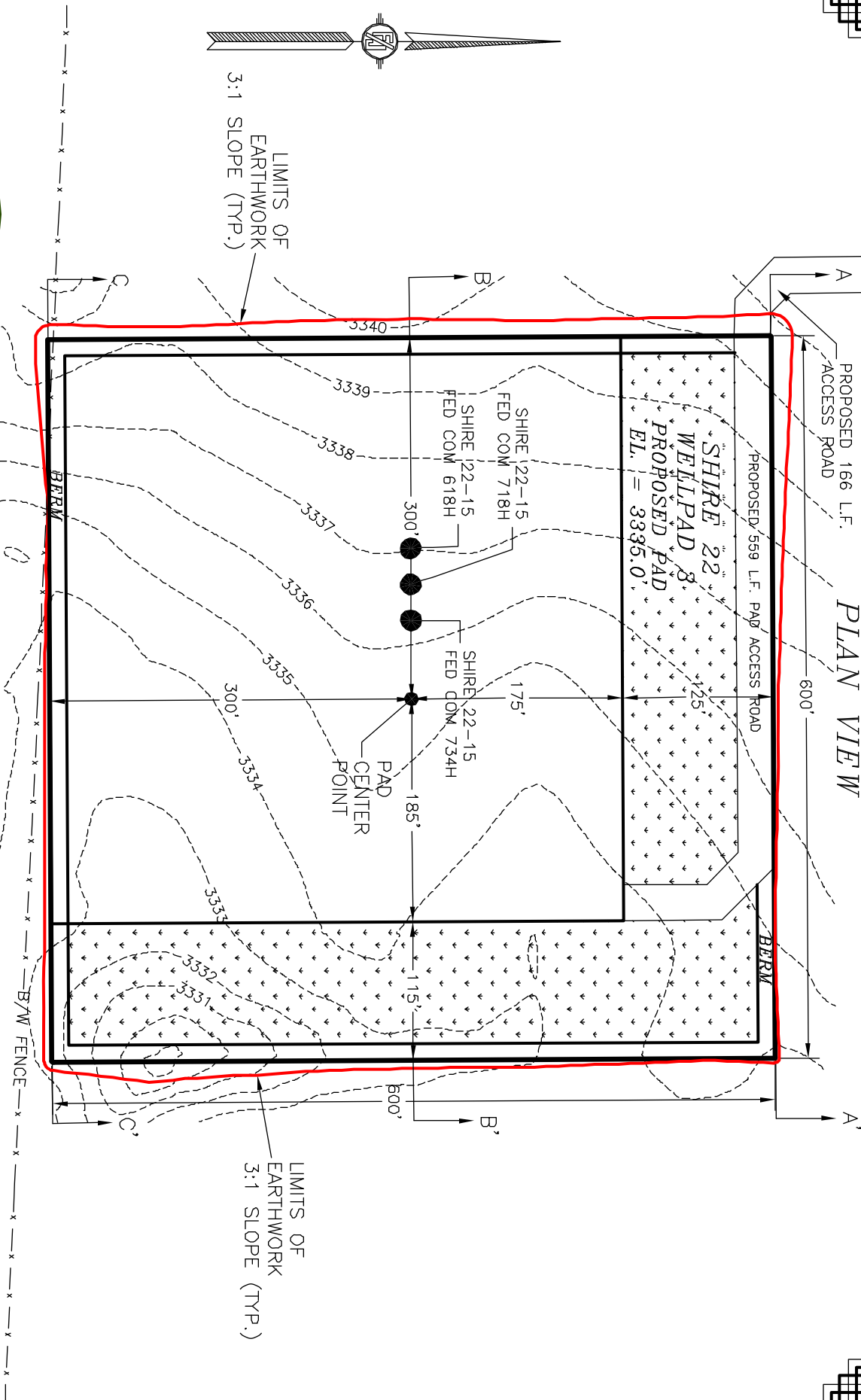
DEVON ENERGY PRODUCTION COMPANY, L.P.
SHIRE 22-15 FED COM 618H
 LOCATED 350 FT. FROM THE SOUTH LINE
 AND 845 FT. FROM THE EAST LINE OF
 SECTION 22, TOWNSHIP 25 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020

SURVEY NO. 7575A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

PLAN VIEW



I, FILMON F. JARVIS, JR., A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE PERSONALLY AND RESPONSIBLY FOR THIS SURVEY, THAT THE CONVEYED INTERESTS AND PROPERTY TO THE BEST OF MY KNOWLEDGE AND BELIEF ACCORD WITH THE SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

DEVON ENERGY PRODUCTION COMPANY, L.P.
 PAD GRADING AND CROSS SECTIONS
FOR SHIRE 22-15 FED COM 618H
 SECTION 22, TOWNSHIP 26 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

