

District I1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720**District II**811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720**District III**1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170**District IV**1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 375288

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

1. Operator Name and Address APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705		2. OGRID Number 873
		3. API Number 30-015-55657
4. Property Code 335857	5. Property Name CAMACHO 25 26 STATE COM	6. Well No. 301H

7. Surface Location

UL - Lot A	Section 25	Township 19S	Range 27E	Lot Idn	Feet From 820	N/S Line N	Feet From 445	E/W Line E	County Eddy
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8. Proposed Bottom Hole Location

UL - Lot D	Section 26	Township 19S	Range 27E	Lot Idn D	Feet From 370	N/S Line N	Feet From 50	E/W Line W	County Eddy
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9. Pool Information

WINCHESTER; BONE SPRING, WEST	97569
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3474
16. Multiple N	17. Proposed Depth 19038	18. Formation 3rd Bone Spring Sand	19. Contractor	20. Spud Date 11/1/2024
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	370	260	0
Int1	12.25	9.625	40	3300	724	0
Prod	8.5	5.5	20	19038	1799	8612
Prod	8.75	5.5	20	8612	706	2800

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3000	1500	
Double Ram	3000	3000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable. Signature:	OIL CONSERVATION DIVISION
Printed Name: Electronically filed by Sorina Flores	Approved By: Ward Rikala
Title: Supv of Drilling Services	Title: Petroleum Specialist Supervisor
Email Address: sorina.flores@apachecorp.com	Approved Date: 11/4/2024 Expiration Date: 11/4/2026
Date: 10/21/2024 Phone: 432-818-1167	Conditions of Approval Attached

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal
			☐ Amended Report
		☐ As Drilled	

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-55657	Pool Code 97569	Pool Name WINCHESTER; BONE SPRING, WEST
Property Code 335857	Property Name CAMACHO 25-26 STATE COM	Well Number 301H
OGRID No. 873	Operator Name APACHE CORPORATION	Ground Level Elevation 3474'
Surface Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal		Mineral Owner: ☒ State ☐ Fee ☐ Tribal ☐ Federal

Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	25	19-S	27-E	-	820' N	445' E	N 32.6361458	W 104.2252774	EDDY

Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	26	19-S	27-E	-	370' N	50' W	N 32.6379103	W 104.2580002	EDDY

Dedicated Acres	Infill or Defining Well	Defining Well API	Overlapping Spacing Unit (Y/N)	Consolidated Code
319.76	INFILL	30-015-55003	Y	-
Order Numbers			Well Setbacks are under Common Ownership: ☐ Yes ☐ No	

Kick Off Point (KOP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	30	19-S	27-E	-	430' N	378' W	32.6372156	104.2225904	EDDY

First Take Point (FTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
A	25	19-S	27-E	-	370' N	100' E	N 32.6373619	W 104.2241417	EDDY

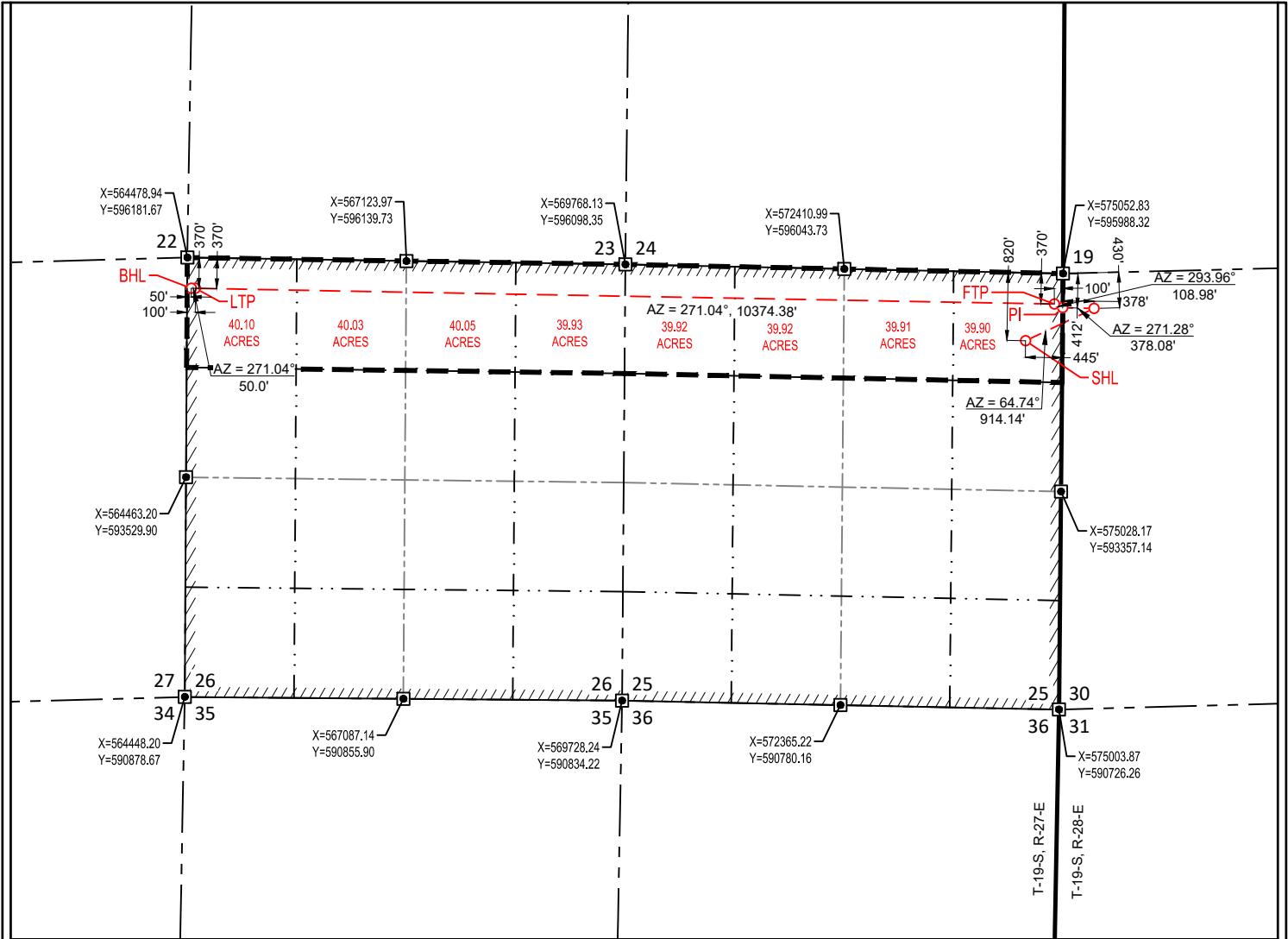
Last Take Point (LTP)

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the N/S	Feet from the E/W	Latitude	Longitude	County
D	26	19-S	27-E	-	370' N	100' W	N 32.6379077	W 104.2578378	EDDY

Unitized Area or Area of Uniform Intrest -	Spacing Unity Type ☒ Horizontal ☐ Vertical	Ground Floor Elevation 3474' -
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OPERATOR CERTIFICATION		SURVEYOR CERTIFICATION	
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief; and, if the well is a vertical or directional well, 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 a working interest or unleased mineral interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. If this well is a horizontal well, I further certify that this organization has received The consent of at least one lessee or owner of a working interest or unleased mineral interest in each tract (in the target pool or formation) in which any part of the well's completed interval will be located or obtained a compulsory pooling order from the division. <i>Sorina L Flores</i> 10/7/2024		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. 	
Signature	Date	Signature	Date
SORINA L FLORES		Seal of Professional Surveyor	
Print Name		Certificate Number	Date of Survey
sorina.flores@apachecorp.com			09/25/2024
E-mail Address			

C-102 Submit Electronically Via OCD Permitting	State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION	Revised July 9, 2024	
		Submittal Type:	☒ Initial Submittal
			☐ Amended Report
			☐ As Drilled
Property Name and Well Number CAMACHO 25-26 STATE COM 301H			



SURFACE LOCATION (SHL)

NEW MEXICO EAST
NAD 1983
X=574600 Y=595178
LAT.: N 32.6361458
LONG.: W 104.2252774
820' FNL 445' FEL

KICK OFF POINT (KOP)

NEW MEXICO EAST
NAD 1983
X=575427 Y=595568
LAT.: N 32.6372156
LONG.: W 104.2225904
430' FNL 378' FWL

POINT OF INTERSECTION (PI)

NEW MEXICO EAST
NAD 1983
X=575048 Y=595576
LAT.: N 32.6372399
LONG.: W 104.2238183
412' FNL 0' FEL

FIRST TAKE POINT (FTP)

NEW MEXICO EAST
NAD 1983
X=574949 Y=595620
LAT.: N 32.6373619
LONG.: W 104.2241417
370' FNL 100' FEL

LAST TAKE POINT (FTP)

NEW MEXICO EAST
NAD 1983
X=564577 Y=595810
LAT.: N 32.6379077
LONG.: W 104.2578378
370' FNL 100' FWL

BOTTOM HOLE LOCATION (BHL)

NEW MEXICO EAST
NAD 1983
X=564527 Y=595811
LAT.: N 32.6379103
LONG.: W 104.2580002
370' FNL 50' FWL

SURVEYORS 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, 09/25/2024

Date of Survey



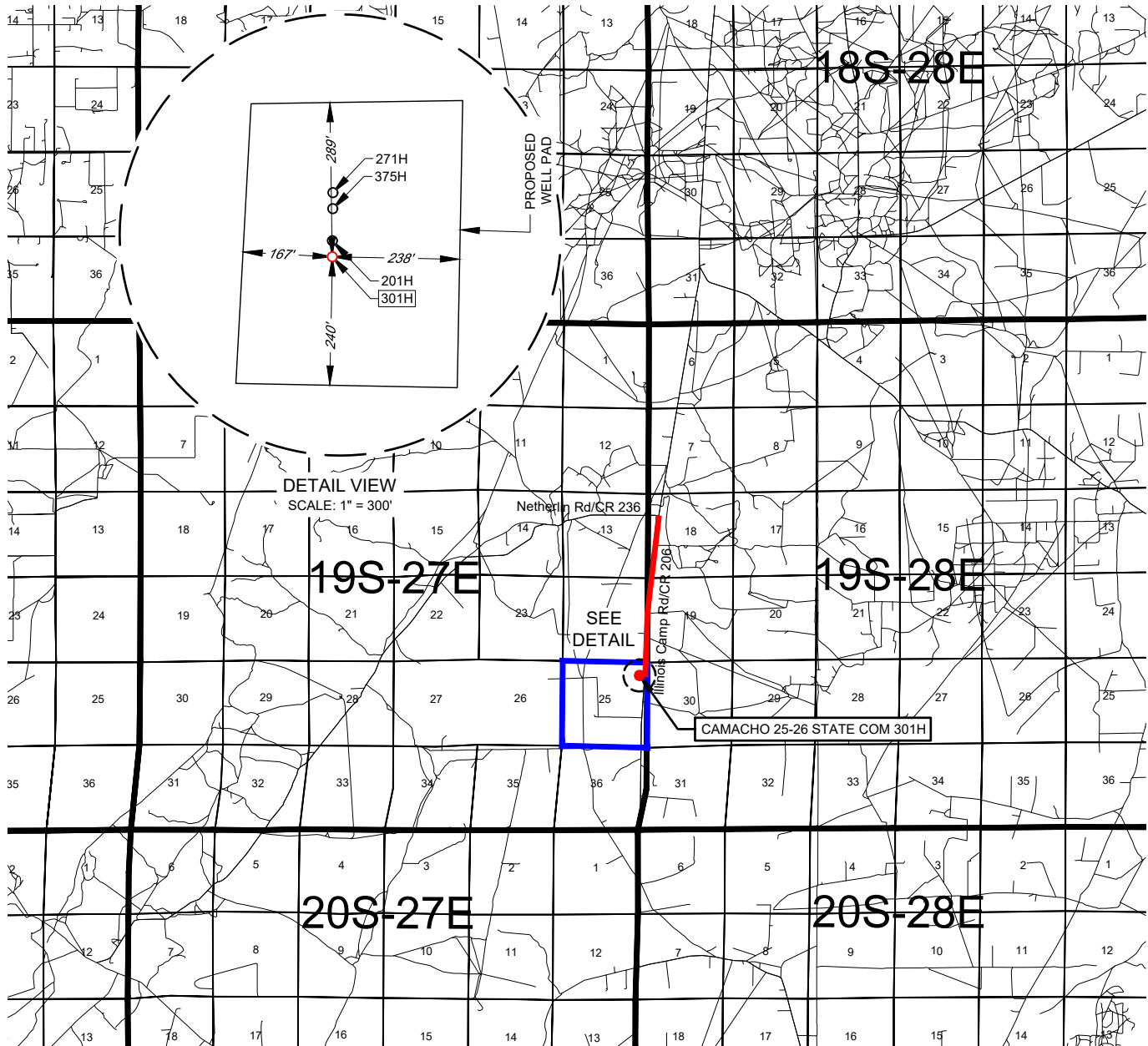
The map displays a topographic section of the Camacho area in New Mexico. A red dashed line represents the proposed Interstate 40 alignment, running horizontally across the upper portion of the map. A red dot on this line marks the location of the 'CAMACHO 25-26 STATE COM 301H' station. The map includes contour lines indicating elevation, with labels such as 3400, 3450, 3500, and 3550. Key geographical features include 'Dagger Draw' on the left and 'Angel Draw' in the center-right. Various survey points and markers are labeled, including 'B.H.L.', 'L.T.P.', 'F.T.P.', 'K.O.P.', and 'P.I.'. The map also shows existing infrastructure like 'Angel Draw' and 'Way Ridge'. The area is divided into sections labeled with numbers 23, 24, 25, 26, and 35. A scale bar at the bottom indicates distances in miles (0 to 1.5) and kilometers (0 to 2.5).



SECTION 25 TWP 19-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM ELEVATION 3474'
DESCRIPTION 820' FNL & 445' FEL



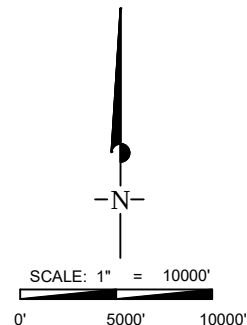
481 WINSKOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
 TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
 2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
 TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
 WWW.TOPOGRAPHIC.COM

EXHIBIT 2
VICINITY MAP

LEASE NAME & WELL NO.: CAMACHO 25-26 STATE COM 301H

SECTION 25 TWP 19-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 820' FNL & 445' FEL

DISTANCE & DIRECTION

FROM INT. OF NETHERLIN RD/ CR-236. & ILLINOIS CAMP RD/ CR-206.
GO SOUTH ON ILLINOIS CAMP RD/ CR-206 ±2.0 MILES TO A POINT ±339
FEET EAST OF THE LOCATION.481 WINSOTT ROAD, Ste. 200 • BENBROOK, TEXAS 76126
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

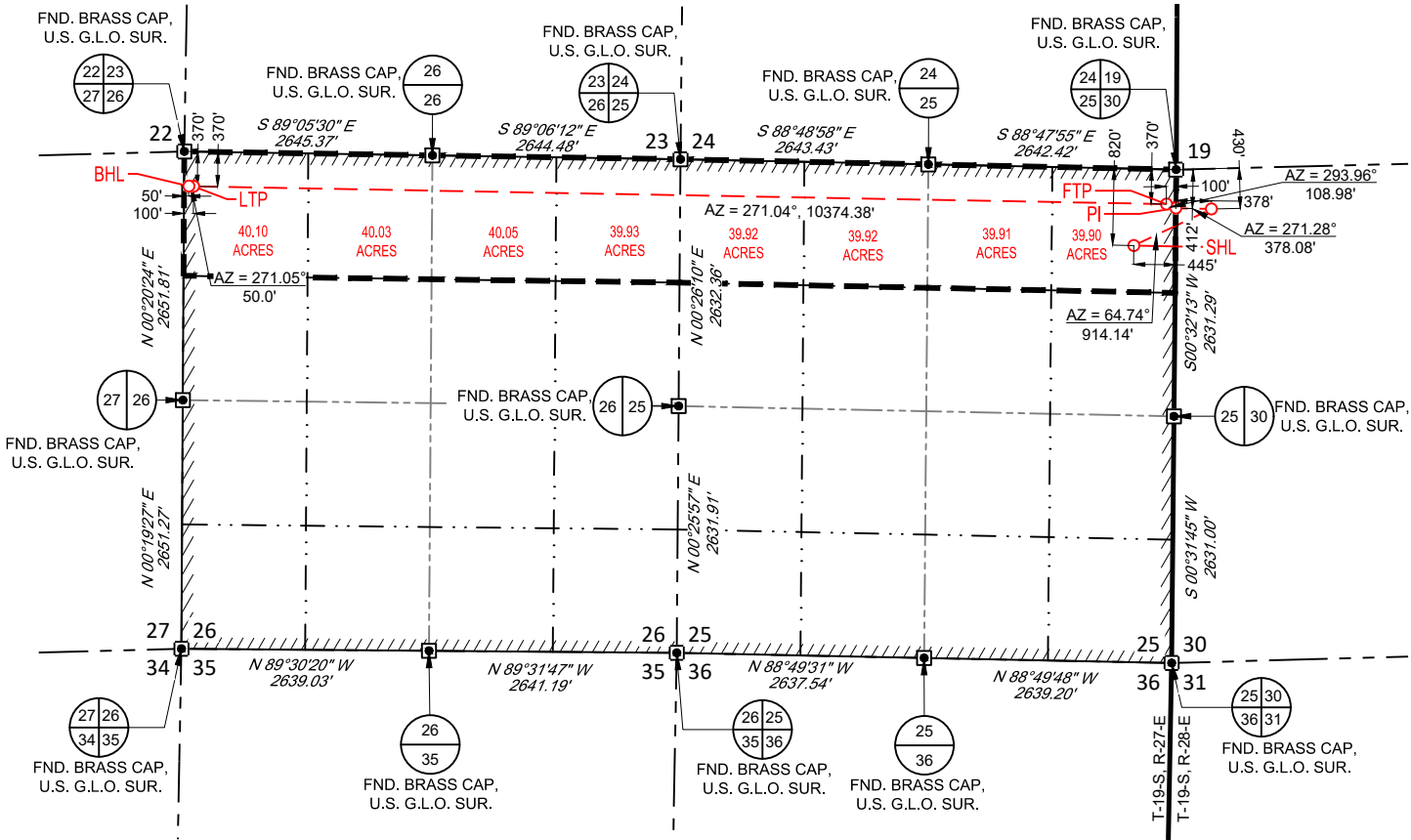
THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY APACHE CORPORATION. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

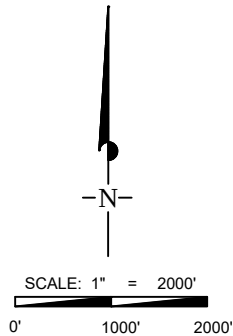
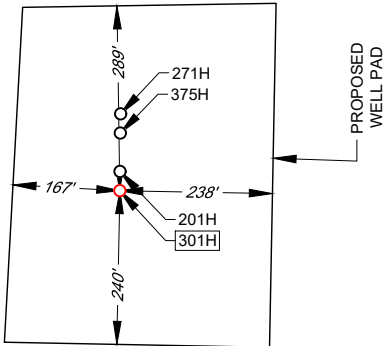


EXHIBIT 2A

SECTION 25, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
EDDY COUNTY, NEW MEXICO



SURFACE LOCATION (SHL)	KICK OFF POINT (KOP)	POINT OF INTERSECTION (PI)
NEW MEXICO EAST NAD 1983 X=574600 Y=595178 LAT.: N 32.6361458 LONG.: W 104.2252774 820' FNL 445' FEL	NEW MEXICO EAST NAD 1983 X=575427 Y=595568 LAT.: N 32.6372156 LONG.: W 104.2225904 430' FNL 378' FWL	NEW MEXICO EAST NAD 1983 X=575048 Y=595576 LAT.: N 32.6372399 LONG.: W 104.2238183 412' FNL 0' FEL
FIRST TAKE POINT (FTP)	LAST TAKE POINT (FTP)	BOTTOM HOLE LOCATION (BHL)
NEW MEXICO EAST NAD 1983 X=574949 Y=595620 LAT.: N 32.6373619 LONG.: W 104.2241417 370' FNL 100' FEL	NEW MEXICO EAST NAD 1983 X=564577 Y=595810 LAT.: N 32.6379077 LONG.: W 104.2578378 370' FNL 100' FWL	NEW MEXICO EAST NAD 1983 X=564527 Y=595811 LAT.: N 32.6379103 LONG.: W 104.2580002 370' FNL 50' FWL



LEASE NAME & WELL NO.: CAMACHO 25-26 STATE COM 301H

SECTION 25 TWP 19-S RGE 27-E SURVEY N.M.P.M.
COUNTY EDDY STATE NM
DESCRIPTION 820' FNL & 445' FEL

DISTANCE & DIRECTION
FROM INT. OF NETHERLIN RD/ CR-236. & ILLINOIS CAMP RD/ CR-206.
GO SOUTH ON ILLINOIS CAMP RD/ CR-206 ±2.0 MILES TO A POINT
±339 FEET EAST OF THE LOCATION.



Angel M. Baeza, P.S. No. 25116

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID
BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY
FEET.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND
UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF
SURVEY, AND DATA PROVIDED BY APACHE CORPORATION. THIS CERTIFICATION IS MADE AND LIMITED
TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE.
THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.



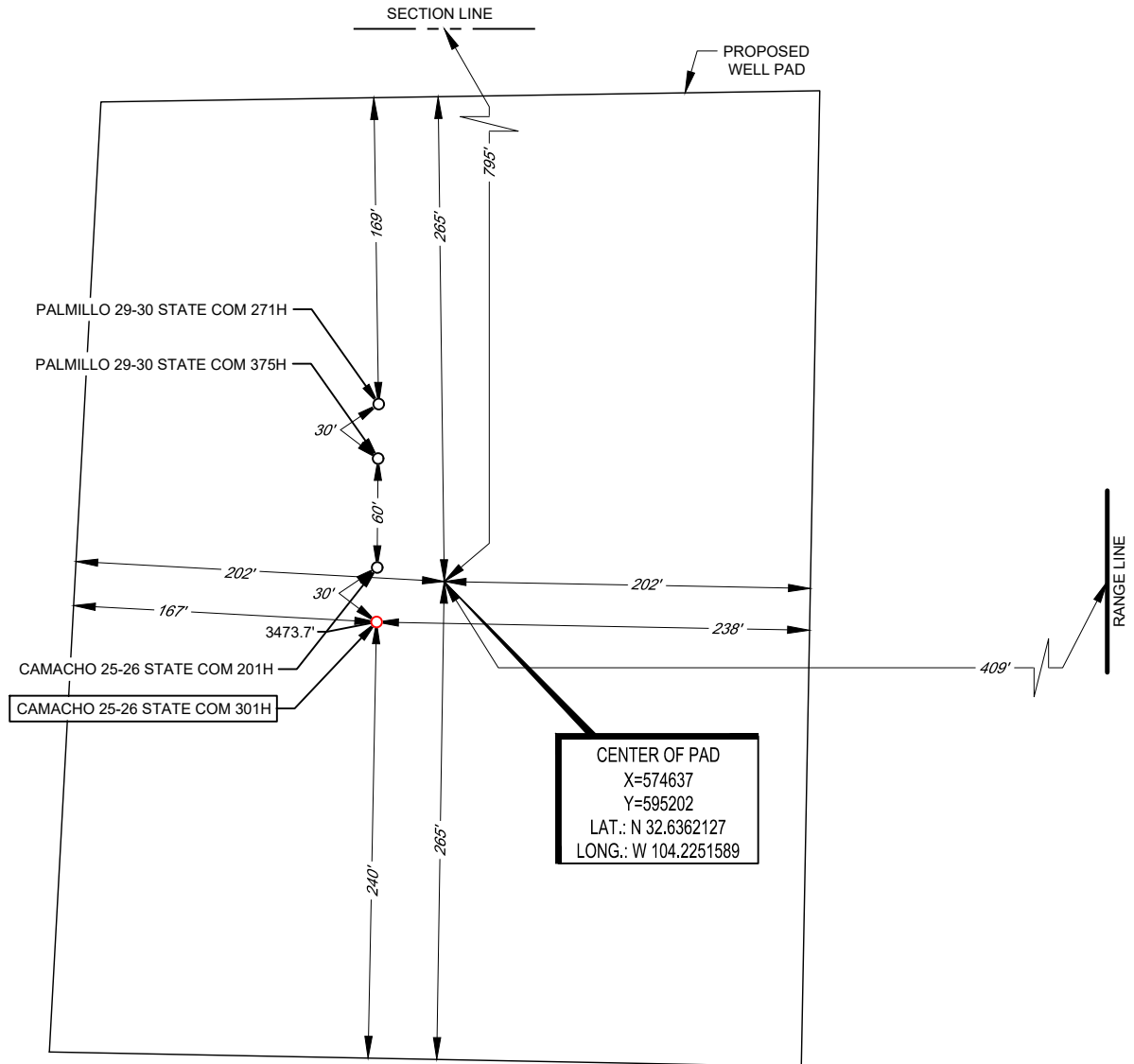
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LEGEND

—— RANGE LINE
 --- SECTION LINE



SECTION 25, TOWNSHIP 19-S, RANGE 27-E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO



Angel M. Baeza, P.S. No. 25116

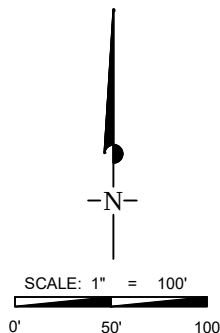
LEASE NAME & WELL NO.: CAMACHO 25-26 STATE COM 301H
 301H LATITUDE N 32.6361458 301H LONGITUDE W 104.2252774

CENTER OF PAD IS 795' FNL & 409' FEL

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY APACHE CORPORATION. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO. ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



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

Form APD Comments

Permit 375288

PERMIT COMMENTS

Operator Name and Address: APACHE CORPORATION [873] 303 Veterans Airpark Ln Midland, TX 79705		API Number: 30-015-55657
		Well: CAMACHO 25 26 STATE COM #301H

Created By	Comment	Comment Date
sflores	Spudder rig will be utilized to drill surf csg. Procedure attached.	10/17/2024

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

Form APD Conditions

Permit 375288

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: APACHE CORPORATION [873] 303 Veterans Airpark Ln Midland, TX 79705		API Number: 30-015-55657
		Well: CAMACHO 25 26 STATE COM #301H

OCD Reviewer	Condition
ward.rikala	Notify the OCD 24 hours prior to casing & cement.
ward.rikala	File As Drilled C-102 and a directional Survey with C-104 completion packet.
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string.
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing.
ward.rikala	If cement does not circulate on any string, a Cement Bond Log (CBL) is required for that string of casing.
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system.
ward.rikala	This well is within the Roswell-Artesia Aquifer. The 1st intermediate string shall be sat and cemented back to surface immediately above the top of the Roswell-Artesia Aquifer. The 2nd intermediate shall be sat and cemented back to surface immediately below the base of the Roswell-Artesia Aquifer.

Apache Corp respectfully requests approval for the following changes and additions to the drilling plan:

1. Utilize a spudder rig to pre-set surface casing.
2. Description of Operations
 1. Spudder rig will move in their rig to drill the surface hole section and pre-set surface casing on the Camacho 25-26 State COM 301H
 - a. After drilling the surface hole section, the rig will run casing and cement following all the applicable rules and regulations (19.15.16 NMAC Drilling and Production).
 - b. Rig will utilize fresh water based mud to drill 17-1/2" surface hole to TD. Solids control will be handled entirely on a closed loop basis.
 2. The wellhead will be installed and tested once the 13-3/8" surface casing is cut off and the WOC time has been reached.
 3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
 4. Spudder rig operations is expected to take 1-2 days on a single well pad.
 5. The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
 6. Drilling operations will be performed with the drilling rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.
 7. Apache Corp will have supervision over the rig to ensure compliance with all NMOCD regulations and to oversee operations.
 8. Once the rig is removed, Apache Corp will secure the wellhead area by placing a guard rail around the cellar area.



Apache Corporation

Eddy Co, NM (NAD83 NM E)

Camacho 25 26

Camacho 25-26 State Com 301H

OH

Plan: Plan #1

Standard Planning Report

10 October, 2024



Project: Eddy Co, NM (NAD83 NM E)
Site: Camacho 25 26
Well: Camacho 25-26 State Com 301H
Wellbore: OH
Design: Plan #1
Lat: 32.636146
Long: -104.225277
GL: 3474.00
KB: PATT 879 @ 3499.00usft

WELLBORE TARGET DETAILS (LAT/LONG)

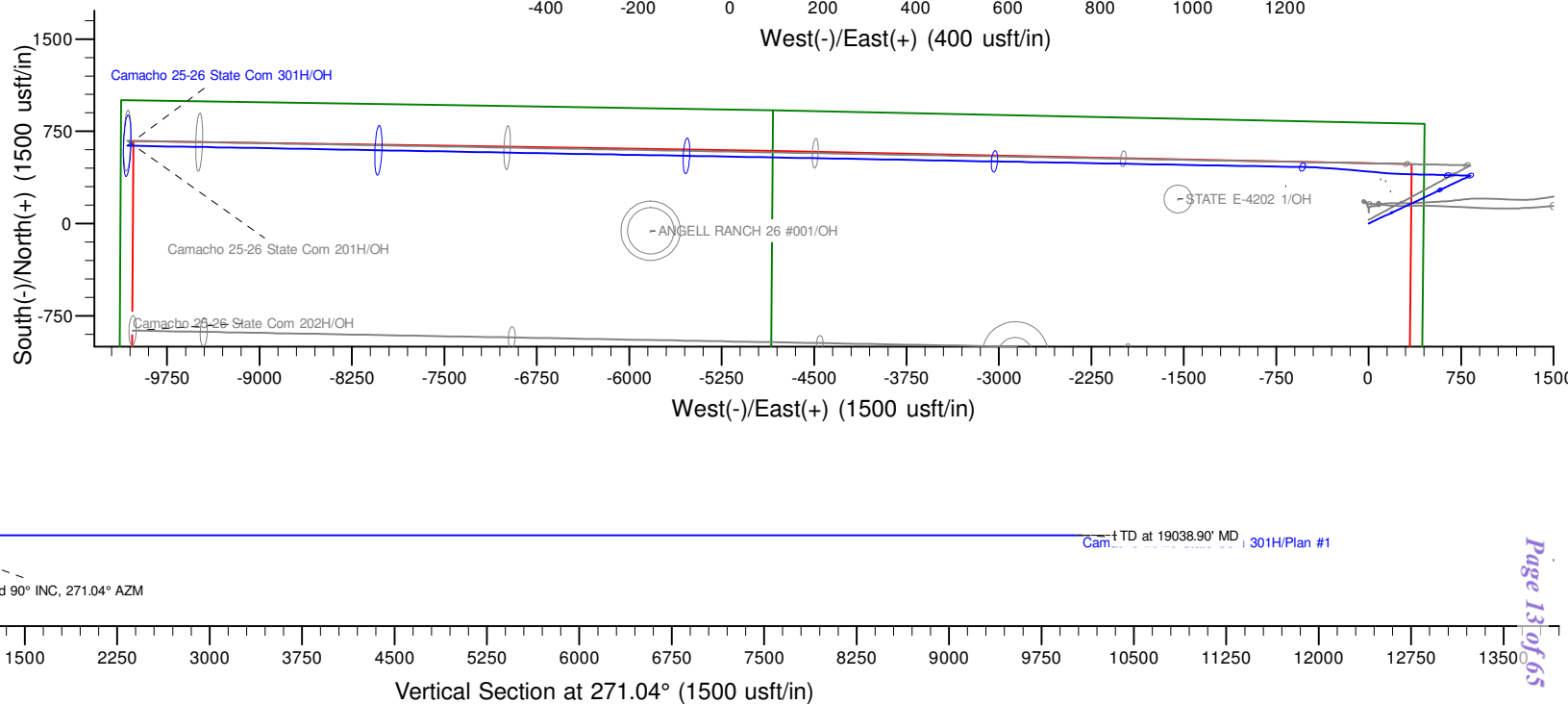
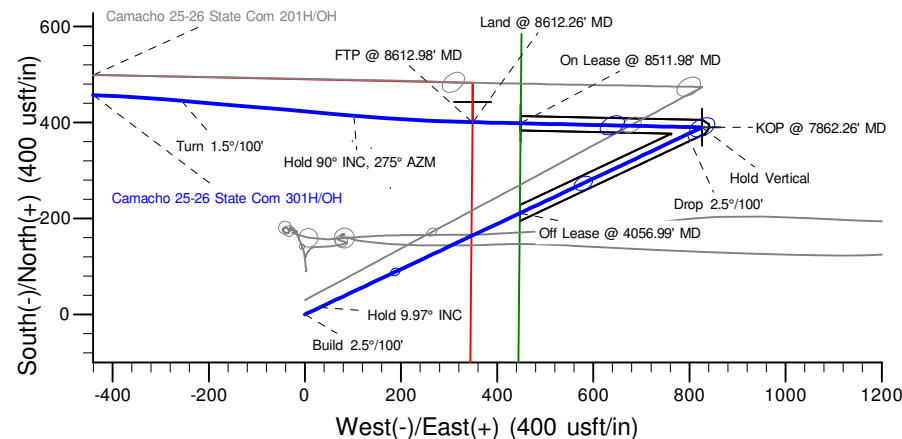
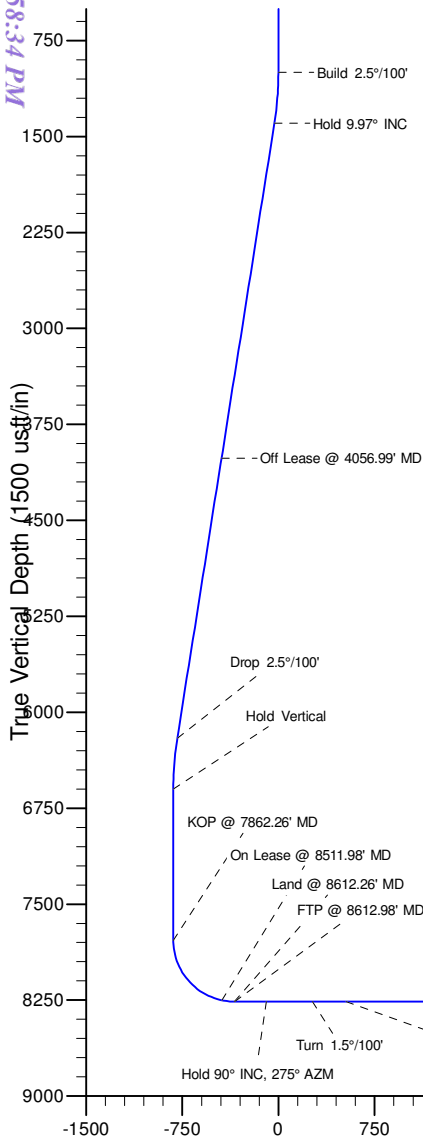
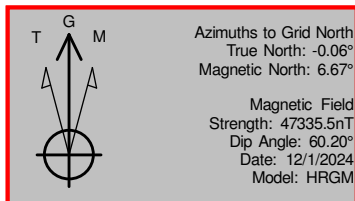
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Camacho 25-26 301H - FTP	0.00	442.78	349.15	595620.41	574949.37	Point
Camacho 25-26 301H - KOP	0.00	390.05	826.73	595567.68	575426.96	Point
Camacho 25-26 301H - LTP	0.00	632.33	-10023.49	595809.96	564576.74	Point
Camacho 25-26 301H - Off Lease	0.00	-1892.74	-322.23	593284.89	574278.00	Polygon
Camacho 25-26 301H - PI	0.00	398.50	448.74	595576.13	575048.97	Point
Camacho 25-26 301H - BHL	8262.00	633.24	-10073.48	595810.87	564526.75	Point

WELL DETAILS: Camacho 25-26 State Com 301H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	595177.63	574600.23	32.636146	-104.225277

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	Build 2.5°/100'
1398.80	9.97	64.74	1396.79	14.77	31.30	2.50	64.74	-31.03	Hold 9.97° INC
6278.92	9.97	64.74	6203.21	375.28	795.43	0.00	0.00	-788.49	Drop 2.5°/100'
6677.72	0.00	0.00	6600.00	390.05	826.73	2.50	180.00	-819.51	Hold Vertical
7862.26	0.00	0.00	7784.54	390.05	826.73	0.00	0.00	-819.51	KOP @ 7862.26' MD
8612.26	90.00	271.28	8262.00	400.72	349.39	12.00	271.28	-342.05	Land @ 8612.26' MD
8860.26	90.00	275.00	8262.00	414.30	101.80	1.50	90.00	-94.26	Hold 90° INC, 275° AZM
9220.26	90.00	275.00	8262.00	445.67	-256.83	0.00	0.00	264.88	Turn 1.5°/100'
9484.16	90.00	271.04	8262.00	459.58	-520.31	1.50	-90.00	528.57	Hold 90° INC, 271.04° AZM
19038.90	90.00	271.04	8262.00	633.24	-10073.48	0.00	0.00	10083.31	TD at 19038.90' MD



Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Eddy Co, NM (NAD83 NM E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Camacho 25 26, Site Center : Camacho 25-26 State com 201H				
Site Position:	Northing:	593,284.90 usft	Latitude:	32.630944	
From:	Map	Easting:	574,278.00 usft	Longitude:	-104.226331
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "		

Well	Camacho 25-26 State Com 301H					
Well Position	+N/-S	0.00 usft	Northing:	595,177.64 usft	Latitude:	32.636146
	+E/-W	0.00 usft	Easting:	574,600.23 usft	Longitude:	-104.225278
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,474.00 usft	
Grid Convergence:	0.06 °					

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	12/1/2024	6.72	60.20	47,335.51415557

Design	Plan #1				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	271.04	

Plan Survey Tool Program	Date	10/10/2024			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	19,038.90 Plan #1 (OH)	MWD+HRGM		
			OWSG MWD + HRGM		

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,398.80	9.97	64.74	1,396.79	14.77	31.30	2.50	2.50	0.00	64.74	
6,278.92	9.97	64.74	6,203.21	375.28	795.43	0.00	0.00	0.00	0.00	
6,677.72	0.00	0.00	6,600.00	390.05	826.73	2.50	-2.50	0.00	180.00	
7,862.26	0.00	0.00	7,784.54	390.05	826.73	0.00	0.00	0.00	0.00	
8,612.26	90.00	271.28	8,262.01	400.72	349.39	12.00	12.00	0.00	271.28	
8,860.26	90.00	275.00	8,262.01	414.30	101.80	1.50	0.00	1.50	90.00	
9,220.26	90.00	275.00	8,262.01	445.67	-256.83	0.00	0.00	0.00	0.00	
9,484.16	90.00	271.04	8,262.00	459.58	-520.31	1.50	0.00	-1.50	-90.00	
19,038.90	90.00	271.04	8,262.00	633.24	-10,073.48	0.00	0.00	0.00	0.00	

