

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

Form C-101

August 1, 2011

Permit 296228

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

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

1. Operator Name and Address ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077		2. OGRID Number 372417
		3. API Number 30-025-48897
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 512H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn L	Feet From 2620	N/S Line S	Feet From 770	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot D	Section 19	Township 21S	Range 33E	Lot Idn D	Feet From 100	N/S Line N	Feet From 1210	E/W Line W	County Lea
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9. Pool Information

WC-025 G-06 S213326D;BONE SPRING	97929
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3815
16. Multiple N	17. Proposed Depth 19270	18. Formation Bone Spring	19. Contractor	20. Spud Date 5/24/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1600	500	0
Int1	12.25	9.625	40	5300	330	4000
Int1	12.25	9.625	40	4000	950	0
Prod	8.5	5.5	20	19270	2300	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Braden Harris	Approved By: Paul F Kautz	
Title: Vice President	Title: Geologist	
Email Address: bharris@advanceenergypartners.com	Approved Date: 5/21/2021	Expiration Date: 5/21/2023
Date: 5/17/2021	Phone: 406-300-3310	Conditions of Approval Attached

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State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code 97929	Pool Name WC-025 G-06 S213326D;BONE SPRING
Property Code 319601	Property Name DAGGER STATE COM	Well Number 512H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3815'

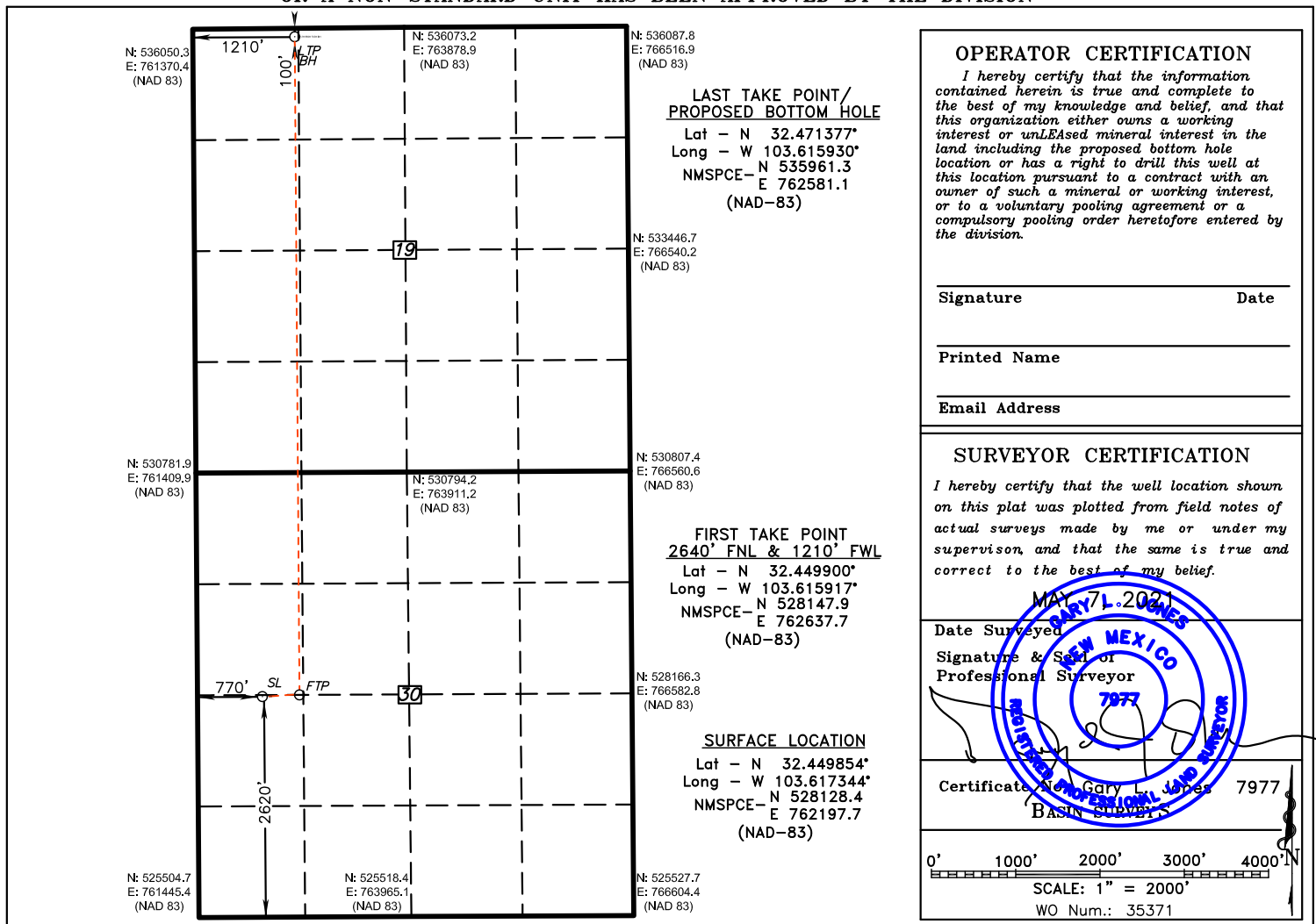
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	30	21 S	33 E		2620	SOUTH	770	WEST	LEA

