

The Apache logo is displayed in a stylized, orange, italicized font in the upper left corner of the image.

Apache

August 20, 2019

TACO 28-30 AND ANVIL DEV. AREA

20S-30E, EDDY COUNTY, NM – LAND EXHIBITS

PROXIMITY MAP: APACHE AND ASCENT

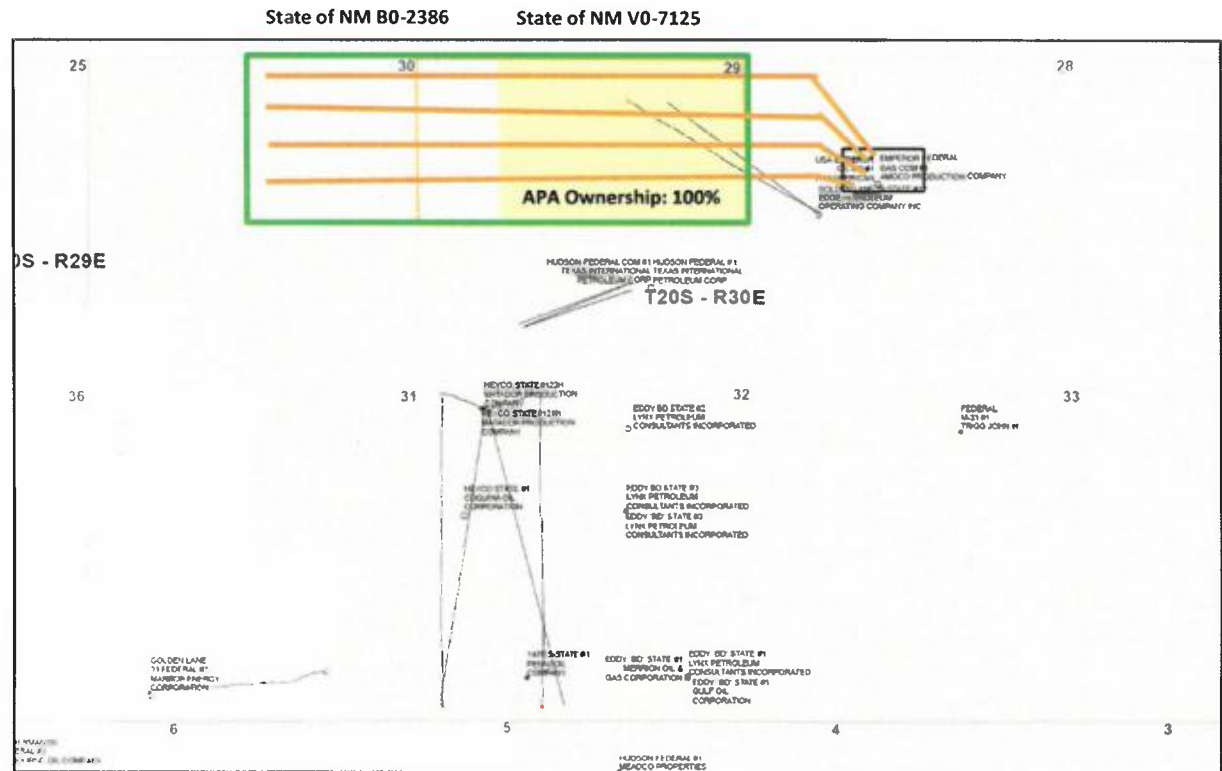


TACO 29 – INITIAL PLAN

APRIL/MAY 2018

Lease Status

- 2 state leases currently HBP
- **Golden Lane well is the only well holding the lease covering the NE/4 and E/2NW/4**
- Compulsory pooling will be required most likely
- Wells successfully staked in May 2018 and well pad expansion approved
- **NE/4 of Sec. 30 added for extended laterals**
 - Oxy claims to own 100% working interest
 - Allows for development of Section 30 (otherwise stranded)



From: Rutley, James [<mailto:jrutley@blm.gov>]
Sent: Monday, May 21, 2018 2:18 PM
To: Stretcher, Laci <Laci.Stretcher@apachecorp.com>
Cc: Dollins, Rick <Rick.Dollins@apachecorp.com>
Subject: Re: [EXTERNAL] Apache/Ascent Collaboration Proposal

Laci,

It's an informal process still but with as many protests that have been occurring of late, we may need to formalize the protest process.

After the 30 day notification period expires, and a formal protest has not been rescinded, we ask the "protesting party" to request a 30 day, 45 day or 60 day extension. After that extension period expires and there is still no resolve, we bring all parties that are involved in the protest to BLM for a meeting with BLM managers. There are a lot of moving parts with every development area and sometimes our "talk it out" process with managers finds a solution. If still no resolution, the protest goes before OCD. Until recently, we have not had any of the meetings progress to that point, but in the last six months, I believe at least 3, maybe 4 have gone to hearing.

In your protest letter, explain the reason for your protest and ask for an extension. Copy the proponent (Ascent) with your protest to us.

Thanks

Jim

James S. Rutley

Geologist (Potash Specialist)

Carlsbad Field Office

Bureau of Land Management

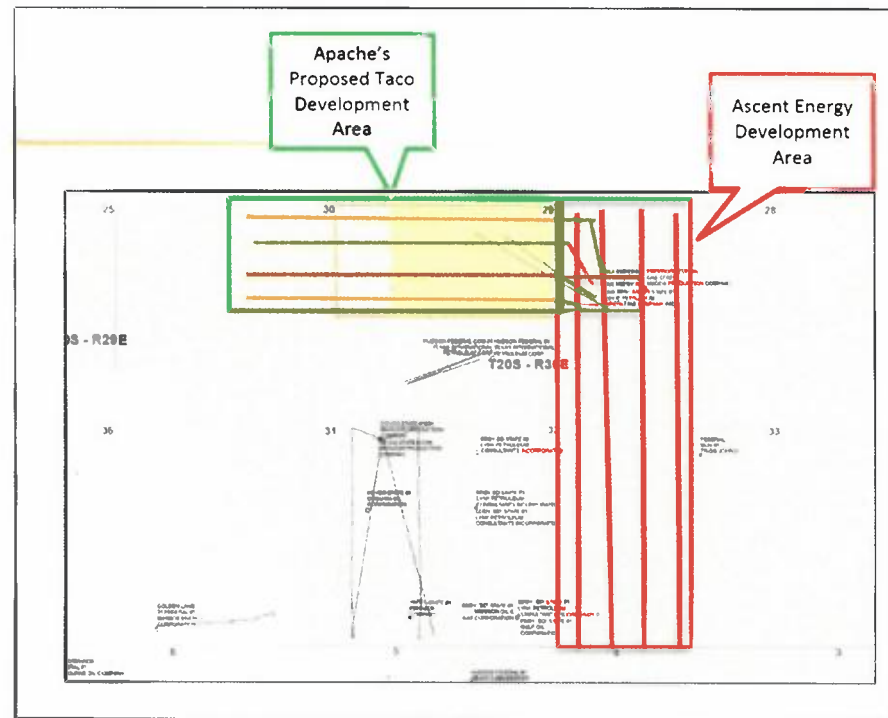
(575) 234-5904

Warning: This message is intended only for use of the individual or entity to which it is addressed, and may contain information that is privileged or confidential, and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this communication is strictly prohibited. If you have received this communication in error, please notify the sender immediately by return letter/fax/email.

TACO 29 AND ANVIL DEVELOPMENT AREA CONFLICT

IDENTIFIED APRIL 2018

- Significant collision issues are possible in a dual development scenario due to less well control at the end of a lateral
- According to NM OCD website, Ascent is not an experienced driller
- Ascent drilled 4 wells in 2019 according to NM OCD website
- Requested collaboration with Ascent and BLM on 4/3/2018





April 3, 2018

Sent Certified Mail

Bureau of Land Management
Attn: Jim Rutley
620 East Green St.
Carlsbad, NM 88220

Re: **Request for Collaboration on Anvil Development Area**
Township 20 South, Range 30 East
Eddy County, New Mexico

Dear Mr. Rutley:

Apache received notice of Ascent Energy's proposal in the Anvil Development Area, Township 20 South, Range 30 East, of Eddy County, New Mexico. Apache currently operates the Golden Lane 29 State #1Y (API 30-015-34295) that begins in Section 28-20S-30E and produces from the Morrow formation in Section 29-20S-30E.

Apache plans to further develop its Bone Spring rights in Section 29-20S-30E subject to permitting and surface location approval from the BLM. We are scheduled for an on-site with the BLM on April 23rd to establish if the existing well pad can be enlarged. According to email correspondence with the BLM, Apache should be able to develop its acreage in the area.

Please allow this letter to serve as an official request for collaboration between the BLM, Ascent, and Apache to develop acreage in the area. I've attached Ascent's map with Apache's planned wells in green, subject to BLM approval. The wells we propose would begin on the existing pad and extend across the NW/4 of Section 28-20S-30E and into the N/2 of Section 29-20S-30E. The producing interval would be solely in Section 29-20S-30E. Apache will know more after the on-site on April 23rd, and we would like to begin conversations now for mutually beneficial solutions.

Sincerely,


APACHE CORPORATION

Laci Stretcher
Landman
Laci.Stretcher@apachecorp.com
Phone: 432-818-1846

CC: Lee Zink, Ascent Energy



- 2 mile notification boundary from SHL's
- Anvil Development Area Outline
- Anvil Drill Islands/Pads
- / Possible well paths

Ascent Energy, LLC 	
Notification Area	
Proposed Anvil Development Area	
WBM	Mar 13, 2018



May 23, 2018

Sent Certified Mail and Electronic Mail

Bureau of Land Management
Attn: Jim Rutley
620 East Green St.
Carlsbad, NM 88220

Re: **Formal Protest of Anvil Development Area**
Township 20 South, Range 30 East
Eddy County, New Mexico

Dear Mr. Rutley:

Apache received notice of Ascent Energy's ("Ascent") proposal in the Anvil Development Area, Township 20 South, Range 30 East, of Eddy County, New Mexico. Apache currently operates the Golden Lane 29 State #1Y (API 30-015-34295) that begins in Section 28-20S-30E and produces from the Morrow formation in Section 29-20S-30E.

Apache plans to further develop its Bone Spring rights in Section 29-20S-30E subject to permitting and surface location approval from the BLM. We successfully staked 8 well pad locations on April 23rd with the BLM. Apache originally requested collaboration with Ascent on April 3, 2018, so that we could discuss mutual development in the area. As part of those efforts, Apache sent over all C-102s related to its staked Taco 29 wells on Monday 14, 2018. Ascent promised to send over C-102s, but nothing has been provided as of today's date.

After reviewing the perpendicular plans by Apache and Ascent, our drilling engineer concluded that the projects, specifically in the W/2NW/4 of Sec. 28-20S-30E, pose a significant collision possibility. Ascent's proposed wells would be nearing the end of the lateral, and well location certainty will be reduced. Even if Apache wanted to steer around Ascent's wells, the possibility of collision is too great of a risk for mutual development.

In the spirit of collaboration, Apache sent an email to Lee Zink with Ascent on Friday, May 18, 2018, requesting that Apache produce and operate the W/2NW/4 of Sec. 28-20S-30E as part of its Taco 29 wells. Ascent would drill 1.5 mile laterals in the W/2W/2 of Sections 33 and 28-20S-30E, and its originally planned 2 mile laterals in the E/2W/2 of Sections 33 and 28-20S-30E. Apache would drill 1.25 mile laterals from its approved drill island going west into Section 29-20S-30E, and both operators could be assured of a safe and efficient drilling program that produces federal and state minerals in an otherwise difficult area for development. This plan would also protect Ascent from any potential risk in drilling through an area with Apache's producing Golden Lane well.

Apache's email to Ascent included several options for the operator, including participation in the 1.25 mile Taco 28/29 wells, trade possibilities, and potential for an outright acquisition of the



acreage. Ascent responded back with a no to Apache's alternative drilling plan and rejected any possibility of collaboration.

Apache learned this week that Ascent is marketing its acreage in the area via a firm called Petrie Partners out of Denver. The marketing materials include the leasehold currently at issue. We believe Ascent's marketing efforts will undermine any collaboration with Apache that may have otherwise been possible with an operator who intended on drilling the acreage themselves. Why would Ascent worry about collision issues if they will not drill the acreage? Why would they wish to divest of any acreage to Apache that has already been included in their divestiture package to prospective buyers?

Ascent provided a potential buyout of Apache's acreage in the area, but at this time Apache is interested in developing its leasehold. Our team is even considering the addition of the NE/4 of Sec. 30-20S-30E to the Taco wells so that Oxy, the majority working interest owner in the tract, could produce its leasehold in an otherwise inaccessible location. We feel that our proposed solution will allow for the prevention of waste and the successful development of Apache, Ascent, Oxy, and other leasehold owner acreage.

Please allow this letter to serve as an official protest of the Anvil Development Area for the reasons listed above. We request a 60 day extension to further negotiate with Ascent and the BLM. Please see the attached map indicating the current dilemma and Apache's proposed solution.

Sincerely,

APACHE CORPORATION

Laci Stretcher

Landman

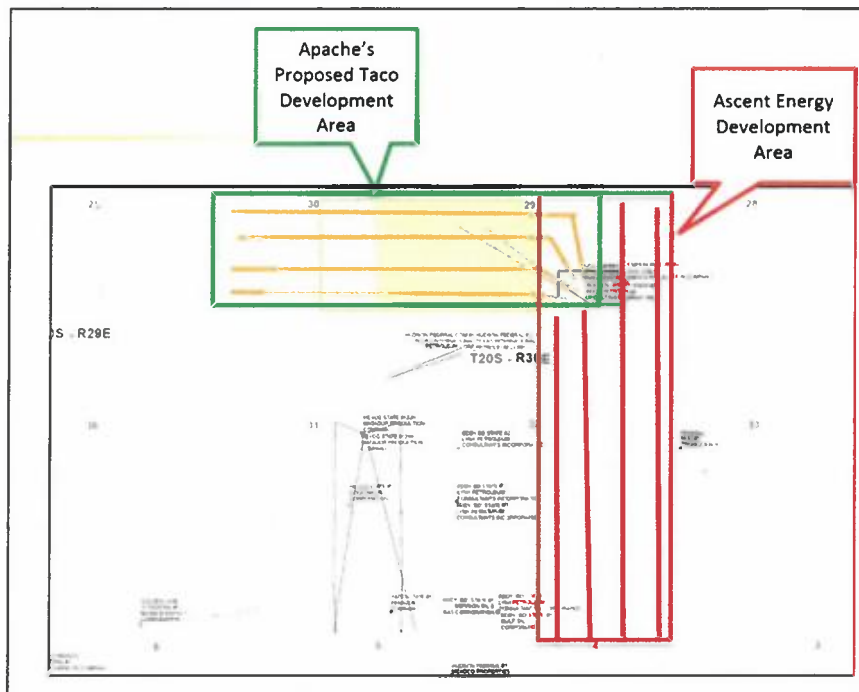
Laci.Stretcher@apachecorp.com

Phone: 432-818-1846

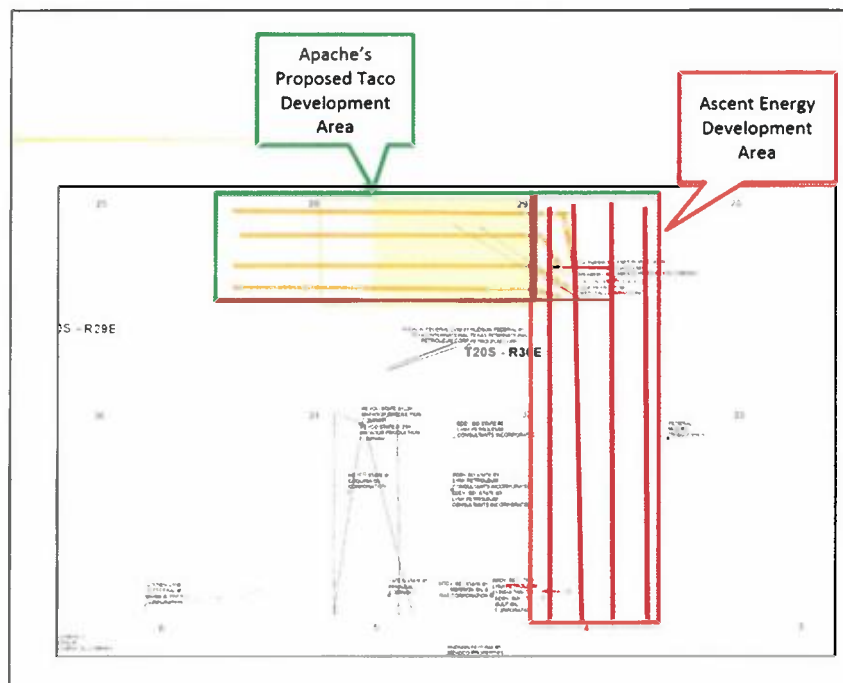
CC: Lee Zink, Ascent Energy



Proposed Collaboration between Apache and Ascent*:



Current Well Plans with Collision Issues*:



*Landman drawing only and intended to show the various development options.

APACHE'S FINAL PLAN: TACO 28-30

SEPT. - DEC. 2018

- 2.5 Mile Taco 28-30 Development Area
 - Apache will control collision issues
 - Wells will be drilled E/W, the best orientation
 - NE/4 of Section 28 and 29 will be developed (otherwise stranded)
 - Collaboration with other operators, BLM
 - **BLM recommended** this layout as a good compromise for both APA and Ascent
- 2nd Meeting (Oct. 2018) with BLM cancelled by mutual agreement
 - Division intervention required as per BLM process
- APA sent Taco 28-30 Development Area notices to parties on 10/29/2018
- APA staked new locations and received BLM approval for islands in Nov. 2018
 - Ascent has protested development area





October 23, 2018

TO: Affected Parties of the
TACO 28-30 Federal Com
(see attached address list)

Sent Certified Mail

Re: **Designation of the Taco 28-30 Federal Drill Island**
Section 28-T20S-R30E, NMPM
Eddy County, New Mexico

To Whom It May Concern:

Apache Corporation ("Apache") has proposed a Development Area that a portion of which falls within the Secretary's Potash Area in the above described lands that may affect your leasehold and/or surface estate/permit. Please see the enclosed map for the location of the BLM proposed Taco 28-30 Federal Drill Island, Apache's proposed Development Area, and Apache's initial development wells.

This letter serves as notice of the proposed action. You have thirty (30) calendar days from receipt of this letter to contact the BLM if you would like to express interest in collaborating with the proposal or protesting the proposal. If you would like to collaborate with or protest the establishment of the Taco 28-30 Federal Development Area, please respond to James Rutley (jrutley@blm.gov) at the BLM, Carlsbad Field Office, 620 E. Greene Street, Carlsbad, NM 88220.

Please be aware that once a Development Area has been established it could affect your operating rights. Therefore, your timely participation in this process is required. If you have any questions or concerns please contact me at (432) 818-1808 or rodney.reeder@apachecorp.com.

Respectfully,

Rodney Reeder
Landman
Apache Corporation – Permian Region

Apache's Development Plan

Based upon the development activity to date and the available technical data, it appears that additional development potential exists within the Taco 28-30 Federal Development Area. Apache is in the process of preparing APD's for four (4) Bone Spring horizontal wells to develop the N/2 of Sections 28, 29 and 30, Township 20 South, Range 30 East, Eddy County, New Mexico (see attached map). Apache plans on developing its leasehold as soon as possible, depending on rig/equipment availability.

The initial four (4) Bone Spring horizontal wells to be drilled from the Taco 28-30 Federal Drill Island have surface hole location(s) in Section 28 with the bottom hole location(s) being in Section 30, Township 20 South, Range 30 East, Eddy County, New Mexico.

The first of the initial wells is scheduled to be spud on or before November 1, 2019, depending on the permit approval process. Based on future results of the initial wells, Apache has identified additional Bone Spring and Wolfcamp targets within the Taco 28-30 Federal Development Area. As activity increases in the area and Apache collects additional technical data, potential horizontal development in other horizons is also anticipated.



APACHE'S TACO 28-30 DEVELOPMENT AREA
EDDY COUNTY, NEW MEXICO

DATE 10/18/2018
PREPARED BY L. STRETCHER

LEGEND

- 2 Mile Notification Boundary
- Taco 28 Development Area
- Taco 28-30 2nd Bone Spring Wells
- Taco 28-30 3rd Bone Spring Wells

N
W E
S



Base Map Information

Cartographic Source
2008 1:250,000 Scale Topographic Map
Projection: Transverse Mercator
Datum: North American 1983
1 inch = 63,360 feet
Contour Interval: 100 feet
Scale Factor: 0.9999
Latitude/Longitude: 34° 00' 00" N, 102° 00' 00" W

Map Data Sources
Copyright: Apache
Well Leases: 1999
Aerial Imagery: 1999
Satellite: 1999
Survey: 1999
Road: 1999
Rail: 1999

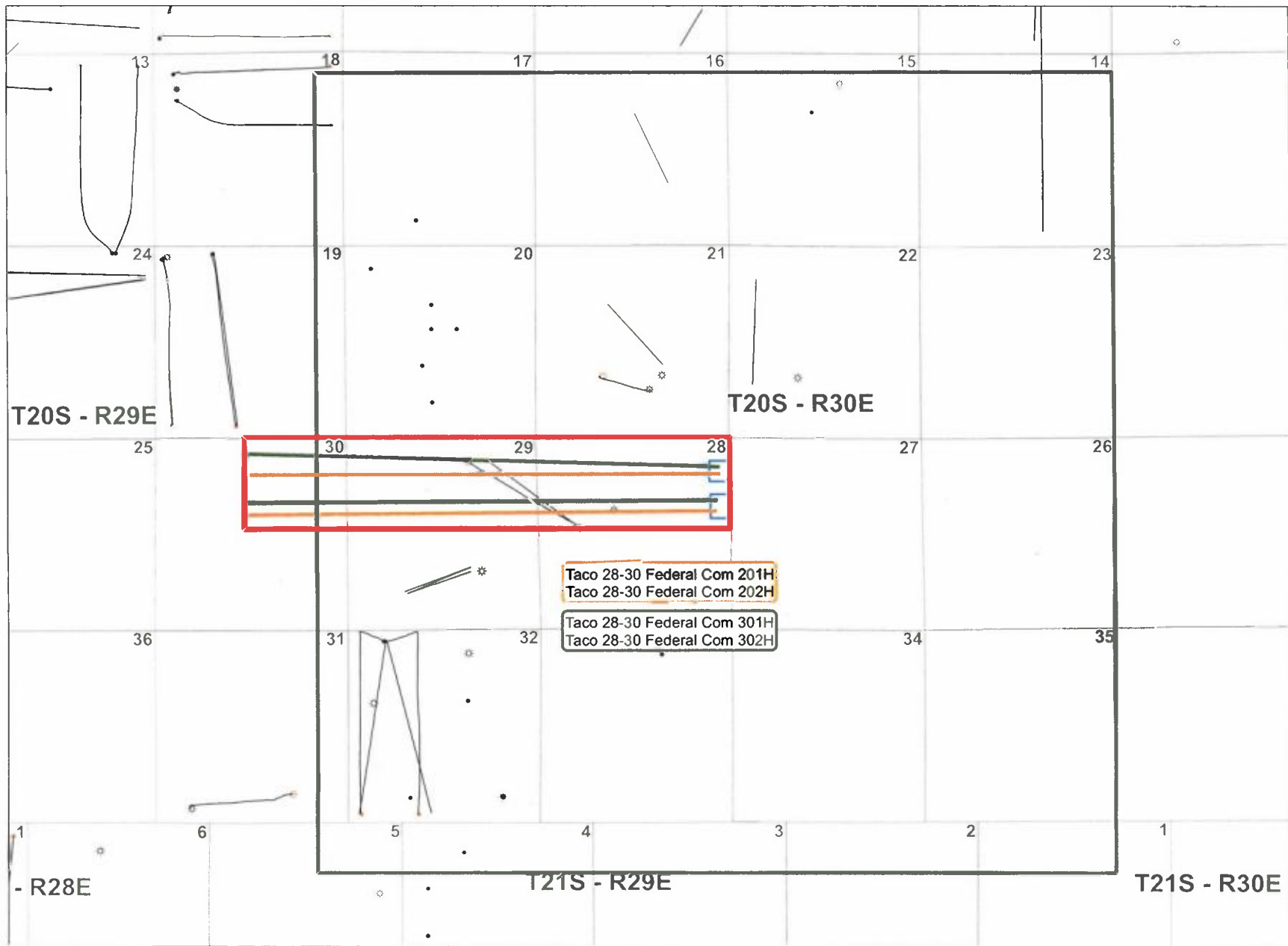
1 in = 1,000 feet
1 in = 0.25 miles



Apache

PERMAN OFFICE
303 Veterans Airport Ln #500
Midland, TX 79705
Phone (432) 618-1000

THIS DOCUMENT IS NOT A FINAL PRODUCT



APACHE'S TACO 28-30 DEVELOPMENT AREA
EDDY COUNTY, NEW MEXICO

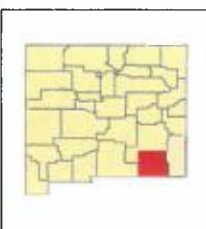
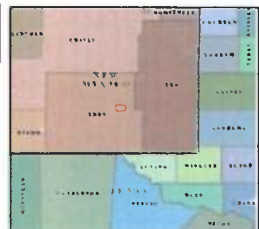
DATE: 10/24/2016

PREPARED BY:
L. STRETCHER

LEGEND

- 2 Mile Notification Boundary
- Taco 29 Development Area
- Taco 28-30 2nd Bone Spring Wells
- Taco 28-30 3rd Bone Spring Wells

N
W E
S



Base Map Information

Coordinate System
NAD 1983 StatePlane New Mexico FIPS 5001
Projection: Transverse Mercator
Datum: North American 1983
False Easting: 500,000.0000
False Northing: 0.0000
Central Meridian: -106.3333
Scale Factor: 0.9999
Latitude Of Origin: 31.0000
Units: Feet US

Map Data References
County: Eddy
Well Log: FWS
Project: Layers - HRS
Block: 1000 Data
Survey: 1000 Data
Road: 1000 Data
Road: 1000 Data

1 in = 1,000 ft
1 in = 0 miles



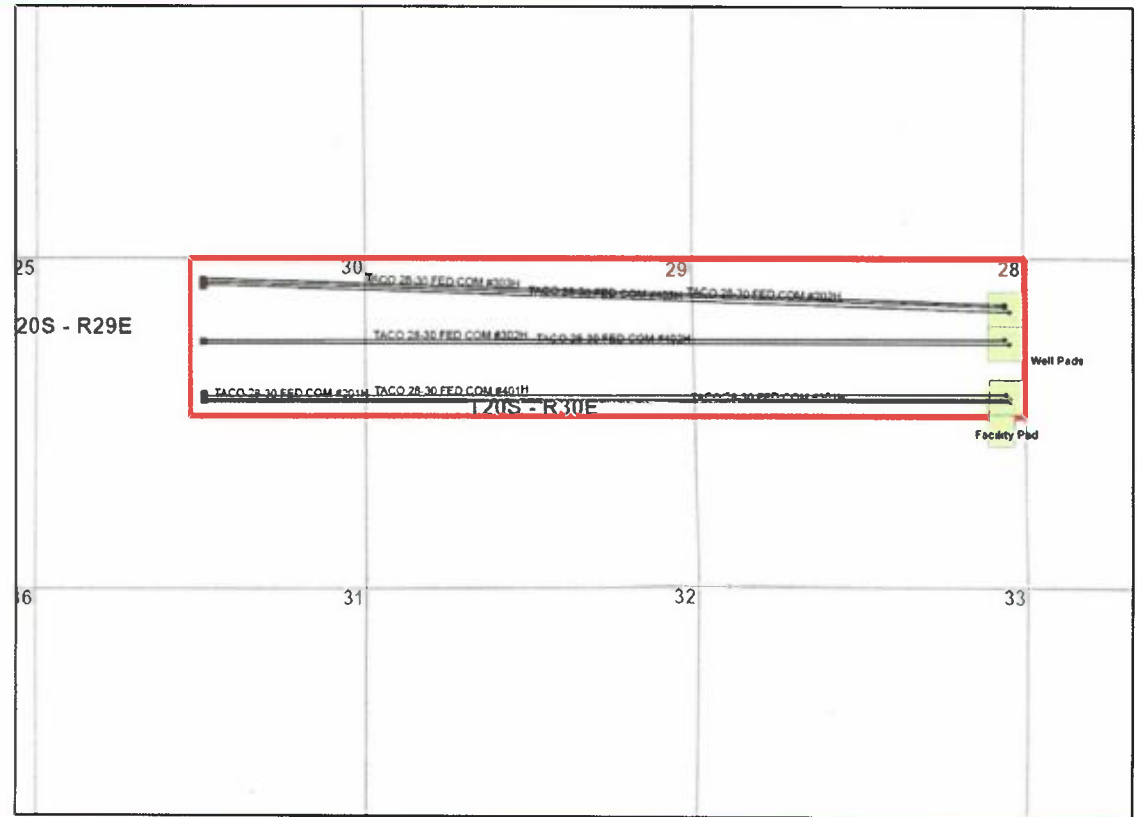
Apache

PERMIAN OFFICE
303 Veterans Airport Ln #600
Midland, TX 79705
Phone (432) 818-1000

CONFIDENTIAL - FOR INTERNAL USE ONLY

TACO 28-30 DEVELOPMENT AREA PREPARATION

- Well proposals and AFEs on 2nd Bone Spring, 3rd Bone Spring, and Wolfcamp formations sent to partners 12/13/2018
- Technical team continues to review area for optimal development plan
- Facility and flow line placement finalized, SWD, etc.
- Multiple parties expressed an interest in participating in wells
 - JOA is on hold
 - Oxy, Centennial, and Worrall Investments, Moore and Shelton, Zorro Partners, J Hudson Trust, Ard Energy, and Javelina Partners support APA as operator
- Recreational trail and grazing fence move is on hold



INVESTMENT BY APACHE IN TACO DA

- Over \$120,000 in title money spent
- 242 field hours spent on location review with BLM
- 94 landman hours spent on preparing for development
- 154 technical hours (geology, reservoir, drilling, production, facility)
- At least 3 offers to sell acreage to Apache from existing Taco working interest owners (all on hold)

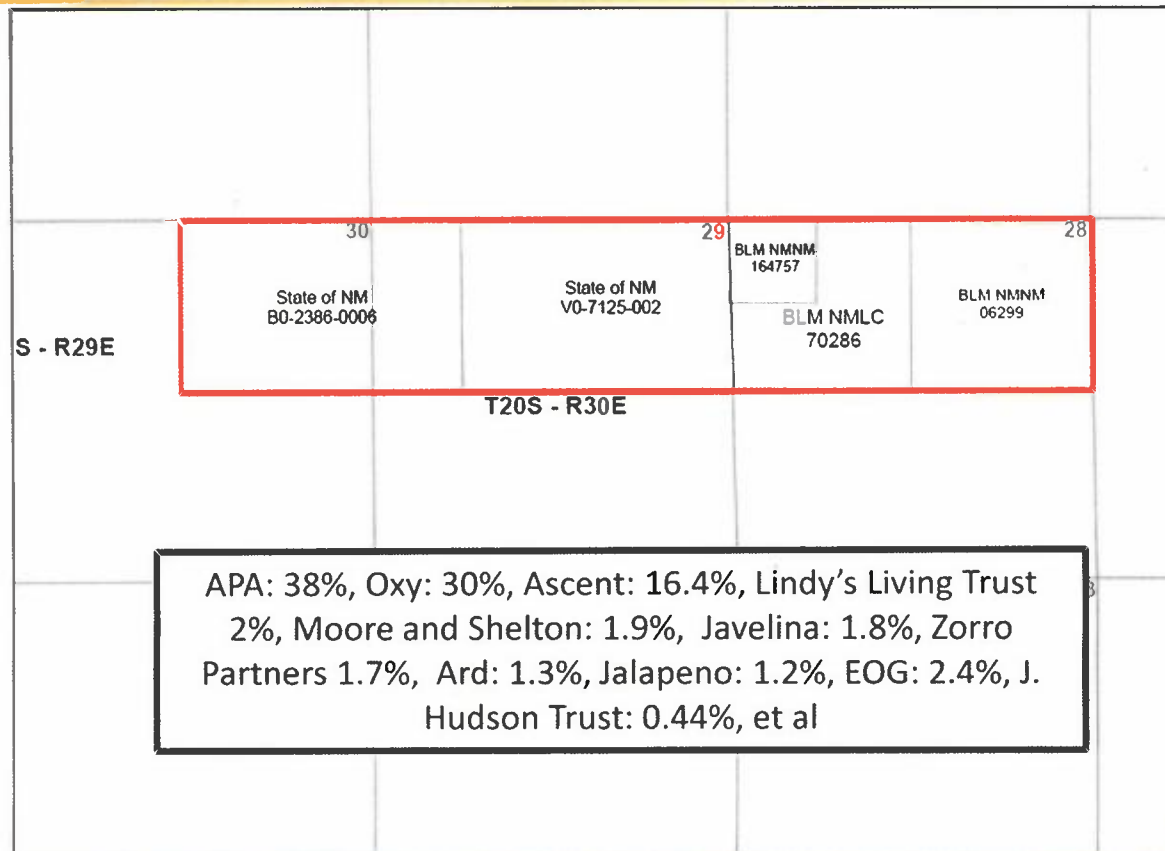


Apache

TACO 28-30 DEVELOPMENT AREA OWNERSHIP BY TRACT

30	29	28	
Oxy/GRB: 100%	APA: 96% WI, Moore and Shelton: 0.94%, Javelina 0.89%, J Hudson Trust 0.2%, Zorro: 0.78%, Ard 0.69%, et al	Ascent: 68%, EOG 7%, Lindy's Living Trust: 5.3%, Javelina 3.5%, Zorro Partners: 3.5%, J Hudson Trust 0.89%, Ard: 2.7%, Moore and Shelton: 3.8%, et al	Oxy: 50%, Ascent: 14%, Jalapeno: 6%, EOG 5%, Lindy's Living Trust: 5.3%, Javelina 3.5%, Moore and Shelton 3.75%, Zorro: 3.5%, Ard 2.6%, J. Hudson Trust 0.89%, et al
	T20S - R30E		
31	32	33	

TACO 28-30 DEVELOPMENT AREA OWNERSHIP



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		2 Pool Code		3 Pool Name					
4 Property Code		5 Property Name TACO 28-30 FEDERAL COM						6 Well Number 303H	
7 GRID NO.		8 Operator Name APACHE CORPORATION						9 Elevation 3342'	
10 Surface Location									
UL or lot no. A	Section 28	Township 20S	Range 30E	Lot Idn	Feet from the 761	North/South line NORTH	Feet From the 343	East/West line EAST	County EDDY
11 Bottom Hole Location If Different From Surface									
UL or lot no. B	Section 30	Township 20S	Range 30E	Lot Idn	Feet from the 330	North/South line NORTH	Feet from the 2590	East/West line EAST	County EDDY
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			

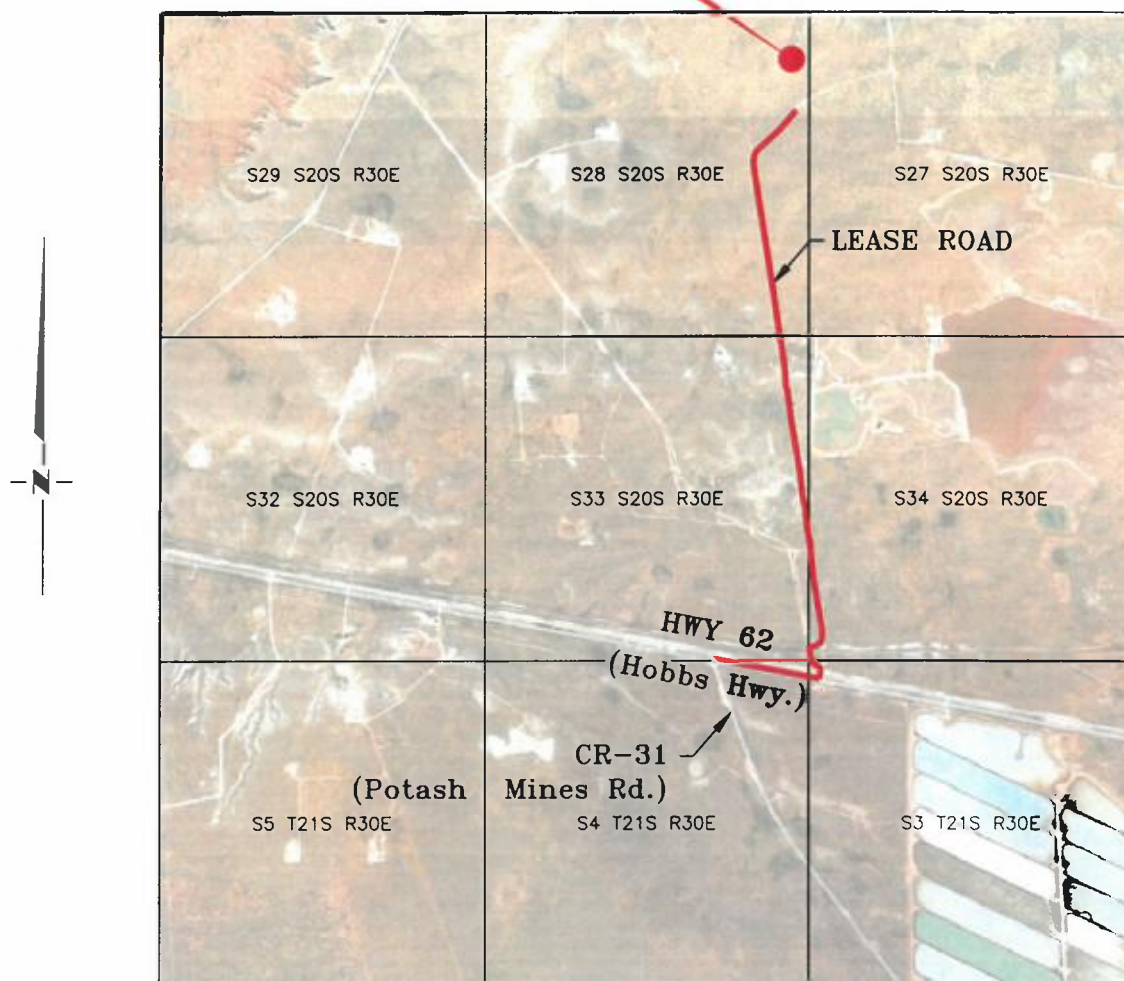
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>16</p> <p>GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 563812.6 - E 653384.5 LAT: 32.5494518° N LONG: 103.9696934° W</p> <p>LAST TAKE POINT (L.T.P.) N 564224.5 - E 640605.5 LAT: 32.5506971° N LONG: 104.0111619° W</p> <p>BOTTOM HOLE (B.H.) N 564224.3 - E 640555.5 LAT: 32.5506972° N LONG: 104.0113241° W</p> <p>DETAIL "A" 3333.6' - 675' - 3318.2' 755' - 3336.3' - 3331.4'</p>		<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2</p>		<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>	
<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p>		<p>Job No.: LS18111250</p>					

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #303H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 303H

LOCATION: 761' FNL & 343' FEL
ELEVATION: 3342'

