

**STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION**

**APPLICATIONS OF CIMAREX ENERGY CO. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 22313-22316**

**APPLICATIONS OF DEVON ENERGY PRODUCTION COMPANY, L.P. FOR COMPULSORY POOLING, LEA COUNTY, NEW MEXICO**

**Case Nos. 22179-22180 & 22382**

**NOTICE OF REBUTTAL EXHIBITS**

Cimarex Energy Co. provides notice that it is filing rebuttal exhibits and hereby submits the attached rebuttal geology and engineering exhibits.

Respectfully submitted,

MODRALL, SPERLING, ROEHL, HARRIS  
& SISK, P.A.

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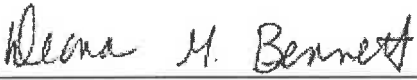
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**CERTIFICATE OF SERVICE**

I hereby certify that on March 23, 2022, I served a copy of the foregoing document to the following counsel of record via Electronic Mail to:

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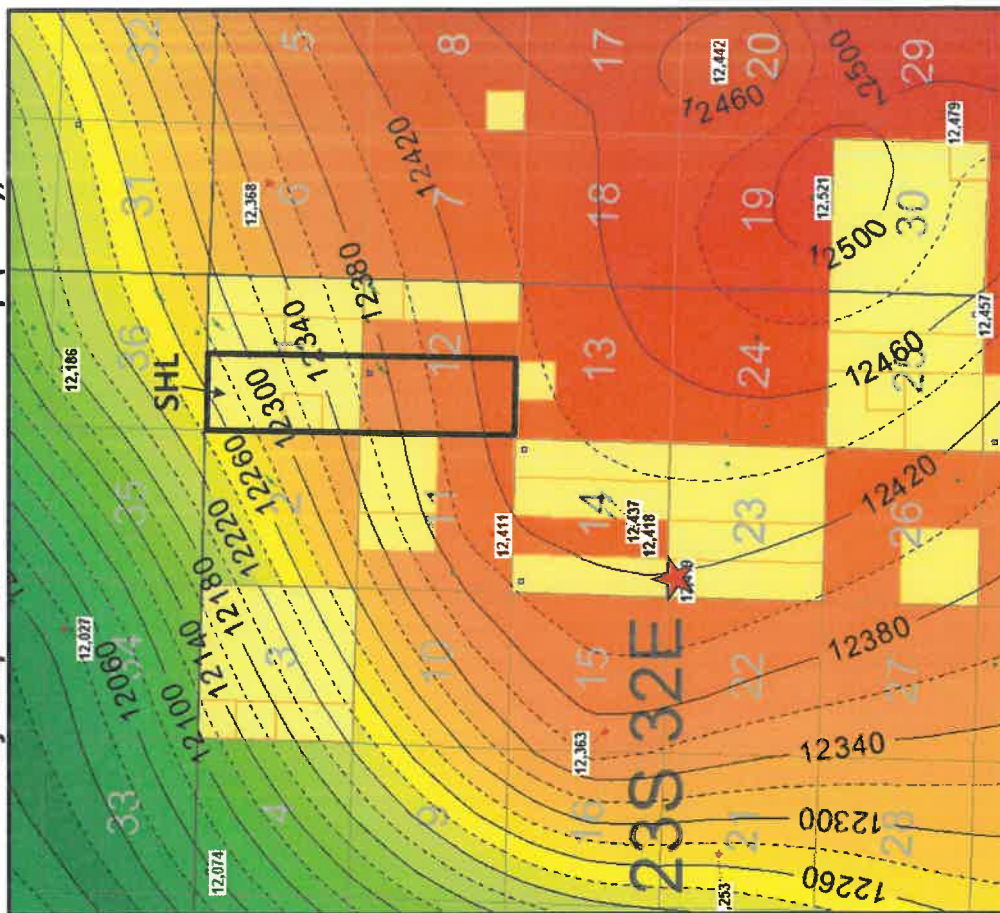
  
Deana M. Bennett  
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***Cimarex Rebuttal Exhibits  
Case Nos. 22313-22316***



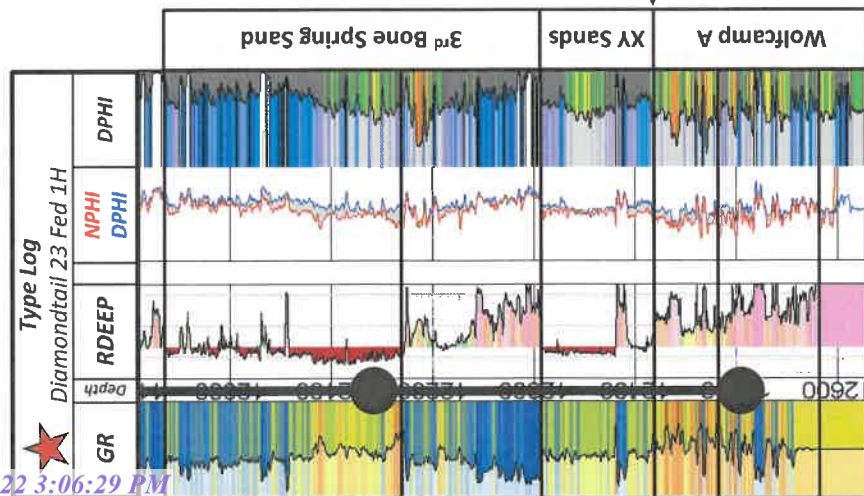
# Coriander Fed 26H & 13H are Targeting the Wolfcamp A, not Wolfcamp XY Sands as Devon Indicates

