

Well Name: ANDERSON FED COM	Well Location: T22S / R32E / SEC 2 / LOT 4 /	County or Parish/State:
Well Number: 601H	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM120905	Unit or CA Name:	Unit or CA Number:
US Well Number: 3002549001	Well Status: Approved Application for Permit to Drill	Operator: ADVANCE ENERGY PARTNERS HAT MESA LLC

Notice of Intent

Sundry ID: 2631596

Type of Submission: Notice of Intent	Type of Action: Other
Date Sundry Submitted: 08/31/2021	Time Sundry Submitted: 12:33
Date proposed operation will begin: 09/06/2021	

Procedure Description: Request to move the Surface Hole Location from 180' FNL & 644' FWL, Section 2, T-22-S, R-32-E, Lot 4 to 180' FNL & 710' FWL, Section 2, T-22-S, R-32-E, Lot 4. Please see attached drill plan, directional plan, and plats for detailed information regarding changes to casing, cement, and mud programs.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Anderson_601H_SHL_etc_Sundry_Attachments_20210831123125.pdf

Well Name: ANDERSON FED COM

Well Location: T22S / R32E / SEC 2 /
LOT 4 /

County or Parish/State:

Well Number: 601H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM120905

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002549001

Well Status: Approved Application for
Permit to Drill

Operator: ADVANCE ENERGY
PARTNERS HAT MESA LLC

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BRIAN WOOD

Signed on: AUG 31, 2021 12:31 PM

Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Title: President

Street Address: 37 VERANO LOOP

City: SANTA FE State: NM

Phone: (505) 466-8120

Email address: AFMSS@PERMITSWEST.COM

Field Representative

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234

BLM POC Email Address: cwalls@blm.gov

Disposition: Approved

Disposition Date: 10/13/2021

Signature: Chris Walls

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-8161 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) 476-3480 Fax: (505) 476-3482

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-49001	Pool Code 51683	Pool Name RED TANK; BONE SPRING
Property Code	Property Name ANDERSON FED COM	Well Number 601H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3691'

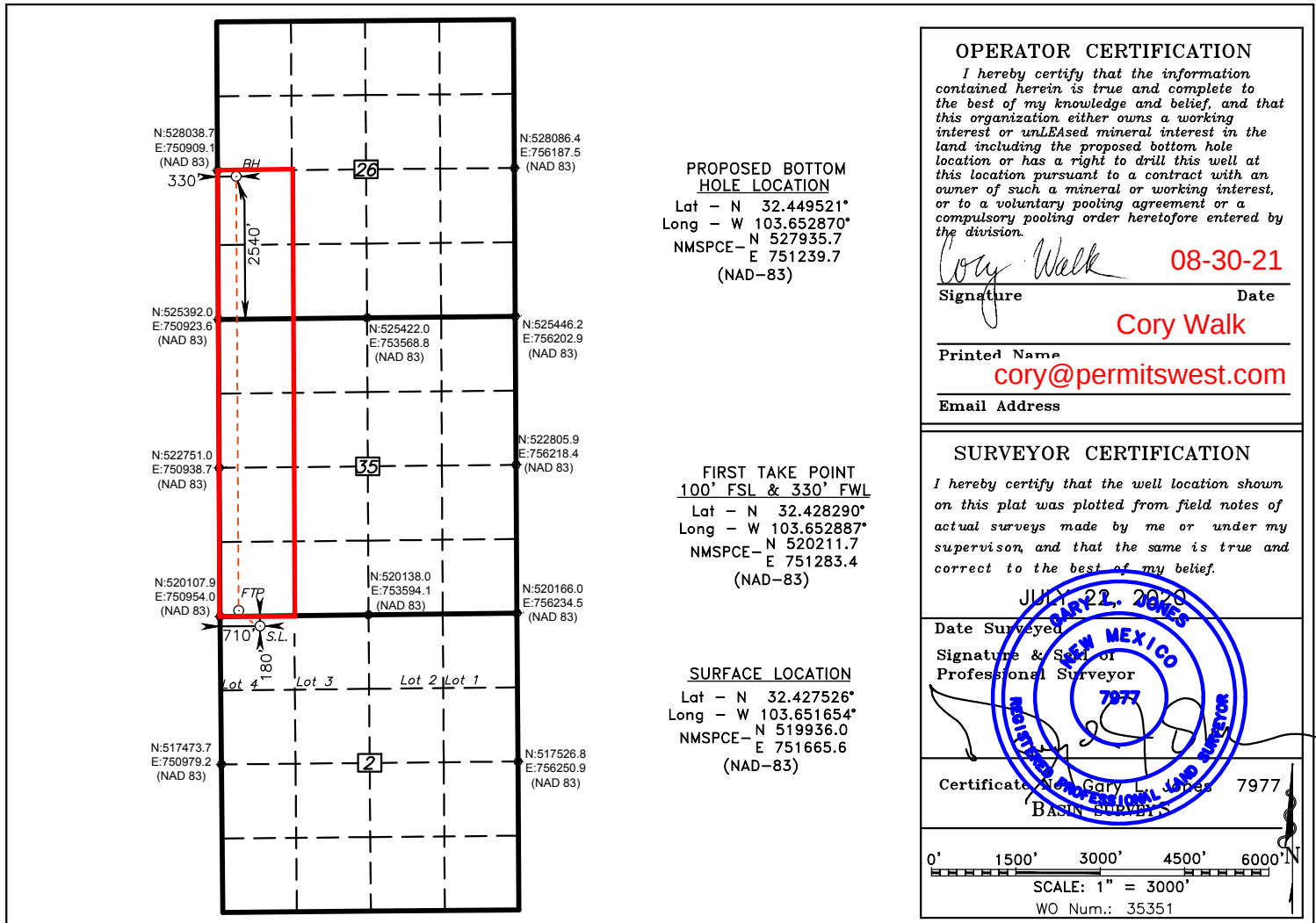
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 4	2	22 S	32 E		180	NORTH	710	WEST	LEA

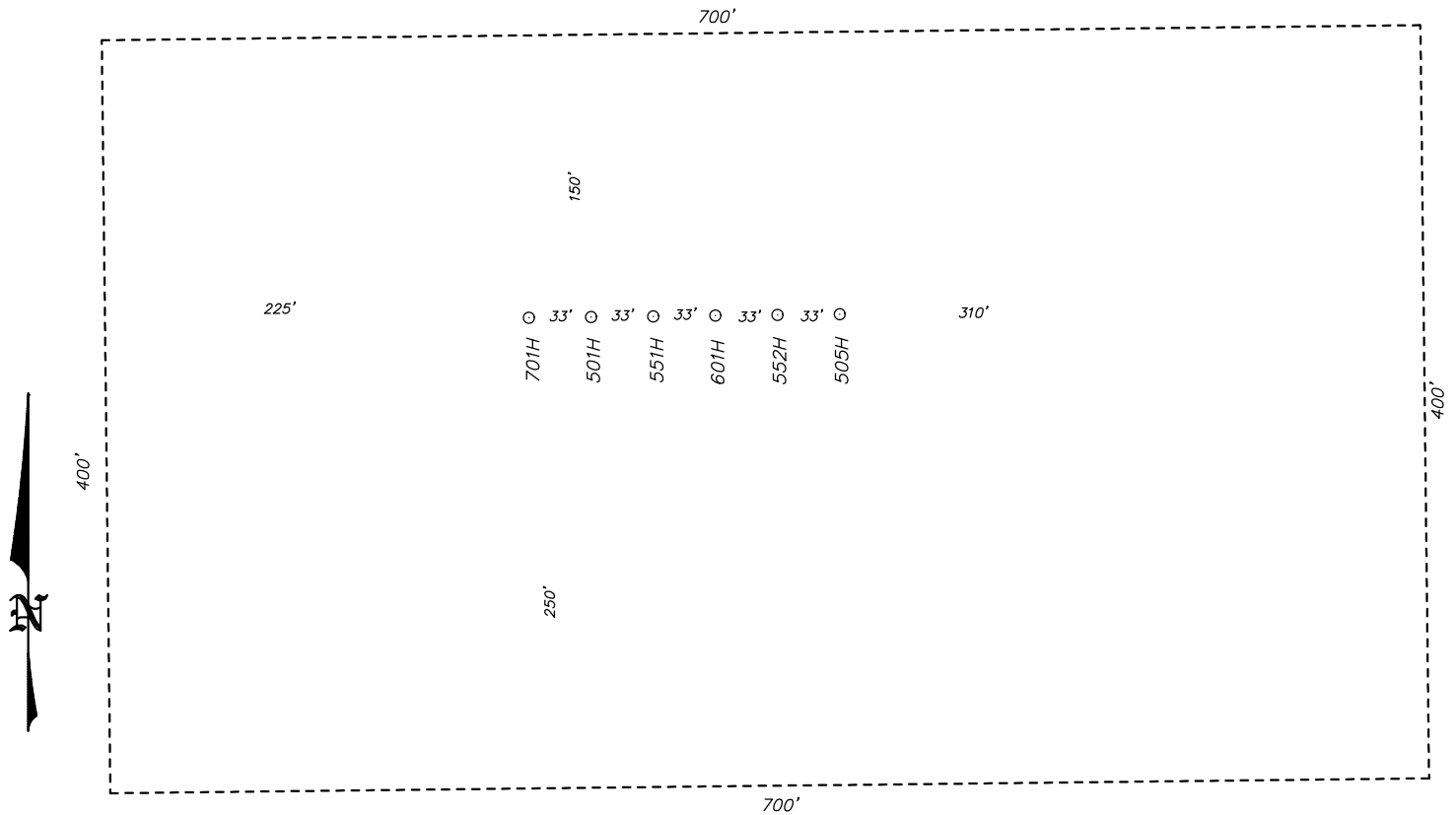
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	26	21 S	32 E		2540	SOUTH	330	WEST	LEA
Dedicated Acres 240.00	Joint or Infill	Consolidation Code C	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



**SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



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surveys
focused on excellence
in the oilfield

P.O. Box 1786 (575) 393-7316 - Office
1120 N. West County Rd. (575) 392-2206 - Fax
Hobbs, New Mexico 88241 basinsurveys.com

100 0 100 200 FEET
SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA, LLC

REF: ANDERSON FED COM 601H / WELL PAD TOPO

THE ANDERSON FED COM 501H LOCATED 180' FROM
THE NORTH LINE AND 644' FROM THE WEST LINE OF
SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST.

N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35351	Drawn By: K. GOAD	Date: 07-30-2020	Survey Date: 06-10-2021	Sheet 1 of 1 Sheets
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CHANGE TO PLANS

Move Surface Hole Location

From: 180' FNL & 644' FWL, Section 2, T-22-S, R-32-E, Lot 4

To: 180' FNL & 710' FWL, Section 2, T-22-S, R-32-E, Lot 4

Please see attached drill plan, directional plan, and plats for additional information.

Advance Energy Partners Hat Mesa, LLC
 Anderson Fed Com 601H
 SHL 180' FNL & 710' FWL Sec. 2, T. 22 S., R. 32 E.
 BHL 2540' FSL & 330' FWL Sec. 26, T 21 S., R. 32 E.
 Lea County, NM

DRILL PLAN PAGE 1

"Anderson Fed Com pad D"

Drilling Program

1. ESTIMATED TOPS

Formation	TVD	MD	Bearing
Quaternary caliche	000'	000'	water
Rustler anhydrite (surface csg set @ 1244')	1219'	1219'	N/A
Top salt	1426'	1426'	N/A
Tansil limestone (intermediate csg set @ 4747')	3322'	3322'	N/A
Bell Canyon limestone	4797'	4797'	hydrocarbons
Cherry Canyon sandstone	5706'	5706'	hydrocarbons
Lower Brushy Canyon sandstone	8444'	8451'	hydrocarbons
Avalon shale	8964'	8972'	hydrocarbons
1 st Bone Spring sandstone	9831'	9841'	hydrocarbons
2 nd Bone Spring sandstone	10399'	10411'	hydrocarbons
3 rd Bone Spring carbonate	10967'	10980'	hydrocarbons
(KOP	11323'	11332'	hydrocarbons)
3 rd Bone Spring sandstone	11514'	11532'	hydrocarbons
TD	11800'	19816'	hydrocarbons

2. NOTABLE ZONES

Third Bone sandstone is the goal. Closest water well (CP 01701 POD 1) is 0.41-mile north. Water bearing strata were reported at 560' in this 840' deep well.

3. PRESSURE CONTROL

See attached 5000 psi Helmerich & Payne BOP Testing – BLM manual for equipment and procedures.

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 SHL 180' FNL & 710' FWL Sec. 2, T. 22 S., R. 32 E.
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 Lea County, NM

DRILL PLAN PAGE 2

"Anderson Fed Com pad D"

Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used.

Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached.

4. CASING & CEMENT

All casing will be API and new. See attached casing assumption worksheet.

Hole OD	Set MD	Set TVD	Casing OD	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
17.5"	0' - 1244'	0' - 1244'	Surface 13.375"	54.5	J-55	BTC	1.125	1.125	1.6
12.25"	0' - 4000'	0' - 4000'	Intermed. 9.625"	40	J-55	LTC	1.125	1.125	1.6
12.25"	4000' - 4747'	4000' - 4747'	Intermed. 9.625"	40	HCL-80	LTC	1.125	1.125	1.6
8.5"	0' - 19816'	0' - 11800'	Product. 5.5"	20	HCP-110	CDC-HTQ	1.125	1.125	1.6

Single bow centralizer will be installed on every fourth joint of the surface and intermediate casing strings.

Single bow centralizers will be installed from 200' above the KOP up to 600' inside the previous casing shoe. Double bows will be installed from 200' above the KOP to 200' past the EOC. Solid bodies will be installed one per joint from 200' past EOC to TD.

Variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not allow presetting the surface casing, then the primary rig will drill all of the well.

Advance Energy Partners Hat Mesa, LLC
 Anderson Fed Com 601H
 SHL 180' FNL & 710' FWL Sec. 2, T. 22 S., R. 32 E.
 BHL 2540' FSL & 330' FWL Sec. 26, T 21 S., R. 32 E.
 Lea County, NM

DRILL PLAN PAGE 3

"Anderson Fed Com pad D"

Name	Type	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	520	1.9	988	12.8	50%	B Poz + C	6% Gel + 5% SALT + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	944	215	1.35	290	14.8	20%	C	2% CaCl ₂ + 0.005GPS NoFoam V1A
1st Intermediate (stage 1)	Lead	2800	1380	1.84	2539	12.8	707%	B Poz + C	2% Gel + 5% SALT + 0.2% R-1300 + 0.25PPS Pol-E-Flake + 0.005GPS NoFoam V1A
	Tail	3800	310	1.22	378	15.6	20%	H	5% SALT + 0.2% SMS + 0.35% C-20 + 0.005GPS NoFoam V1A
1st Intermediate (stage 2)	Lead	0	455	3	1365	11	153%	ProLite	5PPS Plexcrete STE + 2% SMS + 0.05% SuspendaCem 6302 + 0.5% C-47B + 3PPS Gilsonite + 0.005GPS NoFoam V1A
	Tail	2395	100	1.33	133	14.8	0%	C	0.05% C-20 + 0.005GPS NoFoam V1A
Production	Lead	0	1035	3.39	3509	10.7	50%	ProLite	5PPS Plexcrete STE + 2% SMS + 0.05% SuspendaCem 6302 + 0.4% R-1300 + 0.5% C-47B + 3PPS Gilsonite + 0.005GPS NoFoam V1A
	Tail	11332	1930	1.22	2355	14.5	20%	B Poz + H	5% SALT + 0.05% SuspendaCem 6302 + 0.65% C-20 + 0.5% C-47B + 0.005GPS NoFoam V1A

Note: Intermediate 1 is a two-stage cement job. DVT will be placed at approximately 2,800'.

5. MUD PROGRAM

An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate. All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used.

Advance Energy Partners Hat Mesa, LLC
Anderson Fed Com 601H
SHL 180' FNL & 710' FWL Sec. 2, T. 22 S., R. 32 E.
BHL 2540' FSL & 330' FWL Sec. 26, T 21 S., R. 32 E.
Lea County, NM

DRILL PLAN PAGE 4

"Anderson Fed Com pad D"

Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss ml/30 mins
fresh water	0' - 1244'	8.4 – 10.0	28 - 36	N/C
Brine	1244' - 4747'	10.0 – 10.5	28 - 32	N/C
Cut Brine	4747' – 12082'	9.2 – 9.5	28 – 30	N/C
OBM	12082' – 19816'	9.5 – 9.8	55 - 65	<8

6. CORES, TESTS, & LOGS

No core, drill stem test, or open hole log is planned.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈ 5782 psi. Expected bottom hole temperature is $\approx 242^{\circ}$ F.

H2S monitors and detectors will be used from surface casing point to TD.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈ 3 months to drill and complete the well.

**WELL DETAILS: Anderson Fed Com 601H**

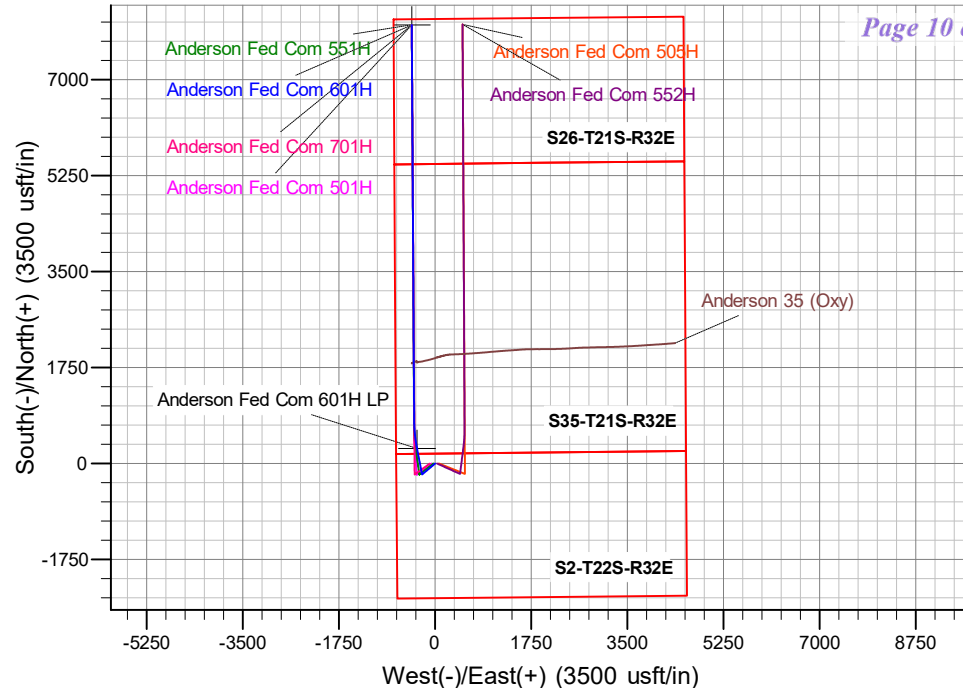
Ground Elev: 3691.0 KB: 3723.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	519936.05	751665.69	32° 25' 39.094 N	103° 39' 5.954 W