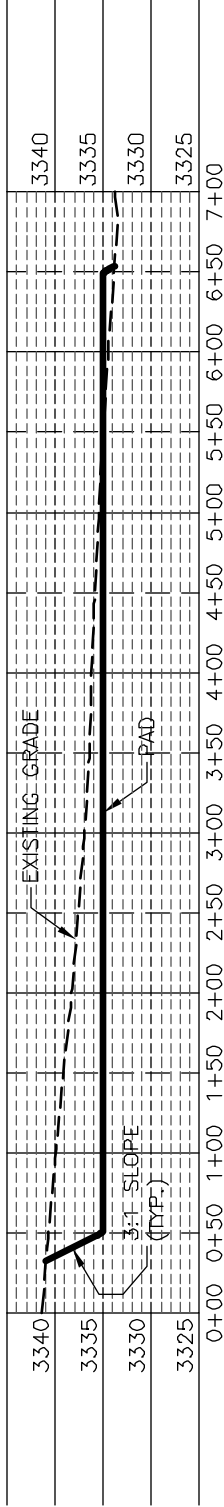
012 60 120 240
 SCALE 1" = 120'

CUT	FILL	NET
14239 CU. YD	10561 CU. YD	3678 CU. YD (CUT)

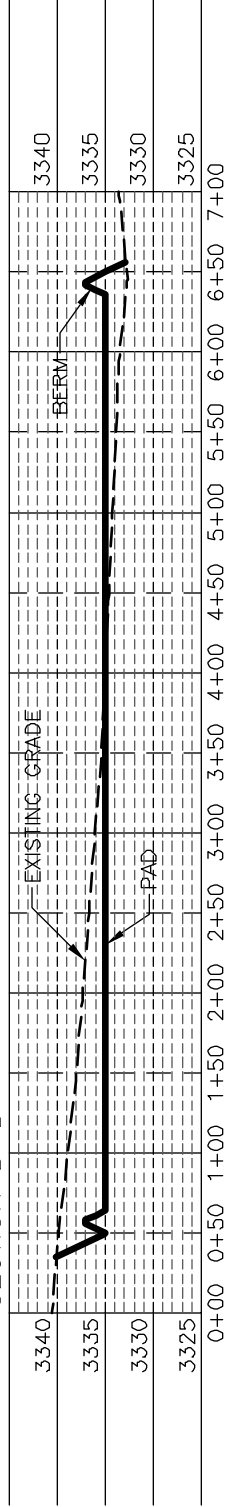
EARTHWORK QUANTITIES ARE ESTIMATED

CROSS-SECTIONS

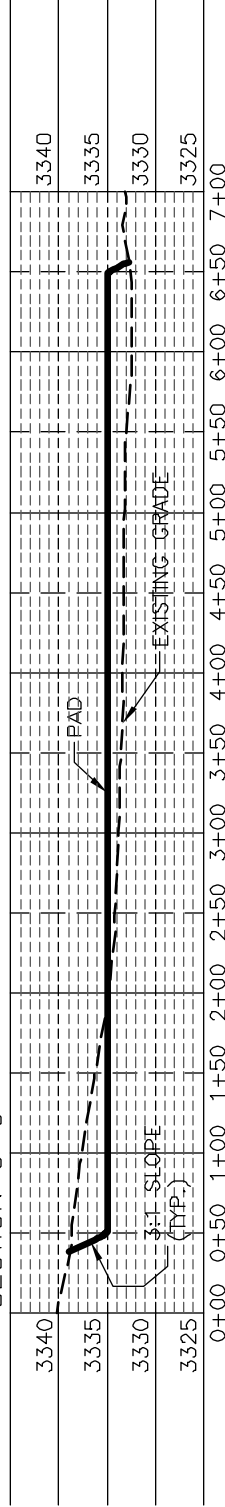
SECTION A-A'



SECTION B-B'



SECTION C-C'



I, FILMON F. JARAMA, A REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I HAVE PERSONALLY AND RESPONSIBLY CONDUCTED THIS SURVEY, THAT THE SURVEYING INSTRUMENTS AND EQUIPMENT USED WERE CALIBRATED AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

[Signature]
 FILMON F. JARAMA, REGISTERED PROFESSIONAL SURVEYOR
 12297
 12297

DEVON ENERGY PRODUCTION COMPANY, L.P.
 PAD GRADING AND CROSS SECTIONS
FOR SHIRE 22-15 FED COM 618H
 SECTION 22, TOWNSHIP 25 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