## Base Wolfcamp Y Sand Structure Map (TVD); C.I. = 20'



The structure grid shows that the base of the Wolfcamp Sands is ~12,270' at our SHL in Section 1 so our proposed TVDs of 12,330' would be below the Wolfcamp Sands (aka the Wolfcamp A)

**Map Legend**  
 ★ = location of Diamondtail 23 Fed 1H  
 □ = proposed HSU

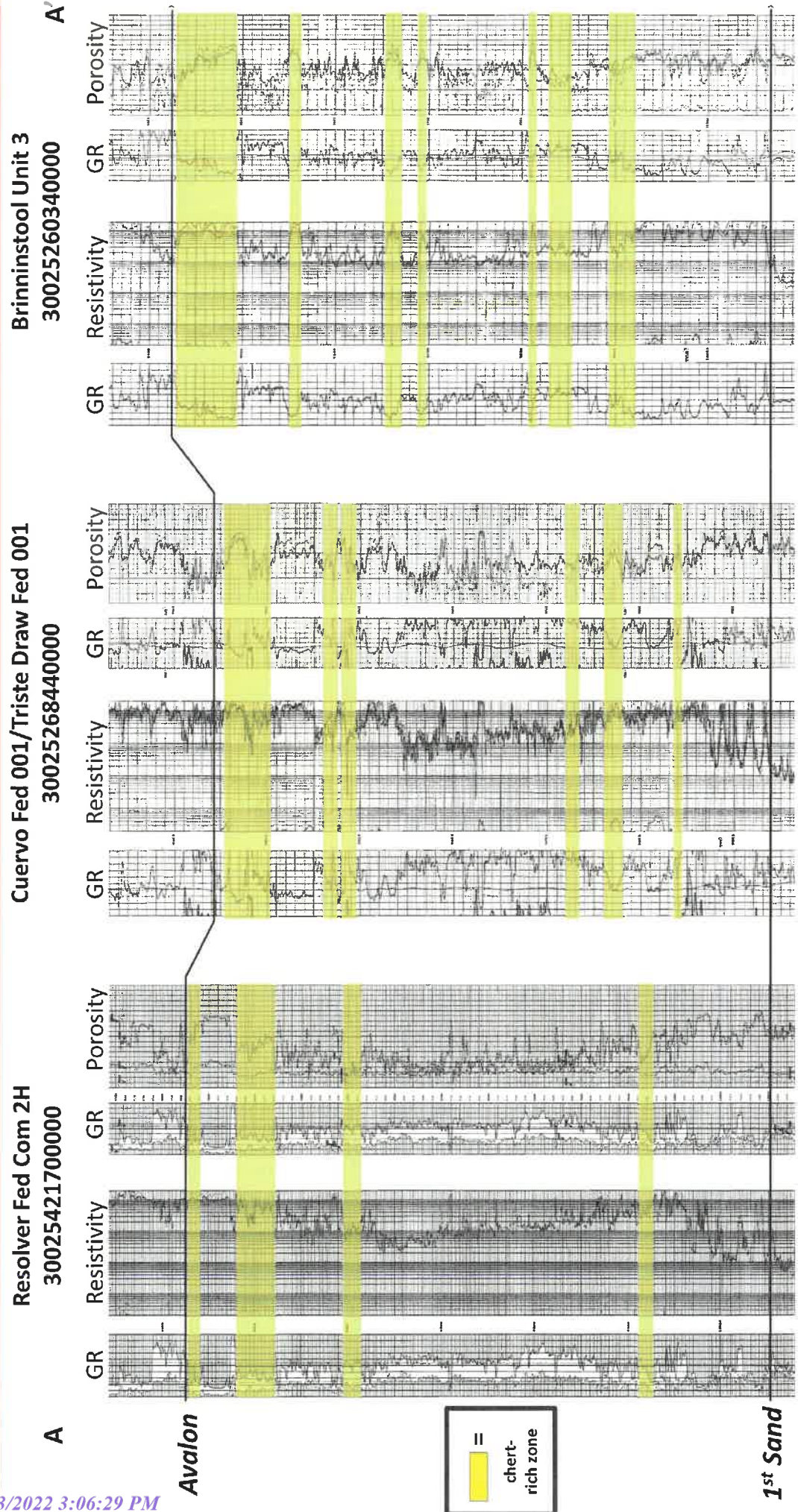


structure grid on right

! = Cimarex's landing targets

EXHIBIT R-C.7

**Same wells as A-A' Cross Section in Devon's Exhibit B-4: Cannot Resolve Variability and Chert-rich Intervals in Avalon in Devon's X-sect**