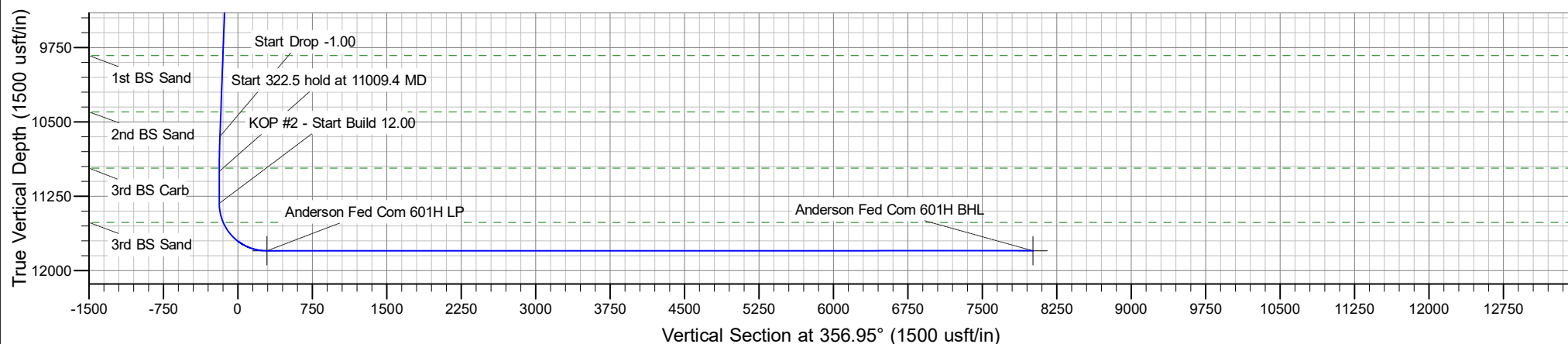
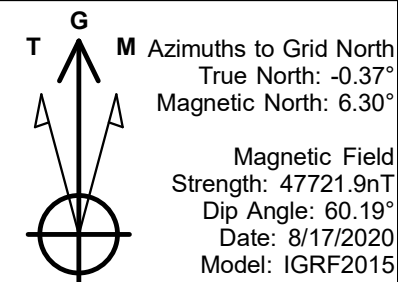
PROJECT DETAILS: Hat Mesa

Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5600.0	0.00	0.00	5600.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5953.4	3.53	230.08	5953.2	-7.0	-8.4	1.00	230.08	-6.5	Start 4702.6 hold at 5953.4 MD
4	10656.0	3.53	230.08	10646.8	-193.0	-230.6	0.00	0.00	-180.5	Start Drop -1.00
5	11009.4	0.00	0.00	11000.0	-200.0	-239.0	1.00	180.00	-187.0	Start 322.5 hold at 11009.4 MD
6	11331.9	0.00	0.00	11322.5	-200.0	-239.0	0.00	0.00	-187.0	KOP #2 - Start Build 12.00
7	12081.9	90.00	349.05	11800.0	268.8	-329.7	12.00	349.05	285.9	LP - Start 6.9 hold at 12081.9 MD
8	12088.8	90.00	349.05	11800.0	275.5	-331.0	0.00	0.00	292.7	Start DLS 2.00 TFO 90.00
9	12619.1	90.00	359.66	11800.0	802.5	-383.1	2.00	90.00	821.8	Start 7197.1 hold at 12619.1 MD
10	19816.2	90.00	359.66	11800.0	7999.5	-426.2	0.00	0.00	8010.8	TD at 19816.2





Advance Energy Partners

Hat Mesa

Anderson Fed Com - Pad D

Anderson Fed Com 601H

Anderson Fed Com 601H

Plan: Anderson Fed Com 601H - Prelim 1

Standard Planning Report

23 August, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 1		

Project	Hat Mesa, Lea County, NM		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site		Anderson Fed Com - Pad D			
Site Position:		Northing:	519,935.48 usft	Latitude:	32° 25' 39.090 N
From:	Lat/Long	Easting:	751,632.67 usft	Longitude:	103° 39' 6.340 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	Anderson Fed Com 601H					
Well Position	+N/-S	0.0 usft	Northing:	519,936.05 usft	Latitude:	32° 25' 39.094 N
	+E/-W	0.0 usft	Easting:	751,665.69 usft	Longitude:	103° 39' 5.954 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,691.0 usft
Grid Convergence:		0.37 °				

Wellbore	Anderson Fed Com 601H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	8/17/2020	6.66	60.19	47,721.93685339

Design	Anderson Fed Com 601H - Prelim 1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	356.95	

Plan Survey Tool Program	Date	8/23/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	19,815.7	Anderson Fed Com 601H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,953.4	3.53	230.08	5,953.2	-7.0	-8.4	1.00	1.00	0.00	230.08	
10,656.0	3.53	230.08	10,646.8	-193.0	-230.6	0.00	0.00	0.00	0.00	
11,009.4	0.00	0.00	11,000.0	-200.0	-239.0	1.00	-1.00	0.00	180.00	
11,331.9	0.00	0.00	11,322.5	-200.0	-239.0	0.00	0.00	0.00	0.00	
12,081.9	90.00	349.05	11,800.0	268.8	-329.7	12.00	12.00	0.00	349.05	
12,088.8	90.00	349.05	11,800.0	275.5	-331.0	0.00	0.00	0.00	0.00	Anderson Fed Com 601H
12,619.1	90.00	359.66	11,800.0	802.5	-383.1	2.00	0.00	2.00	90.00	
19,816.2	90.00	359.66	11,800.0	7,999.5	-426.2	0.00	0.00	0.00	0.00	Anderson Fed Com 601H



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,219.0	0.00	0.00	1,219.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,797.0	0.00	0.00	4,797.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 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)
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,700.0	1.00	230.08	5,700.0	-0.6	-0.7	-0.5	1.00	1.00	0.00
5,800.0	2.00	230.08	5,800.0	-2.2	-2.7	-2.1	1.00	1.00	0.00
5,900.0	3.00	230.08	5,899.9	-5.0	-6.0	-4.7	1.00	1.00	0.00
5,953.4	3.53	230.08	5,953.2	-7.0	-8.4	-6.5	1.00	1.00	0.00
Start 4702.6 hold at 5953.4 MD									
6,000.0	3.53	230.08	5,999.7	-8.8	-10.6	-8.3	0.00	0.00	0.00
6,100.0	3.53	230.08	6,099.5	-12.8	-15.3	-12.0	0.00	0.00	0.00
6,200.0	3.53	230.08	6,199.3	-16.7	-20.0	-15.7	0.00	0.00	0.00
6,300.0	3.53	230.08	6,299.1	-20.7	-24.7	-19.4	0.00	0.00	0.00
6,400.0	3.53	230.08	6,398.9	-24.7	-29.5	-23.1	0.00	0.00	0.00
6,500.0	3.53	230.08	6,498.7	-28.6	-34.2	-26.8	0.00	0.00	0.00
6,600.0	3.53	230.08	6,598.5	-32.6	-38.9	-30.5	0.00	0.00	0.00
6,700.0	3.53	230.08	6,698.4	-36.5	-43.6	-34.2	0.00	0.00	0.00
6,800.0	3.53	230.08	6,798.2	-40.5	-48.4	-37.8	0.00	0.00	0.00
6,900.0	3.53	230.08	6,898.0	-44.4	-53.1	-41.5	0.00	0.00	0.00
7,000.0	3.53	230.08	6,997.8	-48.4	-57.8	-45.2	0.00	0.00	0.00
7,100.0	3.53	230.08	7,097.6	-52.3	-62.6	-48.9	0.00	0.00	0.00
7,200.0	3.53	230.08	7,197.4	-56.3	-67.3	-52.6	0.00	0.00	0.00
7,300.0	3.53	230.08	7,297.2	-60.3	-72.0	-56.3	0.00	0.00	0.00
7,400.0	3.53	230.08	7,397.0	-64.2	-76.7	-60.0	0.00	0.00	0.00
7,500.0	3.53	230.08	7,496.8	-68.2	-81.5	-63.7	0.00	0.00	0.00
7,600.0	3.53	230.08	7,596.6	-72.1	-86.2	-67.4	0.00	0.00	0.00
7,700.0	3.53	230.08	7,696.5	-76.1	-90.9	-71.1	0.00	0.00	0.00
7,800.0	3.53	230.08	7,796.3	-80.0	-95.6	-74.8	0.00	0.00	0.00
7,900.0	3.53	230.08	7,896.1	-84.0	-100.4	-78.5	0.00	0.00	0.00
8,000.0	3.53	230.08	7,995.9	-87.9	-105.1	-82.2	0.00	0.00	0.00
8,100.0	3.53	230.08	8,095.7	-91.9	-109.8	-85.9	0.00	0.00	0.00
8,200.0	3.53	230.08	8,195.5	-95.9	-114.6	-89.6	0.00	0.00	0.00
8,300.0	3.53	230.08	8,295.3	-99.8	-119.3	-93.3	0.00	0.00	0.00
8,400.0	3.53	230.08	8,395.1	-103.8	-124.0	-97.0	0.00	0.00	0.00
8,449.0	3.53	230.08	8,444.0	-105.7	-126.3	-98.8	0.00	0.00	0.00
Lower Brushy									
8,500.0	3.53	230.08	8,494.9	-107.7	-128.7	-100.7	0.00	0.00	0.00
8,600.0	3.53	230.08	8,594.7	-111.7	-133.5	-104.4	0.00	0.00	0.00
8,700.0	3.53	230.08	8,694.6	-115.6	-138.2	-108.1	0.00	0.00	0.00
8,800.0	3.53	230.08	8,794.4	-119.6	-142.9	-111.8	0.00	0.00	0.00
8,900.0	3.53	230.08	8,894.2	-123.5	-147.6	-115.5	0.00	0.00	0.00
8,970.0	3.53	230.08	8,964.0	-126.3	-150.9	-118.1	0.00	0.00	0.00
Avalon									
9,000.0	3.53	230.08	8,994.0	-127.5	-152.4	-119.2	0.00	0.00	0.00
9,100.0	3.53	230.08	9,093.8	-131.5	-157.1	-122.9	0.00	0.00	0.00
9,200.0	3.53	230.08	9,193.6	-135.4	-161.8	-126.6	0.00	0.00	0.00
9,300.0	3.53	230.08	9,293.4	-139.4	-166.5	-130.3	0.00	0.00	0.00
9,400.0	3.53	230.08	9,393.2	-143.3	-171.3	-134.0	0.00	0.00	0.00
9,500.0	3.53	230.08	9,493.0	-147.3	-176.0	-137.7	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 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)
9,600.0	3.53	230.08	9,592.8	-151.2	-180.7	-141.4	0.00	0.00	0.00
9,700.0	3.53	230.08	9,692.7	-155.2	-185.5	-145.1	0.00	0.00	0.00
9,800.0	3.53	230.08	9,792.5	-159.1	-190.2	-148.8	0.00	0.00	0.00
9,838.6	3.53	230.08	9,831.0	-160.7	-192.0	-150.2	0.00	0.00	0.00
1st BS Sand									
9,900.0	3.53	230.08	9,892.3	-163.1	-194.9	-152.5	0.00	0.00	0.00
10,000.0	3.53	230.08	9,992.1	-167.1	-199.6	-156.2	0.00	0.00	0.00
10,100.0	3.53	230.08	10,091.9	-171.0	-204.4	-159.9	0.00	0.00	0.00
10,200.0	3.53	230.08	10,191.7	-175.0	-209.1	-163.6	0.00	0.00	0.00
10,300.0	3.53	230.08	10,291.5	-178.9	-213.8	-167.3	0.00	0.00	0.00
10,400.0	3.53	230.08	10,391.3	-182.9	-218.5	-171.0	0.00	0.00	0.00
10,407.7	3.53	230.08	10,399.0	-183.2	-218.9	-171.3	0.00	0.00	0.00
2nd BS Sand									
10,500.0	3.53	230.08	10,491.1	-186.8	-223.3	-174.7	0.00	0.00	0.00
10,600.0	3.53	230.08	10,590.9	-190.8	-228.0	-178.4	0.00	0.00	0.00
10,656.0	3.53	230.08	10,646.8	-193.0	-230.6	-180.5	0.00	0.00	0.00
Start Drop -1.00									
10,700.0	3.09	230.08	10,690.8	-194.6	-232.6	-182.0	1.00	-1.00	0.00
10,800.0	2.09	230.08	10,790.7	-197.5	-236.1	-184.7	1.00	-1.00	0.00
10,900.0	1.09	230.08	10,890.6	-199.3	-238.2	-186.4	1.00	-1.00	0.00
10,976.4	0.33	230.08	10,967.0	-199.9	-238.9	-186.9	1.00	-1.00	0.00
3rd BS Carb									
11,000.0	0.09	230.08	10,990.6	-200.0	-239.0	-187.0	1.00	-1.00	0.00
11,009.4	0.00	0.00	11,000.0	-200.0	-239.0	-187.0	1.00	-1.00	0.00
Start 322.5 hold at 11009.4 MD									
11,100.0	0.00	0.00	11,090.6	-200.0	-239.0	-187.0	0.00	0.00	0.00
11,200.0	0.00	0.00	11,190.6	-200.0	-239.0	-187.0	0.00	0.00	0.00
11,300.0	0.00	0.00	11,290.6	-200.0	-239.0	-187.0	0.00	0.00	0.00
11,331.9	0.00	0.00	11,322.5	-200.0	-239.0	-187.0	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
11,400.0	8.17	349.05	11,390.4	-195.2	-239.9	-182.2	12.00	12.00	0.00
11,500.0	20.17	349.05	11,487.2	-171.3	-244.6	-158.0	12.00	12.00	0.00
11,528.9	23.64	349.05	11,514.0	-160.7	-246.6	-147.3	12.00	12.00	0.00
3rd BS Sand									
11,600.0	32.17	349.05	11,576.7	-128.0	-252.9	-114.4	12.00	12.00	0.00
11,700.0	44.17	349.05	11,655.2	-67.5	-264.6	-53.3	12.00	12.00	0.00
11,800.0	56.17	349.05	11,719.2	7.8	-279.2	22.6	12.00	12.00	0.00
11,900.0	68.17	349.05	11,765.8	94.4	-296.0	110.1	12.00	12.00	0.00
12,000.0	80.17	349.05	11,793.0	188.7	-314.2	205.2	12.00	12.00	0.00
12,081.9	90.00	349.05	11,800.0	268.8	-329.7	285.9	12.00	12.00	0.00
LP - Start 6.9 hold at 12081.9 MD									
12,088.8	90.00	349.05	11,800.0	275.5	-331.0	292.7	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00 - Anderson Fed Com 601H LP									
12,100.0	90.00	349.27	11,800.0	286.5	-333.1	303.8	2.00	0.00	2.00
12,200.0	90.00	351.27	11,800.0	385.1	-350.0	403.2	2.00	0.00	2.00
12,300.0	90.00	353.27	11,800.0	484.2	-363.4	502.8	2.00	0.00	2.00
12,400.0	90.00	355.27	11,800.0	583.7	-373.4	602.7	2.00	0.00	2.00
12,500.0	90.00	357.27	11,800.0	683.4	-379.9	702.7	2.00	0.00	2.00
12,600.0	90.00	359.27	11,800.0	783.4	-382.9	802.7	2.00	0.00	2.00
12,619.1	90.00	359.66	11,800.0	802.5	-383.1	821.8	2.00	0.00	2.00
Start 7197.1 hold at 12619.1 MD									
12,700.0	90.00	359.66	11,800.0	883.4	-383.6	902.5	0.00	0.00	0.00
12,800.0	90.00	359.66	11,800.0	983.4	-384.2	1,002.4	0.00	0.00	0.00



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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)
12,900.0	90.00	359.66	11,800.0	1,083.4	-384.8	1,102.3	0.00	0.00	0.00
13,000.0	90.00	359.66	11,800.0	1,183.4	-385.4	1,202.2	0.00	0.00	0.00
13,100.0	90.00	359.66	11,800.0	1,283.4	-386.0	1,302.1	0.00	0.00	0.00
13,200.0	90.00	359.66	11,800.0	1,383.4	-386.6	1,402.0	0.00	0.00	0.00
13,300.0	90.00	359.66	11,800.0	1,483.4	-387.2	1,501.9	0.00	0.00	0.00
13,400.0	90.00	359.66	11,800.0	1,583.4	-387.8	1,601.8	0.00	0.00	0.00
13,500.0	90.00	359.66	11,800.0	1,683.4	-388.4	1,701.7	0.00	0.00	0.00
13,600.0	90.00	359.66	11,800.0	1,783.4	-389.0	1,801.5	0.00	0.00	0.00
13,700.0	90.00	359.66	11,800.0	1,883.4	-389.6	1,901.4	0.00	0.00	0.00
13,800.0	90.00	359.66	11,800.0	1,983.4	-390.2	2,001.3	0.00	0.00	0.00
13,900.0	90.00	359.66	11,800.0	2,083.4	-390.8	2,101.2	0.00	0.00	0.00
14,000.0	90.00	359.66	11,800.0	2,183.4	-391.4	2,201.1	0.00	0.00	0.00
14,100.0	90.00	359.66	11,800.0	2,283.4	-392.0	2,301.0	0.00	0.00	0.00
14,200.0	90.00	359.66	11,800.0	2,383.4	-392.6	2,400.9	0.00	0.00	0.00
14,300.0	90.00	359.66	11,800.0	2,483.4	-393.2	2,500.8	0.00	0.00	0.00
14,400.0	90.00	359.66	11,800.0	2,583.4	-393.8	2,600.7	0.00	0.00	0.00
14,500.0	90.00	359.66	11,800.0	2,683.4	-394.4	2,700.5	0.00	0.00	0.00
14,600.0	90.00	359.66	11,800.0	2,783.4	-395.0	2,800.4	0.00	0.00	0.00
14,700.0	90.00	359.66	11,800.0	2,883.4	-395.6	2,900.3	0.00	0.00	0.00
14,800.0	90.00	359.66	11,800.0	2,983.4	-396.2	3,000.2	0.00	0.00	0.00
14,900.0	90.00	359.66	11,800.0	3,083.4	-396.8	3,100.1	0.00	0.00	0.00
15,000.0	90.00	359.66	11,800.0	3,183.4	-397.4	3,200.0	0.00	0.00	0.00
15,100.0	90.00	359.66	11,800.0	3,283.4	-398.0	3,299.9	0.00	0.00	0.00
15,200.0	90.00	359.66	11,800.0	3,383.3	-398.5	3,399.8	0.00	0.00	0.00
15,300.0	90.00	359.66	11,800.0	3,483.3	-399.1	3,499.6	0.00	0.00	0.00
15,400.0	90.00	359.66	11,800.0	3,583.3	-399.7	3,599.5	0.00	0.00	0.00
15,500.0	90.00	359.66	11,800.0	3,683.3	-400.3	3,699.4	0.00	0.00	0.00
15,600.0	90.00	359.66	11,800.0	3,783.3	-400.9	3,799.3	0.00	0.00	0.00
15,700.0	90.00	359.66	11,800.0	3,883.3	-401.5	3,899.2	0.00	0.00	0.00
15,800.0	90.00	359.66	11,800.0	3,983.3	-402.1	3,999.1	0.00	0.00	0.00
15,900.0	90.00	359.66	11,800.0	4,083.3	-402.7	4,099.0	0.00	0.00	0.00
16,000.0	90.00	359.66	11,800.0	4,183.3	-403.3	4,198.9	0.00	0.00	0.00
16,100.0	90.00	359.66	11,800.0	4,283.3	-403.9	4,298.8	0.00	0.00	0.00
16,200.0	90.00	359.66	11,800.0	4,383.3	-404.5	4,398.6	0.00	0.00	0.00
16,300.0	90.00	359.66	11,800.0	4,483.3	-405.1	4,498.5	0.00	0.00	0.00
16,400.0	90.00	359.66	11,800.0	4,583.3	-405.7	4,598.4	0.00	0.00	0.00
16,500.0	90.00	359.66	11,800.0	4,683.3	-406.3	4,698.3	0.00	0.00	0.00
16,600.0	90.00	359.66	11,800.0	4,783.3	-406.9	4,798.2	0.00	0.00	0.00
16,700.0	90.00	359.66	11,800.0	4,883.3	-407.5	4,898.1	0.00	0.00	0.00
16,800.0	90.00	359.66	11,800.0	4,983.3	-408.1	4,998.0	0.00	0.00	0.00
16,900.0	90.00	359.66	11,800.0	5,083.3	-408.7	5,097.9	0.00	0.00	0.00
17,000.0	90.00	359.66	11,800.0	5,183.3	-409.3	5,197.8	0.00	0.00	0.00
17,100.0	90.00	359.66	11,800.0	5,283.3	-409.9	5,297.6	0.00	0.00	0.00
17,200.0	90.00	359.66	11,800.0	5,383.3	-410.5	5,397.5	0.00	0.00	0.00
17,300.0	90.00	359.66	11,800.0	5,483.3	-411.1	5,497.4	0.00	0.00	0.00
17,400.0	90.00	359.66	11,800.0	5,583.3	-411.7	5,597.3	0.00	0.00	0.00
17,500.0	90.00	359.66	11,800.0	5,683.3	-412.3	5,697.2	0.00	0.00	0.00
17,600.0	90.00	359.66	11,800.0	5,783.3	-412.9	5,797.1	0.00	0.00	0.00
17,700.0	90.00	359.66	11,800.0	5,883.3	-413.5	5,897.0	0.00	0.00	0.00
17,800.0	90.00	359.66	11,800.0	5,983.3	-414.1	5,996.9	0.00	0.00	0.00
17,900.0	90.00	359.66	11,800.0	6,083.3	-414.7	6,096.7	0.00	0.00	0.00
18,000.0	90.00	359.66	11,800.0	6,183.3	-415.3	6,196.6	0.00	0.00	0.00
18,100.0	90.00	359.66	11,800.0	6,283.3	-415.9	6,296.5	0.00	0.00	0.00
18,200.0	90.00	359.66	11,800.0	6,383.3	-416.5	6,396.4	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 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)	
18,300.0	90.00	359.66	11,800.0	6,483.3	-417.1	6,496.3	0.00	0.00	0.00	
18,400.0	90.00	359.66	11,800.0	6,583.3	-417.7	6,596.2	0.00	0.00	0.00	
18,500.0	90.00	359.66	11,800.0	6,683.3	-418.3	6,696.1	0.00	0.00	0.00	
18,600.0	90.00	359.66	11,800.0	6,783.3	-418.9	6,796.0	0.00	0.00	0.00	
18,700.0	90.00	359.66	11,800.0	6,883.3	-419.5	6,895.9	0.00	0.00	0.00	
18,800.0	90.00	359.66	11,800.0	6,983.3	-420.1	6,995.7	0.00	0.00	0.00	
18,900.0	90.00	359.66	11,800.0	7,083.3	-420.7	7,095.6	0.00	0.00	0.00	
19,000.0	90.00	359.66	11,800.0	7,183.3	-421.3	7,195.5	0.00	0.00	0.00	
19,100.0	90.00	359.66	11,800.0	7,283.3	-421.9	7,295.4	0.00	0.00	0.00	
19,200.0	90.00	359.66	11,800.0	7,383.3	-422.5	7,395.3	0.00	0.00	0.00	
19,300.0	90.00	359.66	11,800.0	7,483.3	-423.1	7,495.2	0.00	0.00	0.00	
19,400.0	90.00	359.66	11,800.0	7,583.3	-423.7	7,595.1	0.00	0.00	0.00	
19,500.0	90.00	359.66	11,800.0	7,683.3	-424.3	7,695.0	0.00	0.00	0.00	
19,600.0	90.00	359.66	11,800.0	7,783.3	-424.9	7,794.9	0.00	0.00	0.00	
19,700.0	90.00	359.66	11,800.0	7,883.3	-425.5	7,894.7	0.00	0.00	0.00	
19,800.0	90.00	359.66	11,800.0	7,983.3	-426.1	7,994.6	0.00	0.00	0.00	
19,816.2	90.00	359.66	11,800.0	7,999.5	-426.2	8,010.8	0.00	0.00	0.00	
TD at 19816.2 - Anderson Fed Com 601H BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Anderson Fed Com 601I	0.00	0.01	11,800.0	275.5	-331.0	520,211.57	751,334.69	32° 25' 41.841 N	103° 39' 9.796 W	
- plan hits target center										
- Point										
Anderson Fed Com 601I	0.00	0.01	11,800.0	7,999.5	-426.2	527,935.53	751,239.51	32° 26' 58.276 N	103° 39' 10.332 W	
- plan hits target center										
- Point										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
12,081.9	11,800.0	LP	5-1/2	5-1/2	