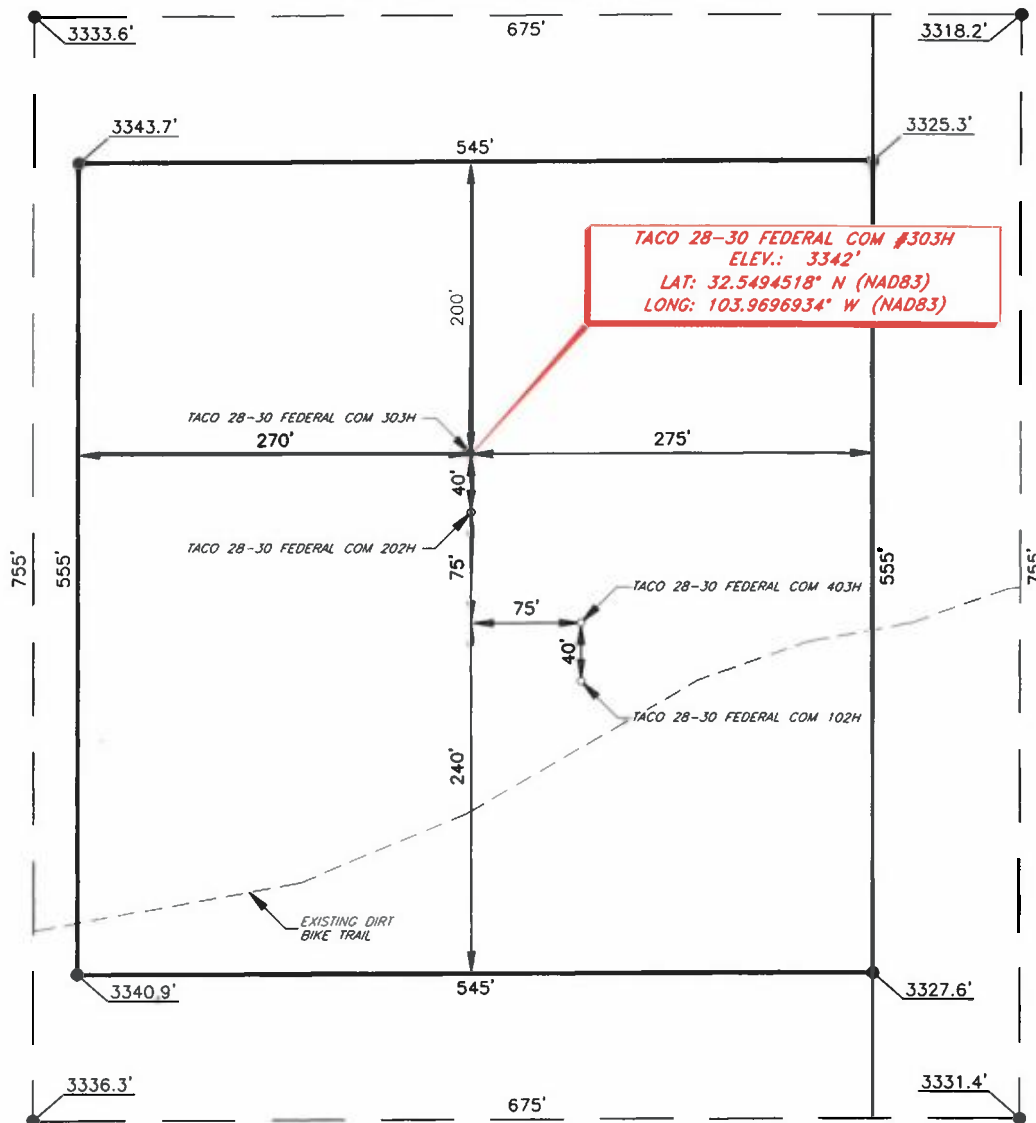
Copyright 2018 - All Rights Reserved

DATE: 11-12-2018		
NO.	REVISION	DATE
1		
2		
3		
4		

RRC
SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS18111250
SHEET: 303 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #303H
(761' FNL & 343' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Habbs Hwy.) and CR-31 (Potash Mines Rd.),
 Go East on HWY 62 approx. 0.3 miles to lease road on the left;
 Turn left on lease road and go North approx. 1.9 miles to proposed location on
 the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
 PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
 SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
 that I prepared this plat from an actual survey made on the
 ground under my direct supervision, said survey and plat meet
 the Min. Stds. for Land Surveying in the State of N. M. and are
 true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
 0 50' 100'

BEARINGS ARE GRID NAD 83
 NM EAST
 DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC
 SURVEYING, LLC
 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
 SURVEYED BY: AB/RU
 DRAWN BY: AiAC/CAR
 APPROVED BY: JLF
 JOB NO.: LS18111250
 SHEET: 303 PAD

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	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name TACO 28-30 FEDERAL COM	
⁷ OGRID NO.	⁸ Operator Name APACHE CORPORATION	⁶ Well Number 202H ⁹ Elevation 3341'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
A	28	20S	30E		801	NORTH	343	EAST	EDDY

¹¹ 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
B	30	20S	30E		380	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

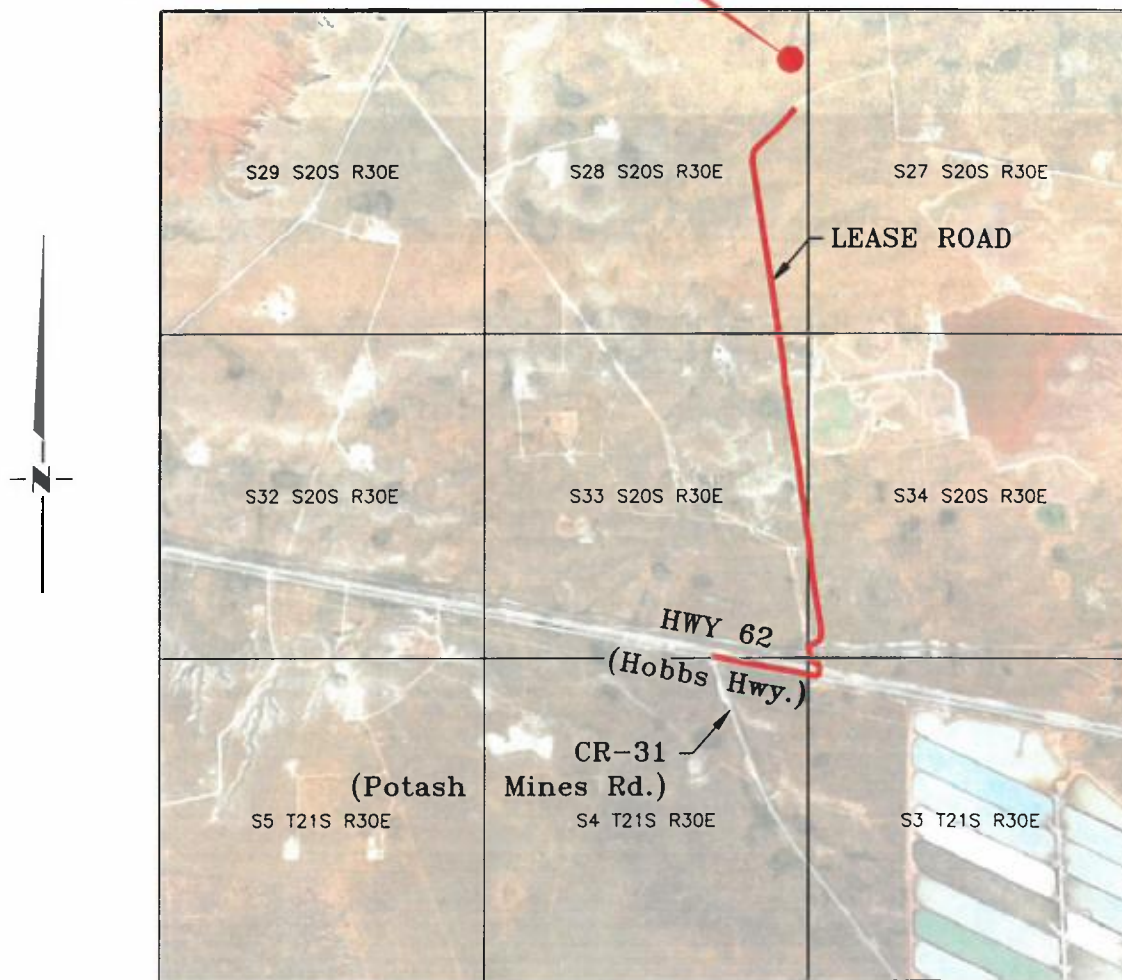
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>16</p> <p>GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 563772.6 - E 653384.5 LAT: 32.5493420° N LONG: 103.9696938° W</p> <p>LAST TAKE POINT (L.T.P.) N 564174.5 - E 640605.8 LAT: 32.5505597° N LONG: 104.0111616° W</p> <p>BOTTOM HOLE (B.H.) N 564174.3 - E 640555.8 LAT: 32.5505598° N LONG: 104.0113238° W</p> <p>DETAIL "A" 3333.6' - 675' - 3318.2' 755' - 3336.3' - 3331.4'</p> <p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p> <p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2</p>	<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p> <p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p> <p>Job No.: LS18111250</p>
---	---

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #202H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 202H

LOCATION: 801' FNL & 343' FEL
ELEVATION: 3341'

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018		
NO.	REVISION	DATE
1		
2		
3		
4		



SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS18111250
SHEET: 202 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #202H
(801' FNL & 343' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO

DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.9 miles to proposed location on
the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY. BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
NM PS 10034

Copyright 2018 - All Rights Reserved

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		2 Pool Code		3 Pool Name					
4 Property Code		5 Property Name TACO 28-30 FEDERAL COM						6 Well Number 403H	
7 GRID NO.		8 Operator Name APACHE CORPORATION						9 Elevation 3331'	
10 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	20S	30E		876	NORTH	269	EAST	EDDY
11 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
B	30	20S	30E		430	NORTH	2590	EAST	EDDY
12 Dedicated Acres		13 Joint or Infill		14 Consolidation Code		15 Order No.			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

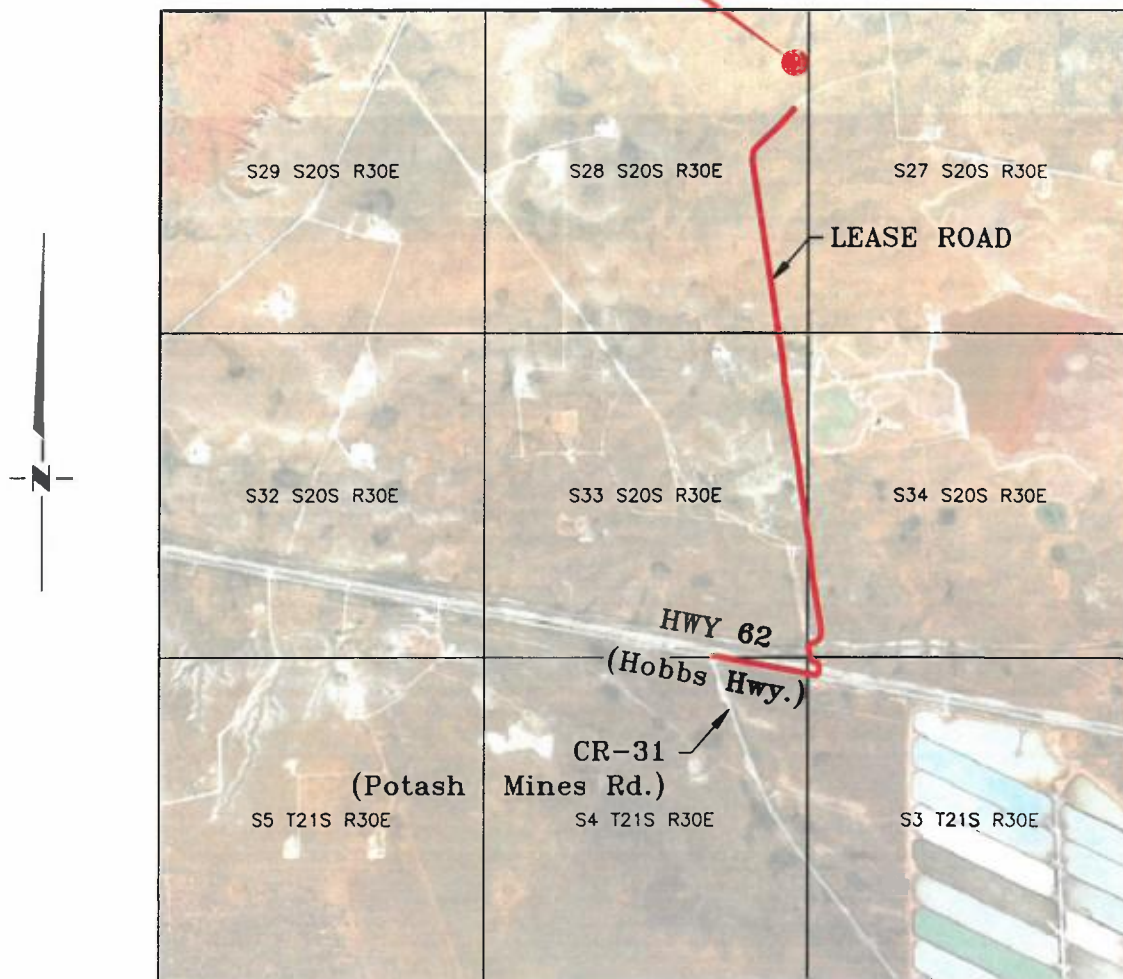
16 GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION (S.L.) N 563697.4 - E 653459.3 LAT: 32.5491347° N LONG: 103.9694516° W LAST TAKE POINT (L.T.P.) N 564124.5 - E 640606.0 LAT: 32.5504223° N LONG: 104.0111613° W BOTTOM HOLE (B.H.) N 564124.3 - E 640556.0 LAT: 32.5504224° N LONG: 104.0113235° W DETAIL "A" 3333.6' - 675' - 3318.2' 755' - 3336.3' - 3331.4'		CORNER DATA NAD 83 GRID - NM EAST A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7 B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2 C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4 D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6 E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3 F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1 G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6 H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6 I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7 J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6		17 OPERATOR CERTIFICATION <i>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> Signature _____ Date _____ Printed Name _____ E-mail Address _____	
18 SURVEYOR CERTIFICATION <i>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.</i> 11-13-2017 Date of Survey Signature and Seal of Professional Surveyor 10034 Certificate Number		19 CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2			

Job No.: LS18111250

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #403H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 403H

LOCATION: 876' FNL & 269' FEL
ELEVATION: 3331'

Copyright 2018 - All Rights Reserved

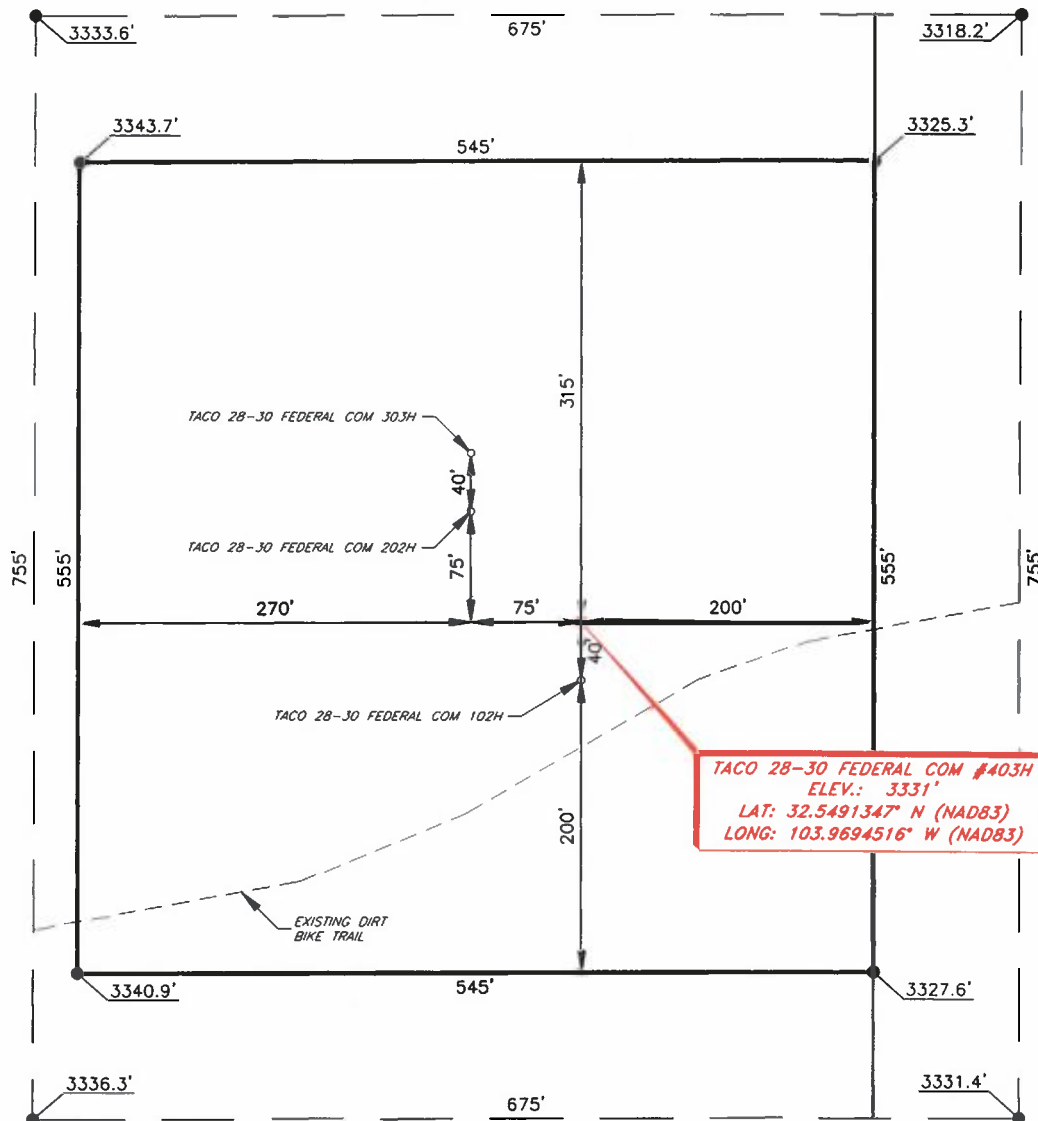
DATE: 11-12-2018		
NO.	REVISION	DATE
1		
2		
3		
4		



SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS18111250
SHEET: 403 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #403H
(876' FNL & 269' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



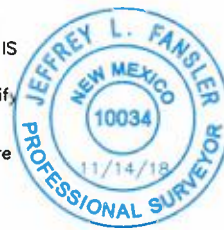
DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.9 miles to proposed location on
the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
0 50' 100'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

DATE: 11-13-2018

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

DRAWN BY: AIAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111250

SHEET: 403 PAD

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		2 Pool Code		3 Pool Name			
4 Property Code		5 Property Name TACO 28-30 FEDERAL COM				6 Well Number 102H	
7 GRID NO.		8 Operator Name APACHE CORPORATION				9 Elevation 3330'	

10 Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
A	28	20S	30E		916	NORTH	269	EAST	EDDY

11 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
B	30	20S	30E		480	NORTH	2590	EAST	EDDY
12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.						

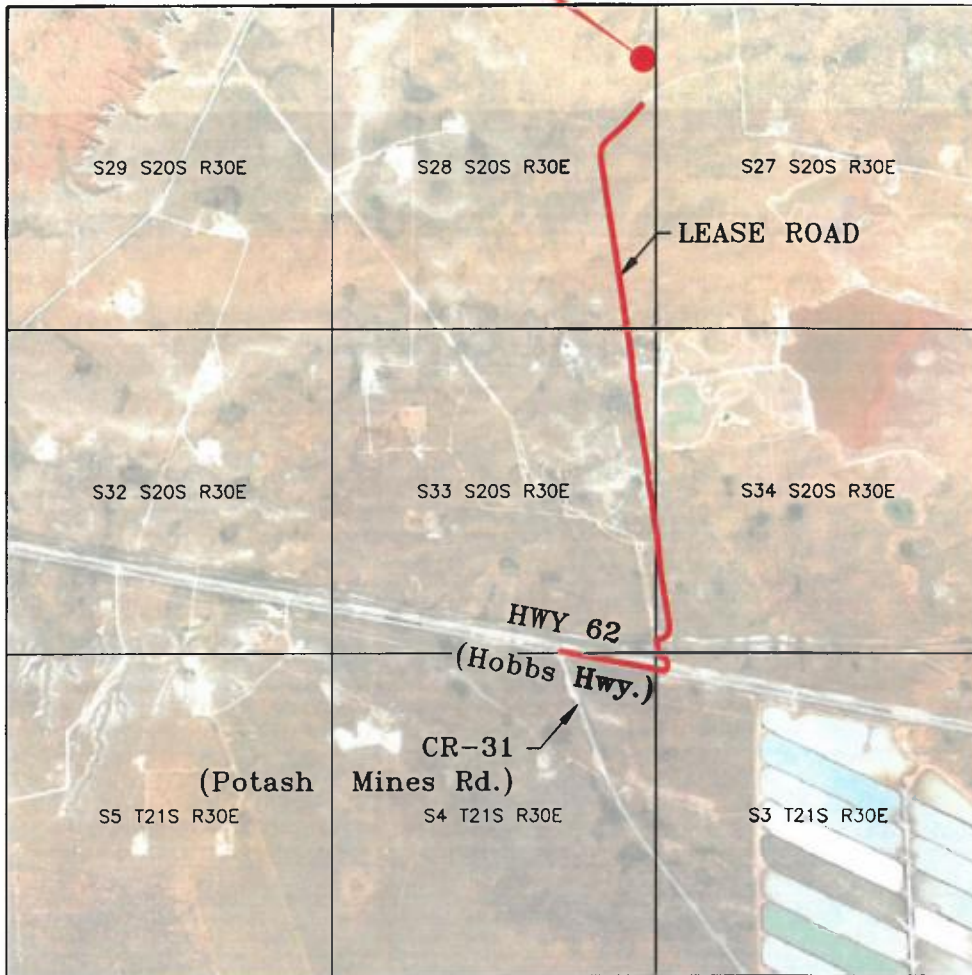
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

16 GEODETIC DATA NAD 83 GRID - NM EAST SURFACE LOCATION (S.L.) N 563657.4 - E 653459.3 LAT: 32.5490247° N LONG: 103.9694521° W LAST TAKE POINT (L.T.P.) N 564074.5 - E 640606.2 LAT: 32.5502849° N LONG: 104.0111610° W BOTTOM HOLE (B.H.) N 564074.4 - E 640556.3 LAT: 32.5502850° N LONG: 104.0113232° W DETAIL "A" 			CORNER DATA NAD 83 GRID - NM EAST A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7 B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2 C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4 D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6 E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3 F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1 G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6 H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6 I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7 J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6			K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1 L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6 M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5 N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1 O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6 P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1 Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2 R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3 CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2			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. Signature _____ Date _____ Printed Name _____ 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. 11-13-2017 Date of Survey Signature and Seal of Professional Surveyor 			10034 Certificate Number Job No.: LS18111250					

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #102H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 102H

LOCATION: 916' FNL & 269' FEL
ELEVATION: 3330'

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

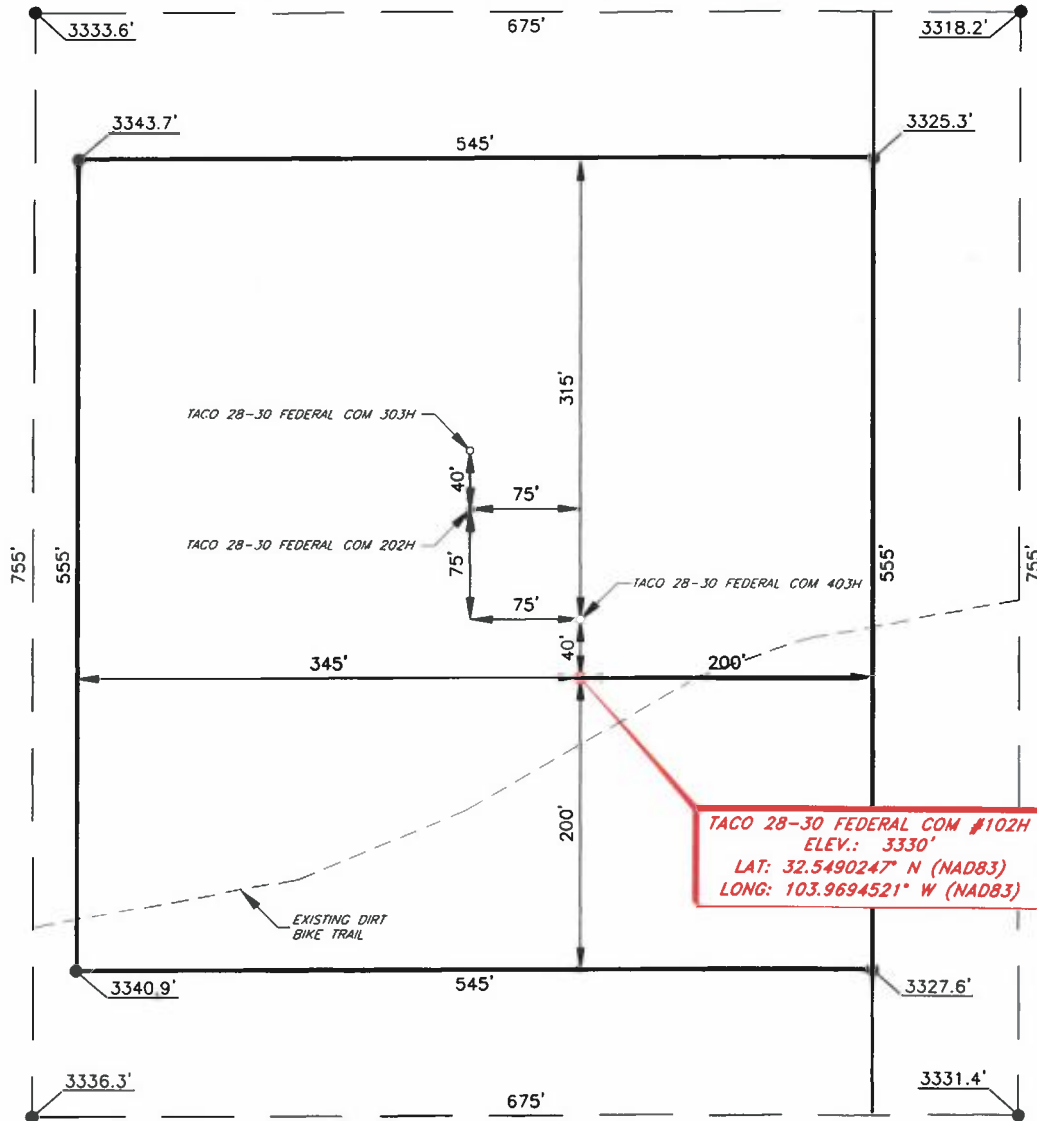
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111250

SHEET: 102 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #102H
(916' FNL & 269' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
 Go East on HWY 62 approx. 0.3 miles to lease road on the left;
 Turn left on lease road and go North approx. 1.9 miles to proposed location on
 the left.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
 PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
 SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
 that I prepared this plat from an actual survey made on the
 ground under my direct supervision, said survey and plat meet
 the Min. Stds. for Land Surveying in the State of N. M. and are
 true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
 0 50' 100'

BEARINGS ARE GRID NAD 83
 NM EAST
 DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

DATE: 11-13-2018

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111250

SHEET: 102 PAD

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		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name TACO 28-30 FEDERAL COM			
7 GRID NO.		8 Operator Name APACHE CORPORATION			
		6 Well Number 302H			
		9 Elevation 3339'			

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		1320	NORTH	346	EAST	EDDY

11 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
G	30	20S	30E		1320	NORTH	2590	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
--------------------	--------------------	-----------------------	--------------

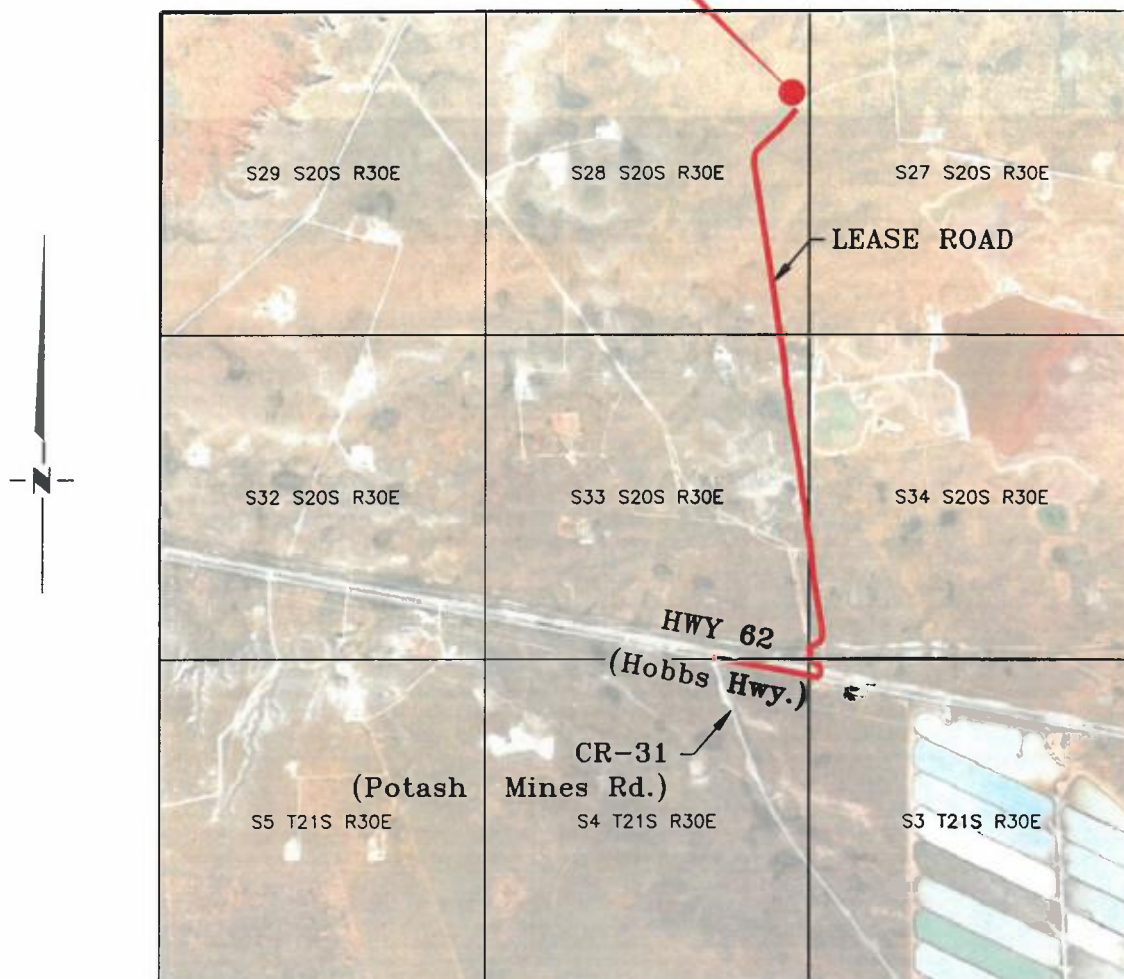
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>16</p> <p>GEODETTIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 563252.7 - E 653384.5 LAT: 32.5479129° N LONG: 103.9696995° W</p> <p>LAST TAKE POINT (L.T.P.) N 563234.7 - E 640610.3 LAT: 32.5479766° N LONG: 104.0111559° W</p> <p>BOTTOM HOLE (B.H.) N 563234.6 - E 640560.4 LAT: 32.5479766° N LONG: 104.0113181° W</p> <p>DETAIL "A" 3351.6' - 675' - 3327.2' 675' - 3342.3' - 3361.4'</p>		<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>	
<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>					
<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p> <p>Job No.: LS18111251</p>					

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #302H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 302H

LOCATION: 1320' FNL & 346' FEL
ELEVATION: 3339'

Copyright 2018 - All Rights Reserved

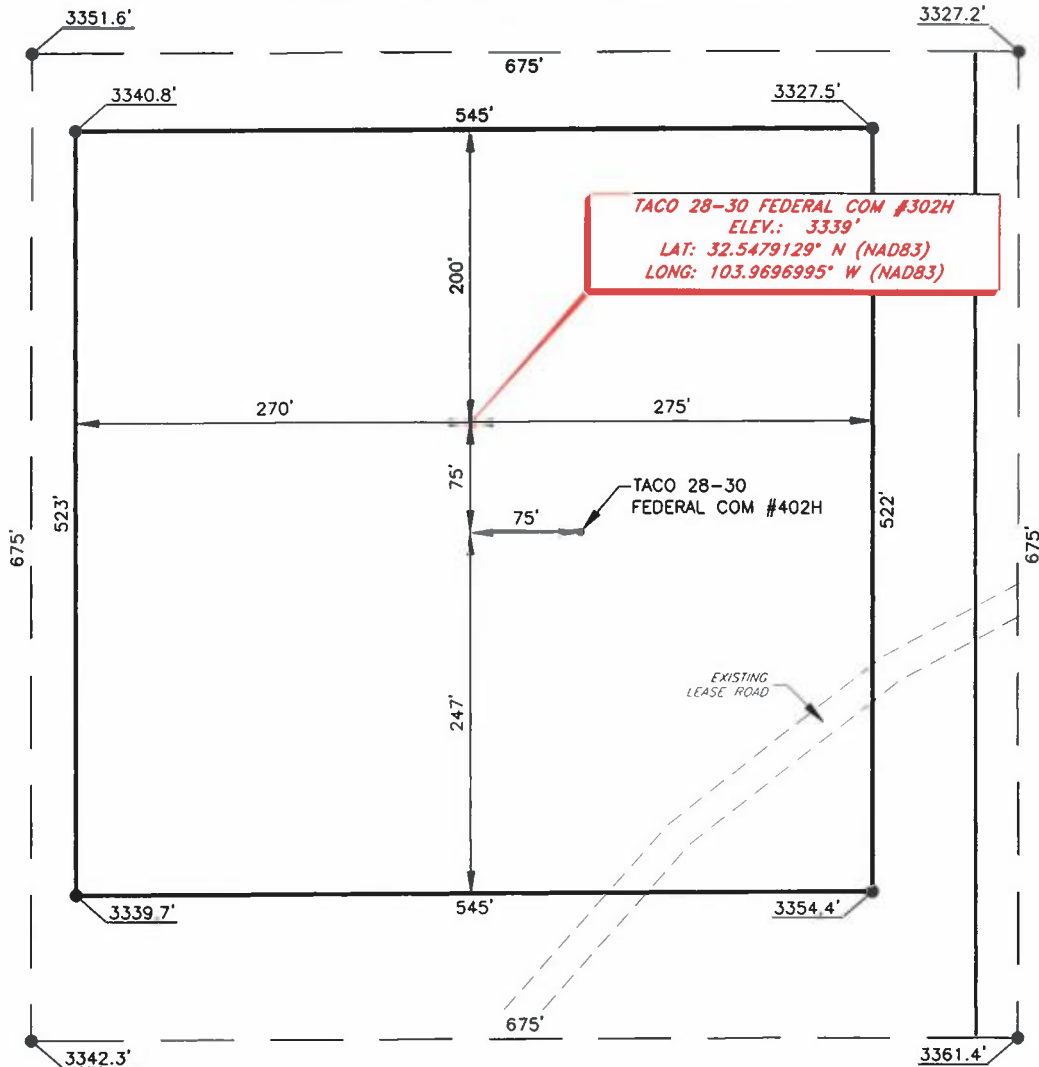
DATE: 11-12-2018		
NO.	REVISION	DATE
1		
2		
3		
4		



SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS18111251
SHEET: 302 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #302H
(1320' FNL & 346' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



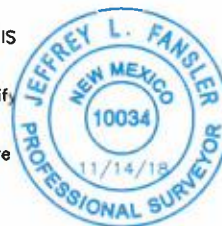
DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.8 miles to proposed location on
the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
0 50' 100'
BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC
SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS1811251
SHEET: 302 PAD

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	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name TACO 28-30 FEDERAL COM	
⁷ GRID NO.	⁸ Operator Name APACHE CORPORATION	⁶ Well Number 402H
		⁹ Elevation 3345'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		1395	NORTH	271	EAST	EDDY

¹¹ 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
G	30	20S	30E		1370	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

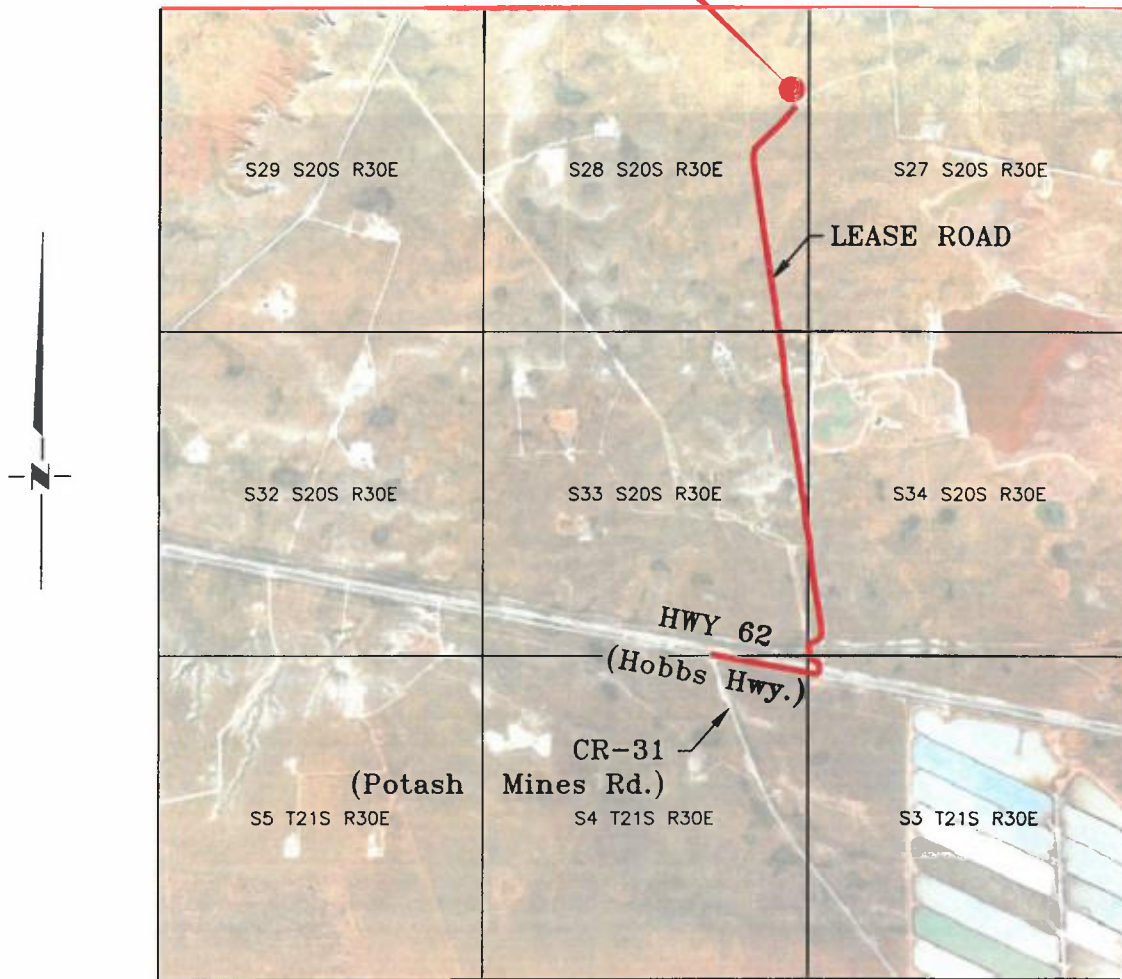
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 563177.7 - E 653459.6 LAT: 32.5477061° N LONG: 103.9694567° W</p> <p>LAST TAKE POINT (L.T.P.) N 563184.7 - E 640610.6 LAT: 32.5477391° N LONG: 104.0111556° W</p> <p>BOTTOM HOLE (B.H.) N 563184.6 - E 640560.6 LAT: 32.5478392° N LONG: 104.0113178° W</p> <p>DETAIL "A" 3351.6' - 675' - 3327.2' 675' 3342.3' - 3361.4'</p>	<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>	<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>	<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>
			<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p> <p>10034 Job No.: LS18111251</p>

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #402H



SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 402H

LOCATION: 1395' FNL & 271' FEL
ELEVATION: 3345'