**EXHIBIT**  
**R.C.8**

tabbles

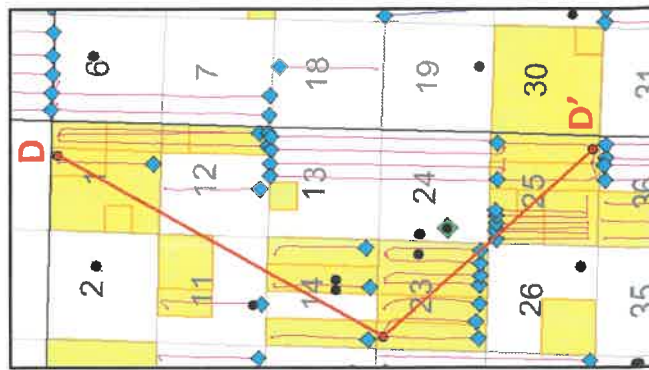
# X Avalon is Not Laterally Consistent = Increases Risk of Drilling 3-mile Wells

D

The Avalon is complicated by carbonate mass transport deposits and chert which are not laterally continuous even over short distances.

This geologic complexity will make drilling and completing a 3-mile lateral more difficult.

Avalon

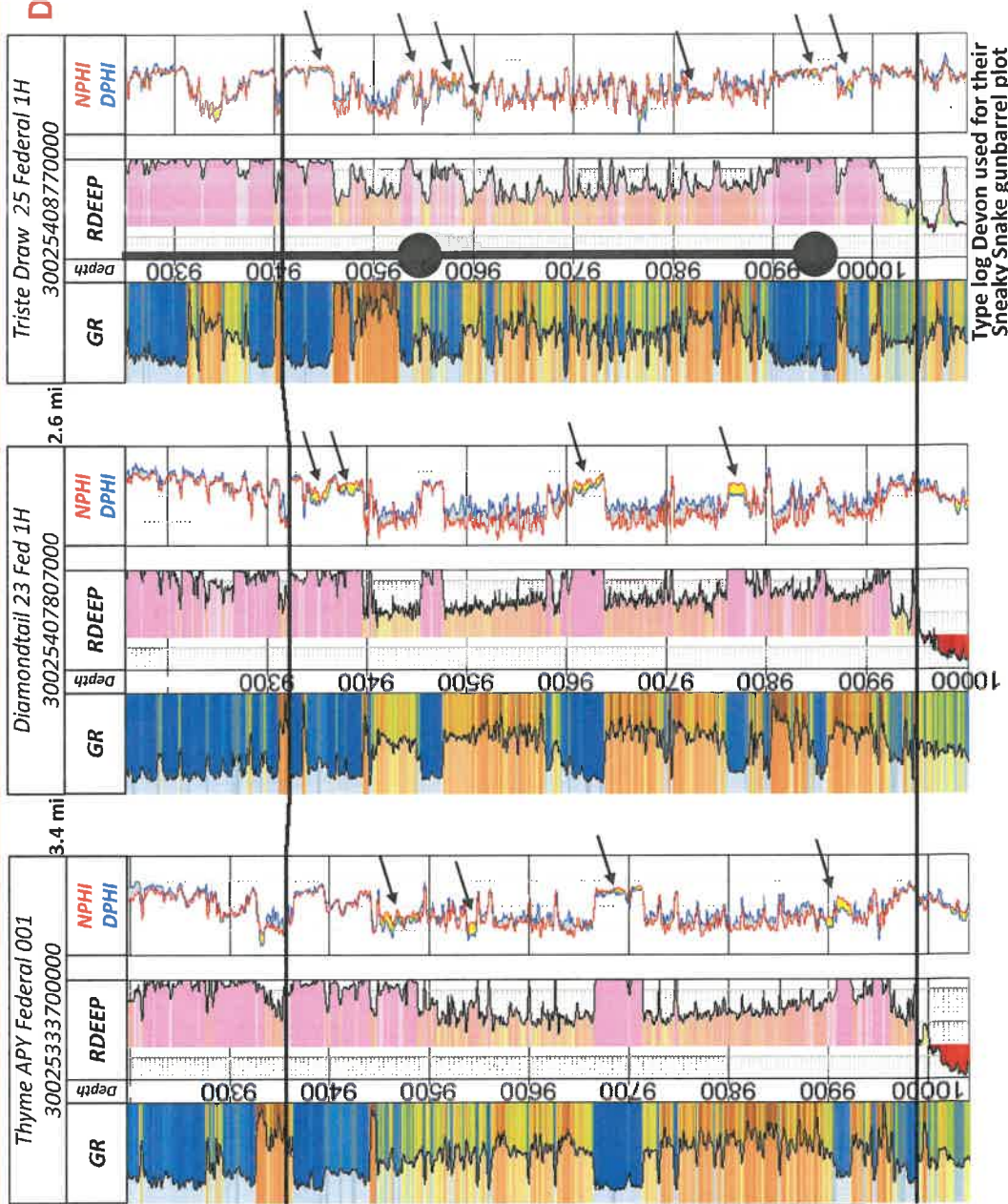


↙ = chert

Chert identified as low gamma ray, high resistivity, and with neutron-density crossover (yellow shading in track 3)