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site:	Anderson Fed Com - Pad D	North Reference:	Grid
Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Anderson Fed Com 601H		
Design:	Anderson Fed Com 601H - Prelim 1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,219.0	1,219.0	Rustler		0.00	
4,797.0	4,797.0	Base of Limestone		0.00	
8,449.0	8,444.0	Lower Brushy		0.00	
8,970.0	8,964.0	Avalon		0.00	
9,838.6	9,831.0	1st BS Sand		0.00	
10,407.7	10,399.0	2nd BS Sand		0.00	
10,976.4	10,967.0	3rd BS Carb		0.00	
11,528.9	11,514.0	3rd BS Sand		0.00	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,600.0	5,600.0	0.0	0.0	KOP - Start Build 1.00	
5,953.4	5,953.2	-7.0	-8.4	Start 4702.6 hold at 5953.4 MD	
10,656.0	10,646.8	-193.0	-230.6	Start Drop -1.00	
11,009.4	11,000.0	-200.0	-239.0	Start 322.5 hold at 11009.4 MD	
11,331.9	11,322.5	-200.0	-239.0	KOP #2 - Start Build 12.00	
12,081.9	11,800.0	268.8	-329.7	LP - Start 6.9 hold at 12081.9 MD	
12,088.8	11,800.0	275.5	-331.0	Start DLS 2.00 TFO 90.00	
12,619.1	11,800.0	802.5	-383.1	Start 7197.1 hold at 12619.1 MD	
19,816.2	11,800.0	7,999.5	-426.2	TD at 19816.2	



Advance Energy Partners

Hat Mesa

Anderson Fed Com - Pad D

Anderson Fed Com 601H

Anderson Fed Com 601H

Anderson Fed Com 601H - Prelim 1

Anticollision Report

23 August, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Anderson Fed Com 601H - Prelim 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum centre distance of 1,000.0usft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.79 Sigma	Casing Method:	Not applied

Survey Tool Program	Date 8/23/2021				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	19,815.7	Anderson Fed Com 601H - Prelim 1 (Ande	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						
Anderson Fed Com - Pad A						
Anderson 35 (Oxy) - Anderson 35 - Anderson 35						Out of range
Anderson Fed Com - Pad D						
Anderson Fed Com 501H - Anderson Fed Com 501H - A	5,116.3	5,117.3	66.0	39.5	2.493	CC
Anderson Fed Com 501H - Anderson Fed Com 501H - A	5,200.0	5,201.0	66.0	39.3	2.468	ES, SF
Anderson Fed Com 505H - Anderson Fed Com 505H - A	5,000.0	4,994.0	66.0	39.9	2.528	CC, ES, SF
Anderson Fed Com 551H - Anderson Fed Com 551H - A	5,316.3	5,317.3	33.0	5.9	1.218	Level 3, CC
Anderson Fed Com 551H - Anderson Fed Com 551H - A	10,700.0	10,702.8	55.7	1.1	1.019	Level 3, ES, SF
Anderson Fed Com 552H - Anderson Fed Com 552H - A	5,000.0	4,999.0	33.0	6.9	1.264	Level 3, CC, ES, SF
Anderson Fed Com 701H - Anderson Fed Com 701H - A	4,916.3	4,917.3	99.0	73.2	3.830	CC
Anderson Fed Com 701H - Anderson Fed Com 701H - A	5,000.0	5,001.0	99.0	72.9	3.791	ES
Anderson Fed Com 701H - Anderson Fed Com 701H - A	5,100.0	5,100.0	99.8	73.4	3.782	SF

Offset Design:	Anderson Fed Com - Pad D - Anderson Fed Com 501H - Anderson Fed Com 501H - Anderson Fed Com 501H - Prelim 1											Offset Site Error:	0.0 usft
Survey Program:	0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis	Highside	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation Factor		
0.0	0.0	1.0	1.0	0.0	0.0	-90.68	-0.8	-66.0	66.0				
100.0	100.0	101.0	101.0	0.5	0.5	-90.68	-0.8	-66.0	66.0	65.0	1.07	61.590	
200.0	200.0	201.0	201.0	1.7	1.7	-90.68	-0.8	-66.0	66.0	62.6	3.43	19.248	
300.0	300.0	301.0	301.0	2.4	2.4	-90.68	-0.8	-66.0	66.0	61.2	4.83	13.676	
400.0	400.0	401.0	401.0	3.0	3.0	-90.68	-0.8	-66.0	66.0	60.1	5.91	11.168	
500.0	500.0	501.0	501.0	3.4	3.4	-90.68	-0.8	-66.0	66.0	59.2	6.83	9.662	
600.0	600.0	601.0	601.0	3.8	3.8	-90.68	-0.8	-66.0	66.0	58.4	7.65	8.629	
700.0	700.0	701.0	701.0	4.2	4.2	-90.68	-0.8	-66.0	66.0	57.6	8.40	7.863	
800.0	800.0	801.0	801.0	4.5	4.5	-90.68	-0.8	-66.0	66.0	56.9	9.09	7.267	
900.0	900.0	901.0	901.0	4.9	4.9	-90.68	-0.8	-66.0	66.0	56.3	9.73	6.784	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-90.68	-0.8	-66.0	66.0	55.7	10.34	6.383	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-90.68	-0.8	-66.0	66.0	55.1	10.93	6.044	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-90.68	-0.8	-66.0	66.0	54.5	11.48	5.751	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-90.68	-0.8	-66.0	66.0	54.0	12.02	5.495	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-90.68	-0.8	-66.0	66.0	53.5	12.53	5.268	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-90.68	-0.8	-66.0	66.0	53.0	13.03	5.066	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 501H - Anderson Fed Com 501H - Anderson Fed Com 501H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	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)			
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-90.68	-0.8	-66.0	66.0	52.5	13.52	4.884	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-90.68	-0.8	-66.0	66.0	52.0	13.99	4.719	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-90.68	-0.8	-66.0	66.0	51.6	14.45	4.569	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-90.68	-0.8	-66.0	66.0	51.1	14.90	4.431	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-90.68	-0.8	-66.0	66.0	50.7	15.34	4.304	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-90.68	-0.8	-66.0	66.0	50.3	15.77	4.187	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-90.68	-0.8	-66.0	66.0	49.8	16.19	4.077	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-90.68	-0.8	-66.0	66.0	49.4	16.61	3.975	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-90.68	-0.8	-66.0	66.0	49.0	17.02	3.880	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-90.68	-0.8	-66.0	66.0	48.6	17.42	3.791	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-90.68	-0.8	-66.0	66.0	48.2	17.81	3.707	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-90.68	-0.8	-66.0	66.0	47.8	18.20	3.627	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-90.68	-0.8	-66.0	66.0	47.4	18.59	3.552	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-90.68	-0.8	-66.0	66.0	47.1	18.97	3.481	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-90.68	-0.8	-66.0	66.0	46.7	19.34	3.414	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-90.68	-0.8	-66.0	66.0	46.3	19.71	3.350	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-90.68	-0.8	-66.0	66.0	46.0	20.08	3.289	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-90.68	-0.8	-66.0	66.0	45.6	20.44	3.231	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-90.68	-0.8	-66.0	66.0	45.2	20.80	3.175	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-90.68	-0.8	-66.0	66.0	44.9	21.15	3.122	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-90.68	-0.8	-66.0	66.0	44.5	21.50	3.071	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-90.68	-0.8	-66.0	66.0	44.2	21.85	3.022	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-90.68	-0.8	-66.0	66.0	43.8	22.19	2.975	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-90.68	-0.8	-66.0	66.0	43.5	22.53	2.930	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-90.68	-0.8	-66.0	66.0	43.2	22.87	2.887	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-90.68	-0.8	-66.0	66.0	42.8	23.21	2.845	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-90.68	-0.8	-66.0	66.0	42.5	23.54	2.805	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-90.68	-0.8	-66.0	66.0	42.2	23.87	2.766	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-90.68	-0.8	-66.0	66.0	41.8	24.20	2.728	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-90.68	-0.8	-66.0	66.0	41.5	24.53	2.692	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-90.68	-0.8	-66.0	66.0	41.2	24.85	2.657	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-90.68	-0.8	-66.0	66.0	40.9	25.17	2.623	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-90.68	-0.8	-66.0	66.0	40.5	25.49	2.590	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-90.68	-0.8	-66.0	66.0	40.2	25.81	2.558	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-90.68	-0.8	-66.0	66.0	39.9	26.13	2.527	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	-90.68	-0.8	-66.0	66.0	39.6	26.44	2.497	
5,116.3	5,116.3	5,117.3	5,117.3	13.2	13.2	-90.68	-0.8	-66.0	66.0	39.5	26.49	2.493 CC	
5,200.0	5,200.0	5,201.0	5,201.0	13.4	13.4	-90.68	-0.8	-66.0	66.0	39.3	26.75	2.468 ES, SF	
5,300.0	5,300.0	5,300.0	5,300.0	13.5	13.5	-91.12	-1.3	-66.7	66.7	39.7	27.00	2.472	
5,400.0	5,400.0	5,399.1	5,399.0	13.7	13.6	-92.37	-2.9	-68.8	68.9	41.7	27.23	2.529	
5,500.0	5,500.0	5,498.0	5,497.8	13.8	13.7	-94.29	-5.4	-72.2	72.5	45.0	27.48	2.639	
5,600.0	5,600.0	5,596.7	5,596.3	14.0	13.8	-96.66	-9.0	-77.0	77.7	50.0	27.73	2.802	
5,700.0	5,700.0	5,695.8	5,695.2	14.1	13.9	30.97	-13.5	-83.1	83.6	55.7	27.89	2.998	
5,800.0	5,800.0	5,795.7	5,794.7	14.2	14.0	29.45	-18.2	-89.3	88.3	60.2	28.09	3.144	
5,900.0	5,899.9	5,895.6	5,894.4	14.3	14.2	28.60	-22.9	-95.6	91.6	63.2	28.34	3.231	
5,953.4	5,953.2	5,949.0	5,947.6	14.3	14.3	28.38	-25.4	-99.0	92.7	64.2	28.46	3.257	
6,000.0	5,999.7	5,995.6	5,994.0	14.3	14.4	28.27	-27.6	-101.9	93.5	64.9	28.56	3.273	
6,100.0	6,099.5	6,095.6	6,093.7	14.4	14.6	28.02	-32.3	-108.2	95.2	66.3	28.86	3.297	
6,200.0	6,199.3	6,195.5	6,193.4	14.6	14.8	27.78	-36.9	-114.5	96.8	67.7	29.19	3.317	
6,300.0	6,299.1	6,295.5	6,293.1	14.7	15.1	27.55	-41.6	-120.8	98.5	69.0	29.56	3.334	
6,400.0	6,398.9	6,395.5	6,392.8	14.9	15.3	27.33	-46.3	-127.1	100.2	70.3	29.95	3.347	
6,500.0	6,498.7	6,495.5	6,492.4	15.1	15.6	27.12	-51.0	-133.3	101.9	71.5	30.36	3.357	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 501H - Anderson Fed Com 501H - Anderson Fed Com 501H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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	
6,600.0	6,598.5	6,595.5	6,592.1	15.3	15.9	26.91	-55.7	-139.6	103.6	72.8	30.80	3.364	
6,700.0	6,698.4	6,695.5	6,691.8	15.5	16.2	26.71	-60.4	-145.9	105.3	74.0	31.26	3.368	
6,800.0	6,798.2	6,795.5	6,791.5	15.7	16.5	26.52	-65.1	-152.2	107.0	75.2	31.75	3.370	
6,900.0	6,898.0	6,895.4	6,891.1	16.0	16.8	26.33	-69.8	-158.5	108.7	76.4	32.25	3.369	
7,000.0	6,997.8	6,995.4	6,990.8	16.2	17.1	26.15	-74.5	-164.8	110.4	77.6	32.78	3.366	
7,100.0	7,097.6	7,095.4	7,090.5	16.5	17.5	25.97	-79.2	-171.1	112.1	78.7	33.33	3.362	
7,200.0	7,197.4	7,195.4	7,190.2	16.8	17.8	25.80	-83.9	-177.3	113.7	79.8	33.90	3.355	
7,300.0	7,297.2	7,295.4	7,289.8	17.1	18.2	25.63	-88.5	-183.6	115.4	81.0	34.49	3.347	
7,400.0	7,397.0	7,395.4	7,389.5	17.4	18.5	25.47	-93.2	-189.9	117.1	82.0	35.09	3.338	
7,500.0	7,496.8	7,495.3	7,489.2	17.7	18.9	25.32	-97.9	-196.2	118.8	83.1	35.71	3.328	
7,600.0	7,596.6	7,595.3	7,588.9	18.0	19.3	25.16	-102.6	-202.5	120.5	84.2	36.35	3.316	
7,700.0	7,696.5	7,695.3	7,688.6	18.3	19.7	25.02	-107.3	-208.8	122.2	85.2	37.01	3.303	
7,800.0	7,796.3	7,795.3	7,788.2	18.6	20.1	24.87	-112.0	-215.1	123.9	86.3	37.67	3.290	
7,900.0	7,896.1	7,895.3	7,887.9	19.0	20.5	24.73	-116.7	-221.3	125.6	87.3	38.35	3.276	
8,000.0	7,995.9	7,995.3	7,987.6	19.3	20.9	24.60	-121.4	-227.6	127.3	88.3	39.05	3.261	
8,100.0	8,095.7	8,095.3	8,087.3	19.7	21.3	24.46	-126.1	-233.9	129.0	89.3	39.76	3.246	
8,200.0	8,195.5	8,195.2	8,186.9	20.0	21.7	24.33	-130.8	-240.2	130.7	90.3	40.48	3.230	
8,300.0	8,295.3	8,295.2	8,286.6	20.4	22.1	24.21	-135.5	-246.5	132.5	91.2	41.21	3.214	
8,400.0	8,395.1	8,395.2	8,386.3	20.7	22.5	24.08	-140.1	-252.8	134.2	92.2	41.95	3.198	
8,500.0	8,494.9	8,495.2	8,486.0	21.1	23.0	23.96	-144.8	-259.1	135.9	93.2	42.70	3.182	
8,600.0	8,594.7	8,595.2	8,585.6	21.5	23.4	23.85	-149.5	-265.3	137.6	94.1	43.46	3.165	
8,700.0	8,694.6	8,695.2	8,685.3	21.9	23.8	23.73	-154.2	-271.6	139.3	95.0	44.23	3.149	
8,800.0	8,794.4	8,795.2	8,785.0	22.3	24.3	23.62	-158.9	-277.9	141.0	96.0	45.01	3.132	
8,900.0	8,894.2	8,895.1	8,884.7	22.7	24.7	23.51	-163.6	-284.2	142.7	96.9	45.80	3.116	
9,000.0	8,994.0	8,995.1	8,984.4	23.1	25.2	23.41	-168.3	-290.5	144.4	97.8	46.59	3.099	
9,100.0	9,093.8	9,095.1	9,084.0	23.5	25.6	23.31	-173.0	-296.8	146.1	98.7	47.40	3.083	
9,200.0	9,193.6	9,195.1	9,183.7	23.9	26.1	23.20	-177.7	-303.1	147.8	99.6	48.21	3.066	
9,300.0	9,293.4	9,295.1	9,283.4	24.3	26.5	23.11	-182.4	-309.3	149.5	100.5	49.03	3.050	
9,400.0	9,393.2	9,395.1	9,383.1	24.7	27.0	23.01	-187.0	-315.6	151.2	101.4	49.85	3.034	
9,500.0	9,493.0	9,495.9	9,483.6	25.1	27.4	22.93	-191.7	-321.9	152.9	102.2	50.65	3.018	
9,600.0	9,592.8	9,598.5	9,585.9	25.5	27.9	23.02	-195.6	-327.1	153.2	101.8	51.43	2.979	
9,700.0	9,692.7	9,701.0	9,688.4	25.9	28.3	23.35	-198.4	-330.9	151.8	99.7	52.14	2.912	
9,800.0	9,792.5	9,803.5	9,790.8	26.4	28.7	23.94	-200.2	-333.2	148.8	96.0	52.76	2.820	
9,900.0	9,892.3	9,905.8	9,893.1	26.8	29.0	24.81	-200.8	-334.0	144.1	90.9	53.22	2.708	
10,000.0	9,992.1	10,005.8	9,993.1	27.2	29.0	25.88	-200.8	-334.0	138.6	85.1	53.43	2.593	
10,100.0	10,091.9	10,108.2	10,094.8	27.6	28.8	31.38	-190.8	-334.8	132.0	79.5	52.45	2.516	
10,181.8	10,173.5	10,185.2	10,168.7	28.0	28.7	42.14	-169.2	-336.6	128.6	78.9	49.66	2.589	
10,200.0	10,191.7	10,201.2	10,183.4	28.1	28.6	45.04	-163.2	-337.0	128.8	80.0	48.83	2.638	
10,300.0	10,291.5	10,280.0	10,253.2	28.5	28.4	61.53	-126.8	-339.9	142.0	97.3	44.67	3.179	
10,400.0	10,391.3	10,344.4	10,305.1	28.9	28.3	75.11	-88.9	-343.0	178.7	134.2	44.43	4.022	
10,500.0	10,491.1	10,396.2	10,342.8	29.4	28.2	84.44	-53.6	-345.8	234.7	187.8	46.83	5.011	
10,600.0	10,590.9	10,437.8	10,370.2	29.8	28.2	90.61	-22.3	-348.3	303.3	253.9	49.42	6.137	
10,656.0	10,646.8	10,457.6	10,382.3	30.1	28.2	93.13	-6.7	-349.5	345.5	294.8	50.68	6.818	
10,700.0	10,690.8	10,475.0	10,392.3	30.2	28.2	95.68	7.5	-350.6	380.1	328.6	51.42	7.392	
10,800.0	10,790.7	10,500.0	10,405.8	30.6	28.2	99.56	28.4	-352.3	462.0	408.7	53.27	8.673	
10,900.0	10,890.6	10,525.0	10,418.2	31.0	28.2	103.17	50.1	-354.0	547.5	492.8	54.65	10.019	
11,009.4	11,000.0	10,550.0	10,429.5	31.2	28.2	-23.22	72.3	-355.8	643.8	587.9	55.89	11.518	
11,100.0	11,090.6	10,561.3	10,434.1	31.3	28.2	-22.60	82.5	-356.6	725.2	668.3	56.92	12.740	
11,200.0	11,190.6	10,575.0	10,439.5	31.3	28.2	-21.90	95.1	-357.6	816.6	758.7	57.88	14.109	
11,300.0	11,290.6	10,589.2	10,444.7	31.4	28.2	-21.21	108.4	-358.7	909.2	850.5	58.72	15.483	
11,331.9	11,322.5	10,600.0	10,448.4	31.4	28.3	-20.73	118.4	-359.5	939.1	880.2	58.91	15.941	
11,350.0	11,340.6	10,600.0	10,448.4	31.4	28.3	-8.91	118.4	-359.5	955.8	896.7	59.08	16.179	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 501H - Anderson Fed Com 501H - Anderson Fed Com 501H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 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
11,375.0	11,365.6	10,600.0	10,448.4	31.3	28.3	-7.93	118.4	-359.5	978.6	919.3	59.32	16.498	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 505H - Anderson Fed Com 505H - Anderson Fed Com 505H - Prelim 1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM				Rule Assigned:									Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Offset Wellbore Centre			Distance				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		
0.0	0.0	0.0	0.0	0.0	0.0	89.32	0.8	66.0	66.3					
100.0	100.0	94.0	94.0	0.5	0.5	89.32	0.8	66.0	66.0	65.0	1.03	64.203		
200.0	200.0	194.0	194.0	1.7	1.6	89.32	0.8	66.0	66.0	62.7	3.35	19.696		
300.0	300.0	294.0	294.0	2.4	2.4	89.32	0.8	66.0	66.0	61.3	4.78	13.811		
400.0	400.0	394.0	394.0	3.0	2.9	89.32	0.8	66.0	66.0	60.2	5.88	11.239		
500.0	500.0	494.0	494.0	3.4	3.4	89.32	0.8	66.0	66.0	59.2	6.80	9.707		
600.0	600.0	594.0	594.0	3.8	3.8	89.32	0.8	66.0	66.0	58.4	7.62	8.661		
700.0	700.0	694.0	694.0	4.2	4.2	89.32	0.8	66.0	66.0	57.7	8.37	7.888		
800.0	800.0	794.0	794.0	4.5	4.5	89.32	0.8	66.0	66.0	57.0	9.06	7.286		
900.0	900.0	894.0	894.0	4.9	4.8	89.32	0.8	66.0	66.0	56.3	9.71	6.800		
1,000.0	1,000.0	994.0	994.0	5.2	5.2	89.32	0.8	66.0	66.0	55.7	10.32	6.397		
1,100.0	1,100.0	1,094.0	1,094.0	5.5	5.4	89.32	0.8	66.0	66.0	55.1	10.91	6.055		
1,200.0	1,200.0	1,194.0	1,194.0	5.7	5.7	89.32	0.8	66.0	66.0	54.6	11.46	5.760		
1,300.0	1,300.0	1,294.0	1,294.0	6.0	6.0	89.32	0.8	66.0	66.0	54.0	12.00	5.503		
1,400.0	1,400.0	1,394.0	1,394.0	6.3	6.3	89.32	0.8	66.0	66.0	53.5	12.52	5.276		
1,500.0	1,500.0	1,494.0	1,494.0	6.5	6.5	89.32	0.8	66.0	66.0	53.0	13.02	5.073		
1,600.0	1,600.0	1,594.0	1,594.0	6.8	6.7	89.32	0.8	66.0	66.0	52.5	13.50	4.890		
1,700.0	1,700.0	1,694.0	1,694.0	7.0	7.0	89.32	0.8	66.0	66.0	52.1	13.98	4.725		
1,800.0	1,800.0	1,794.0	1,794.0	7.2	7.2	89.32	0.8	66.0	66.0	51.6	14.44	4.574		
1,900.0	1,900.0	1,894.0	1,894.0	7.4	7.4	89.32	0.8	66.0	66.0	51.1	14.89	4.436		
2,000.0	2,000.0	1,994.0	1,994.0	7.7	7.7	89.32	0.8	66.0	66.0	50.7	15.33	4.308		
2,100.0	2,100.0	2,094.0	2,094.0	7.9	7.9	89.32	0.8	66.0	66.0	50.3	15.76	4.191		
2,200.0	2,200.0	2,194.0	2,194.0	8.1	8.1	89.32	0.8	66.0	66.0	49.9	16.18	4.081		
2,300.0	2,300.0	2,294.0	2,294.0	8.3	8.3	89.32	0.8	66.0	66.0	49.4	16.60	3.979		
2,400.0	2,400.0	2,394.0	2,394.0	8.5	8.5	89.32	0.8	66.0	66.0	49.0	17.00	3.883		
2,500.0	2,500.0	2,494.0	2,494.0	8.7	8.7	89.32	0.8	66.0	66.0	48.6	17.41	3.794		
2,600.0	2,600.0	2,594.0	2,594.0	8.9	8.9	89.32	0.8	66.0	66.0	48.2	17.80	3.710		
2,700.0	2,700.0	2,694.0	2,694.0	9.1	9.1	89.32	0.8	66.0	66.0	47.8	18.19	3.630		
2,800.0	2,800.0	2,794.0	2,794.0	9.3	9.3	89.32	0.8	66.0	66.0	47.5	18.57	3.555		
2,900.0	2,900.0	2,894.0	2,894.0	9.5	9.5	89.32	0.8	66.0	66.0	47.1	18.95	3.484		
3,000.0	3,000.0	2,994.0	2,994.0	9.7	9.7	89.32	0.8	66.0	66.0	46.7	19.33	3.416		
3,100.0	3,100.0	3,094.0	3,094.0	9.9	9.8	89.32	0.8	66.0	66.0	46.3	19.70	3.352		
3,200.0	3,200.0	3,194.0	3,194.0	10.0	10.0	89.32	0.8	66.0	66.0	46.0	20.06	3.291		
3,300.0	3,300.0	3,294.0	3,294.0	10.2	10.2	89.32	0.8	66.0	66.0	45.6	20.43	3.233		
3,400.0	3,400.0	3,394.0	3,394.0	10.4	10.4	89.32	0.8	66.0	66.0	45.2	20.78	3.177		
3,500.0	3,500.0	3,494.0	3,494.0	10.6	10.6	89.32	0.8	66.0	66.0	44.9	21.14	3.124		
3,600.0	3,600.0	3,594.0	3,594.0	10.7	10.7	89.32	0.8	66.0	66.0	44.5	21.49	3.073		
3,700.0	3,700.0	3,694.0	3,694.0	10.9	10.9	89.32	0.8	66.0	66.0	44.2	21.84	3.024		
3,800.0	3,800.0	3,794.0	3,794.0	11.1	11.1	89.32	0.8	66.0	66.0	43.9	22.18	2.977		
3,900.0	3,900.0	3,894.0	3,894.0	11.3	11.3	89.32	0.8	66.0	66.0	43.5	22.52	2.932		
4,000.0	4,000.0	3,994.0	3,994.0	11.4	11.4	89.32	0.8	66.0	66.0	43.2	22.86	2.888		
4,100.0	4,100.0	4,094.0	4,094.0	11.6	11.6	89.32	0.8	66.0	66.0	42.8	23.20	2.847		
4,200.0	4,200.0	4,194.0	4,194.0	11.8	11.8	89.32	0.8	66.0	66.0	42.5	23.53	2.806		
4,300.0	4,300.0	4,294.0	4,294.0	11.9	11.9	89.32	0.8	66.0	66.0	42.2	23.86	2.767		
4,400.0	4,400.0	4,394.0	4,394.0	12.1	12.1	89.32	0.8	66.0	66.0	41.8	24.19	2.730		
4,500.0	4,500.0	4,494.0	4,494.0	12.3	12.3	89.32	0.8	66.0	66.0	41.5	24.52	2.693		
4,600.0	4,600.0	4,594.0	4,594.0	12.4	12.4	89.32	0.8	66.0	66.0	41.2	24.84	2.658		
4,700.0	4,700.0	4,694.0	4,694.0	12.6	12.6	89.32	0.8	66.0	66.0	40.9	25.16	2.624		
4,800.0	4,800.0	4,794.0	4,794.0	12.7	12.7	89.32	0.8	66.0	66.0	40.6	25.48	2.591		
4,900.0	4,900.0	4,894.0	4,894.0	12.9	12.9	89.32	0.8	66.0	66.0	40.2	25.80	2.559		
5,000.0	5,000.0	4,994.0	4,994.0	13.1	13.1	89.32	0.8	66.0	66.0	39.9	26.12	2.528	CC, ES, SF	
5,100.0	5,100.0	5,093.0	5,093.0	13.2	13.2	89.57	0.5	66.7	66.7	40.4	26.38	2.530		