Copyright 2018 – All Rights Reserved

DATE: 11-12-2018		
NO.	REVISION	DATE
1		
2		
3		
4		



SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

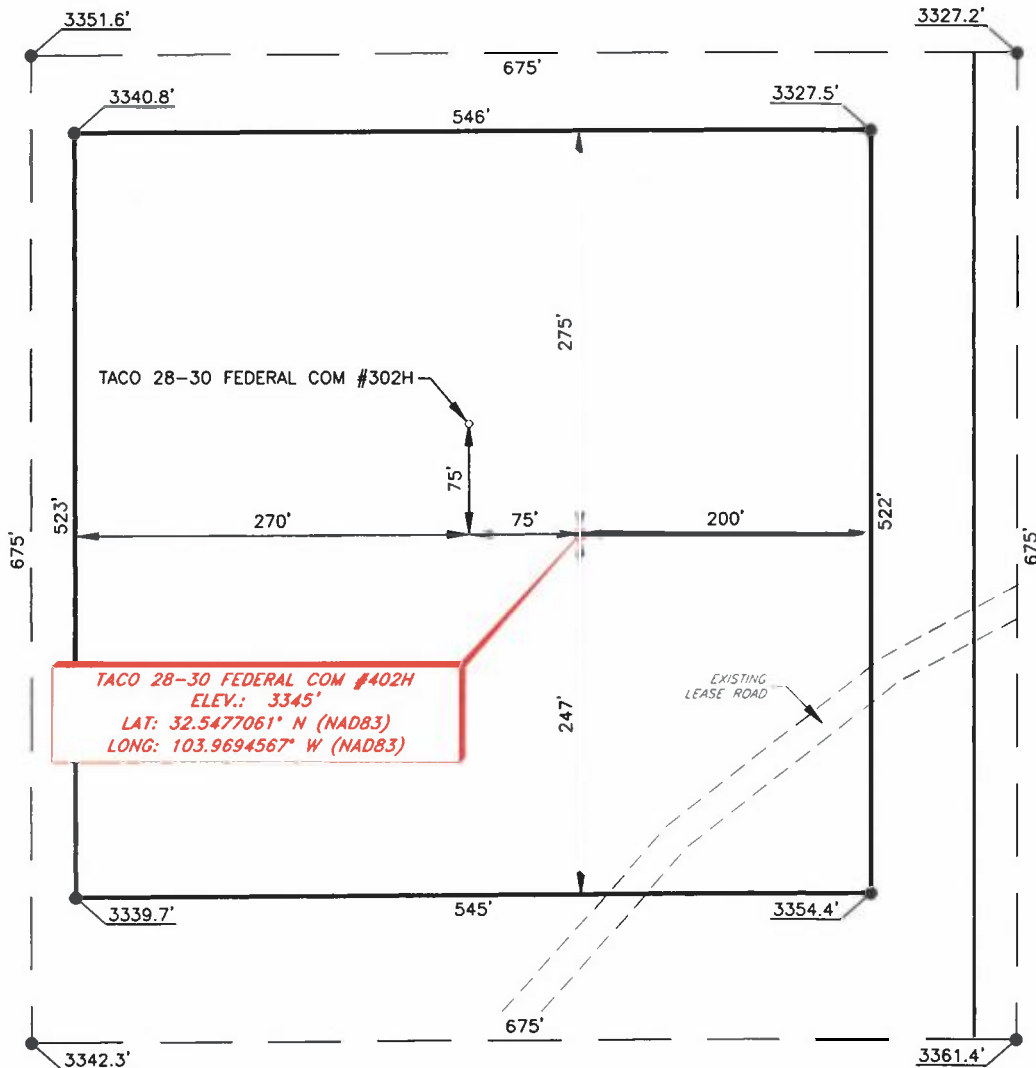
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111251

SHEET: 402 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #402H
(1395' FNL & 271' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



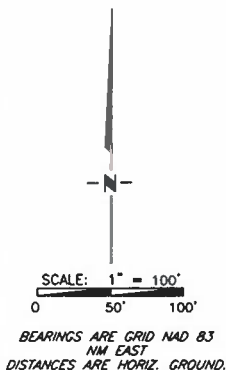
DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
 Go East on HWY 62 approx. 0.3 miles to lease road on the left;
 Turn left on lease road and go North approx. 1.8 miles to proposed location on
 the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
 PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
 SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
 that I prepared this plat from an actual survey made on the
 ground under my direct supervision, said survey and plat meet
 the Min. Stds. for Land Surveying in the State of N. M. and are
 true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034



Copyright 2018 - All Rights Reserved

DATE:	11-13-2018	
NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE:	1" = 1000'
SURVEYED BY:	AB/RU
DRAWN BY:	AiAC/CAR
APPROVED BY:	JLF
JOB NO.:	LS18111251
SHEET:	402 PAD

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		² Pool Code		³ Pool Name		
⁴ Property Code		⁵ Property Name TACO 28-30 FEDERAL COM				⁶ Well Number 101H
⁷ GRID NO.		⁸ Operator Name APACHE CORPORATION				⁹ Elevation 3367'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		2156	NORTH	345	EAST	EDDY

¹¹ 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
G	30	20S	30E		2160	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

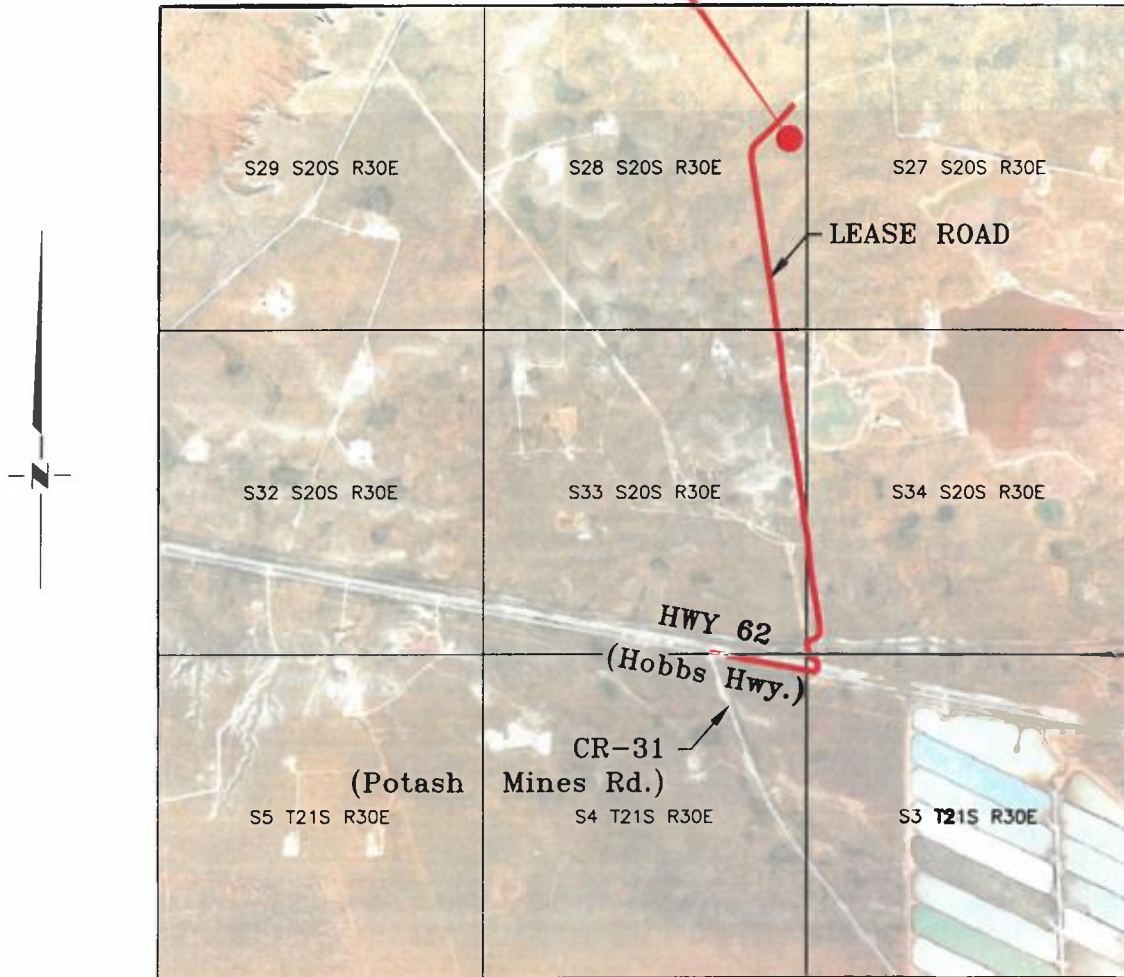
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>16</p> <p>GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 562417.8 - E 653389.4 LAT: 32.5456180° N LONG: 103.9696929° W</p> <p>LAST TAKE POINT (L.T.P.) N 562394.9 - E 640614.4 LAT: 32.5456681° N LONG: 104.0111508° W</p> <p>BOTTOM HOLE (B.H.) N 562394.8 - E 640564.5 LAT: 32.5456682° N LONG: 104.0113131° W</p> <p>DETAIL "A" 3350.3' - 675' - 3357.6' 755' - 3378.8' - 3373.9'</p>		<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>		<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>	
<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p>10034 Certificate Number</p>		<p>Job No.: LS18111249</p>					

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #101H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 101H

LOCATION: 2156' FNL & 345' FEL
ELEVATION: 3667'

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018

NO.	REVISION	DATE
1		
2		
3		
4		



SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

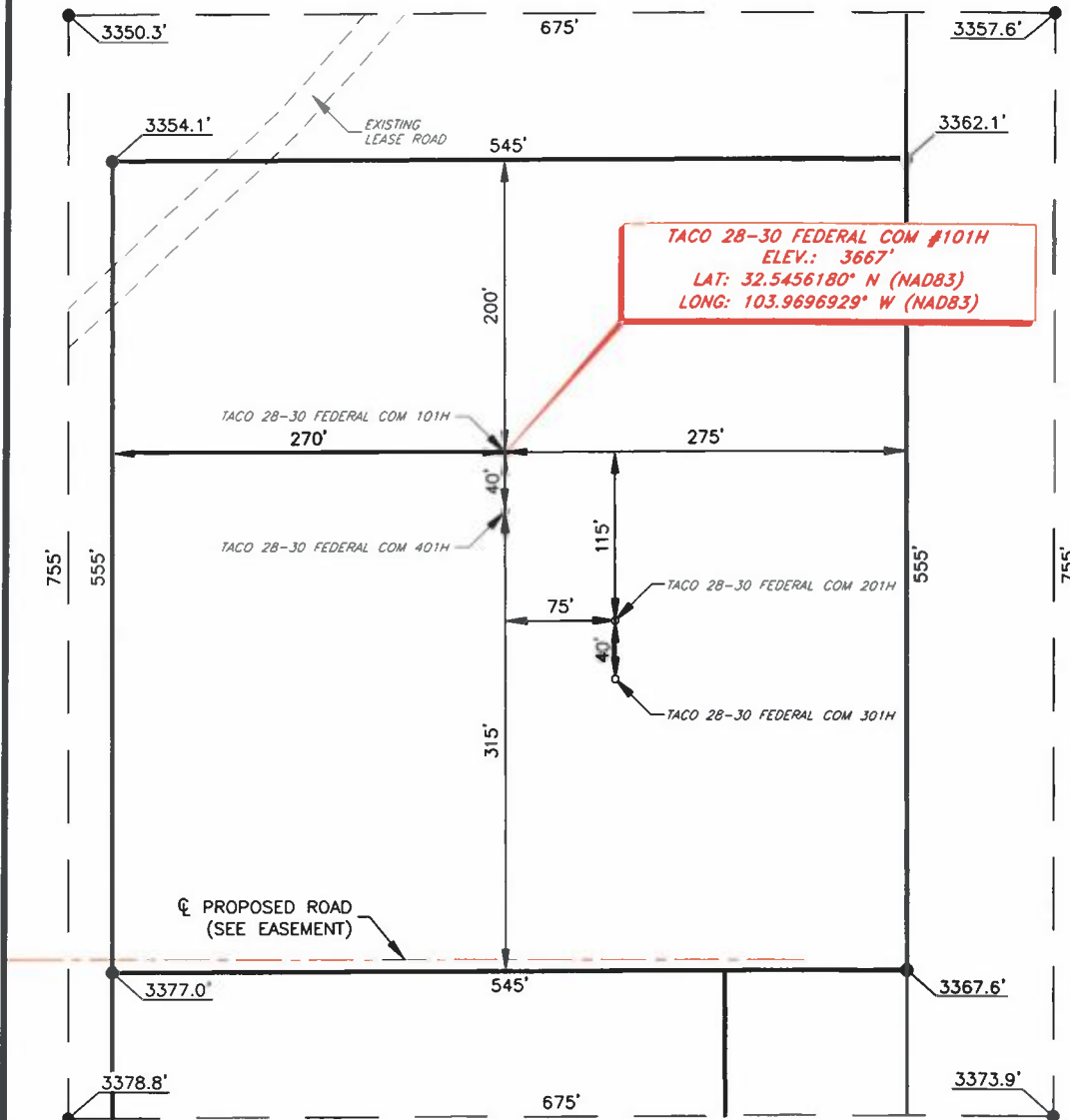
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 101 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #101H
(2156' FNL & 345' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.8 miles to proposed location on
the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
0 50' 100'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM. 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 101 PAD

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		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name TACO 28-30 FEDERAL COM			
⁷ GRID NO.		⁸ Operator Name APACHE CORPORATION			
				⁶ Well Number 401H	
				⁹ Elevation 3368'	

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		2196	NORTH	345	EAST	EDDY

¹¹ 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
G	30	20S	30E		2210	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

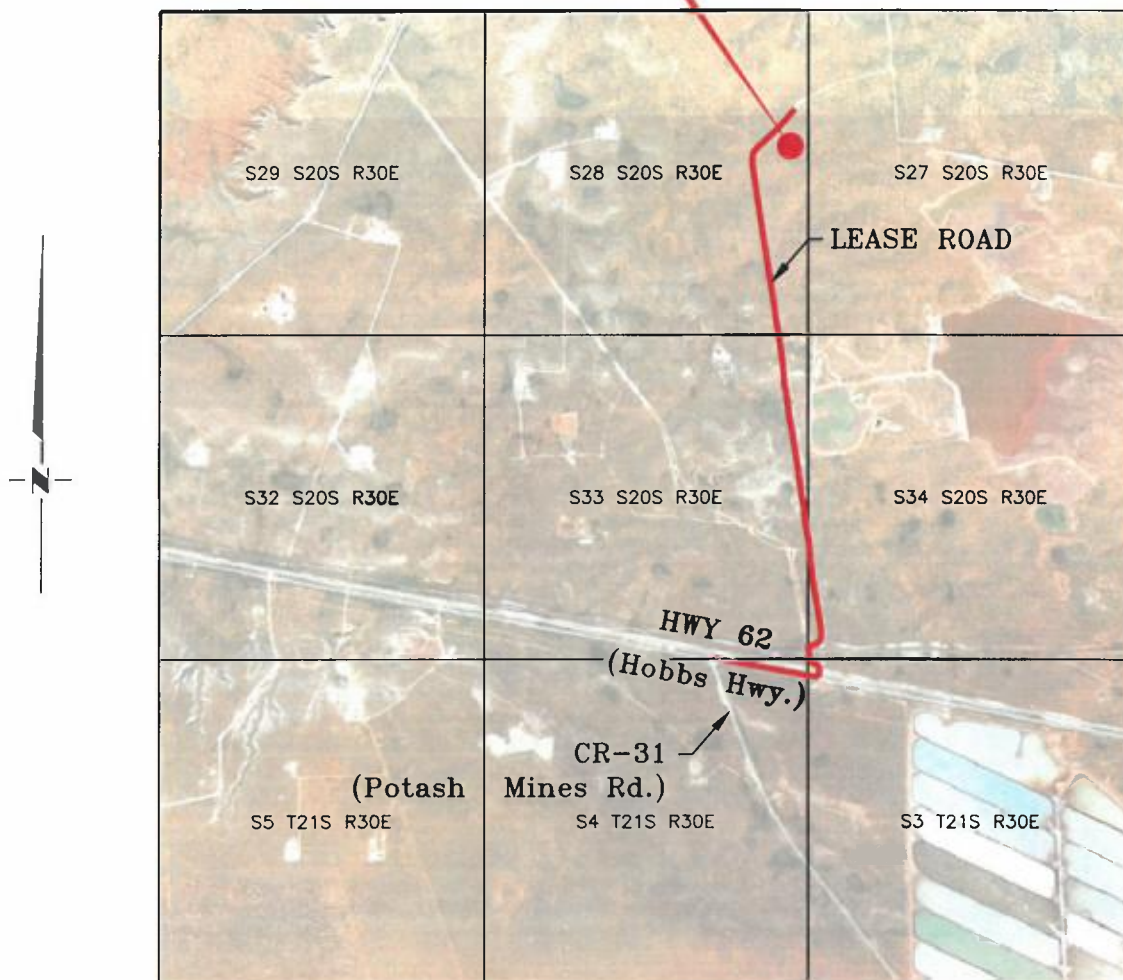
<p>16</p> <p><u>GEODETIC DATA</u> NAD 83 GRID - NM EAST</p> <p><u>SURFACE LOCATION (S.L.)</u> N 562377.8 - E 653389.6 LAT: 32.5455081° N LONG: 103.9696927° W</p> <p><u>LAST TAKE POINT (L.T.P.)</u> N 562344.9 - E 640614.7 LAT: 32.5455307° N LONG: 104.0111505° W</p> <p><u>BOTTOM HOLE (B.H.)</u> N 562344.8 - E 640564.7 LAT: 32.5455308° N LONG: 104.0113128° W</p> <p><u>DETAIL "A"</u> 3350.3' - 675' - 3357.6' 3378.8' - 3373.9'</p>		<p><u>CORNER DATA</u> NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p><u>CALCULATED POINTS</u> 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>		<p>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 as 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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>	
<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p>							

Job No.: LS18111249

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #401H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 401H

LOCATION: 2196' FNL & 345' FEL
ELEVATION: 3368'

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

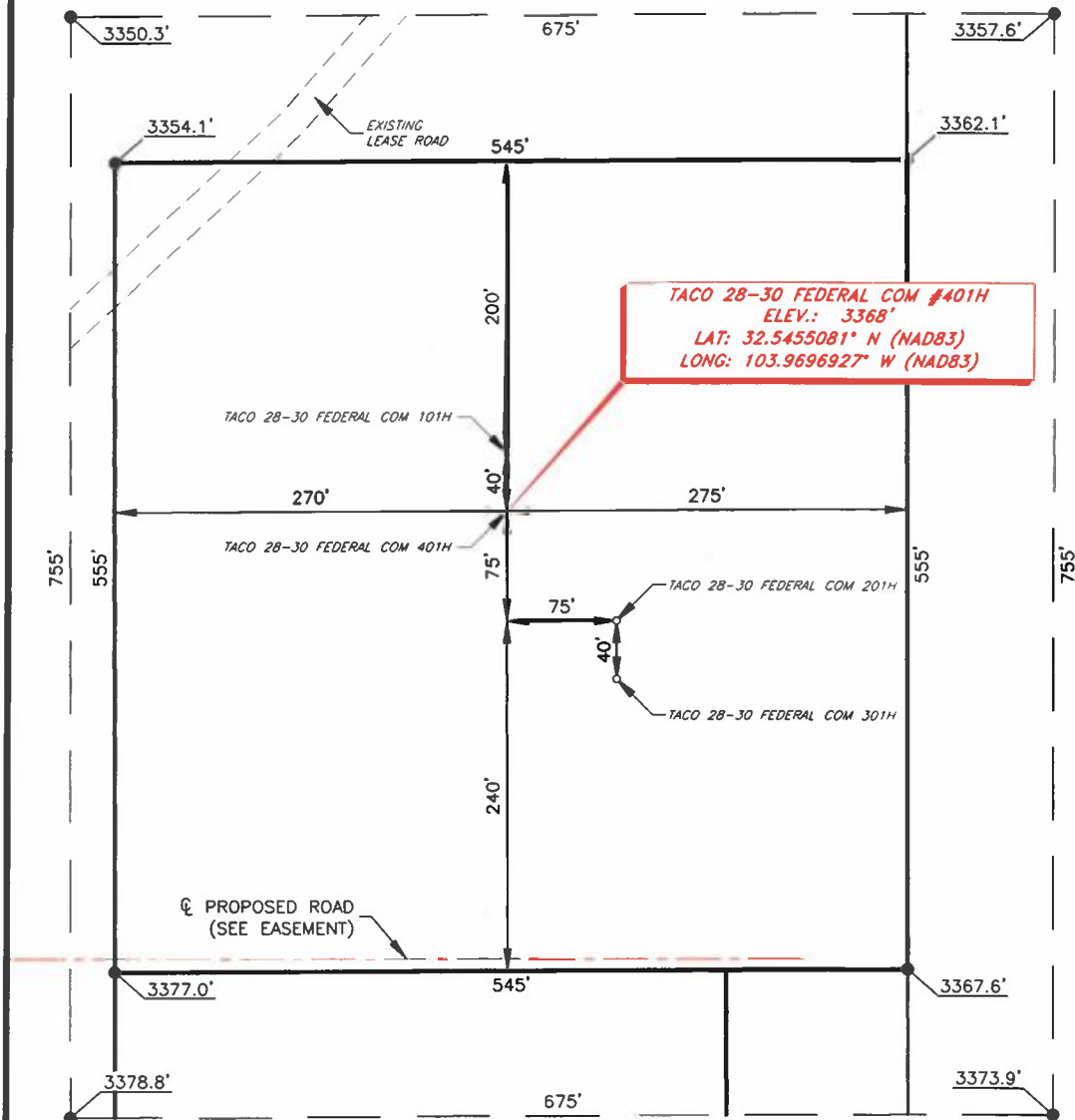
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 401 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #401H
(2196' FNL & 345' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.8 miles to proposed location on
the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
0 50' 100'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

DATE: 11-13-2018		
NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 401 PAD

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		² Pool Code		³ Pool Name		
⁴ Property Code		⁵ Property Name TACO 28-30 FEDERAL COM				⁶ Well Number 201H
⁷ GRID NO.		⁸ Operator Name APACHE CORPORATION				⁹ Elevation 3365'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		2271	NORTH	270	EAST	EDDY

¹¹ 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
G	30	20S	30E		2260	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

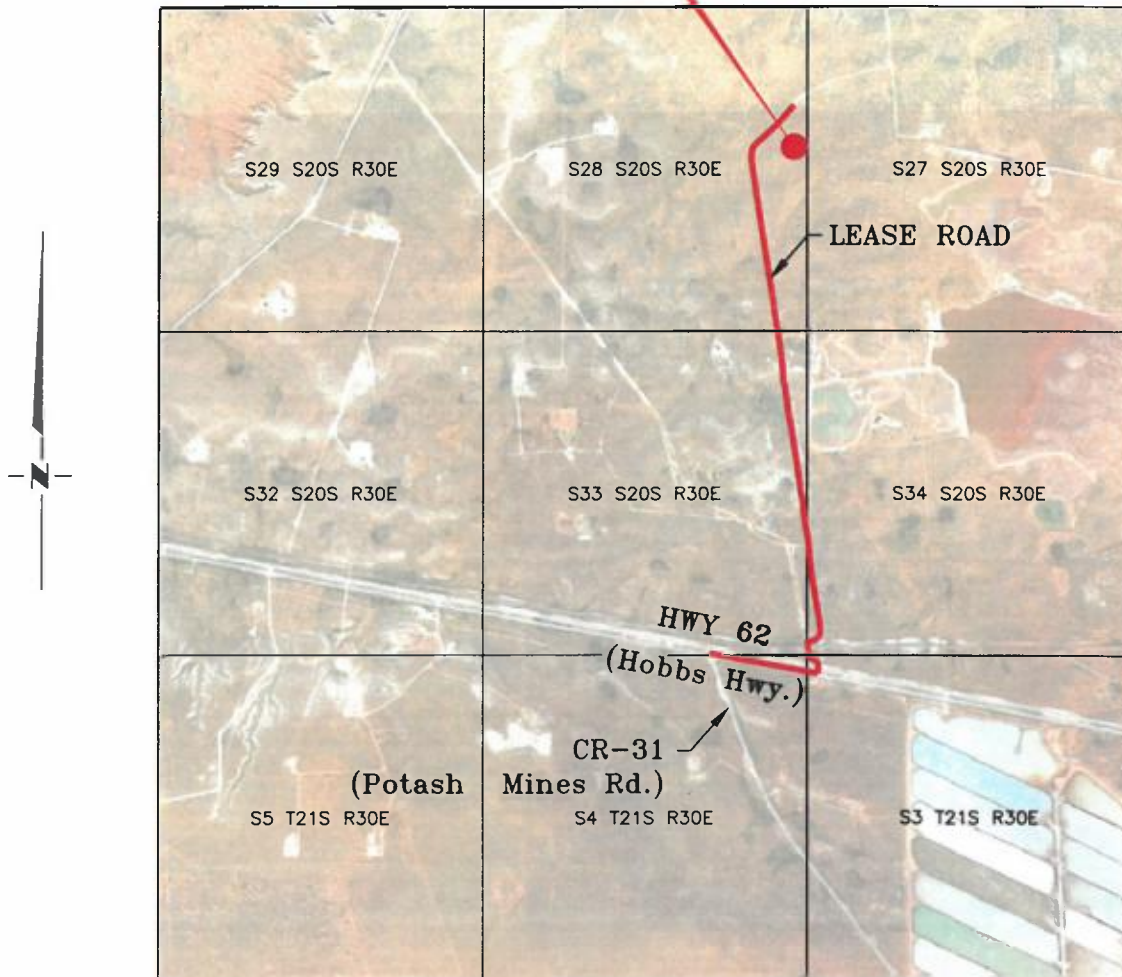
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>¹⁶ GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 562302.7 - E 563464.8 LAT: 32.5453008° N LONG: 103.9694494° W</p> <p>LAST TAKE POINT (L.T.P.) N 562294.9 - E 640614.9 LAT: 32.5453933° N LONG: 104.0111502° W</p> <p>BOTTOM HOLE (B.H.) N 562294.8 - E 640564.9 LAT: 32.5453934° N LONG: 104.0113125° W</p> <p>DETAIL "A" 3350.3' - 675' - 3357.6' 755' - 3378.8' - 3373.9'</p>		<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p> <p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>		<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>
<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor _____</p> <p>10034 Certificate Number</p>		<p>Job No.: LS18111249</p>				

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #201H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation
LEASE: Taco 28-30 Federal Com
WELL NO.: 201H

LOCATION: 2271' FNL & 270' FEL
ELEVATION: 3365'

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC

701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

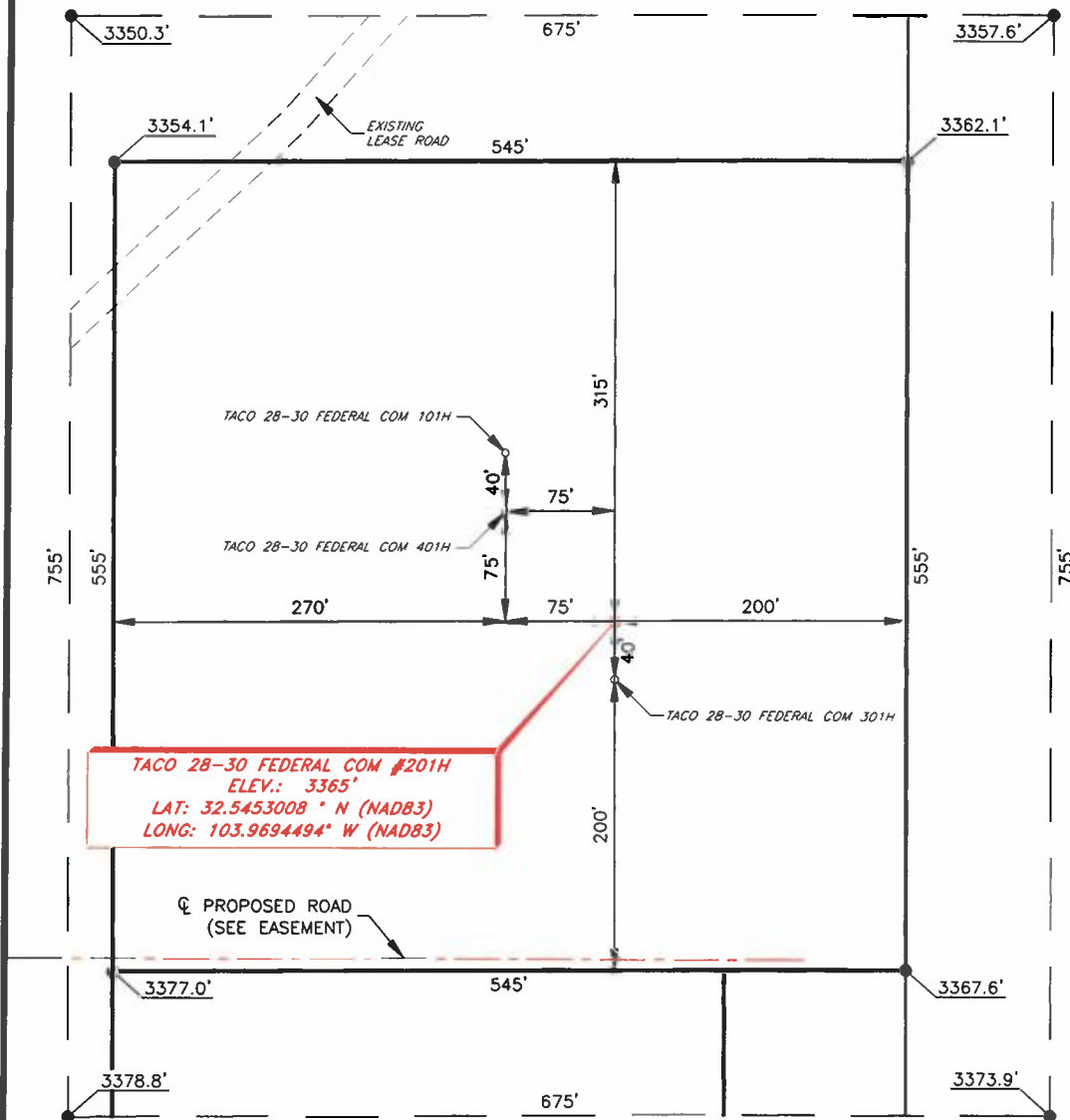
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 201 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #201H
(2271' FNL & 270' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



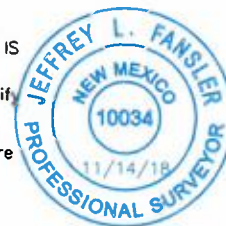
DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
Go East on HWY 62 approx. 0.3 miles to lease road on the left;
Turn left on lease road and go North approx. 1.8 miles to proposed location on
the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
that I prepared this plat from an actual survey made on the
ground under my direct supervision, said survey and plat meet
the Min. Stds. for Land Surveying in the State of N. M. and are
true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
0 50' 100'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
SURVEYED BY: AB/RU
DRAWN BY: AiAC/CAR
APPROVED BY: JLF
JOB NO.: LS1811249
SHEET: 201 PAD

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	² Pool Code	³ Pool Name
⁴ Property Code	⁵ Property Name TACO 28-30 FEDERAL COM	
⁷ GRID NO.	⁸ Operator Name APACHE CORPORATION	⁶ Well Number 301H
		⁹ Elevation 3366'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
H	28	20S	30E		2311	NORTH	270	EAST	EDDY

¹¹ 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
G	30	20S	30E		2310	NORTH	2590	EAST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

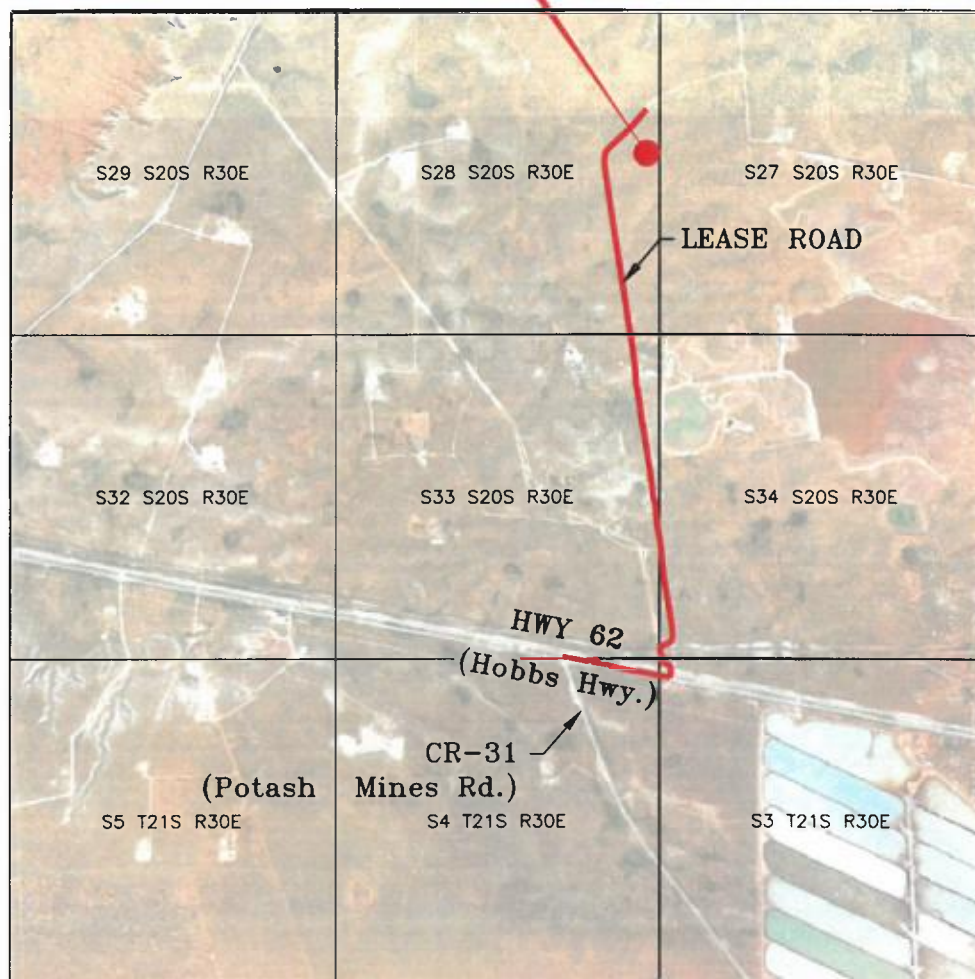
No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

<p>¹⁶ GEODETIC DATA NAD 83 GRID - NM EAST</p> <p>SURFACE LOCATION (S.L.) N 562262.7 - E 653465.0 LAT: 32.5451909° N LONG: 103.9694491° W</p> <p>LAST TAKE POINT (L.T.P.) N 562244.9 - E 640615.2 LAT: 32.5452559° N LONG: 104.0111499° W</p> <p>BOTTOM HOLE (B.H.) N 562244.8 - E 640565.2 LAT: 32.5452560° N LONG: 104.0113122° W</p> <p>DETAIL "A" 3350.3' - 675' - 3357.6' 755' - 3378.8' - 3373.9'</p>		<p>CORNER DATA NAD 83 GRID - NM EAST</p> <p>A: FOUND BRASS CAP "1918" N 559282.6 - E 637898.7</p> <p>B: FOUND BRASS CAP T-POST N 561917.5 - E 637893.2</p> <p>C: FOUND BRASS CAP "1918" N 564545.9 - E 637893.4</p> <p>D: FOUND BRASS CAP "1943" N 564554.1 - E 640500.6</p> <p>E: FOUND BRASS CAP "1943" N 564561.5 - E 643143.3</p> <p>F: FOUND BRASS CAP "1943" N 564575.7 - E 645785.1</p> <p>G: FOUND BRASS CAP "1943" N 564594.9 - E 648426.6</p> <p>H: FOUND BRASS CAP "1943" N 564582.6 - E 651074.6</p> <p>I: FOUND BRASS CAP "1943" N 564571.7 - E 653723.7</p> <p>J: FOUND BRASS CAP "1943" N 561931.6 - E 653736.6</p>		<p>K: FOUND BRASS CAP "1943" N 559296.7 - E 653747.1</p> <p>L: FOUND BRASS CAP "1943" N 559300.5 - E 651103.6</p> <p>M: FOUND BRASS CAP "1943" N 559300.7 - E 648450.5</p> <p>N: FOUND BRASS CAP "1943" N 559290.7 - E 645810.1</p> <p>O: FOUND BRASS CAP "1943" N 559282.1 - E 643169.6</p> <p>P: FOUND BRASS CAP "1943" N 559280.6 - E 640538.1</p> <p>Q: FOUND BRASS CAP "1943" N 561918.6 - E 643156.2</p> <p>R: FOUND BRASS CAP "1943" N 561946.7 - E 648438.3</p>		<p>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.</p> <p>Signature _____ Date _____</p> <p>Printed Name _____</p> <p>E-mail Address _____</p>	
<p>CALCULATED POINTS 1: N 563236.1 - E 640510.0 2: N 563240.0 - E 643149.8 3: N 563270.8 - E 648432.4 4: N 563251.6 - E 653730.2 5: N 561918.0 - E 640519.4</p>		<p>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.</p> <p>11-13-2017 Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p>10034 Certificate Number</p> <p>Job No.: LS18111249</p>					

VICINITY MAP

NOT TO SCALE

TACO 28-30 FEDERAL COM #301H



*SECTION 28, TWP. 20 SOUTH, RGE. 30 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO*

OPERATOR: Apache Corporation

LOCATION: 2311' FNL & 270' FEL

LEASE: Taco 28-30 Federal Com

ELEVATION: 3366'

WELL NO.: 301H

Copyright 2018 - All Rights Reserved

DATE: 11-12-2018

NO.	REVISION	DATE
1		
2		
3		
4		



701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 3000'

SURVEYED BY: AB/RU

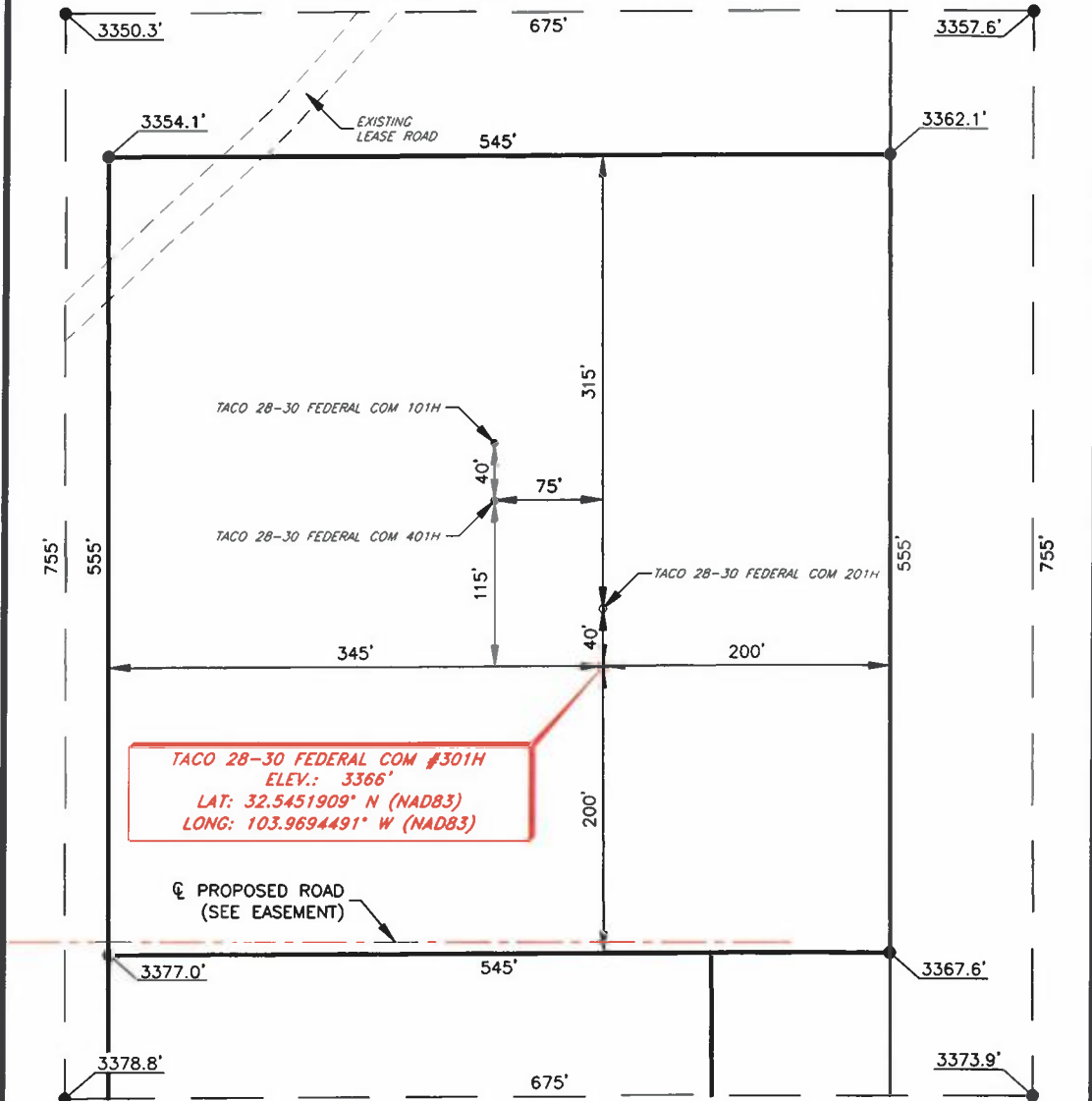
DRAWN BY: AiAC/CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: 301 VM

APACHE CORPORATION
TACO 28-30 FEDERAL COM #301H
(2311' FNL & 270' FEL)
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DIRECTIONS TO LOCATION

From the intersection of HWY 62 (Hobbs Hwy.) and CR-31 (Potash Mines Rd.),
 Go East on HWY 62 approx. 0.3 miles to lease road on the left;
 Turn left on lease road and go North approx. 1.8 miles to proposed location on
 the right.

