

**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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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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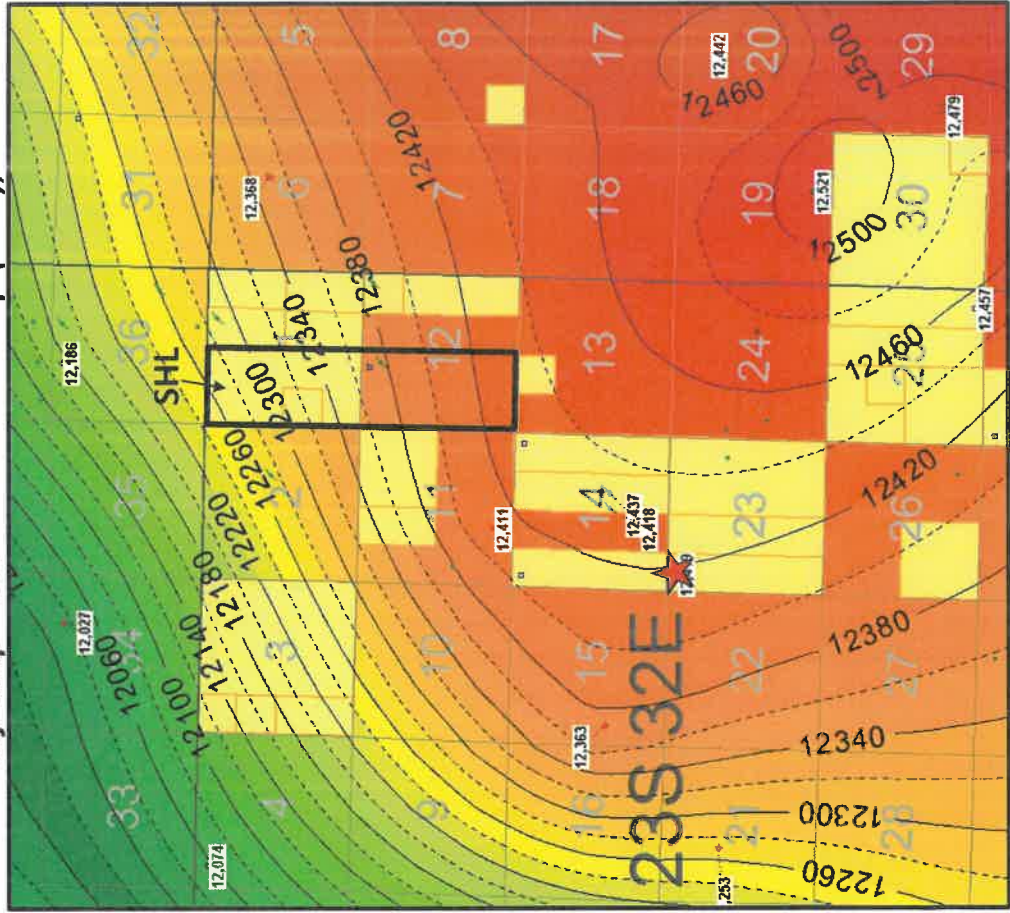
Cimarex Rebuttal Exhibits

Case Nos. 22313-22316



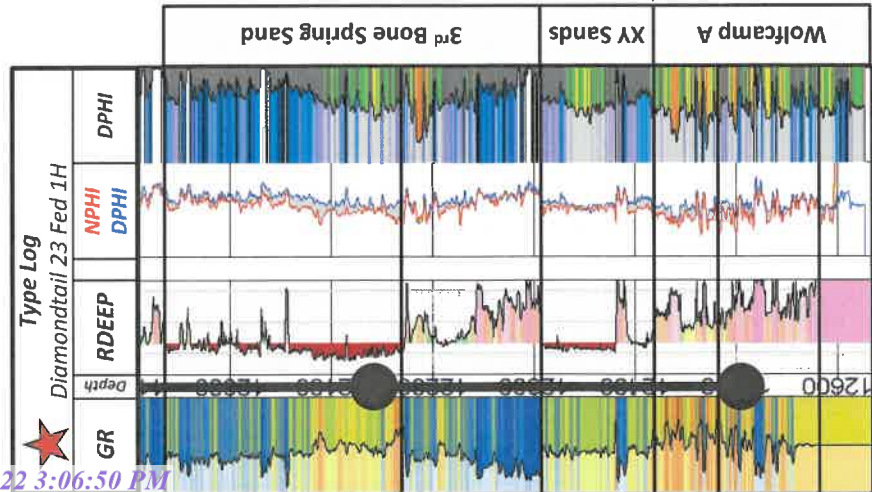
Coriander Fed 26H & 13H are Targeting the Wolfcamp A, not Wolfcamp XY Sands as Devon Indicates