SEPTEMBER 30, 2020
 301 SOUTH CANAL
 SURVEYING, INC. (575) 234-3341

CARLSBAD, NEW MEXICO

SURVEY NO. 7575A

SHEET 2-2

012 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

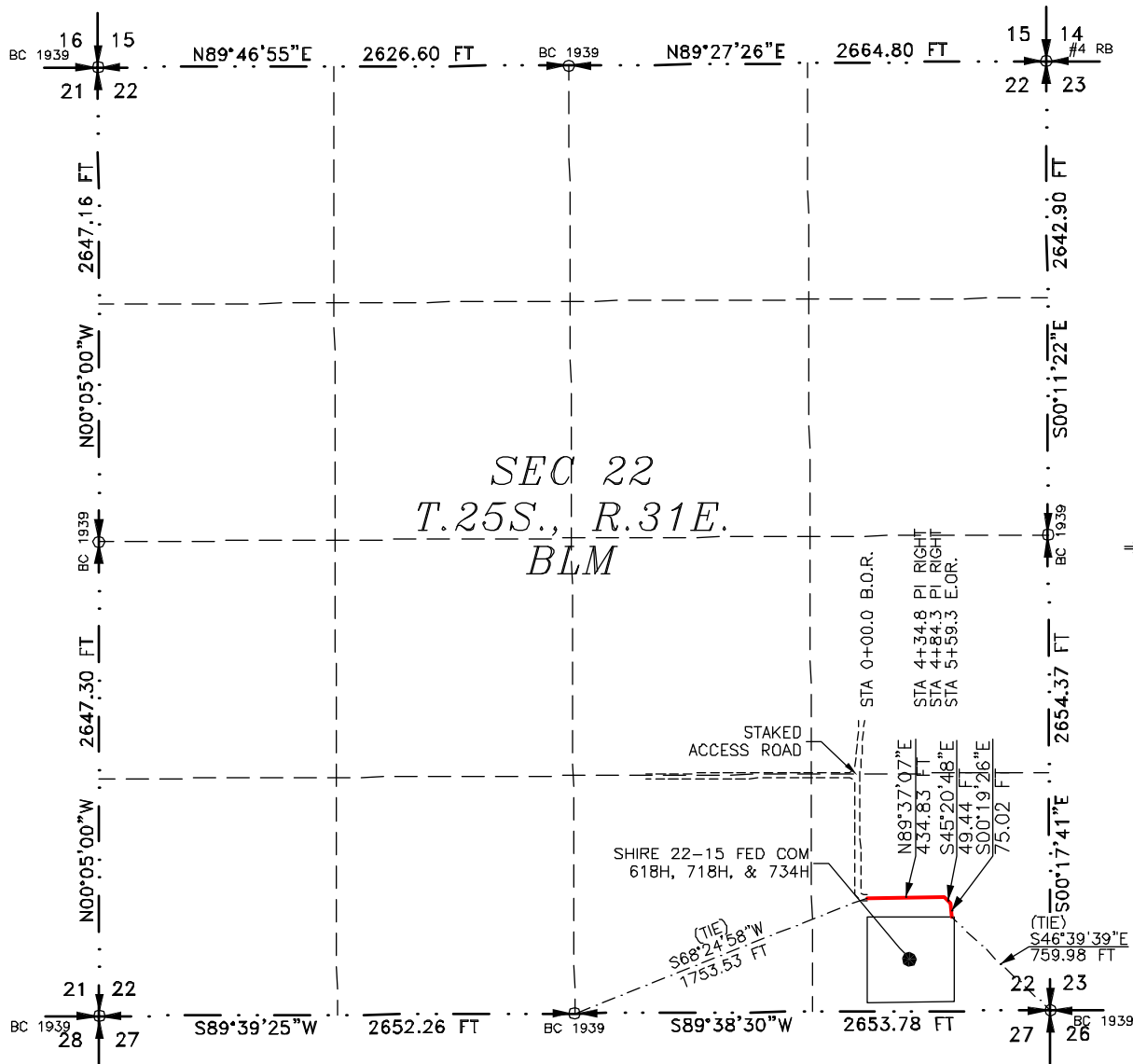
CUT	FILL	NET
14239 CU. YD.	10561 CU. YD.	3678 CU. YD. (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

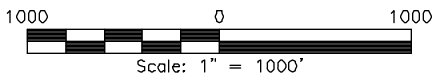
ACCESS ROAD PLAT

PAD ACCESS ROAD FOR SHIRE 22-15 FED COM 618H, 718H, & 734H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 30, 2020



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30th DAY OF SEPTEMBER 2020

FILMON F. JARAMILLO, PLS
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 7575A

301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

ACCESS ROAD PLAT

PAD ACCESS ROAD FOR SHIRE 22-15 FED COM 618H, 718H, & 734H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
SEPTEMBER 30, 2020

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S68°24'58"W, A DISTANCE OF 1753.53 FEET;
THENCE N89°37'07"E A DISTANCE OF 434.83 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S45°20'48"E A DISTANCE OF 49.44 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE S00°19'26"E A DISTANCE OF 75.02 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 22, TOWNSHIP 25 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S46°39'39"E, A DISTANCE OF 759.98 FEET;

SAID STRIP OF LAND BEING 559.29 FEET OR 33.90 RODS IN LENGTH, CONTAINING 0.385 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4 559.29 L.F. 33.90 RODS 0.385 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 30th DAY OF SEPTEMBER 2020

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

FILIMON F. JARAMILLO, PLS. 12797

SURVEY NO. 7575A

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

1. Geologic Formations

TVD of target	11636	Pilot hole depth	N/A
MD at TD:	22032	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	1160		
Salt	1460		
Base of Salt	4330		
Cherry Canyon	5295		
Brushy Canyon	6650		
1st Bone Spring Lime	8250		
1st Bone Spring Sand	9330		
Bone Spring 2nd	9950		
3rd Bone Spring Lime	10440		
Bone Spring 3rd	11215		
Wolfcamp	11670		

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

2. Casing Program (Primary Design)

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	STC	0	1185	0	1185
9 7/8	8 5/8	32	P110	TLW	0	11215	0	11215
7 7/8	5 1/2	17	P110	BTC	0	22032	0	11636

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

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	896	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	475	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	475	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	9169	9	3.27	Lead: Class H / C + additives
	1438	11169	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	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		13-5/8"	5M	Annular		X	50% of rated working pressure
				Blind Ram		X	5M
				Pipe Ram			
				Double Ram		X	
				Other*			
Production		13-5/8"	5M	Annular (5M)		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*			
N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.						
Y	A variance is requested to run a 5 M annular on a 10M system						

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

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 submitted 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	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH pressure at deepest TVD	6353
Abnormal temperature	No