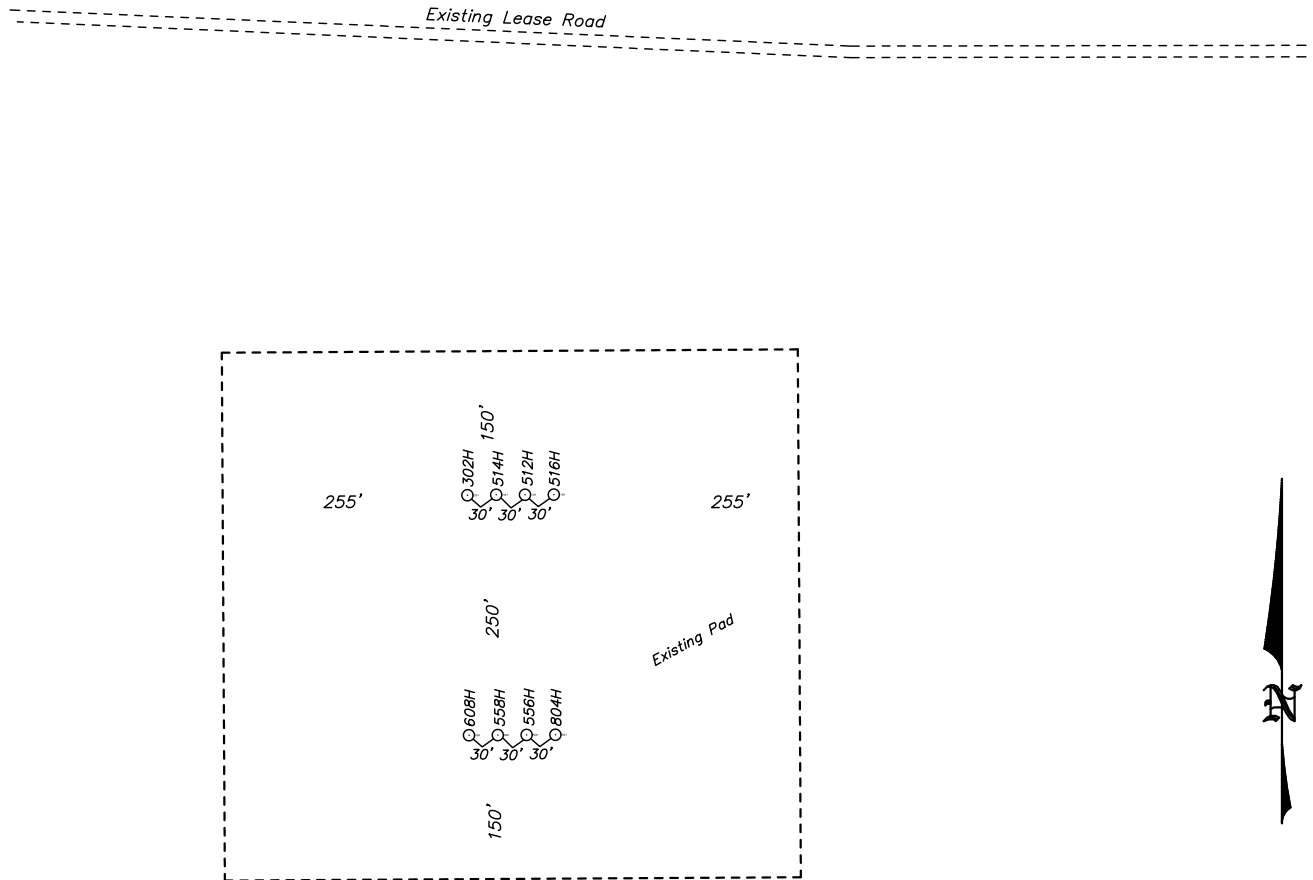
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
D	19	21 S	33 E		100	NORTH	1210	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	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



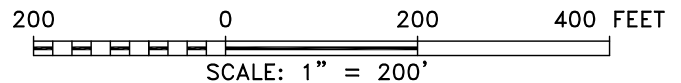
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #512H
ELEV. - 3815'**

Lat - N 32.449854°
Long - W 103.617344°
NMSPCE - N 528128.4
E 762197.7
(NAD-83)

EUNICE, NM IS ±26 MILES TO THE EAST OF LOCATION.