= Devon's Avalon landings that they show on their Sneaky Snake gunbarrel plot – both upper & lower landings are right in the chert-rich intervals

1st Bone Spring Sand

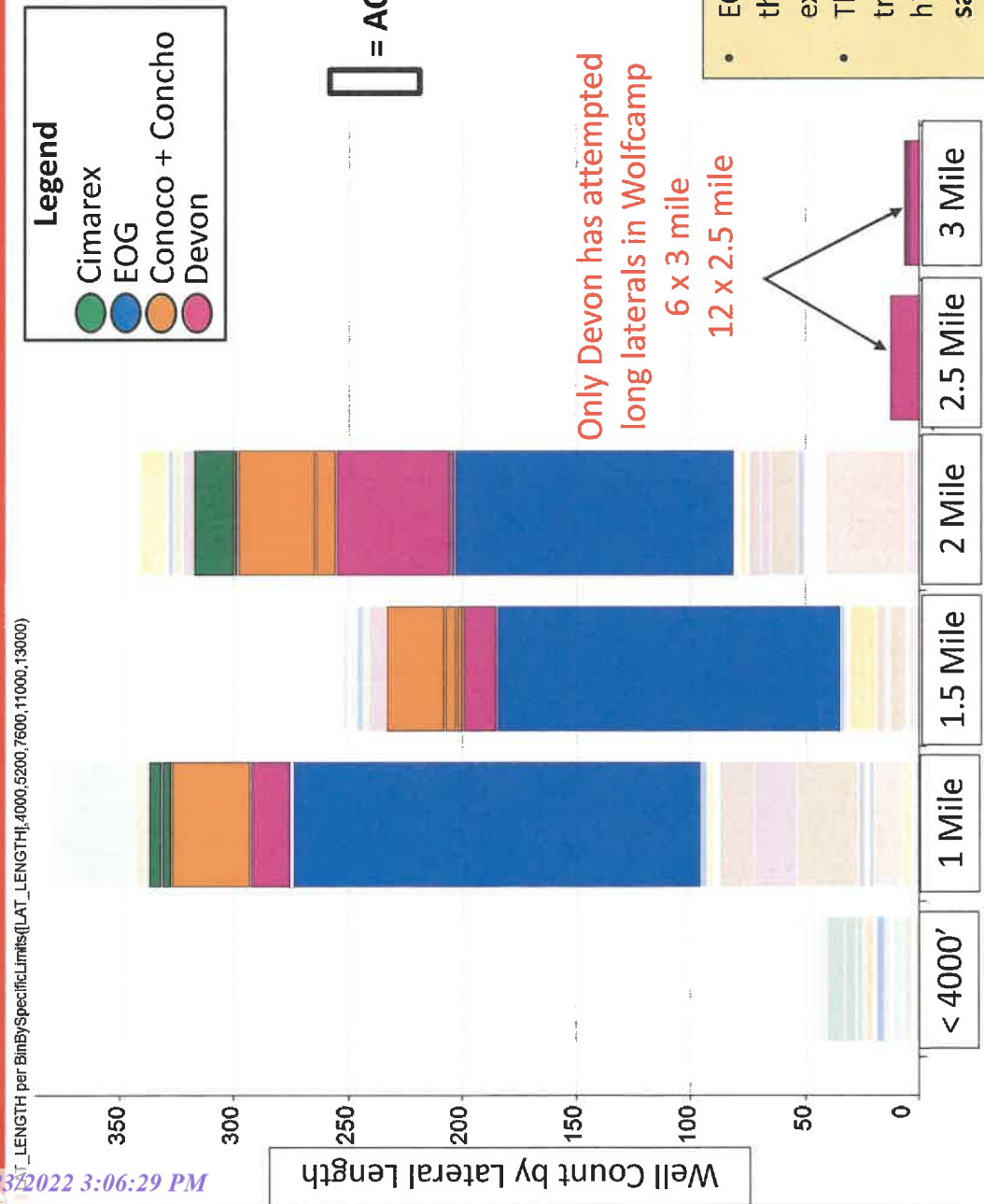


Type log Devon used for their Sneaky Snake gunbarrel plot