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

Hydrogen 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	H ₂ S is present
Y	H ₂ S 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 pa.
- 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. A that time an approved BOP stack will be nipped 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

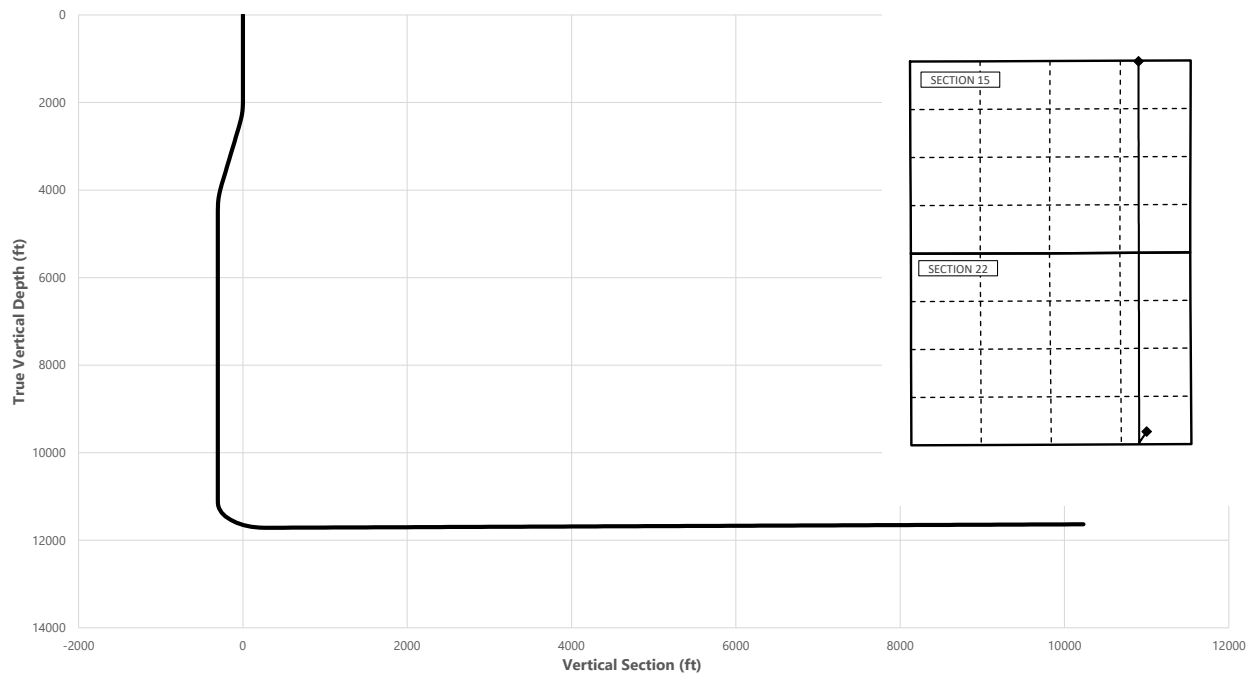
<u>X</u>	Directional Plan
<u> </u>	Other, describe



Well: Shire 22-15 Fed Com 618H
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	205.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	205.00	2497.47	-39.44	-18.39	-39.16	1.00	Hold Tangent
3946.61	10.00	205.00	3922.10	-267.11	-124.56	-265.17	0.00	Drop to Vertical
4446.61	0.00	205.00	4419.57	-306.56	-142.95	-304.33	2.00	Hold Vertical
11169.11	0.00	359.93	11142.06	-306.56	-142.95	-304.33	0.00	KOP
12073.71	90.46	359.93	11715.00	271.00	-143.71	273.17	10.00	Landing Point
22032.48	90.46	359.93	11635.00	10229.44	-156.74	10230.64	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	0.00	0.00
Salt	1460.00	1460.00
Base of Salt	4357.03	4330.00
Cherry Canyon	5322.05	5295.00
Brushy Canyon	6677.05	6650.00
1st Bone Spring Lime	8277.05	8250.00
1st Bone Spring Sand	9357.05	9330.00
Bone Spring 2nd	9977.05	9950.00
3rd Bone Spring Lime	10467.05	10440.00
Bone Spring 3rd	11242.24	11215.00
Wolfcamp / Point of Penetration	11840.46	11670.00
EXIT	21952.48	11635.66

SHL
KOP
Point of Penetration
Exit
BHL

MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
0.00	0.00	32.1094	-103.7602	350' FSL, 845' FEL of Sec 22 in T25S, R31E
11169.11	11142.06	32.1086	-103.7606	44' FSL, 990' FEL of Sec 22 in T25S, R31E
11840.46	11670.00	32.1088	-103.7605	100' FSL, 990' FEL of Sec 22 in T25S, R31E
21952.48	11635.66	32.1374	-103.7604	100' FNL, 990' FEL of Sec 15 in T25S, R31E
22032.48	11635.00	32.1375	-103.7605	20' FNL, 990' FEL of Sec 15 in T25S, R31E