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

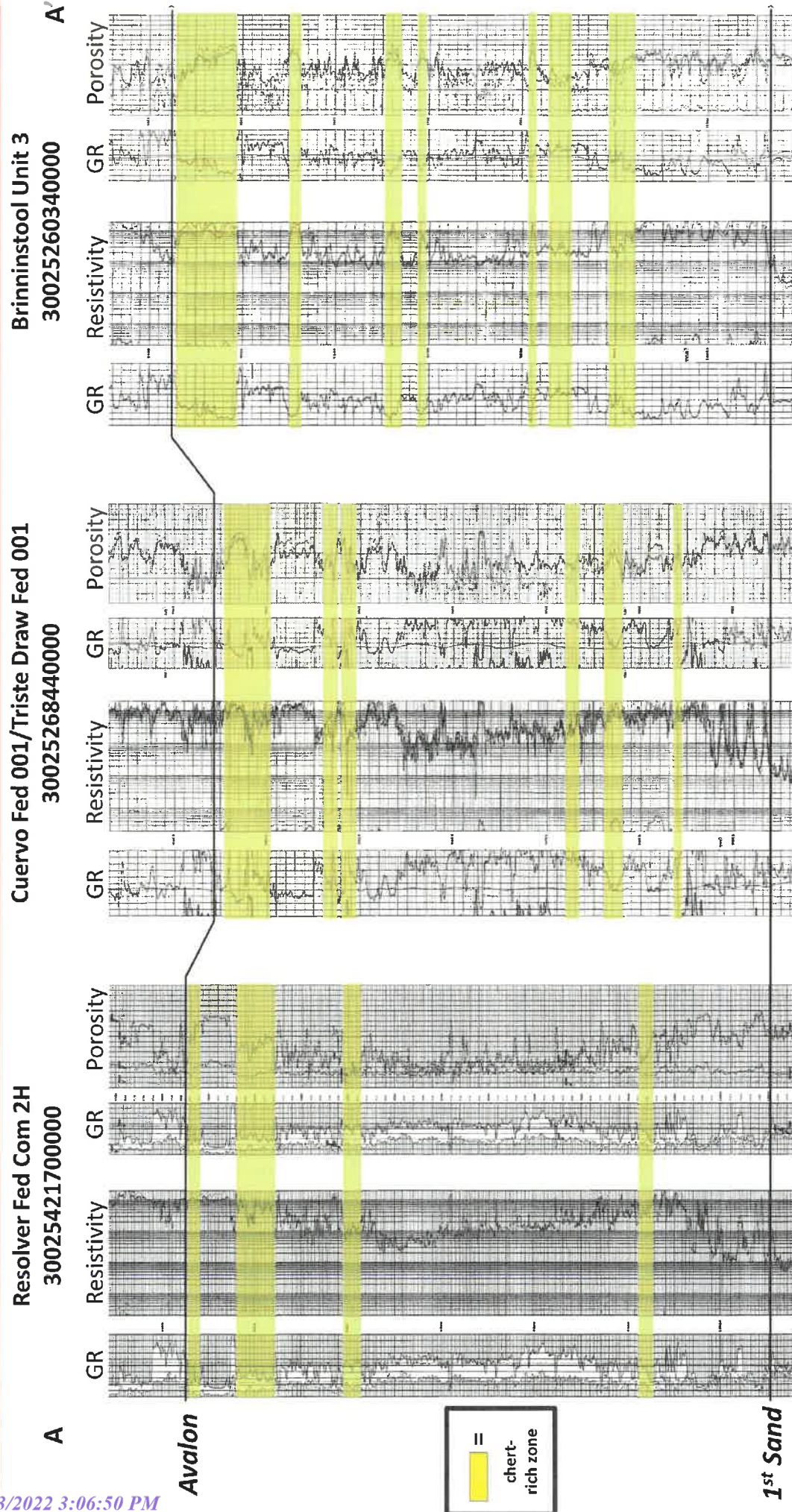


EXHIBIT
R.C.8

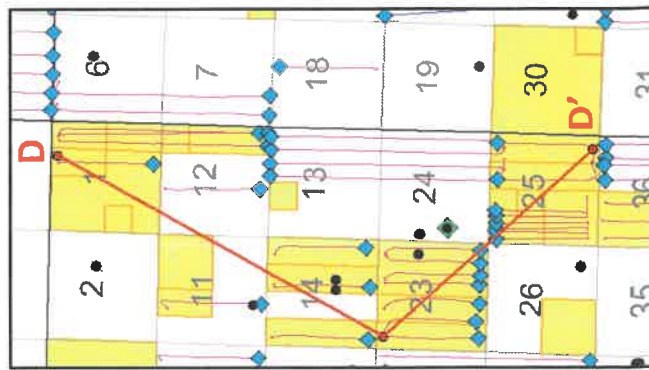
X Avalon is Not Laterally Consistent = Increases Risk of Drilling 3-mile Wells