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 2.5°/100'									
1,100.00	2.50	64.74	1,099.97	0.93	1.97	-1.96	2.50	2.50	0.00
1,200.00	5.00	64.74	1,199.75	3.72	7.89	-7.82	2.50	2.50	0.00
1,300.00	7.50	64.74	1,299.14	8.37	17.73	-17.58	2.50	2.50	0.00
1,398.80	9.97	64.74	1,396.79	14.77	31.30	-31.03	2.50	2.50	0.00
Hold 9.97° INC									
1,400.00	9.97	64.74	1,397.97	14.86	31.49	-31.21	0.00	0.00	0.00
1,500.00	9.97	64.74	1,496.46	22.24	47.15	-46.74	0.00	0.00	0.00
1,600.00	9.97	64.74	1,594.95	29.63	62.81	-62.26	0.00	0.00	0.00
1,700.00	9.97	64.74	1,693.44	37.02	78.46	-77.78	0.00	0.00	0.00
1,800.00	9.97	64.74	1,791.93	44.41	94.12	-93.30	0.00	0.00	0.00
1,900.00	9.97	64.74	1,890.42	51.79	109.78	-108.82	0.00	0.00	0.00
2,000.00	9.97	64.74	1,988.91	59.18	125.44	-124.34	0.00	0.00	0.00
2,100.00	9.97	64.74	2,087.40	66.57	141.10	-139.86	0.00	0.00	0.00
2,200.00	9.97	64.74	2,185.89	73.96	156.75	-155.38	0.00	0.00	0.00
2,300.00	9.97	64.74	2,284.38	81.34	172.41	-170.91	0.00	0.00	0.00
2,400.00	9.97	64.74	2,382.87	88.73	188.07	-186.43	0.00	0.00	0.00
2,500.00	9.97	64.74	2,481.36	96.12	203.73	-201.95	0.00	0.00	0.00
2,600.00	9.97	64.74	2,579.85	103.51	219.39	-217.47	0.00	0.00	0.00
2,700.00	9.97	64.74	2,678.34	110.89	235.04	-232.99	0.00	0.00	0.00
2,800.00	9.97	64.74	2,776.83	118.28	250.70	-248.51	0.00	0.00	0.00
2,900.00	9.97	64.74	2,875.32	125.67	266.36	-264.03	0.00	0.00	0.00
3,000.00	9.97	64.74	2,973.81	133.06	282.02	-279.56	0.00	0.00	0.00
3,100.00	9.97	64.74	3,072.30	140.44	297.68	-295.08	0.00	0.00	0.00
3,200.00	9.97	64.74	3,170.79	147.83	313.33	-310.60	0.00	0.00	0.00
3,300.00	9.97	64.74	3,269.28	155.22	328.99	-326.12	0.00	0.00	0.00
3,400.00	9.97	64.74	3,367.77	162.60	344.65	-341.64	0.00	0.00	0.00
3,500.00	9.97	64.74	3,466.26	169.99	360.31	-357.16	0.00	0.00	0.00
3,600.00	9.97	64.74	3,564.75	177.38	375.97	-372.68	0.00	0.00	0.00
3,700.00	9.97	64.74	3,663.24	184.77	391.62	-388.20	0.00	0.00	0.00
3,800.00	9.97	64.74	3,761.73	192.15	407.28	-403.73	0.00	0.00	0.00
3,900.00	9.97	64.74	3,860.22	199.54	422.94	-419.25	0.00	0.00	0.00
4,000.00	9.97	64.74	3,958.71	206.93	438.60	-434.77	0.00	0.00	0.00
4,056.99	9.97	64.74	4,014.84	211.14	447.52	-443.61	0.00	0.00	0.00
Off Lease @ 4056.99' MD									
4,100.00	9.97	64.74	4,057.20	214.32	454.26	-450.29	0.00	0.00	0.00
4,200.00	9.97	64.74	4,155.69	221.70	469.91	-465.81	0.00	0.00	0.00
4,300.00	9.97	64.74	4,254.18	229.09	485.57	-481.33	0.00	0.00	0.00
4,400.00	9.97	64.74	4,352.67	236.48	501.23	-496.85	0.00	0.00	0.00
4,500.00	9.97	64.74	4,451.16	243.87	516.89	-512.38	0.00	0.00	0.00
4,600.00	9.97	64.74	4,549.65	251.25	532.55	-527.90	0.00	0.00	0.00
4,700.00	9.97	64.74	4,648.14	258.64	548.20	-543.42	0.00	0.00	0.00

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,800.00	9.97	64.74	4,746.63	266.03	563.86	-558.94	0.00	0.00	0.00
4,900.00	9.97	64.74	4,845.12	273.42	579.52	-574.46	0.00	0.00	0.00
5,000.00	9.97	64.74	4,943.61	280.80	595.18	-589.98	0.00	0.00	0.00
5,100.00	9.97	64.74	5,042.10	288.19	610.83	-605.50	0.00	0.00	0.00
5,200.00	9.97	64.74	5,140.59	295.58	626.49	-621.02	0.00	0.00	0.00
5,300.00	9.97	64.74	5,239.08	302.97	642.15	-636.55	0.00	0.00	0.00
5,400.00	9.97	64.74	5,337.57	310.35	657.81	-652.07	0.00	0.00	0.00
5,500.00	9.97	64.74	5,436.06	317.74	673.47	-667.59	0.00	0.00	0.00
5,600.00	9.97	64.74	5,534.55	325.13	689.12	-683.11	0.00	0.00	0.00
5,700.00	9.97	64.74	5,633.04	332.52	704.78	-698.63	0.00	0.00	0.00
5,800.00	9.97	64.74	5,731.53	339.90	720.44	-714.15	0.00	0.00	0.00
5,900.00	9.97	64.74	5,830.02	347.29	736.10	-729.67	0.00	0.00	0.00
6,000.00	9.97	64.74	5,928.51	354.68	751.76	-745.20	0.00	0.00	0.00
6,100.00	9.97	64.74	6,027.00	362.07	767.41	-760.72	0.00	0.00	0.00
6,200.00	9.97	64.74	6,125.49	369.45	783.07	-776.24	0.00	0.00	0.00
6,278.92	9.97	64.74	6,203.21	375.28	795.43	-788.49	0.00	0.00	0.00
Drop 2.5°/100'									
6,300.00	9.44	64.74	6,223.99	376.80	798.64	-791.67	2.50	-2.50	0.00
6,400.00	6.94	64.74	6,322.96	382.88	811.53	-804.45	2.50	-2.50	0.00
6,500.00	4.44	64.74	6,422.46	387.11	820.50	-813.34	2.50	-2.50	0.00
6,600.00	1.94	64.74	6,522.30	389.49	825.54	-818.33	2.50	-2.50	0.00
6,677.72	0.00	0.00	6,600.00	390.05	826.73	-819.51	2.50	-2.50	0.00
Hold Vertical									
6,700.00	0.00	0.00	6,622.28	390.05	826.73	-819.51	0.00	0.00	0.00
6,800.00	0.00	0.00	6,722.28	390.05	826.73	-819.51	0.00	0.00	0.00
6,900.00	0.00	0.00	6,822.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,000.00	0.00	0.00	6,922.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,100.00	0.00	0.00	7,022.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,200.00	0.00	0.00	7,122.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,300.00	0.00	0.00	7,222.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,400.00	0.00	0.00	7,322.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,500.00	0.00	0.00	7,422.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,600.00	0.00	0.00	7,522.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,700.00	0.00	0.00	7,622.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,800.00	0.00	0.00	7,722.28	390.05	826.73	-819.51	0.00	0.00	0.00
7,862.26	0.00	0.00	7,784.54	390.05	826.73	-819.51	0.00	0.00	0.00
KOP @ 7862.26' MD									
7,875.00	1.53	271.28	7,797.28	390.05	826.56	-819.34	12.00	12.00	0.00
7,900.00	4.53	271.28	7,822.25	390.08	825.24	-818.02	12.00	12.00	0.00
7,925.00	7.53	271.28	7,847.10	390.14	822.61	-815.40	12.00	12.00	0.00
7,950.00	10.53	271.28	7,871.79	390.23	818.69	-811.48	12.00	12.00	0.00
7,975.00	13.53	271.28	7,896.24	390.35	813.48	-806.27	12.00	12.00	0.00
8,000.00	16.53	271.28	7,920.38	390.49	807.00	-799.78	12.00	12.00	0.00
8,025.00	19.53	271.28	7,944.15	390.66	799.27	-792.05	12.00	12.00	0.00
8,050.00	22.53	271.28	7,967.48	390.86	790.30	-783.08	12.00	12.00	0.00
8,075.00	25.53	271.28	7,990.31	391.09	780.12	-772.90	12.00	12.00	0.00
8,100.00	28.53	271.28	8,012.58	391.35	768.77	-761.54	12.00	12.00	0.00
8,125.00	31.53	271.28	8,034.22	391.63	756.26	-749.03	12.00	12.00	0.00
8,150.00	34.53	271.28	8,055.18	391.93	742.64	-735.40	12.00	12.00	0.00
8,175.00	37.53	271.28	8,075.40	392.26	727.94	-720.70	12.00	12.00	0.00
8,200.00	40.53	271.28	8,094.81	392.61	712.20	-704.96	12.00	12.00	0.00
8,225.00	43.53	271.28	8,113.38	392.98	695.47	-688.22	12.00	12.00	0.00
8,250.00	46.53	271.28	8,131.05	393.38	677.79	-670.54	12.00	12.00	0.00

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,275.00	49.53	271.28	8,147.77	393.79	659.21	-651.95	12.00	12.00	0.00
8,300.00	52.53	271.28	8,163.49	394.23	639.78	-632.52	12.00	12.00	0.00
8,325.00	55.53	271.28	8,178.17	394.68	619.56	-612.29	12.00	12.00	0.00
8,350.00	58.53	271.28	8,191.77	395.15	598.59	-591.32	12.00	12.00	0.00
8,375.00	61.53	271.28	8,204.26	395.63	576.94	-569.66	12.00	12.00	0.00
8,400.00	64.53	271.28	8,215.60	396.13	554.67	-547.39	12.00	12.00	0.00
8,425.00	67.53	271.28	8,225.75	396.64	531.83	-524.54	12.00	12.00	0.00
8,450.00	70.53	271.28	8,234.70	397.16	508.50	-501.20	12.00	12.00	0.00
8,475.00	73.53	271.28	8,242.41	397.69	484.72	-477.43	12.00	12.00	0.00
8,500.00	76.53	271.28	8,248.87	398.23	460.58	-453.28	12.00	12.00	0.00
8,511.98	77.97	271.28	8,251.51	398.49	448.90	-441.59	12.00	12.00	0.00
On Lease @ 8511.98' MD									
8,525.00	79.53	271.28	8,254.05	398.78	436.13	-428.82	12.00	12.00	0.00
8,550.00	82.53	271.28	8,257.95	399.33	411.45	-404.13	12.00	12.00	0.00
8,575.00	85.53	271.28	8,260.55	399.88	386.59	-379.27	12.00	12.00	0.00
8,600.00	88.53	271.28	8,261.85	400.44	361.64	-354.31	12.00	12.00	0.00
8,612.26	90.00	271.28	8,262.01	400.72	349.38	-342.05	12.00	12.00	0.00
Land @ 8612.26' MD									
8,612.98	90.00	271.29	8,262.01	400.73	348.66	-341.33	1.51	0.00	1.51
FTP @ 8612.98' MD									
8,700.00	90.00	272.60	8,262.01	403.68	261.69	-254.32	1.50	0.00	1.50
8,800.00	90.00	274.10	8,262.01	409.52	161.87	-154.41	1.50	0.00	1.50
8,860.26	90.00	275.00	8,262.01	414.30	101.80	-94.26	1.50	0.00	1.50
Hold 90° INC, 275° AZM									
8,900.00	90.00	275.00	8,262.01	417.76	62.21	-54.61	0.00	0.00	0.00
9,000.00	90.00	275.00	8,262.01	426.48	-37.41	45.15	0.00	0.00	0.00
9,100.00	90.00	275.00	8,262.01	435.19	-137.03	144.91	0.00	0.00	0.00
9,200.00	90.00	275.00	8,262.01	443.91	-236.65	244.67	0.00	0.00	0.00
9,220.26	90.00	275.00	8,262.01	445.67	-256.83	264.88	0.00	0.00	0.00
Turn 1.5°/100'									
9,300.00	90.00	273.80	8,262.01	451.79	-336.34	344.48	1.50	0.00	-1.50
9,400.00	90.00	272.30	8,262.00	457.12	-436.19	444.42	1.50	0.00	-1.50
9,484.16	90.00	271.04	8,262.00	459.58	-520.31	528.57	1.50	0.00	-1.50
Hold 90° INC, 271.04° AZM									
9,500.00	90.00	271.04	8,262.00	459.87	-536.15	544.41	0.00	0.00	0.00
9,600.00	90.00	271.04	8,262.00	461.68	-636.14	644.41	0.00	0.00	0.00
9,700.00	90.00	271.04	8,262.00	463.50	-736.12	744.41	0.00	0.00	0.00
9,800.00	90.00	271.04	8,262.00	465.32	-836.10	844.41	0.00	0.00	0.00
9,900.00	90.00	271.04	8,262.00	467.14	-936.09	944.41	0.00	0.00	0.00
10,000.00	90.00	271.04	8,262.00	468.95	-1,036.07	1,044.41	0.00	0.00	0.00
10,100.00	90.00	271.04	8,262.00	470.77	-1,136.05	1,144.41	0.00	0.00	0.00
10,200.00	90.00	271.04	8,262.00	472.59	-1,236.04	1,244.41	0.00	0.00	0.00
10,300.00	90.00	271.04	8,262.00	474.41	-1,336.02	1,344.41	0.00	0.00	0.00
10,400.00	90.00	271.04	8,262.00	476.22	-1,436.00	1,444.41	0.00	0.00	0.00
10,500.00	90.00	271.04	8,262.00	478.04	-1,535.99	1,544.41	0.00	0.00	0.00
10,600.00	90.00	271.04	8,262.00	479.86	-1,635.97	1,644.41	0.00	0.00	0.00
10,700.00	90.00	271.04	8,262.00	481.68	-1,735.95	1,744.41	0.00	0.00	0.00
10,800.00	90.00	271.04	8,262.00	483.49	-1,835.94	1,844.41	0.00	0.00	0.00
10,900.00	90.00	271.04	8,262.00	485.31	-1,935.92	1,944.41	0.00	0.00	0.00
11,000.00	90.00	271.04	8,262.00	487.13	-2,035.90	2,044.41	0.00	0.00	0.00
11,100.00	90.00	271.04	8,262.00	488.95	-2,135.89	2,144.41	0.00	0.00	0.00
11,200.00	90.00	271.04	8,262.00	490.76	-2,235.87	2,244.41	0.00	0.00	0.00
11,300.00	90.00	271.04	8,262.00	492.58	-2,335.85	2,344.41	0.00	0.00	0.00

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
11,400.00	90.00	271.04	8,262.00	494.40	-2,435.84	2,444.41	0.00	0.00	0.00	
11,500.00	90.00	271.04	8,262.00	496.22	-2,535.82	2,544.41	0.00	0.00	0.00	
11,600.00	90.00	271.04	8,262.00	498.03	-2,635.81	2,644.41	0.00	0.00	0.00	
11,700.00	90.00	271.04	8,262.00	499.85	-2,735.79	2,744.41	0.00	0.00	0.00	
11,800.00	90.00	271.04	8,262.00	501.67	-2,835.77	2,844.41	0.00	0.00	0.00	
11,900.00	90.00	271.04	8,262.00	503.49	-2,935.76	2,944.41	0.00	0.00	0.00	
12,000.00	90.00	271.04	8,262.00	505.30	-3,035.74	3,044.41	0.00	0.00	0.00	
12,100.00	90.00	271.04	8,262.00	507.12	-3,135.72	3,144.41	0.00	0.00	0.00	
12,200.00	90.00	271.04	8,262.00	508.94	-3,235.71	3,244.41	0.00	0.00	0.00	
12,300.00	90.00	271.04	8,262.00	510.76	-3,335.69	3,344.41	0.00	0.00	0.00	
12,400.00	90.00	271.04	8,262.00	512.58	-3,435.67	3,444.41	0.00	0.00	0.00	
12,500.00	90.00	271.04	8,262.00	514.39	-3,535.66	3,544.41	0.00	0.00	0.00	
12,600.00	90.00	271.04	8,262.00	516.21	-3,635.64	3,644.41	0.00	0.00	0.00	
12,700.00	90.00	271.04	8,262.00	518.03	-3,735.62	3,744.41	0.00	0.00	0.00	
12,800.00	90.00	271.04	8,262.00	519.85	-3,835.61	3,844.41	0.00	0.00	0.00	
12,900.00	90.00	271.04	8,262.00	521.66	-3,935.59	3,944.41	0.00	0.00	0.00	
13,000.00	90.00	271.04	8,262.00	523.48	-4,035.57	4,044.41	0.00	0.00	0.00	
13,100.00	90.00	271.04	8,262.00	525.30	-4,135.56	4,144.41	0.00	0.00	0.00	
13,200.00	90.00	271.04	8,262.00	527.12	-4,235.54	4,244.41	0.00	0.00	0.00	
13,300.00	90.00	271.04	8,262.00	528.93	-4,335.52	4,344.41	0.00	0.00	0.00	
13,400.00	90.00	271.04	8,262.00	530.75	-4,435.51	4,444.41	0.00	0.00	0.00	
13,500.00	90.00	271.04	8,262.00	532.57	-4,535.49	4,544.41	0.00	0.00	0.00	
13,600.00	90.00	271.04	8,262.00	534.39	-4,635.47	4,644.41	0.00	0.00	0.00	
13,700.00	90.00	271.04	8,262.00	536.20	-4,735.46	4,744.41	0.00	0.00	0.00	
13,800.00	90.00	271.04	8,262.00	538.02	-4,835.44	4,844.41	0.00	0.00	0.00	
13,900.00	90.00	271.04	8,262.00	539.84	-4,935.43	4,944.41	0.00	0.00	0.00	
14,000.00	90.00	271.04	8,262.00	541.66	-5,035.41	5,044.41	0.00	0.00	0.00	
14,100.00	90.00	271.04	8,262.00	543.47	-5,135.39	5,144.41	0.00	0.00	0.00	
14,200.00	90.00	271.04	8,262.00	545.29	-5,235.38	5,244.41	0.00	0.00	0.00	
14,300.00	90.00	271.04	8,262.00	547.11	-5,335.36	5,344.41	0.00	0.00	0.00	
14,400.00	90.00	271.04	8,262.00	548.93	-5,435.34	5,444.41	0.00	0.00	0.00	
14,500.00	90.00	271.04	8,262.00	550.74	-5,535.33	5,544.41	0.00	0.00	0.00	
14,600.00	90.00	271.04	8,262.00	552.56	-5,635.31	5,644.41	0.00	0.00	0.00	
14,700.00	90.00	271.04	8,262.00	554.38	-5,735.29	5,744.41	0.00	0.00	0.00	
14,800.00	90.00	271.04	8,262.00	556.20	-5,835.28	5,844.41	0.00	0.00	0.00	
14,900.00	90.00	271.04	8,262.00	558.01	-5,935.26	5,944.41	0.00	0.00	0.00	
15,000.00	90.00	271.04	8,262.00	559.83	-6,035.24	6,044.41	0.00	0.00	0.00	
15,100.00	90.00	271.04	8,262.00	561.65	-6,135.23	6,144.41	0.00	0.00	0.00	
15,200.00	90.00	271.04	8,262.00	563.47	-6,235.21	6,244.41	0.00	0.00	0.00	
15,300.00	90.00	271.04	8,262.00	565.28	-6,335.19	6,344.41	0.00	0.00	0.00	
15,400.00	90.00	271.04	8,262.00	567.10	-6,435.18	6,444.41	0.00	0.00	0.00	
15,500.00	90.00	271.04	8,262.00	568.92	-6,535.16	6,544.41	0.00	0.00	0.00	
15,600.00	90.00	271.04	8,262.00	570.74	-6,635.14	6,644.41	0.00	0.00	0.00	
15,700.00	90.00	271.04	8,262.00	572.55	-6,735.13	6,744.41	0.00	0.00	0.00	
15,800.00	90.00	271.04	8,262.00	574.37	-6,835.11	6,844.41	0.00	0.00	0.00	
15,900.00	90.00	271.04	8,262.00	576.19	-6,935.09	6,944.41	0.00	0.00	0.00	
16,000.00	90.00	271.04	8,262.00	578.01	-7,035.08	7,044.41	0.00	0.00	0.00	
16,100.00	90.00	271.04	8,262.00	579.82	-7,135.06	7,144.41	0.00	0.00	0.00	
16,200.00	90.00	271.04	8,262.00	581.64	-7,235.05	7,244.41	0.00	0.00	0.00	
16,300.00	90.00	271.04	8,262.00	583.46	-7,335.03	7,344.41	0.00	0.00	0.00	
16,400.00	90.00	271.04	8,262.00	585.28	-7,435.01	7,444.41	0.00	0.00	0.00	
16,500.00	90.00	271.04	8,262.00	587.09	-7,535.00	7,544.41	0.00	0.00	0.00	
16,600.00	90.00	271.04	8,262.00	588.91	-7,634.98	7,644.41	0.00	0.00	0.00	
16,700.00	90.00	271.04	8,262.00	590.73	-7,734.96	7,744.41	0.00	0.00	0.00	

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,800.00	90.00	271.04	8,262.00	592.55	-7,834.95	7,844.41	0.00	0.00	0.00
16,900.00	90.00	271.04	8,262.00	594.36	-7,934.93	7,944.41	0.00	0.00	0.00
17,000.00	90.00	271.04	8,262.00	596.18	-8,034.91	8,044.41	0.00	0.00	0.00
17,100.00	90.00	271.04	8,262.00	598.00	-8,134.90	8,144.41	0.00	0.00	0.00
17,200.00	90.00	271.04	8,262.00	599.82	-8,234.88	8,244.41	0.00	0.00	0.00
17,300.00	90.00	271.04	8,262.00	601.63	-8,334.86	8,344.41	0.00	0.00	0.00
17,400.00	90.00	271.04	8,262.00	603.45	-8,434.85	8,444.41	0.00	0.00	0.00
17,500.00	90.00	271.04	8,262.00	605.27	-8,534.83	8,544.41	0.00	0.00	0.00
17,600.00	90.00	271.04	8,262.00	607.09	-8,634.81	8,644.41	0.00	0.00	0.00
17,700.00	90.00	271.04	8,262.00	608.90	-8,734.80	8,744.41	0.00	0.00	0.00
17,800.00	90.00	271.04	8,262.00	610.72	-8,834.78	8,844.41	0.00	0.00	0.00
17,900.00	90.00	271.04	8,262.00	612.54	-8,934.76	8,944.41	0.00	0.00	0.00
18,000.00	90.00	271.04	8,262.00	614.36	-9,034.75	9,044.41	0.00	0.00	0.00
18,100.00	90.00	271.04	8,262.00	616.18	-9,134.73	9,144.41	0.00	0.00	0.00
18,200.00	90.00	271.04	8,262.00	617.99	-9,234.72	9,244.41	0.00	0.00	0.00
18,300.00	90.00	271.04	8,262.00	619.81	-9,334.70	9,344.41	0.00	0.00	0.00
18,400.00	90.00	271.04	8,262.00	621.63	-9,434.68	9,444.41	0.00	0.00	0.00
18,500.00	90.00	271.04	8,262.00	623.45	-9,534.67	9,544.41	0.00	0.00	0.00
18,600.00	90.00	271.04	8,262.00	625.26	-9,634.65	9,644.41	0.00	0.00	0.00
18,700.00	90.00	271.04	8,262.00	627.08	-9,734.63	9,744.41	0.00	0.00	0.00
18,800.00	90.00	271.04	8,262.00	628.90	-9,834.62	9,844.41	0.00	0.00	0.00
18,900.00	90.00	271.04	8,262.00	630.72	-9,934.60	9,944.41	0.00	0.00	0.00
18,988.96	90.00	271.04	8,262.00	632.33	-10,023.54	10,033.37	0.00	0.00	0.00
LTP @ 18988.96' MD									
19,000.00	90.00	271.04	8,262.00	632.53	-10,034.58	10,044.41	0.00	0.00	0.00
19,038.90	90.00	271.04	8,262.00	633.24	-10,073.48	10,083.31	0.00	0.00	0.00
TD at 19038.90' MD									

Planning Report

Database:	Fhartmann	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Company:	Apache Corporation	TVD Reference:	PATT 879 @ 3499.00usft
Project:	Eddy Co, NM (NAD83 NM E)	MD Reference:	PATT 879 @ 3499.00usft
Site:	Camacho 25 26	North Reference:	Grid
Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Camacho 25-26 301H - - plan misses target center by 563.88usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	442.78	349.15	595,620.42	574,949.38	32.637362	-104.224142
Camacho 25-26 301H - - plan misses target center by 914.12usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	390.05	826.73	595,567.69	575,426.96	32.637216	-104.222591
Camacho 25-26 301H - - plan misses target center by 1919.97usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Polygon	0.00	0.00	0.00	-1,892.74	-322.23	593,284.90	574,278.00	32.630944	-104.226331
Point 1			0.00	2,306.08	771.52	595,590.98	575,049.52		
Point 2			0.00	2,298.10	1,149.32	595,583.00	575,427.32		
Point 3			0.00	2,289.50	1,162.57	595,574.40	575,440.57		
Point 4			0.00	2,282.79	1,164.00	595,567.69	575,442.00		
Point 5			0.00	2,269.54	1,155.40	595,554.44	575,433.40		
Point 6			0.00	2,087.53	769.45	595,372.43	575,047.45		
Point 7			0.00	2,120.85	769.76	595,405.75	575,047.76		
Point 8			0.00	2,269.46	1,084.89	595,554.36	575,362.89		
Point 9			0.00	2,276.08	771.24	595,560.98	575,049.24		
Point 10			0.00	2,306.08	771.52	595,590.98	575,049.52		
Camacho 25-26 301H - - plan misses target center by 600.14usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	398.50	448.74	595,576.14	575,048.97	32.637240	-104.223819
Camacho 25-26 301H - - plan misses target center by 8262.00usft at 18988.91usft MD (8262.00 TVD, 632.33 N, -10023.49 E) - Point	0.00	0.00	0.00	632.33	-10,023.49	595,809.97	564,576.74	32.637908	-104.257838
Camacho 25-26 301H - - plan hits target center - Point	0.00	0.00	8,262.00	633.24	-10,073.48	595,810.88	564,526.75	32.637910	-104.258000

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	1,000.00	0.00	0.00	Build 2.5°/100'
1,398.80	1,396.79	14.77	31.30	Hold 9.97° INC
4,056.99	4,014.84	211.14	447.52	Off Lease @ 4056.99' MD
6,278.92	6,203.21	375.28	795.43	Drop 2.5°/100'
6,677.72	6,600.00	390.05	826.73	Hold Vertical
7,862.26	7,784.54	390.05	826.73	KOP @ 7862.26' MD
8,511.98	8,251.51	398.49	448.90	On Lease @ 8511.98' MD
8,612.26	8,262.01	400.72	349.38	Land @ 8612.26' MD
8,612.98	8,262.01	400.73	348.66	FTP @ 8612.98' MD
8,860.26	8,262.01	414.30	101.80	Hold 90° INC, 275° AZM
9,220.26	8,262.01	445.67	-256.83	Turn 1.5°/100'
9,484.16	8,262.00	459.58	-520.31	Hold 90° INC, 271.04° AZM
18,988.96	8,262.00	632.33	-10,023.54	LTP @ 18988.96' MD
19,038.90	8,262.00	633.24	-10,073.48	TD at 19038.90' MD

Apache Corporation

Eddy Co, NM (NAD83 NM E)

Camacho 25 26

Camacho 25-26 State Com 301H

OH

Plan #1

Anticollision Report

10 October, 2024

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	0.00 to 35,000.00usft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 2,500.00usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program	Date	10/10/2024		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	19,038.90	Plan #1 (OH)	MWD+HRGM	OWSG MWD + HRGM

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Camacho 25 26						
Camacho 25-26 State Com 201H - OH - Plan #1	600.00	600.00	30.02	24.30	5.255	CC, ES
Camacho 25-26 State Com 201H - OH - Plan #1	6,600.00	6,609.16	84.62	44.60	2.115	SF
Camacho 25-26 State Com 202H - OH - Plan #1	5,929.78	6,150.26	1,433.60	1,392.69	35.043	CC, ES
Camacho 25-26 State Com 202H - OH - Plan #1	19,038.90	17,877.63	2,038.44	1,752.86	7.138	SF
Camacho 25-26 State Com 203H - OH - Plan #1	566.33	567.33	1,979.22	1,974.54	422.237	CC
Camacho 25-26 State Com 203H - OH - Plan #1	700.00	681.70	1,979.72	1,974.27	363.913	ES
Camacho 25-26 State Com 203H - OH - Plan #1	3,800.00	3,556.09	2,493.94	2,468.98	99.942	SF
Camacho 25-26 State Com 204H - OH - Plan #1	566.33	567.33	2,008.78	2,004.09	428.542	CC
Camacho 25-26 State Com 204H - OH - Plan #1	600.00	600.00	2,008.78	2,003.88	410.012	ES
Camacho 25-26 State Com 204H - OH - Plan #1	2,500.00	1,634.65	2,482.06	2,468.58	184.133	SF
Camacho 25 26 Offsets						
ANGELL RANCH 26 #001 - OH - OH	14,778.45	8,284.10	613.44	277.42	1.826	Collision Risk Procedures R
ANGELL RANCH 26 #001 - OH - OH	14,800.00	8,284.09	613.82	277.53	1.825	Collision Risk Procedures R
EDDY GL STATE COM #001 - OH - OH	1,000.00	964.50	2,467.19	2,419.53	51.775	CC
EDDY GL STATE COM #001 - OH - OH	1,200.00	1,164.25	2,471.70	2,415.26	43.796	ES
EDDY GL STATE COM #001 - OH - OH	1,500.00	1,460.96	2,494.51	2,424.41	35.587	SF
GUARDIAN 25 STATE COM #001 - OH - OH	11,804.45	8,245.24	1,567.05	1,289.07	5.637	CC, ES
GUARDIAN 25 STATE COM #001 - OH - OH	11,900.00	8,245.24	1,570.07	1,290.37	5.613	SF
LAKEWOOD STATE COM #001 - OH - OH						Out of range
Palmillo 29-30 271H - OH - OH	1,966.92	1,961.31	101.54	88.22	7.623	CC
Palmillo 29-30 271H - OH - OH	2,000.00	1,993.96	101.65	88.13	7.515	ES
Palmillo 29-30 271H - OH - OH	7,133.24	7,520.94	259.23	212.89	5.594	SF
Palmillo 29-30 272H - OH - OH	4,243.72	4,434.27	1,636.52	1,606.16	53.916	CC
Palmillo 29-30 272H - OH - OH	4,300.00	4,484.38	1,636.62	1,605.87	53.237	ES
Palmillo 29-30 272H - OH - OH	7,000.00	7,362.27	1,697.61	1,650.21	35.819	SF
Palmillo 29-30 273H - OH - OH	905.29	906.39	1,822.80	1,816.25	278.636	CC, ES
Palmillo 29-30 273H - OH - OH	3,800.00	3,535.42	2,486.26	2,461.43	100.137	SF
Palmillo 29-30 274H - OH - OH						Out of range
Palmillo 29-30 375H - OH - OH	0.00	1.30	90.38			
Palmillo 29-30 375H - OH - OH	300.00	300.78	91.00	88.33	34.117	ES
Palmillo 29-30 375H - OH - OH	8,400.00	8,570.45	221.37	179.93	5.343	SF
Palmillo 29-30 376H - OH - OH	8,100.00	9,015.17	1,667.32	1,616.69	32.927	SF
Palmillo 29-30 376H - OH - OH	8,183.00	8,982.00	1,664.07	1,613.67	33.020	CC, ES
Palmillo 29-30 377H - OH - OH	1,010.99	1,017.20	1,852.27	1,845.09	257.986	CC, ES
Palmillo 29-30 377H - OH - OH	4,100.00	3,762.91	2,477.69	2,451.19	93.501	SF
Palmillo 29-30 378H - OH - OH						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Summary

Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Camacho 25 26 Offsets						
STATE E-4202 1 - OH - OH	1,000.00	981.00	1,559.19	1,510.87	32.267	CC
STATE E-4202 1 - OH - OH	1,100.00	1,080.97	1,561.03	1,508.32	29.618	ES
STATE E-4202 1 - OH - OH	2,700.00	2,654.00	1,783.58	1,659.73	14.401	SF
WHITE THORN 26 STATE COM #001 - OH - OH						Out of range