◆ Avalon producers



# South Lea County Wolfcamp Well Count by Lateral Length - 720 sq. mile AOR



**Legend**

- Cimarex
- EOG
- Conoco + Concho
- Devon

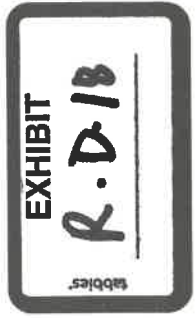
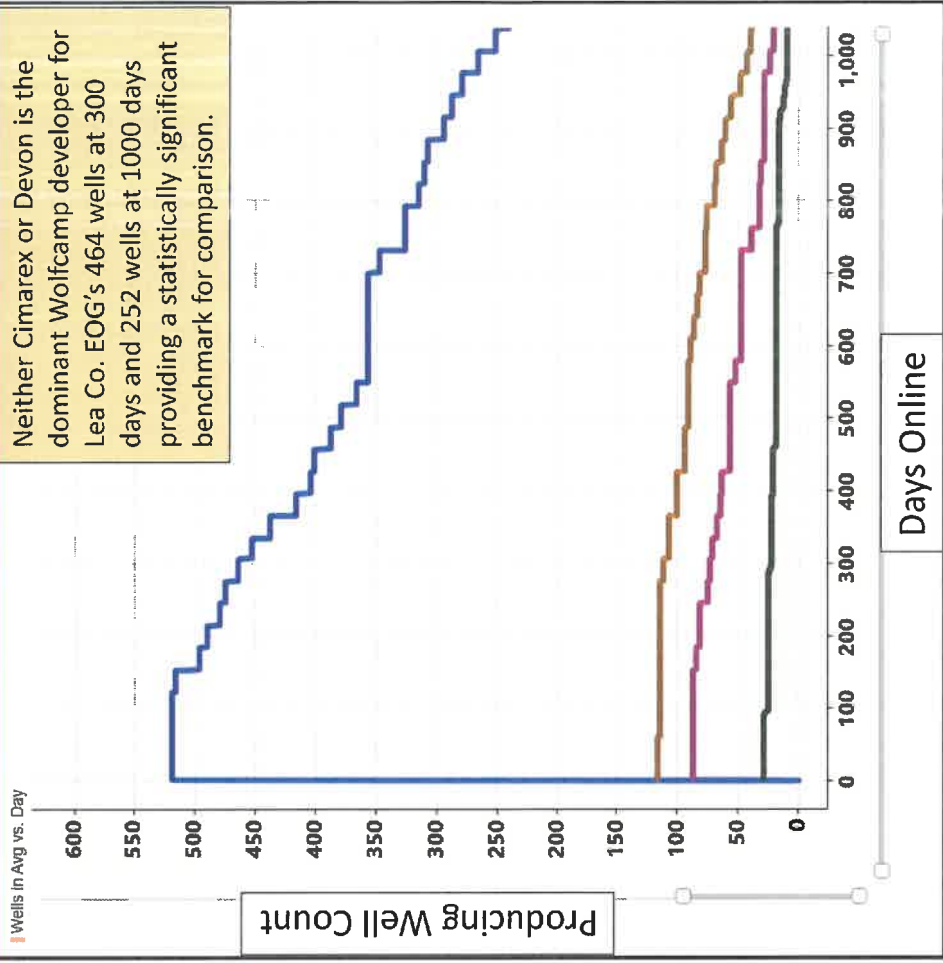
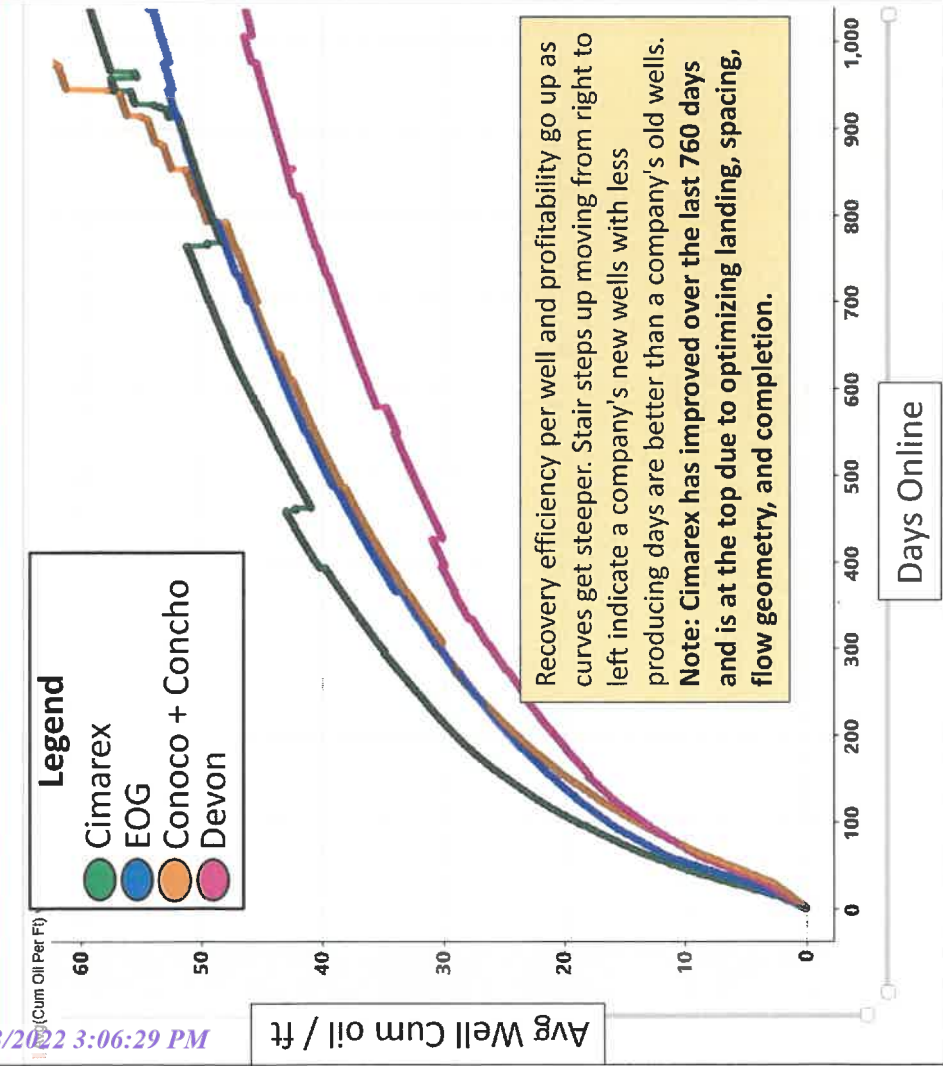
AOI