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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	205.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	205.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	205.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	205.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	205.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	205.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	205.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	205.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	205.00	900.00	0.00	0.00	0.00	0.00	
1000.00	0.00	205.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	205.00	1100.00	0.00	0.00	0.00	0.00	
1160.00	0.00	205.00	1160.00	0.00	0.00	0.00	0.00	Rustler
1200.00	0.00	205.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	205.00	1300.00	0.00	0.00	0.00	0.00	
1400.00	0.00	205.00	1400.00	0.00	0.00	0.00	0.00	
1460.00	0.00	205.00	1460.00	0.00	0.00	0.00	0.00	Salt
1500.00	0.00	205.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	205.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	205.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	205.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	205.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	205.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	205.00	2099.98	-1.58	-0.74	-1.57	2.00	
2200.00	4.00	205.00	2199.84	-6.32	-2.95	-6.28	2.00	
2300.00	6.00	205.00	2299.45	-14.22	-6.63	-14.12	2.00	
2400.00	8.00	205.00	2398.70	-25.27	-11.78	-25.08	2.00	
2500.00	10.00	205.00	2497.47	-39.44	-18.39	-39.16	1.00	Hold Tangent
2600.00	10.00	205.00	2595.95	-55.18	-25.73	-54.78	0.00	
2700.00	10.00	205.00	2694.43	-70.92	-33.07	-70.41	0.00	
2800.00	10.00	205.00	2792.91	-86.66	-40.41	-86.03	0.00	
2900.00	10.00	205.00	2891.39	-102.40	-47.75	-101.65	0.00	
3000.00	10.00	205.00	2989.87	-118.13	-55.09	-117.28	0.00	
3100.00	10.00	205.00	3088.35	-133.87	-62.43	-132.90	0.00	
3200.00	10.00	205.00	3186.83	-149.61	-69.76	-148.52	0.00	
3300.00	10.00	205.00	3285.31	-165.35	-77.10	-164.15	0.00	
3400.00	10.00	205.00	3383.79	-181.09	-84.44	-179.77	0.00	
3500.00	10.00	205.00	3482.27	-196.82	-91.78	-195.39	0.00	
3600.00	10.00	205.00	3580.75	-212.56	-99.12	-211.02	0.00	
3700.00	10.00	205.00	3679.23	-228.30	-106.46	-226.64	0.00	
3800.00	10.00	205.00	3777.72	-244.04	-113.80	-242.27	0.00	
3900.00	10.00	205.00	3876.20	-259.78	-121.13	-257.89	0.00	
3946.61	10.00	205.00	3922.10	-267.11	-124.56	-265.17	0.00	Drop to Vertical
4000.00	8.93	205.00	3974.76	-275.07	-128.27	-273.07	2.00	
4100.00	6.93	205.00	4073.80	-287.58	-134.10	-285.49	2.00	
4200.00	4.93	205.00	4173.26	-296.94	-138.47	-294.79	2.00	
4300.00	2.93	205.00	4273.02	-303.16	-141.36	-300.95	2.00	
4357.03	1.79	205.00	4330.00	-305.29	-142.36	-303.07	2.00	Base of Salt
4400.00	0.93	205.00	4372.96	-306.21	-142.79	-303.99	2.00	
4446.61	0.00	205.00	4419.57	-306.56	-142.95	-304.33	2.00	Hold Vertical
4500.00	0.00	359.93	4472.95	-306.56	-142.95	-304.33	0.00	
4600.00	0.00	359.93	4572.95	-306.56	-142.95	-304.33	0.00	
4700.00	0.00	359.93	4672.95	-306.56	-142.95	-304.33	0.00	
4800.00	0.00	359.93	4772.95	-306.56	-142.95	-304.33	0.00	
4900.00	0.00	359.93	4872.95	-306.56	-142.95	-304.33	0.00	
5000.00	0.00	359.93	4972.95	-306.56	-142.95	-304.33	0.00	
5100.00	0.00	359.93	5072.95	-306.56	-142.95	-304.33	0.00	
5200.00	0.00	359.93	5172.95	-306.56	-142.95	-304.33	0.00	
5300.00	0.00	359.93	5272.95	-306.56	-142.95	-304.33	0.00	
5322.05	0.00	359.93	5295.00	-306.56	-142.95	-304.33	0.00	Cherry Canyon
5400.00	0.00	359.93	5372.95	-306.56	-142.95	-304.33	0.00	
5500.00	0.00	359.93	5472.95	-306.56	-142.95	-304.33	0.00	
5600.00	0.00	359.93	5572.95	-306.56	-142.95	-304.33	0.00	
5700.00	0.00	359.93	5672.95	-306.56	-142.95	-304.33	0.00	
5800.00	0.00	359.93	5772.95	-306.56	-142.95	-304.33	0.00	
5900.00	0.00	359.93	5872.95	-306.56	-142.95	-304.33	0.00	
6000.00	0.00	359.93	5972.95	-306.56	-142.95	-304.33	0.00	
6100.00	0.00	359.93	6072.95	-306.56	-142.95	-304.33	0.00	
6200.00	0.00	359.93	6172.95	-306.56	-142.95	-304.33	0.00	
6300.00	0.00	359.93	6272.95	-306.56	-142.95	-304.33	0.00	