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 201H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.00 usft
Reference Measured Depth (usft)	Vertical Depth (usft)	Offset Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	0.00	0.00	0.00	0.53	30.01	0.28	30.02				
100.00	100.00	100.00	100.00	0.86	0.86	0.53	30.01	0.28	30.02	28.30	1.71	17.506	
200.00	200.00	200.00	200.00	1.46	1.46	0.53	30.01	0.28	30.02	27.10	2.92	10.295	
300.00	300.00	300.00	300.00	1.90	1.90	0.53	30.01	0.28	30.02	26.21	3.80	7.896	
400.00	400.00	400.00	400.00	2.26	2.26	0.53	30.01	0.28	30.02	25.49	4.52	6.636	
500.00	500.00	500.00	500.00	2.57	2.57	0.53	30.01	0.28	30.02	24.87	5.15	5.829	
600.00	600.00	600.00	600.00	2.86	2.86	0.53	30.01	0.28	30.02	24.30	5.71	5.255	CC, ES
700.00	700.00	699.31	699.28	3.11	3.46	4.00	31.03	2.17	31.12	24.76	6.36	4.895	
800.00	800.00	798.25	798.00	3.35	4.65	12.94	34.07	7.83	35.01	27.67	7.35	4.766	
900.00	900.00	896.46	895.63	3.58	5.62	23.69	39.07	17.15	42.89	34.35	8.54	5.023	
1,000.00	1,000.00	993.58	991.65	3.79	6.46	33.11	45.97	29.98	55.51	45.76	9.75	5.696	
1,100.00	1,099.97	1,091.26	1,087.64	4.27	6.71	-25.23	54.52	45.90	70.38	59.79	10.59	6.643	
1,200.00	1,199.75	1,190.47	1,185.06	5.30	6.94	-22.05	63.39	62.42	82.16	70.33	11.83	6.947	
1,300.00	1,299.14	1,290.13	1,282.93	6.18	7.20	-20.64	72.31	79.02	90.04	77.08	12.96	6.949	
1,398.80	1,396.79	1,388.85	1,379.87	6.96	7.48	-20.36	81.13	95.45	93.84	79.86	13.98	6.712	
1,400.00	1,397.97	1,390.05	1,381.05	6.96	7.48	-20.37	81.24	95.65	93.86	79.88	13.99	6.711	
1,500.00	1,496.46	1,490.04	1,479.23	7.70	7.78	-20.59	90.18	112.30	95.70	80.63	15.06	6.353	
1,600.00	1,594.95	1,590.02	1,577.41	7.91	8.10	-20.80	99.12	128.95	97.53	81.94	15.59	6.257	
1,700.00	1,693.44	1,690.00	1,675.59	8.15	8.43	-21.00	108.07	145.60	99.36	83.22	16.14	6.156	
1,800.00	1,791.93	1,789.98	1,773.77	8.40	8.77	-21.20	117.01	162.24	101.20	84.47	16.73	6.050	
1,900.00	1,890.42	1,889.97	1,871.95	8.66	9.12	-21.39	125.95	178.89	103.04	85.70	17.34	5.943	
2,000.00	1,988.91	1,989.95	1,970.13	8.95	9.48	-21.58	134.89	195.54	104.88	86.91	17.97	5.836	
2,100.00	2,087.40	2,089.93	2,068.31	9.24	9.85	-21.75	143.83	212.19	106.71	88.09	18.62	5.730	
2,200.00	2,185.89	2,189.91	2,166.49	9.55	10.23	-21.92	152.77	228.83	108.55	89.26	19.30	5.626	
2,300.00	2,284.38	2,289.90	2,264.67	9.87	10.62	-22.09	161.71	245.48	110.40	90.41	19.99	5.524	
2,400.00	2,382.87	2,389.88	2,362.85	10.20	11.01	-22.25	170.66	262.13	112.24	91.55	20.69	5.425	
2,500.00	2,481.36	2,489.86	2,461.03	10.54	11.41	-22.41	179.60	278.78	114.08	92.67	21.41	5.329	
2,600.00	2,579.85	2,589.84	2,559.21	10.89	11.81	-22.56	188.54	295.42	115.92	93.79	22.13	5.237	
2,700.00	2,678.34	2,689.83	2,657.39	11.25	12.21	-22.70	197.48	312.07	117.77	94.89	22.87	5.149	
2,800.00	2,776.83	2,789.81	2,755.57	11.61	12.63	-22.84	206.42	328.72	119.61	95.99	23.62	5.063	
2,900.00	2,875.32	2,889.79	2,853.76	11.98	13.04	-22.98	215.36	345.37	121.46	97.08	24.38	4.982	
3,000.00	2,973.81	2,989.77	2,951.94	12.35	13.46	-23.11	224.30	362.01	123.30	98.16	25.15	4.903	
3,100.00	3,072.30	3,089.76	3,050.12	12.73	13.88	-23.24	233.25	378.66	125.15	99.23	25.92	4.829	
3,200.00	3,170.79	3,189.74	3,148.30	13.12	14.30	-23.36	242.19	395.31	127.00	100.30	26.70	4.757	
3,300.00	3,269.28	3,289.72	3,246.48	13.51	14.73	-23.49	251.13	411.96	128.85	101.36	27.48	4.688	
3,400.00	3,367.77	3,389.70	3,344.66	13.90	15.15	-23.60	260.07	428.60	130.70	102.42	28.27	4.623	
3,500.00	3,466.26	3,489.69	3,442.84	14.30	15.58	-23.72	269.01	445.25	132.55	103.48	29.07	4.560	
3,600.00	3,564.75	3,589.67	3,541.02	14.70	16.02	-23.83	277.95	461.90	134.40	104.53	29.87	4.500	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 201H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
3,700.00	3,663.24	3,689.65	3,639.20	15.10	16.45	-23.94	286.89	478.54	136.25	105.58	30.67	4.442	
3,800.00	3,761.73	3,789.63	3,737.38	15.51	16.89	-24.04	295.83	495.19	138.10	106.62	31.48	4.387	
3,900.00	3,860.22	3,889.62	3,835.56	15.92	17.32	-24.15	304.78	511.84	139.95	107.66	32.29	4.334	
4,000.00	3,958.71	3,989.60	3,933.74	16.33	17.76	-24.25	313.72	528.49	141.80	108.70	33.10	4.284	
4,100.00	4,057.20	4,089.58	4,031.92	16.75	18.20	-24.34	322.66	545.13	143.65	109.73	33.92	4.235	
4,200.00	4,155.69	4,189.56	4,130.10	17.16	18.64	-24.44	331.60	561.78	145.50	110.77	34.74	4.189	
4,300.00	4,254.18	4,289.55	4,228.28	17.58	19.09	-24.53	340.54	578.43	147.36	111.80	35.56	4.144	
4,400.00	4,352.67	4,389.53	4,326.46	18.00	19.53	-24.62	349.48	595.08	149.21	112.83	36.38	4.101	
4,500.00	4,451.16	4,489.51	4,424.64	18.42	19.97	-24.71	358.42	611.72	151.06	113.86	37.21	4.060	
4,600.00	4,549.65	4,589.49	4,522.83	18.85	20.42	-24.80	367.37	628.37	152.92	114.89	38.03	4.021	
4,700.00	4,648.14	4,689.48	4,621.01	19.27	20.87	-24.88	376.31	645.02	154.77	115.91	38.86	3.983	
4,800.00	4,746.63	4,789.46	4,719.19	19.70	21.31	-24.96	385.25	661.67	156.63	116.93	39.69	3.946	
4,900.00	4,845.12	4,889.44	4,817.37	20.13	21.76	-25.04	394.19	678.31	158.48	117.96	40.53	3.911	
5,000.00	4,943.61	4,989.43	4,915.55	20.56	22.21	-25.12	403.13	694.96	160.34	118.98	41.36	3.877	
5,100.00	5,042.10	5,089.41	5,013.73	20.99	22.66	-25.20	412.07	711.61	162.19	120.00	42.19	3.844	
5,200.00	5,140.59	5,189.39	5,111.91	21.42	23.11	-25.27	421.01	728.26	164.05	121.02	43.03	3.812	
5,300.00	5,239.08	5,289.37	5,210.09	21.85	23.56	-25.34	429.96	744.90	165.91	122.04	43.87	3.782	
5,400.00	5,337.57	5,389.36	5,308.27	22.28	24.01	-25.42	438.90	761.55	167.76	123.06	44.71	3.753	
5,500.00	5,436.06	5,489.34	5,406.45	22.72	24.46	-25.49	447.84	778.20	169.62	124.07	45.54	3.724	
5,600.00	5,534.55	5,591.17	5,506.48	23.15	24.91	-25.58	456.87	795.02	171.34	124.96	46.38	3.694	
5,700.00	5,633.04	5,698.52	5,612.53	23.59	25.44	-26.14	464.71	809.62	169.96	122.80	47.17	3.604	
5,800.00	5,731.53	5,805.45	5,718.83	24.03	26.03	-27.41	470.18	819.80	164.33	116.57	47.76	3.441	
5,900.00	5,830.02	5,911.50	5,824.66	24.46	26.54	-29.57	473.28	825.57	154.62	106.63	47.99	3.222	
6,000.00	5,928.51	6,015.37	5,928.51	24.90	26.78	-32.90	474.09	827.07	141.18	93.52	47.66	2.962	
6,100.00	6,027.00	6,113.86	6,027.00	25.34	26.82	-37.12	474.09	827.07	126.92	79.92	47.00	2.700	
6,200.00	6,125.49	6,212.35	6,125.49	25.78	26.86	-42.37	474.09	827.07	113.51	67.64	45.88	2.474	
6,278.92	6,203.21	6,290.07	6,203.21	26.12	26.88	-47.42	474.09	827.07	103.75	59.17	44.58	2.327	
6,300.00	6,223.99	6,310.85	6,223.99	26.21	26.89	-48.84	474.09	827.07	101.36	57.19	44.17	2.295	
6,400.00	6,322.96	6,409.82	6,322.96	26.69	26.93	-55.27	474.09	827.07	92.53	50.21	42.31	2.187	
6,500.00	6,422.46	6,509.32	6,422.46	27.22	26.96	-60.50	474.09	827.07	87.23	46.39	40.83	2.136	
6,600.00	6,522.30	6,609.16	6,522.30	27.71	27.00	-63.72	474.09	827.07	84.62	44.60	40.01	2.115 SF	
6,651.07	6,573.35	6,659.91	6,572.96	27.81	26.90	-66.23	474.14	824.41	84.18	44.91	39.27	2.143	
6,677.72	6,600.00	6,686.00	6,598.81	27.87	26.83	-3.93	474.20	820.94	84.36	45.79	38.57	2.187	
6,700.00	6,622.28	6,707.49	6,619.94	27.87	26.77	-6.57	474.27	817.04	84.81	46.98	37.84	2.242	
6,800.00	6,722.28	6,798.16	6,706.42	27.91	26.47	-23.30	474.76	790.25	93.59	59.15	34.44	2.718	
6,900.00	6,822.28	6,875.00	6,774.65	27.94	26.21	-40.00	475.41	755.10	121.19	88.43	32.76	3.699	
7,000.00	6,922.28	6,941.62	6,828.59	27.98	25.99	-52.12	476.12	716.10	168.60	136.84	31.76	5.309	
7,100.00	7,022.28	6,994.69	6,867.35	28.01	25.84	-59.43	476.79	679.90	230.40	200.13	30.28	7.610	
7,200.00	7,122.28	7,037.79	6,895.72	28.05	25.73	-64.02	477.38	647.48	301.81	273.00	28.81	10.476	
7,300.00	7,222.28	7,075.00	6,917.78	28.08	25.66	-67.21	477.93	617.52	379.76	352.06	27.70	13.710	
7,400.00	7,322.28	7,100.00	6,931.26	28.12	25.61	-69.03	478.32	596.47	462.29	435.66	26.63	17.363	
7,500.00	7,422.28	7,125.00	6,943.61	28.15	25.58	-70.61	478.71	574.75	548.16	522.12	26.04	21.048	
7,600.00	7,522.28	7,150.00	6,954.82	28.19	25.55	-72.01	479.12	552.41	636.56	610.81	25.75	24.721	
7,700.00	7,622.28	7,163.39	6,960.33	28.23	25.55	-72.69	479.35	540.21	726.81	701.35	25.45	28.555	
7,800.00	7,722.28	7,175.00	6,964.84	28.26	25.54	-73.24	479.54	529.51	818.58	793.25	25.33	32.312	
7,862.26	7,784.54	7,186.31	6,968.97	28.28	25.54	-73.75	479.74	518.99	876.30	850.93	25.37	34.543	
7,875.00	7,797.28	7,187.95	6,969.55	28.26	25.54	13.96	479.76	517.45	888.11	862.74	25.37	35.009	
7,900.00	7,822.25	7,191.40	6,970.75	28.21	25.54	12.31	479.82	514.22	910.95	885.59	25.36	35.916	
7,925.00	7,847.10	7,200.00	6,973.64	28.14	25.53	10.89	479.97	506.12	933.37	907.97	25.40	36.751	
7,950.00	7,871.79	7,200.00	6,973.64	28.07	25.53	9.92	479.97	506.12	955.21	929.85	25.36	37.661	
7,975.00	7,896.24	7,200.00	6,973.64	27.99	25.53	9.10	479.97	506.12	976.57	951.23	25.34	38.539	
8,000.00	7,920.38	7,200.00	6,973.64	27.91	25.53	8.41	479.97	506.12	997.42	972.09	25.33	39.379	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 201H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.00 usft
Rule Assigned:													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,025.00	7,944.15	7,212.66	6,977.63	27.82	25.54	7.69	480.19	494.10	1,017.50	992.11	25.39	40.080	
8,050.00	7,967.48	7,225.00	6,981.21	27.73	25.54	7.09	480.41	482.30	1,037.12	1,011.68	25.44	40.764	
8,075.00	7,990.31	7,225.00	6,981.21	27.65	25.54	6.68	480.41	482.30	1,055.92	1,030.46	25.46	41.475	
8,100.00	8,012.58	7,225.00	6,981.21	27.56	25.54	6.32	480.41	482.30	1,074.11	1,048.61	25.50	42.124	
8,125.00	8,034.22	7,225.00	6,981.21	27.47	25.54	6.00	480.41	482.30	1,091.68	1,066.12	25.56	42.707	
8,150.00	8,055.18	7,239.10	6,984.93	27.39	25.55	5.66	480.66	468.70	1,108.31	1,082.66	25.65	43.201	
8,175.00	8,075.40	7,250.00	6,987.53	27.30	25.55	5.37	480.85	458.12	1,124.33	1,098.57	25.75	43.656	
8,200.00	8,094.81	7,250.00	6,987.53	27.22	25.55	5.16	480.85	458.12	1,139.49	1,113.61	25.88	44.037	
8,225.00	8,113.38	7,250.00	6,987.53	27.15	25.55	4.97	480.85	458.12	1,153.95	1,127.93	26.03	44.338	
8,250.00	8,131.05	7,262.87	6,990.28	27.07	25.57	4.77	481.08	445.54	1,167.47	1,141.30	26.17	44.606	
8,275.00	8,147.77	7,275.00	6,992.56	27.01	25.58	4.59	481.30	433.64	1,180.27	1,153.93	26.33	44.818	
8,300.00	8,163.49	7,275.00	6,992.56	26.94	25.58	4.46	481.30	433.64	1,192.11	1,165.56	26.56	44.890	
8,325.00	8,178.17	7,275.00	6,992.56	26.89	25.58	4.35	481.30	433.64	1,203.22	1,176.41	26.81	44.879	
8,350.00	8,191.77	7,288.29	6,994.72	26.84	25.60	4.23	481.54	420.53	1,213.31	1,186.28	27.02	44.898	
8,375.00	8,204.26	7,300.00	6,996.31	26.80	25.62	4.12	481.75	408.93	1,222.61	1,195.35	27.26	44.849	
8,400.00	8,215.60	7,300.00	6,996.31	26.77	25.62	4.05	481.75	408.93	1,230.94	1,203.36	27.59	44.618	
8,425.00	8,225.75	7,300.00	6,996.31	26.74	25.62	3.98	481.75	408.93	1,238.49	1,210.55	27.95	44.316	
8,450.00	8,234.70	7,314.81	6,997.92	26.73	25.65	3.91	482.02	394.20	1,244.94	1,216.72	28.22	44.117	
8,475.00	8,242.41	7,325.00	6,998.77	26.72	25.67	3.85	482.21	384.05	1,250.57	1,222.03	28.54	43.816	
8,500.00	8,248.87	7,325.00	6,998.77	26.73	25.67	3.81	482.21	384.05	1,255.26	1,226.29	28.97	43.333	
8,525.00	8,254.05	7,335.16	6,999.39	26.74	25.69	3.78	482.40	373.91	1,258.99	1,229.66	29.33	42.931	
8,550.00	8,257.95	7,350.00	6,999.91	26.77	25.73	3.75	482.67	359.09	1,261.88	1,232.23	29.65	42.553	
8,575.00	8,260.55	7,350.00	6,999.91	26.80	25.73	3.73	482.67	359.09	1,263.65	1,233.51	30.14	41.927	
8,600.00	8,261.85	7,355.71	6,999.99	26.85	25.75	3.72	482.77	353.38	1,264.57	1,233.99	30.58	41.351	
8,612.26	8,262.01	7,359.40	7,000.00	26.88	25.76	3.72	482.84	349.69	1,264.67	1,233.88	30.79	41.081	
8,700.00	8,262.01	7,444.19	7,000.00	27.12	26.04	3.70	485.33	264.94	1,264.64	1,233.04	31.60	40.020	
8,800.00	8,262.01	7,545.88	7,000.00	27.52	26.50	3.56	488.07	163.29	1,264.44	1,231.98	32.46	38.953	
8,860.26	8,262.01	7,606.02	7,000.00	27.82	26.84	3.39	489.16	103.16	1,264.22	1,231.23	32.99	38.323	
8,900.00	8,262.01	7,645.67	7,000.00	28.05	27.10	3.26	489.87	63.51	1,264.06	1,230.71	33.35	37.908	
9,000.00	8,262.01	7,745.43	7,000.00	28.75	27.87	2.95	491.68	-36.23	1,263.68	1,229.42	34.27	36.877	
9,100.00	8,262.01	7,845.19	7,000.00	29.64	28.82	2.64	493.48	-135.98	1,263.35	1,228.12	35.23	35.860	
9,200.00	8,262.01	7,944.95	7,000.00	30.73	29.96	2.33	495.28	-235.72	1,263.05	1,226.82	36.22	34.868	
9,220.26	8,262.01	7,965.16	7,000.00	30.97	30.22	2.26	495.65	-255.93	1,262.99	1,226.56	36.43	34.672	
9,300.00	8,262.01	8,044.77	7,000.00	32.00	31.28	2.05	497.09	-335.52	1,262.81	1,225.56	37.25	33.901	
9,400.00	8,262.00	8,144.70	7,000.00	33.44	32.76	1.90	498.90	-435.44	1,262.69	1,224.34	38.35	32.928	
9,484.16	8,262.00	8,228.85	7,000.00	34.74	34.11	1.85	500.42	-519.58	1,262.66	1,223.34	39.32	32.112	
9,500.00	8,262.00	8,244.69	7,000.00	34.99	34.37	1.85	500.70	-535.41	1,262.66	1,223.15	39.51	31.959	
9,600.00	8,262.00	8,344.69	7,000.00	36.64	36.09	1.85	502.51	-635.40	1,262.66	1,221.95	40.71	31.018	
9,700.00	8,262.00	8,444.69	7,000.00	38.38	37.89	1.85	504.32	-735.38	1,262.66	1,220.72	41.94	30.108	
9,800.00	8,262.00	8,544.69	7,000.00	40.21	39.77	1.85	506.13	-835.36	1,262.66	1,219.47	43.19	29.235	
9,900.00	8,262.00	8,644.69	7,000.00	42.10	41.70	1.85	507.93	-935.35	1,262.66	1,218.20	44.46	28.398	
10,000.00	8,262.00	8,744.69	7,000.00	44.05	43.69	1.85	509.74	-1,035.33	1,262.66	1,216.91	45.75	27.597	
10,100.00	8,262.00	8,844.69	7,000.00	46.04	45.71	1.85	511.55	-1,135.31	1,262.66	1,215.60	47.06	26.829	
10,200.00	8,262.00	8,944.69	7,000.00	48.07	47.76	1.85	513.36	-1,235.30	1,262.66	1,214.27	48.39	26.095	
10,300.00	8,262.00	9,044.69	7,000.00	50.13	49.85	1.85	515.17	-1,335.28	1,262.66	1,212.93	49.73	25.392	
10,400.00	8,262.00	9,144.69	7,000.00	52.22	51.96	1.85	516.97	-1,435.27	1,262.66	1,211.58	51.08	24.719	
10,500.00	8,262.00	9,244.69	7,000.00	54.33	54.08	1.85	518.78	-1,535.25	1,262.66	1,210.21	52.44	24.076	
10,600.00	8,262.00	9,344.69	7,000.00	56.46	56.23	1.85	520.59	-1,635.23	1,262.66	1,208.84	53.82	23.460	
10,700.00	8,262.00	9,444.69	7,000.00	58.61	58.40	1.85	522.40	-1,735.22	1,262.66	1,207.45	55.21	22.871	
10,800.00	8,262.00	9,544.69	7,000.00	60.77	60.57	1.85	524.21	-1,835.20	1,262.66	1,206.05	56.61	22.306	
10,900.00	8,262.00	9,644.69	7,000.00	62.95	62.76	1.85	526.01	-1,935.18	1,262.66	1,204.64	58.01	21.765	
11,000.00	8,262.00	9,744.69	7,000.00	65.14	64.96	1.85	527.82	-2,035.17	1,262.66	1,203.23	59.43	21.247	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 201H - OH - Plan #1												Offset Site Error: 0.00 usft	
Survey Program: 0-MWD+HRGM								Rule Assigned:				Offset Well Error: 0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
11,100.00	8,262.00	9,844.69	7,000.00	67.34	67.17	1.85	529.63	-2,135.15	1,262.66	1,201.81	60.85	20.750	
11,200.00	8,262.00	9,944.69	7,000.00	69.55	69.39	1.85	531.44	-2,235.14	1,262.66	1,200.38	62.28	20.274	
11,300.00	8,262.00	10,044.69	7,000.00	71.77	71.62	1.85	533.25	-2,335.12	1,262.66	1,198.94	63.72	19.817	
11,400.00	8,262.00	10,144.69	7,000.00	73.99	73.85	1.85	535.05	-2,435.10	1,262.66	1,197.49	65.16	19.378	
11,500.00	8,262.00	10,244.69	7,000.00	76.23	76.09	1.84	536.86	-2,535.09	1,262.65	1,196.05	66.61	18.956	
11,600.00	8,262.00	10,344.69	7,000.00	78.46	78.33	1.84	538.67	-2,635.07	1,262.65	1,194.59	68.06	18.551	
11,700.00	8,262.00	10,444.69	7,000.00	80.71	80.58	1.84	540.48	-2,735.05	1,262.65	1,193.13	69.52	18.161	
11,800.00	8,262.00	10,544.69	7,000.00	82.96	82.84	1.84	542.29	-2,835.04	1,262.65	1,191.66	70.99	17.786	
11,900.00	8,262.00	10,644.69	7,000.00	85.21	85.10	1.84	544.09	-2,935.02	1,262.65	1,190.19	72.46	17.425	
12,000.00	8,262.00	10,744.69	7,000.00	87.47	87.36	1.84	545.90	-3,035.00	1,262.65	1,188.72	73.93	17.078	
12,100.00	8,262.00	10,844.69	7,000.00	89.73	89.63	1.84	547.71	-3,134.99	1,262.65	1,187.24	75.41	16.743	
12,200.00	8,262.00	10,944.69	7,000.00	92.00	91.90	1.84	549.52	-3,234.97	1,262.65	1,185.76	76.90	16.420	
12,300.00	8,262.00	11,044.69	7,000.00	94.27	94.17	1.84	551.32	-3,334.96	1,262.65	1,184.27	78.38	16.109	
12,400.00	8,262.00	11,144.69	7,000.00	96.54	96.45	1.84	553.13	-3,434.94	1,262.65	1,182.78	79.87	15.809	
12,500.00	8,262.00	11,244.69	7,000.00	98.81	98.72	1.84	554.94	-3,534.92	1,262.65	1,181.29	81.36	15.519	
12,600.00	8,262.00	11,344.69	7,000.00	101.09	101.01	1.84	556.75	-3,634.91	1,262.65	1,179.79	82.86	15.239	
12,700.00	8,262.00	11,444.69	7,000.00	103.37	103.29	1.84	558.56	-3,734.89	1,262.65	1,178.29	84.36	14.968	
12,800.00	8,262.00	11,544.69	7,000.00	105.65	105.57	1.84	560.36	-3,834.87	1,262.65	1,176.79	85.86	14.706	
12,900.00	8,262.00	11,644.69	7,000.00	107.94	107.86	1.84	562.17	-3,934.86	1,262.65	1,175.29	87.36	14.453	
13,000.00	8,262.00	11,744.69	7,000.00	110.22	110.15	1.84	563.98	-4,034.84	1,262.65	1,173.78	88.87	14.208	
13,100.00	8,262.00	11,844.69	7,000.00	112.51	112.44	1.84	565.79	-4,134.82	1,262.65	1,172.27	90.38	13.971	
13,200.00	8,262.00	11,944.69	7,000.00	114.80	114.74	1.84	567.60	-4,234.81	1,262.65	1,170.76	91.89	13.741	
13,300.00	8,262.00	12,044.69	7,000.00	117.10	117.03	1.84	569.40	-4,334.79	1,262.65	1,169.25	93.40	13.518	
13,400.00	8,262.00	12,144.69	7,000.00	119.39	119.33	1.84	571.21	-4,434.78	1,262.65	1,167.73	94.92	13.302	
13,500.00	8,262.00	12,244.69	7,000.00	121.68	121.62	1.84	573.02	-4,534.76	1,262.65	1,166.21	96.44	13.093	
13,600.00	8,262.00	12,344.69	7,000.00	123.98	123.92	1.84	574.83	-4,634.74	1,262.65	1,164.69	97.96	12.890	
13,700.00	8,262.00	12,444.69	7,000.00	126.28	126.22	1.84	576.64	-4,734.73	1,262.65	1,163.17	99.48	12.693	
13,800.00	8,262.00	12,544.69	7,000.00	128.58	128.52	1.83	578.44	-4,834.71	1,262.65	1,161.65	101.00	12.502	
13,900.00	8,262.00	12,644.69	7,000.00	130.88	130.83	1.83	580.25	-4,934.69	1,262.65	1,160.12	102.52	12.316	
14,000.00	8,262.00	12,744.69	7,000.00	133.18	133.13	1.83	582.06	-5,034.68	1,262.65	1,158.60	104.05	12.135	
14,100.00	8,262.00	12,844.69	7,000.00	135.48	135.43	1.83	583.87	-5,134.66	1,262.65	1,157.07	105.58	11.960	
14,200.00	8,262.00	12,944.69	7,000.00	137.78	137.74	1.83	585.67	-5,234.64	1,262.65	1,155.54	107.11	11.789	
14,300.00	8,262.00	13,044.69	7,000.00	140.09	140.04	1.83	587.48	-5,334.63	1,262.65	1,154.01	108.64	11.623	
14,400.00	8,262.00	13,144.69	7,000.00	142.39	142.35	1.83	589.29	-5,434.61	1,262.65	1,152.48	110.17	11.461	
14,500.00	8,262.00	13,244.69	7,000.00	144.70	144.66	1.83	591.10	-5,534.60	1,262.65	1,150.95	111.70	11.304	
14,600.00	8,262.00	13,344.69	7,000.00	147.01	146.97	1.83	592.91	-5,634.58	1,262.65	1,149.41	113.23	11.151	
14,700.00	8,262.00	13,444.69	7,000.00	149.31	149.28	1.83	594.71	-5,734.56	1,262.64	1,147.88	114.77	11.002	
14,800.00	8,262.00	13,544.69	7,000.00	151.62	151.59	1.83	596.52	-5,834.55	1,262.64	1,146.34	116.30	10.856	
14,900.00	8,262.00	13,644.69	7,000.00	153.93	153.90	1.83	598.33	-5,934.53	1,262.64	1,144.80	117.84	10.715	
15,000.00	8,262.00	13,744.69	7,000.00	156.24	156.21	1.83	600.14	-6,034.51	1,262.64	1,143.26	119.38	10.577	
15,100.00	8,262.00	13,844.69	7,000.00	158.55	158.52	1.83	601.95	-6,134.50	1,262.64	1,141.72	120.92	10.442	
15,200.00	8,262.00	13,944.69	7,000.00	160.86	160.83	1.83	603.75	-6,234.48	1,262.64	1,140.18	122.46	10.311	
15,300.00	8,262.00	14,044.69	7,000.00	163.17	163.14	1.83	605.56	-6,334.47	1,262.64	1,138.64	124.00	10.183	
15,400.00	8,262.00	14,144.69	7,000.00	165.48	165.46	1.83	607.37	-6,434.45	1,262.64	1,137.10	125.54	10.058	
15,500.00	8,262.00	14,244.69	7,000.00	167.80	167.77	1.83	609.18	-6,534.43	1,262.64	1,135.56	127.08	9.935	
15,600.00	8,262.00	14,344.69	7,000.00	170.11	170.08	1.83	610.99	-6,634.42	1,262.64	1,134.01	128.63	9.816	
15,700.00	8,262.00	14,444.69	7,000.00	172.42	172.40	1.83	612.79	-6,734.40	1,262.64	1,132.47	130.17	9.700	
15,800.00	8,262.00	14,544.69	7,000.00	174.74	174.71	1.83	614.60	-6,834.38	1,262.64	1,130.92	131.72	9.586	
15,900.00	8,262.00	14,644.69	7,000.00	177.05	177.03	1.83	616.41	-6,934.37	1,262.64	1,129.38	133.26	9.475	
16,000.00	8,262.00	14,744.69	7,000.00	179.37	179.34	1.83	618.22	-7,034.35	1,262.64	1,127.83	134.81	9.366	
16,100.00	8,262.00	14,844.69	7,000.00	181.68	181.66	1.82	620.03	-7,134.33	1,262.64	1,126.28	136.36	9.260	
16,200.00	8,262.00	14,944.69	7,000.00	184.00	183.98	1.82	621.83	-7,234.32	1,262.64	1,124.74	137.90	9.156	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 201H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,300.00	8,262.00	15,044.69	7,000.00	186.31	186.29	1.82	623.64	-7,334.30	1,262.64	1,123.19	139.45	9.054	
16,400.00	8,262.00	15,144.69	7,000.00	188.63	188.61	1.82	625.45	-7,434.29	1,262.64	1,121.64	141.00	8.955	
16,500.00	8,262.00	15,244.69	7,000.00	190.95	190.93	1.82	627.26	-7,534.27	1,262.64	1,120.09	142.55	8.857	
16,600.00	8,262.00	15,344.69	7,000.00	193.27	193.25	1.82	629.06	-7,634.25	1,262.64	1,118.54	144.10	8.762	
16,700.00	8,262.00	15,444.69	7,000.00	195.58	195.57	1.82	630.87	-7,734.24	1,262.64	1,116.99	145.65	8.669	
16,800.00	8,262.00	15,544.69	7,000.00	197.90	197.88	1.82	632.68	-7,834.22	1,262.64	1,115.43	147.20	8.577	
16,900.00	8,262.00	15,644.69	7,000.00	200.22	200.20	1.82	634.49	-7,934.20	1,262.64	1,113.88	148.76	8.488	
17,000.00	8,262.00	15,744.69	7,000.00	202.54	202.52	1.82	636.30	-8,034.19	1,262.64	1,112.33	150.31	8.400	
17,100.00	8,262.00	15,844.69	7,000.00	204.86	204.84	1.82	638.10	-8,134.17	1,262.64	1,110.78	151.86	8.314	
17,200.00	8,262.00	15,944.69	7,000.00	207.17	207.16	1.82	639.91	-8,234.15	1,262.64	1,109.22	153.41	8.230	
17,300.00	8,262.00	16,044.69	7,000.00	209.49	209.48	1.82	641.72	-8,334.14	1,262.64	1,107.67	154.97	8.148	
17,400.00	8,262.00	16,144.69	7,000.00	211.81	211.80	1.82	643.53	-8,434.12	1,262.64	1,106.11	156.52	8.067	
17,500.00	8,262.00	16,244.69	7,000.00	214.13	214.12	1.82	645.34	-8,534.11	1,262.64	1,104.56	158.08	7.987	
17,600.00	8,262.00	16,344.69	7,000.00	216.45	216.44	1.82	647.14	-8,634.09	1,262.64	1,103.00	159.63	7.910	
17,700.00	8,262.00	16,444.69	7,000.00	218.77	218.76	1.82	648.95	-8,734.07	1,262.64	1,101.45	161.19	7.833	
17,800.00	8,262.00	16,544.69	7,000.00	221.09	221.08	1.82	650.76	-8,834.06	1,262.64	1,099.89	162.74	7.758	
17,900.00	8,262.00	16,644.69	7,000.00	223.41	223.41	1.82	652.57	-8,934.04	1,262.63	1,098.34	164.30	7.685	
18,000.00	8,262.00	16,744.69	7,000.00	225.74	225.73	1.82	654.38	-9,034.02	1,262.63	1,096.78	165.86	7.613	
18,100.00	8,262.00	16,844.69	7,000.00	228.06	228.05	1.82	656.18	-9,134.01	1,262.63	1,095.22	167.41	7.542	
18,200.00	8,262.00	16,944.69	7,000.00	230.38	230.37	1.82	657.99	-9,233.99	1,262.63	1,093.66	168.97	7.473	
18,300.00	8,262.00	17,044.69	7,000.00	232.70	232.69	1.82	659.80	-9,333.97	1,262.63	1,092.11	170.53	7.404	
18,400.00	8,262.00	17,144.69	7,000.00	235.02	235.02	1.81	661.61	-9,433.96	1,262.63	1,090.55	172.09	7.337	
18,500.00	8,262.00	17,244.69	7,000.00	237.34	237.34	1.81	663.41	-9,533.94	1,262.63	1,088.99	173.64	7.271	
18,600.00	8,262.00	17,344.69	7,000.00	239.67	239.66	1.81	665.22	-9,633.93	1,262.63	1,087.43	175.20	7.207	
18,700.00	8,262.00	17,444.69	7,000.00	241.99	241.98	1.81	667.03	-9,733.91	1,262.63	1,085.87	176.76	7.143	
18,800.00	8,262.00	17,544.69	7,000.00	244.31	244.31	1.81	668.84	-9,833.89	1,262.63	1,084.31	178.32	7.081	
18,900.00	8,262.00	17,644.69	7,000.00	246.63	246.63	1.81	670.65	-9,933.88	1,262.63	1,082.75	179.88	7.019	
19,000.00	8,262.00	17,744.69	7,000.00	248.96	248.95	1.81	672.45	-10,033.86	1,262.63	1,081.19	181.44	6.959	
19,038.90	8,262.00	17,783.60	7,000.00	249.86	249.86	1.81	673.16	-10,072.76	1,262.63	1,080.59	182.05	6.936	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 202H - OH - Plan #1													Offset Site Error: 0.00 usft	
Survey Program:		0-SuperiorQC MWD+IFR1+SAG+FDIR						Rule Assigned:					Offset Well Error: 0.00 usft	
Measured Depth (usft)	Reference Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.00	0.00	0.00	0.00	-170.48	-1,922.63	-322.43	1,949.48					
100.00	100.00	101.00	100.00	0.86	0.25	-170.48	-1,922.63	-322.43	1,949.48	1,948.37	1.11	1,753.427		
200.00	200.00	201.00	200.00	1.46	0.61	-170.48	-1,922.63	-322.43	1,949.48	1,947.41	2.07	941.457		
300.00	300.00	301.00	300.00	1.90	0.97	-170.48	-1,922.63	-322.43	1,949.48	1,946.61	2.87	678.733		
400.00	400.00	401.00	400.00	2.26	1.33	-170.48	-1,922.63	-322.43	1,949.48	1,945.89	3.59	542.818		
500.00	500.00	501.00	500.00	2.57	1.69	-170.48	-1,922.63	-322.43	1,949.48	1,945.22	4.26	457.295		
600.00	600.00	601.97	600.97	2.86	2.05	-170.48	-1,922.63	-322.43	1,949.48	1,944.58	4.91	397.342		
700.00	700.00	798.47	797.31	3.11	2.75	-170.62	-1,918.52	-316.92	1,946.95	1,941.10	5.86	332.377		
800.00	800.00	993.12	990.89	3.35	3.45	-171.03	-1,906.51	-300.86	1,939.52	1,932.74	6.78	286.170		