THIS IS NOT A BOUNDARY SURVEY, APPARENT PROPERTY CORNERS AND
 PROPERTY LINES ARE SHOWN FOR INFORMATION ONLY, BOUNDARY DATA IS
 SHOWN FROM A PREVIOUS SURVEY REFERENCED HEREON.

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify
 that I prepared this plat from an actual survey made on the
 ground under my direct supervision, said survey and plat meet
 the Min. Stds. for Land Surveying in the State of N. M. and are
 true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034



SCALE: 1" = 100'
 0 50' 100'
 BEARINGS ARE GRID NAD 83
 NM EAST
 DISTANCES ARE HORIZ. GROUND.

Copyright 2018 - All Rights Reserved

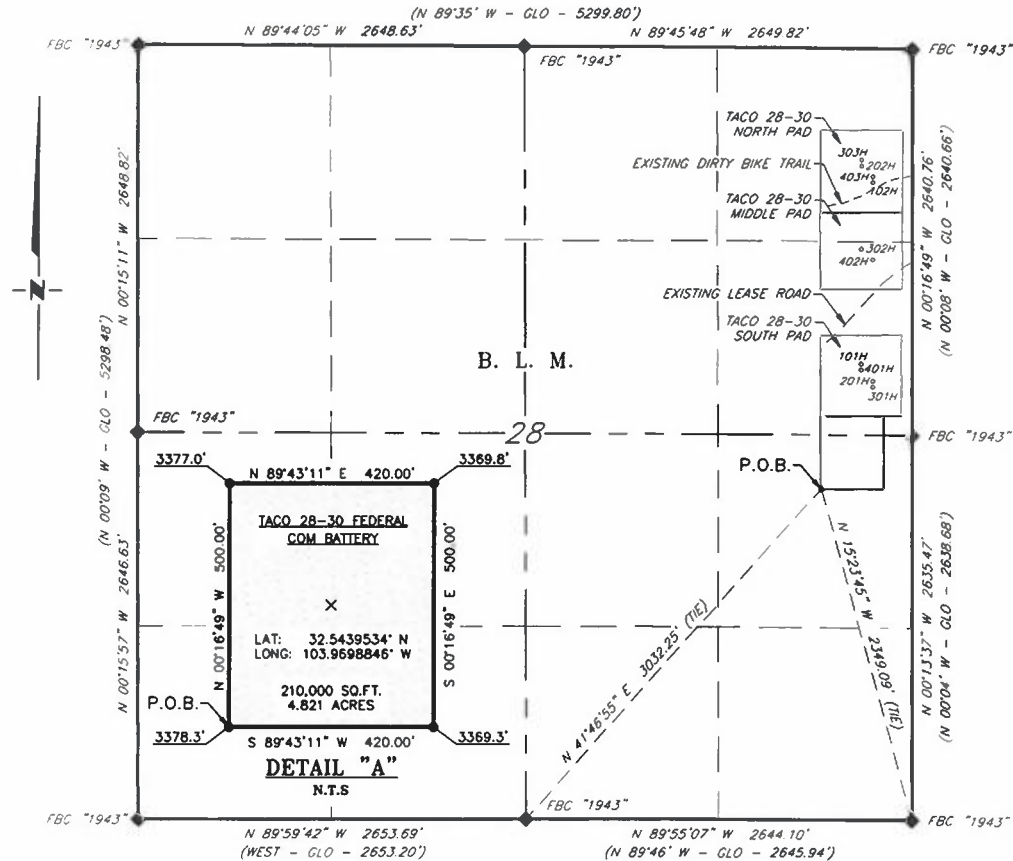
DATE: 11-13-2018		
NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE:	1" = 1000'
SURVEYED BY:	AB/RU
DRAWN BY:	AiAC/CAR
APPROVED BY:	JLF
JOB NO.:	LS18111249
SHEET:	301 PAD

APACHE CORPORATION
SURVEY FOR THE PROPOSED TACO 28-30 FEDERAL COM BATTERY
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A tract of land situated within the East half of Section 28, Township 20 South, Range 60 East, N. M. P. M., Lea/Eddy County, New Mexico, across State of New Mexico/B. L. M. land and being more particularly described by metes and bounds as follows:

BEGINNING at a point, which bears, N 41°46'55" E, 3,032.25 feet from a brass cap, stamped "1943", found for the South quarter corner of Section 28, and bears, N 15°23'45" W, 2,349.09 feet from a brass cap, stamped "1943", found for the Southeast corner of Section 28;

Thence N 00°16'49" W, 500.00 feet, to a point;

Thence N 89°43'11" E, 420.00 feet, to a point;

Thence S 00°16'49" E, 500.00 feet, to a point;

Thence S 89°43'11" W, 420.00 feet, to the Point of Beginning.

Said tract of land contains 210,000 square feet or 4.821 acres, more or less, and is allocated by forties as:

SE 1/4 NE 1/4	55,020 Sq. Ft.	1.263 Acres
NE 1/4 SE 1/4	154,980 Sq. Ft.	3.558 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND

() RECORD DATA - GLO

◆ FOUND MONUMENT AS NOTED

— PROPOSED ACCESS ROAD

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

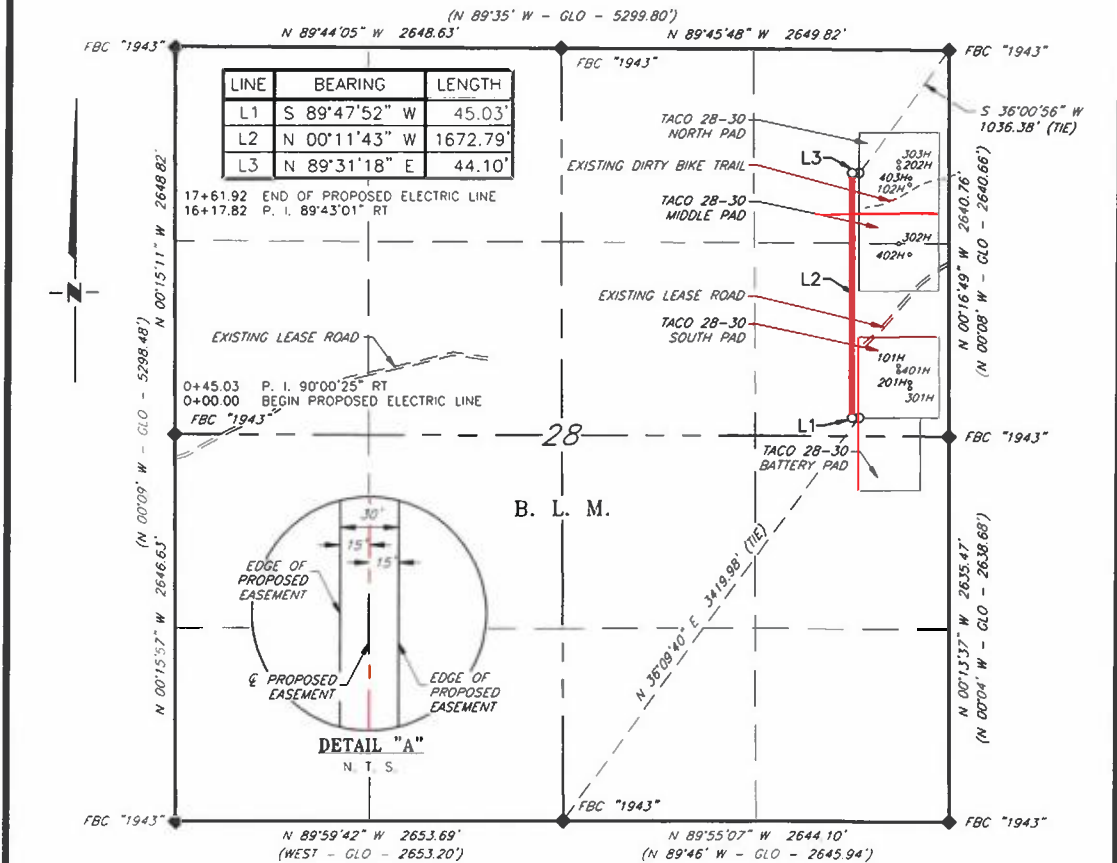
DRAWN BY: CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: BAT

APACHE CORPORATION
PROPOSED ELECTRIC LINE FOR THE TACO 28-30 FEDERAL COM
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 1,761.92 feet or 106.783 rods in length, lying in Section 28, Township 20 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 28, which bears, N 36°09'40" E, 3,419.98 feet from a brass cap, stamped "1943", found for the South quarter corner of Section 28;

Thence, S 89°47'52" W, 45.03 feet, to Engr. Sta. 0+45.03, a P. I. of 90°00'25" right;

Thence, N 00°11'43" W, 1,672.79 feet, to Engr. Sta. 17+17.82, a P. I. of 89°43'01" right;

Thence, N 89°31'18" E, 44.10 feet, to Engr. Sta. 17+61.92, the End of Survey, a point in the Northeast quarter of Section 28, which bears, S 36°00'56" W, 1,036.38 feet from a brass cap, stamped "1943", found for the Northeast corner of Section 28.

Said strip of land contains 1.213 Acres, more or less, and is allocated by forties as follows:

SCALE: 1" = 1000'	SE 1/4 NE 1/4	75.055 Rods	0.853 Acres
0 500' 1000'	NE 1/4 NE 1/4	31.728 Rods	0.360 Acres

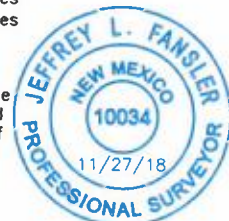
BEARINGS ARE GRID NAD 83
 NM EAST
 DISTANCES ARE HORIZ. GROUND.

LEGEND

- RECORD DATA - GLO
- FOUND MONUMENT AS NOTED
- PROPOSED ELECTRIC LINE

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034

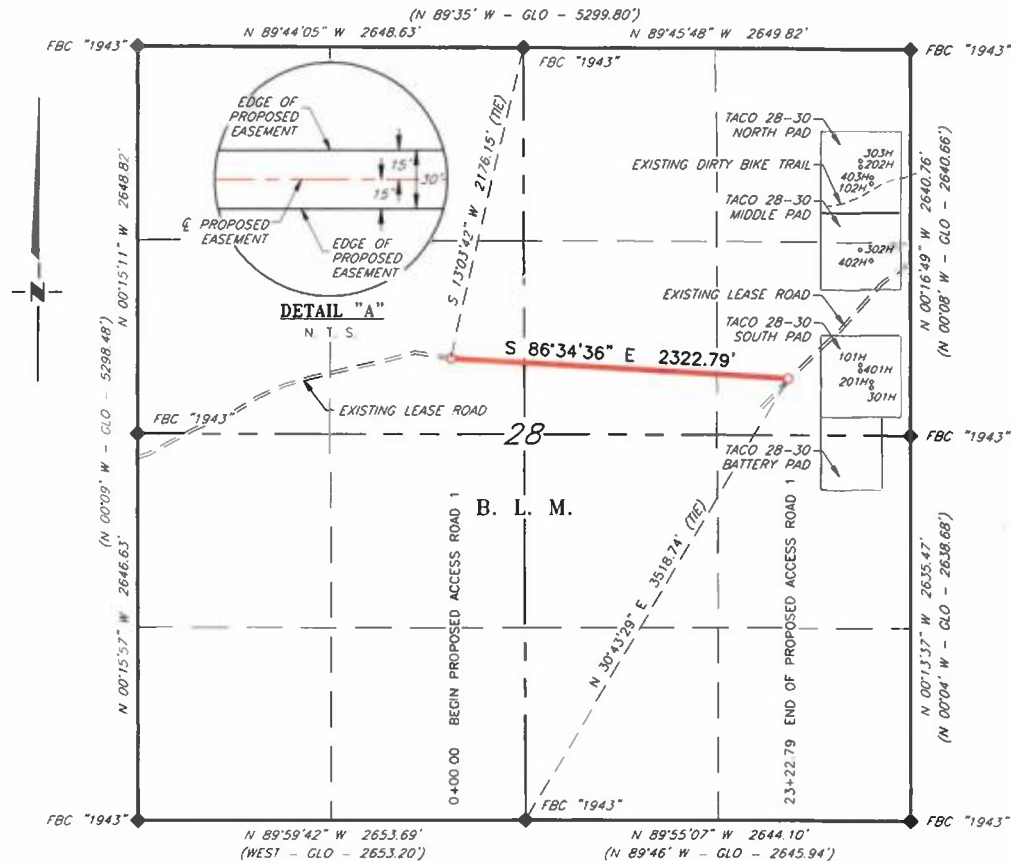


Copyright 2018 - All Rights Reserved

DATE: 11-13-2018	 RRC SURVEYING, LLC 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200		SCALE: 1" = 1000'
NO. REVISION DATE			SURVEYED BY: AB/RU
1			DRAWN BY: CAR
2			APPROVED BY: JLF
3			JOB NO.: LS18111249
4			SHEET: EL

SCALE: 1" = 1000'
SURVEYED BY: AB/RU
DRAWN BY: CAR
APPROVED BY: JLF
JOB NO.: LS18111249
SHEET: PL

APACHE CORPORATION
PROPOSED ACCESS ROAD FOR THE TACO 28-30 FEDERAL COM
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 2,322.79 feet or 140.775 rods in length, lying in Section 28, Township 20 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northwest quarter of Section 28, which bears, S 13°03'42" W, 2,176.15 feet from a brass cap, stamped "1943", found for the North quarter corner of Section 28;

Thence, S 86°34'36" E, 2,322.79 feet, to Engr. Sta. 23+22.79, the End of Survey, a point in the Northeast quarter of Section 28, which bears, N 30°43'29" E, 3,518.74 feet from a brass cap, stamped "1943", found for the South quarter corner of Section 28.

Said strip of land contains 1.600 acres, more or less, and is allocated by forties as follows:

SE 1/4 NW 1/4	30.578 Rods	0.348 Acres
SW 1/4 NE 1/4	80.424 Rods	0.914 Acres
SE 1/4 NE 1/4	29.773 Rods	0.338 Acres

SCALE: 1" = 1000'
0 500' 1000'

BEARINGS ARE GRID NAD 83
NM EAST
DISTANCES ARE HORIZ. GROUND.

LEGEND

- () RECORD DATA - GLO
- ◆ FOUND MONUMENT AS NOTED
- PROPOSED ACCESS ROAD

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
Jeffrey L. Fansler NM PS 10034



Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'

SURVEYED BY: AB/RU

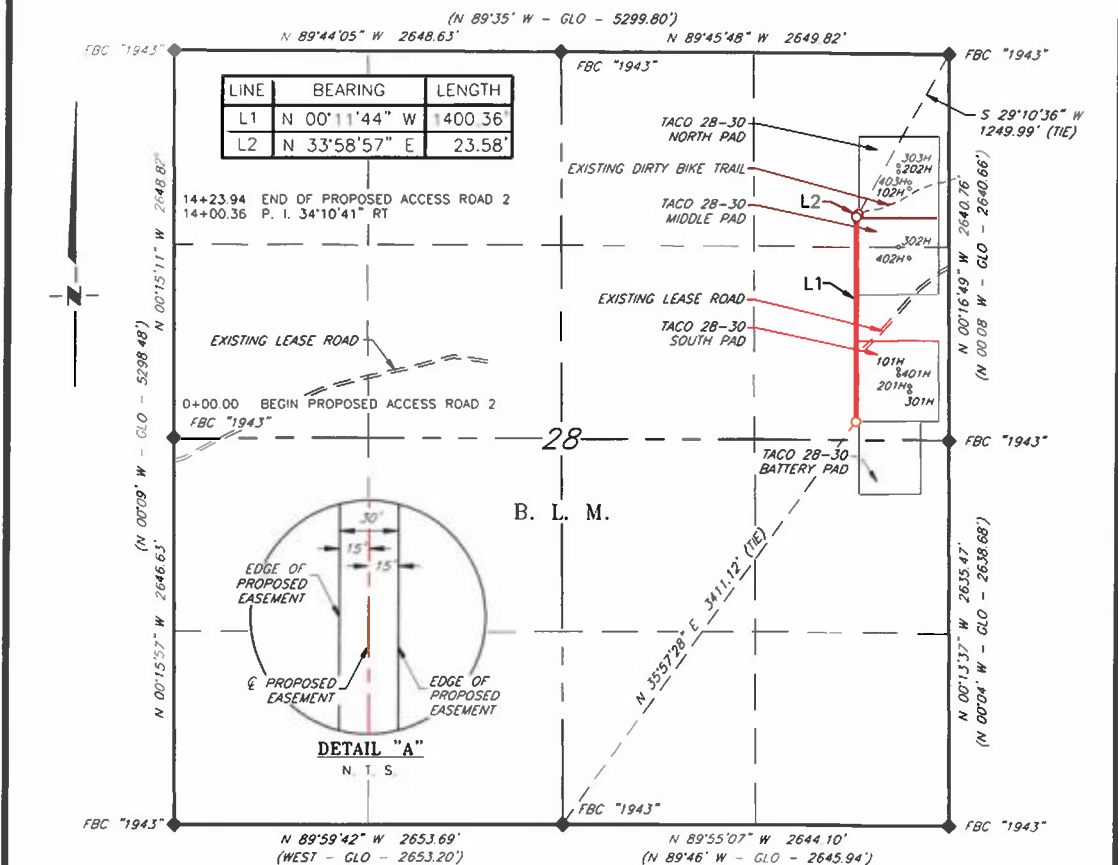
DRAWN BY: CAR

APPROVED BY: JLF

JOB NO.: LS18111249

SHEET: RD1

APACHE CORPORATION
PROPOSED ACCESS ROAD FOR THE TACO 28-30 FEDERAL COM
SECTION 28, T20S, R30E
N. M. P. M., EDDY COUNTY, NEW MEXICO



DESCRIPTION

A strip of land 30 feet wide, being 1,423.94 feet or 86.299 rods in length, lying in Section 28, Township 20 South, Range 30 East, N. M. P. M., Eddy County, New Mexico, being 15 feet left and 15 feet right of the following described survey of a centerline across B. L. M. land:

BEGINNING at Engr. Sta. 0+00, a point in the Northeast quarter of Section 28, which bears, N 35°57'28" E, 3,411.12 feet from a brass cap, stamped "1943", found for the South quarter corner of Section 28;

Thence, N 00°11'44" W, 1,400.36 feet, to Engr. Sta. 14+00.36, a P. I. of 34°10'41" right;

Thence, N 33°58'57" E, 23.58 feet, to Engr. Sta. 14+23.94, the End of Survey, a point in the Northeast quarter of Section 28, which bears, S 29°10'36" W, 1,249.99 feet from a brass cap, stamped "1943", found for the Northeast corner of Section 28.

Said strip of land contains 0.981 acres, more or less, and is allocated by forties as follows:

SCALE: 1" = 1000'	SE 1/4 NE 1/4	72.311 Rods	0.822 Acres
0 500' 1000'	NE 1/4 NE 1/4	13.988 Rods	0.159 Acres

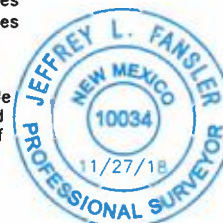
BEARINGS ARE GRID NAD 83
 NM EAST
 DISTANCES ARE HORIZ. GROUND.

LEGEND

- () RECORD DATA - GLO
- ◆ FOUND MONUMENT AS NOTED
- PROPOSED ACCESS ROAD

I, Jeffrey L. Fansler, a N. M. Professional Surveyor, hereby certify that I prepared this plat from an actual survey made on the ground under my direct supervision, said survey and plat meet the Min. Stds. for Land Surveying in the State of N. M. and are true and correct to the best of my knowledge and belief.

Jeffrey L. Fansler
 Jeffrey L. Fansler NM PS 10034



Copyright 2018 - All Rights Reserved

NO.	REVISION	DATE
1		
2		
3		
4		

RRC

SURVEYING, LLC
 701 S. CECIL ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
SURVEYED BY: AB/RU
DRAWN BY: CAR
APPROVED BY: JLF
JOB NO.: LS1811249
SHEET: RD2

December 13, 2018

Ascent Energy, LLC
1125 17th Street, Suite 410
Denver, CO 80202

RE: Taco 28-30 Fed Com Well and Facility Proposals
N/2 of Section 28 and 29; NE/4 of Section 30-20S-30E
Eddy County, New Mexico

Dear Working Interest Owner,

Apache Corporation ("Apache"), proposes the drilling of the following wells located in the N/2 of Section 28 and 29 and NE/4 of Section 30, Township 20 South, Range 30 East, Eddy County, New Mexico to be drilled from the surface pad locations ("Operations") as shown on the attached Exhibit "A".

1)

Taco 28-30 Program

Well Name	Legal Description	Formation	TVD	TMD	AFE
Taco 28-30 Fed Com #201H	SHL: 2271' FNL, 270' FEL in Sec. 28-20S-30E BHL: 2260' FNL, 2590' FEL in Sec. 30-20S-30E S/2N/2 of Sec. 28, 29 and S/2NE/4 of 30-20S-30E	2nd Bone Spring Sand	8670'	21500'	\$10,637,009
Taco 28-30 Fed Com #202H	SHL: 801' FNL, 343' FEL in Sec. 28-20S-30E BHL: 380' FNL, 2590' FEL in Sec. 30-20S-30E N/2N/2 of Sec. 28, 29 and N/2NE of 30-20S-30E	2nd Bone Spring Sand	8670'	21600'	\$10,637,009
Taco 28-30 Fed Com #301H	SHL: 2311' FNL, 270' FEL in Sec. 28-20S-30E BHL: 2310' FNL, 2590' FEL in Sec. 30-20S-30E S/2N/2 of Sec. 28, 29 and S/2NE/4 of 30-20S-30E	3rd Bone Spring Sand	9700'	22600'	\$10,802,009
Taco 28-30 Fed Com #302H	SHL: 1320' FNL, 346' FEL in Sec. 28-20S-30E BHL: 1320' FNL, 2590' FEL in Sec. 30-20S-30E N/2N/2 of Sec. 28, 29 and N/2NE of 30-20S-30E	3rd Bone Spring Sand	9560'	22600'	\$10,802,009
Taco 28-30 Fed Com #303H	SHL: 761' FNL, 343' FEL in Sec. 28-20S-30E BHL: 330' FNL, 2590' FEL in Sec. 30-20S-30E N/2N/2 of Sec. 28, 29 and N/2NE of 30-20S-30E	3rd Bone Spring Sand	9570'	22500'	\$10,802,009
Taco 28-30 Fed Com #401H	SHL: 2196' FNL, 345' FEL in Sec. 28-20S-30E BHL: 2210' FNL, 2590' FEL in Sec. 30-20S-30E S/2N/2 of Sec. 28, 29 and S/2NE/4 of 30-20S-30E	Wolfcamp	10030'	22900'	\$10,905,009
Taco 28-30 Fed Com #402H	SHL: 1395' FNL, 271' FEL in Sec. 28-20S-30E BHL: 1370' FNL, 2590' FEL in Sec. 30-20S-30E N/2N/2 of Sec. 28, 29 and N/2NE of 30-20S-30E	Wolfcamp	10030'	22900'	\$10,905,009
Taco 28-30 Fed Com #403H	SHL: 876' FNL, 269' FEL in Sec. 28-20S-30E BHL: 430' FNL, 2590' FEL in Sec. 30-20S-30E N/2N/2 of Sec. 28, 29 and N/2NE of 30-20S-30E	Wolfcamp	10000'	22800'	\$10,905,009

2) Also enclosed is an AFE for the facility. The estimated cost of the Taco 28-30 facility is \$3,500,000. The Taco 28-30 facility will service five (5) Bone Spring horizontal wells with the

ability to accommodate additional Wolfcamp development. Costs for the Taco 28-30 facility will be shared proportionally by working interest owners in the wells across the sections. We ask that you sign this AFE at the same time you sign the drilling, completion, and equipping AFE as the facility AFE is not a separate election; it is a separate AFE for internal administrative purposes.

Apache is proposing the Operations under the terms of a modified 1989 AAPL Model Form Operating Agreement ("JOA") covering the N/2 of Section 28 and 29 and NE/4 of Section 30-20S-30E with the following general provisions:

- 100%/300% Non-consenting penalty
- Drilling and Producing Rate of \$7,000/\$700
- Apache named as Operator

If you wish to participate in the Operations, please sign and return the elections and the AFEs in the enclosed yellow return envelope. Due to the large amount of working interest owners and the approximate 80 pages in a JOA, Apache would prefer to email the JOA if at all possible. Please indicate your email below or reach out to me directly via email to receive a copy.

Your working interest in the 800 acre spacing unit is highlighted on the ownership table attached as Exhibit B. If you do not wish to participate in the Operations, Apache is willing to discuss an acquisition of your interest, subject to final management approval and contingent on reaching mutually satisfactory terms. Please reach out to me at the email address below if you are interested in this option.

If we do not reach an agreement within thirty (30) days from the date of this letter, Apache will apply to the New Mexico Oil Conservation Division for compulsory pooling of your interest into a spacing unit for the proposed well(s).

Should you have any further questions, please contact me at 432-818-1846 or at laci.stretcher@apachecorp.com.

Sincerely,



Laci Stretcher
Landman
Apache Corporation

Please indicate your response to our proposals by placing an "x" in the appropriate box.

Taco 28-30 Fed Com Program

Well Name	YES to Participation (Drilling, Equipping, Completing, and Facility)	NO to Participation
Taco 28-30 Fed Com #201H		
Taco 28-30 Fed Com #202H		
Taco 28-30 Fed Com #301H		
Taco 28-30 Fed Com #302H		
Taco 28-30 Fed Com #303H		
Taco 28-30 Fed Com #401H		
Taco 28-30 Fed Com #402H		
Taco 28-30 Fed Com #403H		

By: _____

Printed Name: _____

Company Name (if applicable): _____

Date: _____

Email Address: _____

EXHIBIT A

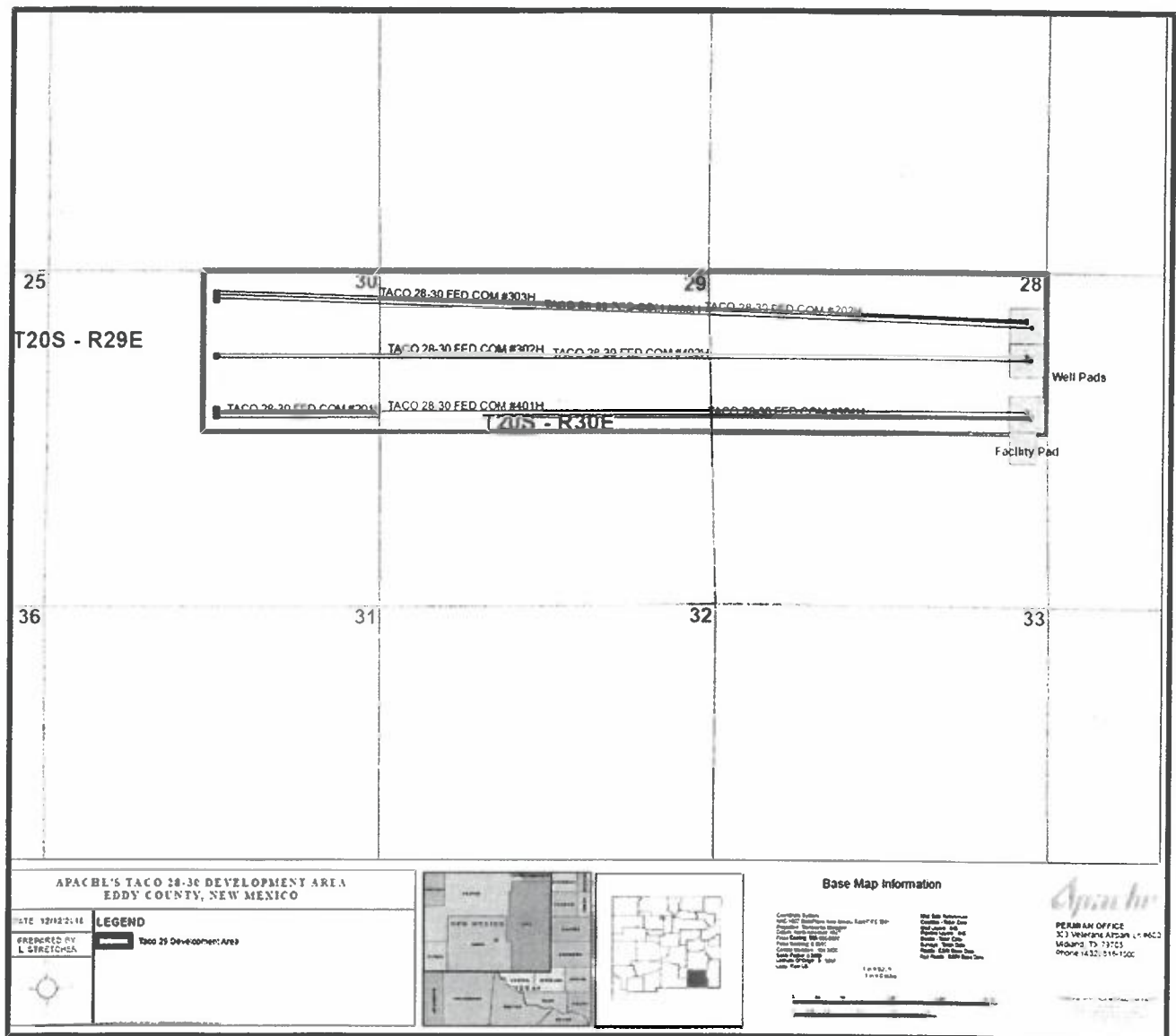


Exhibit B

Taco 28-30 Federal Com Development Area

N/2 of Section 28 and 29, NE/4 of Sec. 30-20S-30E

Eddy County, NM

Working Interest Owners	WI
Apache Corporation 303 Veterans Airpark Lane Suite 1000 Midland, TX 79705	30.0000000%
GRB Properties, Inc (potentially Oxy) PO Box 10201 Midland, TX 79702	22.0000000%
Occidental Permian Limited Partnership Attn: Jonathan Gonzalez PO Box 27570 Houston, TX 77046	12.5000000%
Ascent Energy, LLC 1621 18th Street, Suite 200 Denver, CO 80202	8.2485550%
MRC Delaware Resources, LLC 5400 LBJ Freeway, Suite 1500 Ft. Worth, TX 75240	5.7085076%
Patrick Petroleum P.O. Box 747 Jackson, Michigan 49204	1.9285714%
Francis Hill Hudson, Trustee of Lindy's Living Trust 6300 Ridglea Place, Suite 1005-A Fort Worth, TX 76116	1.8593750%
Delmar Hudson Lewis Living Trust 6300 Ridglea Place, Suite 1005-A Fort Worth, TX 76116	1.8593750%
EOG Y Resources, Inc. EOG Y Resources Inc. 105 South 4th Street Artesia, NM 88210	1.3971912%
Zorro Partners, Ltd 616 Texas Street Ft. Worth, TX 76102	1.2395835%
Javelina Partners 616 Texas Street Ft. Worth, TX 76102	1.2395831%

JTD Resources, LLC P.O. Box 3422 Midland, TX 79702	1.2321429%
Gahr Energy Company P.O. Box 1889 Midland, TX 79702	1.2075000%
Fuel Products, Inc. P.O. Box 1889 Midland, TX 79702	1.2075000%
Jalapeno Corporation 1429 Central Ave. NW, Ste. 3 Albuquerque, NM 87104	1.1997066%
Providence Oil and Gas Corporation 7160 S. College Avenue Tulsa, OK 74136	1.1428571%
Yates Energy Corporation EOG Y Resources Inc. 105 South 4th Street Artesia, NM 88210	0.9460396%
Ard Oil, Ltd 222 West 4th Street, PH-5 Fort Worth, TX 76102	0.9296875%
Moore and Shelton Company, Ltd. 4320 Ave. P Galveston, TX 77550	0.5625000%
Hutchings Oil Company P.O. Box 1216 Albuquerque, New Mexico 87103	0.4359828%
Frost Bank, Trustee of the Josephine T. Hudson Testamentary Trust f/b/o J. Terrell Ard P.O. Box 1600 San Antonio, TX 78296	0.3098960%
William A. Hudson 616 Texas Street Fort Worth, TX 76102	0.2656250%
Francis H. Hudson, Executrix of the Estate of Roxie E. Hudson 616 Texas Street Fort Worth, TX 76102	0.2656250%
First Hutchings-Sealy National Bank of Galveston, Trustee of the Frances B. Moore Trust	0.2250000%
Scott-Winn, LLC 215 West 3rd Street Roswell, New Mexico 88201	0.1978619%
B. D. Moore Jr.	0.1425000%
David W. Moore	0.1425000%

Edward R. Hudson Trust 1 616 Texas Street Fort Worth, TX 76102	0.1328125%
Edward R. Hudson Trust 2 616 Texas Street Fort Worth, TX 76102	0.1328125%
Edward R. Hudson Trust 3 616 Texas Street Fort Worth, TX 76102	0.1328125%
Edward R. Hudson Trust 4 616 Texas Street Fort Worth, TX 76102	0.1328125%
Centennial, LLC P.O. Box 1837 Roswell, New Mexico 88202	0.1307948%
Worrall Investment Corporation 215 West 3rd Street Roswell, New Mexico 88201	0.1187171%
V-F Petroleum, Inc. P.O. Box 1889 Midland, TX 79702	0.0928840%
Long, LLC 275 E. South Temple, Suite 250 Salt Lake, Utah 84111	0.0871966%
Bane Bigbie, Inc. P.O. Box 998 Ardmore, OK 73402	0.0871966%
Norton, LLC 60 Beach Avenue - Bay View S. Dartmouth, Massachusetts 02748	0.0871966%
Anita G. Moore	0.0712500%
John Knox Hutchings Moore	0.0478125%
The First National Bank of Roswell, Roswell New Mexico, Ancillary Guardian of the Estate of Donald Bartlett Moore, Minor	0.0478125%
Carol Pauls Moore	0.0468750%
Ted James 708 East Vista Parkway Roswell, New Mexico 88201	0.0435982%
Andrew Malcolm Shelton	0.0356250%
Arthur Holt Shelton II	0.0356250%
Frances Knox Shelton Howell	0.0356250%
Kenneth R. Shelton Jr.	0.0356250%
Anita Moore Doyle	0.0142500%
Charles H. Moore III	0.0142500%
Kilburn G. Moore	0.0142500%
Paul Cook Moore	0.0142500%

Bartlett G. Moore	0.0142500%
	100.0000000%



Taco 28-30 Fed Com #201H
2nd Bone Spring Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$10,500	\$0	\$0	\$10,500
70003	Bits Coreheads and Reamers	\$90,000	\$3,800	\$0	\$93,800
70004	Casing Crews	\$70,000	\$0	\$0	\$70,000
70006	Cement and Cementing Services	\$270,000	\$0	\$0	\$270,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$8,000	\$0	\$0	\$8,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$50,000	\$115,000
70019	Contract Rigs - Daywork	\$620,000	\$100	\$30,000	\$650,100
70021	Contract Supervision	\$100,000	\$161,195	\$15,000	\$276,195
70022	Directional Drilling	\$378,000	\$0	\$0	\$378,000
70025	Drilling Fluids	\$424,000	\$0	\$0	\$424,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$136,500	\$75,635	\$15,000	\$227,135
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$112,000	\$625,412	\$0	\$737,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$70,000	\$743,682	\$0	\$813,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$245,000	\$0	\$0	\$245,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$35,000	\$82,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$20,000	\$0	\$0	\$20,000
70255	Drilling Operations Center	\$8,000	\$0	\$0	\$8,000
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,214,000	\$6,369,726	\$205,000	\$9,788,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$15,000	\$50,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$380,000	\$0	\$0	\$380,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$595,000	\$8,283	\$245,000	\$848,283
	Description	Dry Hole	Completion	Equipping	Total Well Cost
	Subtotal Intangible Costs	\$3,214,000	\$6,369,726	\$205,000	\$9,788,726

Subtotal Tangible Costs	\$595,000	\$8,283	\$245,000	\$848,283
Grand Total	\$3,809,000	\$6,378,009	\$450,000	\$10,637,009
Drilling				
<p>Drill a horizontal well to produce the 2nd Bone Spring Sand formation as follows: Preset 17-1/2" hole to 475' with spudder rig. Set 13-3/8" 48# H-40 casing and cement to surface. Drill a 12-1/4" hole to 4050'. Run 9-5/8" 40# J-55 BTC intermediate casing and cement to surface with 2 stage cement job. Drill an 8-3/4" depth of ~7900'. Drill an 8-3/4" curve at 10 DEG/100' and land at ~8900' MD, 8500' TVD. Drill a ~12200, 8-1/2" lateral section to TD of ~21000' MD, 8500' TVD. Set and cmt 5-1/2" 20# CYP-110 GB-CD casing string to 21000'. Estimated time is 3 days MIRU + 19 Days to Drill + 4 days TD-RR. Rig Rate = \$25K per day.</p>				
Completions				
<p>70 Stage P&P complete 12500 ft. lateral @ 180 ft/stg 2000 #/ft. 0% RC 48 bbl/ft Water @ 1.1 \$/bbl.</p>				
Equipping				
<p>This AFE will provide funds to equip and produce a horizontal well in the Taco development. The funds requested will be used to purchase and install headers for production flowlines and gas injection flowline for the pad, installation of artificial lift, flow back for two weeks, wellhead automation, and production tree.</p>				
<p>Partner Signature: _____</p>				
<p>Date: _____</p>				



Taco 28-30 Fed Com #202H
2nd Bone Spring Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$10,500	\$0	\$0	\$10,500
70003	Bits Coreheads and Reamers	\$90,000	\$3,800	\$0	\$93,800
70004	Casing Crews	\$70,000	\$0	\$0	\$70,000
70006	Cement and Cementing Services	\$270,000	\$0	\$0	\$270,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$8,000	\$0	\$0	\$8,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$50,000	\$115,000
70019	Contract Rigs - Daywork	\$620,000	\$100	\$30,000	\$650,100
70021	Contract Supervision	\$100,000	\$161,195	\$15,000	\$276,195
70022	Directional Drilling	\$378,000	\$0	\$0	\$378,000
70025	Drilling Fluids	\$424,000	\$0	\$0	\$424,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$136,500	\$75,635	\$15,000	\$227,135
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$112,000	\$625,412	\$0	\$737,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$70,000	\$743,682	\$0	\$813,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$245,000	\$0	\$0	\$245,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$35,000	\$82,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$20,000	\$0	\$0	\$20,000
70255	Drilling Operations Center	\$8,000	\$0	\$0	\$8,000
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,214,000	\$6,369,726	\$205,000	\$9,788,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$15,000	\$50,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$380,000	\$0	\$0	\$380,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$595,000	\$8,283	\$245,000	\$848,283
Subtotal Intangible Costs					
Description					
Dry Hole					
Completion					
Equipping					
Total Well Cost					
Subtotal Intangible Costs					
\$3,214,000					
\$6,369,726					
\$205,000					
\$9,788,726					

Subtotal Tangible Costs	\$595,000	\$8,283	\$245,000	\$848,283
Grand Total	\$3,809,000	\$6,378,009	\$450,000	\$10,637,009
Drilling				
<p>Drill a horizontal well to produce the 2nd Bone Spring Sand formation as follows: Preset 17-1/2" hole to 475' with spudder rig. Set 13-3/8" 48# H-40 casing and cement to surface. Drill a 12-1/4" hole to 4050'. Run 9-5/8" 40# J-55 BTC intermediate casing and cement to surface with 2 stage cement job. Drill an 8-3/4" depth of ~7900'. Drill an 8-3/4" curve at 10 DEG/100' and land at ~8900' MD, 8500' TVD. Drill a ~12200, 8-1/2" lateral section to TD of ~21000' MD, 8500' TVD. Set and cmt 5-1/2" 20# CYP-110 GB-CD casing string to 21000'. Estimated time is 3 days MIRU + 19 Days to Drill + 4 days TD-RR. Rig Rate = \$25K per day.</p>				
Completions				
<p>70 Stage P&P complete 12500 ft. lateral @ 180 ft/stg 2000 #/ft. 0% RC 48 bbl/ft Water @ 1.1 \$/bbl.</p>				
Equipping				
<p>This AFE will provide funds to equip and produce a horizontal well in the Taco development. The funds requested will be used to purchase and install headers for production flowlines and gas injection flowline for the pad, installation of artificial lift, flow back for two weeks, wellhead automation, and production tree.</p>				
<p>Partner Signature: _____</p>				
<p>Date: _____</p>				