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 505H - Anderson Fed Com 505H - Anderson Fed Com 505H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,191.9	5,191.8	13.4	13.3	90.34	-0.4	69.0	69.0	42.4	26.63	2.593	
5,300.0	5,300.0	5,290.7	5,290.5	13.5	13.4	91.53	-2.0	72.9	73.0	46.1	26.89	2.714	
5,400.0	5,400.0	5,389.2	5,388.9	13.7	13.5	93.01	-4.1	78.3	78.6	51.4	27.16	2.893	
5,500.0	5,500.0	5,487.6	5,487.0	13.8	13.7	94.64	-6.9	85.3	85.8	58.4	27.45	3.127	
5,600.0	5,600.0	5,585.7	5,584.7	14.0	13.8	96.28	-10.3	93.8	94.8	67.1	27.76	3.416	
5,700.0	5,700.0	5,683.4	5,681.8	14.1	14.0	-132.48	-14.3	103.8	106.1	78.1	28.03	3.785	
5,800.0	5,800.0	5,780.9	5,778.5	14.2	14.2	-131.81	-18.9	115.3	120.2	91.9	28.26	4.252	
5,900.0	5,899.9	5,879.7	5,876.4	14.3	14.4	-131.76	-23.8	127.4	135.9	107.3	28.56	4.758	
5,953.4	5,953.2	5,932.3	5,928.6	14.3	14.6	-131.93	-26.4	133.9	144.8	116.0	28.72	5.041	
6,000.0	5,999.7	5,978.3	5,974.1	14.3	14.7	-132.18	-28.6	139.5	152.6	123.8	28.85	5.290	
6,100.0	6,099.5	6,076.8	6,071.8	14.4	15.0	-132.63	-33.4	151.6	169.6	140.3	29.21	5.804	
6,200.0	6,199.3	6,175.4	6,169.5	14.6	15.3	-133.00	-38.3	163.7	186.5	156.9	29.61	6.298	
6,300.0	6,299.1	6,273.9	6,267.2	14.7	15.6	-133.31	-43.1	175.8	203.4	173.4	30.03	6.773	
6,400.0	6,398.9	6,372.5	6,364.9	14.9	15.9	-133.58	-47.9	187.9	220.4	189.9	30.48	7.230	
6,500.0	6,498.7	6,471.0	6,462.6	15.1	16.3	-133.80	-52.8	199.9	237.3	206.4	30.95	7.668	
6,600.0	6,598.5	6,569.6	6,560.3	15.3	16.6	-134.00	-57.6	212.0	254.2	222.8	31.44	8.088	
6,700.0	6,698.4	6,668.1	6,658.0	15.5	17.0	-134.17	-62.4	224.1	271.2	239.3	31.95	8.489	
6,800.0	6,798.2	6,766.7	6,755.6	15.7	17.4	-134.32	-67.3	236.2	288.1	255.7	32.48	8.872	
6,900.0	6,898.0	6,865.2	6,853.3	16.0	17.8	-134.45	-72.1	248.3	305.1	272.1	33.03	9.238	
7,000.0	6,997.8	6,963.8	6,951.0	16.2	18.2	-134.57	-76.9	260.4	322.1	288.5	33.59	9.587	
7,100.0	7,097.6	7,062.3	7,048.7	16.5	18.6	-134.68	-81.8	272.4	339.0	304.8	34.17	9.920	
7,200.0	7,197.4	7,160.9	7,146.4	16.8	19.0	-134.78	-86.6	284.5	356.0	321.2	34.77	10.237	
7,300.0	7,297.2	7,259.4	7,244.1	17.1	19.4	-134.87	-91.4	296.6	372.9	337.5	35.39	10.539	
7,400.0	7,397.0	7,358.0	7,341.8	17.4	19.9	-134.95	-96.3	308.7	389.9	353.9	36.01	10.826	
7,500.0	7,496.8	7,456.5	7,439.4	17.7	20.3	-135.02	-101.1	320.8	406.8	370.2	36.66	11.099	
7,600.0	7,596.6	7,555.1	7,537.1	18.0	20.8	-135.09	-105.9	332.9	423.8	386.5	37.31	11.359	
7,700.0	7,696.5	7,653.6	7,634.8	18.3	21.3	-135.15	-110.8	344.9	440.8	402.8	37.98	11.606	
7,800.0	7,796.3	7,752.2	7,732.5	18.6	21.7	-135.21	-115.6	357.0	457.7	419.1	38.66	11.841	
7,900.0	7,896.1	7,850.7	7,830.2	19.0	22.2	-135.27	-120.4	369.1	474.7	435.3	39.35	12.064	
8,000.0	7,995.9	7,949.3	7,927.9	19.3	22.7	-135.32	-125.3	381.2	491.6	451.6	40.05	12.277	
8,100.0	8,095.7	8,047.8	8,025.6	19.7	23.2	-135.36	-130.1	393.3	508.6	467.9	40.76	12.479	
8,200.0	8,195.5	8,146.4	8,123.3	20.0	23.6	-135.41	-134.9	405.4	525.6	484.1	41.48	12.672	
8,300.0	8,295.3	8,244.9	8,220.9	20.4	24.1	-135.45	-139.8	417.4	542.5	500.3	42.21	12.855	
8,400.0	8,395.1	8,343.5	8,318.6	20.7	24.6	-135.49	-144.6	429.5	559.5	516.6	42.94	13.029	
8,500.0	8,494.9	8,442.0	8,416.3	21.1	25.1	-135.52	-149.4	441.6	576.5	532.8	43.69	13.195	
8,600.0	8,594.7	8,540.6	8,514.0	21.5	25.7	-135.56	-154.3	453.7	593.4	549.0	44.44	13.353	
8,700.0	8,694.6	8,639.1	8,611.7	21.9	26.2	-135.59	-159.1	465.8	610.4	565.2	45.20	13.503	
8,800.0	8,794.4	8,737.7	8,709.4	22.3	26.7	-135.62	-163.9	477.9	627.4	581.4	45.97	13.647	
8,900.0	8,894.2	8,836.2	8,807.1	22.7	27.2	-135.65	-168.8	489.9	644.3	597.6	46.74	13.785	
9,000.0	8,994.0	8,942.4	8,912.4	23.1	27.7	-135.69	-173.8	502.6	660.9	613.4	47.53	13.906	
9,100.0	9,093.8	9,053.7	9,023.0	23.5	28.3	-135.78	-178.4	514.0	675.8	627.5	48.34	13.982	
9,200.0	9,193.6	9,165.5	9,134.3	23.9	28.8	-135.93	-182.2	523.4	688.9	639.8	49.14	14.020	
9,300.0	9,293.4	9,277.8	9,246.3	24.3	29.4	-136.12	-185.2	530.9	700.1	650.2	49.91	14.027	
9,400.0	9,393.2	9,390.5	9,358.9	24.7	29.8	-136.37	-187.3	536.3	709.5	658.9	50.66	14.005	
9,500.0	9,493.0	9,503.5	9,471.8	25.1	30.3	-136.66	-188.7	539.7	717.1	665.7	51.37	13.959	
9,600.0	9,592.8	9,616.8	9,585.1	25.5	30.6	-137.00	-189.2	541.0	722.7	670.8	51.97	13.906	
9,700.0	9,692.7	9,718.4	9,686.7	25.9	30.7	-137.34	-189.2	541.0	727.3	674.9	52.34	13.896	
9,800.0	9,792.5	9,822.6	9,790.6	26.4	30.6	-138.06	-184.3	541.0	731.6	678.9	52.68	13.888	
9,900.0	9,892.3	9,921.7	9,886.6	26.8	30.5	-140.25	-160.1	540.9	735.8	682.7	53.08	13.862	
10,000.0	9,992.1	10,006.5	9,963.3	27.2	30.3	-143.28	-124.1	540.7	741.9	688.4	53.56	13.851	
10,100.0	10,091.9	10,075.0	10,019.7	27.6	30.2	-146.41	-85.5	540.5	752.7	698.5	54.12	13.908	
10,200.0	10,191.7	10,131.3	10,061.6	28.1	30.2	-149.36	-47.9	540.3	770.1	715.4	54.72	14.075	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 505H - Anderson Fed Com 505H - Anderson Fed Com 505H - Prelim 1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM														Offset Well Error:	0.0 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		
10,300.0	10,291.5	10,175.0	10,090.9	28.5	30.1	-151.84	-15.5	540.1	795.6	740.3	55.34	14.376			
10,400.0	10,391.3	10,211.1	10,112.8	28.9	30.1	-153.99	13.2	540.0	829.5	773.5	55.98	14.817			
10,500.0	10,491.1	10,240.0	10,128.7	29.4	30.2	-155.76	37.3	539.8	871.5	814.9	56.62	15.393			
10,600.0	10,590.9	10,263.9	10,140.8	29.8	30.2	-157.23	57.9	539.7	921.2	863.9	57.25	16.091			
10,656.0	10,646.8	10,275.0	10,146.0	30.1	30.2	-157.93	67.7	539.7	952.0	894.4	57.58	16.533			
10,700.0	10,690.8	10,283.8	10,150.0	30.2	30.2	-158.59	75.5	539.6	977.4	919.6	57.84	16.899			