900.00	900.00	1,184.20	1,179.16	3.58	4.13	-171.71	-1,887.10	-274.88	1,927.34	1,919.67	7.66	251.456		
1,000.00	1,000.00	1,370.15	1,359.91	3.79	4.82	-172.65	-1,861.03	-240.01	1,910.65	1,902.13	8.52	224.318		
1,100.00	1,099.97	1,488.62	1,473.70	4.27	5.26	122.33	-1,841.31	-213.61	1,892.09	1,882.84	9.24	204.696		
1,200.00	1,199.75	1,586.18	1,567.32	5.30	5.63	122.23	-1,824.89	-191.64	1,875.83	1,865.78	10.05	186.673		
1,300.00	1,299.14	1,684.56	1,661.74	6.18	6.01	122.18	-1,808.32	-169.48	1,861.96	1,851.12	10.83	171.876		
1,398.80	1,396.79	1,782.40	1,755.63	6.96	6.39	122.19	-1,791.85	-147.44	1,850.57	1,838.97	11.59	159.617		
1,400.00	1,397.97	1,783.60	1,756.78	6.96	6.39	122.19	-1,791.65	-147.18	1,850.44	1,838.85	11.60	159.549		
1,500.00	1,496.46	1,882.88	1,852.06	7.70	6.78	122.01	-1,774.94	-124.81	1,840.08	1,827.21	12.87	143.003		
1,600.00	1,594.95	1,982.17	1,947.34	7.91	7.16	121.82	-1,758.23	-102.45	1,829.73	1,816.30	13.43	136.240		
1,700.00	1,693.44	2,081.45	2,042.62	8.15	7.55	121.63	-1,741.52	-80.09	1,819.41	1,805.40	14.01	129.911		
1,800.00	1,791.93	2,180.74	2,137.90	8.40	7.94	121.44	-1,724.80	-57.73	1,809.10	1,794.51	14.59	123.992		
1,900.00	1,890.42	2,280.03	2,233.18	8.66	8.33	121.25	-1,708.09	-35.37	1,798.82	1,783.63	15.19	118.457		
2,000.00	1,988.91	2,379.31	2,328.46	8.95	8.73	121.05	-1,691.38	-13.00	1,788.55	1,772.76	15.79	113.280		
2,100.00	2,087.40	2,478.60	2,423.74	9.24	9.12	120.86	-1,674.66	9.36	1,778.31	1,761.91	16.40	108.435		
2,200.00	2,185.89	2,577.89	2,519.02	9.55	9.52	120.66	-1,657.95	31.72	1,768.08	1,751.06	17.02	103.899		
2,300.00	2,284.38	2,677.17	2,614.30	9.87	9.91	120.46	-1,641.24	54.08	1,757.88	1,740.24	17.64	99.648		
2,400.00	2,382.87	2,776.46	2,709.58	10.20	10.31	120.25	-1,624.53	76.44	1,747.70	1,729.43	18.27	95.662		
2,500.00	2,481.36	2,875.75	2,804.86	10.54	10.70	120.05	-1,607.81	98.81	1,737.54	1,718.64	18.90	91.919		
2,600.00	2,579.85	2,975.03	2,900.14	10.89	11.10	119.84	-1,591.10	121.17	1,727.40	1,707.86	19.54	88.402		
2,700.00	2,678.34	3,074.32	2,995.43	11.25	11.50	119.63	-1,574.39	143.53	1,717.29	1,697.11	20.18	85.093		
2,800.00	2,776.83	3,173.61	3,090.71	11.61	11.89	119.42	-1,557.68	165.89	1,707.20	1,686.38	20.83	81.977		
2,900.00	2,875.32	3,272.89	3,185.99	11.98	12.29	119.20	-1,540.96	188.25	1,697.14	1,675.66	21.47	79.039		
3,000.00	2,973.81	3,372.18	3,281.27	12.35	12.69	118.98	-1,524.25	210.62	1,687.09	1,664.97	22.12	76.265		
3,100.00	3,072.30	3,471.46	3,376.55	12.73	13.09	118.76	-1,507.54	232.98	1,677.08	1,654.31	22.77	73.645		
3,200.00	3,170.79	3,570.75	3,471.83	13.12	13.48	118.54	-1,490.82	255.34	1,667.09	1,643.66	23.43	71.165		
3,300.00	3,269.28	3,670.04	3,567.11	13.51	13.88	118.31	-1,474.11	277.70	1,657.12	1,633.04	24.08	68.817		
3,400.00	3,367.77	3,769.32	3,662.39	13.90	14.28	118.08	-1,457.40	300.06	1,647.18	1,622.44	24.74	66.591		
3,500.00	3,466.26	3,868.61	3,757.67	14.30	14.68	117.85	-1,440.69	322.42	1,637.27	1,611.87	25.39	64.479		
3,600.00	3,564.75	3,967.90	3,852.95	14.70	15.08	117.61	-1,423.97	344.79	1,627.38	1,601.33	26.05	62.472		
3,700.00	3,663.24	4,067.18	3,948.23	15.10	15.48	117.38	-1,407.26	367.15	1,617.52	1,590.81	26.71	60.563		
3,800.00	3,761.73	4,166.47	4,043.51	15.51	15.88	117.14	-1,390.55	389.51	1,607.69	1,580.32	27.37	58.747		
3,900.00	3,860.22	4,265.76	4,138.80	15.92	16.28	116.89	-1,373.84	411.87	1,597.89	1,569.86	28.03	57.016		
4,000.00	3,958.71	4,365.04	4,234.08	16.33	16.68	116.65	-1,357.12	434.23	1,588.11	1,559.43	28.68	55.365		
4,100.00	4,057.20	4,464.33	4,329.36	16.75	17.08	116.40	-1,340.41	456.60	1,578.37	1,549.03	29.34	53.789		
4,200.00	4,155.69	4,563.62	4,424.64	17.16	17.48	116.15	-1,323.70	478.96	1,568.66	1,538.65	30.00	52.284		
4,300.00	4,254.18	4,662.90	4,519.92	17.58	17.88	115.89	-1,306.98	501.32	1,558.97	1,528.31	30.66	50.845		
4,400.00	4,352.67	4,762.19	4,615.20	18.00	18.28	115.63	-1,290.27	523.68	1,549.32	1,518.00	31.32	49.468		
4,500.00	4,451.16	4,861.48	4,710.48	18.42	18.68	115.37	-1,273.56	546.04	1,539.70	1,507.72	31.98	48.149		
4,600.00	4,549.65	4,960.76	4,805.76	18.85	19.08	115.10	-1,256.85	568.41	1,530.11	1,497.48	32.64	46.884		
4,700.00	4,648.14	5,060.05	4,901.04	19.27	19.48	114.83	-1,240.13	590.77	1,520.56	1,487.27	33.29	45.672		
4,800.00	4,746.63	5,159.33	4,996.32	19.70	19.88	114.56	-1,223.42	613.13	1,511.04	1,477.09	33.95	44.508		
4,900.00	4,845.12	5,258.62	5,091.60	20.13	20.28	114.29	-1,206.71	635.49	1,501.55	1,466.95	34.61	43.391		
5,000.00	4,943.61	5,357.91	5,186.88	20.56	20.68	114.01	-1,189.99	657.85	1,492.10	1,456.84	35.26	42.317		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 202H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Rule Assigned:													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,100.00	5,042.10	5,457.19	5,282.16	20.99	21.08	113.73	-1,173.28	680.22	1,482.68	1,446.77	35.91	41.283	
5,200.00	5,140.59	5,556.48	5,377.45	21.42	21.48	113.44	-1,156.57	702.58	1,473.30	1,436.74	36.57	40.289	
5,300.00	5,239.08	5,655.77	5,472.73	21.85	21.89	113.15	-1,139.86	724.94	1,463.96	1,426.74	37.22	39.332	
5,400.00	5,337.57	5,737.77	5,551.60	22.28	22.21	112.93	-1,126.42	742.92	1,455.12	1,417.29	37.83	38.468	
5,500.00	5,436.06	5,815.30	5,626.71	22.72	22.52	112.79	-1,114.92	758.31	1,447.78	1,409.36	38.42	37.684	
5,600.00	5,534.55	5,900.00	5,709.32	23.15	22.85	112.71	-1,103.75	773.25	1,441.98	1,402.95	39.03	36.946	
5,700.00	5,633.04	5,971.09	5,779.06	23.59	23.11	112.71	-1,095.51	784.28	1,437.67	1,398.08	39.59	36.316	
5,800.00	5,731.53	6,049.12	5,855.98	24.03	23.40	112.77	-1,087.66	794.79	1,434.90	1,394.73	40.17	35.724	
5,900.00	5,830.02	6,127.08	5,933.15	24.46	23.68	112.91	-1,081.07	803.60	1,433.67	1,392.93	40.74	35.191	
5,929.78	5,859.35	6,150.26	5,956.16	24.59	23.77	112.96	-1,079.35	805.90	1,433.60	1,392.69	40.91	35.043 CC, ES	
6,000.00	5,928.51	6,200.00	6,005.59	24.90	23.94	113.10	-1,076.04	810.32	1,433.99	1,392.71	41.28	34.734	
6,100.00	6,027.00	6,282.35	6,087.62	25.34	24.22	113.38	-1,071.70	816.13	1,435.87	1,394.00	41.87	34.292	
6,200.00	6,125.49	6,359.43	6,164.56	25.78	24.48	113.72	-1,068.91	819.86	1,439.37	1,396.94	42.43	33.925	
6,278.92	6,203.21	6,419.91	6,224.99	26.12	24.68	114.03	-1,067.60	821.62	1,443.28	1,400.43	42.86	33.678	
6,300.00	6,223.99	6,436.01	6,241.09	26.21	24.74	114.14	-1,067.37	821.92	1,444.46	1,401.50	42.96	33.621	
6,400.00	6,322.96	6,517.89	6,322.96	26.69	25.00	114.67	-1,067.02	822.39	1,449.94	1,406.43	43.51	33.322	
6,500.00	6,422.46	6,617.39	6,422.46	27.22	25.32	115.12	-1,067.02	822.39	1,454.14	1,410.00	44.14	32.943	
6,600.00	6,522.30	6,717.22	6,522.30	27.71	25.64	115.37	-1,067.02	822.39	1,456.52	1,411.81	44.71	32.580	
6,677.72	6,600.00	6,796.95	6,601.95	27.87	25.88	-179.74	-1,066.98	820.13	1,457.05	1,411.95	45.10	32.310	
6,700.00	6,622.28	6,819.97	6,624.80	27.87	25.95	-179.63	-1,066.93	817.35	1,457.01	1,411.83	45.19	32.245	
6,777.28	6,699.56	6,896.76	6,699.56	27.90	26.15	-178.96	-1,066.62	800.17	1,456.91	1,411.39	45.52	32.008	
6,800.00	6,722.28	6,918.11	6,719.76	27.91	26.20	-178.68	-1,066.49	793.28	1,456.93	1,411.32	45.61	31.942	
6,900.00	6,822.28	7,003.54	6,796.94	27.94	26.40	-177.25	-1,065.83	756.91	1,457.77	1,411.79	45.98	31.704	
7,000.00	6,922.28	7,075.00	6,855.67	27.98	26.53	-175.66	-1,065.09	716.32	1,460.84	1,414.62	46.23	31.602	
7,100.00	7,022.28	7,131.44	6,897.37	28.01	26.63	-174.17	-1,064.40	678.35	1,467.32	1,421.04	46.28	31.702	
7,200.00	7,122.28	7,175.00	6,926.32	28.05	26.69	-172.91	-1,063.80	645.83	1,478.11	1,431.98	46.13	32.039	
7,300.00	7,222.28	7,214.46	6,949.89	28.08	26.74	-171.68	-1,063.23	614.20	1,493.78	1,447.94	45.85	32.583	
7,400.00	7,322.28	7,250.00	6,968.83	28.12	26.79	-170.52	-1,062.68	584.14	1,514.66	1,469.25	45.42	33.349	
7,500.00	7,422.28	7,275.00	6,980.78	28.15	26.81	-169.68	-1,062.28	562.19	1,540.84	1,496.04	44.79	34.399	
7,600.00	7,522.28	7,290.37	6,987.55	28.19	26.83	-169.15	-1,062.03	548.39	1,572.24	1,528.24	44.00	35.734	
7,700.00	7,622.28	7,307.91	6,994.73	28.23	26.85	-168.54	-1,061.74	532.39	1,608.77	1,565.59	43.18	37.259	
7,800.00	7,722.28	7,325.00	7,001.15	28.26	26.86	-167.94	-1,061.45	516.56	1,650.18	1,607.85	42.32	38.989	
7,862.26	7,784.54	7,325.00	7,001.15	28.28	26.86	-167.94	-1,061.45	516.56	1,678.32	1,636.63	41.68	40.262	
7,875.00	7,797.28	7,325.00	7,001.15	28.26	26.86	-78.42	-1,061.45	516.56	1,684.27	1,642.73	41.55	40.538	
7,900.00	7,822.25	7,336.27	7,005.08	28.21	26.87	-76.49	-1,061.25	506.00	1,695.90	1,654.53	41.36	40.999	
7,925.00	7,847.10	7,340.06	7,006.34	28.14	26.87	-74.83	-1,061.19	502.43	1,707.56	1,666.46	41.10	41.544	
7,950.00	7,871.79	7,350.00	7,009.52	28.07	26.88	-73.00	-1,061.02	493.01	1,719.21	1,678.33	40.88	42.052	
7,975.00	7,896.24	7,350.00	7,009.52	27.99	26.88	-71.52	-1,061.02	493.01	1,730.73	1,690.16	40.58	42.655	
8,000.00	7,920.38	7,350.00	7,009.52	27.91	26.88	-70.06	-1,061.02	493.01	1,742.16	1,701.90	40.26	43.269	
8,025.00	7,944.15	7,350.00	7,009.52	27.82	26.88	-68.63	-1,061.02	493.01	1,753.48	1,713.53	39.95	43.892	
8,050.00	7,967.48	7,362.83	7,013.34	27.73	26.89	-66.92	-1,060.79	480.76	1,764.52	1,724.79	39.73	44.412	
8,075.00	7,990.31	7,375.00	7,016.65	27.65	26.90	-65.29	-1,060.58	469.05	1,775.43	1,735.93	39.50	44.945	
8,100.00	8,012.58	7,375.00	7,016.65	27.56	26.90	-64.03	-1,060.58	469.05	1,786.00	1,746.81	39.19	45.574	
8,125.00	8,034.22	7,375.00	7,016.65	27.47	26.90	-62.81	-1,060.58	469.05	1,796.34	1,757.46	38.88	46.199	
8,150.00	8,055.18	7,384.67	7,019.07	27.39	26.91	-61.44	-1,060.41	459.69	1,806.35	1,767.70	38.64	46.744	
8,175.00	8,075.40	7,390.52	7,020.44	27.30	26.91	-60.23	-1,060.31	454.00	1,816.02	1,777.63	38.39	47.308	
8,200.00	8,094.81	7,400.00	7,022.51	27.22	26.92	-59.03	-1,060.14	444.76	1,825.33	1,787.17	38.16	47.835	
8,225.00	8,113.38	7,400.00	7,022.51	27.15	26.92	-58.05	-1,060.14	444.76	1,834.24	1,796.35	37.89	48.409	
8,250.00	8,131.05	7,408.83	7,024.27	27.07	26.92	-57.00	-1,059.98	436.10	1,842.72	1,805.04	37.68	48.903	
8,275.00	8,147.77	7,415.16	7,025.44	27.01	26.93	-56.06	-1,059.87	429.89	1,850.77	1,813.29	37.47	49.389	
8,300.00	8,163.49	7,425.00	7,027.09	26.94	26.93	-55.15	-1,059.69	420.19	1,858.36	1,821.06	37.30	49.827	
8,325.00	8,178.17	7,425.00	7,027.09	26.89	26.93	-54.42	-1,059.69	420.19	1,865.46	1,828.36	37.10	50.285	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 202H - OH - Plan #1													Offset Site Error: 0.00 usft	
Survey Program:		0-SuperiorQC MWD+IFR1+SAG+FDIR							Rule Assigned:				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Reference Vertical Depth (usft)	Measured Depth (usft)	Offset Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
8,350.00	8,191.77	7,434.67	7,028.52	26.84	26.94	-53.65	-1,059.52	410.62	1,872.04	1,835.09	36.96	50.656		
8,375.00	8,204.26	7,450.00	7,030.38	26.80	26.94	-52.90	-1,059.24	395.41	1,878.19	1,841.34	36.85	50.968		
8,400.00	8,215.60	7,450.00	7,030.38	26.77	26.94	-52.37	-1,059.24	395.41	1,883.67	1,846.95	36.72	51.296		
8,425.00	8,225.75	7,450.00	7,030.38	26.74	26.94	-51.88	-1,059.24	395.41	1,888.68	1,852.06	36.62	51.573		
8,450.00	8,234.70	7,461.66	7,031.47	26.73	26.95	-51.38	-1,059.03	383.81	1,893.09	1,856.52	36.57	51.763		
8,475.00	8,242.41	7,475.00	7,032.37	26.72	26.95	-50.94	-1,058.78	370.50	1,896.99	1,860.44	36.55	51.903		
8,500.00	8,248.87	7,475.00	7,032.37	26.73	26.95	-50.64	-1,058.78	370.50	1,900.23	1,863.70	36.53	52.016		
8,525.00	8,254.05	7,475.00	7,032.37	26.74	26.95	-50.39	-1,058.78	370.50	1,902.98	1,866.43	36.55	52.072		
8,550.00	8,257.95	7,489.33	7,032.92	26.77	26.96	-50.15	-1,058.52	356.18	1,905.02	1,868.42	36.60	52.055		
8,575.00	8,260.55	7,500.00	7,033.05	26.80	26.96	-49.99	-1,058.33	345.51	1,906.53	1,869.86	36.67	51.993		
8,600.00	8,261.85	7,503.30	7,033.04	26.85	26.96	-49.91	-1,058.27	342.22	1,907.40	1,870.64	36.77	51.880		
8,612.26	8,262.01	7,507.32	7,033.00	26.88	26.96	-49.89	-1,058.19	338.19	1,907.62	1,870.80	36.82	51.811		
8,700.00	8,262.01	7,592.91	7,031.78	27.12	27.01	-49.87	-1,056.63	252.63	1,909.47	1,872.16	37.31	51.177		
8,800.00	8,262.01	7,692.82	7,030.35	27.52	27.10	-49.87	-1,054.81	152.75	1,913.46	1,875.34	38.12	50.193		
8,860.26	8,262.01	7,752.95	7,029.49	27.82	27.19	-49.89	-1,053.72	92.63	1,916.83	1,878.12	38.70	49.524		
8,900.00	8,262.01	7,792.60	7,028.93	28.05	27.25	-49.93	-1,052.99	52.99	1,919.29	1,880.18	39.12	49.066		
9,000.00	8,262.01	7,892.35	7,027.50	28.75	27.44	-50.03	-1,051.18	-46.73	1,925.50	1,885.21	40.29	47.791		
9,100.00	8,262.01	7,992.10	7,026.08	29.64	27.68	-50.13	-1,049.36	-146.46	1,931.71	1,890.07	41.63	46.400		
9,200.00	8,262.01	8,091.85	7,024.66	30.73	27.98	-50.23	-1,047.54	-246.18	1,937.92	1,894.80	43.12	44.945		
9,220.26	8,262.01	8,112.06	7,024.37	30.97	28.05	-50.25	-1,047.17	-266.38	1,939.18	1,895.75	43.43	44.648		
9,300.00	8,262.01	8,191.66	7,023.23	32.00	28.32	-50.35	-1,045.72	-345.96	1,943.50	1,898.78	44.72	43.459		
9,400.00	8,262.00	8,291.58	7,021.81	33.44	28.71	-50.42	-1,043.90	-445.86	1,947.11	1,900.67	46.44	41.928		
9,484.16	8,262.00	8,375.73	7,020.61	34.74	29.08	-50.42	-1,042.36	-529.98	1,948.59	1,900.65	47.94	40.648		
9,500.00	8,262.00	8,391.57	7,020.38	34.99	29.15	-50.42	-1,042.07	-545.82	1,948.73	1,900.51	48.22	40.414		
9,600.00	8,262.00	8,491.56	7,018.95	36.64	29.62	-50.39	-1,040.25	-645.78	1,949.64	1,899.58	50.05	38.952		
9,700.00	8,262.00	8,591.55	7,017.53	38.38	30.13	-50.35	-1,038.43	-745.74	1,950.54	1,898.58	51.96	37.537		
9,800.00	8,262.00	8,691.54	7,016.10	40.21	30.68	-50.32	-1,036.61	-845.70	1,951.45	1,897.51	53.94	36.178		
9,900.00	8,262.00	8,791.53	7,014.67	42.10	31.25	-50.29	-1,034.78	-945.67	1,952.36	1,896.38	55.97	34.880		
10,000.00	8,262.00	8,891.52	7,013.24	44.05	31.86	-50.26	-1,032.96	-1,045.63	1,953.26	1,895.20	58.06	33.643		
10,100.00	8,262.00	8,991.51	7,011.82	46.04	32.50	-50.22	-1,031.14	-1,145.59	1,954.17	1,893.98	60.19	32.466		
10,200.00	8,262.00	9,091.49	7,010.39	48.07	33.16	-50.19	-1,029.32	-1,245.56	1,955.08	1,892.72	62.36	31.349		
10,300.00	8,262.00	9,191.48	7,008.96	50.13	33.85	-50.16	-1,027.49	-1,345.52	1,955.99	1,891.42	64.57	30.290		
10,400.00	8,262.00	9,291.47	7,007.54	52.22	34.56	-50.13	-1,025.67	-1,445.48	1,956.90	1,890.08	66.82	29.287		
10,500.00	8,262.00	9,391.46	7,006.11	54.33	35.30	-50.10	-1,023.85	-1,545.45	1,957.81	1,888.72	69.09	28.336		
10,600.00	8,262.00	9,491.45	7,004.68	56.46	36.05	-50.06	-1,022.02	-1,645.41	1,958.72	1,887.33	71.40	27.435		
10,700.00	8,262.00	9,591.44	7,003.26	58.61	36.82	-50.03	-1,020.20	-1,745.37	1,959.64	1,885.91	73.72	26.581		
10,800.00	8,262.00	9,691.43	7,001.83	60.77	37.61	-50.00	-1,018.38	-1,845.33	1,960.55	1,884.48	76.07	25.772		
10,900.00	8,262.00	9,791.42	7,000.40	62.95	38.42	-49.97	-1,016.56	-1,945.30	1,961.46	1,883.02	78.44	25.005		
11,000.00	8,262.00	9,891.41	6,998.97	65.14	39.25	-49.94	-1,014.73	-2,045.26	1,962.38	1,881.54	80.83	24.277		
11,100.00	8,262.00	9,991.40	6,997.55	67.34	40.08	-49.90	-1,012.91	-2,145.22	1,963.29	1,880.05	83.24	23.587		
11,200.00	8,262.00	10,091.39	6,996.12	69.55	40.94	-49.87	-1,011.09	-2,245.19	1,964.21	1,878.55	85.66	22.930		
11,300.00	8,262.00	10,191.38	6,994.69	71.77	41.80	-49.84	-1,009.26	-2,345.15	1,965.12	1,877.03	88.10	22.307		
11,400.00	8,262.00	10,291.37	6,993.27	73.99	42.68	-49.81	-1,007.44	-2,445.11	1,966.04	1,875.49	90.55	21.713		
11,500.00	8,262.00	10,391.36	6,991.84	76.23	43.57	-49.78	-1,005.62	-2,545.08	1,966.96	1,873.95	93.01	21.148		
11,600.00	8,262.00	10,491.35	6,990.41	78.46	44.47	-49.74	-1,003.80	-2,645.04	1,967.87	1,872.39	95.48	20.610		
11,700.00	8,262.00	10,591.34	6,988.99	80.71	45.38	-49.71	-1,001.97	-2,745.00	1,968.79	1,870.83	97.96	20.097		
11,800.00	8,262.00	10,691.33	6,987.56	82.96	46.30	-49.68	-1,000.15	-2,844.96	1,969.71	1,869.25	100.46	19.608		
11,900.00	8,262.00	10,791.32	6,986.13	85.21	47.23	-49.65	-998.33	-2,944.93	1,970.63	1,867.67	102.96	19.140		
12,000.00	8,262.00	10,891.31	6,984.71	87.47	48.17	-49.62	-996.50	-3,044.89	1,971.55	1,866.08	105.46	18.694		
12,100.00	8,262.00	10,991.30	6,983.28	89.73	49.11	-49.59	-994.68	-3,144.85	1,972.47	1,864.49	107.98	18.267		
12,200.00	8,262.00	11,091.29	6,981.85	92.00	50.06	-49.55	-992.86	-3,244.82	1,973.39	1,862.89	110.50	17.858		
12,300.00	8,262.00	11,191.28	6,980.42	94.27	51.02	-49.52	-991.04	-3,344.78	1,974.31	1,861.28	113.03	17.467		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 202H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program:		0-SuperiorQC MWD+IFR1+SAG+FDIR					Rule Assigned:				Offset Well Error:	0.00 usft	
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Offset Well Error:		0.00 usft			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,400.00	8,262.00	11,291.27	6,979.00	96.54	51.99	-49.49	-989.21	-3,444.74	1,975.24	1,859.67	115.56	17.092	
12,500.00	8,262.00	11,391.26	6,977.57	98.81	52.96	-49.46	-987.39	-3,544.71	1,976.16	1,858.06	118.10	16.732	
12,600.00	8,262.00	11,491.25	6,976.14	101.09	53.94	-49.43	-985.57	-3,644.67	1,977.08	1,856.44	120.65	16.387	
12,700.00	8,262.00	11,591.24	6,974.72	103.37	54.93	-49.40	-983.74	-3,744.63	1,978.01	1,854.81	123.20	16.056	
12,800.00	8,262.00	11,691.23	6,973.29	105.65	55.91	-49.36	-981.92	-3,844.59	1,978.93	1,853.18	125.75	15.737	
12,900.00	8,262.00	11,791.22	6,971.86	107.94	56.91	-49.33	-980.10	-3,944.56	1,979.86	1,851.55	128.30	15.431	
13,000.00	8,262.00	11,891.21	6,970.44	110.22	57.91	-49.30	-978.28	-4,044.52	1,980.78	1,849.92	130.86	15.137	
13,100.00	8,262.00	11,991.20	6,969.01	112.51	58.91	-49.27	-976.45	-4,144.48	1,981.71	1,848.29	133.42	14.853	
13,200.00	8,262.00	12,091.19	6,967.58	114.80	59.92	-49.24	-974.63	-4,244.45	1,982.64	1,846.65	135.99	14.580	
13,300.00	8,262.00	12,191.18	6,966.15	117.10	60.94	-49.21	-972.81	-4,344.41	1,983.56	1,845.01	138.55	14.316	
13,400.00	8,262.00	12,291.17	6,964.73	119.39	61.95	-49.18	-970.99	-4,444.37	1,984.49	1,843.37	141.12	14.062	
13,500.00	8,262.00	12,391.16	6,963.30	121.68	62.97	-49.14	-969.16	-4,544.34	1,985.42	1,841.73	143.69	13.817	
13,600.00	8,262.00	12,491.15	6,961.87	123.98	64.00	-49.11	-967.34	-4,644.30	1,986.35	1,840.09	146.26	13.581	
13,700.00	8,262.00	12,591.14	6,960.45	126.28	65.02	-49.08	-965.52	-4,744.26	1,987.28	1,838.44	148.84	13.352	
13,800.00	8,262.00	12,691.13	6,959.02	128.58	66.05	-49.05	-963.69	-4,844.22	1,988.21	1,836.80	151.41	13.131	
13,900.00	8,262.00	12,791.12	6,957.59	130.88	67.09	-49.02	-961.87	-4,944.19	1,989.14	1,835.15	153.99	12.917	
14,000.00	8,262.00	12,891.11	6,956.17	133.18	68.13	-48.99	-960.05	-5,044.15	1,990.08	1,833.51	156.57	12.711	
14,100.00	8,262.00	12,991.10	6,954.74	135.48	69.17	-48.96	-958.23	-5,144.11	1,991.01	1,831.86	159.15	12.510	
14,200.00	8,262.00	13,091.09	6,953.31	137.78	70.21	-48.93	-956.40	-5,244.08	1,991.94	1,830.21	161.73	12.317	
14,300.00	8,262.00	13,191.08	6,951.88	140.09	71.25	-48.90	-954.58	-5,344.04	1,992.88	1,828.57	164.31	12.129	
14,400.00	8,262.00	13,291.07	6,950.46	142.39	72.30	-48.86	-952.76	-5,444.00	1,993.81	1,826.92	166.89	11.947	
14,500.00	8,262.00	13,391.06	6,949.03	144.70	73.35	-48.83	-950.93	-5,543.97	1,994.74	1,825.28	169.47	11.771	
14,600.00	8,262.00	13,491.05	6,947.60	147.01	74.40	-48.80	-949.11	-5,643.93	1,995.68	1,823.63	172.05	11.599	
14,700.00	8,262.00	13,591.04	6,946.18	149.31	75.46	-48.77	-947.29	-5,743.89	1,996.62	1,821.98	174.63	11.433	
14,800.00	8,262.00	13,691.03	6,944.75	151.62	76.51	-48.74	-945.47	-5,843.86	1,997.55	1,820.34	177.21	11.272	
14,900.00	8,262.00	13,791.02	6,943.32	153.93	77.57	-48.71	-943.64	-5,943.82	1,998.49	1,818.69	179.80	11.115	
15,000.00	8,262.00	13,891.01	6,941.90	156.24	78.63	-48.68	-941.82	-6,043.78	1,999.43	1,817.05	182.38	10.963	
15,100.00	8,262.00	13,991.00	6,940.47	158.55	79.69	-48.65	-940.00	-6,143.74	2,000.37	1,815.41	184.96	10.815	
15,200.00	8,262.00	14,090.99	6,939.04	160.86	80.76	-48.62	-938.17	-6,243.71	2,001.31	1,813.76	187.54	10.671	
15,300.00	8,262.00	14,190.98	6,937.61	163.17	81.82	-48.59	-936.35	-6,343.67	2,002.24	1,812.12	190.12	10.531	
15,400.00	8,262.00	14,290.97	6,936.19	165.48	82.89	-48.56	-934.53	-6,443.63	2,003.18	1,810.48	192.70	10.395	
15,500.00	8,262.00	14,390.96	6,934.76	167.80	83.96	-48.53	-932.71	-6,543.60	2,004.13	1,808.84	195.28	10.263	
15,600.00	8,262.00	14,490.95	6,933.33	170.11	85.03	-48.50	-930.88	-6,643.56	2,005.07	1,807.20	197.86	10.134	
15,700.00	8,262.00	14,590.93	6,931.91	172.42	86.10	-48.46	-929.06	-6,743.52	2,006.01	1,805.56	200.44	10.008	
15,800.00	8,262.00	14,690.92	6,930.48	174.74	87.17	-48.43	-927.24	-6,843.49	2,006.95	1,803.93	203.02	9.885	
15,900.00	8,262.00	14,790.91	6,929.05	177.05	88.25	-48.40	-925.41	-6,943.45	2,007.89	1,802.29	205.60	9.766	
16,000.00	8,262.00	14,890.90	6,927.63	179.37	89.32	-48.37	-923.59	-7,043.41	2,008.84	1,800.66	208.18	9.650	
16,100.00	8,262.00	14,990.89	6,926.20	181.68	90.40	-48.34	-921.77	-7,143.37	2,009.78	1,799.03	210.76	9.536	
16,200.00	8,262.00	15,090.88	6,924.77	184.00	91.48	-48.31	-919.95	-7,243.34	2,010.73	1,797.40	213.33	9.425	
16,300.00	8,262.00	15,190.87	6,923.34	186.31	92.56	-48.28	-918.12	-7,343.30	2,011.67	1,795.77	215.91	9.317	
16,400.00	8,262.00	15,290.86	6,921.92	188.63	93.64	-48.25	-916.30	-7,443.26	2,012.62	1,794.14	218.48	9.212	
16,500.00	8,262.00	15,390.85	6,920.49	190.95	94.72	-48.22	-914.48	-7,543.23	2,013.56	1,792.51	221.05	9.109	
16,600.00	8,262.00	15,490.84	6,919.06	193.27	95.80	-48.19	-912.65	-7,643.19	2,014.51	1,790.88	223.63	9.008	
16,700.00	8,262.00	15,590.83	6,917.64	195.58	96.88	-48.16	-910.83	-7,743.15	2,015.46	1,789.26	226.20	8.910	
16,800.00	8,262.00	15,690.82	6,916.21	197.90	97.97	-48.13	-909.01	-7,843.12	2,016.41	1,787.64	228.77	8.814	
16,900.00	8,262.00	15,790.81	6,914.78	200.22	99.05	-48.10	-907.19	-7,943.08	2,017.36	1,786.02	231.34	8.720	
17,000.00	8,262.00	15,890.80	6,913.36	202.54	100.14	-48.07	-905.36	-8,043.04	2,018.30	1,784.40	233.91	8.629	
17,100.00	8,262.00	15,990.79	6,911.93	204.86	101.23	-48.04	-903.54	-8,143.00	2,019.25	1,782.78	236.47	8.539	
17,200.00	8,262.00	16,090.78	6,910.50	207.17	102.32	-48.01	-901.72	-8,242.97	2,020.20	1,781.16	239.04	8.451	
17,300.00	8,262.00	16,190.77	6,909.07	209.49	103.40	-47.98	-899.90	-8,342.93	2,021.16	1,779.55	241.61	8.366	
17,400.00	8,262.00	16,290.76	6,907.65	211.81	104.49	-47.95	-898.07	-8,442.89	2,022.11	1,777.94	244.17	8.282	
17,500.00	8,262.00	16,390.75	6,906.22	214.13	105.58	-47.92	-896.25	-8,542.86	2,023.06	1,776.33	246.73	8.199	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 202H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 0-SuperiorQC MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,600.00	8,262.00	16,490.74	6,904.79	216.45	106.68	-47.89	-894.43	-8,642.82	2,024.01	1,774.72	249.29	8.119		
17,700.00	8,262.00	16,590.73	6,903.37	218.77	107.77	-47.86	-892.60	-8,742.78	2,024.96	1,773.11	251.85	8.040		
17,800.00	8,262.00	16,690.72	6,901.94	221.09	108.86	-47.83	-890.78	-8,842.75	2,025.92	1,771.51	254.41	7.963		
17,900.00	8,262.00	16,790.71	6,900.51	223.41	109.95	-47.80	-888.96	-8,942.71	2,026.87	1,769.90	256.97	7.888		
18,000.00	8,262.00	16,890.70	6,899.09	225.74	111.05	-47.77	-887.14	-9,042.67	2,027.83	1,768.30	259.53	7.814		
18,100.00	8,262.00	16,990.69	6,897.66	228.06	112.14	-47.74	-885.31	-9,142.63	2,028.78	1,766.70	262.08	7.741		
18,200.00	8,262.00	17,090.68	6,896.23	230.38	113.24	-47.71	-883.49	-9,242.60	2,029.74	1,765.10	264.63	7.670		
18,300.00	8,262.00	17,190.67	6,894.80	232.70	114.33	-47.68	-881.67	-9,342.56	2,030.69	1,763.51	267.19	7.600		
18,400.00	8,262.00	17,290.66	6,893.38	235.02	115.43	-47.65	-879.84	-9,442.52	2,031.65	1,761.91	269.74	7.532		
18,500.00	8,262.00	17,390.65	6,891.95	237.34	116.53	-47.62	-878.02	-9,542.49	2,032.61	1,760.32	272.29	7.465		
18,600.00	8,262.00	17,490.64	6,890.52	239.67	117.63	-47.59	-876.20	-9,642.45	2,033.57	1,758.73	274.84	7.399		
18,700.00	8,262.00	17,590.63	6,889.10	241.99	118.72	-47.56	-874.38	-9,742.41	2,034.53	1,757.14	277.38	7.335		
18,800.00	8,262.00	17,690.62	6,887.67	244.31	119.82	-47.53	-872.55	-9,842.38	2,035.49	1,755.56	279.93	7.271		
18,900.00	8,262.00	17,790.61	6,886.24	246.63	120.92	-47.50	-870.73	-9,942.34	2,036.45	1,753.97	282.47	7.209		
19,000.00	8,262.00	17,877.63	6,885.00	248.96	121.88	-47.47	-869.14	-10,029.34	2,037.45	1,752.52	284.92	7.151		
19,038.90	8,262.00	17,877.63	6,885.00	249.86	121.88	-47.47	-869.14	-10,029.34	2,038.44	1,752.86	285.58	7.138 SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 203H - OH - Plan #1													Offset Site Error: 0.00 usft