Taco 28-30 Fed Com #301H
3rd Bone Spring Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$11,500	\$0	\$0	\$11,500
70003	Bits Coreheads and Reamers	\$90,000	\$3,800	\$0	\$93,800
70004	Casing Crews	\$72,000	\$0	\$0	\$72,000
70006	Cement and Cementing Services	\$280,000	\$0	\$0	\$280,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$670,000	\$100	\$30,000	\$700,100
70021	Contract Supervision	\$107,000	\$161,195	\$15,000	\$283,195
70022	Directional Drilling	\$386,000	\$0	\$0	\$386,000
70025	Drilling Fluids	\$452,000	\$0	\$0	\$452,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$148,000	\$75,635	\$15,000	\$238,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$121,000	\$625,412	\$0	\$746,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$255,000	\$0	\$0	\$255,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$22,000	\$0	\$0	\$22,000
70255	Drilling Operations Center	\$8,500	\$0	\$0	\$8,500
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$400,000	\$0	\$0	\$400,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$615,000	\$8,283	\$248,000	\$871,283

Description	Dry Hole	Completion	Equipping	Total Well Cost
Subtotal Intangible Costs	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Subtotal Tangible Costs	\$615,000	\$8,283	\$248,000	\$871,283
Grand Total	\$3,974,000	\$6,378,009	\$450,000	\$10,802,009
Drilling				
Drill a horizontal well to produce the 3rd Bone Spring Sand formation as follows: Preset 17-1/2" hole to 475' with spudder rig. Set 13-3/8" 48# H-40 casing and cement to surface. Drill a 12-1/4" hole to 4050'. Run 9-5/8" 40# J-55 BTC intermediate casing and cement to surface with 2 stage cement job. Drill an 8-3/4" depth of ~8900'. Drill an 8-3/4" curve at 10 DEG/100' and land at ~9900' MD, 9500' TVD. Drill a ~12200, 8-1/2" lateral section to TD of ~22100' MD, 9500' TVD. Set and cmt 5-1/2" 20# CYP-110 GB-CD casing string to 22100'. Estimated time is 3 days MIRU + 21 Days to Drill + 4 days TD-RR. Rig Rate = \$25K per day.				
Completions				
70 Stage P&P complete 12500 ft. lateral @ 180 ft/stg 2000 #/ft. 0% RC 48 bbl/ft Water @ 1.1 \$/bbl.				
Equipping				
This AFE will provide funds to equip and produce a horizontal well in the Taco development. The funds requested will be used to purchase and install headers for production flowlines and gas injection flowline for the pad, installation of artificial lift, flow back for two weeks, wellhead automation, and production tree.				
<div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>Partner Signature: _____</p> <p>Date: _____</p> </div>				



Taco 28-30 Fed Com #302H
3rd Bone Spring Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$11,500	\$0	\$0	\$11,500
70003	Bits Coreheads and Reamers	\$90,000	\$3,800	\$0	\$93,800
70004	Casing Crews	\$72,000	\$0	\$0	\$72,000
70006	Cement and Cementing Services	\$280,000	\$0	\$0	\$280,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$670,000	\$100	\$30,000	\$700,100
70021	Contract Supervision	\$107,000	\$161,195	\$15,000	\$283,195
70022	Directional Drilling	\$386,000	\$0	\$0	\$386,000
70025	Drilling Fluids	\$452,000	\$0	\$0	\$452,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$148,000	\$75,635	\$15,000	\$238,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$121,000	\$625,412	\$0	\$746,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$255,000	\$0	\$0	\$255,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$22,000	\$0	\$0	\$22,000
70255	Drilling Operations Center	\$8,500	\$0	\$0	\$8,500
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$400,000	\$0	\$0	\$400,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$615,000	\$8,283	\$248,000	\$871,283

Description	Dry Hole	Completion	Equipping	Total Well Cost
Subtotal Intangible Costs	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Subtotal Tangible Costs	\$615,000	\$8,283	\$248,000	\$871,283
Grand Total	\$3,974,000	\$6,378,009	\$450,000	\$10,802,009
Drilling				
Drill a horizontal well to produce the 3rd Bone Spring Sand formation as follows: Preset 17-1/2" hole to 475' with spudder rig. Set 13-3/8" 48# H-40 casing and cement to surface. Drill a 12-1/4" hole to 4050'. Run 9-5/8" 40# J-55 BTC intermediate casing and cement to surface with 2 stage cement job. Drill an 8-3/4" depth of ~8900'. Drill an 8-3/4" curve at 10 DEG/100' and land at ~9900' MD, 9500' TVD. Drill a ~12200, 8-1/2" lateral section to TD of ~22100' MD, 9500' TVD. Set and cmt 5-1/2" 20# CYP-110 GB-CD casing string to 22100'. Estimated time is 3 days MIRU + 21 Days to Drill + 4 days TD-RR. Rig Rate = \$25K per day.				
Completions				
70 Stage P&P complete 12500 ft. lateral @ 180 ft/stg 2000 #/ft. 0% RC 48 bbl/ft Water @ 1.1 \$/bbl.				
Equipping				
This AFE will provide funds to equip and produce a horizontal well in the Taco development. The funds requested will be used to purchase and install headers for production flowlines and gas injection flowline for the pad, installation of artificial lift, flow back for two weeks, wellhead automation, and production tree.				
<div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>Partner Signature: _____</p> <p>Date: _____</p> </div>				



Taco 28-30 Fed Com #303H
3rd Bone Spring Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$11,500	\$0	\$0	\$11,500
70003	Bits Coreheads and Reamers	\$90,000	\$3,800	\$0	\$93,800
70004	Casing Crews	\$72,000	\$0	\$0	\$72,000
70006	Cement and Cementing Services	\$280,000	\$0	\$0	\$280,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$670,000	\$100	\$30,000	\$700,100
70021	Contract Supervision	\$107,000	\$161,195	\$15,000	\$283,195
70022	Directional Drilling	\$386,000	\$0	\$0	\$386,000
70025	Drilling Fluids	\$452,000	\$0	\$0	\$452,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$148,000	\$75,635	\$15,000	\$238,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$121,000	\$625,412	\$0	\$746,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$255,000	\$0	\$0	\$255,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$22,000	\$0	\$0	\$22,000
70255	Drilling Operations Center	\$8,500	\$0	\$0	\$8,500
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$400,000	\$0	\$0	\$400,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$615,000	\$8,283	\$248,000	\$871,283

Description	Dry Hole	Completion	Equipping	Total Well Cost
Subtotal Intangible Costs	\$3,359,000	\$6,369,726	\$202,000	\$9,930,726
Subtotal Tangible Costs	\$615,000	\$8,283	\$248,000	\$871,283
Grand Total	\$3,974,000	\$6,378,009	\$450,000	\$10,802,009
Drilling				
<p>Drill a horizontal well to produce the 3rd Bone Spring Sand formation as follows: Preset 17-1/2" hole to 475' with spudder rig. Set 13-3/8" 48# H-40 casing and cement to surface. Drill a 12-1/4" hole to 4050'. Run 9-5/8" 40# J-55 BTC intermediate casing and cement to surface with 2 stage cement job. Drill an 8-3/4" depth of ~8900'. Drill an 8-3/4" curve at 10 DEG/100' and land at ~9900' MD, 9500' TVD. Drill a ~12200, 8-1/2" lateral section to TD of ~22100' MD, 9500' TVD. Set and cmt 5-1/2" 20# CYP-110 GB-CD casing string to 22100'. Estimated time is 3 days MIRU + 21 Days to Drill + 4 days TD-RR. Rig Rate = \$25K per day.</p>				
Completions				
<p>70 Stage P&P complete 12500 ft. lateral @ 180 ft/stg 2000 #/ft. 0% RC 48 bbl/ft Water @ 1.1 \$/bbl.</p>				
Equipping				
<p>This AFE will provide funds to equip and produce a horizontal well in the Taco development. The funds requested will be used to purchase and install headers for production flowlines and gas injection flowline for the pad, installation of artificial lift, flow back for two weeks, wellhead automation, and production tree.</p>				
<div style="border: 1px solid black; padding: 10px; margin-top: 20px;"> <p>Partner Signature: _____</p> <p>Date: _____</p> </div>				



Taco 28-30 Fed Com #401H
Wolfcamp Well AFE

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$12,000	\$0	\$0	\$12,000
70003	Bits Coreheads and Reamers	\$106,000	\$3,800	\$0	\$109,800
70004	Casing Crews	\$75,000	\$0	\$0	\$75,000
70006	Cement and Cementing Services	\$290,000	\$0	\$0	\$290,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$695,000	\$100	\$30,000	\$725,100
70021	Contract Supervision	\$111,000	\$161,195	\$15,000	\$287,195
70022	Directional Drilling	\$389,000	\$0	\$0	\$389,000
70025	Drilling Fluids	\$465,000	\$0	\$0	\$465,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$157,000	\$75,635	\$15,000	\$247,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$125,000	\$625,412	\$0	\$750,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$260,000	\$0	\$0	\$260,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$25,000	\$0	\$0	\$25,000
70255	Drilling Operations Center	\$9,000	\$0	\$0	\$9,000
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,455,000	\$6,369,726	\$202,000	\$10,026,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$407,000	\$0	\$0	\$407,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$622,000	\$8,283	\$248,000	\$878,283

[illegible]



**Taco 28-30 Fed Com #402H
Wolfcamp Well AFE**

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$12,000	\$0	\$0	\$12,000
70003	Bits Coreheads and Reamers	\$106,000	\$3,800	\$0	\$109,800
70004	Casing Crews	\$75,000	\$0	\$0	\$75,000
70006	Cement and Cementing Services	\$290,000	\$0	\$0	\$290,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$695,000	\$100	\$30,000	\$725,100
70021	Contract Supervision	\$111,000	\$161,195	\$15,000	\$287,195
70022	Directional Drilling	\$389,000	\$0	\$0	\$389,000
70025	Drilling Fluids	\$465,000	\$0	\$0	\$465,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$157,000	\$75,635	\$15,000	\$247,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$125,000	\$625,412	\$0	\$750,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$260,000	\$0	\$0	\$260,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$25,000	\$0	\$0	\$25,000
70255	Drilling Operations Center	\$9,000	\$0	\$0	\$9,000
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,455,000	\$6,369,726	\$202,000	\$10,026,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$407,000	\$0	\$0	\$407,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$622,000	\$8,283	\$248,000	\$878,283

[illegible]



**Taco 28-30 Fed Com #403H
Wolfcamp Well AFE**

Intangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
65506	Drilling/Percentage Overhead	\$12,000	\$0	\$0	\$12,000
70003	Bits Coreheads and Reamers	\$106,000	\$3,800	\$0	\$109,800
70004	Casing Crews	\$75,000	\$0	\$0	\$75,000
70006	Cement and Cementing Services	\$290,000	\$0	\$0	\$290,000
70007	Chemicals	\$0	\$277,194	\$0	\$277,194
70008	Communications	\$9,000	\$0	\$0	\$9,000
70011	Company Supervision	\$4,000	\$24,581	\$15,000	\$43,581
70012	Company Vehicle and/or Boat	\$1,000	\$1,527	\$0	\$2,527
70017	Contract Labor	\$65,000	\$0	\$45,000	\$110,000
70019	Contract Rigs - Daywork	\$695,000	\$100	\$30,000	\$725,100
70021	Contract Supervision	\$111,000	\$161,195	\$15,000	\$287,195
70022	Directional Drilling	\$389,000	\$0	\$0	\$389,000
70025	Drilling Fluids	\$465,000	\$0	\$0	\$465,000
70026	Electrical Contract	\$0	\$0	\$20,000	\$20,000
70031	Equipment Rental	\$157,000	\$75,635	\$15,000	\$247,635
70034	Formation and Well Stimulation	\$0	\$1,717,481	\$0	\$1,717,481
70035	Formation Testing	\$0	\$56,270	\$0	\$56,270
70037	Fuel	\$125,000	\$625,412	\$0	\$750,412
70046	Land and Site Reclamation	\$5,000	\$0	\$0	\$5,000
70047	Legal and Curative	\$10,000	\$0	\$0	\$10,000
70049	Logging	\$0	\$593,156	\$0	\$593,156
70054	LOE-Other	\$30,000	\$0	\$0	\$30,000
70064	Rig Mobilization	\$275,000	\$0	\$0	\$275,000
70065	Road and Site Preparation	\$100,000	\$9,619	\$0	\$109,619
70067	Salt Water Disposal	\$0	\$5,478	\$0	\$5,478
70069	Coiled Tubing	\$0	\$240,488	\$0	\$240,488
70074	Trucking and Hauling	\$60,000	\$0	\$25,000	\$85,000
70076	Tubular Inspection/Testing	\$30,000	\$0	\$0	\$30,000
70077	Water	\$75,000	\$743,682	\$0	\$818,682
70078	Wellsite Damages, Loss, Rightof- Way	\$10,000	\$0	\$0	\$10,000
70116	Containment Disposal Expense	\$260,000	\$0	\$0	\$260,000
70169	Camp Rentals	\$60,000	\$0	\$0	\$60,000
70186	Flowback Tester	\$0	\$47,000	\$37,000	\$84,000
70198	Sand/Proppant	\$0	\$1,475,579	\$0	\$1,475,579
70243	Mud Logging	\$25,000	\$0	\$0	\$25,000
70255	Drilling Operations Center	\$9,000	\$0	\$0	\$9,000
70285	Water Transfer	\$0	\$108,478	\$0	\$108,478
70286	Water Treatment	\$0	\$66,976	\$0	\$66,976
70289	Frac Plugs	\$0	\$74,813	\$0	\$74,813
70291	Frac Valve / Frac Tree	\$0	\$61,263	\$0	\$61,263
70529	Safety Case	\$2,000	\$0	\$0	\$2,000
Subtotal	Intangible Materials Cost	\$3,455,000	\$6,369,726	\$202,000	\$10,026,726
Tangible Development Costs					
Acct	Description	Dry Hole	Completion	Equipping	Total Well Cost
71001	Artificial Lift Equipment	\$0	\$0	\$30,000	\$30,000
71012	Flow Lines	\$0	\$0	\$50,000	\$50,000
71018	Instrumentation	\$0	\$0	\$30,000	\$30,000
71019	Intermediate Casing	\$115,000	\$0	\$0	\$115,000
71032	Other Subsurface Equipment	\$35,000	\$0	\$18,000	\$53,000
71034	Personnel Safety Systems	\$0	\$8,283	\$0	\$8,283
71036	Pipe, Valves, Fittings and Anodes	\$0	\$0	\$15,000	\$15,000
71040	Production Casing	\$407,000	\$0	\$0	\$407,000
71050	Surface Casing	\$20,000	\$0	\$0	\$20,000
71053	Tubing	\$0	\$0	\$70,000	\$70,000
71056	Wellhead Assembly	\$45,000	\$0	\$35,000	\$80,000
Subtotal	Tangible Materials Cost	\$622,000	\$8,283	\$248,000	\$878,283

[illegible]



Taco 28-30 Fed Com
FACILITY AFE

Intangible Development Costs		
ACCT	Description	Total Cost
70011	Company Supervision	\$30,000
70012	Company Vehicle and/or Boat	\$5,000
70016	Construction	\$826,000
70026	Electrical Contract	\$20,000
70027	Engineering Design and Drafting	\$10,000
70030	Environmental/Safety Remediation	\$5,000
70031	Equipment Rental	\$25,000
70065	Road and Site Preparation	\$140,000
70067	Salt Water Disposal	\$20,000
70078	Wellsite Damages, Loss, Right-of-Way	\$10,000
70091	Compressor Rental-Labor & Materials	\$170,000
70121	Automation	\$55,000
Sub-Total	Intangible Costs	\$1,316,000
Tangible Development Costs		
ACCT	Description	Total Cost
71012	Flow Lines	\$500,000
71018	Instrumentation	\$180,000
71026	Electrical Materials	\$45,000
71027	Measurement or Metering Equipment	\$160,000
71033	Other Surface Equipment	\$85,000
71036	Pipe, Valves, Fittings and Anodes	\$495,000
71043	Pumps	\$50,000
71046	Separators	\$264,000
71051	Tanks	\$315,000
71052	Treaters	\$90,000
Sub-Total	Tangible Material Costs	\$2,184,000
Description		Total Cost
Subtotal Intangible Costs		\$1,316,000
Subtotal Tangible Costs		\$2,184,000
Grand Total		\$3,500,000
Facility AFE		
<p>This AFE will provide funds to build a battery, install primary power, and install a water disposal system to service the Taco development area in New Mexico. Funds included in this AFE will be used to construct a battery pad, purchase and install production equipment, set up measurement and metering devices for oil and gas sales, set up systems for oil and gas marketing, install electronics and automation, provide primary power into the lease, install a pipeline for water disposal, and install regulatory compliance equipment for gas emissions capturing and removal. Planned equipment for this site is 6-6'x16' test separators, 1-8'x20' heater treater, 1-30"x10' gas scrubber, 1-1500 BBL gunbarrel, 4-1000 BBL tanks, flare system, VRU system, and fluid movers. This battery will be designed to handle future expansion projects with minimal downtime.</p>		
Partner Signature: _____		
Date: _____		

Ard Energy, LLC & Ard Oil Ltd.
P. O. Box 101027
Fort Worth, TX 76185
817-882-9377

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:


Ard Oil Ltd. owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Ard Oil Ltd. also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,


Mary T. Ard
President Ard Oil Ltd.



Centennial, LLC

Oil & Gas Investments

(575) 622-2700 Office

(575) 626-5627 Cell

Apache Corp.

DEC 26 2018

Permian Land Dept.

300 West Second
Roswell, NM 88201

P.O. Box 1837
Roswell, NM 88202-1837

dmfedric@fedric.com

December 20, 2018

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Case # 16481, # 16482
Proposed January 10, 2019 Hearing
Apache Taco 28-30 and Anvil
Development Area Hearing

Ladies and Gentleman,

Centennial, LLC is a small oil and gas investments business. We are a proposed working interest owner in Apache's captioned Project. We have reviewed geologist, John Worrall's December 18, 2018 letter to the NMOCD and agree with his study and conclusion that Apache is the appropriate and desired Operator for this area.

Thank you for your attention.

Sincerely,

Don M. Fedric
President
Centennial, LLC

BCC: Apache Corporation c/o Laci Stretcher

Worrall Investment Corporation

P.O. Box 1834, Roswell, NM 88202-1834 | 575-623-1996

December 18, 2018

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Case # 16481, # 16482
Proposed January 10, 2019 Hearing
Apache Taco 28-30 and Anvil
Development Area Hearing

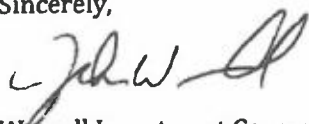
Ladies and Gentleman,

I'm writing you on behalf of Worrall Investment Corporation, in support of Apache's proposal to develop the Taco 28-30 Area in Section 28-30. My participation is minor, coming from a small interest in Section 29. As a geologist who has worked SENM for 30 years, I suggest you take into consideration Apache's application for three reasons:

1. Any reasonable production study shows Bone Spring wells in this western Eddy County area of (18-20S, R28E-30E) should be drilled E-W not N-S. It makes a 50% difference in production. It is due to the direction of induced fractures (IDF) being more N-S in this area. The IDF rotates to more E-W over in 19S-20S, R34E (Lea County), where wells should be (and are) drilled N-S. In between, along the Eddy/Lea county line area, the induced fracture direction is more N45E-S45W, so wells can be drilled E-W or N-S with little production difference.
2. A quick study on Drilling Info reveals that in the last 18 months, 759 new horizontal Bone Spring and Wolfcamp wells have been completed and produced in SENM. Apache has completed eleven of these horizontal Bone Spring and Wolfcamp wells. I do not know Ascent Energy but I know they did not complete a since new horizontal well during this time. I have a lot more faith that Apache will actually drill these wells, and that is ultimately good for the State of New Mexico. Also there is a learning curve to drilling these wells that Apache has already experienced.
3. I believe there is risk/reward benefit shown to drilling the longer laterals. (2.5 miles versus 1, 1.5 or 2 mile laterals).

Thank you for considering this letter.

Sincerely,



Worrall Investment Corporation
John G. Worrall
President

Cc: Bane Bigbie, JTD Resources, Centennial, LLC, Scott-Winn, LLC, Apache c/o Laci Stretcher, Norton, LLC, Ted James

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Frost Bank, Trustee for the Josephine T. Hudson Testamentary Trust FBO Terrell Ard Trust #5 owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Frost Bank, Trustee for the Josephine T. Hudson Testamentary Trust FBO Terrell Ard Trust #5 also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Brad Ince
Senior Vice President – Frost Bank / Trust Oil & Gas
640 Taylor Street, 17th Floor
Fort Worth, Texas 76102
Office: (817) 420-5231
Brad.Ince@frostbank.com

JAVELINA PARTNERS
616 TEXAS STREET
FORT WORTH, TEXAS 76102-4612

EDWARD R. HUDSON, JR.
E. RANDALL HUDSON III
MANAGING PARTNERS

August 15, 2019

ANN F. HUDSON
FRASHER H. PERGANDE

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Javelina Partners owns working interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

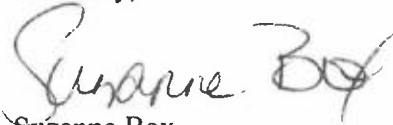
In addition, we own working interest in the NE/4 of section 28 and the N/2 of section 29, which are included in the proposed unit for Apache's Taco wells, and the SW/4 of section 28, which is included in the proposed unit for Ascent's Anvil wells.

Javelina Partners owns leasehold, working, mineral and overriding royalty interests in approximately 80,000 gross acres in Eddy & Lea Co. In the last ten years or so, Javelina Partners has participated in, as a working interest owner, the drilling of over 60 horizontal wells in Eddy & Lea Co., with a variety of different operators.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,


Suzanne Box
CFO

SB/sg

817.336.7109

817.334.0442 FAX

**FRANCIS H. HUDSON, TRUSTEE
LINDY'S LIVING TRUST
4200 S. HULEN, SUITE 302
FORT WORTH, TEXAS 76109
(817) 738-8999
Fax (817) 738-9002**

August 19, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

**RE: Case No: 16481 16482 20171 20202
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019**

Ladies and Gentlemen:

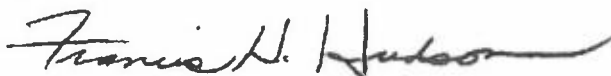
Lindy's Living Trust owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Lindy's Living Trust also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our successor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Francis H. Hudson, Trustee
Lindy's Living Trust

*Moore & Shelton Company, Ltd.
Post Office Box 3070
Galveston, Texas 77552*

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Moore & Shelton Company, Ltd. owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Moore & Shelton Company, Ltd. also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Ann Moore Winkelmann
General Partner, Moore & Shelton, Ltd.



Shelton Oil & Mineral Management LLC,
General Partner of Moore & Shelton, Ltd.
by Kenneth Shelton, Chairman of
Shelton Oil & Mineral Management LLC

Paul Moore (via electronic signature)
General Partner, Moore & Shelton, Ltd.

ZORRO PARTNERS, LTD.
616 TEXAS STREET
FORT WORTH, TX 76102

(817) 336-7109

Fax (817) 334-0442

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Zorro Partners, Ltd owns working interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

In addition, we own working interest in the NE/4 of section 28 and the N/2 of section 29, which are included in the proposed unit for Apache's Taco wells, and the SW/4 of section 28, which is included in the proposed unit for Ascent's Anvil wells.

Zorro Partners, Ltd owns leasehold, working, mineral and overriding royalty interests in approximately 75,000 gross acres in Eddy & Lea Co. In the last ten years or so, Zorro Partners, Ltd has participated in, as a working interest owner, the drilling of over 50 horizontal wells in Eddy & Lea Co., with a variety of different operators.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Donna Nobles
Manager

DN/sg

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

**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF ASCENT ENERGY, LLC
FOR COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.**

Case No. 16481

**APPLICATION OF ASCENT ENERGY, LLC
FOR COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.**

Case No. 16482

**IN THE MATTER OF THE AMENDED APPLICATION
OF APACHE CORPORATION FOR COMPULSORY
POOLING AND APPROVAL OF A HORIZONTAL
SPACING UNIT AND POTASH DEVELOPMENT AREA,
EDDY COUNTY, NEW MEXICO**

Case No. 20171

**IN THE MATTER OF THE AMENDED APPLICATION
OF APACHE CORPORATION FOR COMPULSORY
POOLING AND APPROVAL OF A HORIZONTAL
SPACING UNIT AND POTASH DEVELOPMENT AREA,
EDDY COUNTY, NEW MEXICO**

Case No. 20202

PRE-HEARING STATEMENT

Occidental Permian Limited Partnership ("Occidental") files this pre-hearing statement in accordance with section 19.15.4.13.B NMAC.

APPEARANCES

**APPLICANT IN 20171 AND 20202
OPPONENT TO ASCENT APPLICATIONS**
Apache Corporation

ATTORNEY
Earl E. DeBrine, Jr.
MODRALL, SPERLING, ROEHL,
HARRIS SISK, P.A.
P.O. Box 2168
Albuquerque, New Mexico 87103-2168
Phone: (505) 848-1800
Fax: (505) 848-1891
edebrine@modrall.com

APPLICANT IN 16481 AND 16482/
OPPONENT TO APACHE'S APPLICATIONS:
Ascent Energy

ATTORNEY:
James Bruce
James Garrett Bruce Attorney at Law
P.O. Box 1056
Santa Fe, NM 87504
Phone: (505) 982-2043
jamesbruc@aol.com

OTHER PARTIES:

Occidental Permian Limited Partnership

Dalva L. Moellenberg
Gallagher & Kennedy, P.A.
1239 Paseo de Peralta
Santa Fe, NM 87501
(505) 989-7278
dml@gknet.com

EOG Resources, Inc

Ernest L. Padilla
Padilla Law Firm, P.A.
P.O. Box 2523
Santa Fe, NM 87504
(505) 988-7577
padillalaw@qwestoffice.net

Mewbourne Oil Company

Gary Larson
Hinkle Shanor LLP
P.O. Box 2068
Santa Fe, NM 87504
(505) 982-4554
glarson@hinklelawfirm.com

STATEMENT OF THE CASES

The above four cases, two filed by Ascent Energy, LLC ("Ascent") and two filed by Apache Corporation ("Apache"), have been consolidated for hearing. The primary purpose of the hearing will be to consider the relative merits of Ascent's plan of development, which calls for wells oriented in a north/south alignment versus Apache's plan of development, which calls for wells oriented in an east/west alignment.

Applicant Ascent

Case No. 16481: Applicant Ascent seeks an order pooling all mineral interests underlying a 320-acre horizontal spacing unit in the Bone Spring formation comprised of the W/2W/2 of Section 28 and the W/2W/2 of Section 33, Township 20 South, Range 30 East, NMPM. The unit will be dedicated to the Anvil Fed. Corn. Well No. 401H, Anvil Fed. Corn. Well No. 501H, and Anvil Fed. Corn. Well No. 601H, horizontal Bone Spring wells with first take points in the SW/4SW/4 of Section 33 and final take points in the NW/4NW/4 of Section 28.

Case No. 16482: Applicant Ascent seeks an order pooling all mineral interests underlying a 320-acre horizontal spacing unit in the Wolfcamp formation comprised of the W/2W/2 of Section 28 and the W/2W/2 of Section 33, Township 20 South, Range 30 East, NMPM. The unit will be dedicated to the Anvil Fed. Corn. Well No. 701H and Anvil Fed. Corn. Well No. 702H, horizontal Wolfcamp wells with first take points in the SW/4SW/4 of Section 33 and final take points in the NW/4NW/4 of Section 28.

Applicant Apache

Case No. 20171: Applicant Apache seeks an order approving the creation of a horizontal spacing unit, a potash development area, and the pooling of all uncommitted mineral interests within a horizontal spacing unit underlying the N/2 of Sections 28 and 29 and the NE/4 of Section 30 of Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. Apache has proposed five wells to test to the Bone Spring formation: Taco 28-30 Fed Com #201H; Taco 28-30 Fed Com #202H; Taco 28-30 Fed Com #301H; Taco 28-30 Fed Com #302H; and Taco 28-30 Fed Com #303H.

Case No. 20202: Applicant Apache seeks an order approving the creation of a horizontal spacing unit, a potash development area, and the pooling of all uncommitted mineral interests within a horizontal spacing unit underlying the N/2 of Sections 28 and 29 and the NE/4 of Section 30 of Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. Apache has proposed three wells in the Wolfcamp formation: Taco 28-30 Fed Com #401H; Taco 28-30 Fed Com #402H; and Taco 28-30 Fed Com #403H.

Occidental Permian Limited Partnership

Occidental Permian Limited Partnership ("Oxy") holds material working interests in the NE/4 of Section 30 (100% working interest) and the W/2 NW/4 of Section 29 (100% working interest) within the area that would be developed under the Apache proposal. Oxy supports approval of Apache's applications for the Taco 28-30 development area and prefers those plans over the Ascent applications. First, Oxy believes that the east/west orientation of Apache's plan of development is superior to Ascent's proposed north/south orientation because this will maximize drainage of the reservoir and best protect the correlative rights of the parties. Apache

also has superior expertise and financial resources to fully carry out its plan of development. Lastly, Oxy favors Apache's plan of development because Oxy believes that there are cost efficiencies associated with the drilling 2.5-mile horizontal wells, as proposed by Apache, over 2.0-mile horizontal wells, as proposed by Ascent. Oxy supports Apache's offer to withdraw its request for forced pooling, so long as applicant Ascent also removes its request for forced pooling in Case No. 16481 and 16482.

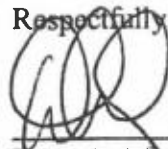
PROPOSED EVIDENCE

Oxy does not intend to present technical evidence as such would likely duplicate the technical evidence to be presented by Apache in support of its development plan.

PROCEDURAL MATTERS

Oxy understands that the hearing on these cases will be combined for hearing on a special docket on August 20, 2019 carrying over to August 21, 2019 as needed. The Hearing Examiners have denied EOG's Motion to Dismiss filed in the Apache cases (Case No. 16481 and 16482) and Ascent withdrew a similar motion that it had filed. Although both Ascent and Apache have filed APDs with the Bureau of Land Management ("BLM"), and the parties and the Hearing Examiners agree that BLM normally has primacy to consider development plans within the potash area, the Hearing Examiner has ruled that OCD will proceed with a hearing on the competing development plans since the BLM has deferred to the OCD on hearing the matter.

Respectfully submitted,



Dalva L. Moellenberg
GALLAGHER & KENNEDY, PA
1239 Paseo de Peralta
Santa Fe, NM 87501-2758
Phone: (505) 982-9523
Fax: (505) 983-8160
dln@gknet.com

Attorney for Occidental Permian Limited
Partnership

CERTIFICATE OF SERVICE


I hereby certify that a copy of the foregoing pleading was served upon the following counsel of record this 12 day of August, 2019 via e-mail:

Earl E. DeBrine, Jr.
MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.
P.O. Box 2168
Albuquerque, New Mexico 87103-2168
Phone: (505) 848-1800
Fax: (505) 848-1891
edebrine@modrall.com

James Bruce
JAMES GARRETT BRUCE ATTORNEY AT LAW
P.O. Box 1056
Santa Fe, New Mexico 87504
Phone: (505) 982-2043
Fax: (505) 982-2151
jamesbruc@aol.com

Gary W. Larson
Hinkle Shanor LLP
PO Box 2068
Santa Fe, NM 87504-2068
505-982-4554
glarson@hinklelawfirm.com

Ernest L. Padilla
Padilla Law Firm, P.A.
P.O. Box 2523
Santa Fe, NM 87504
(505) 988-7577
padillalaw@qwestoffice.net



Dalva L. Moellenberg

Ard Energy, LLC & Ard Oil Ltd.
P. O. Box 101027
Fort Worth, TX 76185
817-882-9377

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Ard Oil Ltd. owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Ard Oil Ltd. also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Mary T. Ard
President Ard Oil Ltd.

Apache Corp.

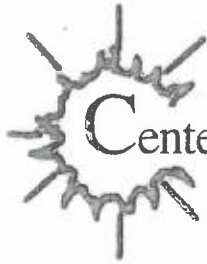
DEC 26 2018

Permian Land Dept.

300 West Second
Roswell, NM 88201

P.O. Box 1837
Roswell, NM 88202-1837

dmfedric@fedric.com



Centennial, LLC

Oil & Gas Investments

(575) 622-2700 Office

(575) 626-5627 Cell

December 20, 2018

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, NM 87505

Re: Case # 16481, # 16482
Proposed January 10, 2019 Hearing
Apache Taco 28-30 and Anvil
Development Area Hearing

Ladies and Gentleman,

Centennial, LLC is a small oil and gas investments business. We are a proposed working interest owner in Apache's captioned Project. We have reviewed geologist, John Worrall's December 18, 2018 letter to the NMOCD and agree with his study and conclusion that Apache is the appropriate and desired Operator for this area.

Thank you for your attention.

Sincerely,

Don M. Fedric
President
Centennial, LLC

BCC: Apache Corporation c/o Laci Stretcher

Worrall Investment Corporation

P.O. Box 1834, Roswell, NM 88202-1834 | 575-623-1996

December 18, 2018

New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

Re: Case # 16481, # 16482
Proposed January 10, 2019 Hearing
Apache Taco 28-30 and Anvil
Development Area Hearing

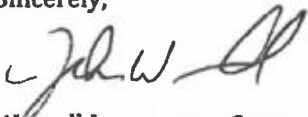
Ladies and Gentleman,

I'm writing you on behalf of Worrall Investment Corporation, in support of Apache's proposal to develop the Taco 28-30 Area in Section 28-30. My participation is minor, coming from a small interest in Section 29. As a geologist who has worked SENM for 30 years, I suggest you take into consideration Apache's application for three reasons:

1. Any reasonable production study shows Bone Spring wells in this western Eddy County area of (18-20S, R28E-30E) should be drilled E-W not N-S. It makes a 50% difference in production. It is due to the direction of induced fractures (IDF) being more N-S in this area. The IDF rotates to more E-W over in 19S-20S, R34E (Lea County), where wells should be (and are) drilled N-S. In between, along the Eddy/Lea county line area, the induced fracture direction is more N45E-S45W, so wells can be drilled E-W or N-S with little production difference.
2. A quick study on Drilling Info reveals that in the last 18 months, 759 new horizontal Bone Spring and Wolfcamp wells have been completed and produced in SENM. Apache has completed eleven of these horizontal Bone Spring and Wolfcamp wells. I do not know Ascent Energy but I know they did not complete a single new horizontal well during this time. I have a lot more faith that Apache will actually drill these wells, and that is ultimately good for the State of New Mexico. Also there is a learning curve to drilling these wells that Apache has already experienced.
3. I believe there is risk/reward benefit shown to drilling the longer laterals. (2.5 miles versus 1, 1.5 or 2 mile laterals).

Thank you for considering this letter.

Sincerely,



Worrall Investment Corporation
John G. Worrall
President

Cc: Bane Bigbie, JTD Resources, Centennial, LLC, Scott-Winn, LLC, Apache c/o Laci Stretcher, Norton, LLC, Ted James

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Frost Bank, Trustee for the Josephine T. Hudson Testamentary Trust FBO Terrell Ard Trust #5 owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Frost Bank, Trustee for the Josephine T. Hudson Testamentary Trust FBO Terrell Ard Trust #5 also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Brad Ince
Senior Vice President – Frost Bank / Trust Oil & Gas
640 Taylor Street, 17th Floor
Fort Worth, Texas 76102
Office: (817) 420-5231
Brad.Ince@frostbank.com

JAVELINA PARTNERS
616 TEXAS STREET
FORT WORTH, TEXAS 76102-4612

EDWARD R. HUDSON, JR.
E. RANDALL HUDSON III
MANAGING PARTNERS

August 15, 2019

ANN F. HUDSON
FRASHER H. PERGANDE

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

RE: **Case No: 16481 16482 20171 20202**
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019

Ladies and Gentlemen:

Javelina Partners owns working interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

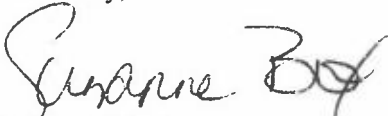
In addition, we own working interest in the NE/4 of section 28 and the N/2 of section 29, which are included in the proposed unit for Apache's Taco wells, and the SW/4 of section 28, which is included in the proposed unit for Ascent's Anvil wells.

Javelina Partners owns leasehold, working, mineral and overriding royalty interests in approximately 80,000 gross acres in Eddy & Lea Co. In the last ten years or so, Javelina Partners has participated in, as a working interest owner, the drilling of over 60 horizontal wells in Eddy & Lea Co., with a variety of different operators.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,


Suzanne Box
CFO

SB/sg

817.336.7109

817.334.0442 FAX

**FRANCIS H. HUDSON, TRUSTEE
LINDY'S LIVING TRUST
4200 S. HULEN, SUITE 302
FORT WORTH, TEXAS 76109
(817) 738-8999
Fax (817) 738-9002**

August 19, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

**RE: Case No: 16481 16482 20171 20202
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019**

Ladies and Gentlemen:


Lindy's Living Trust owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Lindy's Living Trust also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our successor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Francis H. Hudson, Trustee
Lindy's Living Trust

*Moore & Shelton Company, Ltd.
Post Office Box 3070
Galveston, Texas 77552*

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

**RE: Case No: 16481 16482 20171 20202
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019**

Ladies and Gentlemen:

Moore & Shelton Company, Ltd. owns Working Interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

Moore & Shelton Company, Ltd. also owns leasehold, working, mineral and overriding royalty interests in thousands of gross acres in Eddy & Lea Co., and we, or our precursor entities, have been participating as working interest owners in the drilling of wells in these two counties since the late 1930s.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



*Ann Moore Winkelmann
General Partner, Moore & Shelton, Ltd.*



*Shelton Oil & Mineral Management LLC,
General Partner of Moore & Shelton, Ltd.
by Kenneth Shelton, Chairman of
Shelton Oil & Mineral Management LLC*

Paul Moore (via electronic signature)
General Partner, Moore & Shelton, Ltd.

ZORRO PARTNERS, LTD.
616 TEXAS STREET
FORT WORTH, TX 76102

(817) 336-7109

Fax (817) 334-0442

August 15, 2019

New Mexico Oil Conservation Division
1220 South St. Francis Street
Santa Fe, New Mexico 87505

**RE: Case No: 16481 16482 20171 20202
Apache proposed Taco Wells & Ascent proposed Anvil Wells
Development Area Hearing Scheduled for August 20, 2019**

Ladies and Gentlemen:

Zorro Partners, Ltd owns working interest in the NW/4 of section 28, T20S-R30E, Eddy Co., NM, which is included in the proposed units for both Apache's Taco wells and Ascent's Anvil wells.

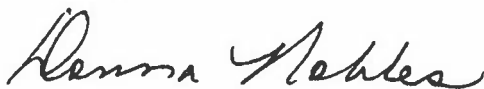
In addition, we own working interest in the NE/4 of section 28 and the N/2 of section 29, which are included in the proposed unit for Apache's Taco wells, and the SW/4 of section 28, which is included in the proposed unit for Ascent's Anvil wells.

Zorro Partners, Ltd owns leasehold, working, mineral and overriding royalty interests in approximately 75,000 gross acres in Eddy & Lea Co. In the last ten years or so, Zorro Partners, Ltd has participated in, as a working interest owner, the drilling of over 50 horizontal wells in Eddy & Lea Co., with a variety of different operators.

Based on such experience, we ask that you please grant Apache the right to drill its Taco wells as proposed.

Thank you for your consideration of our request.

Sincerely,



Donna Nobles
Manager

DN/sg

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

**IN THE MATTER OF THE HEARING CALLED
BY THE OIL CONSERVATION DIVISION FOR
THE PURPOSE OF CONSIDERING:**

**APPLICATION OF ASCENT ENERGY, LLC
FOR COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.**

Case No. 16481

**APPLICATION OF ASCENT ENERGY, LLC
FOR COMPULSORY POOLING, EDDY COUNTY,
NEW MEXICO.**

Case No. 16482

**IN THE MATTER OF THE AMENDED APPLICATION
OF APACHE CORPORATION FOR COMPULSORY
POOLING AND APPROVAL OF A HORIZONTAL
SPACING UNIT AND POTASH DEVELOPMENT AREA,
EDDY COUNTY, NEW MEXICO**

Case No. 20171

**IN THE MATTER OF THE AMENDED APPLICATION
OF APACHE CORPORATION FOR COMPULSORY
POOLING AND APPROVAL OF A HORIZONTAL
SPACING UNIT AND POTASH DEVELOPMENT AREA,
EDDY COUNTY, NEW MEXICO**

Case No. 20202

PRE-HEARING STATEMENT

Occidental Permian Limited Partnership ("Occidental") files this pre-hearing statement in
accordance with section 19.15.4.13.B NMAC.