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

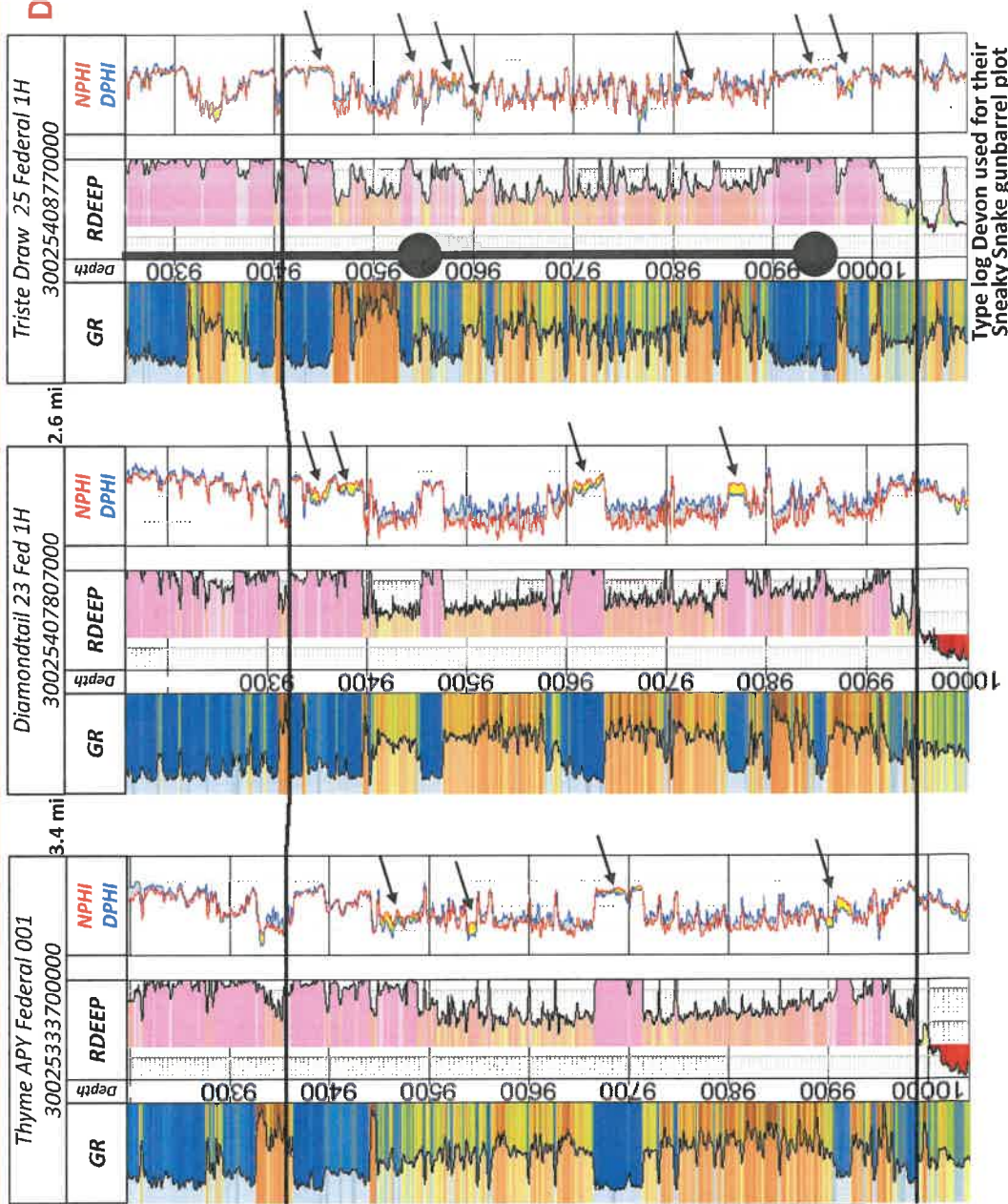
Chert identified as low gamma ray, high resistivity, and with neutron-density crossover (yellow shading in track 3)