Survey Program: 0-SuperiorQC MWD+IFR1+SAG+FDIR													Offset Well Error: 0.00 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.00	0.00	1.00	0.00	0.00	0.00	-170.62	-1,952.73	-322.73	1,979.22				
100.00	100.00	101.00	100.00	0.86	0.25	-170.62	-1,952.73	-322.73	1,979.22	1,978.11	1.11	1,780.177	
200.00	200.00	201.00	200.00	1.46	0.61	-170.62	-1,952.73	-322.73	1,979.22	1,977.15	2.07	955.820	
300.00	300.00	301.00	300.00	1.90	0.97	-170.62	-1,952.73	-322.73	1,979.22	1,976.35	2.87	689.087	
400.00	400.00	401.00	400.00	2.26	1.33	-170.62	-1,952.73	-322.73	1,979.22	1,975.63	3.59	551.099	
500.00	500.00	501.00	500.00	2.57	1.69	-170.62	-1,952.73	-322.73	1,979.22	1,974.96	4.26	464.272	
566.33	566.33	567.33	566.33	2.76	1.93	-170.62	-1,952.73	-322.73	1,979.22	1,974.54	4.69	422.237 CC	
600.00	600.00	600.00	599.00	2.86	2.04	-170.62	-1,952.73	-322.73	1,979.22	1,974.32	4.90	403.980	
700.00	700.00	681.70	680.69	3.11	2.33	-170.65	-1,953.30	-321.71	1,979.72	1,974.27	5.44	363.913 ES	
800.00	800.00	762.46	761.37	3.35	2.60	-170.74	-1,954.99	-318.71	1,981.18	1,975.22	5.95	332.693	
900.00	900.00	842.96	841.66	3.58	2.88	-170.90	-1,957.78	-313.75	1,983.62	1,977.17	6.46	307.283	
1,000.00	1,000.00	923.07	921.39	3.79	3.16	-171.11	-1,961.65	-306.87	1,987.07	1,980.12	6.95	286.096	
1,100.00	1,099.97	1,000.00	997.70	4.27	3.42	123.81	-1,966.40	-298.43	1,992.76	1,985.23	7.53	264.814	
1,200.00	1,199.75	1,082.15	1,078.88	5.30	3.72	123.40	-1,972.58	-287.45	2,001.89	1,993.61	8.28	241.673	
1,300.00	1,299.14	1,161.03	1,156.45	6.18	4.00	122.96	-1,979.58	-275.00	2,014.44	2,005.45	8.99	223.981	
1,398.80	1,396.79	1,238.39	1,232.12	6.96	4.28	122.48	-1,987.46	-260.99	2,030.14	2,020.47	9.66	210.061	
1,400.00	1,397.97	1,239.32	1,233.03	6.96	4.29	122.48	-1,987.56	-260.81	2,030.35	2,020.68	9.67	209.949	
1,500.00	1,496.46	1,317.03	1,308.56	7.70	4.57	122.31	-1,996.49	-244.92	2,048.39	2,037.58	10.81	189.484	
1,600.00	1,594.95	1,406.05	1,394.60	7.91	4.91	122.08	-2,007.69	-225.00	2,067.29	2,055.97	11.31	182.725	
1,700.00	1,693.44	1,503.77	1,489.00	8.15	5.28	121.82	-2,020.09	-202.96	2,086.31	2,074.44	11.87	175.803	
1,800.00	1,791.93	1,601.50	1,583.40	8.40	5.66	121.56	-2,032.49	-180.91	2,105.38	2,092.95	12.43	169.329	
1,900.00	1,890.42	1,699.23	1,677.80	8.66	6.04	121.31	-2,044.89	-158.87	2,124.49	2,111.48	13.01	163.283	
2,000.00	1,988.91	1,796.96	1,772.20	8.95	6.43	121.06	-2,057.28	-136.82	2,143.63	2,130.04	13.60	157.642	
2,100.00	2,087.40	1,894.69	1,866.60	9.24	6.81	120.82	-2,069.68	-114.78	2,162.82	2,148.63	14.19	152.380	
2,200.00	2,185.89	1,992.42	1,961.00	9.55	7.20	120.58	-2,082.08	-92.73	2,182.04	2,167.25	14.80	147.471	
2,300.00	2,284.38	2,090.15	2,055.40	9.87	7.59	120.35	-2,094.48	-70.69	2,201.30	2,185.90	15.41	142.888	
2,400.00	2,382.87	2,187.88	2,149.80	10.20	7.98	120.12	-2,106.87	-48.65	2,220.59	2,204.57	16.02	138.608	
2,500.00	2,481.36	2,285.61	2,244.20	10.54	8.37	119.89	-2,119.27	-26.60	2,239.92	2,223.28	16.64	134.606	
2,600.00	2,579.85	2,383.34	2,338.60	10.89	8.76	119.67	-2,131.67	-4.56	2,259.28	2,242.02	17.26	130.860	
2,700.00	2,678.34	2,481.07	2,433.00	11.25	9.16	119.45	-2,144.07	17.49	2,278.68	2,260.78	17.89	127.350	
2,800.00	2,776.83	2,578.80	2,527.40	11.61	9.55	119.23	-2,156.47	39.53	2,298.10	2,279.58	18.52	124.058	
2,900.00	2,875.32	2,676.53	2,621.80	11.98	9.95	119.02	-2,168.86	61.58	2,317.56	2,298.40	19.16	120.966	
3,000.00	2,973.81	2,774.26	2,716.20	12.35	10.34	118.81	-2,181.26	83.62	2,337.05	2,317.25	19.80	118.058	
3,100.00	3,072.30	2,871.99	2,810.60	12.73	10.74	118.61	-2,193.66	105.67	2,356.56	2,336.13	20.44	115.319	
3,200.00	3,170.79	2,969.72	2,905.00	13.12	11.13	118.41	-2,206.06	127.71	2,376.11	2,355.03	21.08	112.738	
3,300.00	3,269.28	3,067.44	2,999.40	13.51	11.53	118.21	-2,218.45	149.76	2,395.68	2,373.96	21.72	110.301	
3,400.00	3,367.77	3,165.17	3,093.80	13.90	11.93	118.01	-2,230.85	171.80	2,415.28	2,392.91	22.36	107.999	
3,500.00	3,466.26	3,262.90	3,188.20	14.30	12.32	117.82	-2,243.25	193.85	2,434.90	2,411.90	23.01	105.820	
3,600.00	3,564.75	3,360.63	3,282.60	14.70	12.72	117.63	-2,255.65	215.89	2,454.56	2,430.90	23.66	103.757	
3,700.00	3,663.24	3,458.36	3,377.00	15.10	13.12	117.45	-2,268.04	237.93	2,474.23	2,449.93	24.30	101.800	
3,800.00	3,761.73	3,556.09	3,471.40	15.51	13.52	117.26	-2,280.44	259.98	2,493.94	2,468.98	24.95	99.942 SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 - Camacho 25-26 State Com 204H - OH - Plan #1														Offset Site Error:	0.00 usft
Survey Program: 0-SuperiorQC MWD+IFR1+SAG+FDIR														Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)					
0.00	0.00	1.00	0.00	0.00	0.00	-170.75	-1,982.63	-323.03	2,008.78						
100.00	100.00	101.00	100.00	0.86	0.25	-170.75	-1,982.63	-323.03	2,008.78	2,007.66	1.11	1,806.758			
200.00	200.00	201.00	200.00	1.46	0.61	-170.75	-1,982.63	-323.03	2,008.78	2,006.71	2.07	970.092			
300.00	300.00	301.00	300.00	1.90	0.97	-170.75	-1,982.63	-323.03	2,008.78	2,005.90	2.87	699.377			
400.00	400.00	401.00	400.00	2.26	1.33	-170.75	-1,982.63	-323.03	2,008.78	2,005.19	3.59	559.328			
500.00	500.00	501.00	500.00	2.57	1.69	-170.75	-1,982.63	-323.03	2,008.78	2,004.51	4.26	471.204			
566.33	566.33	567.33	566.33	2.76	1.93	-170.75	-1,982.63	-323.03	2,008.78	2,004.09	4.69	428.542	CC		
600.00	600.00	600.00	599.00	2.86	2.04	-170.75	-1,982.63	-323.03	2,008.78	2,003.88	4.90	410.012	ES		
700.00	700.00	659.45	658.44	3.11	2.25	-170.76	-1,983.32	-322.67	2,009.82	2,004.46	5.36	374.905			
800.00	800.00	700.00	698.97	3.35	2.39	-170.78	-1,984.56	-322.01	2,013.05	2,007.32	5.74	350.880			
900.00	900.00	776.86	775.68	3.58	2.64	-170.86	-1,988.66	-319.84	2,018.05	2,011.83	6.22	324.648			
1,000.00	1,000.00	835.26	833.84	3.79	2.84	-170.95	-1,993.29	-317.38	2,025.23	2,018.61	6.62	305.901			
1,100.00	1,099.97	900.00	898.14	4.27	3.07	124.00	-1,999.96	-313.85	2,035.69	2,028.55	7.15	284.866			
1,200.00	1,199.75	950.95	948.58	5.30	3.24	123.64	-2,006.33	-310.48	2,050.55	2,042.77	7.78	263.536			
1,300.00	1,299.14	1,000.00	996.97	6.18	3.41	123.22	-2,013.40	-306.73	2,069.82	2,061.45	8.37	247.431			
1,398.80	1,396.79	1,063.46	1,059.31	6.96	3.63	122.74	-2,023.91	-301.17	2,092.99	2,084.02	8.97	233.377			
1,400.00	1,397.97	1,064.13	1,059.96	6.96	3.63	122.74	-2,024.02	-301.11	2,093.30	2,084.33	8.97	233.259			
1,500.00	1,496.46	1,100.00	1,095.04	7.70	3.76	122.77	-2,030.64	-297.60	2,119.98	2,110.08	9.90	214.039			
1,600.00	1,594.95	1,174.50	1,167.50	7.91	4.03	122.78	-2,045.93	-289.51	2,148.21	2,137.88	10.33	207.907			
1,700.00	1,693.44	1,228.74	1,219.89	8.15	4.23	122.77	-2,058.37	-282.92	2,178.42	2,167.74	10.68	203.881			
1,800.00	1,791.93	1,300.00	1,288.17	8.40	4.50	122.72	-2,076.37	-273.39	2,210.55	2,199.44	11.11	198.930			
1,900.00	1,890.42	1,335.12	1,321.57	8.66	4.64	122.68	-2,085.93	-268.32	2,244.20	2,232.81	11.38	197.121			
2,000.00	1,988.91	1,400.00	1,382.85	8.95	4.89	122.59	-2,104.78	-258.34	2,279.76	2,267.96	11.80	193.198			
2,100.00	2,087.40	1,438.39	1,418.82	9.24	5.04	122.52	-2,116.65	-252.06	2,316.90	2,304.80	12.09	191.593			
2,200.00	2,185.89	1,500.00	1,476.05	9.55	5.29	122.39	-2,136.81	-241.38	2,355.81	2,343.31	12.50	188.480			
2,300.00	2,284.38	1,538.30	1,511.31	9.87	5.45	122.30	-2,150.02	-234.38	2,396.27	2,383.48	12.79	187.311			
2,400.00	2,382.87	1,600.00	1,567.57	10.20	5.71	122.14	-2,172.39	-222.54	2,438.44	2,425.24	13.20	184.663			
2,500.00	2,481.36	1,634.65	1,598.86	10.54	5.86	122.04	-2,185.55	-215.57	2,482.06	2,468.58	13.48	184.133	SF		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - ANGELL RANCH 26 #001 - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 314-INC-ONLY													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
12,400.00	8,262.00	8,284.24	8,260.02	96.54	184.97	-89.81	-57.53	-5,824.88	2,456.28	2,233.99	222.29	11.050	
12,500.00	8,262.00	8,284.24	8,260.01	98.81	184.97	-89.81	-57.53	-5,824.88	2,359.59	2,136.13	223.46	10.559	
12,600.00	8,262.00	8,284.23	8,260.00	101.09	184.97	-89.81	-57.53	-5,824.88	2,263.17	2,038.42	224.75	10.070	
12,700.00	8,262.00	8,284.23	8,260.00	103.37	184.97	-89.81	-57.53	-5,824.88	2,167.09	1,940.90	226.19	9.581	
12,800.00	8,262.00	8,284.22	8,259.99	105.65	184.97	-89.81	-57.53	-5,824.88	2,071.37	1,843.59	227.78	9.094	
12,900.00	8,262.00	8,284.21	8,259.98	107.94	184.97	-89.81	-57.53	-5,824.88	1,976.08	1,746.52	229.56	8.608	
13,000.00	8,262.00	8,284.21	8,259.98	110.22	184.97	-89.81	-57.53	-5,824.88	1,881.27	1,649.74	231.54	8.125	
13,100.00	8,262.00	8,284.20	8,259.97	112.51	184.97	-89.81	-57.53	-5,824.88	1,787.04	1,553.28	233.76	7.645	
13,200.00	8,262.00	8,284.19	8,259.97	114.80	184.97	-89.81	-57.53	-5,824.88	1,693.46	1,457.20	236.26	7.168	
13,300.00	8,262.00	8,284.19	8,259.96	117.10	184.97	-89.81	-57.53	-5,824.88	1,600.66	1,361.59	239.07	6.695	
13,400.00	8,262.00	8,284.18	8,259.95	119.39	184.97	-89.81	-57.53	-5,824.88	1,508.79	1,266.53	242.25	6.228	
13,500.00	8,262.00	8,284.18	8,259.95	121.68	184.97	-89.81	-57.53	-5,824.88	1,418.01	1,172.15	245.86	5.768	
13,600.00	8,262.00	8,284.17	8,259.94	123.98	184.97	-89.81	-57.53	-5,824.88	1,328.55	1,078.60	249.95	5.315	
13,700.00	8,262.00	8,284.16	8,259.93	126.28	184.97	-89.81	-57.53	-5,824.88	1,240.71	986.09	254.62	4.873	
13,800.00	8,262.00	8,284.16	8,259.93	128.58	184.97	-89.81	-57.53	-5,824.88	1,154.85	894.91	259.94	4.443	
13,900.00	8,262.00	8,284.15	8,259.92	130.88	184.97	-89.81	-57.53	-5,824.88	1,071.44	805.43	266.01	4.028	
14,000.00	8,262.00	8,284.14	8,259.92	133.18	184.97	-89.81	-57.53	-5,824.88	991.11	718.19	272.92	3.632	
14,100.00	8,262.00	8,284.14	8,259.91	135.48	184.97	-89.80	-57.53	-5,824.88	914.66	633.93	280.73	3.258	
14,200.00	8,262.00	8,284.13	8,259.90	137.78	184.97	-89.80	-57.53	-5,824.88	843.16	553.71	289.45	2.913	
14,300.00	8,262.00	8,284.13	8,259.90	140.09	184.97	-89.80	-57.53	-5,824.88	777.96	479.00	298.97	2.602	
14,400.00	8,262.00	8,284.12	8,259.89	142.39	184.97	-89.80	-57.53	-5,824.88	720.79	411.84	308.95	2.333	
14,500.00	8,262.00	8,284.11	8,259.88	144.70	184.97	-89.80	-57.53	-5,824.88	673.68	354.94	318.74	2.114	
14,600.00	8,262.00	8,284.11	8,259.88	147.01	184.97	-89.80	-57.53	-5,824.88	638.87	311.52	327.35	1.952 Collision Risk Procedures Req.	
14,700.00	8,262.00	8,284.10	8,259.87	149.31	184.97	-89.80	-57.53	-5,824.88	618.44	284.90	333.54	1.854 Collision Risk Procedures Req.	
14,778.45	8,262.00	8,284.10	8,259.87	151.12	184.97	-89.80	-57.53	-5,824.88	613.44	277.42	336.02	1.826 Collision Risk Procedures Req., CC, ES	
14,800.00	8,262.00	8,284.09	8,259.87	151.62	184.97	-89.80	-57.53	-5,824.88	613.82	277.53	336.29	1.825 Collision Risk Procedures Req., SF	
14,900.00	8,262.00	8,284.09	8,259.86	153.93	184.97	-89.80	-57.53	-5,824.88	625.37	290.15	335.22	1.866 Collision Risk Procedures Req.	
15,000.00	8,262.00	8,284.08	8,259.85	156.24	184.97	-89.80	-57.53	-5,824.88	652.22	321.42	330.81	1.972 Collision Risk Procedures Req.	
15,100.00	8,262.00	8,284.08	8,259.85	158.55	184.97	-89.80	-57.53	-5,824.88	692.61	368.53	324.08	2.137	
15,200.00	8,262.00	8,284.07	8,259.84	160.86	184.97	-89.80	-57.53	-5,824.88	744.32	428.16	316.17	2.354	
15,300.00	8,262.00	8,284.06	8,259.83	163.17	184.97	-89.80	-57.53	-5,824.88	805.19	497.23	307.96	2.615	
15,400.00	8,262.00	8,284.06	8,259.83	165.48	184.97	-89.80	-57.53	-5,824.88	873.29	573.27	300.02	2.911	
15,500.00	8,262.00	8,284.05	8,259.82	167.80	184.97	-89.80	-57.53	-5,824.88	947.07	654.42	292.65	3.236	
15,600.00	8,262.00	8,284.04	8,259.82	170.11	184.97	-89.80	-57.53	-5,824.88	1,025.31	739.33	285.97	3.585	
15,700.00	8,262.00	8,284.04	8,259.81	172.42	184.97	-89.80	-57.53	-5,824.88	1,107.05	827.05	280.00	3.954	
15,800.00	8,262.00	8,284.03	8,259.80	174.74	184.97	-89.79	-57.53	-5,824.88	1,191.59	916.90	274.69	4.338	
15,900.00	8,262.00	8,284.03	8,259.80	177.05	184.97	-89.79	-57.53	-5,824.88	1,278.35	1,008.37	269.98	4.735	
16,000.00	8,262.00	8,284.02	8,259.79	179.37	184.97	-89.79	-57.53	-5,824.88	1,366.93	1,101.12	265.81	5.143	
16,100.00	8,262.00	8,284.01	8,259.78	181.68	184.97	-89.79	-57.53	-5,824.88	1,456.99	1,194.88	262.10	5.559	
16,200.00	8,262.00	8,284.01	8,259.78	184.00	184.97	-89.79	-57.53	-5,824.88	1,548.26	1,289.46	258.81	5.982	
16,300.00	8,262.00	8,284.00	8,259.77	186.31	184.97	-89.79	-57.53	-5,824.88	1,640.56	1,384.69	255.87	6.412	
16,400.00	8,262.00	8,283.99	8,259.77	188.63	184.96	-89.79	-57.53	-5,824.88	1,733.71	1,480.47	253.24	6.846	
16,500.00	8,262.00	8,283.99	8,259.76	190.95	184.96	-89.79	-57.53	-5,824.88	1,827.58	1,576.70	250.88	7.285	
16,600.00	8,262.00	8,283.98	8,259.75	193.27	184.96	-89.79	-57.53	-5,824.88	1,922.07	1,673.31	248.76	7.727	
16,700.00	8,262.00	8,283.98	8,259.75	195.58	184.96	-89.79	-57.53	-5,824.88	2,017.09	1,770.25	246.84	8.172	
16,800.00	8,262.00	8,283.97	8,259.74	197.90	184.96	-89.79	-57.53	-5,824.88	2,112.58	1,867.47	245.11	8.619	
16,900.00	8,262.00	8,283.96	8,259.73	200.22	184.96	-89.79	-57.53	-5,824.88	2,208.46	1,964.93	243.53	9.068	
17,000.00	8,262.00	8,283.96	8,259.73	202.54	184.96	-89.79	-57.53	-5,824.88	2,304.69	2,062.59	242.10	9.520	
17,100.00	8,262.00	8,283.95	8,259.72	204.86	184.96	-89.79	-57.53	-5,824.88	2,401.23	2,160.43	240.80	9.972	
17,200.00	8,262.00	8,283.94	8,259.72	207.17	184.96	-89.79	-57.53	-5,824.88	2,498.04	2,258.44	239.60	10.426	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - EDDY GL STATE COM #001 - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 500-UNKNOWN													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:		Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	35.50	0.00	0.00	-174.17	-2,454.41	-250.74	2,467.44					
100.00	100.00	64.50	100.00	0.86	3.23	-174.17	-2,454.41	-250.74	2,467.19	2,463.10	4.08	603.992		
200.00	200.00	164.50	200.00	1.46	8.23	-174.17	-2,454.41	-250.74	2,467.19	2,457.50	9.69	254.643		
300.00	300.00	264.50	300.00	1.90	13.23	-174.17	-2,454.41	-250.74	2,467.19	2,452.05	15.14	163.008		
400.00	400.00	364.50	400.00	2.26	18.24	-174.17	-2,454.41	-250.74	2,467.19	2,446.69	20.50	120.352		
500.00	500.00	464.50	500.00	2.57	23.24	-174.17	-2,454.41	-250.74	2,467.19	2,441.37	25.82	95.567		
600.00	600.00	564.50	600.00	2.86	27.63	-174.17	-2,454.41	-250.74	2,467.19	2,436.70	30.49	80.918		
700.00	700.00	664.50	700.00	3.11	31.69	-174.17	-2,454.41	-250.74	2,467.19	2,432.38	34.80	70.888		
800.00	800.00	764.50	800.00	3.35	35.75	-174.17	-2,454.41	-250.74	2,467.19	2,428.09	39.10	63.099		
900.00	900.00	864.50	900.00	3.58	39.80	-174.17	-2,454.41	-250.74	2,467.19	2,423.80	43.38	56.871		
1,000.00	1,000.00	964.50	1,000.00	3.79	43.86	-174.17	-2,454.41	-250.74	2,467.19	2,419.53	47.65	51.775 CC		
1,100.00	1,099.97	1,064.47	1,099.97	4.27	47.89	121.11	-2,454.41	-250.74	2,468.31	2,416.33	51.98	47.482		
1,200.00	1,199.75	1,164.25	1,199.75	5.30	51.90	121.17	-2,454.41	-250.74	2,471.70	2,415.26	56.44	43.796 ES		
1,300.00	1,299.14	1,263.64	1,299.14	6.18	55.90	121.26	-2,454.41	-250.74	2,477.37	2,416.51	60.85	40.710		
1,398.80	1,396.79	1,361.29	1,396.79	6.96	59.83	121.39	-2,454.41	-250.74	2,485.24	2,420.05	65.18	38.128		
1,400.00	1,397.97	1,362.47	1,397.97	6.96	59.87	121.39	-2,454.41	-250.74	2,485.34	2,420.11	65.23	38.100		
1,500.00	1,496.46	1,460.96	1,496.46	7.70	63.83	121.73	-2,454.41	-250.74	2,494.51	2,424.41	70.10	35.587 SF		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - GUARDIAN 25 STATE COM #001 - OH - OH												Offset Site Error:	0.00 usft
Survey Program:		203-INC-ONLY						Rule Assigned:				Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			Minimum Separation (usft)
9,900.00	8,262.00	8,245.34	8,257.59	42.10	195.10	-89.84	-1,065.07	-2,866.98	2,464.96	2,233.50	231.46	10.649	
10,000.00	8,262.00	8,245.33	8,257.59	44.05	195.10	-89.84	-1,065.07	-2,866.98	2,388.61	2,155.63	232.98	10.252	
10,100.00	8,262.00	8,245.33	8,257.58	46.04	195.10	-89.84	-1,065.07	-2,866.98	2,314.07	2,079.43	234.64	9.862	
10,200.00	8,262.00	8,245.32	8,257.58	48.07	195.10	-89.84	-1,065.07	-2,866.98	2,241.51	2,005.05	236.46	9.479	
10,300.00	8,262.00	8,245.32	8,257.57	50.13	195.10	-89.84	-1,065.07	-2,866.98	2,171.14	1,932.71	238.43	9.106	
10,400.00	8,262.00	8,245.31	8,257.57	52.22	195.10	-89.84	-1,065.07	-2,866.98	2,103.16	1,862.60	240.56	8.743	
10,500.00	8,262.00	8,245.31	8,257.56	54.33	195.10	-89.84	-1,065.07	-2,866.98	2,037.83	1,794.99	242.84	8.392	
10,600.00	8,262.00	8,245.30	8,257.56	56.46	195.10	-89.84	-1,065.07	-2,866.98	1,975.40	1,730.12	245.28	8.054	
10,700.00	8,262.00	8,245.30	8,257.55	58.61	195.10	-89.84	-1,065.07	-2,866.98	1,916.16	1,668.30	247.86	7.731	
10,800.00	8,262.00	8,245.29	8,257.55	60.77	195.10	-89.84	-1,065.07	-2,866.98	1,860.41	1,609.84	250.56	7.425	
10,900.00	8,262.00	8,245.29	8,257.54	62.95	195.10	-89.84	-1,065.07	-2,866.98	1,808.47	1,555.09	253.38	7.137	
11,000.00	8,262.00	8,245.28	8,257.54	65.14	195.10	-89.84	-1,065.07	-2,866.98	1,760.69	1,504.40	256.29	6.870	
11,100.00	8,262.00	8,245.28	8,257.53	67.34	195.10	-89.84	-1,065.07	-2,866.98	1,717.40	1,458.15	259.25	6.624	
11,200.00	8,262.00	8,245.27	8,257.53	69.55	195.10	-89.84	-1,065.07	-2,866.98	1,678.97	1,416.74	262.23	6.403	
11,300.00	8,262.00	8,245.27	8,257.52	71.77	195.10	-89.84	-1,065.07	-2,866.98	1,645.72	1,380.53	265.19	6.206	
11,400.00	8,262.00	8,245.26	8,257.52	73.99	195.10	-89.84	-1,065.07	-2,866.98	1,617.98	1,349.90	268.08	6.036	
11,500.00	8,262.00	8,245.26	8,257.51	76.23	195.10	-89.84	-1,065.07	-2,866.98	1,596.03	1,325.19	270.84	5.893	
11,600.00	8,262.00	8,245.25	8,257.51	78.46	195.10	-89.84	-1,065.07	-2,866.98	1,580.11	1,306.69	273.42	5.779	
11,700.00	8,262.00	8,245.25	8,257.50	80.71	195.10	-89.84	-1,065.07	-2,866.98	1,570.42	1,294.63	275.79	5.694	
11,800.00	8,262.00	8,245.24	8,257.50	82.96	195.10	-89.84	-1,065.07	-2,866.98	1,567.06	1,289.16	277.89	5.639	
11,804.45	8,262.00	8,245.24	8,257.50	83.06	195.10	-89.84	-1,065.07	-2,866.98	1,567.05	1,289.07	277.98	5.637 CC, ES	
11,900.00	8,262.00	8,245.24	8,257.49	85.21	195.10	-89.84	-1,065.07	-2,866.98	1,570.07	1,290.37	279.70	5.613 SF	
12,000.00	8,262.00	8,245.23	8,257.49	87.47	195.10	-89.83	-1,065.07	-2,866.98	1,579.42	1,298.23	281.19	5.617	
12,100.00	8,262.00	8,245.23	8,257.48	89.73	195.10	-89.83	-1,065.07	-2,866.98	1,595.00	1,312.64	282.36	5.649	
12,200.00	8,262.00	8,245.22	8,257.48	92.00	195.10	-89.83	-1,065.07	-2,866.98	1,616.63	1,333.42	283.21	5.708	
12,300.00	8,262.00	8,245.22	8,257.47	94.27	195.10	-89.83	-1,065.07	-2,866.98	1,644.06	1,360.32	283.75	5.794	
12,400.00	8,262.00	8,245.21	8,257.47	96.54	195.10	-89.83	-1,065.07	-2,866.98	1,677.02	1,393.02	284.00	5.905	
12,500.00	8,262.00	8,245.21	8,257.46	98.81	195.10	-89.83	-1,065.07	-2,866.98	1,715.18	1,431.18	284.00	6.039	
12,600.00	8,262.00	8,245.20	8,257.46	101.09	195.10	-89.83	-1,065.07	-2,866.98	1,758.21	1,474.43	283.78	6.196	
12,700.00	8,262.00	8,245.20	8,257.45	103.37	195.10	-89.83	-1,065.07	-2,866.98	1,805.76	1,522.38	283.37	6.372	
12,800.00	8,262.00	8,245.19	8,257.45	105.65	195.10	-89.83	-1,065.07	-2,866.98	1,857.48	1,574.67	282.81	6.568	
12,900.00	8,262.00	8,245.19	8,257.44	107.94	195.10	-89.83	-1,065.07	-2,866.98	1,913.03	1,630.91	282.12	6.781	
13,000.00	8,262.00	8,245.18	8,257.44	110.22	195.10	-89.83	-1,065.07	-2,866.98	1,972.09	1,690.76	281.33	7.010	
13,100.00	8,262.00	8,245.18	8,257.43	112.51	195.10	-89.83	-1,065.07	-2,866.98	2,034.35	1,753.88	280.47	7.253	
13,200.00	8,262.00	8,245.17	8,257.43	114.80	195.10	-89.83	-1,065.07	-2,866.98	2,099.53	1,819.98	279.55	7.510	
13,300.00	8,262.00	8,245.17	8,257.42	117.10	195.10	-89.83	-1,065.07	-2,866.98	2,167.37	1,888.76	278.61	7.779	
13,400.00	8,262.00	8,245.16	8,257.42	119.39	195.10	-89.83	-1,065.07	-2,866.98	2,237.62	1,959.98	277.64	8.059	
13,500.00	8,262.00	8,245.16	8,257.41	121.68	195.10	-89.83	-1,065.07	-2,866.98	2,310.06	2,033.40	276.67	8.350	
13,600.00	8,262.00	8,245.15	8,257.41	123.98	195.10	-89.83	-1,065.07	-2,866.98	2,384.50	2,108.81	275.70	8.649	
13,700.00	8,262.00	8,245.15	8,257.40	126.28	195.10	-89.83	-1,065.07	-2,866.98	2,460.75	2,186.02	274.74	8.957	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 271H - OH - OH													Offset Site Error:	0.00 usft
Survey Program:		26-SuperiorQC MWD+IFR1+SAG+FDIR						Rule Assigned:				Offset Well Error:	0.00 usft	
Measured Depth	Reference	Offset	Offset	Semi Major Axis			Offset Wellbore Centre		Distance					
Depth (usft)	Depth (usft)	Depth (usft)	Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.30	0.00	0.00	0.00	0.75	120.37	1.57	120.38					
100.00	100.00	101.72	100.42	0.86	0.27	0.74	119.86	1.55	119.87	118.74	1.13	106.545		
113.60	113.60	114.90	113.60	0.94	0.31	0.77	119.83	1.61	119.84	118.59	1.25	95.694		
200.00	200.00	199.22	197.91	1.46	0.61	1.20	120.67	2.52	120.71	118.65	2.07	58.434		
300.00	300.00	297.77	296.43	1.90	0.95	1.32	122.95	2.84	123.03	120.18	2.85	43.132		
400.00	400.00	399.40	398.03	2.26	1.31	1.42	125.07	3.11	125.12	121.55	3.57	35.027		
500.00	500.00	498.15	496.75	2.57	1.66	2.03	127.19	4.50	127.31	123.07	4.24	30.046		
600.00	600.00	597.70	596.26	2.86	2.02	2.75	129.82	6.23	130.02	125.15	4.87	26.678		
700.00	700.00	697.85	696.34	3.11	2.38	3.50	132.63	8.10	132.93	127.44	5.49	24.214		
800.00	800.00	798.40	796.84	3.35	2.74	4.28	135.06	10.11	135.47	129.38	6.09	22.246		
900.00	900.00	899.09	897.50	3.58	3.10	4.96	137.01	11.90	137.55	130.87	6.68	20.603		
1,000.00	1,000.00	999.70	998.09	3.79	3.46	5.47	138.47	13.27	139.12	131.87	7.25	19.187		
1,100.00	1,099.97	1,099.99	1,098.34	4.27	3.81	-59.12	139.52	15.62	139.27	131.36	7.91	17.614		
1,200.00	1,199.75	1,200.20	1,198.47	5.30	4.17	-59.86	140.20	19.66	136.99	128.31	8.69	15.772		
1,300.00	1,299.14	1,300.31	1,298.39	6.18	4.53	-61.46	140.52	25.70	132.40	123.00	9.40	14.087		
1,398.80	1,396.79	1,398.49	1,396.31	6.96	4.88	-64.28	140.67	33.00	125.91	115.91	10.01	12.584		
1,400.00	1,397.97	1,399.68	1,397.49	6.96	4.88	-64.32	140.67	33.09	125.82	115.81	10.01	12.570		
1,500.00	1,496.46	1,498.69	1,496.23	7.70	5.23	-68.33	141.11	40.28	119.07	107.91	11.15	10.675		
1,600.00	1,594.95	1,598.03	1,595.33	7.91	5.59	-72.92	141.75	47.25	113.19	101.63	11.56	9.791		
1,700.00	1,693.44	1,697.39	1,694.46	8.15	5.95	-78.11	142.34	53.95	108.14	96.16	11.98	9.026		
1,800.00	1,791.93	1,796.38	1,793.26	8.40	6.30	-83.98	142.95	60.15	104.25	91.81	12.43	8.386		
1,900.00	1,890.42	1,895.21	1,891.93	8.66	6.66	-90.57	143.69	65.57	101.99	89.05	12.94	7.885		
1,966.92	1,956.33	1,961.31	1,957.95	8.85	6.89	-95.29	144.24	68.78	101.54	88.22	13.32	7.623 CC		
2,000.00	1,988.91	1,993.96	1,990.57	8.95	7.01	-97.67	144.54	70.25	101.65	88.13	13.53	7.515 ES		
2,100.00	2,087.40	2,092.62	2,089.14	9.24	7.36	-104.95	145.48	74.26	103.43	89.21	14.22	7.274		
2,200.00	2,185.89	2,191.65	2,188.11	9.55	7.72	-112.07	146.37	77.89	107.09	92.09	15.01	7.137		
2,300.00	2,284.38	2,290.42	2,286.81	9.87	8.07	-118.73	147.13	81.30	112.40	96.54	15.86	7.087		
2,400.00	2,382.87	2,388.09	2,384.45	10.20	8.42	-124.89	147.84	83.80	119.87	103.12	16.75	7.158		
2,500.00	2,481.36	2,486.00	2,482.34	10.54	8.77	-130.51	148.58	85.14	129.68	112.03	17.65	7.348		
2,600.00	2,579.85	2,585.64	2,581.98	10.89	9.13	-135.54	148.94	86.51	140.45	121.89	18.56	7.567		
2,700.00	2,678.34	2,683.85	2,680.17	11.25	9.47	-139.91	148.82	88.21	151.66	132.22	19.44	7.800		
2,800.00	2,776.83	2,778.82	2,775.13	11.61	9.80	-143.51	149.13	88.36	165.25	145.00	20.26	8.158		
2,900.00	2,875.32	2,875.15	2,871.45	11.98	10.13	-146.49	150.07	86.61	181.44	160.38	21.06	8.617		
3,000.00	2,973.81	2,975.27	2,971.55	12.35	10.47	-149.14	150.86	85.05	197.78	175.90	21.88	9.038		
3,100.00	3,072.30	3,074.31	3,070.59	12.73	10.80	-151.43	151.27	84.28	213.67	190.99	22.69	9.418		
3,200.00	3,170.79	3,171.73	3,167.99	13.12	11.13	-153.37	151.72	83.31	230.07	206.60	23.46	9.805		
3,300.00	3,269.28	3,269.78	3,266.04	13.51	11.46	-155.06	152.19	82.00	247.03	222.79	24.24	10.190		
3,400.00	3,367.77	3,368.14	3,364.39	13.90	11.79	-156.66	152.08	80.78	264.10	239.08	25.02	10.555		
3,500.00	3,466.26	3,466.00	3,462.24	14.30	12.12	-158.01	152.20	79.41	281.49	255.70	25.79	10.915		
3,600.00	3,564.75	3,563.59	3,559.82	14.70	12.45	-159.14	152.64	77.83	299.20	272.65	26.55	11.268		
3,700.00	3,663.24	3,661.65	3,657.86	15.10	12.79	-160.11	153.25	76.12	317.12	289.80	27.32	11.608		
3,800.00	3,761.73	3,760.50	3,756.69	15.51	13.12	-160.98	153.95	74.47	335.03	306.94	28.09	11.926		
3,900.00	3,860.22	3,858.19	3,854.37	15.92	13.46	-161.76	154.54	72.85	353.02	324.17	28.86	12.234		
4,000.00	3,958.71	3,955.91	3,952.07	16.33	13.80	-162.44	155.25	71.03	371.24	341.62	29.62	12.534		
4,100.00	4,057.20	4,056.92	4,053.06	16.75	14.15	-163.04	156.28	69.17	389.46	359.04	30.42	12.805		
4,200.00	4,155.69	4,163.98	4,160.11	17.16	14.52	-163.70	157.09	69.37	405.74	374.46	31.28	12.972		