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 551H - Anderson Fed Com 551H - Anderson Fed Com 551H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
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)			
0.0	0.0	1.0	1.0	0.0	0.0	-91.00	-0.6	-33.0	33.0				
100.0	100.0	101.0	101.0	0.5	0.5	-91.00	-0.6	-33.0	33.0	31.9	1.07	30.796	
200.0	200.0	201.0	201.0	1.7	1.7	-91.00	-0.6	-33.0	33.0	29.6	3.43	9.625	
300.0	300.0	301.0	301.0	2.4	2.4	-91.00	-0.6	-33.0	33.0	28.2	4.83	6.838	
400.0	400.0	401.0	401.0	3.0	3.0	-91.00	-0.6	-33.0	33.0	27.1	5.91	5.584	
500.0	500.0	501.0	501.0	3.4	3.4	-91.00	-0.6	-33.0	33.0	26.2	6.83	4.831	
600.0	600.0	601.0	601.0	3.8	3.8	-91.00	-0.6	-33.0	33.0	25.4	7.65	4.315	
700.0	700.0	701.0	701.0	4.2	4.2	-91.00	-0.6	-33.0	33.0	24.6	8.40	3.932	
800.0	800.0	801.0	801.0	4.5	4.5	-91.00	-0.6	-33.0	33.0	23.9	9.09	3.633	
900.0	900.0	901.0	901.0	4.9	4.9	-91.00	-0.6	-33.0	33.0	23.3	9.73	3.392	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-91.00	-0.6	-33.0	33.0	22.7	10.34	3.192	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-91.00	-0.6	-33.0	33.0	22.1	10.93	3.022	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-91.00	-0.6	-33.0	33.0	21.5	11.48	2.875	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-91.00	-0.6	-33.0	33.0	21.0	12.02	2.747	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-91.00	-0.6	-33.0	33.0	20.5	12.53	2.634	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-91.00	-0.6	-33.0	33.0	20.0	13.03	2.533	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-91.00	-0.6	-33.0	33.0	19.5	13.52	2.442	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-91.00	-0.6	-33.0	33.0	19.0	13.99	2.360	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-91.00	-0.6	-33.0	33.0	18.6	14.45	2.285	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-91.00	-0.6	-33.0	33.0	18.1	14.90	2.216	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-91.00	-0.6	-33.0	33.0	17.7	15.34	2.152	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-91.00	-0.6	-33.0	33.0	17.2	15.77	2.093	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-91.00	-0.6	-33.0	33.0	16.8	16.19	2.039	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-91.00	-0.6	-33.0	33.0	16.4	16.61	1.988	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-91.00	-0.6	-33.0	33.0	16.0	17.02	1.940	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-91.00	-0.6	-33.0	33.0	15.6	17.42	1.895	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-91.00	-0.6	-33.0	33.0	15.2	17.81	1.853	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-91.00	-0.6	-33.0	33.0	14.8	18.20	1.814	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-91.00	-0.6	-33.0	33.0	14.4	18.59	1.776	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-91.00	-0.6	-33.0	33.0	14.1	18.97	1.741	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-91.00	-0.6	-33.0	33.0	13.7	19.34	1.707	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-91.00	-0.6	-33.0	33.0	13.3	19.71	1.675	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-91.00	-0.6	-33.0	33.0	12.9	20.08	1.645	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-91.00	-0.6	-33.0	33.0	12.6	20.44	1.615	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-91.00	-0.6	-33.0	33.0	12.2	20.80	1.588	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-91.00	-0.6	-33.0	33.0	11.9	21.15	1.561	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-91.00	-0.6	-33.0	33.0	11.5	21.50	1.536	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-91.00	-0.6	-33.0	33.0	11.2	21.85	1.511	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-91.00	-0.6	-33.0	33.0	10.8	22.19	1.488 Level 3	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-91.00	-0.6	-33.0	33.0	10.5	22.53	1.465 Level 3	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-91.00	-0.6	-33.0	33.0	10.1	22.87	1.444 Level 3	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-91.00	-0.6	-33.0	33.0	9.8	23.21	1.423 Level 3	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-91.00	-0.6	-33.0	33.0	9.5	23.54	1.403 Level 3	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-91.00	-0.6	-33.0	33.0	9.1	23.87	1.383 Level 3	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-91.00	-0.6	-33.0	33.0	8.8	24.20	1.364 Level 3	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-91.00	-0.6	-33.0	33.0	8.5	24.53	1.346 Level 3	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-91.00	-0.6	-33.0	33.0	8.2	24.85	1.329 Level 3	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-91.00	-0.6	-33.0	33.0	7.8	25.17	1.312 Level 3	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-91.00	-0.6	-33.0	33.0	7.5	25.49	1.295 Level 3	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-91.00	-0.6	-33.0	33.0	7.2	25.81	1.279 Level 3	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-91.00	-0.6	-33.0	33.0	6.9	26.13	1.264 Level 3	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	-91.00	-0.6	-33.0	33.0	6.6	26.44	1.249 Level 3	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 551H - Anderson Fed Com 551H - Anderson Fed Com 551H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,200.0	5,200.0	5,201.0	5,201.0	13.4	13.4	-91.00	-0.6	-33.0	33.0	6.3	26.75	1.234	Level 3
5,300.0	5,300.0	5,301.0	5,301.0	13.5	13.5	-91.00	-0.6	-33.0	33.0	6.0	27.06	1.220	Level 3
5,316.3	5,316.3	5,317.3	5,317.3	13.6	13.6	-91.00	-0.6	-33.0	33.0	5.9	27.11	1.218	Level 3, CC
5,400.0	5,400.0	5,401.0	5,401.0	13.7	13.7	-91.00	-0.6	-33.0	33.0	5.6	27.37	1.206	Level 3
5,500.0	5,500.0	5,500.5	5,500.5	13.8	13.8	-91.90	-1.1	-33.7	33.7	6.1	27.62	1.221	Level 3
5,600.0	5,600.0	5,600.0	5,600.0	14.0	13.9	-94.36	-2.7	-35.8	35.9	8.0	27.85	1.288	Level 3
5,700.0	5,700.0	5,699.4	5,699.3	14.1	14.0	32.74	-5.4	-39.2	38.8	10.8	28.02	1.386	Level 3
5,800.0	5,800.0	5,798.7	5,798.4	14.2	14.1	30.39	-9.1	-43.9	41.9	13.7	28.20	1.486	Level 3
5,900.0	5,899.9	5,898.7	5,898.1	14.3	14.2	28.88	-13.5	-49.5	44.3	15.9	28.40	1.561	
5,953.4	5,953.2	5,952.0	5,951.3	14.3	14.3	28.57	-15.8	-52.4	45.0	16.5	28.50	1.579	
6,000.0	5,999.7	5,998.6	5,997.8	14.3	14.4	28.44	-17.8	-55.0	45.4	16.8	28.58	1.589	
6,100.0	6,099.5	6,098.6	6,097.6	14.4	14.5	28.17	-22.1	-60.5	46.3	17.4	28.84	1.605	
6,200.0	6,199.3	6,198.6	6,197.3	14.6	14.7	27.92	-26.5	-66.1	47.2	18.0	29.13	1.619	
6,300.0	6,299.1	6,298.6	6,297.1	14.7	14.9	27.67	-30.8	-71.6	48.0	18.6	29.45	1.631	
6,400.0	6,398.9	6,398.6	6,396.8	14.9	15.1	27.43	-35.2	-77.1	48.9	19.1	29.80	1.641	
6,500.0	6,498.7	6,498.6	6,496.6	15.1	15.4	27.19	-39.5	-82.7	49.8	19.6	30.17	1.650	
6,600.0	6,598.5	6,598.6	6,596.3	15.3	15.6	26.97	-43.9	-88.2	50.6	20.1	30.57	1.657	
6,700.0	6,698.4	6,698.6	6,696.1	15.5	15.9	26.75	-48.2	-93.7	51.5	20.5	30.99	1.662	
6,800.0	6,798.2	6,798.6	6,795.8	15.7	16.1	26.54	-52.5	-99.3	52.4	21.0	31.44	1.667	
6,900.0	6,898.0	6,898.6	6,895.6	16.0	16.4	26.34	-56.9	-104.8	53.3	21.4	31.91	1.670	
7,000.0	6,997.8	6,998.6	6,995.3	16.2	16.7	26.14	-61.2	-110.3	54.1	21.8	32.40	1.671	
7,100.0	7,097.6	7,098.6	7,095.1	16.5	17.0	25.95	-65.6	-115.9	55.0	22.1	32.91	1.672	
7,200.0	7,197.4	7,198.6	7,194.8	16.8	17.3	25.77	-69.9	-121.4	55.9	22.5	33.44	1.672	
7,300.0	7,297.2	7,298.6	7,294.6	17.1	17.6	25.59	-74.2	-126.9	56.8	22.8	33.99	1.671	
7,400.0	7,397.0	7,398.6	7,394.3	17.4	18.0	25.42	-78.6	-132.5	57.7	23.1	34.56	1.669	
7,500.0	7,496.8	7,498.6	7,494.1	17.7	18.3	25.25	-82.9	-138.0	58.5	23.4	35.14	1.666	
7,600.0	7,596.6	7,598.6	7,593.8	18.0	18.6	25.09	-87.3	-143.5	59.4	23.7	35.75	1.662	
7,700.0	7,696.5	7,698.6	7,693.6	18.3	19.0	24.93	-91.6	-149.1	60.3	23.9	36.37	1.658	
7,800.0	7,796.3	7,798.6	7,793.3	18.6	19.4	24.78	-95.9	-154.6	61.2	24.2	37.00	1.654	
7,900.0	7,896.1	7,898.6	7,893.1	19.0	19.7	24.63	-100.3	-160.1	62.1	24.4	37.65	1.649	
8,000.0	7,995.9	7,998.6	7,992.8	19.3	20.1	24.48	-104.6	-165.7	62.9	24.6	38.31	1.643	
8,100.0	8,095.7	8,098.6	8,092.5	19.7	20.5	24.34	-109.0	-171.2	63.8	24.8	38.99	1.637	
8,200.0	8,195.5	8,198.6	8,192.3	20.0	20.9	24.21	-113.3	-176.7	64.7	25.0	39.67	1.631	
8,300.0	8,295.3	8,298.6	8,292.0	20.4	21.3	24.07	-117.6	-182.3	65.6	25.2	40.37	1.625	
8,400.0	8,395.1	8,398.6	8,391.8	20.7	21.7	23.94	-122.0	-187.8	66.5	25.4	41.08	1.618	
8,500.0	8,494.9	8,498.5	8,491.5	21.1	22.1	23.82	-126.3	-193.3	67.4	25.6	41.81	1.611	
8,600.0	8,594.7	8,598.5	8,591.3	21.5	22.5	23.69	-130.7	-198.9	68.2	25.7	42.54	1.604	
8,700.0	8,694.6	8,698.5	8,691.0	21.9	22.9	23.57	-135.0	-204.4	69.1	25.8	43.28	1.597	
8,800.0	8,794.4	8,798.5	8,790.8	22.3	23.3	23.46	-139.3	-209.9	70.0	26.0	44.03	1.590	
8,900.0	8,894.2	8,898.5	8,890.5	22.7	23.7	23.34	-143.7	-215.5	70.9	26.1	44.79	1.583	
9,000.0	8,994.0	8,998.5	8,990.3	23.1	24.1	23.23	-148.0	-221.0	71.8	26.2	45.56	1.576	
9,100.0	9,093.8	9,098.5	9,090.0	23.5	24.6	23.12	-152.4	-226.5	72.7	26.3	46.34	1.568	
9,200.0	9,193.6	9,198.5	9,189.8	23.9	25.0	23.02	-156.7	-232.1	73.6	26.4	47.12	1.561	
9,300.0	9,293.4	9,298.5	9,289.5	24.3	25.4	22.92	-161.0	-237.6	74.4	26.5	47.92	1.554	
9,400.0	9,393.2	9,398.5	9,389.3	24.7	25.9	22.81	-165.4	-243.1	75.3	26.6	48.71	1.546	
9,500.0	9,493.0	9,498.5	9,489.0	25.1	26.3	22.72	-169.7	-248.7	76.2	26.7	49.52	1.539	
9,600.0	9,592.8	9,598.5	9,588.8	25.5	26.7	22.62	-174.1	-254.2	77.1	26.8	50.33	1.532	
9,700.0	9,692.7	9,698.5	9,688.5	25.9	27.2	22.53	-178.4	-259.7	78.0	26.8	51.15	1.525	
9,800.0	9,792.5	9,798.5	9,788.3	26.4	27.6	22.43	-182.7	-265.3	78.9	26.9	51.97	1.518	
9,900.0	9,892.3	9,898.5	9,888.0	26.8	28.1	22.34	-187.1	-270.8	79.8	27.0	52.80	1.511	
10,000.0	9,992.1	9,998.5	9,987.8	27.2	28.5	22.26	-191.4	-276.3	80.6	27.0	53.64	1.503	
10,100.0	10,091.9	10,099.7	10,088.8	27.6	29.0	22.35	-195.4	-281.4	80.9	26.4	54.43	1.485	Level 3