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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	0.00	359.93	6372.95	-306.56	-142.95	-304.33	0.00	
6500.00	0.00	359.93	6472.95	-306.56	-142.95	-304.33	0.00	
6600.00	0.00	359.93	6572.95	-306.56	-142.95	-304.33	0.00	
6677.05	0.00	359.93	6650.00	-306.56	-142.95	-304.33	0.00	Brushy Canyon
6700.00	0.00	359.93	6672.95	-306.56	-142.95	-304.33	0.00	
6800.00	0.00	359.93	6772.95	-306.56	-142.95	-304.33	0.00	
6900.00	0.00	359.93	6872.95	-306.56	-142.95	-304.33	0.00	
7000.00	0.00	359.93	6972.95	-306.56	-142.95	-304.33	0.00	
7100.00	0.00	359.93	7072.95	-306.56	-142.95	-304.33	0.00	
7200.00	0.00	359.93	7172.95	-306.56	-142.95	-304.33	0.00	
7300.00	0.00	359.93	7272.95	-306.56	-142.95	-304.33	0.00	
7400.00	0.00	359.93	7372.95	-306.56	-142.95	-304.33	0.00	
7500.00	0.00	359.93	7472.95	-306.56	-142.95	-304.33	0.00	
7600.00	0.00	359.93	7572.95	-306.56	-142.95	-304.33	0.00	
7700.00	0.00	359.93	7672.95	-306.56	-142.95	-304.33	0.00	
7800.00	0.00	359.93	7772.95	-306.56	-142.95	-304.33	0.00	
7900.00	0.00	359.93	7872.95	-306.56	-142.95	-304.33	0.00	
8000.00	0.00	359.93	7972.95	-306.56	-142.95	-304.33	0.00	
8100.00	0.00	359.93	8072.95	-306.56	-142.95	-304.33	0.00	
8200.00	0.00	359.93	8172.95	-306.56	-142.95	-304.33	0.00	
8277.05	0.00	359.93	8250.00	-306.56	-142.95	-304.33	0.00	1st Bone Spring Lime
8300.00	0.00	359.93	8272.95	-306.56	-142.95	-304.33	0.00	
8400.00	0.00	359.93	8372.95	-306.56	-142.95	-304.33	0.00	
8500.00	0.00	359.93	8472.95	-306.56	-142.95	-304.33	0.00	
8600.00	0.00	359.93	8572.95	-306.56	-142.95	-304.33	0.00	
8700.00	0.00	359.93	8672.95	-306.56	-142.95	-304.33	0.00	
8800.00	0.00	359.93	8772.95	-306.56	-142.95	-304.33	0.00	
8900.00	0.00	359.93	8872.95	-306.56	-142.95	-304.33	0.00	
9000.00	0.00	359.93	8972.95	-306.56	-142.95	-304.33	0.00	
9100.00	0.00	359.93	9072.95	-306.56	-142.95	-304.33	0.00	
9200.00	0.00	359.93	9172.95	-306.56	-142.95	-304.33	0.00	
9300.00	0.00	359.93	9272.95	-306.56	-142.95	-304.33	0.00	
9357.05	0.00	359.93	9330.00	-306.56	-142.95	-304.33	0.00	1st Bone Spring Sand
9400.00	0.00	359.93	9372.95	-306.56	-142.95	-304.33	0.00	
9500.00	0.00	359.93	9472.95	-306.56	-142.95	-304.33	0.00	
9600.00	0.00	359.93	9572.95	-306.56	-142.95	-304.33	0.00	
9700.00	0.00	359.93	9672.95	-306.56	-142.95	-304.33	0.00	
9800.00	0.00	359.93	9772.95	-306.56	-142.95	-304.33	0.00	
9900.00	0.00	359.93	9872.95	-306.56	-142.95	-304.33	0.00	
9977.05	0.00	359.93	9950.00	-306.56	-142.95	-304.33	0.00	Bone Spring 2nd
10000.00	0.00	359.93	9972.95	-306.56	-142.95	-304.33	0.00	
10100.00	0.00	359.93	10072.95	-306.56	-142.95	-304.33	0.00	
10200.00	0.00	359.93	10172.95	-306.56	-142.95	-304.33	0.00	
10300.00	0.00	359.93	10272.95	-306.56	-142.95	-304.33	0.00	
10400.00	0.00	359.93	10372.95	-306.56	-142.95	-304.33	0.00	
10467.05	0.00	359.93	10440.00	-306.56	-142.95	-304.33	0.00	3rd Bone Spring Lime
10500.00	0.00	359.93	10472.95	-306.56	-142.95	-304.33	0.00	
10600.00	0.00	359.93	10572.95	-306.56	-142.95	-304.33	0.00	
10700.00	0.00	359.93	10672.95	-306.56	-142.95	-304.33	0.00	
10800.00	0.00	359.93	10772.95	-306.56	-142.95	-304.33	0.00	
10900.00	0.00	359.93	10872.95	-306.56	-142.95	-304.33	0.00	
11000.00	0.00	359.93	10972.95	-306.56	-142.95	-304.33	0.00	
11100.00	0.00	359.93	11072.95	-306.56	-142.95	-304.33	0.00	
11169.11	0.00	359.93	11142.06	-306.56	-142.95	-304.33	0.00	KOP
11200.00	3.09	359.93	11172.94	-305.72	-142.95	-303.50	10.00	
11242.24	7.31	359.93	11215.00	-301.89	-142.96	-299.67	10.00	Bone Spring 3rd
11300.00	13.09	359.93	11271.82	-291.67	-142.97	-289.44	10.00	
11400.00	23.09	359.93	11366.75	-260.66	-143.01	-258.44	10.00	
11500.00	33.09	359.93	11454.86	-213.63	-143.07	-211.42	10.00	
11600.00	43.09	359.93	11533.47	-152.02	-143.15	-149.81	10.00	
11700.00	53.09	359.93	11600.18	-77.70	-143.25	-75.50	10.00	
11800.00	63.09	359.93	11652.97	7.08	-143.36	9.28	10.00	
11840.46	67.14	359.93	11670.00	43.78	-143.41	45.97	10.00	Wolfcamp / Point of Penetration
11900.00	73.09	359.93	11690.24	99.74	-143.48	101.93	10.00	
12000.00	83.09	359.93	11710.86	197.46	-143.61	199.64	10.00	
12073.71	90.46	359.93	11715.00	271.00	-143.71	273.17	10.00	Landing Point
12100.00	90.46	359.93	11714.79	297.29	-143.74	299.46	0.00	
12200.00	90.46	359.93	11713.99	397.29	-143.87	399.45	0.00	
12300.00	90.46	359.93	11713.18	497.29	-144.00	499.44	0.00	
12400.00	90.46	359.93	11712.38	597.28	-144.13	599.42	0.00	