Only Devon has attempted long laterals in Wolfcamp  
6 x 3 mile  
12 x 2.5 mile

- EOG has the largest contiguous block with access to the most Lea County Wolfcamp-operated data and has executed 0 Wolfcamp laterals longer than 2 miles.
- This is because at >12,000 ft TVD, 12,000 psi surface treating pressure, >9000 psi reservoir pressure, and high formation heterogeneity all operators see the same execution risks outweighing the benefits.

EXHIBIT  
R.D. 17  
tables

# Operator Comparison 1 to 2 mile wells only ( Limited to upper Wolfcamp Lea County)





# Devon Long lateral Wells > 2mile vs. EOG and Cimarex 1 to 2 mile (updated)

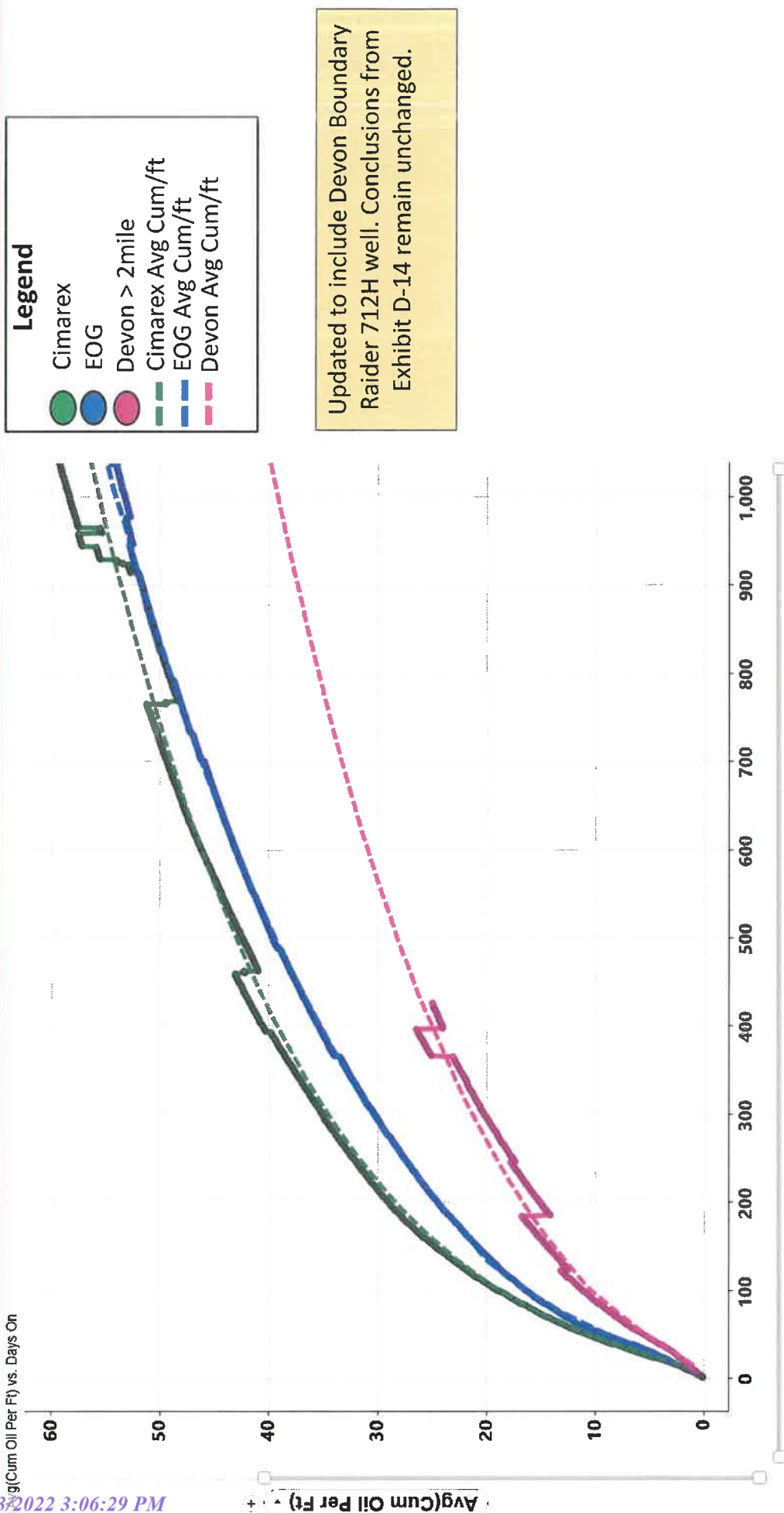
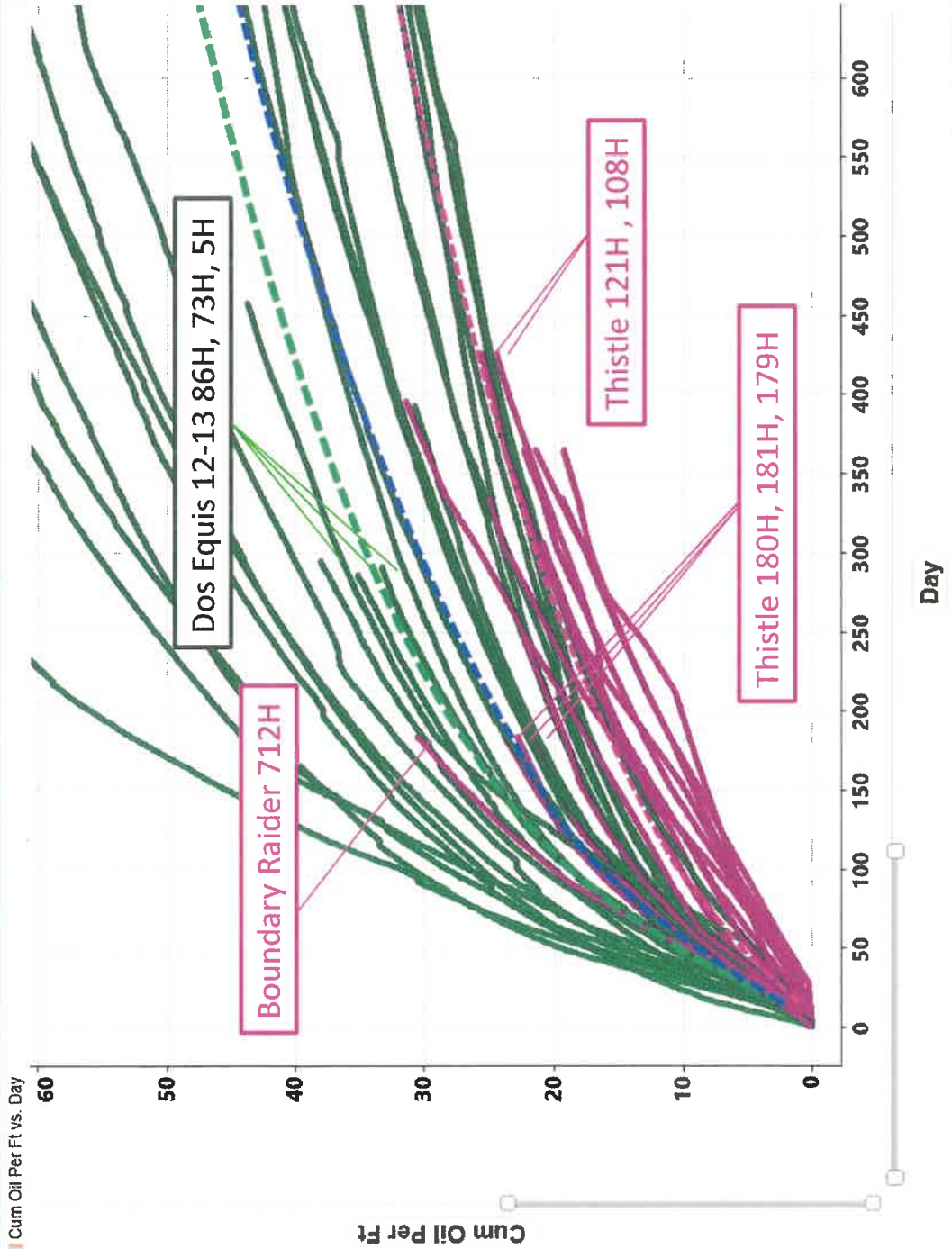