= 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

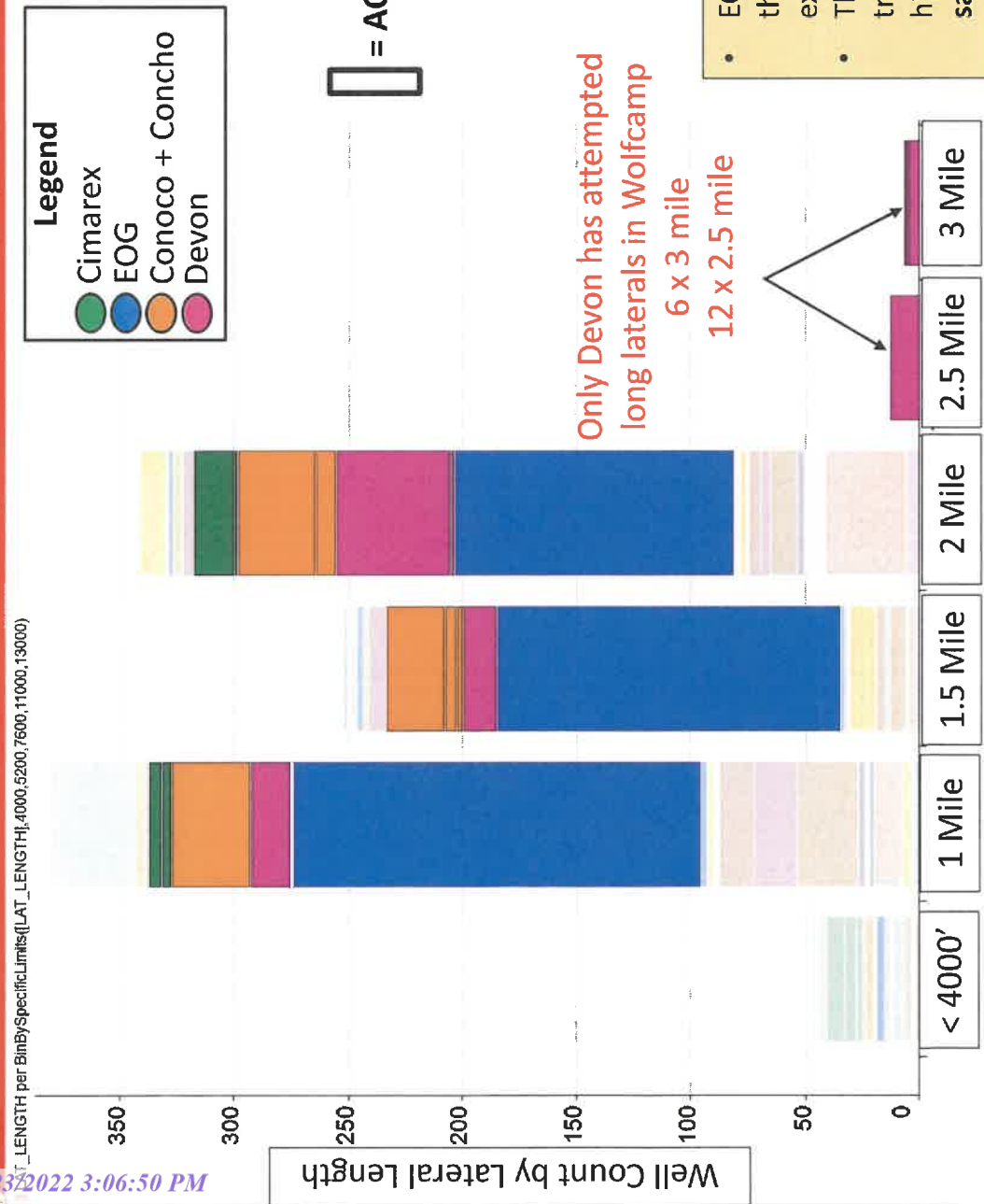
◆ Avalon producers

EXHIBIT
R.C.9