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 551H - Anderson Fed Com 551H - Anderson Fed Com 551H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.0	10,191.7	10,201.0	10,190.0	28.1	29.4	22.90	-198.2	-285.0	79.4	24.3	55.10	1.441	Level 3
10,300.0	10,291.5	10,302.2	10,291.2	28.5	29.8	23.96	-199.9	-287.2	76.3	20.7	55.60	1.373	Level 3
10,400.0	10,391.3	10,403.3	10,392.2	28.9	30.1	25.68	-200.6	-288.0	71.7	15.8	55.84	1.284	Level 3
10,500.0	10,491.1	10,503.2	10,492.1	29.4	30.1	27.99	-200.6	-288.0	66.2	10.5	55.69	1.188	Level 3
10,600.0	10,590.9	10,603.0	10,591.9	29.8	30.2	30.71	-200.6	-288.0	60.8	5.4	55.38	1.098	Level 3
10,656.0	10,646.8	10,658.9	10,647.8	30.1	30.2	32.46	-200.6	-288.0	57.9	2.8	55.08	1.050	Level 3
10,700.0	10,690.8	10,702.8	10,691.7	30.2	30.2	34.24	-200.2	-288.1	55.7	1.1	54.69	1.019	Level 3, ES, SF
10,762.2	10,752.9	10,763.7	10,752.2	30.5	30.1	42.69	-193.9	-288.9	54.1	2.1	52.03	1.040	Level 3
10,800.0	10,790.7	10,799.4	10,787.2	30.6	30.0	51.14	-186.7	-290.0	55.1	6.1	49.07	1.124	Level 3
10,900.0	10,890.6	10,886.9	10,869.7	31.0	29.8	75.89	-158.4	-294.0	72.6	29.4	43.16	1.681	
11,009.4	11,000.0	10,968.4	10,940.8	31.2	29.6	-36.73	-118.9	-299.5	117.7	71.6	46.12	2.553	
11,100.0	11,090.6	11,025.0	10,985.6	31.3	29.5	-29.55	-84.8	-304.3	169.7	119.9	49.74	3.411	
11,200.0	11,190.6	11,075.0	11,021.5	31.3	29.5	-25.12	-50.4	-309.1	237.1	183.9	53.16	4.460	
11,300.0	11,290.6	11,116.9	11,048.8	31.4	29.4	-22.38	-18.9	-313.6	312.0	256.3	55.70	5.602	
11,331.9	11,322.5	11,125.0	11,053.7	31.4	29.4	-21.93	-12.5	-314.5	337.1	280.5	56.59	5.957	
11,350.0	11,340.6	11,134.9	11,059.6	31.4	29.4	-9.98	-4.7	-315.6	351.3	294.6	56.77	6.189	
11,375.0	11,365.6	11,143.9	11,064.8	31.3	29.4	-9.00	2.6	-316.6	370.6	313.3	57.28	6.470	
11,400.0	11,390.4	11,150.0	11,068.2	31.3	29.4	-8.27	7.6	-317.3	389.3	331.4	57.92	6.722	
11,425.0	11,415.0	11,162.3	11,075.0	31.2	29.4	-7.46	17.8	-318.7	407.5	349.2	58.27	6.993	
11,450.0	11,439.4	11,175.0	11,081.7	31.2	29.4	-6.77	28.5	-320.2	425.2	366.5	58.62	7.252	
11,475.0	11,463.5	11,181.2	11,084.8	31.1	29.4	-6.32	33.8	-321.0	442.2	382.9	59.25	7.463	
11,500.0	11,487.2	11,190.9	11,089.6	31.1	29.4	-5.85	42.1	-322.2	458.7	398.9	59.73	7.680	
11,525.0	11,510.4	11,200.0	11,094.0	31.0	29.4	-5.45	50.0	-323.3	474.5	414.3	60.22	7.880	
11,550.0	11,533.1	11,210.4	11,098.8	31.0	29.4	-5.08	59.2	-324.6	489.8	429.1	60.66	8.075	
11,575.0	11,555.2	11,225.0	11,105.1	30.9	29.5	-4.70	72.2	-326.4	504.5	443.5	60.97	8.275	
11,600.0	11,576.7	11,225.0	11,105.1	30.9	29.5	-4.54	72.2	-326.4	518.5	456.8	61.73	8.400	
11,625.0	11,597.6	11,240.4	11,111.4	30.8	29.5	-4.22	86.1	-328.3	531.8	469.8	62.01	8.576	
11,650.0	11,617.6	11,250.0	11,115.1	30.8	29.5	-3.99	94.9	-329.6	544.5	482.0	62.45	8.718	
11,675.0	11,636.8	11,260.6	11,119.0	30.7	29.5	-3.78	104.7	-331.0	556.5	493.6	62.86	8.852	
11,700.0	11,655.2	11,275.0	11,123.9	30.7	29.5	-3.55	118.0	-332.9	567.8	504.7	63.18	8.988	
11,725.0	11,672.7	11,275.0	11,123.9	30.7	29.5	-3.47	118.0	-332.9	578.5	514.7	63.82	9.065	
11,750.0	11,689.2	11,291.4	11,129.0	30.6	29.6	-3.26	133.5	-335.0	588.4	524.3	64.08	9.183	
11,775.0	11,704.7	11,300.0	11,131.4	30.6	29.6	-3.13	141.6	-336.2	597.6	533.1	64.50	9.266	
11,800.0	11,719.2	11,312.2	11,134.6	30.6	29.6	-2.99	153.3	-337.8	606.2	541.3	64.83	9.350	
11,825.0	11,732.5	11,325.0	11,137.7	30.6	29.7	-2.86	165.6	-339.5	614.0	548.8	65.15	9.424	
11,850.0	11,744.8	11,333.0	11,139.4	30.6	29.7	-2.77	173.4	-340.6	621.1	555.5	65.54	9.476	
11,875.0	11,755.9	11,350.0	11,142.7	30.7	29.7	-2.63	189.9	-343.0	627.5	561.7	65.78	9.539	
11,900.0	11,765.8	11,350.0	11,142.7	30.7	29.7	-2.60	189.9	-343.0	633.1	566.8	66.26	9.555	
11,925.0	11,774.4	11,364.5	11,145.0	30.8	29.8	-2.49	204.0	-345.0	637.9	571.4	66.51	9.591	
11,950.0	11,781.9	11,375.0	11,146.4	30.8	29.8	-2.41	214.3	-346.4	642.0	575.2	66.81	9.610	
11,975.0	11,788.1	11,385.5	11,147.6	30.9	29.9	-2.34	224.7	-347.9	645.4	578.3	67.09	9.620	
12,000.0	11,793.0	11,400.0	11,148.8	31.0	29.9	-2.26	239.0	-349.9	648.1	580.8	67.33	9.626	
12,025.0	11,796.6	11,400.0	11,148.8	31.1	29.9	-2.25	239.0	-349.9	650.1	582.4	67.67	9.606	
12,050.0	11,798.9	11,417.2	11,149.7	31.2	30.0	-2.17	256.0	-352.3	651.1	583.2	67.86	9.595	
12,075.0	11,799.9	11,427.8	11,150.0	31.3	30.1	-2.12	266.4	-353.7	651.5	583.4	68.09	9.569	
12,081.9	11,800.0	11,430.7	11,150.0	31.3	30.1	-2.10	269.3	-354.1	651.5	583.3	68.14	9.561	
12,088.8	11,800.0	11,433.6	11,150.0	31.4	30.1	-2.09	272.2	-354.5	651.4	583.2	68.19	9.553	
12,100.0	11,800.0	11,444.8	11,150.0	31.4	30.2	-2.04	283.4	-356.1	651.4	583.2	68.23	9.547	
12,200.0	11,800.0	11,545.4	11,150.0	32.1	30.8	-1.60	383.2	-368.1	651.3	582.6	68.67	9.484	
12,300.0	11,800.0	11,645.9	11,150.0	32.9	31.6	-1.16	483.3	-376.6	651.1	582.0	69.16	9.414	
12,400.0	11,800.0	11,746.1	11,150.0	33.8	32.4	-0.71	583.4	-381.5	651.1	581.3	69.71	9.340	
12,500.0	11,800.0	11,846.1	11,150.0	34.7	33.3	-0.28	683.4	-383.1	651.0	580.7	70.29	9.261	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 551H - Anderson Fed Com 551H - Anderson Fed Com 551H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,600.0	11,800.0	11,946.1	11,150.0	35.7	34.2	-0.06	783.4	-383.7	651.0	580.0	70.97	9.173	
12,619.1	11,800.0	11,965.3	11,150.0	35.9	34.4	-0.06	802.5	-383.8	651.0	579.9	71.11	9.154	
12,700.0	11,800.0	12,046.1	11,150.0	36.7	35.2	-0.06	883.4	-384.2	651.0	579.3	71.74	9.074	
12,800.0	11,800.0	12,146.1	11,150.0	37.7	36.3	-0.06	983.4	-384.8	651.0	578.4	72.58	8.970	
12,900.0	11,800.0	12,246.1	11,150.0	38.8	37.5	-0.06	1,083.4	-385.4	651.0	577.5	73.47	8.861	
13,000.0	11,800.0	12,346.1	11,150.0	40.0	38.7	-0.06	1,183.4	-386.0	651.0	576.6	74.41	8.748	
13,100.0	11,800.0	12,446.1	11,150.0	41.3	40.0	-0.05	1,283.4	-386.6	651.0	575.6	75.41	8.633	
13,200.0	11,800.0	12,546.1	11,150.0	42.6	41.3	-0.05	1,383.4	-387.2	651.0	574.5	76.46	8.514	
13,300.0	11,800.0	12,646.1	11,150.0	43.9	42.8	-0.05	1,483.4	-387.8	651.0	573.4	77.55	8.394	
13,400.0	11,800.0	12,746.1	11,150.0	45.4	44.2	-0.05	1,583.4	-388.4	651.0	572.3	78.69	8.273	
13,500.0	11,800.0	12,846.1	11,150.0	46.8	45.7	-0.05	1,683.4	-389.0	651.0	571.1	79.88	8.150	
13,600.0	11,800.0	12,946.1	11,150.0	48.3	47.3	-0.05	1,783.4	-389.5	651.0	569.9	81.10	8.027	
13,700.0	11,800.0	13,046.1	11,150.0	49.9	48.8	-0.05	1,883.4	-390.1	651.0	568.6	82.37	7.903	
13,800.0	11,800.0	13,146.1	11,150.0	51.5	50.5	-0.05	1,983.4	-390.7	651.0	567.3	83.67	7.780	
13,900.0	11,800.0	13,246.1	11,150.0	53.1	52.1	-0.05	2,083.4	-391.3	651.0	566.0	85.01	7.658	
14,000.0	11,800.0	13,346.1	11,150.0	54.7	53.8	-0.05	2,183.4	-391.9	651.0	564.6	86.39	7.536	
14,100.0	11,800.0	13,446.1	11,150.0	56.4	55.5	-0.05	2,283.4	-392.5	651.0	563.2	87.80	7.415	
14,200.0	11,800.0	13,546.1	11,150.0	58.1	57.2	-0.05	2,383.4	-393.1	651.0	561.8	89.24	7.295	
14,300.0	11,800.0	13,646.1	11,150.0	59.8	58.9	-0.04	2,483.4	-393.7	651.0	560.3	90.71	7.177	
14,400.0	11,800.0	13,746.1	11,150.0	61.5	60.7	-0.04	2,583.4	-394.3	651.0	558.8	92.20	7.060	
14,500.0	11,800.0	13,846.1	11,150.0	63.3	62.5	-0.04	2,683.4	-394.9	651.0	557.3	93.73	6.946	
14,600.0	11,800.0	13,946.1	11,150.0	65.0	64.2	-0.04	2,783.4	-395.4	651.0	555.7	95.28	6.832	
14,700.0	11,800.0	14,046.1	11,150.0	66.8	66.0	-0.04	2,883.4	-396.0	651.0	554.1	96.86	6.721	
14,800.0	11,800.0	14,146.1	11,150.0	68.6	67.9	-0.04	2,983.4	-396.6	651.0	552.5	98.45	6.612	
14,900.0	11,800.0	14,246.1	11,150.0	70.4	69.7	-0.04	3,083.4	-397.2	651.0	550.9	100.08	6.505	
15,000.0	11,800.0	14,346.1	11,150.0	72.2	71.5	-0.04	3,183.3	-397.8	651.0	549.3	101.72	6.400	
15,100.0	11,800.0	14,446.1	11,150.0	74.1	73.4	-0.04	3,283.3	-398.4	651.0	547.6	103.38	6.297	
15,200.0	11,800.0	14,546.1	11,150.0	75.9	75.2	-0.04	3,383.3	-399.0	651.0	545.9	105.06	6.196	
15,300.0	11,800.0	14,646.1	11,150.0	77.8	77.1	-0.04	3,483.3	-399.6	651.0	544.2	106.76	6.098	
15,400.0	11,800.0	14,746.1	11,150.0	79.6	79.0	-0.04	3,583.3	-400.2	651.0	542.5	108.48	6.001	
15,500.0	11,800.0	14,846.1	11,150.0	81.5	80.8	-0.04	3,683.3	-400.7	651.0	540.8	110.22	5.907	
15,600.0	11,800.0	14,946.1	11,150.0	83.4	82.7	-0.03	3,783.3	-401.3	651.0	539.0	111.97	5.814	
15,700.0	11,800.0	15,046.1	11,150.0	85.2	84.6	-0.03	3,883.3	-401.9	651.0	537.3	113.73	5.724	
15,800.0	11,800.0	15,146.1	11,150.0	87.1	86.5	-0.03	3,983.3	-402.5	651.0	535.5	115.51	5.636	
15,900.0	11,800.0	15,246.1	11,150.0	89.0	88.4	-0.03	4,083.3	-403.1	651.0	533.7	117.31	5.550	
16,000.0	11,800.0	15,346.1	11,150.0	90.9	90.3	-0.03	4,183.3	-403.7	651.0	531.9	119.11	5.465	
16,100.0	11,800.0	15,446.1	11,150.0	92.8	92.2	-0.03	4,283.3	-404.3	651.0	530.1	120.93	5.383	
16,200.0	11,800.0	15,546.1	11,150.0	94.7	94.2	-0.03	4,383.3	-404.9	651.0	528.2	122.77	5.303	
16,300.0	11,800.0	15,646.1	11,150.0	96.6	96.1	-0.03	4,483.3	-405.5	651.0	526.4	124.61	5.224	
16,400.0	11,800.0	15,746.1	11,150.0	98.6	98.0	-0.03	4,583.3	-406.0	651.0	524.5	126.46	5.148	
16,500.0	11,800.0	15,846.1	11,150.0	100.5	99.9	-0.03	4,683.3	-406.6	651.0	522.7	128.33	5.073	
16,600.0	11,800.0	15,946.1	11,150.0	102.4	101.9	-0.03	4,783.3	-407.2	651.0	520.8	130.20	5.000	
16,700.0	11,800.0	16,046.1	11,150.0	104.3	103.8	-0.03	4,883.3	-407.8	651.0	518.9	132.09	4.929	
16,800.0	11,800.0	16,146.1	11,150.0	106.3	105.7	-0.02	4,983.3	-408.4	651.0	517.0	133.98	4.859	
16,900.0	11,800.0	16,246.1	11,150.0	108.2	107.7	-0.02	5,083.3	-409.0	651.0	515.1	135.89	4.791	
17,000.0	11,800.0	16,346.1	11,150.0	110.1	109.6	-0.02	5,183.3	-409.6	651.0	513.2	137.80	4.724	
17,100.0	11,800.0	16,446.1	11,150.0	112.1	111.6	-0.02	5,283.3	-410.2	651.0	511.3	139.72	4.659	
17,200.0	11,800.0	16,546.1	11,150.0	114.0	113.5	-0.02	5,383.3	-410.8	651.0	509.4	141.64	4.596	
17,300.0	11,800.0	16,646.1	11,150.0	116.0	115.5	-0.02	5,483.3	-411.3	651.0	507.4	143.58	4.534	
17,400.0	11,800.0	16,746.1	11,150.0	117.9	117.4	-0.02	5,583.3	-411.9	651.0	505.5	145.52	4.474	
17,500.0	11,800.0	16,846.1	11,150.0	119.9	119.4	-0.02	5,683.3	-412.5	651.0	503.5	147.47	4.414	
17,600.0	11,800.0	16,946.1	11,150.0	121.8	121.3	-0.02	5,783.3	-413.1	651.0	501.6	149.42	4.357	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 551H - Anderson Fed Com 551H - Anderson Fed Com 551H - Prelim 1												Offset Site Error:	0.0 usft	
Survey Program: 0-MWD+HRGM				Rule Assigned:									Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				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		
17,700.0	11,800.0	17,046.1	11,150.0	123.8	123.3	-0.02	5,883.3	-413.7	651.0	499.6	151.39	4.300		
17,800.0	11,800.0	17,146.1	11,150.0	125.7	125.3	-0.02	5,983.3	-414.3	651.0	497.6	153.35	4.245		
17,900.0	11,800.0	17,246.1	11,150.0	127.7	127.2	-0.02	6,083.3	-414.9	651.0	495.7	155.33	4.191		
18,000.0	11,800.0	17,346.1	11,150.0	129.7	129.2	-0.01	6,183.3	-415.5	651.0	493.7	157.31	4.138		
18,100.0	11,800.0	17,446.1	11,150.0	131.6	131.2	-0.01	6,283.3	-416.1	651.0	491.7	159.29	4.087		
18,200.0	11,800.0	17,546.1	11,150.0	133.6	133.1	-0.01	6,383.3	-416.7	651.0	489.7	161.28	4.036		
18,300.0	11,800.0	17,646.1	11,150.0	135.5	135.1	-0.01	6,483.3	-417.2	651.0	487.7	163.28	3.987		
18,400.0	11,800.0	17,746.1	11,150.0	137.5	137.1	-0.01	6,583.3	-417.8	651.0	485.7	165.28	3.939		
18,500.0	11,800.0	17,846.1	11,150.0	139.5	139.0	-0.01	6,683.3	-418.4	651.0	483.7	167.28	3.892		
18,600.0	11,800.0	17,946.1	11,150.0	141.4	141.0	-0.01	6,783.3	-419.0	651.0	481.7	169.29	3.845		
18,700.0	11,800.0	18,046.1	11,150.0	143.4	143.0	-0.01	6,883.3	-419.6	651.0	479.7	171.31	3.800		
18,800.0	11,800.0	18,146.1	11,150.0	145.4	145.0	-0.01	6,983.3	-420.2	651.0	477.7	173.33	3.756		
18,900.0	11,800.0	18,246.1	11,150.0	147.4	146.9	-0.01	7,083.3	-420.8	651.0	475.7	175.35	3.713		
19,000.0	11,800.0	18,346.1	11,150.0	149.3	148.9	-0.01	7,183.3	-421.4	651.0	473.6	177.37	3.670		
19,100.0	11,800.0	18,446.1	11,150.0	151.3	150.9	-0.01	7,283.3	-422.0	651.0	471.6	179.40	3.629		
19,200.0	11,800.0	18,546.1	11,150.0	153.3	152.9	0.00	7,383.3	-422.5	651.0	469.6	181.44	3.588		
19,300.0	11,800.0	18,646.1	11,150.0	155.3	154.9	0.00	7,483.3	-423.1	651.0	467.5	183.48	3.548		
19,400.0	11,800.0	18,746.1	11,150.0	157.2	156.8	0.00	7,583.3	-423.7	651.0	465.5	185.52	3.509		
19,500.0	11,800.0	18,846.1	11,150.0	159.2	158.8	0.00	7,683.3	-424.3	651.0	463.4	187.56	3.471		
19,600.0	11,800.0	18,946.1	11,150.0	161.2	160.8	0.00	7,783.3	-424.9	651.0	461.4	189.61	3.433		
19,700.0	11,800.0	19,046.1	11,150.0	163.2	162.8	0.00	7,883.3	-425.5	651.0	459.3	191.66	3.397		
19,800.0	11,800.0	19,146.1	11,150.0	165.2	164.8	0.00	7,983.3	-426.1	651.0	457.3	193.71	3.361		
19,816.2	11,800.0	19,162.3	11,150.0	165.5	165.1	0.00	7,999.5	-426.2	651.0	457.0	194.04	3.355		
19,816.5	11,800.0	19,162.7	11,150.0	165.5	165.1	0.00	7,999.8	-426.2	651.0	456.9	194.05	3.355		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 552H - Anderson Fed Com 552H - Anderson Fed Com 552H - Prelim 1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM				Rule Assigned:									Offset Well Error: 0.0 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)				
0.0	0.0	0.0	0.0	0.0	0.0	89.63	0.2	33.0	33.0					
100.0	100.0	99.0	99.0	0.5	0.5	89.63	0.2	33.0	33.0	32.0	1.06	31.294		
200.0	200.0	199.0	199.0	1.7	1.7	89.63	0.2	33.0	33.0	29.6	3.41	9.677		
300.0	300.0	299.0	299.0	2.4	2.4	89.63	0.2	33.0	33.0	28.2	4.82	6.855		
400.0	400.0	399.0	399.0	3.0	2.9	89.63	0.2	33.0	33.0	27.1	5.90	5.593		
500.0	500.0	499.0	499.0	3.4	3.4	89.63	0.2	33.0	33.0	26.2	6.83	4.837		
600.0	600.0	599.0	599.0	3.8	3.8	89.63	0.2	33.0	33.0	25.4	7.64	4.319		
700.0	700.0	699.0	699.0	4.2	4.2	89.63	0.2	33.0	33.0	24.6	8.39	3.935		
800.0	800.0	799.0	799.0	4.5	4.5	89.63	0.2	33.0	33.0	23.9	9.08	3.636		
900.0	900.0	899.0	899.0	4.9	4.9	89.63	0.2	33.0	33.0	23.3	9.73	3.394		
1,000.0	1,000.0	999.0	999.0	5.2	5.2	89.63	0.2	33.0	33.0	22.7	10.34	3.194		
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	89.63	0.2	33.0	33.0	22.1	10.92	3.023		
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	89.63	0.2	33.0	33.0	21.5	11.48	2.877		
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	89.63	0.2	33.0	33.0	21.0	12.01	2.748		
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	89.63	0.2	33.0	33.0	20.5	12.53	2.635		
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	89.63	0.2	33.0	33.0	20.0	13.03	2.534		
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	89.63	0.2	33.0	33.0	19.5	13.51	2.443		
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	89.63	0.2	33.0	33.0	19.0	13.99	2.360		
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	89.63	0.2	33.0	33.0	18.6	14.45	2.285		
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	89.63	0.2	33.0	33.0	18.1	14.90	2.216		
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	89.63	0.2	33.0	33.0	17.7	15.34	2.153		
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	89.63	0.2	33.0	33.0	17.2	15.77	2.094		
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	89.63	0.2	33.0	33.0	16.8	16.19	2.039		
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	89.63	0.2	33.0	33.0	16.4	16.61	1.988		
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	89.63	0.2	33.0	33.0	16.0	17.01	1.941		
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	89.63	0.2	33.0	33.0	15.6	17.42	1.896		
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	89.63	0.2	33.0	33.0	15.2	17.81	1.854		
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	89.63	0.2	33.0	33.0	14.8	18.20	1.814		
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	89.63	0.2	33.0	33.0	14.4	18.58	1.777		
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	89.63	0.2	33.0	33.0	14.1	18.96	1.741		
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	89.63	0.2	33.0	33.0	13.7	19.34	1.707		
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	89.63	0.2	33.0	33.0	13.3	19.71	1.675		
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	89.63	0.2	33.0	33.0	12.9	20.07	1.645		
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	89.63	0.2	33.0	33.0	12.6	20.43	1.616		
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	89.63	0.2	33.0	33.0	12.2	20.79	1.588		
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	89.63	0.2	33.0	33.0	11.9	21.15	1.561		
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	89.63	0.2	33.0	33.0	11.5	21.50	1.536		
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	89.63	0.2	33.0	33.0	11.2	21.84	1.511		
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	89.63	0.2	33.0	33.0	10.8	22.19	1.488 Level 3		
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	89.63	0.2	33.0	33.0	10.5	22.53	1.465 Level 3		
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	89.63	0.2	33.0	33.0	10.1	22.87	1.444 Level 3		
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	89.63	0.2	33.0	33.0	9.8	23.21	1.423 Level 3		
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	89.63	0.2	33.0	33.0	9.5	23.54	1.403 Level 3		
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	89.63	0.2	33.0	33.0	9.1	23.87	1.383 Level 3		
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	89.63	0.2	33.0	33.0	8.8	24.20	1.364 Level 3		
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	89.63	0.2	33.0	33.0	8.5	24.52	1.346 Level 3		
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	89.63	0.2	33.0	33.0	8.2	24.85	1.329 Level 3		
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	89.63	0.2	33.0	33.0	7.8	25.17	1.312 Level 3		
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	89.63	0.2	33.0	33.0	7.5	25.49	1.295 Level 3		
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	89.63	0.2	33.0	33.0	7.2	25.81	1.279 Level 3		
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	89.63	0.2	33.0	33.0	6.9	26.12	1.264 Level 3, CC, ES, SF		
5,100.0	5,100.0	5,098.5	5,098.5	13.2	13.2	90.23	-0.1	33.8	33.8	7.4	26.38	1.281 Level 3		