4,300.00	4,254.18	4,263.87	4,259.99	17.58	14.88	-164.29	157.89	70.52	421.15	389.08	32.07	13.131		
4,400.00	4,352.67	4,362.69	4,358.79	18.00	15.23	-164.80	158.90	71.78	436.45	403.59	32.86	13.282		
4,500.00	4,451.16	4,461.40	4,457.49	18.42	15.58	-165.25	160.10	72.93	451.84	418.19	33.64	13.430		
4,600.00	4,549.65	4,560.22	4,556.29	18.85	15.93	-165.65	161.45	74.11	467.19	432.76	34.43	13.569		
4,700.00	4,648.14	4,659.87	4,655.93	19.27	16.29	-165.97	163.30	75.23	482.55	447.33	35.22	13.701		
4,800.00	4,746.63	4,760.36	4,756.38	19.70	16.65	-166.22	165.71	76.58	497.59	461.58	36.02	13.816		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 271H - OH - OH													Offset Site Error:	0.00 usft
Survey Program:		26-SuperiorQC MWD+IFR1+SAG+FDIR							Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
4,900.00	4,845.12	4,857.59	4,853.58	20.13	16.99	-166.50	167.64	78.07	512.55	475.77	36.79	13.933		
5,000.00	4,943.61	4,953.25	4,949.23	20.56	17.33	-166.95	167.61	79.40	528.08	490.53	37.55	14.062		
5,100.00	5,042.10	5,050.81	5,046.77	20.99	17.67	-167.42	167.27	80.38	544.08	505.74	38.33	14.193		
5,200.00	5,140.59	5,150.69	5,146.66	21.42	18.02	-167.81	167.46	81.30	560.07	520.94	39.14	14.311		
5,300.00	5,239.08	5,241.76	5,237.73	21.85	18.34	-168.12	167.79	81.78	576.44	536.59	39.85	14.464		
5,400.00	5,337.57	5,335.17	5,331.12	22.28	18.66	-168.46	167.55	81.09	594.17	553.58	40.58	14.640		
5,500.00	5,436.06	5,431.44	5,427.39	22.72	18.98	-168.77	167.30	79.89	612.41	571.07	41.34	14.814		
5,600.00	5,534.55	5,526.67	5,522.60	23.15	19.31	-169.04	167.16	78.20	631.13	589.04	42.09	14.996		
5,700.00	5,633.04	5,632.59	5,628.50	23.59	19.67	-169.46	165.69	77.02	649.57	606.62	42.94	15.126		
5,800.00	5,731.53	5,740.35	5,736.20	24.03	20.04	-170.06	162.28	77.95	666.61	622.79	43.82	15.211		
5,900.00	5,830.02	5,849.07	5,844.87	24.46	20.42	-170.56	160.17	80.27	682.16	637.45	44.70	15.260		
6,000.00	5,928.51	5,950.01	5,945.77	24.90	20.77	-170.93	159.26	82.94	697.00	651.48	45.52	15.313		
6,100.00	6,027.00	6,052.50	6,048.22	25.34	21.13	-171.23	159.25	85.92	711.35	665.01	46.34	15.350		
6,200.00	6,125.49	6,146.06	6,141.74	25.78	21.46	-171.44	159.82	88.58	725.62	678.52	47.10	15.406		
6,278.92	6,203.21	6,211.49	6,207.17	26.12	21.70	-171.56	160.30	89.38	738.07	690.45	47.62	15.500		
6,300.00	6,223.99	6,232.01	6,227.68	26.21	21.77	-171.60	160.42	89.45	741.48	693.70	47.78	15.520		
6,400.00	6,322.96	6,331.14	6,326.81	26.69	22.12	-171.81	160.51	89.87	755.16	706.55	48.61	15.536		
6,500.00	6,422.46	7,484.78	7,054.02	27.22	25.85	132.33	132.55	779.80	682.14	653.35	28.80	23.688		
6,600.00	6,522.30	7,496.53	7,054.56	27.71	25.89	125.99	132.06	791.54	592.22	561.69	30.53	19.399		
6,677.72	6,600.00	7,501.90	7,054.79	27.87	25.91	-173.41	131.84	796.89	523.82	491.62	32.20	16.267		
6,700.00	6,622.28	7,502.99	7,054.83	27.87	25.91	-173.65	131.80	797.98	504.60	471.86	32.74	15.412		
6,800.00	6,722.28	7,507.65	7,055.02	27.91	25.93	-174.67	131.60	802.63	422.01	386.33	35.68	11.827		
6,900.00	6,822.28	7,511.98	7,055.19	27.94	25.94	-175.63	131.42	806.95	348.61	309.06	39.55	8.814		
7,000.00	6,922.28	7,516.00	7,055.34	27.98	25.96	-176.51	131.25	810.97	291.43	247.56	43.87	6.644		
7,100.00	7,022.28	7,519.75	7,055.48	28.01	25.97	-177.34	131.10	814.71	261.35	214.92	46.43	5.629		
7,133.24	7,055.52	7,520.94	7,055.52	28.02	25.97	-177.61	131.05	815.90	259.23	212.89	46.34	5.594 SF		
7,200.00	7,122.28	7,523.26	7,055.60	28.05	25.98	-178.12	130.95	818.22	267.68	223.12	44.56	6.007		
7,300.00	7,222.28	7,526.54	7,055.72	28.08	25.99	-178.84	130.81	821.50	308.18	268.52	39.66	7.770		
7,400.00	7,322.28	7,529.62	7,055.82	28.12	26.00	-179.52	130.68	824.57	371.86	336.86	35.00	10.623		
7,500.00	7,422.28	7,532.52	7,055.91	28.15	26.01	179.84	130.56	827.47	448.96	417.23	31.73	14.148		
7,600.00	7,522.28	7,541.00	7,056.17	28.19	26.04	177.97	130.21	835.93	533.73	504.04	29.69	17.976		
7,700.00	7,622.28	7,541.00	7,056.17	28.23	26.04	177.97	130.21	835.93	622.97	594.57	28.40	21.933		
7,800.00	7,722.28	7,541.00	7,056.17	28.26	26.04	177.97	130.21	835.93	715.06	687.45	27.62	25.893		
7,862.26	7,784.54	7,541.00	7,056.17	28.28	26.04	177.97	130.21	835.93	773.39	746.10	27.29	28.336		
7,875.00	7,797.28	7,541.00	7,056.17	28.26	26.04	-88.98	130.21	835.93	785.41	758.16	27.24	28.832		
7,900.00	7,822.25	7,541.00	7,056.17	28.21	26.04	-80.37	130.21	835.93	809.03	781.88	27.15	29.796		
7,925.00	7,847.10	7,541.00	7,056.17	28.14	26.04	-71.93	130.21	835.93	832.66	805.58	27.08	30.744		
7,950.00	7,871.79	7,541.00	7,056.17	28.07	26.04	-64.04	130.21	835.93	856.24	829.21	27.04	31.671		
7,975.00	7,896.24	7,541.00	7,056.17	27.99	26.04	-56.92	130.21	835.93	879.72	852.71	27.01	32.572		
8,000.00	7,920.38	7,529.45	7,055.81	27.91	26.00	-49.22	130.69	824.40	902.93	876.03	26.90	33.565		
8,025.00	7,944.15	7,524.10	7,055.63	27.82	25.98	-43.53	130.92	819.05	925.92	899.05	26.87	34.465		
8,050.00	7,967.48	7,517.85	7,055.41	27.73	25.96	-38.71	131.18	812.82	948.59	921.75	26.84	35.343		
8,075.00	7,990.31	7,510.75	7,055.14	27.65	25.94	-34.65	131.47	805.73	970.88	944.05	26.82	36.194		
8,100.00	8,012.58	7,502.82	7,054.82	27.56	25.91	-31.23	131.80	797.81	992.73	965.91	26.82	37.015		
8,125.00	8,034.22	7,494.09	7,054.45	27.47	25.88	-28.35	132.17	789.10	1,014.08	987.25	26.82	37.805		
8,150.00	8,055.18	7,484.61	7,054.01	27.39	25.85	-25.90	132.56	779.64	1,034.88	1,008.04	26.84	38.559		
8,175.00	8,075.40	7,474.40	7,053.51	27.30	25.82	-23.82	132.98	769.44	1,055.08	1,028.22	26.86	39.276		
8,200.00	8,094.81	7,463.49	7,052.93	27.22	25.78	-22.04	133.43	758.56	1,074.64	1,047.74	26.90	39.953		
8,225.00	8,113.38	7,446.00	7,051.92	27.15	25.72	-20.38	134.16	741.12	1,093.51	1,066.63	26.88	40.675		
8,250.00	8,131.05	7,446.00	7,051.92	27.07	25.72	-19.31	134.16	741.12	1,111.63	1,084.57	27.06	41.080		
8,275.00	8,147.77	7,446.00	7,051.92	27.01	25.72	-18.36	134.16	741.12	1,129.15	1,101.89	27.26	41.415		
8,300.00	8,163.49	7,420.17	7,050.14	26.94	25.64	-17.14	135.24	715.37	1,145.57	1,118.36	27.21	42.109		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 271H - OH - OH													Offset Site Error:	0.00 usft
Survey Program: 26-SuperiorQC MWD+IFR1+SAG+FDIR													Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
8,325.00	8,178.17	7,409.19	7,049.25	26.89	25.61	-16.29	135.71	704.44	1,161.35	1,134.03	27.32	42.505		
8,350.00	8,191.77	7,397.88	7,048.25	26.84	25.57	-15.55	136.20	693.18	1,176.29	1,148.83	27.45	42.848		
8,375.00	8,204.26	7,386.24	7,047.13	26.80	25.54	-14.89	136.71	681.61	1,190.35	1,162.76	27.60	43.135		
8,400.00	8,215.60	7,362.00	7,044.52	26.77	25.46	-14.21	137.78	657.53	1,203.64	1,176.03	27.60	43.603		
8,425.00	8,225.75	7,362.00	7,044.52	26.74	25.46	-13.81	137.78	657.53	1,215.78	1,187.86	27.92	43.548		
8,450.00	8,234.70	7,362.00	7,044.52	26.73	25.46	-13.45	137.78	657.53	1,227.20	1,198.94	28.26	43.425		
8,475.00	8,242.41	7,334.84	7,041.17	26.72	25.38	-12.96	139.10	630.61	1,237.39	1,209.13	28.27	43.778		
8,500.00	8,248.87	7,320.86	7,039.28	26.73	25.34	-12.62	139.84	616.78	1,246.71	1,218.25	28.45	43.815		
8,525.00	8,254.05	7,306.68	7,037.24	26.74	25.30	-12.31	140.64	602.77	1,255.00	1,226.35	28.65	43.801		
8,550.00	8,257.95	7,292.33	7,035.07	26.77	25.26	-12.05	141.50	588.61	1,262.26	1,233.40	28.86	43.736		
8,575.00	8,260.55	7,266.00	7,030.77	26.80	25.18	-11.78	143.20	562.69	1,268.57	1,239.66	28.91	43.876		
8,600.00	8,261.85	7,266.00	7,030.77	26.85	25.18	-11.65	143.20	562.69	1,273.64	1,244.30	29.34	43.403		
8,612.26	8,262.01	7,266.00	7,030.77	26.88	25.18	-11.60	143.20	562.69	1,275.84	1,246.28	29.56	43.166		
8,700.00	8,262.01	7,250.00	7,027.74	27.12	25.14	-11.28	144.20	547.01	1,293.12	1,262.17	30.95	41.779		
8,800.00	8,262.01	7,217.80	7,019.86	27.52	25.04	-10.84	145.72	515.83	1,318.26	1,285.86	32.40	40.682		
8,860.26	8,262.01	7,204.15	7,015.81	27.82	25.00	-10.55	146.17	502.81	1,336.30	1,302.90	33.40	40.008		
8,900.00	8,262.01	7,171.00	7,004.27	28.05	24.90	-10.55	146.74	471.75	1,350.21	1,316.57	33.64	40.137		
9,000.00	8,262.01	7,171.00	7,004.27	28.75	24.90	-10.55	146.74	471.75	1,385.42	1,349.73	35.70	38.812		
9,100.00	8,262.01	7,171.00	7,004.27	29.64	24.90	-10.55	146.74	471.75	1,426.79	1,389.08	37.71	37.839		
9,200.00	8,262.01	7,123.81	6,984.33	30.73	24.75	-10.56	146.62	428.99	1,471.02	1,432.19	38.83	37.879		
9,220.26	8,262.01	7,118.93	6,982.08	30.97	24.74	-10.56	146.55	424.67	1,480.59	1,441.45	39.13	37.834		
9,300.00	8,262.01	7,076.00	6,960.60	32.00	24.60	-11.19	145.60	387.52	1,520.33	1,480.42	39.91	38.095		
9,400.00	8,262.00	7,076.00	6,960.60	33.44	24.60	-12.06	145.60	387.52	1,571.38	1,529.71	41.67	37.712		
9,484.16	8,262.00	7,039.12	6,940.65	34.74	24.49	-12.75	144.61	356.52	1,616.80	1,574.27	42.52	38.022		
9,500.00	8,262.00	7,031.62	6,936.52	34.99	24.47	-12.72	144.44	350.26	1,625.46	1,582.79	42.67	38.092		
9,600.00	8,262.00	6,980.00	6,907.43	36.64	24.31	-12.52	143.63	307.63	1,681.28	1,637.75	43.53	38.619		
9,700.00	8,262.00	6,980.00	6,907.43	38.38	24.31	-12.52	143.63	307.63	1,739.71	1,694.71	45.00	38.658		
9,800.00	8,262.00	6,980.00	6,907.43	40.21	24.31	-12.52	143.63	307.63	1,801.79	1,755.46	46.34	38.885		
9,900.00	8,262.00	6,927.34	6,875.01	42.10	24.15	-12.27	143.54	266.17	1,863.84	1,816.84	47.00	39.656		
10,000.00	8,262.00	6,885.00	6,845.94	44.05	24.02	-12.03	144.11	235.39	1,930.64	1,882.90	47.74	40.439		
10,100.00	8,262.00	6,885.00	6,845.94	46.04	24.02	-12.03	144.11	235.39	1,998.20	1,949.38	48.82	40.933		
10,200.00	8,262.00	6,885.00	6,845.94	48.07	24.02	-12.03	144.11	235.39	2,068.39	2,018.60	49.78	41.547		
10,300.00	8,262.00	6,885.00	6,845.94	50.13	24.02	-12.03	144.11	235.39	2,140.95	2,090.29	50.66	42.263		
10,400.00	8,262.00	6,885.00	6,845.94	52.22	24.02	-12.03	144.11	235.39	2,215.65	2,164.21	51.44	43.071		
10,500.00	8,262.00	6,885.00	6,845.94	54.33	24.02	-12.03	144.11	235.39	2,292.28	2,240.13	52.15	43.956		
10,600.00	8,262.00	6,840.45	6,812.40	56.46	23.88	-11.73	145.21	206.13	2,367.84	2,315.27	52.57	45.043		
10,700.00	8,262.00	6,831.54	6,805.33	58.61	23.85	-11.67	145.48	200.73	2,446.56	2,393.43	53.13	46.046		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 272H - OH - OH													Offset Site Error:	0.00 usft
Survey Program:		25-SuperiorQC MWD+IFR1+SAG+FDIR						Rule Assigned:				Offset Well Error:	0.00 usft	
Measured Depth (usft)	Reference Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.00	0.00	0.00	0.00	-169.74	-1,772.73	-321.03	1,801.57					
100.00	100.00	99.12	98.12	0.86	0.13	-169.74	-1,772.80	-320.87	1,801.61	1,800.62	0.98	1,833.818		
200.00	200.00	224.29	223.28	1.46	0.55	-169.77	-1,772.93	-319.99	1,801.73	1,799.72	2.00	898.844		
300.00	300.00	312.40	311.38	1.90	0.86	-169.81	-1,772.76	-318.65	1,801.21	1,798.44	2.76	652.012		
400.00	400.00	415.23	414.19	2.26	1.23	-169.88	-1,772.14	-316.44	1,800.22	1,796.73	3.49	515.675		
500.00	500.00	514.55	513.48	2.57	1.59	-169.95	-1,771.77	-314.14	1,799.46	1,795.30	4.16	432.543		
600.00	600.00	615.04	613.95	2.86	1.95	-170.00	-1,771.32	-312.34	1,798.70	1,793.90	4.80	374.605		
700.00	700.00	713.86	712.75	3.11	2.30	-170.05	-1,770.83	-310.78	1,797.94	1,792.53	5.41	332.104		
800.00	800.00	828.89	827.77	3.35	2.71	-170.10	-1,769.94	-308.96	1,796.92	1,790.86	6.07	296.261		
900.00	900.00	971.18	969.94	3.58	3.22	-170.23	-1,766.91	-304.12	1,794.26	1,787.46	6.80	263.933		
1,000.00	1,000.00	1,119.64	1,117.93	3.79	3.76	-170.51	-1,760.71	-294.30	1,789.03	1,781.49	7.54	237.328		
1,100.00	1,099.97	1,281.55	1,278.84	4.27	4.34	124.60	-1,749.38	-280.36	1,781.93	1,773.51	8.42	211.640		
1,200.00	1,199.75	1,466.06	1,461.30	5.30	5.00	124.62	-1,729.19	-261.98	1,773.19	1,763.67	9.53	186.144		
1,300.00	1,299.14	1,595.15	1,588.33	6.18	5.46	124.84	-1,710.91	-248.08	1,763.58	1,753.15	10.43	169.149		
1,398.80	1,396.79	1,700.05	1,691.43	6.96	5.83	125.16	-1,695.10	-236.97	1,755.68	1,744.45	11.23	156.312		
1,400.00	1,397.97	1,701.30	1,692.66	6.96	5.84	125.16	-1,694.90	-236.84	1,755.60	1,744.36	11.24	156.240		
1,500.00	1,496.46	1,803.09	1,792.70	7.70	6.21	125.39	-1,679.16	-226.56	1,748.56	1,736.06	12.49	139.942		
1,600.00	1,594.95	1,898.93	1,886.90	7.91	6.56	125.61	-1,664.39	-216.92	1,741.61	1,728.56	13.04	133.525		
1,700.00	1,693.44	1,993.35	1,979.75	8.15	6.90	125.82	-1,650.12	-207.43	1,734.97	1,721.37	13.60	127.567		
1,800.00	1,791.93	2,088.49	2,073.35	8.40	7.25	126.04	-1,635.96	-197.85	1,728.61	1,714.44	14.17	121.976		
1,900.00	1,890.42	2,187.82	2,171.10	8.66	7.61	126.26	-1,621.45	-187.86	1,722.53	1,707.76	14.77	116.652		
2,000.00	1,988.91	2,291.45	2,273.04	8.95	7.99	126.50	-1,605.98	-177.51	1,716.17	1,700.79	15.38	111.556		
2,100.00	2,087.40	2,388.62	2,368.64	9.24	8.35	126.73	-1,591.49	-167.81	1,709.87	1,693.88	15.99	106.921		
2,200.00	2,185.89	2,484.69	2,463.16	9.55	8.70	126.95	-1,577.37	-158.05	1,703.78	1,687.17	16.61	102.605		
2,300.00	2,284.38	2,580.90	2,557.85	9.87	9.06	127.17	-1,563.45	-148.22	1,697.92	1,680.69	17.23	98.562		
2,400.00	2,382.87	2,671.56	2,647.10	10.20	9.39	127.37	-1,550.61	-138.85	1,692.37	1,674.53	17.84	94.869		
2,500.00	2,481.36	2,759.22	2,733.52	10.54	9.72	127.58	-1,538.75	-130.17	1,687.56	1,669.11	18.45	91.473		
2,600.00	2,579.85	2,855.05	2,828.10	10.89	10.07	127.81	-1,526.25	-121.10	1,683.34	1,664.25	19.09	88.178		
2,700.00	2,678.34	2,958.20	2,929.89	11.25	10.45	128.08	-1,512.62	-111.46	1,679.03	1,659.27	19.76	84.966		
2,800.00	2,776.83	3,053.86	3,024.28	11.61	10.80	128.32	-1,499.94	-102.55	1,674.71	1,654.30	20.41	82.036		
2,900.00	2,875.32	3,143.36	3,112.68	11.98	11.13	128.56	-1,488.43	-94.50	1,670.89	1,649.84	21.05	79.364		
3,000.00	2,973.81	3,245.17	3,213.30	12.35	11.50	128.84	-1,475.76	-85.63	1,667.58	1,645.84	21.74	76.715		
3,100.00	3,072.30	3,359.71	3,326.38	12.73	11.93	129.14	-1,460.78	-75.17	1,663.57	1,641.11	22.47	74.047		
3,200.00	3,170.79	3,452.68	3,418.12	13.12	12.27	129.38	-1,448.41	-66.59	1,659.37	1,636.23	23.13	71.735		
3,300.00	3,269.28	3,544.57	3,508.87	13.51	12.61	129.64	-1,436.48	-58.48	1,655.61	1,631.81	23.80	69.569		
3,400.00	3,367.77	3,636.22	3,599.47	13.90	12.95	129.90	-1,424.98	-50.76	1,652.41	1,627.94	24.47	67.534		
3,500.00	3,466.26	3,730.83	3,693.05	14.30	13.29	130.18	-1,413.40	-43.05	1,649.62	1,624.47	25.15	65.587		
3,600.00	3,564.75	3,824.25	3,785.50	14.70	13.64	130.46	-1,402.20	-35.62	1,647.18	1,621.35	25.84	63.756		
3,700.00	3,663.24	3,925.38	3,885.63	15.10	14.01	130.77	-1,390.42	-27.81	1,645.17	1,618.62	26.55	61.965		
3,800.00	3,761.73	4,032.01	3,991.11	15.51	14.40	131.09	-1,377.32	-19.22	1,642.48	1,615.20	27.29	60.194		
3,900.00	3,860.22	4,123.68	4,081.82	15.92	14.73	131.37	-1,366.27	-11.92	1,640.12	1,612.14	27.98	58.626		
4,000.00	3,958.71	4,214.50	4,171.75	16.33	15.07	131.65	-1,355.72	-4.96	1,638.29	1,609.63	28.67	57.153		
4,100.00	4,057.20	4,304.06	4,260.52	16.75	15.39	131.94	-1,345.73	1.49	1,637.09	1,607.74	29.35	55.772		
4,200.00	4,155.69	4,394.15	4,349.89	17.16	15.72	132.24	-1,336.13	7.54	1,636.57	1,606.52	30.05	54.468		
4,243.72	4,198.75	4,434.27	4,389.71	17.35	15.87	132.37	-1,331.99	10.16	1,636.52	1,606.16	30.35	53.916 CC		
4,300.00	4,254.18	4,484.38	4,439.46	17.58	16.05	132.54	-1,326.93	13.38	1,636.62	1,605.87	30.74	53.237 ES		
4,400.00	4,352.67	4,574.87	4,529.36	18.00	16.38	132.85	-1,318.24	18.90	1,637.38	1,605.94	31.44	52.077		
4,500.00	4,451.16	4,672.93	4,626.81	18.42	16.73	133.20	-1,308.98	24.69	1,638.43	1,606.25	32.17	50.923		
4,600.00	4,549.65	4,768.32	4,721.64	18.85	17.08	133.54	-1,300.05	29.96	1,639.73	1,606.83	32.90	49.839		
4,700.00	4,648.14	4,862.27	4,815.06	19.27	17.42	133.88	-1,291.43	34.94	1,641.35	1,607.73	33.62	48.815		
4,800.00	4,746.63	4,953.34	4,905.66	19.70	17.75	134.21	-1,283.50	39.62	1,643.52	1,609.18	34.34	47.865		
4,900.00	4,845.12	5,022.99	4,974.98	20.13	18.00	134.47	-1,277.61	42.99	1,646.33	1,611.38	34.96	47.098		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 272H - OH - OH											Offset Site Error: 0.00 usft			
Survey Program: 25-SuperiorQC MWD+IFR1+SAG+FDIR		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,000.00	4,943.61	5,112.29	5,063.95	20.56	18.32	134.79	-1,271.11	47.04	1,650.26	1,614.60	35.66	46.277		
5,100.00	5,042.10	5,183.06	5,134.56	20.99	18.57	135.04	-1,267.35	50.07	1,656.12	1,619.84	36.27	45.657		
5,200.00	5,140.59	5,244.99	5,196.40	21.42	18.79	135.25	-1,265.17	52.47	1,663.90	1,627.07	36.83	45.181		
5,300.00	5,239.08	5,305.99	5,257.37	21.85	19.00	135.47	-1,264.48	54.00	1,674.26	1,636.90	37.36	44.814		
5,400.00	5,337.57	5,398.64	5,350.01	22.28	19.32	135.80	-1,264.48	55.66	1,686.08	1,648.00	38.07	44.286		
5,500.00	5,436.06	5,501.18	5,452.53	22.72	19.67	136.16	-1,264.27	57.56	1,697.76	1,658.91	38.85	43.705		
5,600.00	5,534.55	5,600.72	5,552.05	23.15	20.02	136.51	-1,263.93	59.40	1,709.38	1,669.77	39.61	43.159		
5,700.00	5,633.04	5,699.71	5,651.03	23.59	20.36	136.86	-1,263.52	61.18	1,721.01	1,680.65	40.37	42.636		
5,800.00	5,731.53	5,795.07	5,746.37	24.03	20.69	137.18	-1,263.26	63.00	1,732.80	1,691.69	41.10	42.157		
5,900.00	5,830.02	5,888.00	5,839.28	24.46	21.01	137.49	-1,263.35	64.80	1,744.97	1,703.14	41.83	41.719		
6,000.00	5,928.51	5,990.53	5,941.79	24.90	21.37	137.83	-1,263.28	66.36	1,757.19	1,714.58	42.61	41.236		
6,100.00	6,027.00	6,089.53	6,040.80	25.34	21.71	138.19	-1,262.81	67.25	1,769.36	1,725.98	43.39	40.782		
6,200.00	6,125.49	6,184.67	6,135.93	25.78	22.04	138.54	-1,262.18	67.52	1,781.68	1,737.54	44.14	40.368		
6,278.92	6,203.21	6,256.91	6,208.17	26.12	22.29	138.83	-1,261.65	67.08	1,791.66	1,746.96	44.70	40.080		
6,300.00	6,223.99	6,276.13	6,227.39	26.21	22.35	138.95	-1,261.51	66.88	1,794.31	1,749.46	44.85	40.009		
6,400.00	6,322.96	6,789.89	6,717.04	26.69	24.16	137.00	-1,255.71	186.24	1,797.57	1,750.80	46.77	38.434		
6,500.00	6,422.46	6,953.77	6,842.22	27.22	24.73	133.75	-1,261.40	291.27	1,781.54	1,734.37	47.16	37.773		
6,600.00	6,522.30	7,079.22	6,919.89	27.71	25.18	130.31	-1,270.42	389.20	1,761.75	1,714.32	47.43	37.147		
6,677.72	6,600.00	7,158.75	6,962.14	27.87	25.47	-167.47	-1,277.05	456.23	1,745.75	1,698.23	47.52	36.737		
6,700.00	6,622.28	7,180.98	6,973.27	27.87	25.56	-168.11	-1,278.82	475.40	1,741.19	1,693.68	47.51	36.648		
6,800.00	6,722.28	7,286.07	7,019.38	27.91	25.97	-171.28	-1,286.87	569.39	1,722.37	1,674.92	47.45	36.297		
6,900.00	6,822.28	7,331.24	7,034.86	27.94	26.15	-172.71	-1,290.40	611.67	1,707.44	1,659.99	47.46	35.979		
7,000.00	6,922.28	7,362.27	7,043.93	27.98	26.27	-173.71	-1,293.00	641.22	1,697.61	1,650.21	47.39	35.819 SF		
7,100.00	7,022.28	7,388.99	7,050.70	28.01	26.38	-174.58	-1,295.35	666.96	1,693.20	1,645.96	47.24	35.845		
7,128.42	7,050.70	7,388.99	7,050.70	28.02	26.38	-174.58	-1,295.35	666.96	1,692.96	1,645.78	47.18	35.883		
7,200.00	7,122.28	7,388.99	7,050.70	28.05	26.38	-174.58	-1,295.35	666.96	1,694.47	1,647.48	46.99	36.058		
7,300.00	7,222.28	7,415.79	7,056.57	28.08	26.48	-175.47	-1,297.86	693.00	1,701.29	1,654.66	46.63	36.487		
7,400.00	7,322.28	7,427.29	7,058.81	28.12	26.53	-175.85	-1,298.99	704.21	1,713.85	1,667.68	46.17	37.119		
7,500.00	7,422.28	7,437.24	7,060.62	28.15	26.57	-176.18	-1,300.00	713.95	1,731.99	1,686.36	45.63	37.957		
7,600.00	7,522.28	7,445.95	7,062.09	28.19	26.60	-176.47	-1,300.90	722.48	1,755.55	1,710.54	45.02	38.997		
7,700.00	7,622.28	7,453.62	7,063.31	28.23	26.63	-176.73	-1,301.72	730.01	1,784.34	1,740.00	44.35	40.235		
7,800.00	7,722.28	7,483.99	7,067.41	28.26	26.75	-177.74	-1,305.09	759.91	1,818.47	1,774.80	43.67	41.643		
7,862.26	7,784.54	7,483.99	7,067.41	28.28	26.75	-177.74	-1,305.09	759.91	1,841.80	1,798.60	43.20	42.631		
7,875.00	7,797.28	7,483.99	7,067.41	28.26	26.75	-88.37	-1,305.09	759.91	1,846.80	1,803.70	43.10	42.846		
7,900.00	7,822.25	7,483.99	7,067.41	28.21	26.75	-87.06	-1,305.09	759.91	1,856.79	1,813.89	42.89	43.288		
7,925.00	7,847.10	7,483.99	7,067.41	28.14	26.75	-85.73	-1,305.09	759.91	1,867.00	1,824.32	42.67	43.751		
7,950.00	7,871.79	7,483.99	7,067.41	28.07	26.75	-84.36	-1,305.09	759.91	1,877.39	1,834.95	42.44	44.232		
7,975.00	7,896.24	7,483.99	7,067.41	27.99	26.75	-82.97	-1,305.09	759.91	1,887.95	1,845.74	42.21	44.730		
8,000.00	7,920.38	7,483.99	7,067.41	27.91	26.75	-81.57	-1,305.09	759.91	1,898.63	1,856.66	41.97	45.242		
8,025.00	7,944.15	7,483.99	7,067.41	27.82	26.75	-80.15	-1,305.09	759.91	1,909.40	1,867.68	41.72	45.766		
8,050.00	7,967.48	7,483.99	7,067.41	27.73	26.75	-78.73	-1,305.09	759.91	1,920.24	1,878.77	41.47	46.300		
8,075.00	7,990.31	7,483.99	7,067.41	27.65	26.75	-77.31	-1,305.09	759.91	1,931.11	1,889.89	41.23	46.842		
8,100.00	8,012.58	7,483.99	7,067.41	27.56	26.75	-75.90	-1,305.09	759.91	1,941.99	1,901.01	40.98	47.388		
8,125.00	8,034.22	7,451.44	7,062.97	27.47	26.62	-73.55	-1,301.48	727.87	1,952.12	1,911.46	40.65	48.020		
8,150.00	8,055.18	7,447.69	7,062.38	27.39	26.61	-72.10	-1,301.09	724.19	1,962.73	1,922.33	40.40	48.581		
8,175.00	8,075.40	7,443.60	7,061.70	27.30	26.59	-70.67	-1,300.66	720.18	1,973.22	1,933.06	40.16	49.139		
8,200.00	8,094.81	7,439.16	7,060.95	27.22	26.57	-69.27	-1,300.20	715.83	1,983.55	1,943.64	39.92	49.691		
8,225.00	8,113.38	7,434.42	7,060.12	27.15	26.56	-67.91	-1,299.71	711.18	1,993.70	1,954.01	39.69	50.233		
8,250.00	8,131.05	7,429.37	7,059.20	27.07	26.54	-66.59	-1,299.20	706.25	2,003.62	1,964.15	39.47	50.761		
8,275.00	8,147.77	7,424.04	7,058.20	27.01	26.51	-65.32	-1,298.67	701.04	2,013.29	1,974.02	39.27	51.271		
8,300.00	8,163.49	7,388.99	7,050.70	26.94	26.38	-63.45	-1,295.35	666.96	2,023.29	1,984.33	38.96	51.933		
8,325.00	8,178.17	7,388.99	7,050.70	26.89	26.38	-62.44	-1,295.35	666.96	2,032.15	1,993.34	38.81	52.366		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 272H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 25-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,350.00	8,191.77	7,388.99	7,050.70	26.84	26.38	-61.47	-1,295.35	666.96	2,040.71	2,002.04	38.67	52.766	
8,375.00	8,204.26	7,388.99	7,050.70	26.80	26.38	-60.56	-1,295.35	666.96	2,048.96	2,010.39	38.57	53.128	
8,400.00	8,215.60	7,388.99	7,050.70	26.77	26.38	-59.69	-1,295.35	666.96	2,056.87	2,018.38	38.48	53.450	
8,425.00	8,225.75	7,388.99	7,050.70	26.74	26.38	-58.87	-1,295.35	666.96	2,064.42	2,026.00	38.42	53.729	
8,450.00	8,234.70	7,388.99	7,050.70	26.73	26.38	-58.10	-1,295.35	666.96	2,071.61	2,033.22	38.39	53.961	
8,475.00	8,242.41	7,388.99	7,050.70	26.72	26.38	-57.39	-1,295.35	666.96	2,078.41	2,040.02	38.38	54.146	
8,500.00	8,248.87	7,388.99	7,050.70	26.73	26.38	-56.72	-1,295.35	666.96	2,084.81	2,046.40	38.41	54.283	
8,525.00	8,254.05	7,388.99	7,050.70	26.74	26.38	-56.10	-1,295.35	666.96	2,090.79	2,052.34	38.45	54.370	
8,550.00	8,257.95	7,350.06	7,040.51	26.77	26.22	-55.15	-1,291.96	629.55	2,095.28	2,056.98	38.30	54.707	
8,575.00	8,260.55	7,342.31	7,038.24	26.80	26.19	-54.61	-1,291.31	622.17	2,099.93	2,061.58	38.35	54.760	
8,600.00	8,261.85	7,334.46	7,035.85	26.85	26.16	-54.14	-1,290.67	614.71	2,104.03	2,065.62	38.42	54.768	
8,612.26	8,262.01	7,330.57	7,034.65	26.88	26.14	-53.93	-1,290.35	611.04	2,105.84	2,067.39	38.46	54.760	
8,700.00	8,262.01	7,293.99	7,022.28	27.12	26.00	-53.50	-1,287.47	576.73	2,120.41	2,081.61	38.81	54.640	
8,800.00	8,262.01	7,270.71	7,013.51	27.52	25.91	-53.10	-1,285.70	555.25	2,141.79	2,102.22	39.57	54.128	
8,860.26	8,262.01	7,246.52	7,003.64	27.82	25.81	-52.74	-1,283.85	533.23	2,157.16	2,117.14	40.02	53.902	
8,900.00	8,262.01	7,246.52	7,003.64	28.05	25.81	-52.74	-1,283.85	533.23	2,168.14	2,127.68	40.47	53.580	
9,000.00	8,262.01	7,198.99	6,982.07	28.75	25.63	-52.27	-1,280.21	491.04	2,197.79	2,156.50	41.29	53.226	
9,100.00	8,262.01	7,165.40	6,965.50	29.64	25.50	-51.91	-1,277.59	461.95	2,230.09	2,187.76	42.33	52.688	
9,200.00	8,262.01	7,118.21	6,941.12	30.73	25.32	-51.38	-1,273.71	421.74	2,264.60	2,221.29	43.31	52.285	
9,220.26	8,262.01	7,104.99	6,934.05	30.97	25.27	-51.23	-1,272.58	410.61	2,271.86	2,228.37	43.49	52.244	
9,300.00	8,262.01	7,104.99	6,934.05	32.00	25.27	-51.53	-1,272.58	410.61	2,301.06	2,256.43	44.62	51.567	
9,400.00	8,262.00	7,055.85	6,906.54	33.44	25.10	-51.30	-1,268.54	370.11	2,337.80	2,292.12	45.68	51.178	
9,484.16	8,262.00	7,009.99	6,878.94	34.74	24.93	-51.02	-1,265.08	333.65	2,369.93	2,323.39	46.54	50.928	
9,500.00	8,262.00	7,009.99	6,878.94	34.99	24.93	-51.02	-1,265.08	333.65	2,375.89	2,329.12	46.76	50.805	
9,600.00	8,262.00	7,009.99	6,878.94	36.64	24.93	-51.02	-1,265.08	333.65	2,415.58	2,367.38	48.21	50.107	
9,700.00	8,262.00	7,009.99	6,878.94	38.38	24.93	-51.02	-1,265.08	333.65	2,458.71	2,409.08	49.63	49.545	