Type log Devon used for their Sneaky Snake gunbarrel plot

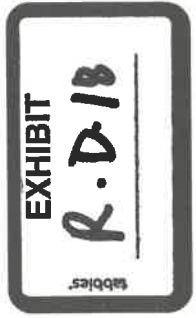
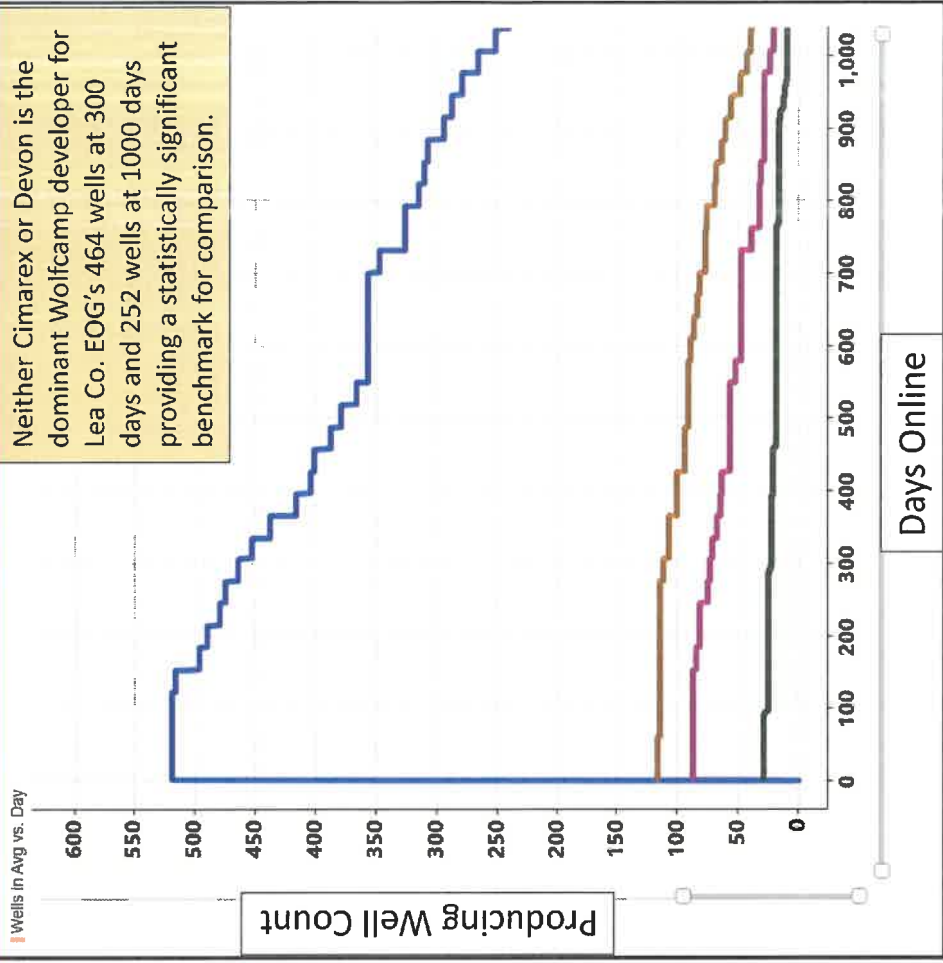