EXHIBIT R-D-19

# Updated all Devon Wells Longer Than 2 Miles vs. Cimarex 1 and 2 milers



**X Well name API and Length for prior slide**

WELL_NAME	Operator	UniqueConcatenate(API_CODE)	First Prod	Lateral Length	Well
BILIKEN 6-18 FED COM #006H	DVN	30025475640000	5/1/2021	12,447	parent
BOUNDARY 6-18 FED COM #712H	DVN	30025477060000	7/1/2021	15,400	edge
COBBER 21-28 FEDERAL #002H	DVN	30025469190000	1/1/2021	12,172	bound
COBBER 21-33 FED COM #003H	DVN	30025469200000	1/1/2021	12,439	bound
COBBER 21-33 FED COM #004H	DVN	30025469210000	1/1/2021	12,349	bound
COBBER 21-33 FED COM #005H	DVN	30025468970000	1/1/2021	12,493	bound
COBBER 21-33 FED COM #006H	DVN	30025469100000	3/1/2021	12,450	bound
COBBER 21-33 FED COM #009H	DVN	30025469230000	4/1/2021	12,455	bound
COBBER 21-33 FED COM #010H	DVN	30025468930000	12/1/2020	12,368	bound
COBBER 21-33 FED COM #013H	DVN	30025468960000	2/1/2021	12,406	bound
COBBER 21-33 FEDERAL COM #006H	DVN	30025469220000	2/1/2021	12,293	bound
RIGHT MEOW 31-7 FED COM #627H	DVN	300254849410000	9/1/2021	12,663	edge
RIGHT MEOW 31-7 FED COM #717H	DVN	30025484920000	9/1/2021	12,577	edge
THISTLE UNIT #108H	DVN	30025437270000	11/1/2020	15,356	bound
THISTLE UNIT #121H	DVN	30025437320000	11/1/2020	15,268	edge
THISTLE UNIT #180H	DVN	30025480980000	7/1/2021	15,174	bound
THISTLE UNIT #181H	DVN	30025480960100	7/1/2021	15,081	bound
THISTLE UNIT #182H	DVN	30025480970000	7/1/2021	15,132	edge
CANYONLANDS 2 STATE COM #002H	XEC	30025447230000	11/8/2018	4,439	edge
CASCADE 28 FEDERAL 85H	XEC	30025463130000	1/23/2020	4,341	bound
CASCADE 28 FEDERAL 86H	XEC	30025463140000	1/23/2020	4,466	edge
DOS EQUUS 11 14 FEDERAL COM #004H	XEC	30025454130100	7/11/2019	9,165	parent
DOS EQUUS 12-13 FEDERAL COM #005H	XEC	30025463200000	5/21/2021	9,509	bound
DOS EQUUS 12-13 FEDERAL COM #073H	XEC	30025463230000	5/22/2021	9,522	edge
DOS EQUUS 12-13 FEDERAL COM #086H	XEC	30025463240100	5/23/2021	9,877	bound/edge
HALLERTAU 5 FEDERAL #03H	XEC	30025404550100	3/18/2015	4,700	edge
HALLERTAU 5 FEDERAL #007H	XEC	30025439110000	4/5/2018	4,278	bound
HALLERTAU 5 FEDERAL #009H	XEC	30025439300000	4/5/2018	4,428	bound
HALLERTAU 5 FEDERAL #010H	XEC	300254393040000	4/5/2018	4,042	bound
HALLERTAU 5 FEDERAL #011H	XEC	30025438860000	4/12/2018	4,298	bound
HALLERTAU 5 FEDERAL #016H	XEC	30025438870000	4/12/2018	4,173	edge
RED HILLS 32-5 FED COM 127H	XEC	30025455020000	12/9/2020	9,437	edge
RED HILLS 32-5 FED COM 130H	XEC	30025463250000	12/9/2020	9,660	bound
RED HILLS 32-5 FED COM 131H	XEC	30025455030000	12/9/2020	9,564	bound
RED HILLS 32-5 FED COM 155H	XEC	30025462940000	12/4/2020	9,555	edge
RED HILLS UNIT 17H	XEC	30025423250000	9/4/2018	9,094	parent
VACA DRAW 20 17 FEDERAL #057H	XEC	30025461190000	12/10/2021	9,674	bound
VACA DRAW 20 17 FEDERAL #058H	XEC	30025461200000	12/13/2021	9,830	bound
VACA DRAW 20 17 FEDERAL #059H	XEC	30025461210000	12/15/2021	9,739	bound
VACA DRAW 20-17 FEDERAL 13H	XEC	30025452900000	7/10/2019	9,630	bound
VACA DRAW 20-17 FEDERAL 1H	XEC	30025441350100	8/13/2018	9,419	parent
VACA DRAW 20-17 FEDERAL 2H	XEC	30025441360000	7/10/2019	9,520	bound
VACA DRAW 20-17 FEDERAL 3H	XEC	30025441370000	7/10/2019	9,503	bound
VACA DRAW 20-17 FEDERAL 4H	XEC	30025443040100	7/10/2019	9,475	bound
VACA DRAW 20-17 FEDERAL 7H	XEC	30025441660000	7/10/2019	9,654	bound
VACA DRAW 20-17 FEDERAL 8H	XEC	30025443590000	7/10/2019	9,492	bound