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 273H - OH - OH													Offset Site Error:	0.00 usft
Survey Program:		25-SuperiorQC MWD+IFR1+SAG+FDIR						Rule Assigned:				Offset Well Error:	0.00 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance			Warning		
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)		Separation Factor	
0.00	0.00	1.00	0.00	0.00	0.00	-169.89	-1,802.73	-321.33	1,831.15					
100.00	100.00	111.39	110.38	0.86	0.15	-169.91	-1,802.59	-320.75	1,830.93	1,829.93	1.01	1,821.221		
200.00	200.00	215.39	214.38	1.46	0.48	-169.95	-1,801.94	-319.47	1,830.10	1,828.17	1.93	946.279		
300.00	300.00	316.24	315.22	1.90	0.84	-169.97	-1,800.99	-318.50	1,829.00	1,826.26	2.74	668.015		
400.00	400.00	419.18	418.15	2.26	1.21	-170.01	-1,800.20	-317.13	1,828.01	1,824.54	3.47	527.200		
500.00	500.00	519.28	518.23	2.57	1.56	-170.03	-1,799.36	-316.16	1,827.01	1,822.87	4.14	441.386		
600.00	600.00	620.51	619.46	2.86	1.93	-170.06	-1,798.51	-315.03	1,825.99	1,821.21	4.78	381.732		
700.00	700.00	723.83	722.76	3.11	2.30	-170.09	-1,797.50	-313.92	1,824.84	1,819.43	5.41	337.198		
800.00	800.00	826.06	824.98	3.35	2.66	-170.13	-1,796.37	-312.56	1,823.53	1,817.51	6.02	302.991		
900.00	900.00	902.38	901.28	3.58	2.94	-170.18	-1,796.11	-310.75	1,822.80	1,816.28	6.52	279.731		
905.29	905.29	906.39	905.29	3.59	2.95	-170.19	-1,796.13	-310.63	1,822.80	1,816.25	6.54	278.636	CC, ES	
1,000.00	1,000.00	975.68	974.52	3.79	3.19	-170.27	-1,797.04	-308.15	1,823.44	1,816.45	6.99	260.914		
1,100.00	1,099.97	1,044.85	1,043.59	4.27	3.44	124.85	-1,799.08	-305.09	1,826.88	1,819.34	7.55	242.036		
1,200.00	1,199.75	1,111.00	1,109.58	5.30	3.67	124.68	-1,802.36	-301.81	1,834.66	1,826.40	8.26	222.003		
1,300.00	1,299.14	1,170.14	1,168.50	6.18	3.88	124.48	-1,806.50	-298.83	1,846.90	1,837.98	8.92	207.145		
1,398.80	1,396.79	1,230.90	1,228.95	6.96	4.09	124.26	-1,811.99	-295.97	1,863.41	1,853.88	9.54	195.384		
1,400.00	1,397.97	1,231.67	1,229.71	6.96	4.09	124.26	-1,812.06	-295.93	1,863.64	1,854.10	9.54	195.291		
1,500.00	1,496.46	1,299.00	1,296.57	7.70	4.33	124.43	-1,819.42	-292.99	1,883.45	1,872.82	10.63	177.264		
1,600.00	1,594.95	1,373.82	1,370.74	7.91	4.59	124.61	-1,828.67	-289.67	1,904.67	1,893.61	11.07	172.132		
1,700.00	1,693.44	1,449.56	1,445.70	8.15	4.86	124.77	-1,838.83	-285.94	1,926.91	1,915.39	11.52	167.275		
1,800.00	1,791.93	1,520.45	1,515.70	8.40	5.11	124.90	-1,849.30	-281.95	1,950.35	1,938.38	11.96	163.044		
1,900.00	1,890.42	1,582.00	1,576.28	8.66	5.33	124.99	-1,859.38	-277.89	1,975.24	1,962.87	12.37	159.695		
2,000.00	1,988.91	1,663.55	1,656.31	8.95	5.63	125.08	-1,873.90	-271.89	2,001.32	1,988.45	12.87	155.480		
2,100.00	2,087.40	1,750.11	1,741.06	9.24	5.95	125.15	-1,890.14	-265.13	2,028.22	2,014.81	13.41	151.295		
2,200.00	2,185.89	1,840.80	1,829.76	9.55	6.28	125.22	-1,907.51	-257.75	2,055.44	2,041.48	13.97	147.169		
2,300.00	2,284.38	1,938.71	1,925.48	9.87	6.65	125.28	-1,926.42	-249.60	2,082.79	2,068.22	14.57	142.963		
2,400.00	2,382.87	2,035.47	2,020.11	10.20	7.01	125.35	-1,944.98	-241.61	2,110.02	2,094.85	15.17	139.062		
2,500.00	2,481.36	2,128.13	2,110.73	10.54	7.36	125.41	-1,962.80	-234.10	2,137.33	2,121.57	15.77	135.572		
2,600.00	2,579.85	2,223.30	2,203.80	10.89	7.72	125.48	-1,981.19	-226.57	2,164.78	2,148.40	16.38	132.198		
2,700.00	2,678.34	2,320.48	2,298.83	11.25	8.09	125.55	-1,999.97	-218.82	2,192.21	2,175.21	17.00	128.949		
2,800.00	2,776.83	2,433.74	2,409.55	11.61	8.53	125.60	-2,021.64	-208.80	2,219.30	2,201.60	17.71	125.330		
2,900.00	2,875.32	2,527.00	2,500.66	11.98	8.89	125.61	-2,039.27	-199.66	2,246.00	2,227.67	18.32	122.573		
3,000.00	2,973.81	2,616.48	2,588.06	12.35	9.23	125.63	-2,056.37	-190.92	2,272.89	2,253.97	18.93	120.097		
3,100.00	3,072.30	2,708.06	2,677.49	12.73	9.59	125.65	-2,074.10	-182.25	2,300.09	2,280.55	19.54	117.705		
3,200.00	3,170.79	2,811.81	2,778.80	13.12	9.99	125.67	-2,094.16	-172.31	2,327.24	2,307.02	20.22	115.098		
3,300.00	3,269.28	2,916.45	2,880.95	13.51	10.40	125.68	-2,114.13	-161.53	2,354.01	2,333.11	20.91	112.603		
3,400.00	3,367.77	3,009.01	2,971.29	13.90	10.76	125.68	-2,131.77	-151.76	2,380.70	2,359.17	21.54	110.550		
3,500.00	3,466.26	3,095.18	3,055.35	14.30	11.09	125.68	-2,148.43	-142.79	2,407.70	2,385.56	22.14	108.770		
3,600.00	3,564.75	3,191.15	3,148.96	14.70	11.47	125.68	-2,167.15	-133.02	2,434.90	2,412.11	22.79	106.853		
3,700.00	3,663.24	3,317.23	3,272.11	15.10	11.96	125.70	-2,191.21	-120.61	2,461.84	2,438.25	23.59	104.356		
3,800.00	3,761.73	3,535.42	3,486.53	15.51	12.80	125.80	-2,226.09	-100.51	2,486.26	2,461.43	24.83	100.137	SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 375H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 139-SDI_C510Ga_Keeper_gyroMWD, 3359-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre		Distance					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	1.30	0.00	0.00	0.00	0.87	90.37	1.37	90.38				
100.00	100.00	101.13	99.83	0.86	0.15	1.01	90.46	1.60	90.47	89.47	1.00	90.447	
200.00	200.00	201.09	199.79	1.46	0.43	1.38	90.68	2.18	90.71	88.84	1.87	48.442	
300.00	300.00	300.78	299.48	1.90	0.80	1.73	90.96	2.75	91.00	88.33	2.67	34.117 ES	
400.00	400.00	399.54	398.22	2.26	1.15	1.93	92.17	3.11	92.24	88.85	3.38	27.256	
500.00	500.00	499.12	497.78	2.57	1.51	1.89	94.45	3.11	94.53	90.47	4.06	23.289	
600.00	600.00	599.40	598.04	2.86	1.86	1.53	96.57	2.57	96.63	91.92	4.70	20.537	
700.00	700.00	699.41	698.02	3.11	2.22	1.20	98.60	2.06	98.64	93.32	5.33	18.517	
800.00	800.00	799.35	797.94	3.35	2.58	0.95	100.62	1.66	100.66	94.72	5.93	16.969	
900.00	900.00	899.12	897.69	3.58	2.95	0.79	102.75	1.41	102.78	96.26	6.52	15.759	
1,000.00	1,000.00	998.77	997.32	3.79	3.31	0.68	105.14	1.25	105.18	98.08	7.10	14.812	
1,100.00	1,099.97	1,096.66	1,095.15	4.27	3.67	-65.16	108.36	1.03	107.54	99.82	7.72	13.923	
1,200.00	1,199.75	1,194.72	1,193.05	5.30	4.03	-68.43	113.74	0.40	110.47	102.09	8.38	13.186	
1,300.00	1,299.14	1,294.26	1,292.42	6.18	4.39	-73.57	119.67	-0.16	112.94	104.01	8.92	12.658	
1,398.80	1,396.79	1,390.51	1,388.46	6.96	4.74	-80.43	125.93	-1.11	116.09	106.74	9.35	12.421	
1,400.00	1,397.97	1,391.67	1,389.62	6.96	4.75	-80.52	126.01	-1.13	116.14	106.79	9.35	12.423	
1,500.00	1,496.46	1,488.96	1,486.61	7.70	5.10	-88.20	133.37	-2.90	122.28	111.68	10.59	11.544	
1,600.00	1,594.95	1,587.57	1,584.90	7.91	5.46	-95.51	140.80	-5.65	130.94	119.82	11.12	11.772	
1,700.00	1,693.44	1,686.62	1,683.67	8.15	5.82	-102.02	147.67	-8.44	141.04	129.31	11.73	12.021	
1,800.00	1,791.93	1,785.57	1,782.39	8.40	6.18	-107.72	154.01	-11.11	152.24	139.85	12.39	12.289	
1,900.00	1,890.42	1,884.63	1,881.23	8.66	6.54	-112.64	159.98	-13.51	164.28	151.21	13.08	12.564	
2,000.00	1,988.91	1,983.38	1,979.80	8.95	6.90	-116.92	165.61	-15.74	177.03	163.26	13.78	12.850	
2,100.00	2,087.40	2,082.01	2,078.25	9.24	7.26	-120.70	170.88	-18.05	190.51	176.02	14.49	13.147	
2,200.00	2,185.89	2,182.60	2,178.72	9.55	7.63	-124.27	175.27	-20.34	204.15	188.91	15.23	13.401	
2,300.00	2,284.38	2,282.11	2,278.18	9.87	7.99	-127.73	177.88	-22.38	217.49	201.50	15.99	13.601	
2,400.00	2,382.87	2,382.02	2,378.05	10.20	8.34	-130.95	179.74	-24.29	231.09	214.33	16.76	13.788	
2,500.00	2,481.36	2,480.88	2,476.90	10.54	8.69	-134.03	180.36	-25.98	244.71	227.17	17.54	13.954	
2,600.00	2,579.85	2,579.43	2,575.43	10.89	9.04	-136.81	180.86	-27.69	258.94	240.63	18.31	14.139	
2,700.00	2,678.34	2,678.64	2,674.62	11.25	9.38	-139.39	180.87	-29.25	273.42	254.32	19.10	14.315	
2,800.00	2,776.83	2,776.99	2,772.96	11.61	9.71	-141.82	180.25	-30.88	288.35	268.47	19.88	14.501	
2,900.00	2,875.32	2,878.09	2,874.05	11.98	10.03	-144.21	178.79	-32.06	303.11	282.42	20.69	14.649	
3,000.00	2,973.81	2,977.00	2,972.94	12.35	10.35	-146.37	177.04	-32.70	317.77	296.29	21.48	14.793	
3,100.00	3,072.30	3,076.09	3,072.01	12.73	10.67	-148.33	175.30	-33.07	332.58	310.31	22.27	14.934	
3,200.00	3,170.79	3,174.47	3,170.37	13.12	10.99	-150.09	173.70	-33.30	347.60	324.55	23.05	15.078	
3,300.00	3,269.28	3,272.33	3,268.22	13.51	11.31	-151.68	172.22	-33.56	362.95	339.12	23.83	15.229	
3,400.00	3,367.77	3,370.37	3,366.26	13.90	11.46	-153.11	170.98	-33.94	378.69	354.26	24.43	15.501	
3,500.00	3,466.26	3,468.39	3,464.27	14.30	11.47	-154.37	170.06	-34.40	394.71	369.83	24.88	15.868	
3,600.00	3,564.75	3,566.37	3,562.25	14.70	11.49	-155.48	169.53	-34.94	410.99	385.66	25.33	16.226	
3,700.00	3,663.24	3,664.49	3,660.36	15.10	11.52	-156.46	169.40	-35.56	427.47	401.68	25.79	16.575	
3,800.00	3,761.73	3,762.44	3,758.31	15.51	11.57	-157.34	169.44	-36.27	444.14	417.88	26.26	16.912	
3,900.00	3,860.22	3,860.22	3,856.09	15.92	11.62	-158.15	169.51	-37.09	461.03	434.29	26.74	17.239	
4,000.00	3,958.71	3,958.14	3,954.01	16.33	11.68	-158.87	169.79	-38.03	478.09	450.86	27.24	17.554	
4,100.00	4,057.20	4,055.58	4,051.44	16.75	11.75	-159.53	170.22	-39.11	495.36	467.63	27.73	17.861	
4,200.00	4,155.69	4,153.43	4,149.28	17.16	11.84	-160.12	170.80	-40.39	512.87	484.63	28.24	18.158	
4,300.00	4,254.18	4,251.70	4,247.54	17.58	11.93	-160.65	171.65	-41.66	530.39	501.62	28.77	18.438	
4,400.00	4,352.67	4,349.19	4,345.01	18.00	12.03	-161.11	172.72	-43.13	548.13	518.84	29.29	18.712	
4,500.00	4,451.16	4,447.72	4,443.52	18.42	12.14	-161.52	174.13	-44.64	565.89	536.06	29.83	18.968	
4,600.00	4,549.65	4,551.81	4,547.58	18.85	12.27	-161.90	175.88	-46.06	583.50	553.08	30.41	19.185	
4,700.00	4,648.14	4,656.09	4,651.85	19.27	12.40	-162.31	177.22	-45.80	599.57	568.57	31.01	19.338	
4,800.00	4,746.63	4,754.70	4,750.45	19.70	12.53	-162.69	178.52	-45.38	615.50	583.93	31.57	19.494	
4,900.00	4,845.12	4,853.42	4,849.16	20.13	12.67	-163.06	179.65	-44.91	631.44	599.29	32.15	19.639	
5,000.00	4,943.61	4,952.03	4,947.78	20.56	12.82	-163.54	179.32	-44.22	647.41	614.67	32.74	19.772	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 375H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 139-SDI_C510Ga_Keeper_gyroMWD, 3359-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,100.00	5,042.10	5,050.63	5,046.37	20.99	12.97	-164.01	178.91	-43.51	663.42	630.08	33.34	19.897	
5,200.00	5,140.59	5,151.71	5,147.44	21.42	13.14	-164.41	179.20	-42.75	679.32	645.36	33.96	20.002	
5,300.00	5,239.08	5,250.59	5,246.31	21.85	13.31	-164.74	179.99	-41.83	694.98	660.41	34.58	20.100	
5,400.00	5,337.57	5,348.73	5,344.45	22.28	13.49	-165.05	180.89	-40.99	710.72	675.53	35.19	20.195	
5,500.00	5,436.06	5,446.34	5,442.05	22.72	13.67	-165.33	181.86	-40.28	726.59	690.77	35.82	20.287	
5,600.00	5,534.55	5,544.24	5,539.95	23.15	13.86	-165.60	182.77	-39.68	742.60	706.15	36.45	20.376	
5,700.00	5,633.04	5,647.68	5,643.35	23.59	14.06	-166.07	181.39	-38.30	758.37	721.24	37.12	20.428	
5,800.00	5,731.53	5,751.55	5,747.17	24.03	14.27	-166.62	178.71	-35.92	773.51	735.69	37.81	20.455	
5,900.00	5,830.02	5,851.62	5,847.19	24.46	14.48	-167.07	177.16	-33.38	788.25	749.76	38.48	20.482	
6,000.00	5,928.51	5,948.72	5,944.27	24.90	14.69	-167.43	176.42	-31.19	803.14	764.00	39.14	20.519	
6,100.00	6,027.00	6,047.67	6,043.19	25.34	14.91	-167.74	176.15	-29.10	818.08	778.27	39.81	20.549	
6,200.00	6,125.49	6,143.95	6,139.46	25.78	15.12	-168.01	176.21	-27.27	833.18	792.71	40.47	20.587	
6,278.92	6,203.21	6,219.08	6,214.57	26.12	15.30	-168.21	176.33	-26.15	845.40	804.42	40.98	20.628	
6,300.00	6,223.99	6,239.75	6,235.24	26.21	15.34	-168.28	176.36	-25.87	848.60	807.48	41.12	20.637	
6,400.00	6,322.96	6,337.83	6,333.31	26.69	15.58	-168.55	176.31	-24.57	861.30	819.47	41.83	20.591	
6,500.00	6,422.46	6,436.54	6,432.02	27.22	15.81	-168.78	175.79	-23.30	869.91	827.31	42.60	20.421	
6,600.00	6,522.30	6,532.45	6,527.91	27.71	16.04	-168.94	174.93	-22.09	874.38	831.08	43.30	20.194	
6,677.72	6,600.00	6,604.58	6,600.04	27.87	16.22	-104.29	173.98	-21.65	875.47	831.86	43.61	20.074	
6,680.21	6,602.50	6,607.04	6,602.50	27.87	16.23	-104.29	173.94	-21.64	875.47	831.85	43.62	20.071	
6,700.00	6,622.28	6,626.54	6,622.00	27.87	16.27	-104.31	173.64	-21.57	875.47	831.80	43.67	20.048	
6,800.00	6,722.28	6,727.97	6,723.41	27.91	16.53	-104.41	172.17	-21.24	875.51	831.54	43.97	19.911	
6,900.00	6,822.28	6,839.28	6,834.72	27.94	16.81	-104.43	172.11	-20.50	874.90	830.56	44.34	19.732	
7,000.00	6,922.28	6,943.00	6,938.42	27.98	17.08	-104.43	172.48	-18.65	873.07	828.42	44.66	19.550	
7,100.00	7,022.28	7,040.76	7,036.16	28.01	17.34	-104.44	172.79	-16.97	871.34	826.39	44.94	19.387	
7,200.00	7,122.28	7,127.32	7,122.72	28.05	17.57	-104.45	172.92	-16.14	870.39	825.24	45.16	19.275	
7,204.45	7,126.73	7,131.05	7,126.45	28.05	17.58	-104.45	172.92	-16.14	870.39	825.23	45.16	19.272	
7,300.00	7,222.28	7,211.22	7,206.62	28.08	17.79	-104.45	172.69	-16.84	871.27	825.93	45.34	19.217	
7,400.00	7,322.28	7,302.48	7,297.85	28.12	18.03	-104.45	172.08	-19.05	873.76	828.19	45.57	19.173	
7,500.00	7,422.28	8,828.63	8,262.86	28.15	22.56	-177.87	201.05	819.70	861.59	832.66	28.93	29.779	
7,600.00	7,522.28	8,830.77	8,262.91	28.19	22.57	-178.51	201.21	821.83	764.34	734.90	29.45	25.958	
7,700.00	7,622.28	8,832.93	8,262.97	28.23	22.58	-179.16	201.37	823.98	667.90	637.83	30.07	22.211	
7,800.00	7,722.28	8,835.10	8,263.03	28.26	22.59	-179.82	201.53	826.15	572.66	541.79	30.87	18.550	
7,862.26	7,784.54	8,836.46	8,263.06	28.28	22.59	-179.76	201.63	827.50	514.28	482.78	31.50	16.325	
7,875.00	7,797.28	8,836.60	8,263.07	28.26	22.59	-95.37	201.64	827.64	502.45	470.80	31.65	15.876	
7,900.00	7,822.25	8,836.04	8,263.05	28.21	22.59	-102.23	201.60	827.08	479.42	447.47	31.95	15.004	
7,925.00	7,847.10	8,834.38	8,263.01	28.14	22.58	-108.05	201.48	825.43	456.70	424.42	32.28	14.148	
7,950.00	7,871.79	8,831.63	8,262.94	28.07	22.57	-112.85	201.28	822.68	434.41	401.78	32.64	13.311	
7,975.00	7,896.24	8,827.78	8,262.84	27.99	22.55	-116.68	200.98	818.85	412.65	379.63	33.03	12.495	
8,000.00	7,920.38	8,822.86	8,262.71	27.91	22.53	-119.68	200.59	813.95	391.54	358.09	33.45	11.706	
8,025.00	7,944.15	8,816.87	8,262.56	27.82	22.51	-121.94	200.08	807.98	371.19	337.28	33.91	10.948	
8,050.00	7,967.48	8,809.84	8,262.39	27.73	22.48	-123.56	199.44	800.98	351.74	317.34	34.40	10.225	
8,075.00	7,990.31	8,801.77	8,262.19	27.65	22.44	-124.62	198.66	792.96	333.33	298.40	34.93	9.543	
8,100.00	8,012.58	8,792.71	8,261.97	27.56	22.41	-125.18	197.71	783.95	316.10	280.61	35.49	8.906	
8,125.00	8,034.22	8,782.68	8,261.73	27.47	22.36	-125.30	196.57	773.98	300.20	264.12	36.08	8.320	
8,150.00	8,055.18	8,771.59	8,261.47	27.39	22.32	-124.98	195.21	762.98	285.77	249.09	36.68	7.790	
8,175.00	8,075.40	8,754.91	8,261.02	27.30	22.25	-123.46	193.15	746.43	272.84	235.38	37.46	7.284	
8,200.00	8,094.81	8,737.29	8,260.42	27.22	22.18	-121.61	191.09	728.95	261.37	223.15	38.22	6.838	
8,225.00	8,113.38	8,718.80	8,259.65	27.15	22.11	-119.47	189.06	710.58	251.41	212.46	38.95	6.454	
8,250.00	8,131.05	8,699.48	8,258.69	27.07	22.04	-117.05	187.07	691.39	242.98	203.35	39.62	6.132	
8,275.00	8,147.77	8,679.44	8,257.52	27.01	21.96	-114.40	185.17	671.47	236.05	195.84	40.21	5.871	
8,300.00	8,163.49	8,658.31	8,256.05	26.94	21.88	-111.47	183.32	650.48	230.58	189.86	40.71	5.664	
8,325.00	8,178.17	8,636.76	8,254.21	26.89	21.81	-108.39	181.57	629.08	226.47	185.38	41.09	5.512	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 375H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 139-SDI_C510Ga_Keeper_gyroMWD, 3359-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Rule Assigned:					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
8,350.00	8,191.77	8,614.83	8,251.98	26.84	21.73	-105.20	179.94	607.32	223.64	182.31	41.33	5.411	
8,375.00	8,204.26	8,592.53	8,249.35	26.80	21.65	-101.95	178.44	585.23	221.98	180.53	41.45	5.355	
8,400.00	8,215.60	8,570.45	8,246.35	26.77	21.57	-98.74	177.08	563.40	221.37	179.93	41.43	5.343 SF	
8,402.65	8,216.73	8,568.15	8,246.01	26.76	21.56	-98.40	176.95	561.12	221.36	179.94	41.42	5.344	
8,425.00	8,225.75	8,548.67	8,242.88	26.74	21.50	-95.59	175.79	541.94	221.74	180.44	41.30	5.369	
8,450.00	8,234.70	8,526.85	8,238.86	26.73	21.43	-92.47	174.54	520.53	222.98	181.91	41.08	5.428	
8,475.00	8,242.41	8,504.99	8,234.31	26.72	21.35	-89.42	173.32	499.18	224.98	184.18	40.80	5.514	
8,500.00	8,248.87	8,483.06	8,229.21	26.73	21.28	-86.47	172.14	477.88	227.60	187.11	40.49	5.621	
8,525.00	8,254.05	8,460.99	8,223.56	26.74	21.21	-83.63	171.00	456.58	230.72	190.55	40.17	5.744	
8,550.00	8,257.95	8,438.86	8,217.37	26.77	21.14	-80.95	169.91	435.36	234.20	194.35	39.85	5.877	
8,575.00	8,260.55	8,416.69	8,210.66	26.80	21.07	-78.42	168.87	414.26	237.95	198.40	39.56	6.015	
8,600.00	8,261.85	8,394.53	8,203.44	26.85	21.00	-76.08	167.89	393.33	241.86	202.57	39.29	6.156	
8,612.26	8,262.01	8,382.43	8,199.31	26.88	20.96	-74.91	167.39	381.96	243.79	204.60	39.19	6.221	
8,700.00	8,262.01	8,300.00	8,168.81	27.12	20.73	-68.43	165.68	305.42	259.31	220.84	38.48	6.740	
8,800.00	8,262.01	8,228.86	8,135.64	27.52	20.53	-62.00	165.49	242.57	286.41	248.35	38.06	7.525	
8,860.26	8,262.01	8,205.00	8,122.34	27.82	20.47	-59.53	165.45	222.77	309.95	271.53	38.42	8.068	
8,900.00	8,262.01	8,173.15	8,102.96	28.05	20.38	-56.44	165.23	197.51	327.68	289.25	38.43	8.527	
9,000.00	8,262.01	8,110.00	8,059.40	28.75	20.21	-50.43	163.84	151.87	381.91	342.88	39.03	9.784	
9,100.00	8,262.01	8,087.46	8,042.46	29.64	20.15	-48.39	163.08	137.02	444.24	403.70	40.54	10.959	
9,200.00	8,262.01	8,049.58	8,012.90	30.73	20.05	-45.18	161.64	113.40	514.07	472.50	41.57	12.366	
9,220.26	8,262.01	8,042.56	8,007.27	30.97	20.03	-44.62	161.35	109.21	528.88	487.12	41.77	12.663	
9,300.00	8,262.01	8,016.00	7,985.59	32.00	19.96	-43.51	160.20	93.92	588.69	546.20	42.49	13.855	
9,400.00	8,262.00	7,983.18	7,958.06	33.44	19.88	-42.39	158.82	76.10	666.19	622.90	43.29	15.389	
9,484.16	8,262.00	7,957.74	7,936.26	34.74	19.81	-41.78	157.89	63.03	733.09	689.20	43.89	16.703	
9,500.00	8,262.00	7,953.23	7,932.34	34.99	19.80	-41.46	157.74	60.79	745.85	701.85	43.99	16.953	
9,600.00	8,262.00	7,921.00	7,904.08	36.64	19.71	-39.25	156.79	45.35	827.95	783.36	44.58	18.570	
9,700.00	8,262.00	7,921.00	7,904.08	38.38	19.71	-39.25	156.79	45.35	912.62	867.46	45.16	20.209	
9,800.00	8,262.00	7,880.79	7,867.89	40.21	19.61	-36.61	156.72	27.84	998.48	952.90	45.57	21.909	
9,900.00	8,262.00	7,862.04	7,850.68	42.10	19.56	-35.40	157.36	20.43	1,086.31	1,040.36	45.96	23.637	
10,000.00	8,262.00	7,826.00	7,817.10	44.05	19.46	-33.11	159.82	7.59	1,175.89	1,129.59	46.30	25.396	
10,100.00	8,262.00	7,826.00	7,817.10	46.04	19.46	-33.11	159.82	7.59	1,265.92	1,219.34	46.58	27.180	
10,200.00	8,262.00	7,826.00	7,817.10	48.07	19.46	-33.11	159.82	7.59	1,357.34	1,310.55	46.79	29.009	
10,300.00	8,262.00	7,826.00	7,817.10	50.13	19.46	-33.11	159.82	7.59	1,449.89	1,402.93	46.96	30.874	
10,400.00	8,262.00	7,826.00	7,817.10	52.22	19.46	-33.11	159.82	7.59	1,543.38	1,496.27	47.10	32.768	
10,500.00	8,262.00	7,826.00	7,817.10	54.33	19.46	-33.11	159.82	7.59	1,637.63	1,590.41	47.21	34.685	
10,600.00	8,262.00	7,786.19	7,779.28	56.46	19.35	-30.73	163.22	-4.34	1,730.76	1,683.29	47.46	36.466	
10,700.00	8,262.00	7,779.49	7,772.83	58.61	19.33	-30.35	163.75	-6.10	1,825.59	1,778.01	47.58	38.370	
10,800.00	8,262.00	7,773.29	7,766.86	60.77	19.32	-30.01	164.23	-7.67	1,920.85	1,873.17	47.68	40.284	
10,900.00	8,262.00	7,732.00	7,726.65	62.95	19.20	-27.88	167.19	-16.55	2,017.86	1,969.94	47.92	42.108	
11,000.00	8,262.00	7,732.00	7,726.65	65.14	19.20	-27.88	167.19	-16.55	2,113.47	2,065.48	47.99	44.040	
11,100.00	8,262.00	7,732.00	7,726.65	67.34	19.20	-27.88	167.19	-16.55	2,209.46	2,161.41	48.05	45.984	
11,200.00	8,262.00	7,732.00	7,726.65	69.55	19.20	-27.88	167.19	-16.55	2,305.79	2,257.69	48.10	47.935	
11,300.00	8,262.00	7,732.00	7,726.65	71.77	19.20	-27.88	167.19	-16.55	2,402.42	2,354.27	48.15	49.894	
11,400.00	8,262.00	7,732.00	7,726.65	73.99	19.20	-27.88	167.19	-16.55	2,499.32	2,451.13	48.19	51.859	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 376H - OH - OH													Offset Site Error:	0.00 usft
Survey Program:		25-SuperiorQC MWD+IFR1+SAG+FDIR							Rule Assigned:				Offset Well Error:	0.00 usft
Measured Depth (usft)	Reference Vertical Depth (usft)	Measured Depth (usft)	Offset Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	0.00	3.00	0.00	0.00	-169.57	-1,742.73	-320.73	1,772.00					
100.00	100.00	108.74	111.74	0.86	0.15	-169.56	-1,742.42	-320.90	1,771.76	1,770.76	1.01	1,761.603		
200.00	200.00	208.82	211.81	1.46	0.50	-169.55	-1,741.84	-321.22	1,771.25	1,769.29	1.96	903.823		
240.50	240.50	237.53	240.52	1.64	0.60	-169.54	-1,741.66	-321.39	1,771.06	1,768.82	2.24	790.372		
300.00	300.00	297.09	300.08	1.90	0.81	-169.53	-1,741.65	-321.85	1,771.14	1,768.43	2.71	652.527		
304.45	304.45	300.60	303.59	1.92	0.83	-169.53	-1,741.65	-321.87	1,771.14	1,768.40	2.74	645.758		
400.00	400.00	389.08	392.07	2.26	1.13	-169.52	-1,741.91	-322.32	1,771.50	1,768.11	3.39	522.008		
500.00	500.00	475.41	478.39	2.57	1.43	-169.51	-1,742.82	-322.58	1,772.55	1,768.55	4.00	442.645		
600.00	600.00	577.79	580.77	2.86	1.79	-169.50	-1,743.93	-323.33	1,773.76	1,769.11	4.64	381.925		
700.00	700.00	685.02	687.99	3.11	2.17	-169.48	-1,744.70	-324.11	1,774.59	1,769.31	5.28	335.914		
800.00	800.00	782.01	784.98	3.35	2.52	-169.46	-1,745.24	-324.77	1,775.27	1,769.40	5.87	302.512		
900.00	900.00	869.45	872.41	3.58	2.83	-169.45	-1,746.14	-325.36	1,776.41	1,770.01	6.40	277.361		
1,000.00	1,000.00	955.06	958.00	3.79	3.13	-169.45	-1,747.86	-325.52	1,778.41	1,771.49	6.92	256.967		
1,100.00	1,099.97	1,056.77	1,059.68	4.27	3.49	125.77	-1,750.54	-325.28	1,782.23	1,774.63	7.60	234.446		
1,200.00	1,199.75	1,211.29	1,214.17	5.30	4.02	125.89	-1,752.23	-324.02	1,787.10	1,778.45	8.64	206.734		
1,300.00	1,299.14	1,389.97	1,392.75	6.18	4.63	126.28	-1,747.08	-321.63	1,790.39	1,780.67	9.73	184.099		
1,398.80	1,396.79	1,510.03	1,512.60	6.96	5.04	126.64	-1,740.41	-318.88	1,793.51	1,782.92	10.59	169.340		
1,400.00	1,397.97	1,511.40	1,513.96	6.96	5.04	126.65	-1,740.33	-318.84	1,793.56	1,782.96	10.60	169.244		
1,500.00	1,496.46	1,627.86	1,630.11	7.70	5.45	127.08	-1,732.96	-314.62	1,797.08	1,785.19	11.88	151.206		
1,600.00	1,594.95	1,749.07	1,750.86	7.91	5.87	127.49	-1,724.23	-308.81	1,799.56	1,787.06	12.51	143.890		
1,700.00	1,693.44	1,887.08	1,888.12	8.15	6.35	127.92	-1,712.40	-300.53	1,800.56	1,787.36	13.19	136.481		
1,800.00	1,791.93	2,033.74	2,033.48	8.40	6.87	128.32	-1,696.49	-289.48	1,798.95	1,785.04	13.91	129.306		
1,900.00	1,890.42	2,148.53	2,146.94	8.66	7.27	128.61	-1,682.40	-279.28	1,795.72	1,781.17	14.55	123.454		
2,000.00	1,988.91	2,240.05	2,237.37	8.95	7.60	128.82	-1,671.15	-270.75	1,792.41	1,777.29	15.12	118.528		
2,100.00	2,087.40	2,334.21	2,330.44	9.24	7.93	129.03	-1,659.97	-261.89	1,789.53	1,773.81	15.72	113.862		
2,200.00	2,185.89	2,428.25	2,423.42	9.55	8.27	129.25	-1,649.12	-252.97	1,786.98	1,770.66	16.32	109.496		
2,300.00	2,284.38	2,533.65	2,527.65	9.87	8.65	129.49	-1,636.94	-243.06	1,784.46	1,767.50	16.97	105.175		
2,400.00	2,382.87	2,637.74	2,630.55	10.20	9.02	129.73	-1,624.59	-233.37	1,781.69	1,764.07	17.62	101.131		
2,500.00	2,481.36	2,741.50	2,733.10	10.54	9.39	129.98	-1,611.94	-223.90	1,778.68	1,760.40	18.28	97.324		
2,600.00	2,579.85	2,841.43	2,831.86	10.89	9.75	130.23	-1,599.63	-214.89	1,775.61	1,756.68	18.93	93.798		
2,700.00	2,678.34	2,939.61	2,928.89	11.25	10.11	130.47	-1,587.57	-205.94	1,772.57	1,752.99	19.59	90.503		
2,800.00	2,776.83	3,032.92	3,021.11	11.61	10.45	130.69	-1,576.36	-197.26	1,769.78	1,749.55	20.23	87.473		
2,900.00	2,875.32	3,124.05	3,111.24	11.98	10.78	130.90	-1,565.86	-188.80	1,767.51	1,746.63	20.88	84.661		
3,000.00	2,973.81	3,218.23	3,204.43	12.35	11.12	131.13	-1,555.34	-180.21	1,765.65	1,744.11	21.54	81.980		
3,100.00	3,072.30	3,312.69	3,297.94	12.73	11.46	131.35	-1,545.05	-171.59	1,764.09	1,741.88	22.20	79.453		
3,200.00	3,170.79	3,393.58	3,378.07	13.12	11.75	131.54	-1,536.78	-164.31	1,763.25	1,740.42	22.83	77.239		
3,300.00	3,269.28	3,527.67	3,510.89	13.51	12.24	131.89	-1,522.19	-153.20	1,761.98	1,738.35	23.63	74.556		
3,400.00	3,367.77	3,629.29	3,611.47	13.90	12.61	132.20	-1,509.74	-145.63	1,759.69	1,735.35	24.34	72.297		
3,500.00	3,466.26	3,723.75	3,704.99	14.30	12.95	132.50	-1,498.17	-139.09	1,757.60	1,732.57	25.03	70.222		
3,600.00	3,564.75	3,819.90	3,800.19	14.70	13.30	132.78	-1,486.86	-131.79	1,755.84	1,730.11	25.73	68.251		
3,700.00	3,663.24	3,919.19	3,898.50	15.10	13.66	133.07	-1,475.30	-124.15	1,754.19	1,727.75	26.44	66.353		
3,800.00	3,761.73	4,018.72	3,997.07	15.51	14.02	133.37	-1,463.67	-116.62	1,752.60	1,725.45	27.15	64.544		
3,900.00	3,860.22	4,118.98	4,096.37	15.92	14.39	133.67	-1,451.85	-109.32	1,751.05	1,723.17	27.88	62.814		
4,000.00	3,958.71	4,219.12	4,195.54	16.33	14.75	133.99	-1,439.92	-102.26	1,749.50	1,720.89	28.60	61.163		
4,100.00	4,057.20	4,321.07	4,296.50	16.75	15.12	134.32	-1,427.64	-95.28	1,747.94	1,718.60	29.34	59.572		
4,200.00	4,155.69	4,424.01	4,398.43	17.16	15.50	134.66	-1,414.93	-88.54	1,746.25	1,716.16	30.09	58.040		
4,300.00	4,254.18	4,527.78	4,501.16	17.58	15.87	135.02	-1,401.85	-81.83	1,744.40	1,713.56	30.84	56.564		
4,400.00	4,352.67	4,628.98	4,601.32	18.00	16.24	135.37	-1,388.85	-75.44	1,742.43	1,710.84	31.59	55.162		
4,500.00	4,451.16	4,723.99	4,695.36	18.42	16.59	135.71	-1,376.54	-69.80	1,740.56	1,708.24	32.32	53.855		
4,600.00	4,549.65	4,818.99	4,789.43	18.85	16.93	136.07	-1,364.35	-64.60	1,739.04	1,705.98	33.06	52.609		
4,700.00	4,648.14	4,911.84	4,881.41	19.27	17.27	136.43	-1,352.65	-59.88	1,737.94	1,704.15	33.79	51.435		
4,800.00	4,746.63	5,005.99	4,974.73	19.70	17.61	136.81	-1,340.97	-55.49	1,737.26	1,702.73	34.53	50.311		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 376H - OH - OH												Offset Site Error:	0.00 usft
Survey Program: 25-SuperiorQC MWD+IFR1+SAG+FDIR												Offset Well Error:	0.00 usft
Rule Assigned:													
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Semi Major Axis Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
				(usft)	(usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
4,808.97	4,755.46	5,005.99	4,974.73	19.74	17.61	136.81	-1,340.97	-55.49	1,737.24	1,702.67	34.57	50.258	
4,900.00	4,845.12	5,055.33	5,023.73	20.13	17.79	137.00	-1,335.55	-53.53	1,738.22	1,703.12	35.10	49.520	
5,000.00	4,943.61	5,108.41	5,076.61	20.56	17.98	137.21	-1,331.17	-51.91	1,742.09	1,706.42	35.67	48.845	
5,100.00	5,042.10	5,200.17	5,168.11	20.99	18.31	137.58	-1,324.74	-49.67	1,747.48	1,711.08	36.40	48.013	
5,200.00	5,140.59	5,288.99	5,256.70	21.42	18.63	137.94	-1,318.70	-47.67	1,753.25	1,716.13	37.12	47.238	
5,300.00	5,239.08	5,355.70	5,323.30	21.85	18.86	138.19	-1,314.98	-46.32	1,760.36	1,722.63	37.72	46.665	
5,400.00	5,337.57	5,435.26	5,402.79	22.28	19.15	138.49	-1,312.12	-45.03	1,769.37	1,730.98	38.39	46.090	
5,500.00	5,436.06	5,526.46	5,493.94	22.72	19.47	138.83	-1,309.24	-43.62	1,778.94	1,739.82	39.12	45.479	
5,600.00	5,534.55	5,615.41	5,582.85	23.15	19.78	139.14	-1,306.94	-42.29	1,789.12	1,749.29	39.83	44.918	
5,700.00	5,633.04	5,704.89	5,672.30	23.59	20.10	139.46	-1,305.09	-41.08	1,799.89	1,759.34	40.55	44.389	
5,800.00	5,731.53	5,795.72	5,763.11	24.03	20.42	139.76	-1,303.75	-39.78	1,811.23	1,769.95	41.27	43.884	
5,900.00	5,830.02	5,891.74	5,859.11	24.46	20.75	140.08	-1,302.65	-38.46	1,822.94	1,780.91	42.03	43.375	
6,000.00	5,928.51	5,988.41	5,955.77	24.90	21.09	140.41	-1,301.41	-37.45	1,834.72	1,791.94	42.79	42.878	
6,100.00	6,027.00	6,082.40	6,049.75	25.34	21.43	140.74	-1,300.21	-37.12	1,846.87	1,803.33	43.54	42.419	
6,200.00	6,125.49	6,175.96	6,143.31	25.78	21.75	141.07	-1,298.97	-37.14	1,859.22	1,814.93	44.29	41.981	
6,278.92	6,203.21	6,244.44	6,211.77	26.12	21.99	141.33	-1,298.15	-37.70	1,869.38	1,824.54	44.84	41.691	
6,300.00	6,223.99	6,262.92	6,230.26	26.21	22.05	141.44	-1,297.96	-37.93	1,872.09	1,827.10	44.98	41.618	
6,400.00	6,322.96	6,351.73	6,319.05	26.69	22.36	141.90	-1,297.21	-39.33	1,883.26	1,837.56	45.70	41.206	
6,500.00	6,422.46	6,444.84	6,412.15	27.22	22.67	142.25	-1,296.79	-41.00	1,891.51	1,845.05	46.47	40.708	
6,600.00	6,522.30	6,537.56	6,504.85	27.71	22.99	142.47	-1,296.63	-42.56	1,896.55	1,849.39	47.16	40.216	
6,677.72	6,600.00	6,598.55	6,565.82	27.87	23.19	-152.71	-1,296.93	-43.79	1,898.65	1,851.17	47.48	39.987	
6,700.00	6,622.28	6,618.28	6,585.55	27.87	23.26	-152.70	-1,297.12	-44.24	1,899.07	1,851.53	47.55	39.942	
6,800.00	6,722.28	6,720.23	6,687.48	27.91	23.60	-152.65	-1,298.11	-46.44	1,900.92	1,852.98	47.94	39.652	
6,900.00	6,822.28	6,797.99	6,765.21	27.94	23.85	-152.63	-1,299.09	-47.82	1,902.97	1,854.80	48.17	39.502	
7,000.00	6,922.28	6,892.99	6,860.16	27.98	24.17	-152.60	-1,301.30	-50.10	1,906.13	1,857.61	48.52	39.286	
7,100.00	7,022.28	7,047.41	7,014.54	28.01	24.68	-152.58	-1,303.96	-51.96	1,908.36	1,859.11	49.24	38.753	
7,200.00	7,122.28	7,145.85	7,112.97	28.05	25.02	-152.60	-1,304.32	-51.60	1,908.52	1,858.90	49.61	38.467	
7,300.00	7,222.28	7,252.30	7,219.42	28.08	25.38	-152.61	-1,304.96	-51.55	1,909.05	1,859.01	50.03	38.155	
7,400.00	7,322.28	9,061.98	8,272.11	28.12	31.55	174.08	-1,240.91	995.75	1,894.93	1,847.39	47.54	39.857	
7,500.00	7,422.28	9,061.98	8,272.11	28.15	31.55	174.08	-1,240.91	995.75	1,846.84	1,798.56	48.28	38.253	
7,600.00	7,522.28	9,061.98	8,272.11	28.19	31.55	174.08	-1,240.91	995.75	1,803.01	1,754.04	48.97	36.820	
7,700.00	7,622.28	9,061.98	8,272.11	28.23	31.55	174.08	-1,240.91	995.75	1,763.77	1,714.17	49.59	35.564	
7,800.00	7,722.28	9,061.98	8,272.11	28.26	31.55	174.08	-1,240.91	995.75	1,729.42	1,679.28	50.15	34.488	
7,862.26	7,784.54	9,061.98	8,272.11	28.28	31.55	174.08	-1,240.91	995.75	1,710.65	1,660.22	50.43	33.919	
7,875.00	7,797.28	9,061.98	8,272.11	28.26	31.55	-97.64	-1,240.91	995.75	1,707.08	1,656.60	50.48	33.814	
7,900.00	7,822.25	9,061.98	8,272.11	28.21	31.55	-98.45	-1,240.91	995.75	1,700.47	1,649.90	50.57	33.628	
7,925.00	7,847.10	9,061.98	8,272.11	28.14	31.55	-99.20	-1,240.91	995.75	1,694.39	1,643.75	50.63	33.465	
7,950.00	7,871.79	9,061.98	8,272.11	28.07	31.55	-99.87	-1,240.91	995.75	1,688.85	1,638.17	50.68	33.325	
7,975.00	7,896.24	9,061.98	8,272.11	27.99	31.55	-100.47	-1,240.91	995.75	1,683.89	1,633.19	50.71	33.208	
8,000.00	7,920.38	9,042.45	8,272.37	27.91	31.47	-100.35	-1,242.81	976.32	1,679.36	1,628.62	50.74	33.098	
8,025.00	7,944.15	9,036.97	8,272.47	27.82	31.45	-100.63	-1,243.36	970.86	1,675.49	1,624.76	50.74	33.024	
8,050.00	7,967.48	9,030.58	8,272.60	27.73	31.42	-100.82	-1,244.01	964.51	1,672.20	1,621.48	50.72	32.971	
8,075.00	7,990.31	9,023.31	8,272.76	27.65	31.39	-100.91	-1,244.76	957.28	1,669.48	1,618.79	50.68	32.939	
8,100.00	8,012.58	9,015.17	8,272.97	27.56	31.36	-100.92	-1,245.61	949.18	1,667.32	1,616.69	50.64	32.927 SF	
8,125.00	8,034.22	9,006.15	8,273.23	27.47	31.32	-100.84	-1,246.56	940.22	1,665.72	1,615.15	50.58	32.935	
8,150.00	8,055.18	8,996.28	8,273.55	27.39	31.28	-100.69	-1,247.63	930.42	1,664.66	1,614.16	50.50	32.961	
8,175.00	8,075.40	8,985.59	8,273.94	27.30	31.23	-100.46	-1,248.81	919.80	1,664.13	1,613.71	50.42	33.004	
8,183.00	8,081.70	8,982.00	8,274.08	27.28	31.22	-100.37	-1,249.21	916.23	1,664.07	1,613.67	50.40	33.020 CC, ES	
8,200.00	8,094.81	8,967.98	8,274.67	27.22	31.16	-100.01	-1,250.81	902.32	1,664.12	1,613.79	50.34	33.059	
8,225.00	8,113.38	8,967.98	8,274.67	27.15	31.16	-99.96	-1,250.81	902.32	1,664.59	1,614.35	50.23	33.136	
8,250.00	8,131.05	8,946.10	8,275.65	27.07	31.08	-99.33	-1,253.36	880.61	1,665.47	1,615.32	50.15	33.210	
8,275.00	8,147.77	8,930.61	8,276.34	27.01	31.02	-98.83	-1,255.21	865.24	1,666.79	1,616.73	50.06	33.298	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 376H - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 25-SuperiorQC MWD+IFR1+SAG+FDIR													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
8,300.00	8,163.49	8,914.48	8,277.06	26.94	30.96	-98.29	-1,257.17	849.25	1,668.50	1,618.53	49.96	33.394	
8,325.00	8,178.17	8,897.78	8,277.79	26.89	30.90	-97.72	-1,259.24	832.69	1,670.57	1,620.69	49.88	33.494	
8,350.00	8,191.77	8,880.53	8,278.55	26.84	30.83	-97.13	-1,261.42	815.60	1,672.97	1,623.18	49.79	33.598	
8,375.00	8,204.26	8,862.79	8,279.33	26.80	30.77	-96.52	-1,263.70	798.03	1,675.68	1,625.96	49.72	33.703	
8,400.00	8,215.60	8,844.62	8,280.13	26.77	30.70	-95.90	-1,266.09	780.03	1,678.66	1,629.01	49.65	33.808	
8,425.00	8,225.75	8,816.98	8,281.32	26.74	30.60	-95.16	-1,269.80	752.67	1,681.93	1,632.32	49.61	33.905	
8,450.00	8,234.70	8,804.24	8,281.86	26.73	30.56	-94.61	-1,271.54	740.05	1,685.35	1,635.78	49.57	34.001	
8,475.00	8,242.41	8,779.38	8,282.85	26.72	30.47	-93.94	-1,274.92	715.44	1,688.93	1,639.38	49.56	34.080	
8,500.00	8,248.87	8,754.23	8,283.75	26.73	30.39	-93.29	-1,278.33	690.54	1,692.61	1,643.05	49.56	34.151	
8,525.00	8,254.05	8,735.33	8,284.35	26.74	30.33	-92.72	-1,280.85	671.82	1,696.36	1,646.79	49.57	34.221	
8,550.00	8,257.95	8,681.49	8,285.60	26.77	30.17	-92.02	-1,287.85	618.46	1,700.05	1,650.39	49.67	34.230	
8,575.00	8,260.55	8,628.98	8,285.65	26.80	30.02	-91.42	-1,293.80	566.29	1,703.38	1,653.61	49.77	34.223	
8,600.00	8,261.85	8,485.98	8,260.46	26.85	29.58	-90.04	-1,303.39	426.61	1,705.07	1,655.11	49.96	34.125	
8,612.26	8,262.01	8,461.96	8,251.26	26.88	29.50	-89.64	-1,304.14	404.43	1,705.78	1,655.80	49.98	34.127	
8,700.00	8,262.01	8,384.10	8,214.02	27.12	29.24	-88.39	-1,305.80	336.12	1,711.78	1,661.60	50.17	34.116	
8,800.00	8,262.01	8,298.86	8,166.35	27.52	28.94	-86.79	-1,307.63	265.53	1,722.93	1,672.35	50.59	34.058	
8,860.26	8,262.01	8,246.90	8,133.91	27.82	28.77	-85.70	-1,308.09	224.95	1,731.53	1,680.66	50.87	34.036	
8,900.00	8,262.01	8,203.83	8,104.41	28.05	28.62	-84.73	-1,307.95	193.57	1,737.87	1,686.83	51.03	34.053	
9,000.00	8,262.01	8,120.68	8,042.72	28.75	28.35	-82.69	-1,305.95	137.92	1,755.03	1,703.46	51.58	34.028	
9,100.00	8,262.01	8,072.02	8,004.28	29.64	28.19	-81.44	-1,304.25	108.14	1,775.44	1,723.06	52.38	33.895	
9,200.00	8,262.01	8,038.98	7,977.38	30.73	28.08	-80.56	-1,303.06	89.00	1,799.71	1,746.34	53.36	33.725	
9,220.26	8,262.01	8,038.98	7,977.38	30.97	28.08	-80.56	-1,303.06	89.00	1,805.18	1,751.57	53.61	33.674	
9,300.00	8,262.01	8,000.20	7,944.97	32.00	27.96	-79.57	-1,301.74	67.76	1,827.21	1,772.83	54.38	33.601	
9,400.00	8,262.00	7,972.52	7,921.27	33.44	27.86	-78.90	-1,300.93	53.47	1,856.50	1,800.97	55.53	33.430	
9,484.16	8,262.00	7,944.98	7,897.27	34.74	27.78	-78.22	-1,300.23	40.00	1,882.52	1,826.03	56.49	33.324	
9,500.00	8,262.00	7,944.98	7,897.27	34.99	27.78	-78.22	-1,300.23	40.00	1,887.57	1,830.87	56.70	33.292	
9,600.00	8,262.00	7,944.98	7,897.27	36.64	27.78	-78.22	-1,300.23	40.00	1,922.11	1,864.12	57.99	33.146	
9,700.00	8,262.00	7,911.35	7,867.35	38.38	27.66	-77.28	-1,299.61	24.66	1,960.38	1,901.31	59.07	33.186	
9,800.00	8,262.00	7,895.75	7,853.24	40.21	27.61	-76.85	-1,299.44	17.99	2,002.74	1,942.52	60.22	33.259	
9,900.00	8,262.00	7,850.98	7,812.05	42.10	27.46	-75.57	-1,299.39	0.49	2,049.45	1,988.30	61.16	33.512	
10,000.00	8,262.00	7,850.98	7,812.05	44.05	27.46	-75.57	-1,299.39	0.49	2,098.56	2,036.28	62.28	33.695	
10,100.00	8,262.00	7,850.98	7,812.05	46.04	27.46	-75.57	-1,299.39	0.49	2,151.20	2,087.87	63.34	33.965	
10,200.00	8,262.00	7,850.98	7,812.05	48.07	27.46	-75.57	-1,299.39	0.49	2,207.12	2,142.81	64.32	34.317	
10,300.00	8,262.00	7,850.98	7,812.05	50.13	27.46	-75.57	-1,299.39	0.49	2,266.07	2,200.85	65.22	34.744	
10,400.00	8,262.00	7,850.98	7,812.05	52.22	27.46	-75.57	-1,299.39	0.49	2,327.83	2,261.77	66.06	35.238	
10,500.00	8,262.00	7,850.98	7,812.05	54.33	27.46	-75.57	-1,299.39	0.49	2,392.18	2,325.35	66.83	35.796	
10,600.00	8,262.00	7,810.37	7,773.79	56.46	27.32	-74.41	-1,299.90	-13.14	2,457.54	2,390.11	67.43	36.446	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - Palmillo 29-30 377H - OH - OH													Offset Site Error: 0.00 usft	
Survey Program: Reference		25-SuperiorQC MWD+IFR1+SAG+FDIR						Rule Assigned:					Offset Well Error: 0.00 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.00	0.00	1.00	0.00	0.00	0.00	-170.05	-1,832.73	-321.53	1,860.72					
100.00	100.00	102.39	101.39	0.86	0.13	-170.05	-1,832.71	-321.47	1,860.70	1,859.71	0.99	1,883.412		
200.00	200.00	216.66	215.66	1.46	0.52	-170.07	-1,832.23	-320.70	1,860.15	1,858.17	1.98	939.427		
300.00	300.00	316.24	315.23	1.90	0.87	-170.07	-1,831.71	-320.63	1,859.62	1,856.85	2.77	671.321		
400.00	400.00	422.98	421.97	2.26	1.25	-170.06	-1,830.66	-320.80	1,858.69	1,855.18	3.51	529.817		
500.00	500.00	529.16	528.14	2.57	1.63	-170.06	-1,829.25	-320.66	1,857.35	1,853.15	4.20	442.181		
600.00	600.00	628.38	627.35	2.86	1.98	-170.07	-1,827.79	-320.13	1,855.81	1,850.98	4.84	383.709		
700.00	700.00	728.31	727.26	3.11	2.34	-170.05	-1,826.30	-320.39	1,854.39	1,848.94	5.45	340.192		
800.00	800.00	819.48	818.42	3.35	2.66	-170.02	-1,824.91	-321.11	1,853.04	1,847.03	6.01	308.077		
900.00	900.00	906.72	905.66	3.58	2.97	-169.99	-1,824.22	-321.98	1,852.43	1,845.88	6.55	282.917		
1,000.00	1,000.00	1,005.33	1,004.25	3.79	3.31	-169.96	-1,823.91	-322.95	1,852.28	1,845.18	7.11	260.615		
1,010.99	1,010.99	1,017.20	1,016.12	3.84	3.35	125.30	-1,823.86	-323.07	1,852.27	1,845.09	7.18	257.986	CC, ES	
1,100.00	1,099.97	1,107.26	1,106.18	4.27	3.67	125.37	-1,823.37	-323.95	1,853.20	1,845.41	7.79	237.963		
1,200.00	1,199.75	1,206.33	1,205.24	5.30	4.02	125.50	-1,822.87	-325.03	1,856.69	1,848.05	8.64	214.895		
1,300.00	1,299.14	1,303.80	1,302.70	6.18	4.37	125.67	-1,822.40	-326.17	1,862.79	1,853.33	9.46	196.910		
1,398.80	1,396.79	1,406.78	1,405.68	6.96	4.73	125.93	-1,821.89	-327.36	1,871.37	1,861.09	10.28	182.083		
1,400.00	1,397.97	1,408.07	1,406.97	6.96	4.74	125.94	-1,821.88	-327.38	1,871.49	1,861.20	10.28	181.972		
1,500.00	1,496.46	1,489.89	1,488.78	7.70	5.02	126.31	-1,821.59	-328.11	1,881.65	1,870.20	11.45	164.297		
1,600.00	1,594.95	1,562.83	1,561.72	7.91	5.27	126.63	-1,822.30	-328.37	1,893.09	1,881.19	11.90	159.072		
1,700.00	1,693.44	1,637.88	1,636.74	8.15	5.52	126.92	-1,824.28	-328.05	1,906.02	1,893.65	12.36	154.182		
1,800.00	1,791.93	1,727.47	1,726.26	8.40	5.83	127.23	-1,827.57	-326.68	1,919.81	1,906.92	12.89	148.976		
1,900.00	1,890.42	1,823.49	1,822.16	8.66	6.15	127.53	-1,831.47	-324.19	1,933.82	1,920.38	13.45	143.814		
2,000.00	1,988.91	1,898.00	1,896.56	8.95	6.40	127.75	-1,834.94	-322.06	1,948.45	1,934.52	13.93	139.838		
2,100.00	2,087.40	1,979.58	1,977.97	9.24	6.68	127.98	-1,839.65	-319.55	1,964.14	1,949.68	14.46	135.866		
2,200.00	2,185.89	2,044.49	2,042.67	9.55	6.90	128.14	-1,844.42	-317.33	1,981.27	1,966.36	14.92	132.816		
2,300.00	2,284.38	2,107.72	2,105.58	9.87	7.12	128.29	-1,850.26	-315.07	2,000.17	1,984.80	15.37	130.102		
2,400.00	2,382.87	2,181.00	2,178.34	10.20	7.37	128.44	-1,858.46	-312.16	2,020.79	2,004.92	15.88	127.289		
2,500.00	2,481.36	2,234.58	2,231.41	10.54	7.56	128.53	-1,865.46	-309.69	2,043.01	2,026.72	16.29	125.410		
2,600.00	2,579.85	2,297.63	2,293.66	10.89	7.78	128.62	-1,874.85	-306.24	2,066.90	2,050.15	16.75	123.411		
2,700.00	2,678.34	2,370.00	2,364.80	11.25	8.03	128.67	-1,887.12	-301.34	2,092.39	2,075.14	17.25	121.311		
2,800.00	2,776.83	2,433.44	2,426.93	11.61	8.25	128.70	-1,898.95	-296.32	2,119.17	2,101.47	17.71	119.692		
2,900.00	2,875.32	2,515.31	2,506.88	11.98	8.54	128.70	-1,915.11	-289.23	2,146.91	2,128.66	18.25	117.622		
3,000.00	2,973.81	2,606.68	2,596.01	12.35	8.87	128.70	-1,933.53	-281.22	2,175.03	2,156.18	18.85	115.380		
3,100.00	3,072.30	2,700.76	2,687.80	12.73	9.21	128.70	-1,952.54	-273.15	2,203.24	2,183.77	19.47	113.171		
3,200.00	3,170.79	2,794.23	2,778.99	13.12	9.55	128.71	-1,971.49	-265.31	2,231.56	2,211.47	20.09	111.092		
3,300.00	3,269.28	2,907.37	2,889.55	13.51	9.96	128.74	-1,993.78	-256.35	2,259.43	2,238.62	20.81	108.564		
3,400.00	3,367.77	2,998.99	2,979.14	13.90	10.30	128.77	-2,011.64	-249.36	2,287.19	2,265.76	21.43	106.717		
3,500.00	3,466.26	3,091.03	3,069.14	14.30	10.64	128.80	-2,029.68	-242.56	2,315.11	2,293.05	22.06	104.952		
3,600.00	3,564.75	3,184.71	3,160.77	14.70	10.99	128.84	-2,048.06	-236.05	2,343.15	2,320.45	22.70	103.234		
3,700.00	3,663.24	3,278.51	3,252.50	15.10	11.34	128.89	-2,066.55	-229.60	2,371.29	2,347.95	23.34	101.597		
3,800.00	3,761.73	3,379.00	3,350.81	15.51	11.72	128.94	-2,086.22	-222.95	2,399.39	2,375.36	24.02	99.886		
3,900.00	3,860.22	3,472.66	3,442.47	15.92	12.07	128.99	-2,104.50	-216.80	2,427.43	2,402.76	24.67	98.397		
4,000.00	3,958.71	3,670.92	3,636.98	16.33	12.81	129.07	-2,139.78	-201.84	2,453.71	2,427.86	25.85	94.913		
4,100.00	4,057.20	3,762.91	3,727.51	16.75	13.16	129.10	-2,154.18	-194.19	2,477.69	2,451.19	26.50	93.501	SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Offset Design: Camacho 25 26 Offsets - STATE E-4202 1 - OH - OH													Offset Site Error: 0.00 usft
Survey Program: 500-UNKNOWN													Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.00	0.00	0.00	19.00	0.00	0.00	-82.63	200.08	-1,546.30	1,559.30				
100.00	100.00	81.00	100.00	0.86	4.05	-82.63	200.08	-1,546.30	1,559.19	1,554.28	4.91	317.529	
200.00	200.00	181.00	200.00	1.46	9.06	-82.63	200.08	-1,546.30	1,559.19	1,548.67	10.51	148.291	
300.00	300.00	281.00	300.00	1.90	14.06	-82.63	200.08	-1,546.30	1,559.19	1,543.23	15.96	97.687	
400.00	400.00	381.00	400.00	2.26	19.06	-82.63	200.08	-1,546.30	1,559.19	1,537.86	21.33	73.115	
500.00	500.00	481.00	500.00	2.57	24.07	-82.63	200.08	-1,546.30	1,559.19	1,532.55	26.64	58.524	
600.00	600.00	581.00	600.00	2.86	28.30	-82.63	200.08	-1,546.30	1,559.19	1,528.03	31.16	50.039	
700.00	700.00	681.00	700.00	3.11	32.36	-82.63	200.08	-1,546.30	1,559.19	1,523.72	35.47	43.954	
800.00	800.00	781.00	800.00	3.35	36.41	-82.63	200.08	-1,546.30	1,559.19	1,519.42	39.77	39.206	
900.00	900.00	881.00	900.00	3.58	40.47	-82.63	200.08	-1,546.30	1,559.19	1,515.14	44.05	35.395	
1,000.00	1,000.00	981.00	1,000.00	3.79	44.53	-82.63	200.08	-1,546.30	1,559.19	1,510.87	48.32	32.267 CC	
1,100.00	1,099.97	1,080.97	1,099.97	4.27	48.55	-147.39	200.08	-1,546.30	1,561.03	1,508.32	52.70	29.618 ES	
1,200.00	1,199.75	1,180.75	1,199.75	5.30	52.57	-147.44	200.08	-1,546.30	1,566.54	1,509.00	57.54	27.227	
1,300.00	1,299.14	1,280.14	1,299.14	6.18	56.56	-147.53	200.08	-1,546.30	1,575.74	1,513.48	62.26	25.309	
1,398.80	1,396.79	1,377.79	1,396.79	6.96	60.49	-147.65	200.08	-1,546.30	1,588.45	1,521.61	66.84	23.766	
1,400.00	1,397.97	1,378.97	1,397.97	6.96	60.54	-147.65	200.08	-1,546.30	1,588.62	1,521.73	66.89	23.750	
1,500.00	1,496.46	1,477.46	1,496.46	7.70	64.50	-147.98	200.08	-1,546.30	1,603.34	1,531.69	71.65	22.378	
1,600.00	1,594.95	1,575.95	1,594.95	7.91	68.45	-148.31	200.08	-1,546.30	1,618.11	1,542.29	75.81	21.343	
1,700.00	1,693.44	1,674.44	1,693.44	8.15	72.40	-148.62	200.08	-1,546.30	1,632.92	1,552.93	79.99	20.413	
1,800.00	1,791.93	1,772.93	1,791.93	8.40	76.35	-148.94	200.08	-1,546.30	1,647.79	1,563.60	84.19	19.573	
1,900.00	1,890.42	1,871.42	1,890.42	8.66	80.30	-149.24	200.08	-1,546.30	1,662.70	1,574.30	88.40	18.809	
2,000.00	1,988.91	1,969.91	1,988.91	8.95	84.25	-149.54	200.08	-1,546.30	1,677.66	1,585.04	92.62	18.113	
2,100.00	2,087.40	2,068.40	2,087.40	9.24	88.37	-149.84	200.08	-1,546.30	1,692.67	1,595.64	97.02	17.446	
2,200.00	2,185.89	2,166.89	2,185.89	9.55	92.56	-150.13	200.08	-1,546.30	1,707.71	1,606.21	101.51	16.823	
2,300.00	2,284.38	2,265.38	2,284.38	9.87	96.75	-150.42	200.08	-1,546.30	1,722.81	1,616.80	106.01	16.252	
2,400.00	2,382.87	2,363.87	2,382.87	10.20	100.94	-150.70	200.08	-1,546.30	1,737.94	1,627.42	110.51	15.726	
2,500.00	2,481.36	2,462.36	2,481.36	10.54	105.14	-150.97	200.08	-1,546.30	1,753.11	1,638.08	115.03	15.241	
2,600.00	2,579.85	2,560.85	2,579.85	10.89	109.33	-151.25	200.08	-1,546.30	1,768.32	1,648.77	119.55	14.791	
2,700.00	2,678.34	2,659.34	2,678.34	11.25	113.29	-151.50	200.08	-1,546.30	1,783.58	1,659.73	123.85	14.401 SF	
2,800.00	2,776.83	2,654.00	2,673.00	11.61	113.29	-151.50	200.08	-1,546.30	1,801.85	1,677.93	123.93	14.540	
2,900.00	2,875.32	2,654.00	2,673.00	11.98	113.29	-151.50	200.08	-1,546.30	1,825.43	1,701.78	123.65	14.763	
3,000.00	2,973.81	2,654.00	2,673.00	12.35	113.29	-151.50	200.08	-1,546.30	1,854.11	1,731.05	123.06	15.067	
3,100.00	3,072.30	2,654.00	2,673.00	12.73	113.29	-151.50	200.08	-1,546.30	1,887.65	1,765.48	122.18	15.450	
3,200.00	3,170.79	2,654.00	2,673.00	13.12	113.29	-151.50	200.08	-1,546.30	1,925.81	1,804.77	121.05	15.910	
3,300.00	3,269.28	2,654.00	2,673.00	13.51	113.29	-151.50	200.08	-1,546.30	1,968.32	1,848.61	119.71	16.443	
3,400.00	3,367.77	2,654.00	2,673.00	13.90	113.29	-151.50	200.08	-1,546.30	2,014.89	1,896.69	118.20	17.047	
3,500.00	3,466.26	2,654.00	2,673.00	14.30	113.29	-151.50	200.08	-1,546.30	2,065.26	1,948.71	116.55	17.720	
3,600.00	3,564.75	2,654.00	2,673.00	14.70	113.29	-151.50	200.08	-1,546.30	2,119.16	2,004.35	114.80	18.459	
3,700.00	3,663.24	2,654.00	2,673.00	15.10	113.29	-151.50	200.08	-1,546.30	2,176.31	2,063.33	112.98	19.262	
3,800.00	3,761.73	2,654.00	2,673.00	15.51	113.29	-151.50	200.08	-1,546.30	2,236.48	2,125.37	111.12	20.127	
3,900.00	3,860.22	2,654.00	2,673.00	15.92	113.29	-151.50	200.08	-1,546.30	2,299.43	2,190.20	109.23	21.051	
4,000.00	3,958.71	2,654.00	2,673.00	16.33	113.29	-151.50	200.08	-1,546.30	2,364.93	2,257.60	107.34	22.033	
4,100.00	4,057.20	2,654.00	2,673.00	16.75	113.29	-151.50	200.08	-1,546.30	2,432.78	2,327.33	105.45	23.070	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to PATT 879 @ 3499.00usft