APPEARANCES

APPLICANT IN 20171 AND 20202
OPPONENT TO ASCENT APPLICATIONS
Apache Corporation

ATTORNEY
Earl E. DeBrine, Jr.
MODRALL, SPERLING, ROEHL,
HARRIS SISK, P.A.
P.O. Box 2168
Albuquerque, New Mexico 87103-2168
Phone: (505) 848-1800
Fax: (505) 848-1891
edebrine@modrall.com

APPLICANT IN 16481 AND 16482/
OPPONENT TOAPACHE'S APPLICATIONS:
Ascent Energy

ATTORNEY:
James Bruce
James Garrett Bruce Attorney at Law
P.O. Box 1056
Santa Fe, NM 87504
Phone: (505) 982-2043
jamesbruc@aol.com

OTHER PARTIES:

Occidental Permian Limited Partnership

Dalva L. Moellenberg
Gallagher & Kennedy, P.A.
1239 Paseo de Peralta
Santa Fe, NM 87501
(505) 989-7278
dlim@gknet.com

EOG Resources, Inc

Ernest L. Padilla
Padilla Law Firm, P.A.
P.O. Box 2523
Santa Fe, NM 87504
(505) 988-7577
padillalaw@qwestoffice.net

Mewbourne Oil Company

Gary Larson
Hinkle Shanor LLP
P.O. Box 2068
Santa Fe, NM 87504
(505) 982-4554
glarson@hinklelawfirm.com

STATEMENT OF THE CASES

The above four cases, two filed by Ascent Energy, LLC ("Ascent") and two filed by Apache Corporation ("Apache"), have been consolidated for hearing. The primary purpose of the hearing will be to consider the relative merits of Ascent's plan of development, which calls for wells oriented in a north/south alignment versus Apache's plan of development, which calls for wells oriented in an east/west alignment.

Applicant Ascent

Case No. 16481: Applicant Ascent seeks an order pooling all mineral interests underlying a 320-acre horizontal spacing unit in the Bone Spring formation comprised of the W/2W/2 of Section 28 and the W/2W/2 of Section 33, Township 20 South, Range 30 East, NMPM. The unit will be dedicated to the Anvil Fed. Corn. Well No. 401H, Anvil Fed. Corn. Well No. 501H, and Anvil Fed. Corn. Well No. 601H, horizontal Bone Spring wells with first take points in the SW/4SW/4 of Section 33 and final take points in the NW/4NW/4 of Section 28.

Case No. 16482: Applicant Ascent seeks an order pooling all mineral interests underlying a 320-acre horizontal spacing unit in the Wolfcamp formation comprised of the W/2W/2 of Section 28 and the W/2W/2 of Section 33, Township 20 South, Range 30 East, NMPM. The unit will be dedicated to the Anvil Fed. Corn. Well No. 701H and Anvil Fed. Corn. Well No. 702H, horizontal Wolfcamp wells with first take points in the SW/4SW/4 of Section 33 and final take points in the NW/4NW/4 of Section 28.

Applicant Apache

Case No. 20171: Applicant Apache seeks an order approving the creation of a horizontal spacing unit, a potash development area, and the pooling of all uncommitted mineral interests within a horizontal spacing unit underlying the N/2 of Sections 28 and 29 and the NE/4 of Section 30 of Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. Apache has proposed five wells to test to the Bone Spring formation: Taco 28-30 Fed Com #201H; Taco 28-30 Fed Com #202H; Taco 28-30 Fed Com #301H; Taco 28-30 Fed Com #302H; and Taco 28-30 Fed Com #303H.

Case No. 20202: Applicant Apache seeks an order approving the creation of a horizontal spacing unit, a potash development area, and the pooling of all uncommitted mineral interests within a horizontal spacing unit underlying the N/2 of Sections 28 and 29 and the NE/4 of Section 30 of Township 20 South, Range 30 East, N.M.P.M., Eddy County, New Mexico. Apache has proposed three wells in the Wolfcamp formation: Taco 28-30 Fed Com #401H; Taco 28-30 Fed Com #402H; and Taco 28-30 Fed Com #403H.

Occidental Permian Limited Partnership

Occidental Permian Limited Partnership ("Oxy") holds material working interests in the NE/4 of Section 30 (100% working interest) and the W/2 NW/4 of Section 29 (100% working interest) within the area that would be developed under the Apache proposal. Oxy supports approval of Apache's applications for the Taco 28-30 development area and prefers those plans over the Ascent applications. First, Oxy believes that the east/west orientation of Apache's plan of development is superior to Ascent's proposed north/south orientation because this will maximize drainage of the reservoir and best protect the correlative rights of the parties. Apache

also has superior expertise and financial resources to fully carry out its plan of development. Lastly, Oxy favors Apache's plan of development because Oxy believes that there are cost efficiencies associated with the drilling 2.5-mile horizontal wells, as proposed by Apache, over 2.0-mile horizontal wells, as proposed by Ascent. Oxy supports Apache's offer to withdraw its request for forced pooling, so long as applicant Ascent also removes its request for forced pooling in Case No. 16481 and 16482.

PROPOSED EVIDENCE

Oxy does not intend to present technical evidence as such would likely duplicate the technical evidence to be presented by Apache in support of its development plan.

PROCEDURAL MATTERS

Oxy understands that the hearing on these cases will be combined for hearing on a special docket on August 20, 2019 carrying over to August 21, 2019 as needed. The Hearing Examiners have denied EOG's Motion to Dismiss filed in the Apache cases (Case No. 16481 and 16482) and Ascent withdrew a similar motion that it had filed. Although both Ascent and Apache have filed APDs with the Bureau of Land Management ("BLM"), and the parties and the Hearing Examiners agree that BLM normally has primacy to consider development plans within the potash area, the Hearing Examiner has ruled that OCD will proceed with a hearing on the competing development plans since the BLM has deferred to the OCD on hearing the matter.

Respectfully submitted,



Dalva L. Moellenberg
GALLAGHER & KENNEDY, PA
1239 Paseo de Peralta
Santa Fe, NM 87501-2758
Phone: (505) 982-9523
Fax: (505) 983-8160
dln@gknet.com

Attorney for Occidental Permian Limited
Partnership

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing pleading was served upon the following counsel of record this 12 day of August, 2019 via e-mail:

Earl E. DeBrine, Jr.
MODRALL, SPERLING, ROEHL, HARRIS & SISK, P.A.
P.O. Box 2168
Albuquerque, New Mexico 87103-2168
Phone: (505) 848-1800
Fax: (505) 848-1891
edebrine@modrall.com

James Bruce
JAMES GARRETT BRUCE ATTORNEY AT LAW
P.O. Box 1056
Santa Fe, New Mexico 87504
Phone: (505) 982-2043
Fax: (505) 982-2151
jamesbruc@aol.com

Gary W. Larson
Hinkle Shanor LLP
PO Box 2068
Santa Fe, NM 87504-2068
505-982-4554
glarson@hinklelawfirm.com

Ernest L. Padilla
Padilla Law Firm, P.A.
P.O. Box 2523
Santa Fe, NM 87504
(505) 988-7577
padillalaw@qwestoffice.net

A handwritten signature in black ink, appearing to read 'Dalva L. Moellenberg', is written over a horizontal line.

Dalva L. Moellenberg

On Jun 20, 2018, at 9:21 AM, Sam Pryor <spryor@matadorresources.com> wrote:

Laci,

Thank you for reaching out regarding the proposed and protested Anvil Development area. Matador wishes to see East - West development in this area as opposed to Ascent Energy's proposed north-south development. MRC does own acreage in section 28 and I would be interested in discussing what options are available in Apache's proposed development.

I am expecting to be in Midland tomorrow for several meetings at 12:00 and 3:00. Would you be available for a late afternoon meeting round 4:30 or 5:00 PM? I apologize for the late notice but believe it would be beneficial for both parties.

Thanks and I look forward to hearing from you.

Sam

Sam Pryor
Area Land Manager – Delaware Basin & Federal Lands

Matador Resources Company
One Lincoln Centre
5400 LBJ Freeway
Suite 1500
Dallas, Texas 75240

Phone: 972-371-5241
Fax: 972-371-5201
Cell 214-435-5918
spryor@matadorresources.com

On Jun 13, 2018, at 6:02 PM, Stretcher, Laci <Laci.Stretcher@apachecorp.com> wrote:

****EXTERNAL EMAIL****

Hello,

I noted that Matador is protesting Ascent Energy's Anvil development area in 20S-30E, and I was curious what direction Matador was planning to drill wells. Apache has some proposed solutions if your acreage is in Section 28-20S-30E. Please see Apache's protest letter to the BLM, and let me know if we can work with Matador on any solutions.

Thanks,

Laci Stretcher, RPL

LANDMAN

Permian West Region – New Mexico

direct 432-818-1846 | mobile 325-338-7407 | office Room Number 3116A

APACHE CORPORATION

303 Veterans Airpark Lane, Suite 1000
Midland, TX 79705
U.S.A.

ApacheCorp.com | [LinkedIn](#) | [Facebook](#) | [Twitter](#) | [StockTwits](#) | [YouTube](#)

<Protest Letter to BLM Ascent Anvil Development Area.pdf>

This transmission is strictly confidential. If you are not the intended recipient of this message, you may not disclose, print, copy or disseminate this information. If you have received this in error, please reply and notify the sender (only) and delete the message. Unauthorized interception of this e-mail is a violation of federal criminal law. This communication does not reflect an intention by the sender or the sender's client or principal to conduct a transaction or make any agreement by electronic means. Nothing contained in this message or in any attachment shall satisfy the requirements for a writing, and nothing contained herein shall constitute a contract or electronic signature under the Electronic Signatures in Global and National Commerce Act, any version of the Uniform Electronic Transactions Act or any other statute governing electronic transactions.

WARNING EXTERNAL EMAIL: This email is from an external source. Do not click links or open attachments without positive sender verification of purpose. Never enter Username, Password or sensitive information on linked pages from this email. If you are unsure about the message, please contact the ServiceDesk for assistance.

CONFLICT RESOLUTION ATTEMPTS

- Meeting with BLM in June 2018
- Teleconference with Ascent 5/24/2018
- 3 in-person meetings with Ascent
- Ascent offered to buy APA acreage: offer too low
- Ascent's estimated price/acre in an APA purchase scenario too high: over 2.5x higher than their offer to APA
- Numerous emails with trade ideas (at least 5) to Ascent: all rejected



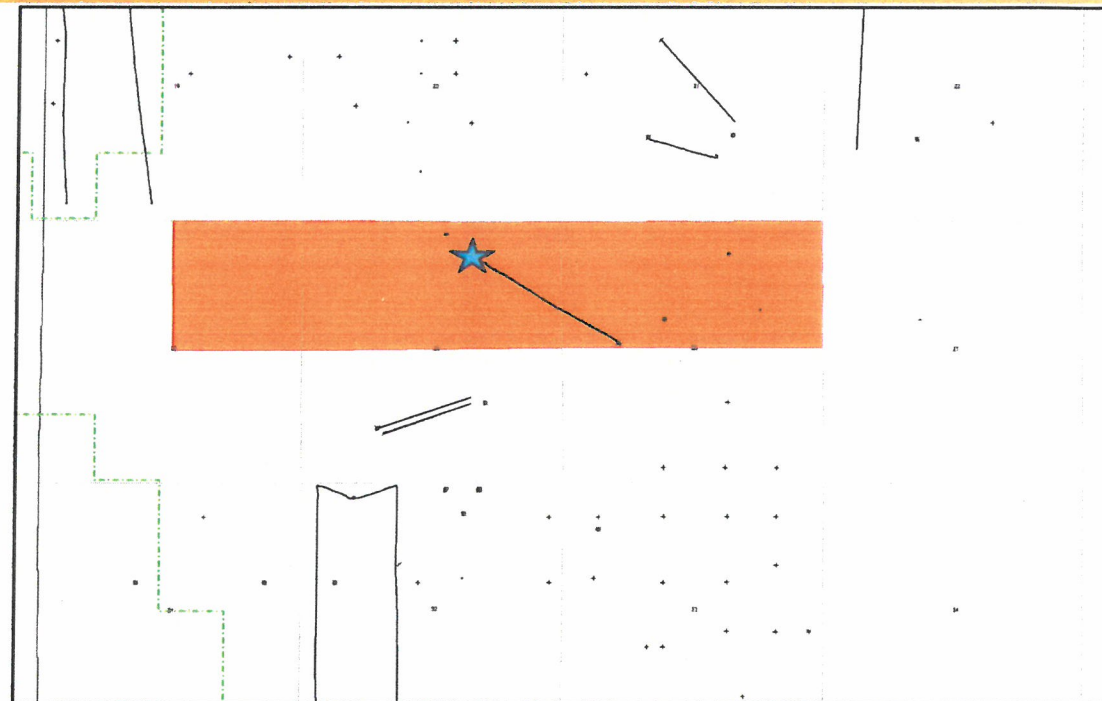
WHY CHOOSE THIS COMPROMISE

- APA has a proven track record as a successful operator in New Mexico and the Delaware Basin
 - Drilled 873 wells in the last 10 years in New Mexico
 - Experience in DB and potash area
- This solution allows joint development of both Development Areas
 - Ascent's acreage in the N/2 of Sec. 28 would be as a non-op with Apache as operator
- Oxy and Apache's acreage would not be stranded.
- APA would develop these wells as soon as the Division designates us as operator.
- Over **79%** of the working interest owners in APA's DA support this plan



Apache

APACHE TACO 28-30 DEVELOPMENT



● Taco Horizontal Development Planned Targets

- (2) 1st Bone Spring Sand
- (2) 2nd Bone Spring Sand
- (4) 3rd Bone Spring Sand and Wolfcamp A

● Future Horizontal Evaluation

- Wolfcamp/Penn
- Lower Brushy Canyon
- Strawn

● Brushy Canyon

1st Bone Spring Carb

● 1st Bone Spring Sand

2nd Bone Spring Carb

● 2nd Bone Spring Sand

3rd Bone Spring Carb

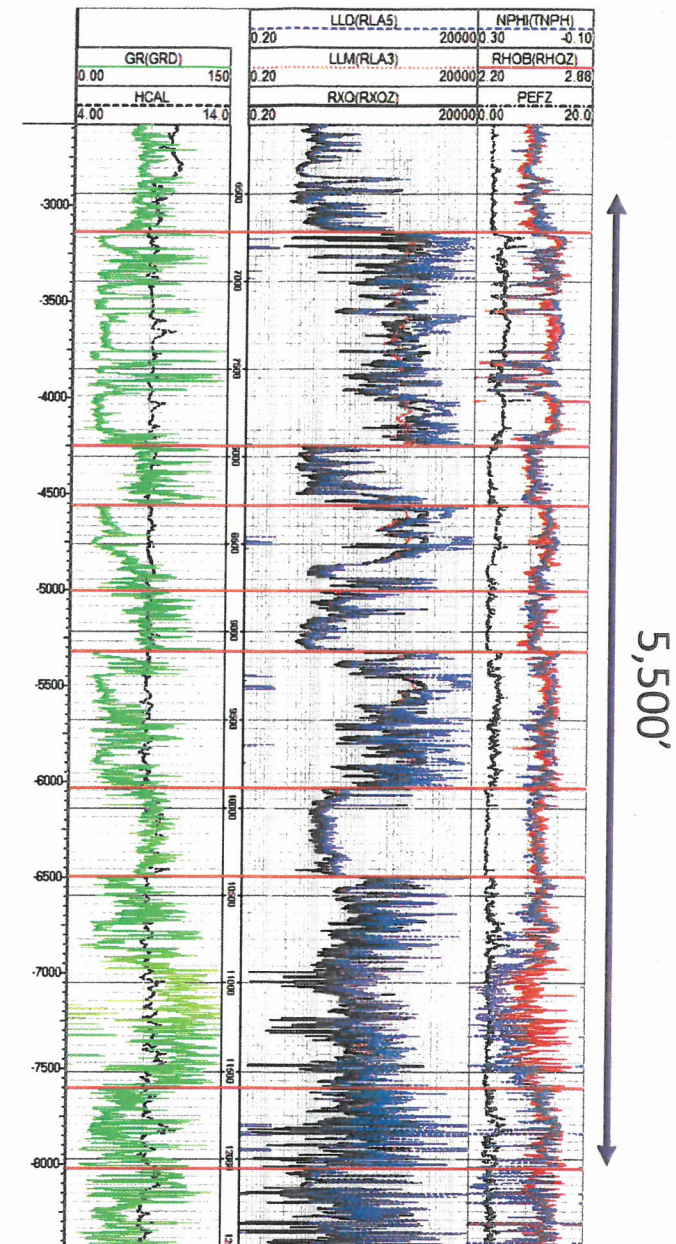
● 3rd Bone Spring Sand

● Wolfcamp A

● Wolfcamp B/Penn

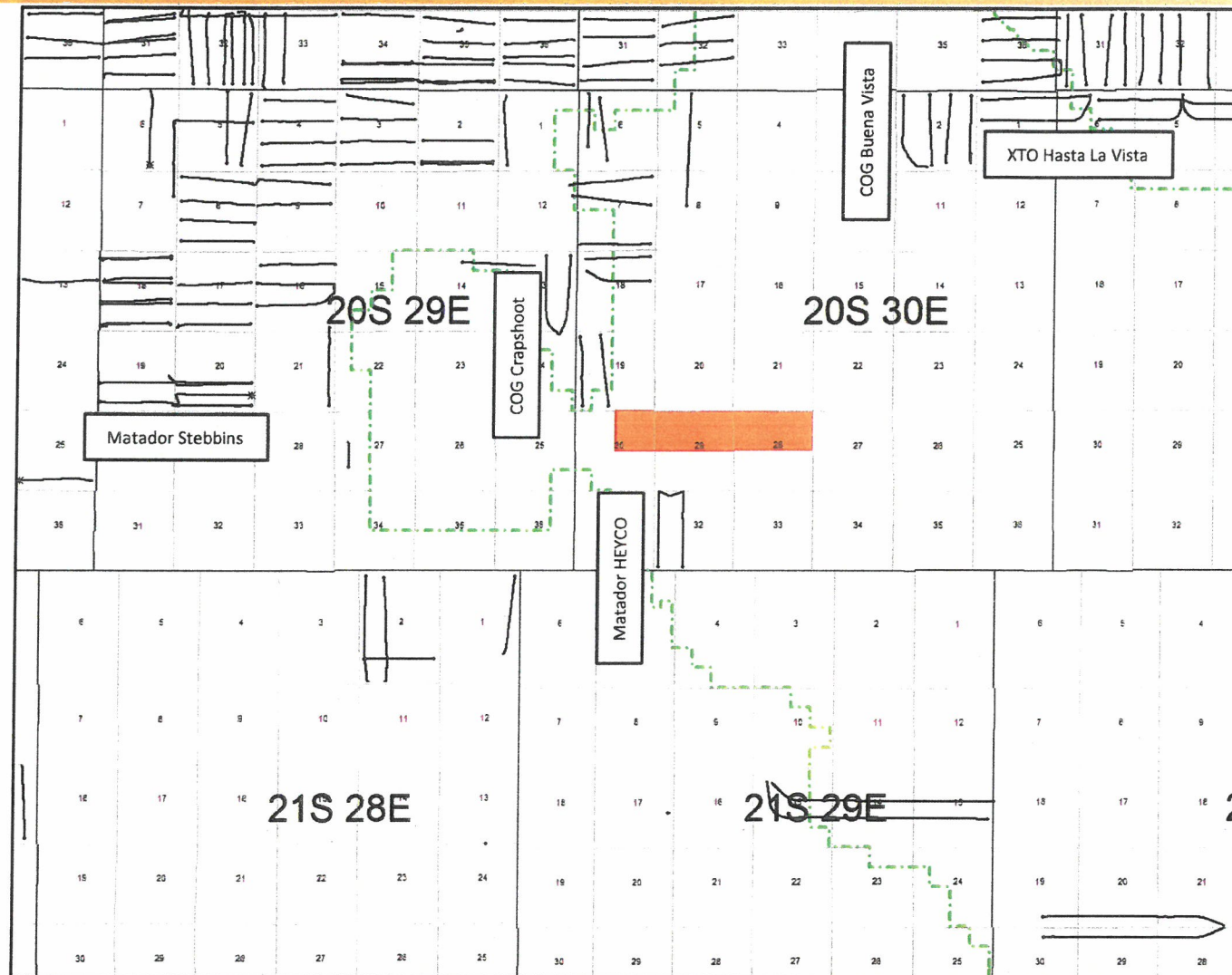
● Strawn

★ Golden Lane State 1Y



Apache

SURROUNDING DELAWARE/BONE SPRING/ WOLFCAMP HORIZONTAL WELLS



Total Horizontal Wells = 135

- N-S Orientation = 40 (30%)
- E-W Orientation = 95 (70%)
- Delaware Horizontal = 3
- Bone Spring Horizontal = 130
- Wolfcamp Horizontal = 1
- Penn Horizontal = 1

 Taco Development Area

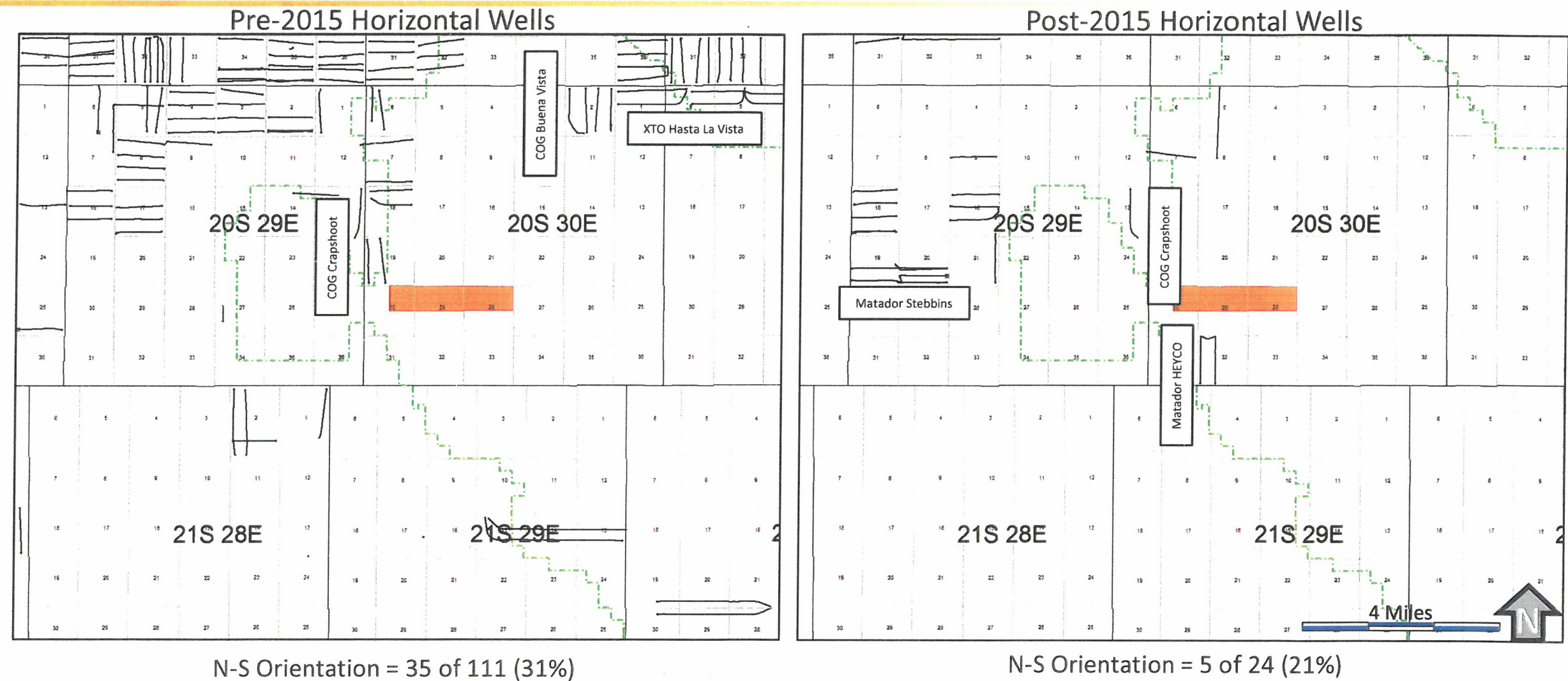
 Potash Boundary

 Horizontal Well

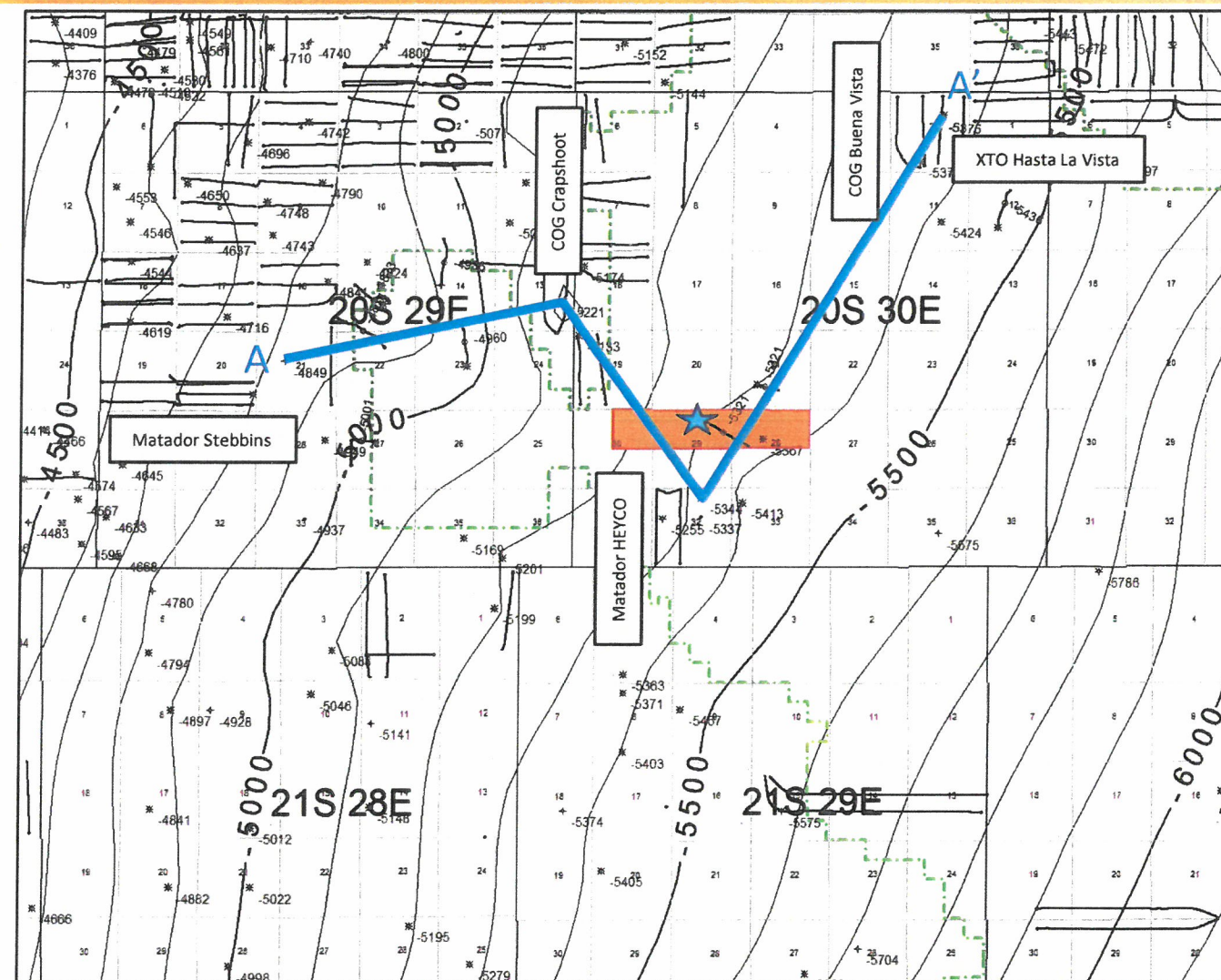
Apache

2

PRE-2015 VERSUS POST-2015 HORIZONTAL WELLS



TOP 3RD BONE SPRING CARB STRUCTURE (SSTVD)



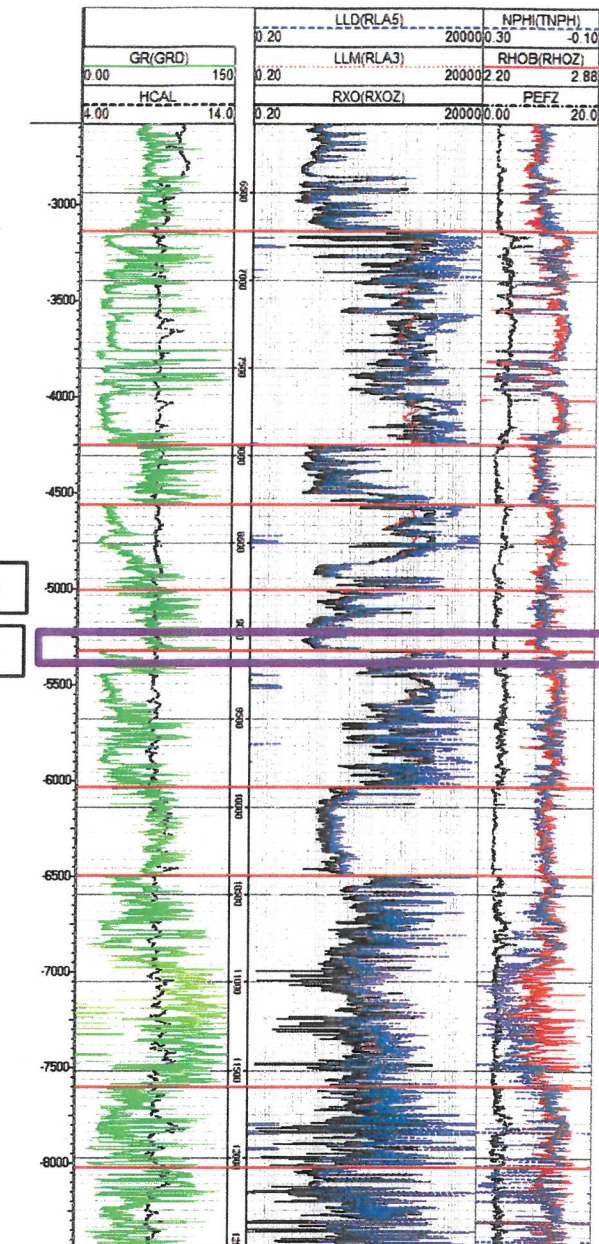
Contour Interval = 100'

* -5076 SSTVD Value
 Cross-Section Location

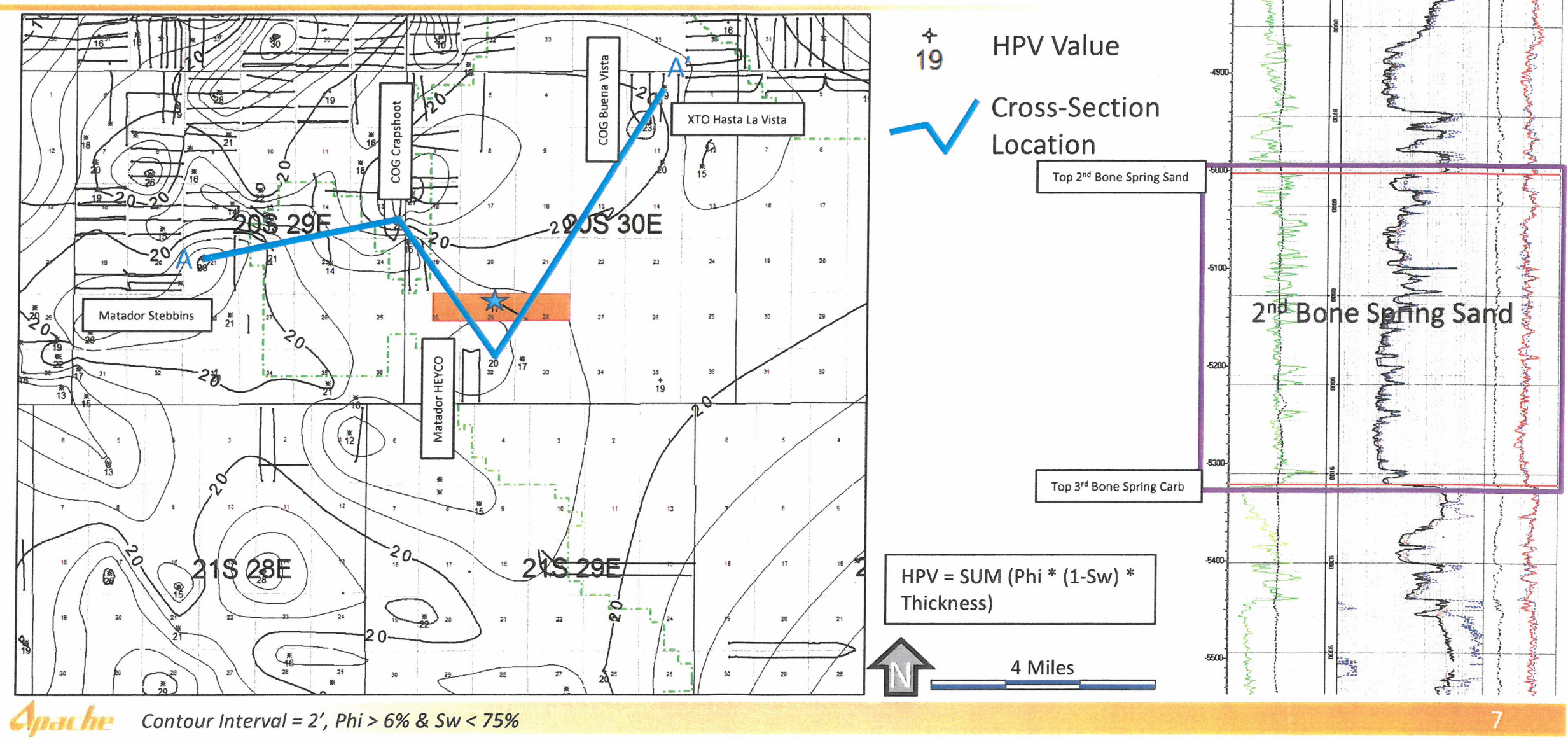
Top 2nd Bone Spring Sand
 Top 3rd Bone Spring Carb



★ Golden Lane State 1Y



2ND BONE SPRING SAND HYDROCARBON PORE VOLUME (HPV FT)



The Apache logo is located in the top left corner. It features the word "Apache" in a stylized, italicized font. The letter "A" is orange, while the letters "pache" are white. The background of the entire slide is a photograph of an oil field at sunset, with a worker in silhouette in the foreground and drilling rigs in the distance.