Well: Shire 22-15 Fed Com 618H
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
12500.00	90.46	359.93	11711.58	697.28	-144.27	699.41	0.00	
12600.00	90.46	359.93	11710.77	797.28	-144.40	799.40	0.00	
12700.00	90.46	359.93	11709.97	897.27	-144.53	899.38	0.00	
12800.00	90.46	359.93	11709.17	997.27	-144.66	999.37	0.00	
12900.00	90.46	359.93	11708.36	1097.27	-144.79	1099.36	0.00	
13000.00	90.46	359.93	11707.56	1197.26	-144.92	1199.34	0.00	
13100.00	90.46	359.93	11706.76	1297.26	-145.05	1299.33	0.00	
13200.00	90.46	359.93	11705.95	1397.26	-145.19	1399.32	0.00	
13300.00	90.46	359.93	11705.15	1497.25	-145.32	1499.30	0.00	
13400.00	90.46	359.93	11704.35	1597.25	-145.45	1599.29	0.00	
13500.00	90.46	359.93	11703.54	1697.25	-145.58	1699.28	0.00	
13600.00	90.46	359.93	11702.74	1797.24	-145.71	1799.27	0.00	
13700.00	90.46	359.93	11701.94	1897.24	-145.84	1899.25	0.00	
13800.00	90.46	359.93	11701.13	1997.24	-145.97	1999.24	0.00	
13900.00	90.46	359.93	11700.33	2097.23	-146.11	2099.23	0.00	
14000.00	90.46	359.93	11699.53	2197.23	-146.24	2199.21	0.00	
14100.00	90.46	359.93	11698.73	2297.23	-146.37	2299.20	0.00	
14200.00	90.46	359.93	11697.92	2397.22	-146.50	2399.19	0.00	
14300.00	90.46	359.93	11697.12	2497.22	-146.63	2499.17	0.00	
14400.00	90.46	359.93	11696.32	2597.22	-146.76	2599.16	0.00	
14500.00	90.46	359.93	11695.51	2697.21	-146.89	2699.15	0.00	
14600.00	90.46	359.93	11694.71	2797.21	-147.03	2799.14	0.00	
14700.00	90.46	359.93	11693.91	2897.21	-147.16	2899.12	0.00	
14800.00	90.46	359.93	11693.10	2997.20	-147.29	2999.11	0.00	
14900.00	90.46	359.93	11692.30	3097.20	-147.42	3099.10	0.00	
15000.00	90.46	359.93	11691.50	3197.20	-147.55	3199.08	0.00	
15100.00	90.46	359.93	11690.69	3297.19	-147.68	3299.07	0.00	
15200.00	90.46	359.93	11689.89	3397.19	-147.81	3399.06	0.00	
15300.00	90.46	359.93	11689.09	3497.19	-147.95	3499.04	0.00	
15400.00	90.46	359.93	11688.28	3597.18	-148.08	3599.03	0.00	
15500.00	90.46	359.93	11687.48	3697.18	-148.21	3699.02	0.00	
15600.00	90.46	359.93	11686.68	3797.17	-148.34	3799.01	0.00	
15700.00	90.46	359.93	11685.87	3897.17	-148.47	3898.99	0.00	
15800.00	90.46	359.93	11685.07	3997.17	-148.60	3998.98	0.00	
15900.00	90.46	359.93	11684.27	4097.17	-148.73	4098.97	0.00	
16000.00	90.46	359.93	11683.46	4197.16	-148.87	4198.95	0.00	
16100.00	90.46	359.93	11682.66	4297.16	-149.00	4298.94	0.00	
16200.00	90.46	359.93	11681.86	4397.16	-149.13	4398.93	0.00	
16300.00	90.46	359.93	11681.06	4497.15	-149.26	4498.91	0.00	
16400.00	90.46	359.93	11680.25	4597.15	-149.39	4598.90	0.00	
16500.00	90.46	359.93	11679.45	4697.15	-149.52	4698.89	0.00	
16600.00	90.46	359.93	11678.65	4797.14	-149.65	4798.87	0.00	
16700.00	90.46	359.93	11677.84	4897.14	-149.79	4898.86	0.00	
16800.00	90.46	359.93	11677.04	4997.14	-149.92	4998.85	0.00	
16900.00	90.46	359.93	11676.24	5097.13	-150.05	5098.84	0.00	
17000.00	90.46	359.93	11675.43	5197.13	-150.18	5198.82	0.00	
17100.00	90.46	359.93	11674.63	5297.13	-150.31	5298.81	0.00	
17200.00	90.46	359.93	11673.83	5397.12	-150.44	5398.80	0.00	
17300.00	90.46	359.93	11673.02	5497.12	-150.57	5498.78	0.00	
17400.00	90.46	359.93	11672.22	5597.12	-150.71	5598.77	0.00	
17500.00	90.46	359.93	11671.42	5697.12	-150.84	5698.76	0.00	
17600.00	90.46	359.93	11670.61	5797.11	-150.97	5798.74	0.00	
17700.00	90.46	359.93	11669.81	5897.11	-151.10	5898.73	0.00	
17800.00	90.46	359.93	11669.01	5997.11	-151.23	5998.72	0.00	
17900.00	90.46	359.93	11668.20	6097.10	-151.36	6098.71	0.00	
18000.00	90.46	359.93	11667.40	6197.10	-151.49	6198.69	0.00	
18100.00	90.46	359.93	11666.60	6297.10	-151.63	6298.68	0.00	
18200.00	90.46	359.93	11665.79	6397.09	-151.76	6398.67	0.00	
18300.00	90.46	359.93	11664.99	6497.09	-151.89	6498.65	0.00	
18400.00	90.46	359.93	11664.19	6597.09	-152.02	6598.64	0.00	
18500.00	90.46	359.93	11663.39	6697.08	-152.15	6698.63	0.00	
18600.00	90.46	359.93	11662.58	6797.08	-152.28	6798.61	0.00	
18700.00	90.46	359.93	11661.78	6897.08	-152.41	6898.60	0.00	
18800.00	90.46	359.93	11660.98	6997.07	-152.55	6998.59	0.00	
18900.00	90.46	359.93	11660.17	7097.07	-152.68	7098.57	0.00	
19000.00	90.46	359.93	11659.37	7197.07	-152.81	7198.56	0.00	
19100.00	90.46	359.93	11658.57	7297.06	-152.94	7298.55	0.00	
19200.00	90.46	359.93	11657.76	7397.06	-153.07	7398.54	0.00	
19300.00	90.46	359.93	11656.96	7497.06	-153.20	7498.52	0.00	
19400.00	90.46	359.93	11656.16	7597.05	-153.33	7598.51	0.00	