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 552H - Anderson Fed Com 552H - Anderson Fed Com 552H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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	
5,200.0	5,200.0	5,197.9	5,197.8	13.4	13.3	91.90	-1.2	36.1	36.2	9.5	26.63	1.358	Level 3
5,300.0	5,300.0	5,297.2	5,297.0	13.5	13.4	94.24	-3.0	40.0	40.2	13.3	26.89	1.495	Level 3
5,400.0	5,400.0	5,396.3	5,396.0	13.7	13.5	96.81	-5.4	45.5	45.9	18.8	27.16	1.690	
5,500.0	5,500.0	5,495.2	5,494.5	13.8	13.7	99.31	-8.6	52.5	53.4	25.9	27.46	1.944	
5,600.0	5,600.0	5,594.6	5,593.6	14.0	13.8	101.44	-12.3	60.6	62.0	34.3	27.74	2.236	
5,700.0	5,700.0	5,694.2	5,692.8	14.1	14.0	-127.51	-15.9	68.7	71.3	43.3	28.02	2.545	
5,800.0	5,800.0	5,793.6	5,791.8	14.2	14.2	-127.60	-19.6	76.8	81.6	53.3	28.30	2.885	
5,900.0	5,899.9	5,893.0	5,890.8	14.3	14.4	-128.51	-23.2	84.9	93.0	64.4	28.60	3.253	
5,953.4	5,953.2	5,945.9	5,943.5	14.3	14.6	-129.21	-25.2	89.2	99.6	70.9	28.74	3.465	
6,000.0	5,999.7	5,992.2	5,989.6	14.3	14.7	-129.89	-26.9	92.9	105.5	76.6	28.86	3.654	
6,100.0	6,099.5	6,091.3	6,088.3	14.4	14.9	-131.11	-30.6	101.0	118.1	88.9	29.20	4.045	
6,200.0	6,199.3	6,190.5	6,187.1	14.6	15.2	-132.09	-34.2	109.1	130.8	101.2	29.56	4.424	
6,300.0	6,299.1	6,289.7	6,285.9	14.7	15.5	-132.91	-37.9	117.2	143.5	113.5	29.94	4.791	
6,400.0	6,398.9	6,388.8	6,384.7	14.9	15.8	-133.59	-41.5	125.2	156.2	125.8	30.35	5.146	
6,500.0	6,498.7	6,488.0	6,483.4	15.1	16.1	-134.16	-45.2	133.3	168.9	138.2	30.78	5.489	
6,600.0	6,598.5	6,587.2	6,582.2	15.3	16.4	-134.66	-48.8	141.4	181.7	150.5	31.22	5.819	
6,700.0	6,698.4	6,686.4	6,681.0	15.5	16.8	-135.09	-52.5	149.5	194.5	162.8	31.69	6.137	
6,800.0	6,798.2	6,785.5	6,779.8	15.7	17.1	-135.47	-56.1	157.6	207.3	175.1	32.17	6.442	
6,900.0	6,898.0	6,884.7	6,878.5	16.0	17.5	-135.80	-59.8	165.6	220.0	187.4	32.67	6.735	
7,000.0	6,997.8	6,983.9	6,977.3	16.2	17.8	-136.10	-63.4	173.7	232.8	199.6	33.19	7.016	
7,100.0	7,097.6	7,083.0	7,076.1	16.5	18.2	-136.37	-67.1	181.8	245.6	211.9	33.72	7.284	
7,200.0	7,197.4	7,182.2	7,174.8	16.8	18.6	-136.61	-70.7	189.9	258.4	224.2	34.27	7.542	
7,300.0	7,297.2	7,281.4	7,273.6	17.1	19.0	-136.82	-74.4	197.9	271.3	236.4	34.83	7.788	
7,400.0	7,397.0	7,380.6	7,372.4	17.4	19.4	-137.02	-78.0	206.0	284.1	248.7	35.41	8.023	
7,500.0	7,496.8	7,479.7	7,471.2	17.7	19.8	-137.20	-81.7	214.1	296.9	260.9	35.99	8.248	
7,600.0	7,596.6	7,578.9	7,569.9	18.0	20.2	-137.37	-85.4	222.2	309.7	273.1	36.60	8.463	
7,700.0	7,696.5	7,678.1	7,668.7	18.3	20.6	-137.52	-89.0	230.2	322.5	285.3	37.21	8.668	
7,800.0	7,796.3	7,777.2	7,767.5	18.6	21.0	-137.66	-92.7	238.3	335.3	297.5	37.83	8.864	
7,900.0	7,896.1	7,876.4	7,866.3	19.0	21.5	-137.79	-96.3	246.4	348.2	309.7	38.47	9.051	
8,000.0	7,995.9	7,975.6	7,965.0	19.3	21.9	-137.91	-100.0	254.5	361.0	321.9	39.12	9.229	
8,100.0	8,095.7	8,074.8	8,063.8	19.7	22.3	-138.02	-103.6	262.5	373.8	334.1	39.77	9.399	
8,200.0	8,195.5	8,173.9	8,162.6	20.0	22.8	-138.13	-107.3	270.6	386.7	346.2	40.44	9.562	
8,300.0	8,295.3	8,273.1	8,261.4	20.4	23.2	-138.23	-110.9	278.7	399.5	358.4	41.11	9.717	
8,400.0	8,395.1	8,372.3	8,360.1	20.7	23.7	-138.32	-114.6	286.8	412.3	370.5	41.79	9.866	
8,500.0	8,494.9	8,471.4	8,458.9	21.1	24.1	-138.41	-118.2	294.8	425.2	382.7	42.48	10.007	
8,600.0	8,594.7	8,570.6	8,557.7	21.5	24.6	-138.49	-121.9	302.9	438.0	394.8	43.18	10.143	
8,700.0	8,694.6	8,669.8	8,656.5	21.9	25.1	-138.57	-125.5	311.0	450.8	406.9	43.89	10.272	
8,800.0	8,794.4	8,769.0	8,755.2	22.3	25.5	-138.64	-129.2	319.1	463.7	419.1	44.60	10.395	
8,900.0	8,894.2	8,868.1	8,854.0	22.7	26.0	-138.71	-132.8	327.1	476.5	431.2	45.32	10.514	
9,000.0	8,994.0	8,967.3	8,952.8	23.1	26.5	-138.77	-136.5	335.2	489.3	443.3	46.05	10.626	
9,100.0	9,093.8	9,066.5	9,051.6	23.5	26.9	-138.84	-140.2	343.3	502.2	455.4	46.78	10.735	
9,200.0	9,193.6	9,165.6	9,150.3	23.9	27.4	-138.89	-143.8	351.4	515.0	467.5	47.52	10.838	
9,300.0	9,293.4	9,264.8	9,249.1	24.3	27.9	-138.95	-147.5	359.5	527.8	479.6	48.26	10.937	
9,400.0	9,393.2	9,364.0	9,347.9	24.7	28.4	-139.00	-151.1	367.5	540.7	491.7	49.01	11.032	
9,500.0	9,493.0	9,463.2	9,446.7	25.1	28.8	-139.05	-154.8	375.6	553.5	503.8	49.77	11.122	
9,600.0	9,592.8	9,562.3	9,545.4	25.5	29.3	-139.10	-158.4	383.7	566.4	515.8	50.53	11.209	
9,700.0	9,692.7	9,661.5	9,644.2	25.9	29.8	-139.15	-162.1	391.8	579.2	527.9	51.29	11.293	
9,800.0	9,792.5	9,760.7	9,743.0	26.4	30.3	-139.19	-165.7	399.8	592.0	540.0	52.06	11.372	
9,900.0	9,892.3	9,859.8	9,841.8	26.8	30.8	-139.24	-169.4	407.9	604.9	552.0	52.83	11.449	
10,000.0	9,992.1	9,959.0	9,940.5	27.2	31.3	-139.28	-173.0	416.0	617.7	564.1	53.61	11.523	
10,100.0	10,091.9	10,058.2	10,039.3	27.6	31.8	-139.32	-176.7	424.1	630.6	576.2	54.39	11.593	
10,200.0	10,191.7	10,157.4	10,138.1	28.1	32.3	-139.35	-180.3	432.1	643.4	588.2	55.16	11.664	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 552H - Anderson Fed Com 552H - Anderson Fed Com 552H - Prelim 1											Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM											Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		Distance		Minimum	Separation	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)	Separation Factor
10,300.0	10,291.5	10,268.1	10,248.5	28.5	32.8	-139.43	-184.0	440.2	655.4	599.4	55.96
10,400.0	10,391.3	10,379.3	10,359.5	28.9	33.3	-139.58	-186.8	446.3	665.6	608.8	56.75
10,500.0	10,491.1	10,490.8	10,470.9	29.4	33.8	-139.80	-188.6	450.5	674.0	616.5	57.51
10,600.0	10,590.9	10,602.6	10,582.7	29.8	34.2	-140.10	-189.6	452.7	680.7	622.5	58.21
10,656.0	10,646.8	10,665.3	10,645.3	30.1	34.3	-140.29	-189.8	453.0	683.7	625.2	58.48
10,700.0	10,690.8	10,709.7	10,689.8	30.2	34.3	-140.44	-189.8	453.0	685.6	627.0	58.63
10,800.0	10,790.7	10,809.6	10,789.7	30.6	34.3	-140.70	-189.8	453.0	689.1	630.1	59.00
10,900.0	10,890.6	10,909.6	10,889.6	31.0	34.4	-140.86	-189.8	453.0	691.3	631.9	59.34
11,009.4	11,000.0	11,005.7	10,985.6	31.2	34.3	88.81	-185.6	453.5	692.8	633.2	59.60
11,100.0	11,090.6	11,077.7	11,055.9	31.3	34.3	87.60	-170.9	455.4	695.8	636.1	59.77
11,200.0	11,190.6	11,150.0	11,123.6	31.3	34.2	85.55	-145.8	458.6	702.8	642.8	60.01
11,300.0	11,290.6	11,214.1	11,179.7	31.4	34.1	83.11	-115.2	462.4	715.0	654.7	60.31
11,331.9	11,322.5	11,232.5	11,195.0	31.4	34.1	82.31	-105.1	463.7	720.3	659.9	60.41
11,350.0	11,340.6	11,242.6	11,203.3	31.4	34.0	92.41	-99.3	464.4	723.6	663.1	60.47
11,375.0	11,365.6	11,256.5	11,214.4	31.3	34.0	91.21	-91.0	465.5	728.6	668.0	60.56
11,400.0	11,390.4	11,270.3	11,225.2	31.3	34.0	89.99	-82.4	466.5	734.0	673.4	60.65
11,425.0	11,415.0	11,284.1	11,235.7	31.2	34.0	88.75	-73.6	467.7	739.9	679.1	60.75
11,450.0	11,439.4	11,300.0	11,247.6	31.2	34.0	87.41	-63.1	469.0	746.1	685.2	60.84
11,475.0	11,463.5	11,311.4	11,255.8	31.1	34.0	86.22	-55.3	470.0	752.6	691.7	60.94
11,500.0	11,487.2	11,325.0	11,265.4	31.1	34.0	84.95	-45.7	471.2	759.4	698.4	61.04
11,525.0	11,510.4	11,338.4	11,274.6	31.0	34.0	83.69	-36.0	472.4	766.5	705.4	61.15
11,550.0	11,533.1	11,350.0	11,282.3	31.0	34.0	82.47	-27.5	473.5	773.8	712.6	61.26
11,575.0	11,555.2	11,365.2	11,292.1	30.9	34.0	81.18	-16.0	474.9	781.3	720.0	61.37
11,600.0	11,576.7	11,375.0	11,298.3	30.9	34.0	80.01	-8.4	475.9	789.0	727.5	61.49
11,625.0	11,597.6	11,391.7	11,308.4	30.8	34.0	78.73	4.9	477.6	796.7	735.1	61.59
11,650.0	11,617.6	11,400.0	11,313.2	30.8	34.0	77.62	11.5	478.4	804.6	742.8	61.72
11,675.0	11,636.8	11,418.1	11,323.3	30.7	34.0	76.39	26.4	480.3	812.4	750.6	61.83
11,700.0	11,655.2	11,431.2	11,330.3	30.7	34.0	75.27	37.4	481.7	820.3	758.4	61.94
11,725.0	11,672.7	11,444.2	11,336.9	30.7	34.0	74.18	48.6	483.1	828.2	766.2	62.06
11,750.0	11,689.2	11,457.3	11,343.2	30.6	34.0	73.13	59.9	484.5	836.1	773.9	62.18
11,775.0	11,704.7	11,475.0	11,351.3	30.6	34.0	72.10	75.5	486.5	843.9	781.6	62.28
11,800.0	11,719.2	11,483.2	11,354.8	30.6	34.1	71.15	82.8	487.4	851.6	789.2	62.40
11,825.0	11,732.5	11,500.0	11,361.7	30.6	34.1	70.23	98.1	489.3	859.3	796.8	62.51
11,850.0	11,744.8	11,508.9	11,365.1	30.6	34.1	69.36	106.3	490.3	866.8	804.2	62.62
11,875.0	11,755.9	11,525.0	11,370.9	30.7	34.1	68.54	121.1	492.2	874.2	811.5	62.73
11,900.0	11,765.8	11,534.6	11,374.1	30.7	34.2	67.75	130.1	493.3	881.4	818.6	62.83
11,925.0	11,774.4	11,550.0	11,378.9	30.8	34.2	67.03	144.6	495.2	888.5	825.5	62.93
11,950.0	11,781.9	11,560.2	11,381.8	30.8	34.2	66.33	154.3	496.4	895.3	832.3	63.02
11,975.0	11,788.1	11,575.0	11,385.6	30.9	34.3	65.71	168.5	498.2	902.0	838.9	63.12
12,000.0	11,793.0	11,585.6	11,388.1	31.0	34.3	65.10	178.8	499.5	908.5	845.3	63.20
12,025.0	11,796.6	11,600.0	11,391.1	31.1	34.3	64.58	192.7	501.2	914.7	851.4	63.29
12,050.0	11,798.9	11,611.1	11,393.1	31.2	34.4	64.07	203.5	502.6	920.7	857.4	63.37
12,075.0	11,799.9	11,625.0	11,395.2	31.3	34.4	63.65	217.2	504.3	926.5	863.0	63.45
12,081.9	11,800.0	11,625.0	11,395.2	31.3	34.4	63.48	217.2	504.3	928.0	864.6	63.45
12,088.8	11,800.0	11,630.8	11,396.0	31.4	34.4	63.57	222.9	505.0	929.6	866.1	63.48
12,100.0	11,800.0	11,636.5	11,396.7	31.4	34.5	63.68	228.5	505.8	932.1	868.6	63.52
12,200.0	11,800.0	11,688.4	11,400.0	32.1	34.7	64.49	279.8	512.2	955.9	891.9	63.96
12,300.0	11,800.0	11,820.9	11,400.0	32.9	35.4	65.48	411.6	526.0	977.6	912.0	65.53
12,400.0	11,800.0	11,965.0	11,400.0	33.8	36.5	66.14	555.4	534.1	991.8	924.2	67.54
12,500.0	11,800.0	12,097.6	11,400.0	34.7	37.6	66.43	688.1	535.3	998.4	928.9	69.52