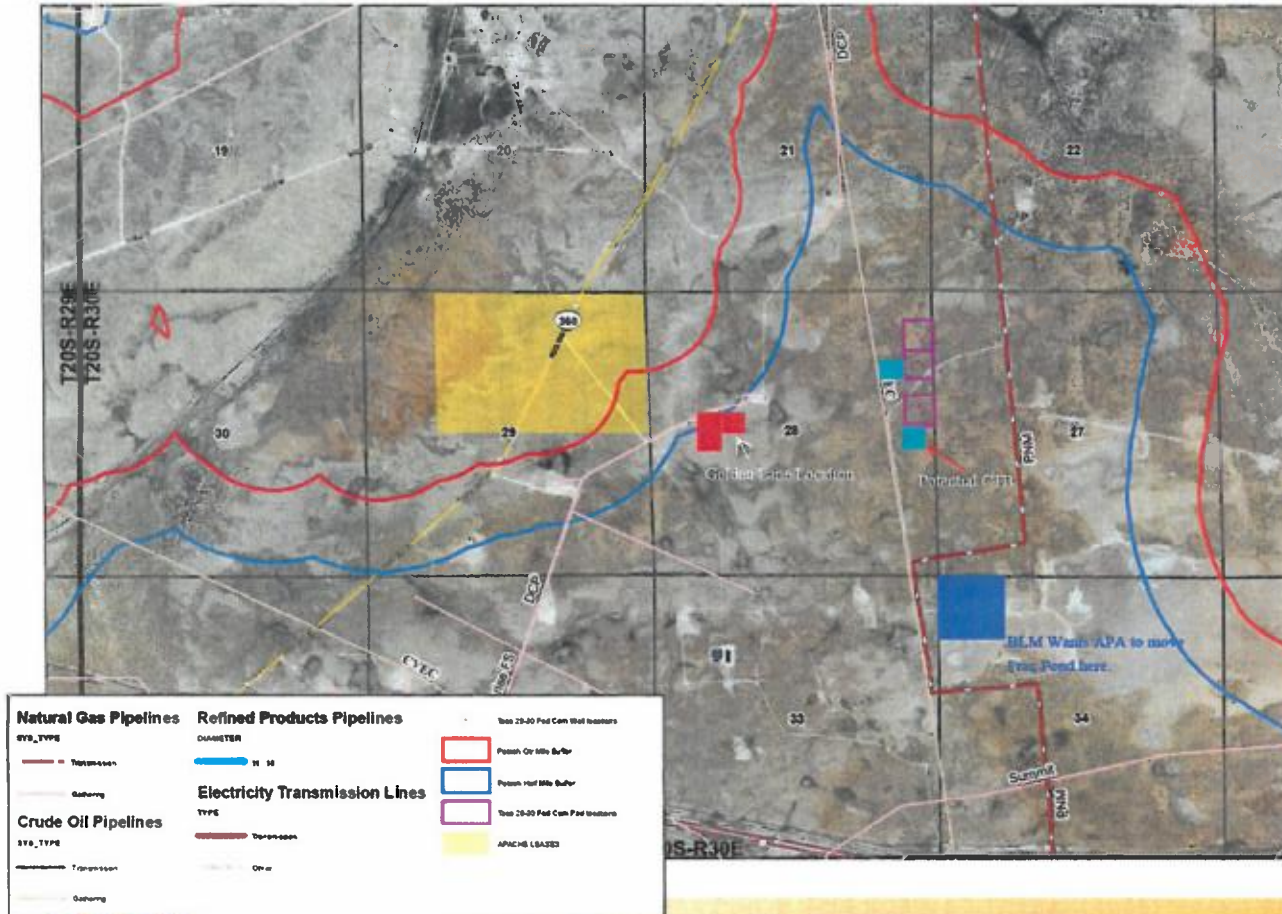
Apache

August 20, 2019

TACO HEARING

NEW MEXICO DELAWARE BASIN TEAM – ENGINEERING EXHIBITS

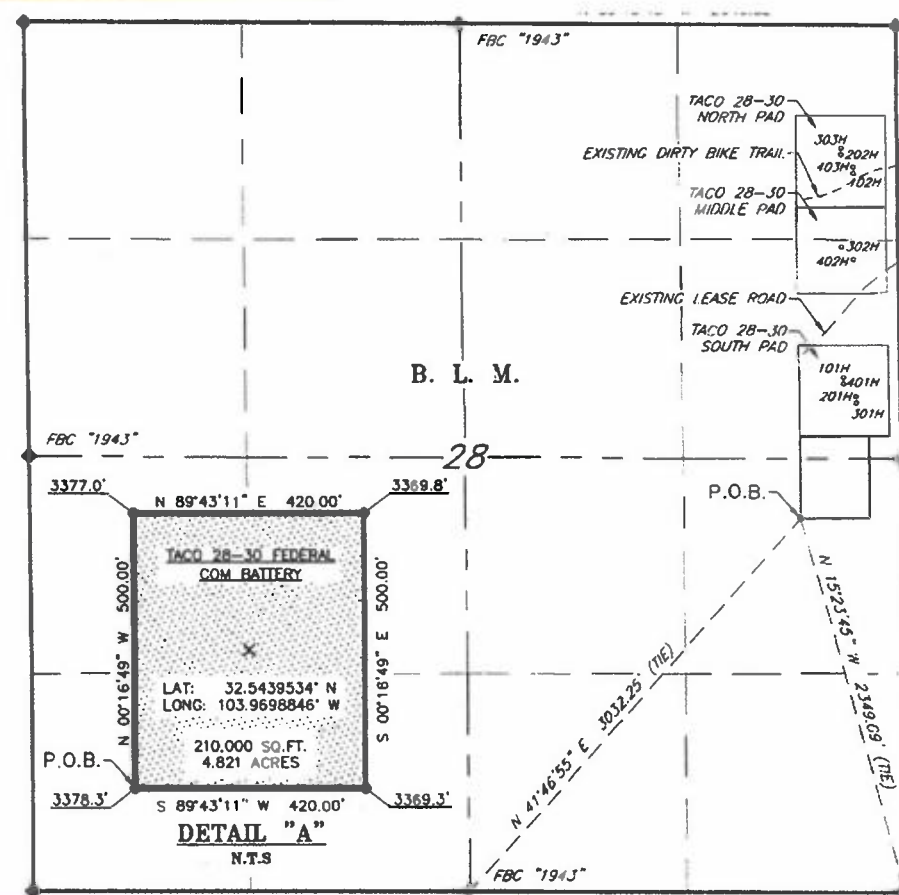
BRECCIA HAMMER DRILL ISLANDS VS GOLDEN LANE WELLSITE



- ▶ Golden Lane location on the border of the Potash half mile buffer
- ▶ Apache initially tried to fit drill pad & facility next to existing Golden Land well
 - ▶ BLM advised that Apache might have to move their battery in the future if another operator needs that for drilling
 - ▶ Ascent's proposals would cross Apache's wellbore trajectories resulting in severe collision risk
 - ▶ Apache's well pads would not be expandable to accommodate any additional future landing zones
- ▶ BLM cleared corridor for 27/28 section line development and recommended APA use Breccia Hammer drill islands
- ▶ Allows space for 3 pads to drill at least 10 wells in N/2 of sections 28, 29, and E/2 30 at correct azimuth

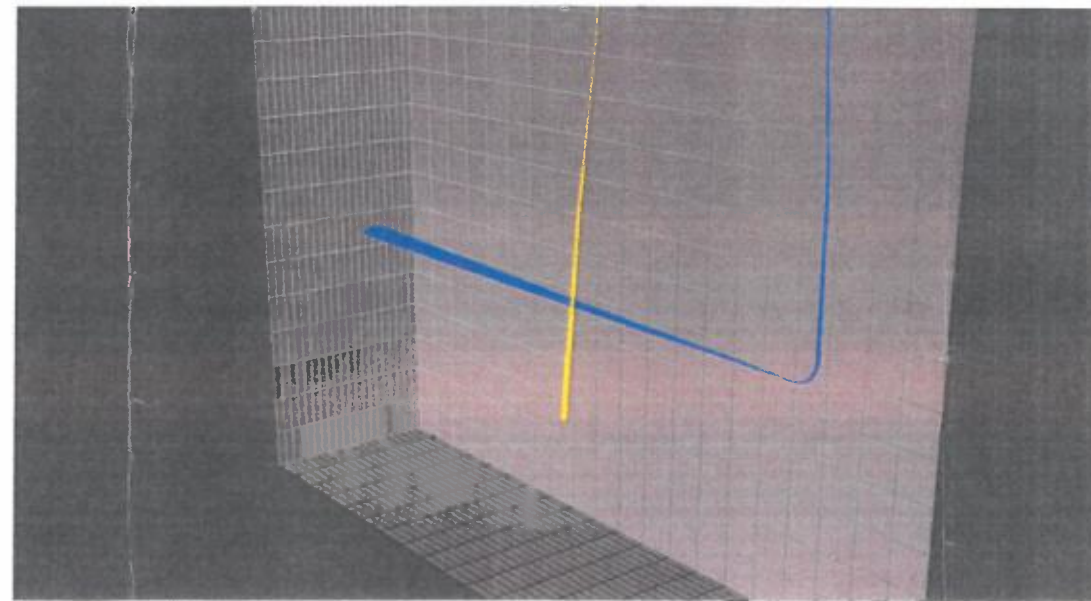
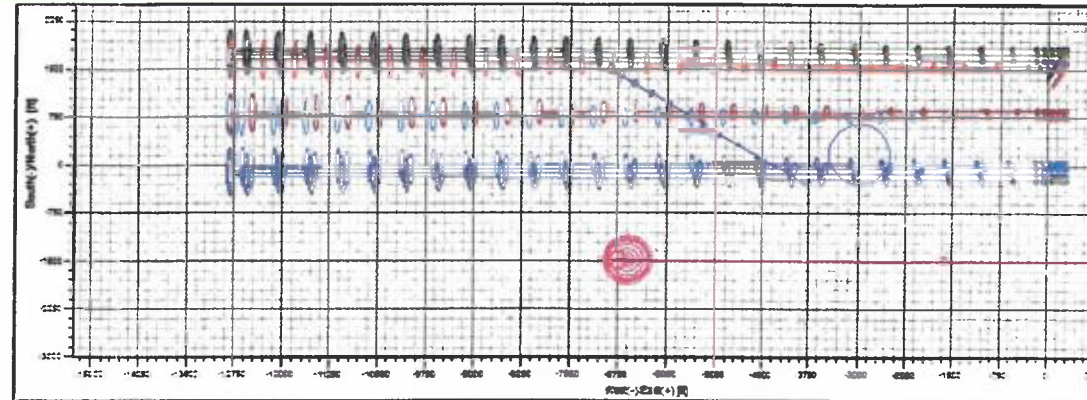
APACHE DEVELOPMENT PLANS

- ▶ 4 Landing Zones Planned
 - ▶ 1st Bone Spring Sand
 - ▶ 2nd Bone Spring Sand (first target)
 - ▶ 3rd Bone Spring Sand
 - ▶ Wolfcamp A
- ▶ 1 central tank battery with expandability if necessary
- ▶ 2 drilling rows with 75' separation to allow for sim-ops on first 2 landing zones
 - ▶ Existing wells can produce while the other wells are drilling/completing
 - ▶ Design has ability to add additional wells without increasing footprint
 - ▶ Apache testing subsurface wellheads at other developments to allow for sim-ops during all phases of development

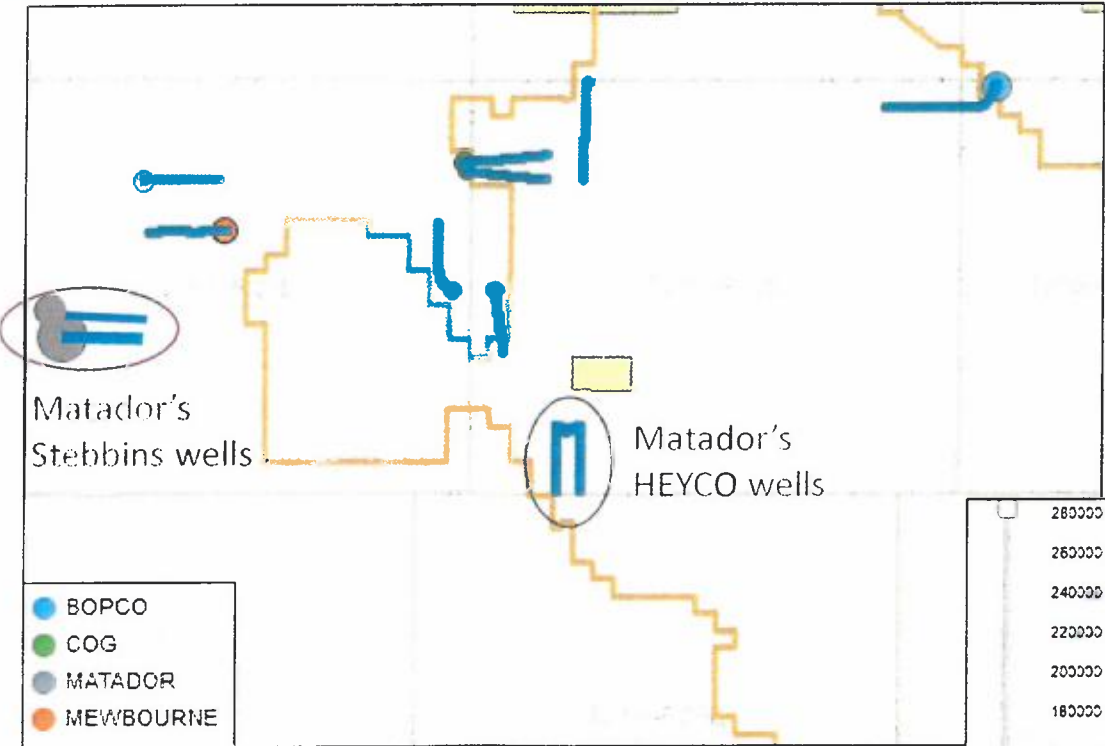


APACHE DEVELOPMENT PLANS

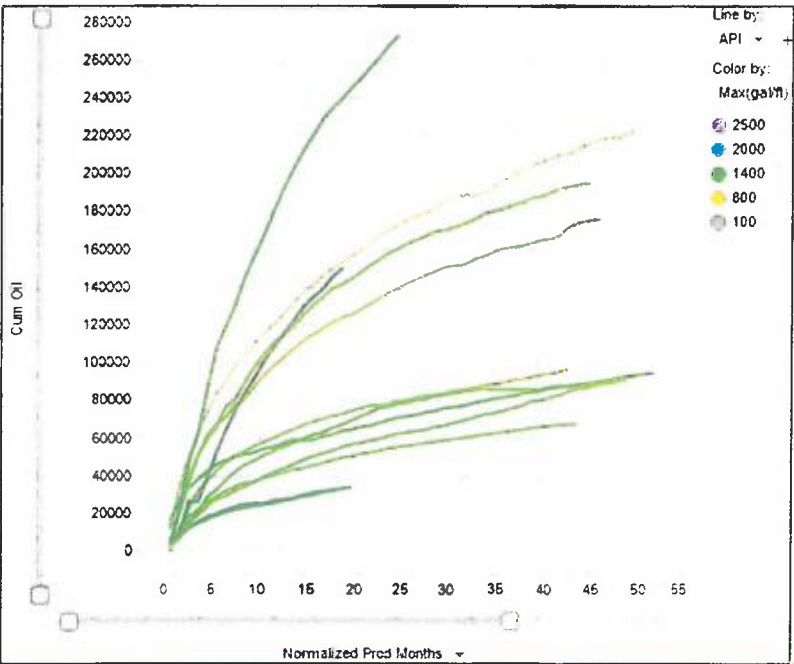
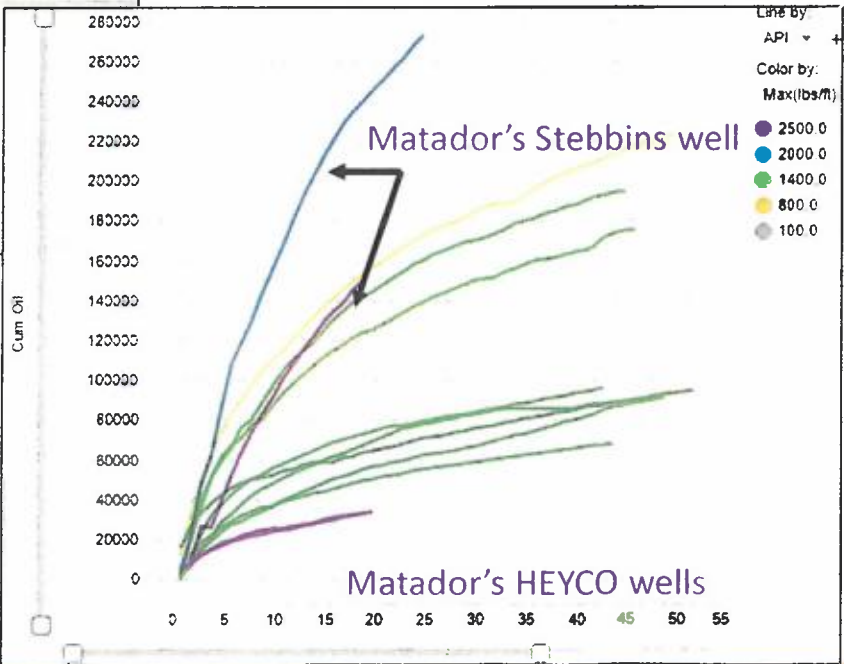
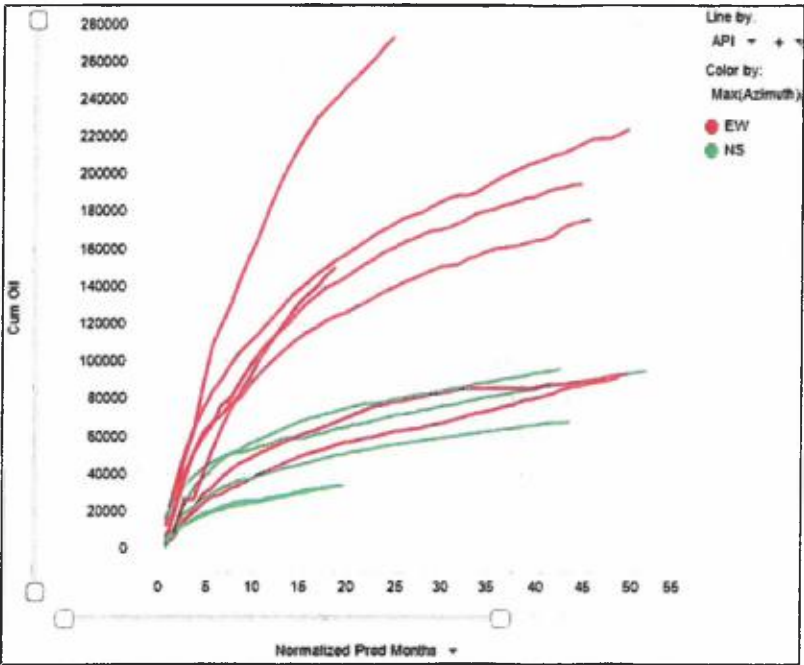
- ▶ Timing & Aptitude:
 - ▶ Apache is running 2 rigs in New Mexico currently with plans to have 2-3 rigs in the area for the next 3+ years
 - ▶ Apache has drilled over 2700 horizontal wells in the Permian Basin
 - ▶ Apache has drilled 11 extended reach horizontal NM Delaware Basin wells in the past 2 years (no sidetracks, all in zone)
- ▶ Apache has done all the requirements to submit federal permits
 - ▶ Staked wells, reviewed plats
 - ▶ Completed geo-progs, directional plans (steering around existing Morrow wells) for 10 wells at Taco
 - ▶ Reviewed all plans to make sure they meet or exceed environmental/regulatory requirements
- ▶ Apache has sent well proposals and corresponded with potential partners and offset operators (Oxy, XTO, Matador, Mewbourne, Hudson) for collaboration
- ▶ Apache has already discussed SWD options with Solaris to minimize trucking and sharing a frac pond with XTO to minimize surface footprint



2ND BONE SPRING SAND EFFECTS OF AZIMUTH



- ▶ 2015 – 2018
- ▶ More modern completions
- ▶ Mixed azimuth
- ▶ Best wells (EW) bracket acreage



- ▶ Best wells are EW, and poorest are NS
- ▶ Matador's HEYCO wells have highest prop/ft, but are the worst wells

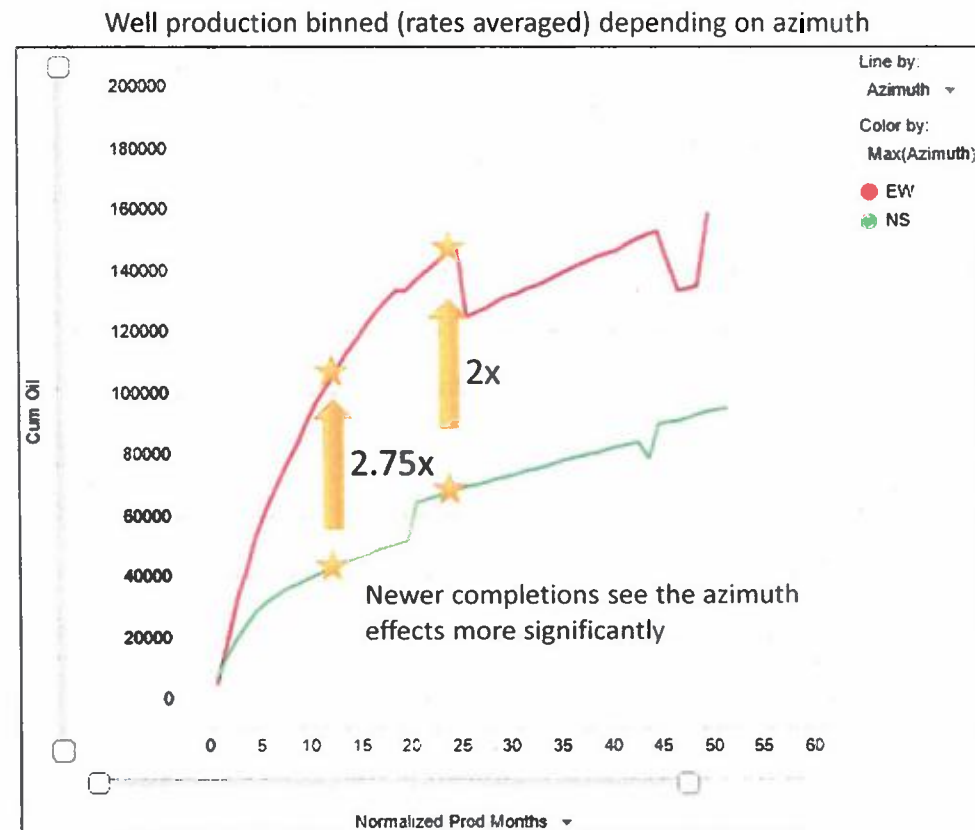


All production normalized to 4500'

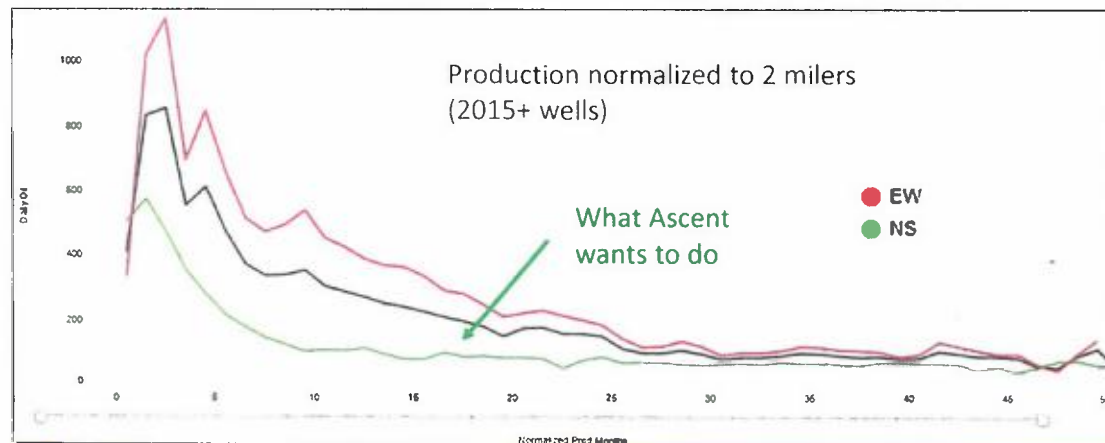
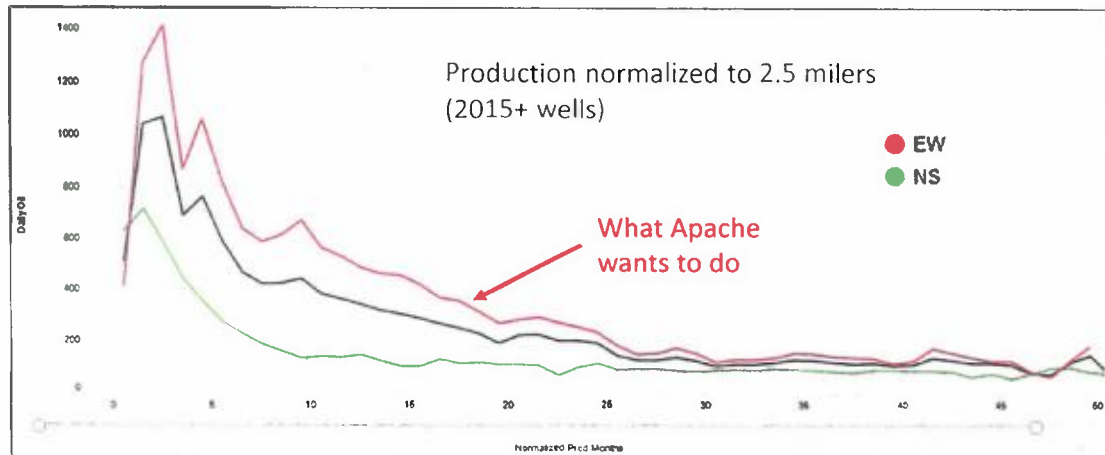
E-4

2ND BONE SPRING SAND EFFECTS OF AZIMUTH

- ▶ Clear trend in outperformance of wells drilled EW vs NS
 - ▶ 12 month cum: 2.75x
 - ▶ 2 yr cum: 2x
- ▶ Rule of thumb: EUR is ~3x first year's cum
 - ▶ 2x reserves exploited by drilling the correct azimuth
 - ▶ 2x revenue from royalty



POTENTIAL ECONOMIC INFLUENCE



- ▶ Apache 2.5 mile E/W wells
 - ▶ IP: 1400 bopd
 - ▶ EUR: 917 MBO
- ▶ Ascent 2 mile N/S wells
 - ▶ IP: 550 bopd
 - ▶ EUR: 267 MBO



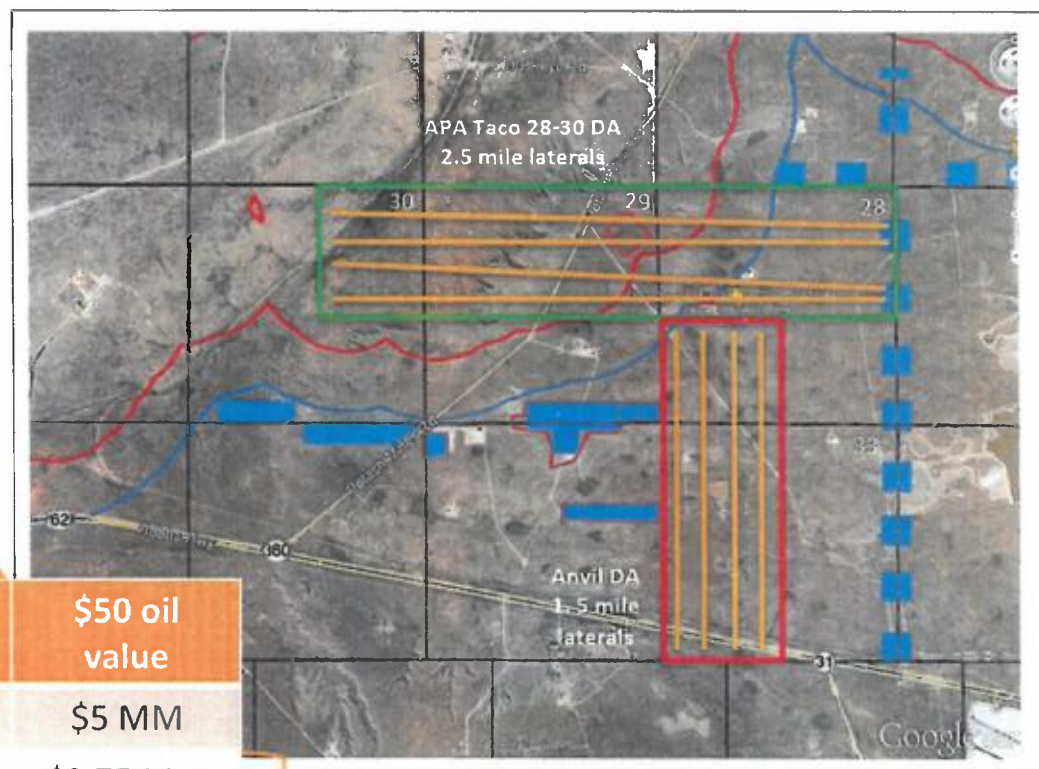
APA Drains: 183 MBO
Ascent Drains: 67 MBO

116 MBO left behind

**\$50 oil, 12.5% royalty
= \$870,000/well**

BEST VALUE FOR EVERYONE

- ▶ Apache drill 2.5 mile E/W wells
 - ▶ Optimal azimuth
- ▶ Ascent participate in N/2 28
 - ▶ Increase reserves & revenue 270% in 160 acres
- ▶ Ascent will have higher value and more reserves by participating in E/W wells



Per Well

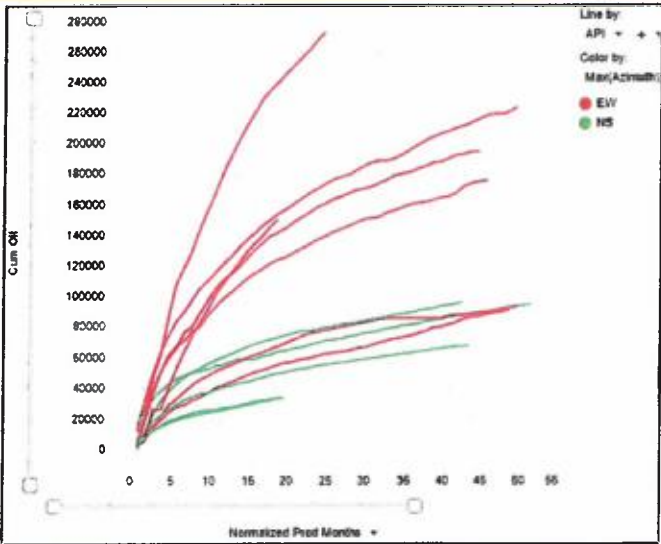
	*Ascent WI/NRI	Gross EUR	Net Reserves	\$50 oil value
2 Mile N/S	50 / 37.5	267 MBO	100 MBO	\$5 MM
1.5 Mile N/S	50 / 37.5	200 MBO	75 MBO	\$3.75 MM
2.5 Mile E/W	10 / 7.5	917 MBO	68.8 MBO	\$3.44 MM

\$7.2 MM vs \$5 MM

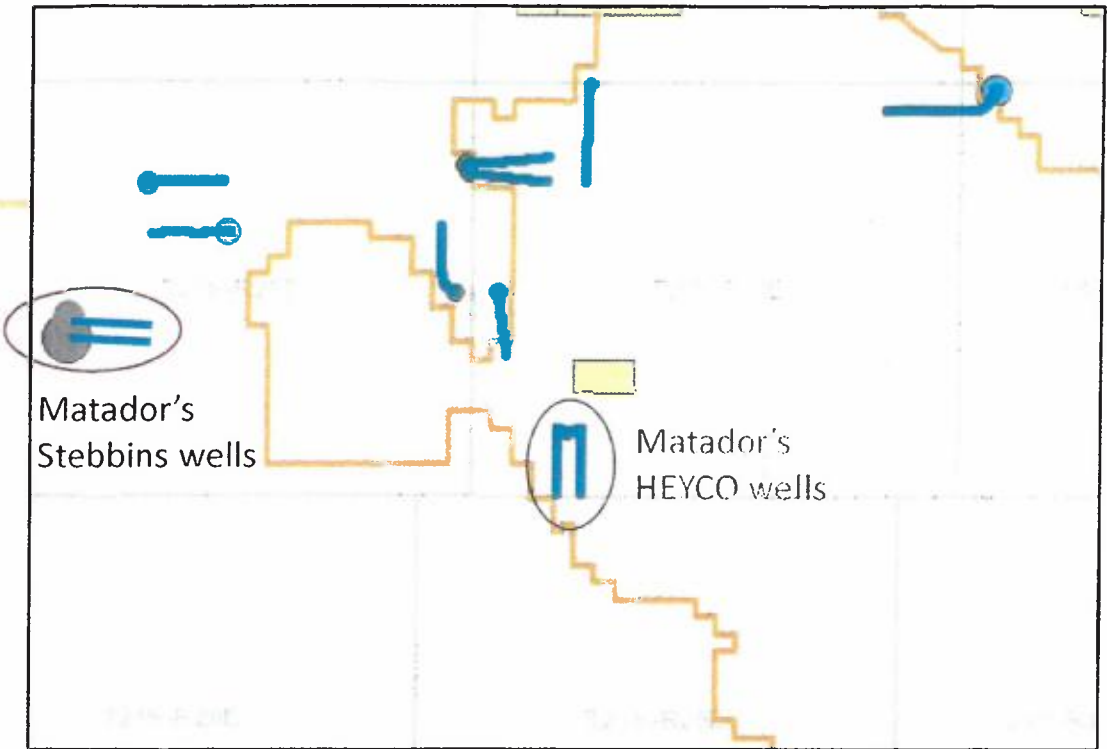
*WI/NRI assumed for comparison purposes

E-7

2ND BONE SPRING
2015+ COMPLETION WELL LIST



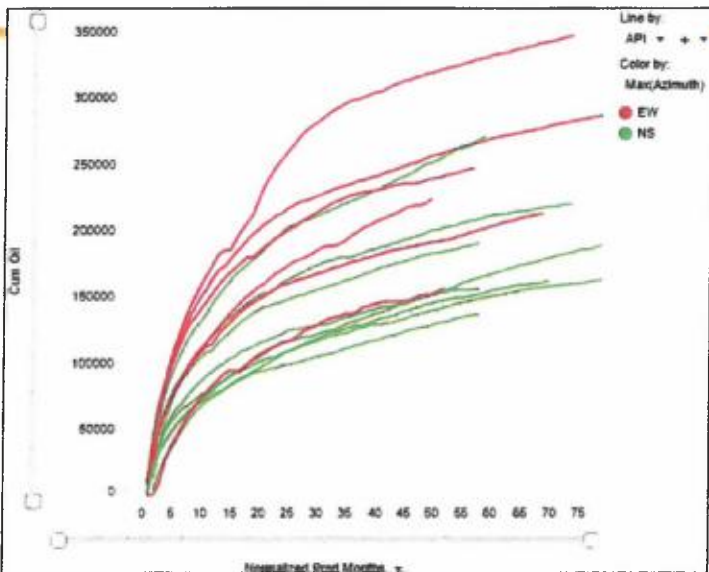
- ▶ E/W: 7 wells
 - ▶ Avg: 1661 lbs/ft, 1247 gal/ft
- ▶ N/S: 5 wells
 - ▶ Avg: 2101 lbs/ft, 1390 gal/ft
- ▶ Normalized to 4500' LL



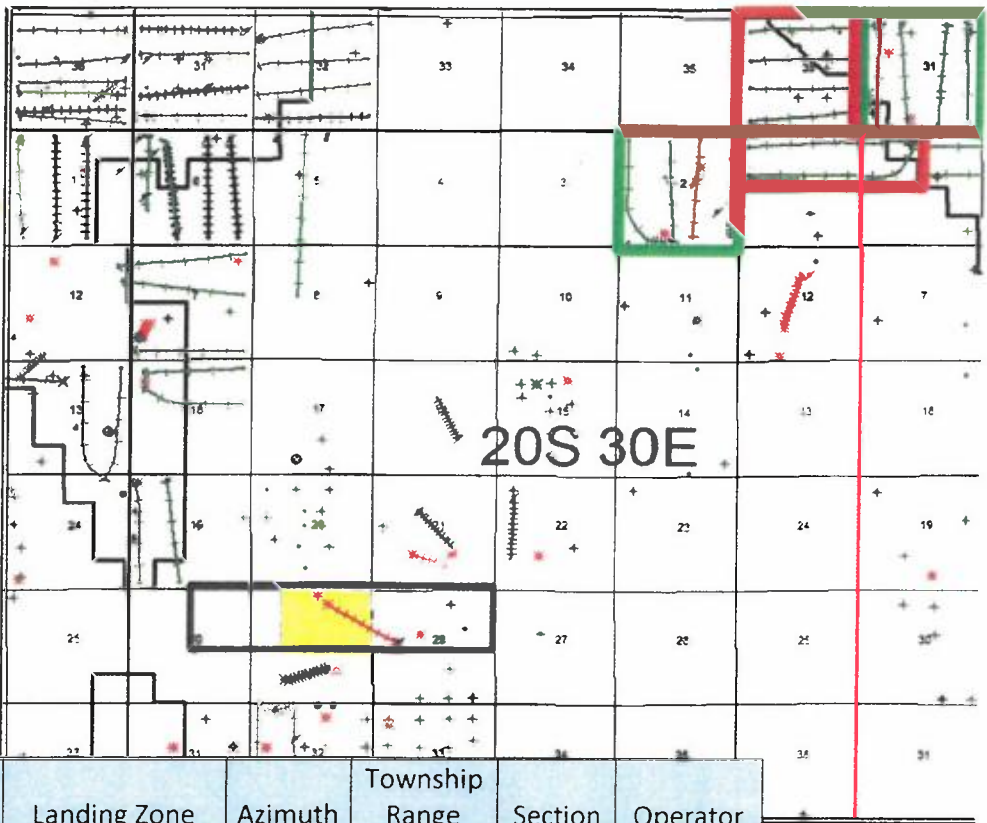
Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
DARTHROW STATE 4H	30015427190000	1/1/2015	3996	6334000	130795	PERF	1585	1375	8423	2nd BS Sand	NS	20S 30E	19	CONCHO
HASTA LA VISTA 1 DI FED COM 2Y	30015427050000	2/1/2015	7060	5024000	76221	PERF	712	453	8751	2nd BS Sand	EW	20S 31E	1	BOPCO
MOSSY FEDERAL 2H	30015427360000	3/1/2015	4462	6759772	141300	PERF	1515	1330	8439	2nd BS Sand	EW	20S 29E	7	CONCHO
MOSSY FEDERAL 1H	30015427350000	4/1/2015	4413	6750767	136558	PERF	1530	1300	8407	2nd BS Sand	EW	20S 29E	7	CONCHO
GLOCK 16 B2AD FEDERAL 1H	30015429910000	7/1/2015	4430	6316000	130467	PERF	1426	1237	7916	2nd BS Sand	EW	20S 29E	16	MEWBOURNE
PERAZZI 9 B2EH FEDERAL 1H	30015429700000	8/1/2015	4280	6306000	131179	PERF	1473	1287	7972	2nd BS Sand	EW	20S 29E	9	MEWBOURNE
SOLUTION FEDERAL COM 3H	30015432270000	9/1/2015	6966	10379466	208292	PERF	1490	1256	8428	2nd BS Sand	NS	20S 30E	5	CONCHO
CRAPSHOOT 13 FEDERAL COM 2H	30015431580000	10/1/2015	4555	6765597	135181	PERF	1485	1246	8411	2nd BS Sand	NS	20S 29E	13	CONCHO
STEBBINS 20 FEDERAL 123H	30015432010100	4/1/2017	4310	8572000	153169	PERF	1989	1493	8000	2nd BS Sand	EW	20S 29E	20	MATADOR
HEYCO STATE 121H	30015440830000	9/1/2017	4402	13150000	160000	PERF	2987	1527	8639	2nd BS Sand	NS	20S 30E	32	MATADOR
HEYCO STATE 122H	30015440990000	9/1/2017	4300	12722000	158227	PERF	2959	1545	8615	2nd BS Sand	NS	20S 30E	32	MATADOR
STEBBINS 20 FEDERAL 124H	30015441850000	10/1/2017	4300	12830000	166462	PERF	2984	1626	8006	2nd BS Sand	EW	20S 29E	20	MATADOR

} Closest modern fracs

AZIMUTH EXAMPLE 1



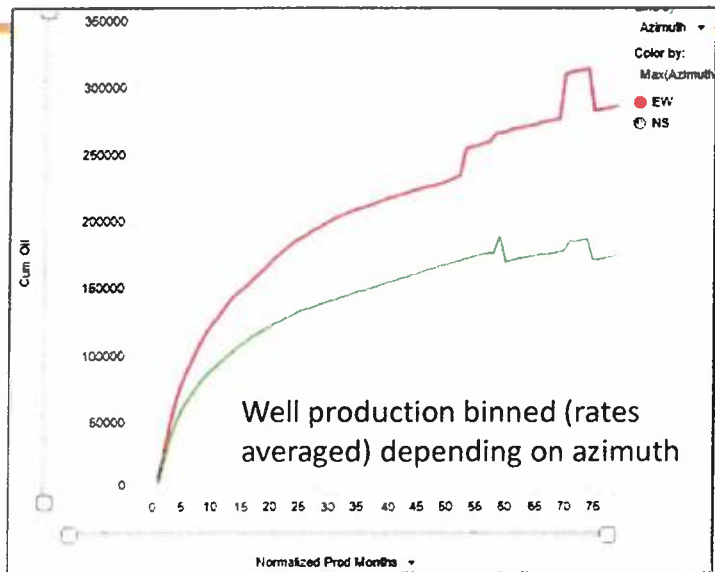
- ▶ E/W: 6 wells
 - ▶ 1 larger completion
- ▶ N/S: 8 wells
 - ▶ 3 larger completions
- ▶ Normalized to 4500' LL



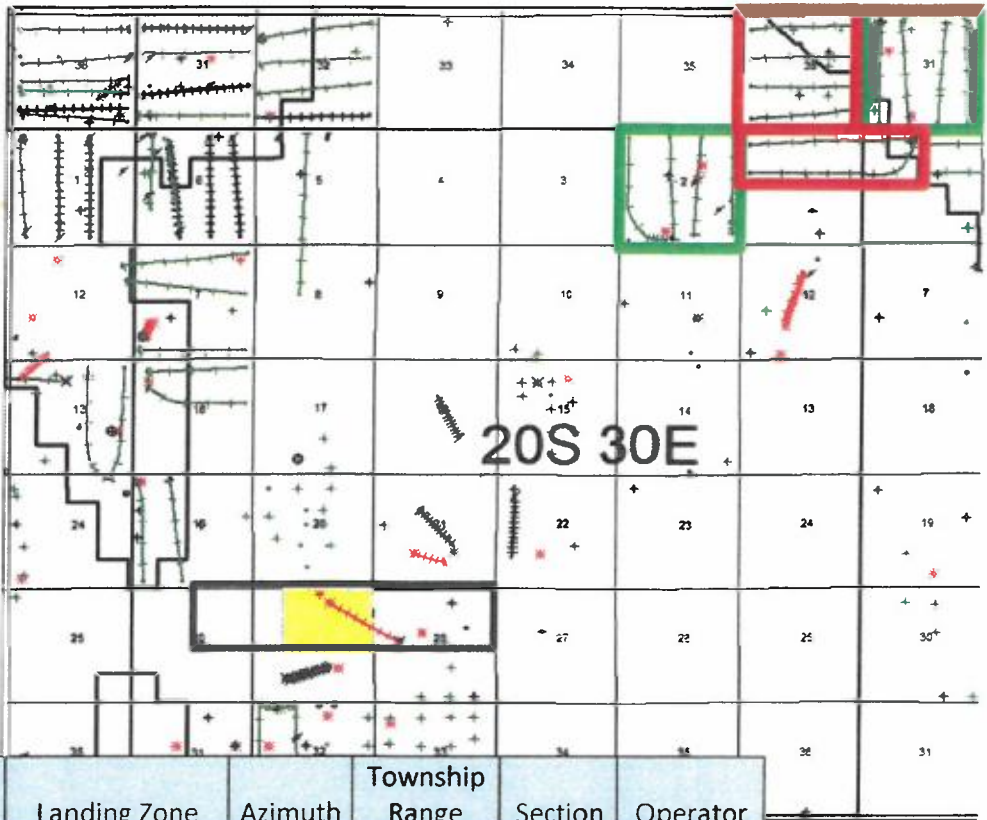
Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
MARAUDER FEDERAL 1H	30015382440100	1/1/2011	4181	2942000	60143	PERF	704	604	8791	2nd BS Sand	NS	19S 31E	31	COG
BUENA VISTA 2 STATE COM 3H	30015392450000	10/1/2011	4249	3024000	58098	PERF	712	574	8509	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 2H	30015402530000	10/1/2012	4560	3376000	69975	PERF	740	645	8754	2nd BS Sand	EW	19S 30E	36	COG
SALADA VISTA 36 STATE 4H	30015409330000	3/1/2013	4390	6942000	105182	PERF	1581	1006	8758	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 1H	30015407890000	3/1/2013	4068	3016000	58079	PERF	741	600	8601	2nd BS Sand	NS	20S 30E	2	COG
BUENA VISTA 2 STATE COM 2H	30015412900000	7/1/2013	4012	3054000	56482	PERF	761	591	8512	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 3H	30015411570000	8/1/2013	4538	3422000	63771	PERF	754	590	8753	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 4H	30015418290000	6/1/2014	4248	6018000	111044	PERF	1417	1098	8532	2nd BS Sand	NS	20S 30E	2	COG
MARAUDER 31 FEDERAL 2H	30015418100000	7/1/2014	4175	6385494	131497	PERF	1529	1323	8954	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 3H	30015415690000	7/1/2014	4087	6227755	127152	PERF	1524	1307	8901	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 4H	30015418110000	7/1/2014	4160	4060965	83650	PERF	976	845	8808	2nd BS Sand	NS	19S 31E	31	COG
SALADA VISTA 36 STATE 5H	30015418300000	8/1/2014	4482	3258000	63912	PERF	727	599	8738	2nd BS Sand	EW	19S 30E	36	COG
HASTA LA VISTA 1 DI FED COM 1H	30015425330000	12/1/2014	7540	5028000	71141	PERF	667	396	8787	2nd BS Sand	EW	20S 31E	1	BOPCO
HASTA LA VISTA 1 DI FED COM 2Y	30015427050000	2/1/2015	7060	5024000	76221	PERF	712	453	8751	2nd BS Sand	EW	20S 31E	1	BOPCO