Coordinates are relative to: Camacho 25-26 State Com 301H

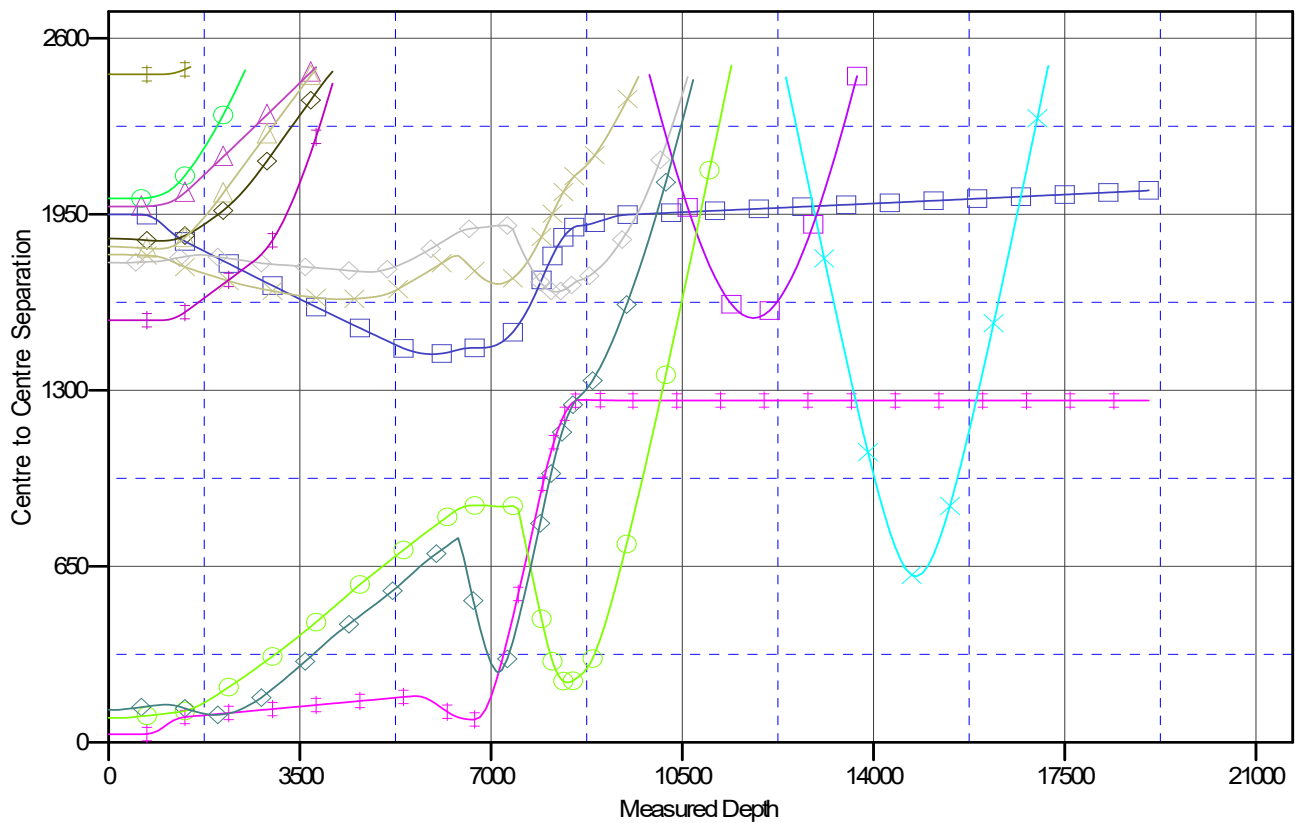
Offset Depths are relative to Offset Datum

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Central Meridian is -104.333334

Grid Convergence at Surface is: 0.06°

Ladder Plot



LEGEND

Camacho 25-26 State Com 201H, OH, Plan #1 V0	Palmillo 29-30 272H, OH, OH V0	GUARDIAN 25 STATE COM #001, OH, OH V0
Camacho 25-26 State Com 202H, OH, Plan #1 V0	Palmillo 29-30 273H, OH, OH V0	STATE E-42021, OH, OH V0
Camacho 25-26 State Com 204H, OH, Plan #1 V0	EDDY GL STATE COM #001, OH, OH V0	Palmillo 29-30 375H, OH, OH V0
Camacho 25-26 State Com 203H, OH, Plan #1 V0	ANGELL RANCH 26 #001, OH, OH V0	Palmillo 29-30 271H, OH, OH V0
Palmillo 29-30 377H, OH, OH V0	Palmillo 29-30 376H, OH, OH V0	

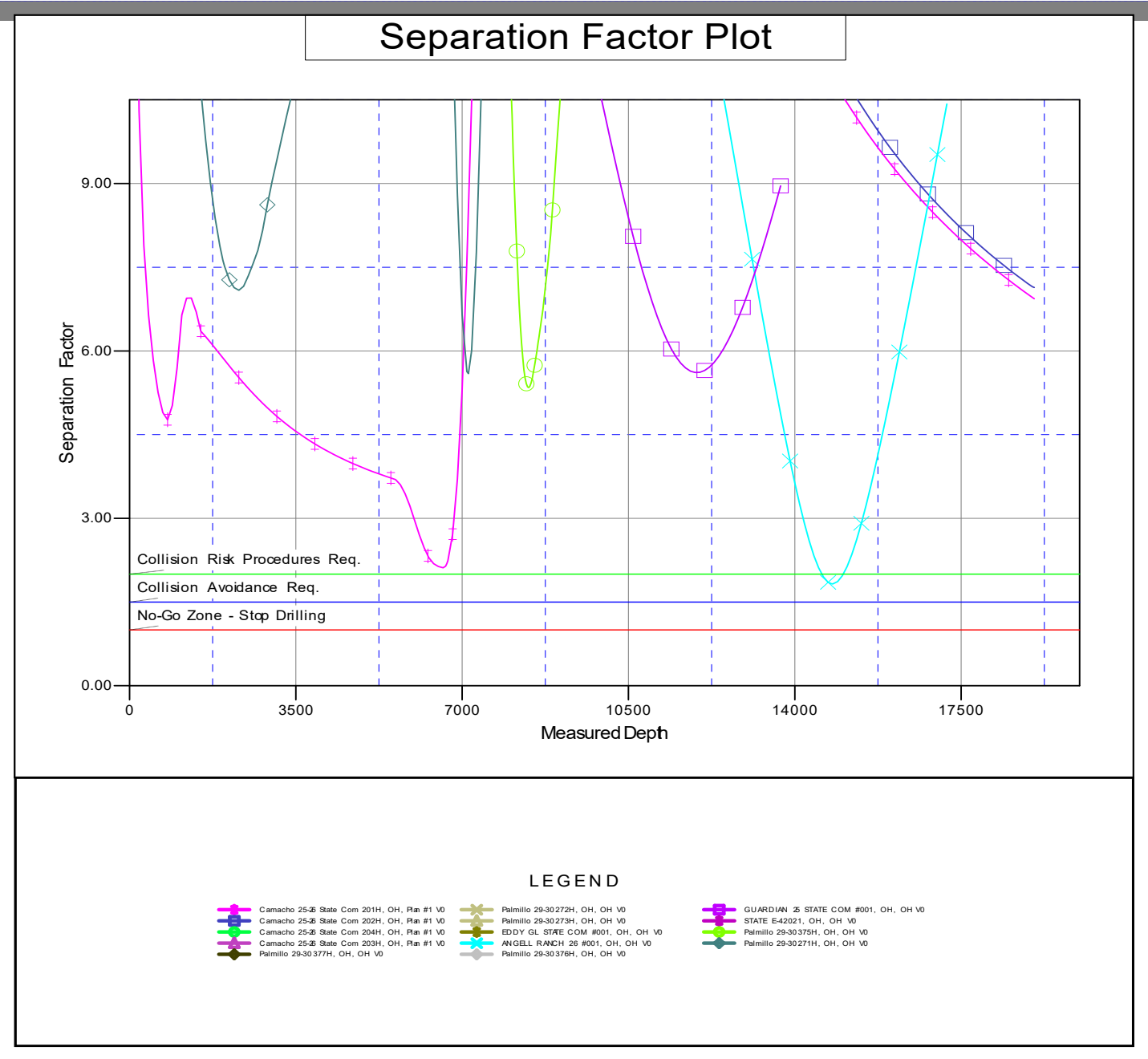
CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	Apache Corporation	Local Co-ordinate Reference:	Well Camacho 25-26 State Com 301H
Project:	Eddy Co, NM (NAD83 NM E)	TVD Reference:	PATT 879 @ 3499.00usft
Reference Site:	Camacho 25 26	MD Reference:	PATT 879 @ 3499.00usft
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	Camacho 25-26 State Com 301H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database:	Fhartmann
Reference Design:	Plan #1	Offset TVD Reference:	Reference Datum

Reference Depths are relative to PATT 879 @ 3499.00usft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Camacho 25-26 State Com 301H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.06°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

HYDROGEN SULFIDE (H₂S) DRILLING OPERATIONS PLAN

Hydrogen Sulfide Training:

All regularly assigned personnel, contracted or employed by Apache Corporation will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

- The hazards and characteristics of hydrogen sulfide (H₂S)
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H₂S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.
- The proper techniques for first aid and rescue procedures.

Supervisory personnel will be trained in the following areas:

- The effects of H₂S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.
- Corrective action & shut-in procedures when drilling or reworking a well & blowout prevention / well control procedures.
- The contents and requirements of the H₂S Drilling Operations Plan

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500') and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received proper training.

H₂S SAFETY EQUIPMENT AND SYSTEMS:

Well Control Equipment that will be available & installed if H₂S is encountered:

- Flare Line with electronic igniter or continuous pilot.
- Choke manifold with a minimum of one remote choke.
- Blind rams & pipe rams to accommodate all pipe sizes with properly sized closing unit.
- Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head & flare gun with flares

Protective Equipment for Essential Personnel:

- Mark II Survive-air 30 minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

H₂S Detection and Monitoring Equipment:

- Two portable H₂S monitors positioned on location for best coverage & response. These units have warning lights & audible sirens when H₂S levels of 20 ppm are reached.
- One portable H₂S monitor positioned near flare line.

H₂S Visual Warning Systems:

- Wind direction indicators are shown on wellsite diagram.
- Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud Program:

- The Mud Program has been designed to minimize the volume of H₂S circulated to the surface. Proper mud weights, safe drilling practices & the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.
- A mud-gas separator and H₂S gas buster will be utilized as needed.

Metallurgy:

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold & lines, & valves will be suitable for H₂S service.
- All elastomers used for packing & seals shall be H₂S trim.

Communication:

- Cellular telephone and 2-way radio communications in company vehicles, rig floor and mud logging trailer.

HYDROGEN SULFIDE (H₂S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operators and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the :
 - Detection of H₂S, and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H₂S and SO₂

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

Contacting Authorities

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

WELL CONTROL EMERGENCY RESPONSE PLAN

I. GENERAL PHILOSOPHY

Our objective is to ensure that during an emergency, a predetermined procedure is followed so that prompt decisions can be made based on accurate information.

The best way to handle an emergency is with an experienced organization set up for the sole purpose of solving the problem. The *Well Control Emergency Response Team* was organized to handle dangerous & expensive well control problems. The *Team* is structured such that each individual can contribute the most from his area of expertise. Key decision-makers are determined prior to an emergency to avoid confusion about who is in charge.

If the well is flowing uncontrolled at the surface or subsurface, *The Emergency Response Team* will be mobilized. The *Team* is customized for the people currently on the Apache staff. Staff changes may require a change in the plan.

II. EMERGENCY PROCEDURE ON DRILLING OR COMPLETION OPERATIONS

- A. In the event of an emergency the *Drilling Foreman* or *Tool-Pusher* will immediately contact only one of the following starting with the first name listed:

Name	Office	Mobile	Home
David LeBlanc – Drlg Superintendent		972-439-4872	
Jonathan Rebenack – Drilling Engineer	713-296-6061	281-782-5493	
Roy DeNapoli – Drilling Manager	713-296-6739	832-275-8531	
Ted Ward EH&S Coordinator	432-234-0600	432-818-1606	

***This one phone call will free the Drilling Foreman to devote his full time to securing the safety of personnel & equipment. This call will initiate the process to mobilize the Well Control Emergency Response Team. Apache maintains an Emergency Telephone Conference Room in the Houston office. This room is available for us by the Permian Region. The room has 50 separate telephone lines.*

- B. The Apache employee contacted by the Drilling Foreman will begin contacting the rest of the *Team*. If **DAVID LE BLANC** is out of contact, **JONATHAN REVENACK** will be notified.
- C. If a member of the *Emergency Response Team* is away from the job, he must be available for call back. Telephone numbers should be left with secretaries or a key decision-maker.
- D. Apache's reporting procedure for spills or releases of oil or hazardous materials will be implemented when spills or releases have occurred or are probable.

EMERGENCY RESPONSE NUMBERS:

SHERIFF DEPARTMENT	
Eddy County	575-887-7551
Lea County	575-396-3611
FIRE DEPARTMENT	
	911
Artesia	575-746-5050
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS	
	911
Artesia Medical Emergency	575-746-5050
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS	
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: APACHE CORPORATION **OGRID:** 873 **Date:** 10 / 8 /2024

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Camacho 25 26 State Com 301H		Sec 25 T19S R27E	820' FNL 445' FEL	2409 bbl/d	4607 mmcf/d	2798 bbl/d
Camacho 25 26 State Com 302H		Sec 25 T19S R27E	2512' FSL 750' FEL	2409 bbl/d	4607 mmcf/d	2798 bbl/d
Camacho 25 26 State Com 303H		Sec 25 T19S R27E	2482' FSL 750' FEL	2409 bbl/d	4607 mmcf/d	2498 bbl/d
Camacho 25 26 State Com 304H		Sec 25 T19S R27E	337' FSL 650' FEL	2409 bbl/d	4607 mmcf/d	2798 bbl/d

IV. Central Delivery Point Name: Camacho 25 26 State CDP [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Camacho 25 26 State Com 301H		11/10/2024	12/30/2024	Not yet scheduled	Not yet scheduled	Not yet scheduled
Camacho 25 26 State Com 302H		11/11/2024	12/17/2024	Not yet scheduled	Not yet scheduled	Not yet scheduled
Camacho 25 26 State Com 303H		11/12/2024	12/3/2024	Not yet scheduled	Not yet scheduled	Not yet scheduled
Camacho 25 26 State Com 304H		11/13/2024	12/20/2024	Not yet scheduled	Not yet scheduled	Not yet scheduled

VI. Separation Equipment: ☐ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ~~XX~~ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ~~XX~~ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan **EFFECTIVE APRIL 1, 2022**

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

XXOperator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	<i>Sorina L Flores</i>
Printed Name:	Sorina L Flores
Title:	EH&S Regulatory Advisor
E-mail Address:	sorina.flores@apachecorp.com
Date:	
Phone:	432-818-1167
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)	
Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

VI. SEPARATION EQUIPMENT

(Complete description of how Apache will size separation equipment to optimize gas capture)

Apache Corporation production tank batteries will include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to/or existing within the facility. If determined to be undersized or needed, separation equipment will be upgraded prior to well(s) being drilled or completed. The separation equipment will be designed and built according to relevant industry specifications, ie API specifications 12J and ASME Sec VIII Div 1. Other recognized industry publications such as Gas Processors Suppliers Association will be referenced when designing separation equipment to optimize gas capture.

VII. OPERATIONAL PRACTICES

(Complete description of actions Apache will take to comply with the requirements of Subsection A-F of 19.15.27.8 NMAC)

(A) Venting & flaring of natural gas

- Apache acknowledges venting or flaring of natural gas during drilling, completion, or production operations constitutes as defined in 19.15.2 NMAC is prohibited. Apache will maximize recovery of natural gas by minimizing waste of natural gas through venting and flaring. During drilling, completion and production operations, Apache will vent, or flare natural gas only as authorized in subsections B, C and D of 19.15.27.8 NMAC. Apache shall flare rather than vent natural gas except when flaring technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring.

(B) Venting & flaring during drilling operations

- Apache shall capture or combust natural gas, if technically feasible, using best industry practices and control technologies
- A properly sized flare stack will be located at a minimum of 100 feet from the nearest surface hole location unless otherwise approved by the division.
- In the event of an emergency or malfunction, Apache may vent natural gas to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment. Apache shall report natural gas vented or flared during an emergency or malfunction to the NMOCD division pursuant Paragraph (1) of Subsection G of 19.15.27.8 NMAC.

(C) Venting & flaring during completions and recompletion

- During initial flowback, Apache shall route flowback fluids into a completion or storage tank and, if technically feasible under the applicable well conditions, flare rather than vent and commence operations of a separator as soon as it is technically feasible for a separator to function.
- During separation flowback, Apache shall capture and route natural gas from separation equipment:
 - ◆ To a gas flowline or collection system, reinject into the well, or use on-site as a fuel source or other purpose that a purchased fuel or raw material would serve; or
 - ◆ To flare if routing natural gas to a gas flowline or collecting system, reinjecting it into the well, or using it on-site as fuel source or other purpose that a purchased fuel or raw material would serve would pose a risk to safe operation or personnel safety.
- If natural gas does not meet gathering pipeline quality specifications, Apache may flare natural gas for 60 days or until the natural gas meets pipeline quality specifications, whichever is sooner, provided:
 - ◆ A properly sized flare stack is equipped with an automatic igniter or continuous pilot
 - ◆ Apache analyzes natural gas samples twice per week
 - ◆ Apache routes natural gas into a gathering pipeline as soon as pipeline specifications are met
 - ◆ Apache provides pipeline specifications and natural gas analyses to NMOCD division upon request

(D) Venting & flaring during production operations

- Apache shall not vent or flare natural gas except:
 - ◆ During an emergency or malfunction
 - ◆ To unload or clean up liquid holdup in a well to atmospheric pressure, provided:
 - Apache does not vent after well achieves stabilized rate and pressure
 - For liquids unloading by manual purging, Apache remains present on-site until the end of unloading or posts at the well site, contact information of personnel conducting liquids unloading operations in close proximity (<30 minutes' drive time) of well being unloaded until end of unloading, takes all

- reasonable actions to achieve stabilized rate and pressure at earliest practical time and takes reasonable actions to minimize venting to maximum extent practicable
- Apache will optimize system to minimize venting of natural gas for any well equipped with a plunger lift system or automated control system
- During downhole maintenance, best management practices will be used to the extent that it does not pose a risk to safe operations and personnel safety.
- ◆ During first 12 months of production from an exploratory well, or as extended by the division for good cause shown, provided:
 - Apache proposes and the division approves well as exploratory
 - Apache is in compliance with its' statewide gas capture requirements
 - Apache submits an updated C-129 form to the division, including a NGMP and timeline for connecting well to a natural gas gathering system or otherwise approved by the division
- ◆ During the following activities unless prohibited
 - Gauging or sampling a storage tank or other low pressure production vessel
 - Loading out liquids from a storage tank or other low pressure production vessel to a transport vehicle
 - Repair and maintenance, including blowing down and depressurizing production equipment to perform repair and maintenance
 - Normal operation of gas activated pneumatic controller or pump
 - Normal operation of storage tank or other low pressure production vessel, but not including venting from a thief hatch that is not properly closed or maintained on an established schedule
 - Normal operations of dehydration units and amine treatment units
 - Normal operations of compressors, compressor engines, and turbines
 - Normal operations of valves, flanges and connectors that is not the result of inadequate equipment design or maintenance
 - Bradenhead, packer leakage test or production test lasting less than 24 hours unless the division requires or approves a longer test period
 - When natural gas does not meet gathering pipeline specifications
 - Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities from pipeline or equipment

(E) Performance standards

- All tanks and separation equipment are designed for maximum throughput and pressure to minimize waste
- Permanent storage tanks associated with production operations that is routed to a flare or control device installed after May 25, 2021, shall equip storage tank with an automatic gauging system that reduces venting of natural gas
- Apache will install a flare properly sized and designed to ensure proper combustion efficiency
 - ◆ Flare stack installed or replaced after May 25, 2021, shall be equipped with an automatic ignitor or continuous pilot
 - ◆ Flare stack installed before May 25, 2021, shall be retrofitted with an automatic ignitor, continuous pilot or technology that alerts operator that flare may have malfunctioned no later than 18 months after May 25, 2021
 - ◆ Flare stack located at well or facility, with an average daily production of equal to or less than 60 mcf of natural gas shall be equipped with an automatic ignitor or continuous pilot if flare stack is replaced after May 25, 2021
- Flare stack constructed after May 25, 2021, shall be securely anchored, and located at least 100 feet from well and storage tanks unless otherwise approved by the division
- At any point in the life of the well (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly, during first year of production and on well or facility with average daily production greater than 60,000 cubic feet of natural gas, to confirm all production components are operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
- Apache will make and keep records of AVO inspections available to NMOCD for at least 5 years
- Apache may use a remote or automated monitoring technology to detect leaks and release in lieu of AVO inspections with prior NMOCD approval
- Facilities will be designed to minimize waste
- Apache will minimize waste and shall resolve emergencies as quickly and safely as feasible

(F) Measurement or estimation of vented and flared natural gas

- Apache shall measure or estimate volume of natural gas it vents, flares, or beneficially uses during drilling, completion, and production operations regardless of the reason or authorization for such venting or flaring
- Measurement equipment will be installed to measure volume of natural gas flared from existing process piping or flowline piped from equipment associated with a well or facility associated with approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas
- Measuring equipment shall conform to an industry standard
- Measuring equipment shall not be designed or equipped with a manifold that allows diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment
- Apache may estimate volume of vented or flared natural gas using methodology that can be independently verified if metering is not practicable due to low flow rate or pressure
- Apache will estimate volume of vented and flared natural gas based on result of an annual GOR test for that well reported on form C-116 to allow division to independently verify volume and rate of flared natural gas for a well that does not require measuring equipment
- Apache shall install measuring equipment whenever the division determines metering is practicable or the existing measuring equipment or GOR test is not sufficient to measure volume of vented and flared natural gas

VIII. BEST MANAGEMENT PRACTICES

(Complete description of Apache's best management practices to minimize venting during active and planned maintenance)

- Apache has a flare stack designed to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are securely anchored at least 100 feet from wells and storage tanks and are equipped with continuous pilots.
- Apache will not produce oil or gas but will maintain adequate well control through completion operations
- Apache will not flow well during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational
- Apache will equip storage tanks with automatic gauging system to reduce venting of natural gas
- When feasible, Apache will combust natural gas that would otherwise be vented or flared
- When feasible, Apache will minimize venting through pump downs of vessels and reducing time required to purge equipment before returning to service
- When feasible, Apache will shut in wells in the event of a takeaway disruption, emergency situations, or other operations where venting or flaring may occur due to equipment failures
- Reduce number of blowdowns by looking for opportunities to coordinate repair and maintenance activities