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Zone: 3001 - NM East (NAD83)

MD	INC	AZI	TVD	NS	EW	VS	DLS	Comment
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	
19500.00	90.46	359.93	11655.35	7697.05	-153.47	7698.50	0.00	
19600.00	90.46	359.93	11654.55	7797.05	-153.60	7798.48	0.00	
19700.00	90.46	359.93	11653.75	7897.04	-153.73	7898.47	0.00	
19800.00	90.46	359.93	11652.94	7997.04	-153.86	7998.46	0.00	
19900.00	90.46	359.93	11652.14	8097.04	-153.99	8098.44	0.00	
20000.00	90.46	359.93	11651.34	8197.03	-154.12	8198.43	0.00	
20100.00	90.46	359.93	11650.53	8297.03	-154.25	8298.42	0.00	
20200.00	90.46	359.93	11649.73	8397.03	-154.39	8398.41	0.00	
20300.00	90.46	359.93	11648.93	8497.02	-154.52	8498.39	0.00	
20400.00	90.46	359.93	11648.12	8597.02	-154.65	8598.38	0.00	
20500.00	90.46	359.93	11647.32	8697.02	-154.78	8698.37	0.00	
20600.00	90.46	359.93	11646.52	8797.01	-154.91	8798.35	0.00	
20700.00	90.46	359.93	11645.72	8897.01	-155.04	8898.34	0.00	
20800.00	90.46	359.93	11644.91	8997.01	-155.17	8998.33	0.00	
20900.00	90.46	359.93	11644.11	9097.00	-155.31	9098.31	0.00	
21000.00	90.46	359.93	11643.31	9197.00	-155.44	9198.30	0.00	
21100.00	90.46	359.93	11642.50	9297.00	-155.57	9298.29	0.00	
21200.00	90.46	359.93	11641.70	9396.99	-155.70	9398.28	0.00	
21300.00	90.46	359.93	11640.90	9496.99	-155.83	9498.26	0.00	
21400.00	90.46	359.93	11640.09	9596.99	-155.96	9598.25	0.00	
21500.00	90.46	359.93	11639.29	9696.98	-156.09	9698.24	0.00	
21600.00	90.46	359.93	11638.49	9796.98	-156.23	9798.22	0.00	
21700.00	90.46	359.93	11637.68	9896.98	-156.36	9898.21	0.00	
21800.00	90.46	359.93	11636.88	9996.97	-156.49	9998.20	0.00	
21900.00	90.46	359.93	11636.08	10096.97	-156.62	10098.18	0.00	
21952.48	90.46	359.93	11635.66	10149.44	-156.69	10150.65	0.00	EXIT
22000.00	90.46	359.93	11635.27	10196.97	-156.75	10198.17	0.00	
22032.48	90.46	359.93	11635.00	10229.44	-156.74	10230.64	0.00	BHL