E-10

AZIMUTH EXAMPLE 1



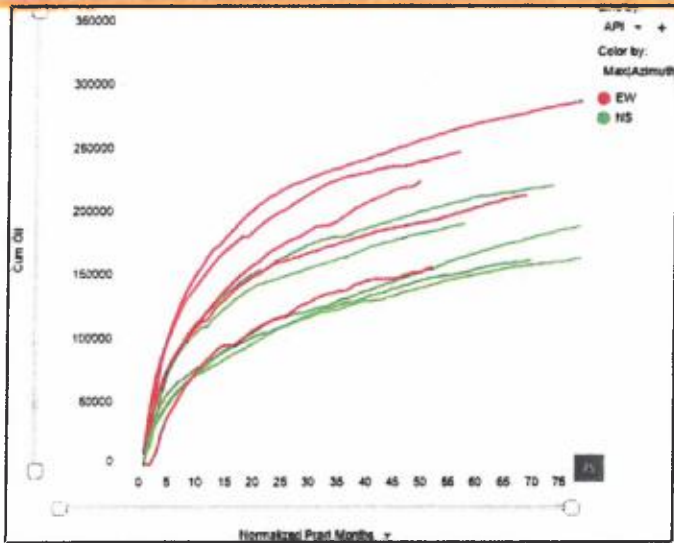
- ▶ E/W: 6 wells
 - ▶ 1 larger completion
- ▶ N/S: 8 wells
 - ▶ 3 larger completions
- ▶ Normalized to 4500' LL



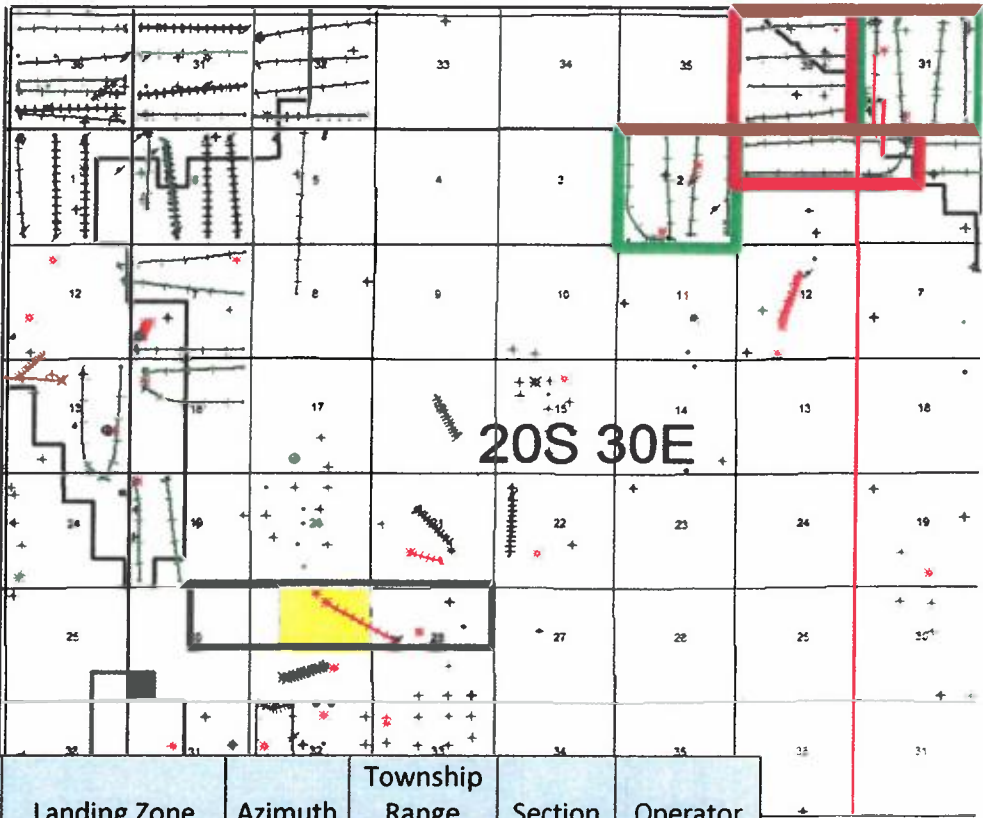
Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
MARAUDER FEDERAL 1H	30015382440100	1/1/2011	4181	2942000	60143	PERF	704	604	8791	2nd BS Sand	NS	19S 31E	31	COG
BUENA VISTA 2 STATE COM 3H	30015392450000	10/1/2011	4249	3024000	58098	PERF	712	574	8509	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 2H	30015402530000	10/1/2012	4560	3376000	69975	PERF	740	645	8754	2nd BS Sand	EW	19S 30E	36	COG
SALADA VISTA 36 STATE 4H	30015409330000	3/1/2013	4390	6942000	105182	PERF	1581	1006	8758	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 1H	30015407890000	3/1/2013	4068	3016000	58079	PERF	741	600	8601	2nd BS Sand	NS	20S 30E	2	COG
BUENA VISTA 2 STATE COM 2H	30015412900000	7/1/2013	4012	3054000	56482	PERF	761	591	8512	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 3H	30015411570000	8/1/2013	4538	3422000	63771	PERF	754	590	8753	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 4H	30015418290000	6/1/2014	4248	6018000	111044	PERF	1417	1098	8532	2nd BS Sand	NS	20S 30E	2	COG
MARAUDER 31 FEDERAL 2H	30015418100000	7/1/2014	4175	6385494	131497	PERF	1529	1323	8954	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 3H	30015415690000	7/1/2014	4087	6227755	127152	PERF	1524	1307	8901	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 4H	30015418110000	7/1/2014	4160	4060965	83650	PERF	976	845	8808	2nd BS Sand	NS	19S 31E	31	COG
SALADA VISTA 36 STATE 5H	30015418300000	8/1/2014	4482	3258000	63912	PERF	727	599	8738	2nd BS Sand	EW	19S 30E	36	COG
HASTA LA VISTA 1 DI FED COM 1H	30015425330000	12/1/2014	7540	5028000	71141	PERF	667	396	8787	2nd BS Sand	EW	20S 31E	1	BOPCO
HASTA LA VISTA 1 DI FED COM 2Y	30015427050000	2/1/2015	7060	5024000	76221	PERF	712	453	8751	2nd BS Sand	EW	20S 31E	1	BOPCO

E-11

AZIMUTH EXAMPLE 1



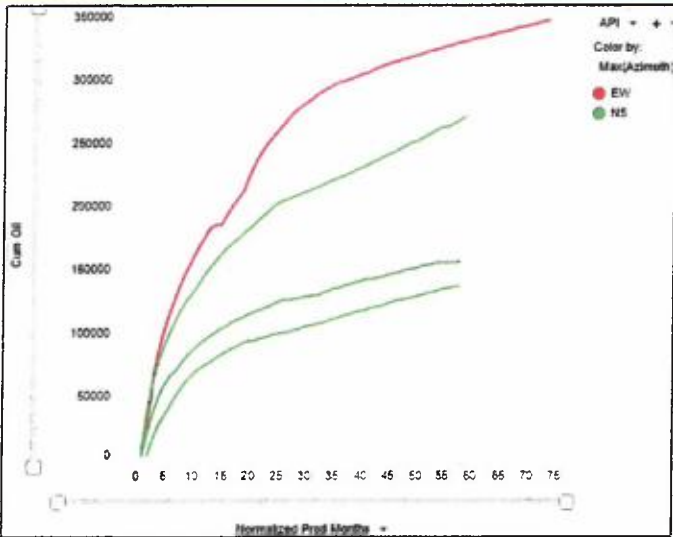
- ▶ Smaller completions only
- ▶ E/W: 5 wells
 - ▶ Avg 720 lbs/ft, 537 gal/ft
- ▶ N/S: 5 wells
 - ▶ Avg 779 lbs/ft, 643 gal/ft
- ▶ Normalized to 4500' LL



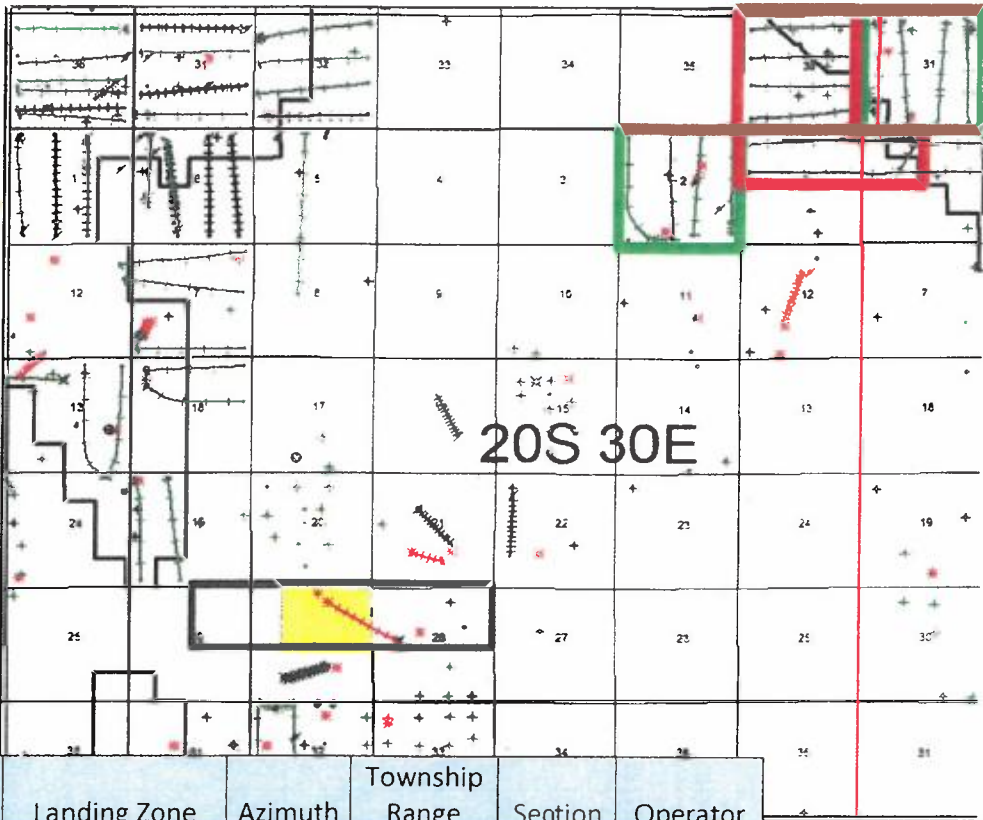
Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
MARAUDER FEDERAL 1H	30015382440100	1/1/2011	4181	2942000	60143	PERF	704	604	8791	2nd BS Sand	NS	19S 31E	31	COG
BUENA VISTA 2 STATE COM 3H	30015392450000	10/1/2011	4249	3024000	58098	PERF	712	574	8509	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 2H	30015402530000	10/1/2012	4560	3376000	69975	PERF	740	645	8754	2nd BS Sand	EW	19S 30E	36	COG
SALADA VISTA 36 STATE 4H	30015409330000	3/1/2013	4390	6942000	105182	PERF	1501	1006	8758	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 1H	30015407890000	3/1/2013	4068	3016000	58079	PERF	741	600	8601	2nd BS Sand	NS	20S 30E	2	COG
BUENA VISTA 2 STATE COM 2H	30015412900000	7/1/2013	4012	3054000	56482	PERF	761	591	8512	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 3H	30015411570000	8/1/2013	4538	3422000	63771	PERF	754	590	8753	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 4H	30015418290000	6/1/2014	4248	6018000	111044	PERF	1417	1038	8532	2nd BS Sand	NS	20S 30E	2	COG
MARAUDER 31 FEDERAL 2H	30015418100000	7/1/2014	4175	6385434	131497	PERF	1529	1323	8954	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 3H	30015415690000	7/1/2014	4087	6227753	127132	PERF	1324	1307	8901	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 4H	30015418110000	7/1/2014	4160	4060965	83650	PERF	976	845	8808	2nd BS Sand	NS	19S 31E	31	COG
SALADA VISTA 36 STATE 5H	30015418300000	8/1/2014	4482	3258000	63912	PERF	727	599	8738	2nd BS Sand	EW	19S 30E	36	COG
HASTA LA VISTA 1 DI FED COM 1H	30015425330000	12/1/2014	7540	5028000	71141	PERF	667	396	8787	2nd BS Sand	EW	20S 31E	1	BOPCO
HASTA LA VISTA 1 DI FED COM 2Y	30015427050000	2/1/2015	7060	5024000	76221	PERF	712	453	8751	2nd BS Sand	EW	20S 31E	1	BOPCO

E-12

AZIMUTH EXAMPLE 1



- ▶ Larger completions only
- ▶ E/W: 1 wells
 - ▶ 1581 lbs/ft, 1006 gal/ft
- ▶ N/S: 3 wells
 - ▶ Avg 1490 lbs/ft, 1242 gal/ft
- ▶ Normalized to 4500' LL

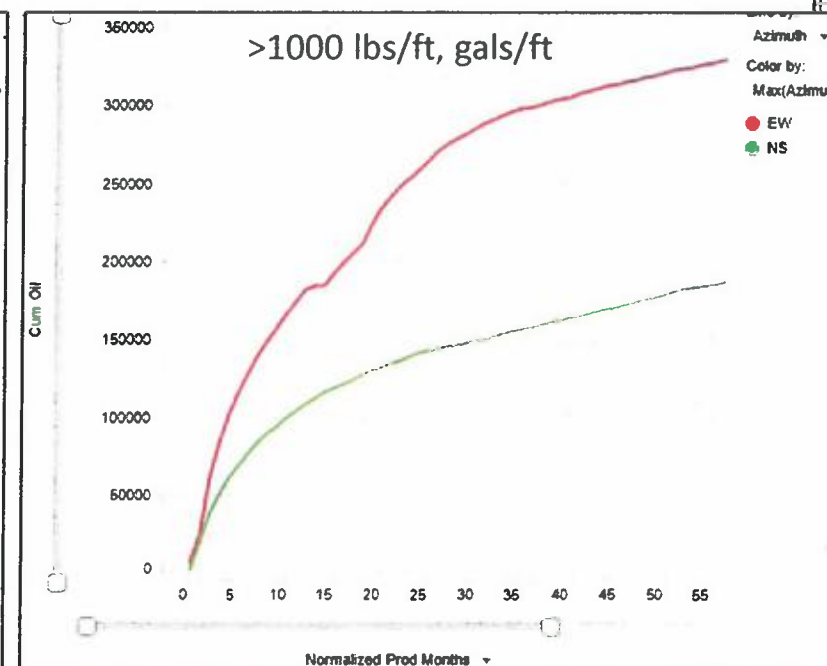
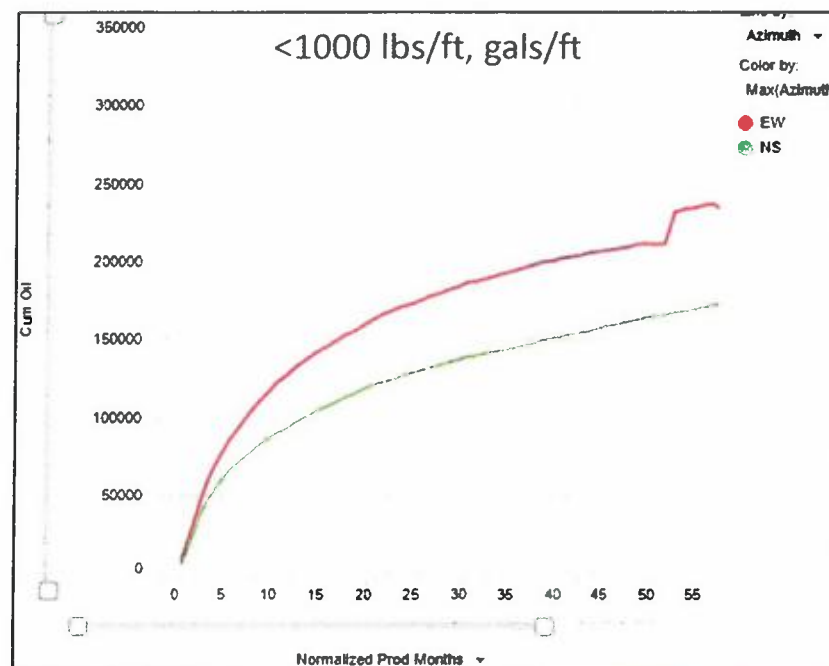


Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
MARAUDER FEDERAL 1H	30015382440100	1/1/2011	4181	2942000	60143	PERF	784	604	8791	2nd BS Sand	NS	19S 31E	31	COG
BUENA VISTA 2 STATE COM 3H	30015392450000	10/1/2011	4249	3024000	58098	PERF	712	574	8509	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 2H	30015402350000	10/1/2012	4300	3376000	63573	PERF	740	643	8734	2nd BS Sand	EW	19S 30E	36	COG
SALADA VISTA 36 STATE 4H	30015409330000	3/1/2013	4390	6942000	105182	PERF	1581	1006	8758	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 1H	30015407830000	3/1/2013	4000	3016000	50079	PERF	741	600	8601	2nd BS Sand	NS	20S 30E	2	COG
BUENA VISTA 2 STATE COM 2H	30015412900000	7/1/2013	4012	3054000	56482	PERF	761	591	8512	2nd BS Sand	NS	20S 30E	2	COG
SALADA VISTA 36 STATE 3H	30015411570000	8/1/2013	4530	3422000	63771	PERF	754	590	8753	2nd BS Sand	EW	19S 30E	36	COG
BUENA VISTA 2 STATE 4H	30015418290000	6/1/2014	4248	6018000	111044	PERF	1417	1098	8532	2nd BS Sand	NS	20S 30E	2	COG
MARAUDER 31 FEDERAL 2H	30015418100000	7/1/2014	4175	6385494	131497	PERF	1529	1323	8954	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 3H	30015415690000	7/1/2014	4087	6227755	127152	PERF	1524	1307	8901	2nd BS Sand	NS	19S 31E	31	COG
MARAUDER 31 FEDERAL 4H	30015418110000	7/1/2014	4160	4060965	83650	PERF	978	845	8888	2nd BS Sand	NS	19S 31E	31	COG
SALADA VISTA 36 STATE 3H	30015418300000	8/1/2014	4482	3258000	63912	PERF	727	593	8736	2nd BS Sand	EW	19S 30E	36	COG
MASTA LA VISTA 1 DI FED COM 1H	30015425330000	12/1/2014	7548	3328000	71141	PERF	687	396	8787	2nd BS Sand	EW	20S 31E	1	BOPCO
MASTA LA VISTA 1 DI FED COM 2H	30015427050000	2/1/2015	7060	5024000	76221	PERF	712	453	8751	2nd BS Sand	EW	20S 31E	1	BOPCO

E-13

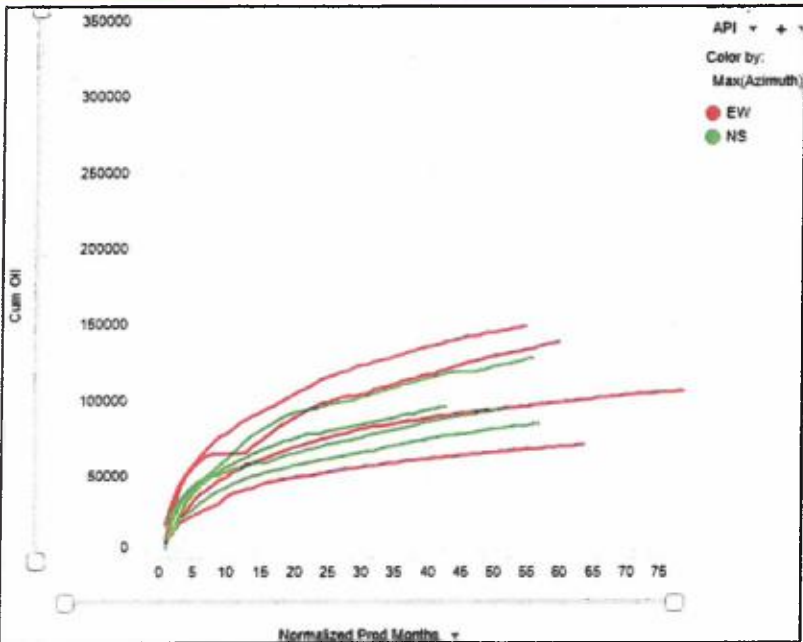
AZIMUTH EXAMPLE 1

- ▶ E/W wells with similar completions performed better than N/S wells
- ▶ As the completions improved (became larger), the delta in performance increases

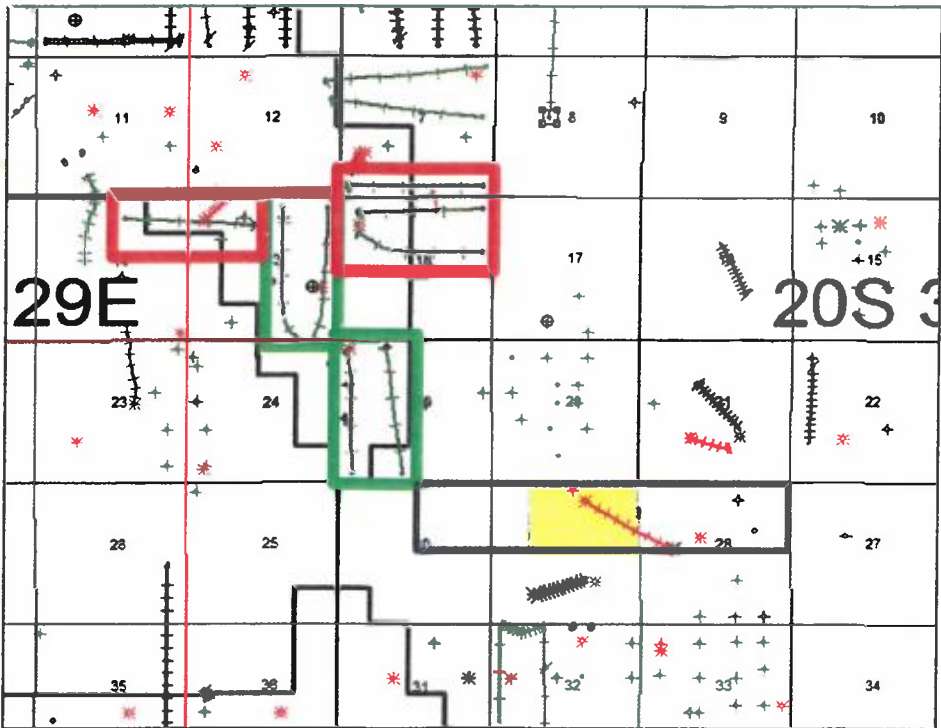


Well production binned (rates averaged) depending on azimuth

AZIMUTH EXAMPLE 2



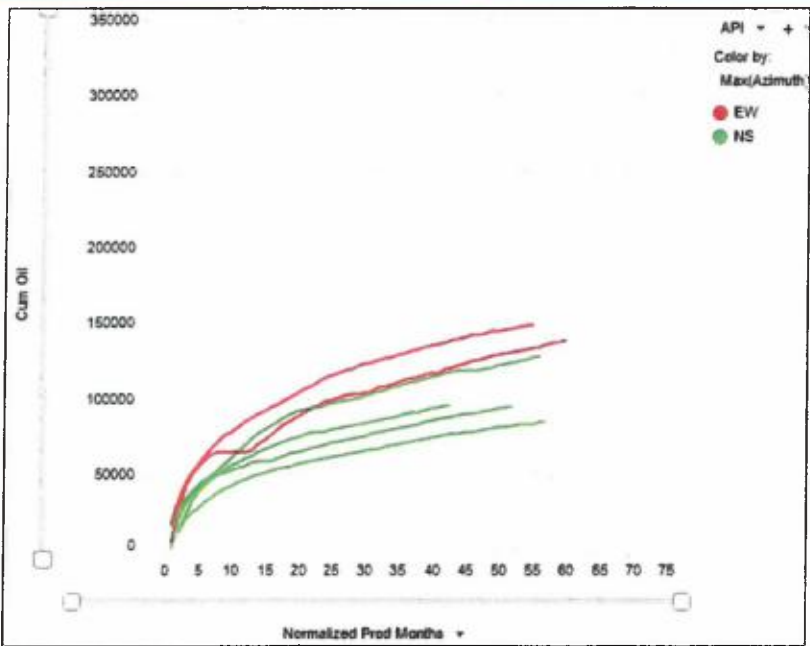
- ▶ E/W: 4 wells
 - ▶ 2 larger completions
- ▶ N/S: 4 wells
 - ▶ 4 larger completions
- ▶ Normalized to 4500' LL



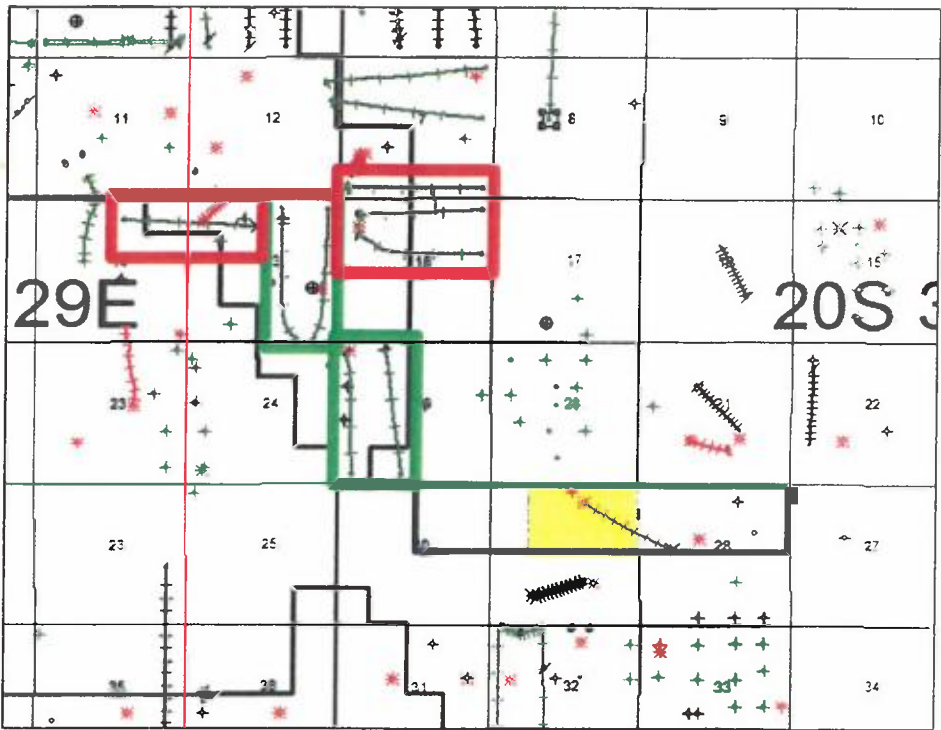
Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
ZIA AHZ FEDERAL COM 2H	30015404040000	8/1/2012	4165	3162076	53477	PERF	759	539	8331	2nd BS Sand	EW	20S 29E	14	EOG
TWO MESAS 7 MP FEDERAL 1H	30015414200000	1/1/2014	3937	2148000	33309	OPENHOLE	546	355	8421	2nd BS Sand	EW	20S 30E	7	MOC
COINFLIP STATE COM 3H	30015419380000	5/1/2014	3619	5864000	116920	PERF	1620	1357	8463	2nd BS Sand	EW	20S 30E	18	COG
CRAPSHOOT 13 FEDERAL 1H	30015423230000	8/1/2014	4511	6221586	127996	PERF	1379	1192	8419	2nd BS Sand	NS	20S 29E	13	COG
DARTHROW STATE 2H	30015420850000	9/1/2014	4034	6380000	101547	PERF	1582	1057	8418	2nd BS Sand	NS	20S 30E	19	COG
COINFLIP STATE COM 2H	30015419370000	10/1/2014	3963	5864000	105364	PERF	1480	1117	8466	2nd BS Sand	EW	20S 30E	18	COG
DARTHROW STATE 4H	30015427190000	1/1/2015	3996	6334000	130795	PERF	1585	1375	8423	2nd BS Sand	NS	20S 30E	19	COG
CRAPSHOOT 13 FEDERAL COM 2H	30015431580000	10/1/2015	4555	6765597	135181	PERF	1485	1246	8411	2nd BS Sand	NS	20S 29E	13	COG



AZIMUTH EXAMPLE 2



- ▶ Larger completions only
- ▶ E/W: 2 wells
 - ▶ Avg: 1550 lbs/ft, 1237 gal/ft
- ▶ N/S: 4 wells
 - ▶ Avg: 1508 lbs/ft, 1218 gal/ft
- ▶ Normalized to 4500' LL



Name	API	On Stream	LL	Proppant (lbs)	Fluid (bbl)	Completion Type	lbs/ft	gal/ft	Avg TVD	Landing Zone	Azimuth	Township Range	Section	Operator
ZIA AHZ FEDERAL COM 2H	30015404040000	8/1/2012	4165	3162076	53477	PERF	759	539	8551	2nd BS Sand	EW	20S 29E	14	EOG
TWO MESAS 7 MP FEDERAL 1H	30015414200000	1/1/2014	5557	2148000	53503	OPENHOLE	340	333	8421	2nd BS Sand	EW	20S 30E	7	MOG
COINFLIP STATE COM 3H	30015419380000	5/1/2014	3619	5864000	116920	PERF	1620	1357	8463	2nd BS Sand	EW	20S 30E	18	COG
CRAPSHOOT 13 FEDERAL 1H	30015423230000	8/1/2014	4511	6221586	127996	PERF	1379	1192	8419	2nd BS Sand	NS	20S 29E	13	COG
DARTHROW STATE 2H	30015420850000	9/1/2014	4034	6380000	101547	PERF	1582	1057	8418	2nd BS Sand	NS	20S 30E	19	COG
COINFLIP STATE COM 2H	30015419370000	10/1/2014	3963	5864000	105364	PERF	1480	1117	8466	2nd BS Sand	EW	20S 30E	18	COG
DARTHROW STATE 4H	30015427190000	1/1/2015	3996	6334000	130795	PERF	1585	1375	8423	2nd BS Sand	NS	20S 30E	19	COG
CRAPSHOOT 13 FEDERAL COM 2H	30015431580000	10/1/2015	4555	6765597	135181	PERF	1485	1246	8411	2nd BS Sand	NS	20S 29E	13	COG



The Apache logo is located in the top left corner of the image. It features the word "Apache" in a stylized, italicized font with a red-to-orange gradient. The background of the entire slide is a photograph of an oil field at sunset. In the foreground on the left, a worker in a hard hat is silhouetted against the bright orange sky. In the center and right, several drilling rigs are visible, their structures silhouetted against the horizon. The overall mood is industrial and dramatic.

Apache

August 20, 2019

TACO HEARING

NEW MEXICO DELAWARE BASIN TEAM – DRILLING ENGINEERING EXHIBITS

OVERALL DRILLING PLAN



DIRECTIONAL PLAN

OPTION A – FULL KICK OUT (2,065')

Plan Editor - hypothetical taco/Wellbore #1/Design #1

	MD (ft)	CL (ft)	Inc (°)	Az (°)	TVD (ft)	DTVD (ft)	TVDSS (ft)	NS (ft)	EW (ft)	Northing (ft)	Easting (ft)	V.Sec (ft)	Dogleg (°/100ft)	T.Face (°)	Build (°/100ft)	Turn (°/100ft)
1	0.0		0.00	0.00	0.0		-3379.0	0.0	0.0	562090.68	649598.79	0.0	0.00	0.00	0.00	0.00
2	1000.0	1000.0	0.00	0.00	1000.0	1000.0	-2379.0	0.0	0.0	562090.68	649598.79	0.0	0.00	0.00	0.00	0.00
3	2100.0	1100.0	22.00	336.91	2073.2	1073.2	-1305.8	191.9	-81.8	562282.57	649516.98	121.0	2.00	336.91	2.00	0.00
4	6499.9	4399.9	22.00	336.91	6152.7	4079.6	2773.7	1708.1	-728.2	563798.79	648870.59	1077.1	0.00	0.00	0.00	0.00
5	7599.9	1100.0	0.00	0.00	7225.9	1073.2	3846.9	1900.0	-810.0	563990.68	648788.79	1198.1	2.00	180.00	-2.00	0.00
6	7745.5	145.6	0.00	0.00	7371.5	145.6	3992.5	1900.0	-810.0	563990.68	648788.79	1198.1	0.00	0.00	0.00	0.00
7	8495.5	750.0	90.00	270.57	7849.0	477.5	4470.0	1904.8	-1287.4	563995.44	648311.35	1665.5	12.00	270.57	12.00	-11.92
8	16249.5	7753.9	90.00	270.57	7849.0	0.0	4470.0	1982.0	-9041.0	564072.68	640557.79	9255.7	0.00	0.00	0.00	0.00



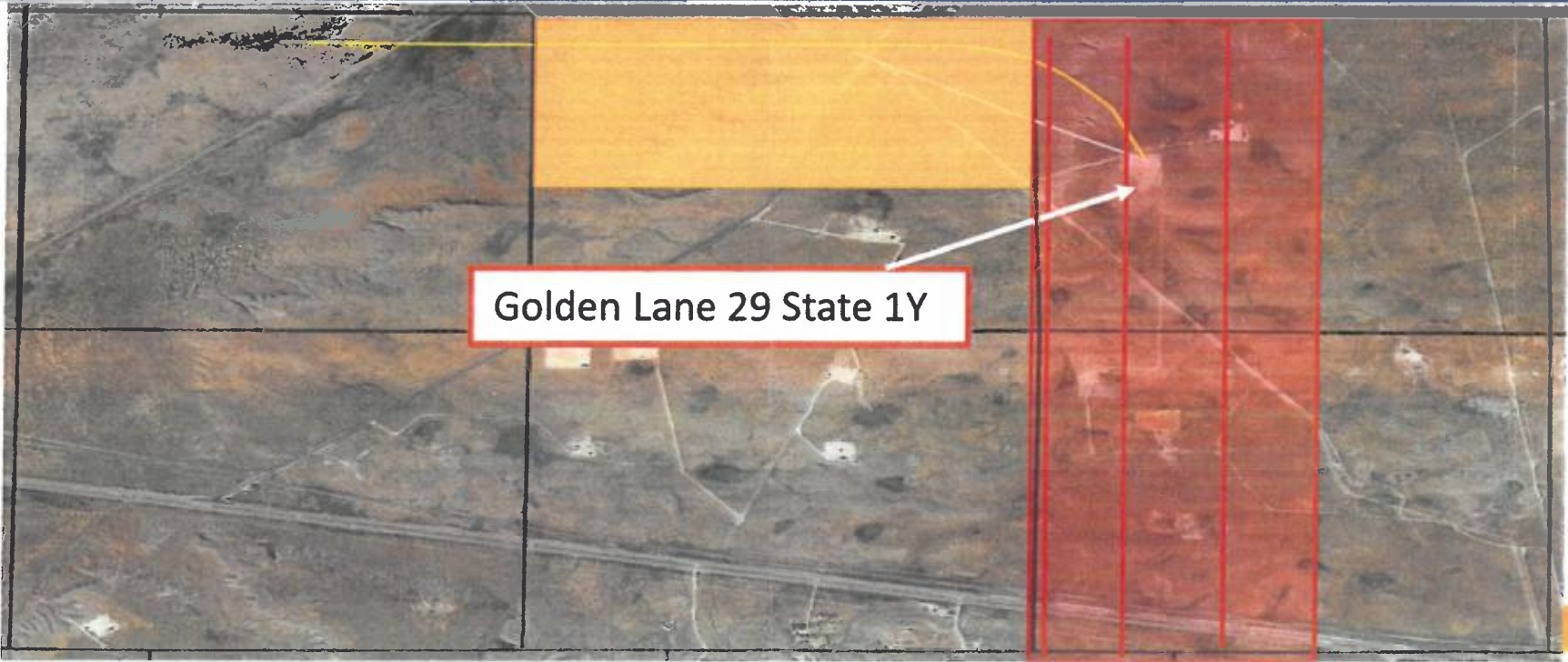
Apache

DIRECTIONAL PLAN

OPTION B – KICK OUT WITH RESTRICTION 10° TANGENT

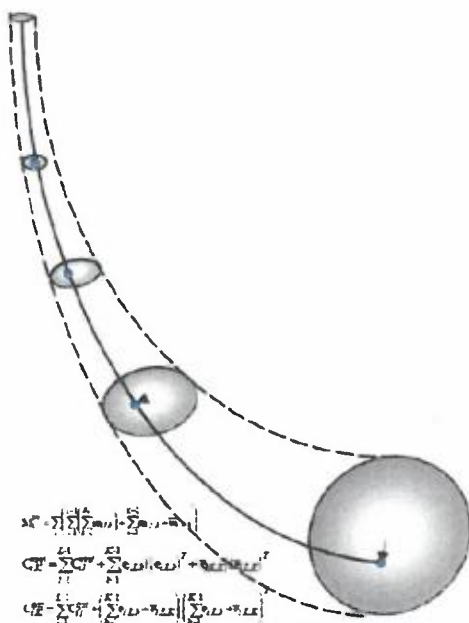
Plan Editor - hypothetical taco/Wellbore #1/turn in lateral

	MD (ft)	CL (ft)	Inc (°)	Azi (°)	TVD (ft)	DTVD (ft)	TVDSS (ft)	NS (ft)	EW (ft)	Northing (ft)	Easting (ft)	V.Sec (ft)	Dogleg (°/100ft)	T.Face (°)	Build (°/100ft)	Turn (°/100ft)
1	0.0		0.00	0.00	0.0		-3379.0	0.0	0.0	562090.68	649598.79	0.0	0.00	0.00	0.00	0.00
2	1000.0	1000.0	0.00	0.00	1000.0	1000.0	-2379.0	0.0	0.0	562090.68	649598.79	0.0	0.00	0.00	0.00	0.00
3	1666.7	666.7	10.00	336.91	1663.3	663.3	-1715.7	53.4	-22.8	562144.06	649576.03	33.7	1.50	336.91	1.50	0.00
4	6666.7	5000.0	10.00	336.91	6587.3	4924.0	3208.3	852.1	-363.3	562942.75	649235.53	537.3	0.00	0.00	0.00	0.00
5	7333.3	666.7	0.00	0.00	7250.6	663.3	3871.6	905.4	-386.0	562996.13	649212.77	571.0	1.50	180.00	-1.50	0.00
6	7453.7	120.4	0.00	0.00	7371.0	120.4	3992.0	905.4	-386.0	562996.13	649212.77	571.0	0.00	0.00	0.00	0.00
7	8203.7	750.0	90.00	319.00	7848.5	477.5	4469.5	1265.8	-699.3	563356.48	648899.52	954.1	12.00	319.00	12.00	0.00
8	9820.7	1616.9	90.00	270.49	7848.5	0.1	4469.5	1922.6	-2124.3	564013.29	647474.53	2486.7	3.00	-90.01	0.00	-3.00
9	16737.7	6917.0	90.00	270.49	7849.0	0.5	4470.0	1982.0	-9041.0	564072.68	640557.79	9255.7	0.00	0.00	0.00	0.00



Apache

ELLIPSE OF UNCERTAINTY (EOU)



Direction	2mi lateral EOU - diameter (gyro @ surface + MWD)	@ KOP - diameter (MWD)
Horizontal	300	90
Vertical	160	-