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 701H - Anderson Fed Com 701H - Anderson Fed Com 701H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	1.0	1.0	0.0	0.0	-90.79	-1.4	-99.0	99.0				
100.0	100.0	101.0	101.0	0.5	0.5	-90.79	-1.4	-99.0	99.0	98.0	1.07	92.386	
200.0	200.0	201.0	201.0	1.7	1.7	-90.79	-1.4	-99.0	99.0	95.6	3.43	28.873	
300.0	300.0	301.0	301.0	2.4	2.4	-90.79	-1.4	-99.0	99.0	94.2	4.83	20.514	
400.0	400.0	401.0	401.0	3.0	3.0	-90.79	-1.4	-99.0	99.0	93.1	5.91	16.752	
500.0	500.0	501.0	501.0	3.4	3.4	-90.79	-1.4	-99.0	99.0	92.2	6.83	14.493	
600.0	600.0	601.0	601.0	3.8	3.8	-90.79	-1.4	-99.0	99.0	91.4	7.65	12.944	
700.0	700.0	701.0	701.0	4.2	4.2	-90.79	-1.4	-99.0	99.0	90.7	8.40	11.795	
800.0	800.0	801.0	801.0	4.5	4.5	-90.79	-1.4	-99.0	99.0	90.0	9.09	10.900	
900.0	900.0	901.0	901.0	4.9	4.9	-90.79	-1.4	-99.0	99.0	89.3	9.73	10.176	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-90.79	-1.4	-99.0	99.0	88.7	10.34	9.575	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-90.79	-1.4	-99.0	99.0	88.1	10.93	9.066	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-90.79	-1.4	-99.0	99.0	87.6	11.48	8.626	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-90.79	-1.4	-99.0	99.0	87.0	12.02	8.242	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-90.79	-1.4	-99.0	99.0	86.5	12.53	7.902	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-90.79	-1.4	-99.0	99.0	86.0	13.03	7.599	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-90.79	-1.4	-99.0	99.0	85.5	13.52	7.326	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-90.79	-1.4	-99.0	99.0	85.1	13.99	7.079	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-90.79	-1.4	-99.0	99.0	84.6	14.45	6.854	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-90.79	-1.4	-99.0	99.0	84.1	14.90	6.647	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-90.79	-1.4	-99.0	99.0	83.7	15.34	6.456	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-90.79	-1.4	-99.0	99.0	83.3	15.77	6.280	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-90.79	-1.4	-99.0	99.0	82.9	16.19	6.116	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-90.79	-1.4	-99.0	99.0	82.4	16.61	5.963	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-90.79	-1.4	-99.0	99.0	82.0	17.02	5.820	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-90.79	-1.4	-99.0	99.0	81.6	17.42	5.686	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-90.79	-1.4	-99.0	99.0	81.2	17.81	5.560	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-90.79	-1.4	-99.0	99.0	80.8	18.20	5.441	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-90.79	-1.4	-99.0	99.0	80.5	18.59	5.329	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-90.79	-1.4	-99.0	99.0	80.1	18.97	5.222	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-90.79	-1.4	-99.0	99.0	79.7	19.34	5.121	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-90.79	-1.4	-99.0	99.0	79.3	19.71	5.025	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-90.79	-1.4	-99.0	99.0	79.0	20.08	4.934	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-90.79	-1.4	-99.0	99.0	78.6	20.44	4.846	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-90.79	-1.4	-99.0	99.0	78.3	20.80	4.763	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-90.79	-1.4	-99.0	99.0	77.9	21.15	4.683	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-90.79	-1.4	-99.0	99.0	77.5	21.50	4.607	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-90.79	-1.4	-99.0	99.0	77.2	21.85	4.534	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-90.79	-1.4	-99.0	99.0	76.9	22.19	4.463	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-90.79	-1.4	-99.0	99.0	76.5	22.53	4.396	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-90.79	-1.4	-99.0	99.0	76.2	22.87	4.330	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-90.79	-1.4	-99.0	99.0	75.8	23.21	4.268	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-90.79	-1.4	-99.0	99.0	75.5	23.54	4.207	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-90.79	-1.4	-99.0	99.0	75.2	23.87	4.149	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-90.79	-1.4	-99.0	99.0	74.8	24.20	4.093	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-90.79	-1.4	-99.0	99.0	74.5	24.53	4.038	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-90.79	-1.4	-99.0	99.0	74.2	24.85	3.986	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-90.79	-1.4	-99.0	99.0	73.9	25.17	3.935	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-90.79	-1.4	-99.0	99.0	73.6	25.49	3.885	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-90.79	-1.4	-99.0	99.0	73.2	25.81	3.838	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	-90.79	-1.4	-99.0	99.0	73.2	25.86	3.830 CC	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-90.79	-1.4	-99.0	99.0	72.9	26.13	3.791 ES	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 701H - Anderson Fed Com 701H - Anderson Fed Com 701H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-91.08	-1.9	-99.7	99.8	73.4	26.38	3.782 SF	
5,200.0	5,200.0	5,198.1	5,198.1	13.4	13.2	-91.90	-3.4	-101.8	101.9	75.3	26.62	3.829	
5,300.0	5,300.0	5,296.5	5,296.4	13.5	13.4	-93.19	-5.9	-105.2	105.5	78.6	26.86	3.928	
5,400.0	5,400.0	5,394.8	5,394.5	13.7	13.5	-94.86	-9.4	-110.0	110.6	83.5	27.12	4.079	
5,500.0	5,500.0	5,492.8	5,492.2	13.8	13.6	-96.78	-13.8	-116.2	117.3	89.9	27.39	4.283	
5,600.0	5,600.0	5,592.0	5,591.0	14.0	13.8	-98.77	-19.0	-123.3	125.2	97.5	27.66	4.526	
5,700.0	5,700.0	5,691.7	5,690.3	14.1	13.9	29.54	-24.3	-130.5	132.4	104.5	27.91	4.744	
5,800.0	5,800.0	5,791.5	5,789.7	14.2	14.1	28.45	-29.5	-137.7	138.3	110.1	28.18	4.906	
5,900.0	5,899.9	5,891.4	5,889.2	14.3	14.4	27.77	-34.8	-145.0	142.6	114.1	28.47	5.008	
5,953.4	5,953.2	5,944.8	5,942.3	14.3	14.5	27.55	-37.6	-148.8	144.3	115.6	28.61	5.041	
6,000.0	5,999.7	5,991.4	5,988.8	14.3	14.6	27.42	-40.0	-152.2	145.5	116.8	28.74	5.064	
6,100.0	6,099.5	6,091.3	6,088.3	14.4	14.8	27.13	-45.3	-159.4	148.3	119.2	29.08	5.099	
6,200.0	6,199.3	6,191.3	6,187.9	14.6	15.1	26.86	-50.5	-166.7	151.0	121.6	29.46	5.126	
6,300.0	6,299.1	6,291.2	6,287.4	14.7	15.4	26.60	-55.8	-173.9	153.8	123.9	29.86	5.148	
6,400.0	6,398.9	6,391.2	6,387.0	14.9	15.7	26.34	-61.1	-181.1	156.5	126.2	30.30	5.165	
6,500.0	6,498.7	6,491.2	6,486.5	15.1	16.0	26.09	-66.3	-188.4	159.3	128.5	30.76	5.178	
6,600.0	6,598.5	6,591.1	6,586.1	15.3	16.3	25.86	-71.6	-195.6	162.0	130.8	31.24	5.185	
6,700.0	6,698.4	6,691.1	6,685.7	15.5	16.7	25.63	-76.8	-202.8	164.8	133.0	31.75	5.189	
6,800.0	6,798.2	6,791.0	6,785.2	15.7	17.0	25.41	-82.1	-210.0	167.5	135.2	32.28	5.189	
6,900.0	6,898.0	6,891.0	6,884.8	16.0	17.4	25.19	-87.4	-217.3	170.3	137.4	32.84	5.186	
7,000.0	6,997.8	6,991.0	6,984.3	16.2	17.7	24.98	-92.6	-224.5	173.1	139.6	33.41	5.180	
7,100.0	7,097.6	7,090.9	7,083.9	16.5	18.1	24.78	-97.9	-231.7	175.8	141.8	34.00	5.170	
7,200.0	7,197.4	7,190.9	7,183.5	16.8	18.5	24.59	-103.1	-239.0	178.6	144.0	34.62	5.159	
7,300.0	7,297.2	7,290.8	7,283.0	17.1	18.9	24.40	-108.4	-246.2	181.4	146.1	35.25	5.145	
7,400.0	7,397.0	7,390.8	7,382.6	17.4	19.3	24.21	-113.6	-253.4	184.1	148.2	35.90	5.129	
7,500.0	7,496.8	7,490.8	7,482.1	17.7	19.7	24.04	-118.9	-260.7	186.9	150.3	36.56	5.112	
7,600.0	7,596.6	7,590.7	7,581.7	18.0	20.1	23.86	-124.2	-267.9	189.7	152.4	37.24	5.093	
7,700.0	7,696.5	7,690.7	7,681.3	18.3	20.5	23.69	-129.4	-275.1	192.5	154.5	37.94	5.073	
7,800.0	7,796.3	7,790.6	7,780.8	18.6	21.0	23.53	-134.7	-282.4	195.2	156.6	38.65	5.051	
7,900.0	7,896.1	7,890.6	7,880.4	19.0	21.4	23.37	-139.9	-289.6	198.0	158.6	39.37	5.029	
8,000.0	7,995.9	7,990.6	7,979.9	19.3	21.8	23.22	-145.2	-296.8	200.8	160.7	40.11	5.006	
8,100.0	8,095.7	8,090.5	8,079.5	19.7	22.3	23.07	-150.5	-304.0	203.6	162.7	40.86	4.983	
8,200.0	8,195.5	8,190.5	8,179.1	20.0	22.7	22.92	-155.7	-311.3	206.4	164.8	41.62	4.959	
8,300.0	8,295.3	8,290.4	8,278.6	20.4	23.2	22.78	-161.0	-318.5	209.2	166.8	42.39	4.934	
8,400.0	8,395.1	8,390.4	8,378.2	20.7	23.6	22.64	-166.2	-325.7	211.9	168.8	43.17	4.910	
8,500.0	8,494.9	8,490.4	8,477.7	21.1	24.1	22.51	-171.5	-333.0	214.7	170.8	43.96	4.885	
8,600.0	8,594.7	8,590.3	8,577.3	21.5	24.5	22.38	-176.7	-340.2	217.5	172.8	44.76	4.860	
8,700.0	8,694.6	8,690.3	8,676.9	21.9	25.0	22.25	-182.0	-347.4	220.3	174.7	45.57	4.835	
8,800.0	8,794.4	8,790.2	8,776.4	22.3	25.5	22.12	-187.3	-354.7	223.1	176.7	46.39	4.810	
8,900.0	8,894.2	8,893.6	8,879.5	22.7	25.9	22.06	-192.3	-361.5	225.2	178.0	47.21	4.771	
9,000.0	8,994.0	8,997.5	8,983.1	23.1	26.4	22.14	-196.2	-366.9	225.6	177.6	47.99	4.702	
9,100.0	9,093.8	9,101.4	9,086.9	23.5	26.8	22.37	-199.0	-370.8	224.3	175.6	48.72	4.604	
9,200.0	9,193.6	9,205.1	9,190.6	23.9	27.2	22.76	-200.7	-373.2	221.3	171.9	49.37	4.482	
9,300.0	9,293.4	9,308.8	9,294.2	24.3	27.5	23.33	-201.4	-374.0	216.6	166.6	49.91	4.339	
9,400.0	9,393.2	9,408.8	9,394.2	24.7	27.5	23.99	-201.4	-374.0	210.9	160.7	50.22	4.200	
9,500.0	9,493.0	9,516.7	9,501.8	25.1	27.4	26.56	-194.7	-374.1	203.8	153.8	50.04	4.073	
9,600.0	9,592.8	9,618.6	9,599.8	25.5	27.1	35.31	-167.3	-374.3	194.3	145.8	48.43	4.011	
9,671.1	9,663.8	9,681.4	9,666.4	25.8	27.0	44.03	-140.2	-374.4	191.0	144.6	46.46	4.112	
9,700.0	9,692.7	9,704.4	9,676.1	25.9	26.9	47.79	-128.4	-374.5	191.7	146.2	45.56	4.208	
9,800.0	9,792.5	9,775.0	9,732.9	26.4	26.8	60.46	-86.7	-374.8	207.3	164.2	43.12	4.808	
9,900.0	9,892.3	9,825.0	9,769.2	26.8	26.7	69.63	-52.3	-375.0	245.2	201.7	43.47	5.640	
10,000.0	9,992.1	9,875.0	9,801.6	27.2	26.6	78.13	-14.2	-375.2	301.4	256.7	44.71	6.742	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Anderson Fed Com - Pad D - Anderson Fed Com 701H - Anderson Fed Com 701H - Anderson Fed Com 701H - Prelim 1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Offset Wellbore Centre		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		
10,100.0	10,091.9	9,905.7	9,819.5	27.6	26.6	82.83	10.7	-375.4	370.2	323.4	46.78	7.913		
10,200.0	10,191.7	9,933.6	9,834.3	28.1	26.6	86.70	34.4	-375.5	447.2	398.8	48.45	9.230		
10,300.0	10,291.5	9,956.6	9,845.4	28.5	26.6	89.60	54.4	-375.7	529.7	479.8	49.84	10.626		
10,400.0	10,391.3	9,975.0	9,853.7	28.9	26.6	91.75	70.9	-375.8	615.9	564.8	51.03	12.069		
10,500.0	10,491.1	9,991.7	9,860.6	29.4	26.6	93.56	86.1	-375.9	704.7	652.7	52.03	13.544		
10,600.0	10,590.9	10,000.0	9,863.8	29.8	26.6	94.41	93.8	-375.9	795.6	742.6	52.99	15.015		
10,656.0	10,646.8	10,012.2	9,868.3	30.1	26.7	95.62	105.1	-376.0	847.1	793.7	53.39	15.867		
10,700.0	10,690.8	10,025.0	9,872.8	30.2	26.7	97.86	117.1	-376.1	888.0	834.3	53.66	16.548		
10,800.0	10,790.7	10,025.0	9,872.8	30.6	26.7	100.43	117.1	-376.1	981.3	926.8	54.51	18.003		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3723.5usft (Original Well Ele

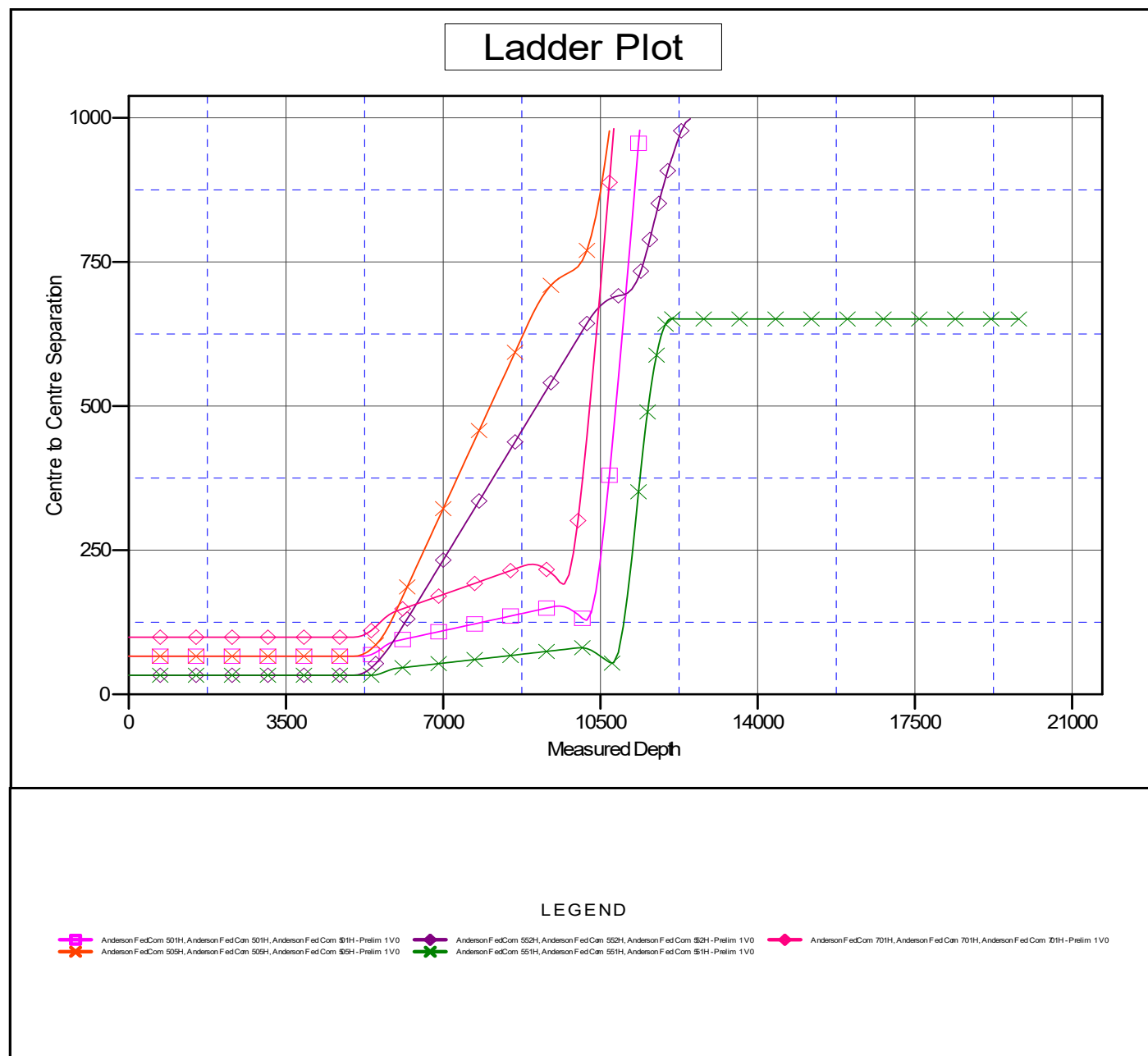
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Anderson Fed Com 601H

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

Grid Convergence at Surface is: 0.37°



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



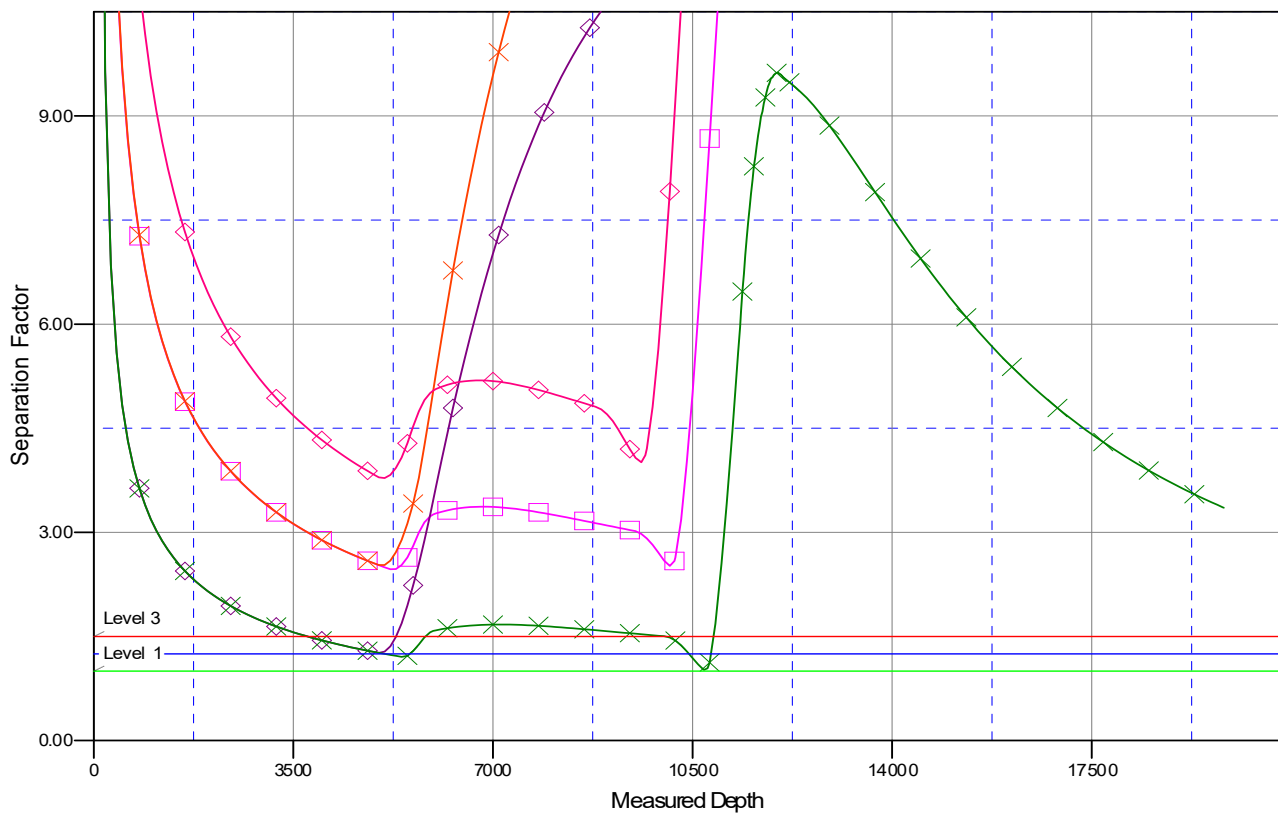
Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Anderson Fed Com 601H
Project:	Hat Mesa	TVD Reference:	WELL @ 3723.5usft (Original Well Elev)
Reference Site:	Anderson Fed Com - Pad D	MD Reference:	WELL @ 3723.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Anderson Fed Com 601H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Anderson Fed Com 601H	Database:	EDM 5000.16 Single User Db
Reference Design:	Anderson Fed Com 601H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3723.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Anderson Fed Com 601H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.37°

Separation Factor Plot



LEGEND

■ Anderson FedCom 501H, Anderson Fed Com 501H, Anderson Fed Com 501H - Prelim 1 V0
 ■ Anderson FedCom 552H, Anderson Fed Com 552H, Anderson Fed Com 552H - Prelim 1 V0
 ◆ Anderson FedCom 701H, Anderson Fed Com 701H, Anderson Fed Com 701H - Prelim 1 V0
✕ Anderson FedCom 509H, Anderson Fed Com 509H, Anderson Fed Com 509H - Prelim 1 V0
 ✕ Anderson FedCom 559H, Anderson Fed Com 559H, Anderson Fed Com 559H - Prelim 1 V0

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

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: Advance Energy Partners Hat Mesa, LLC **OGRID:** 372417 **Date:** October 14, 2021

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
Anderson Fed Com 501H		Lot 4-Sec 2 22S 32E	180 FNL & 644 FWL	1280	1500	3200
Anderson Fed Com 505H		Lot 4-Sec 2 22S-32E	180 FNL & 776 FWL	1280	1500	3200
Anderson Fed Com 552H		Lot 4-Sec 2 22S 32E	180 FNL & 743 FWL	1280	1500	3200
Anderson Fed Com 601H		Lot 4-Sec 2 22S 32E	180 FNL & 710 FWL	1280	1500	3200
Anderson Fed Com 701H		Lot 4-Sec 2 22S-32E	180 FNL & 776 FWL	1280	1500	3200

IV. Central Delivery Point Name: Anderson Pad D [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
Anderson Fed Com 501H		11/17/21	01/26/22	03/03/22	04/01/22	06/01/22
Anderson Fed Com 505H		11/17/21	1/24/22	02/28/22	04/01/22	06/01/22
Anderson Fed Com 552H		11/19/21	01/19/2022	02/28/22		
Anderson Fed Com 601H		11/20/21	01/22/22	02/28/22	04/01/22	06/01/22
Anderson Fed Com 701H		11/18.21	1/15/22	02/28/22	04/01/22	06/01/22

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

VII. Operational Practices: ☒ 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: ☒ 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:

☒ Operator 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: 
Printed Name: Cory Walk
Title: Consultant
E-mail Address: cory@permitswest.com
Date: 10/14/21
Phone: (505) 466-8120
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

- VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.
- VII. Advance Energy Partners Hat Mesa, LLC (AEP) will take the following actions to comply with the regulations listed in 19.15.27.8:
- A. AEP will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. AEP will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.
 - B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and reported appropriately.
 - C. During completion operations any natural gas brought to surface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, AEP will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. AEP will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.
 - D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(1) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and reported appropriately.
 - E. AEP will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(1) through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. AEP will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.
 - F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. AEP will install equipment to measure

the volume of natural gas flared from existing process piping, or a flowline piped from equipment such as high-pressure separators, heater treaters, or vapor recovery units associated with a well or facility associated with a well authorized by an APD issued after May 25, 2021, that has an average daily production greater than 60 Mcf/day. If metering is not practicable due to circumstances such as low flow rate or low pressure venting and flaring, AEP will estimate the volume of vented or flared natural gas. Measuring equipment will conform to industry standards and will not be designed or equipped with a manifold that allows the diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment.

- VIII. For maintenance activities involving production equipment and compression, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production and compression equipment the associated producing wells will be shut in to eliminate venting. For maintenance of VRUs all gas normally routed to the VRU will be routed to flare to eliminate venting.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos 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

CONDITIONS

Action 56056

CONDITIONS

Operator: ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	OGRID: 372417
	Action Number: 56056
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	11/4/2021