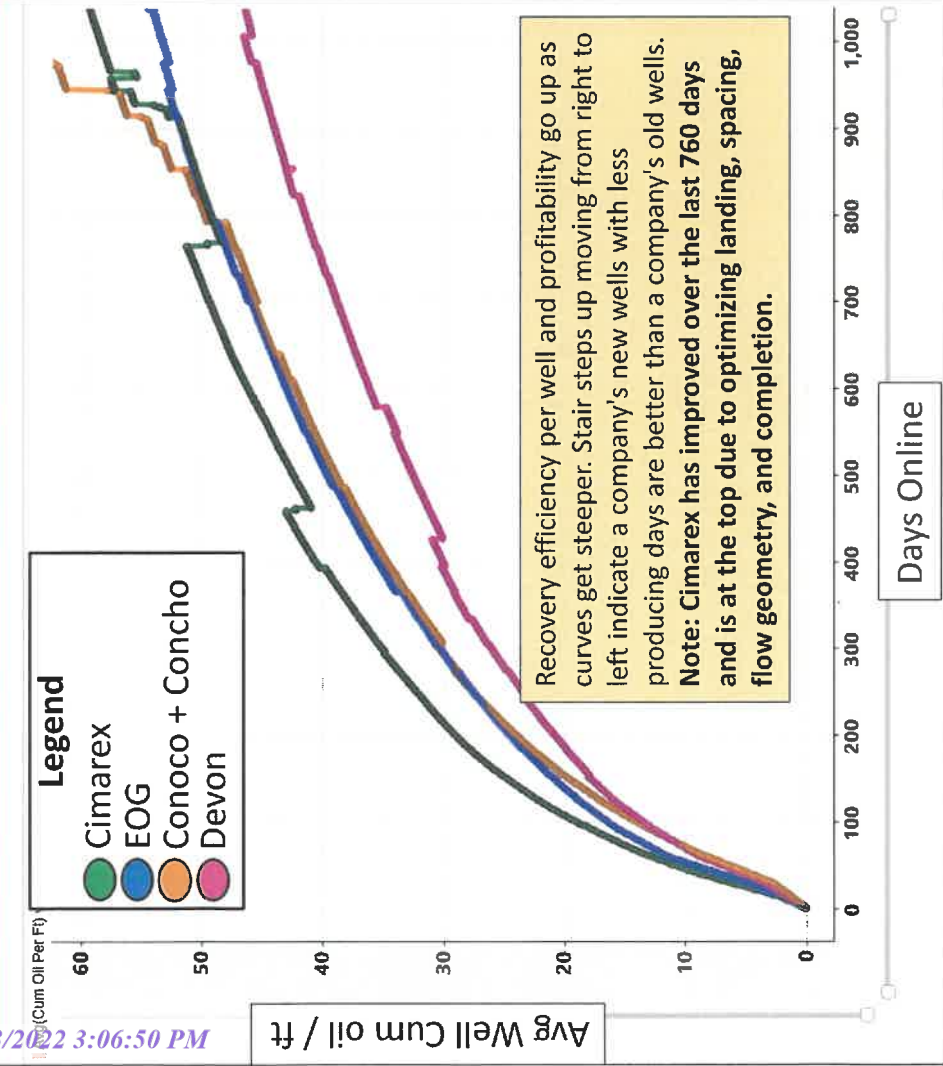
South Lea County Wolfcamp Well Count by Lateral Length - 720 sq. mile AOR



- 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)

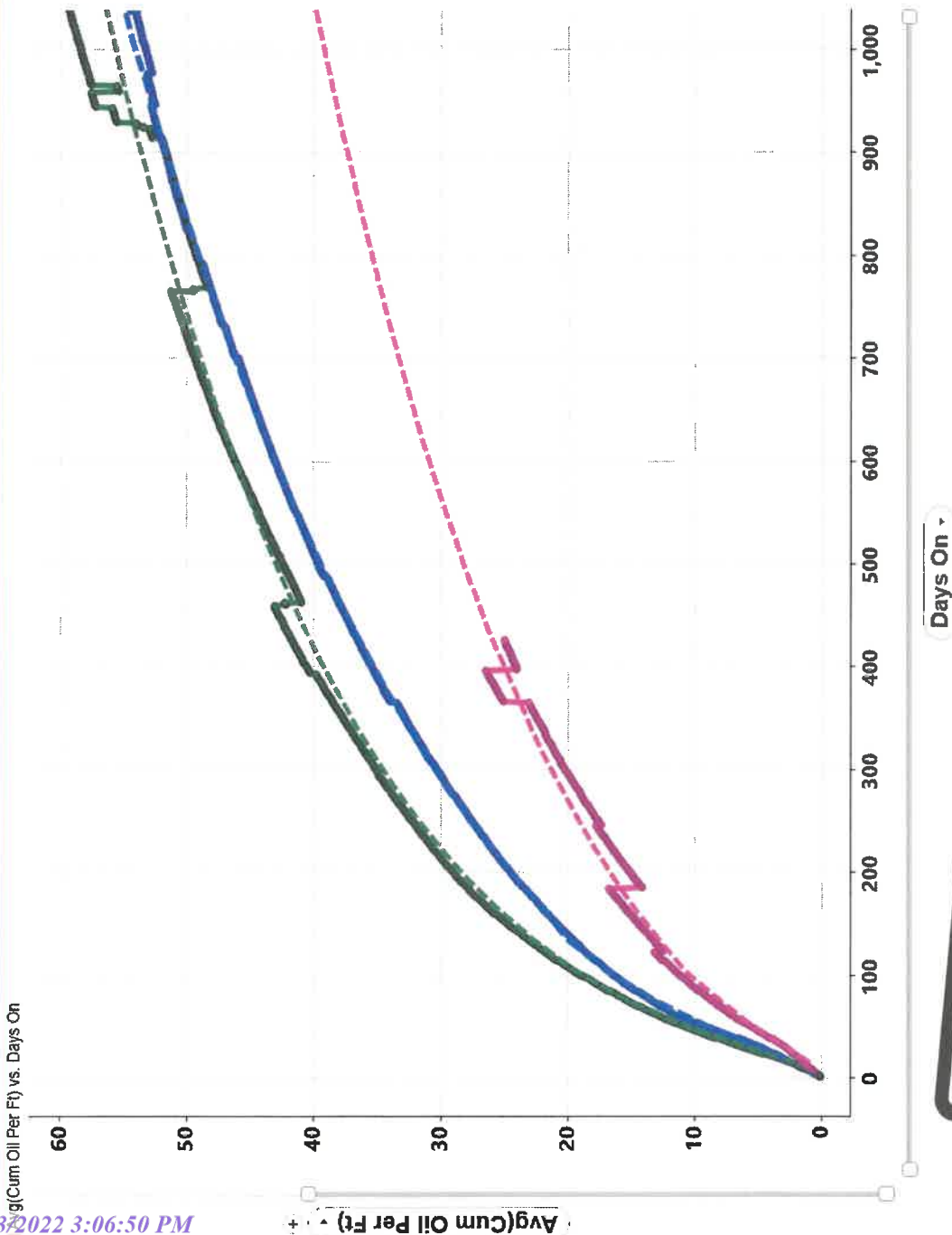
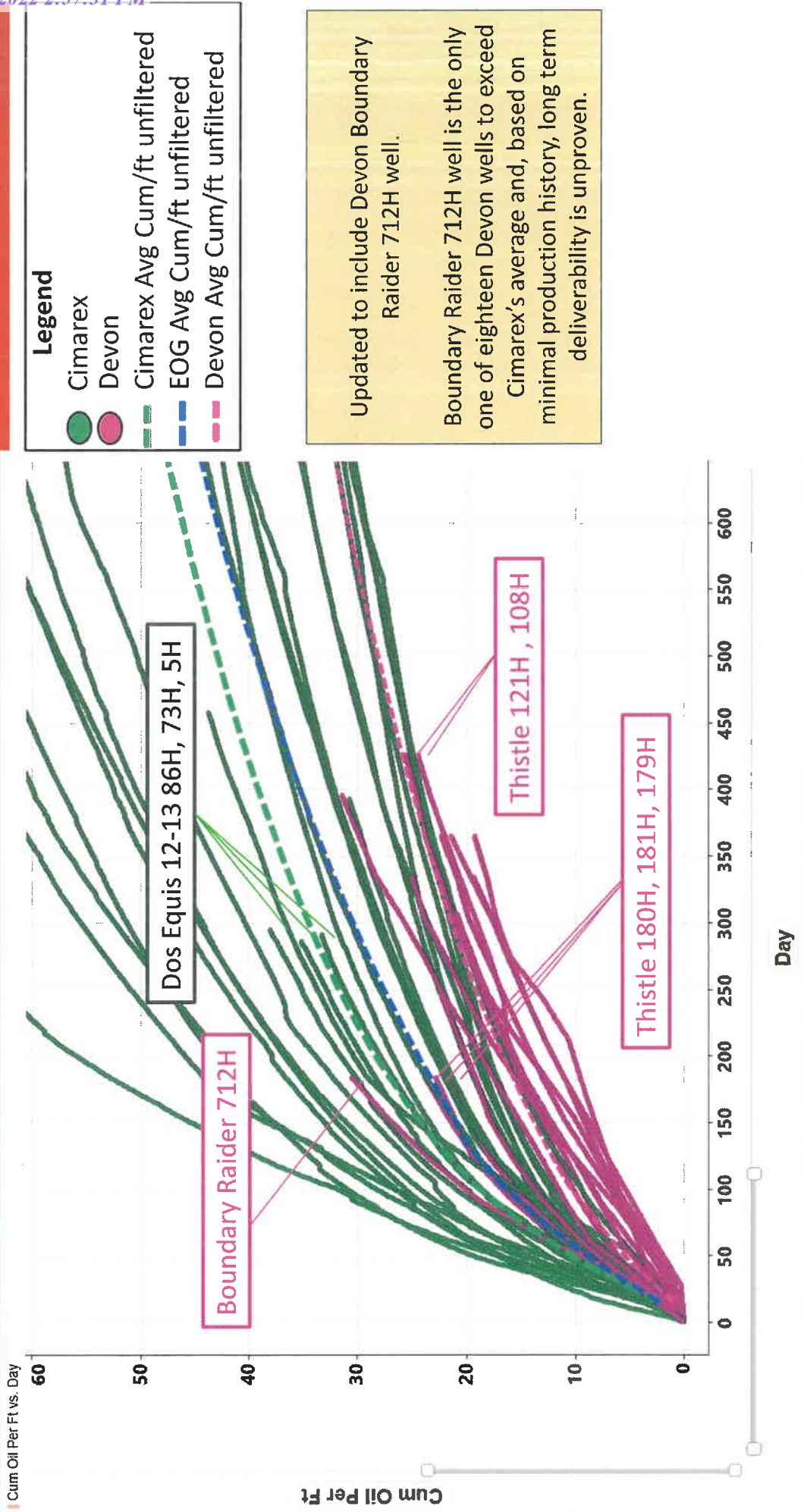


EXHIBIT R-D-19

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 21-38 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	30025447300000	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	30025463200000	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