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #512H / WELL PAD TOPO

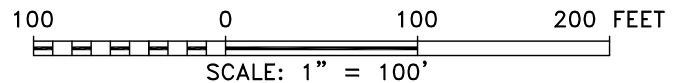
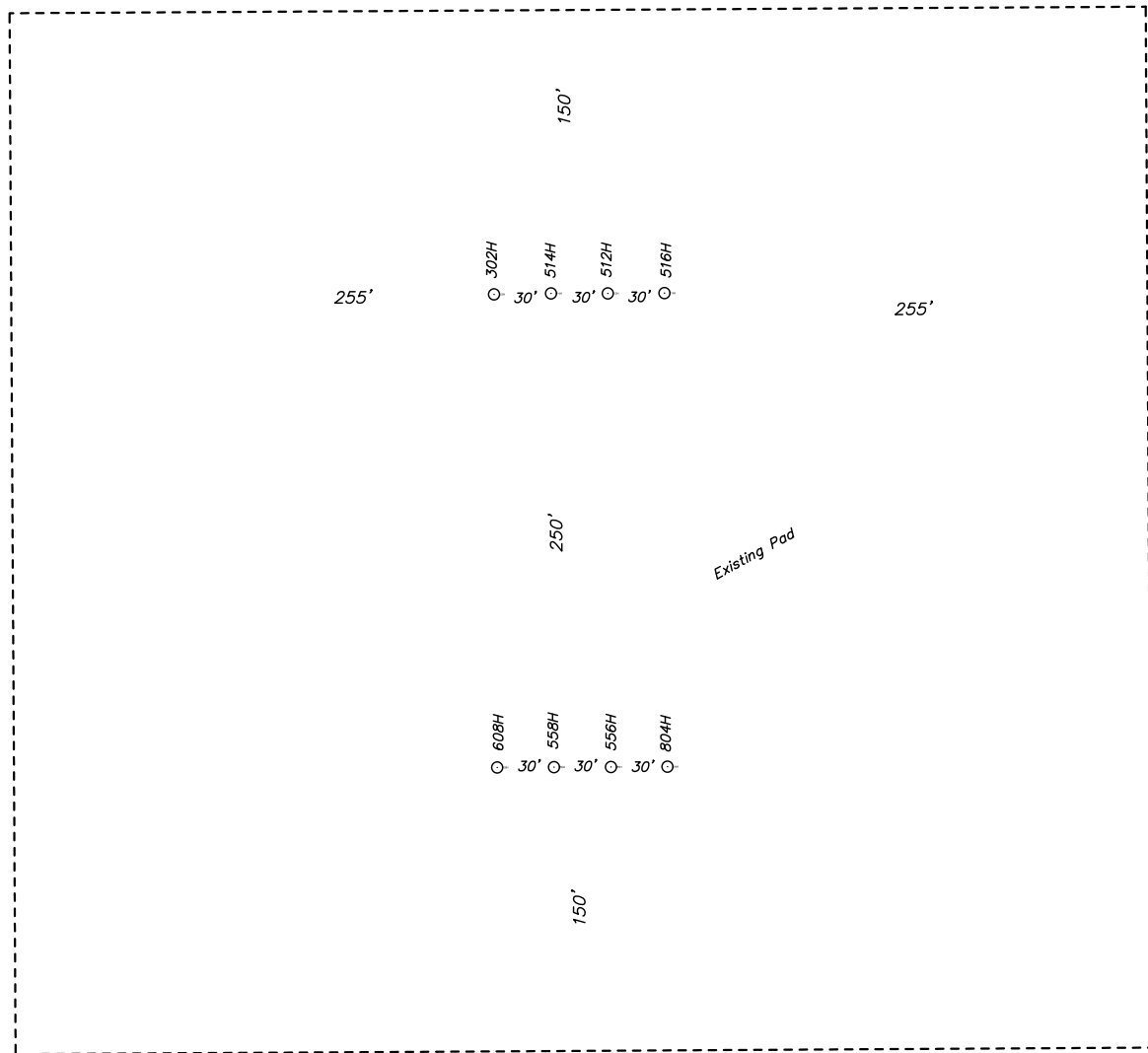
THE DAGGER STATE COM #512H LOCATED 2620' FROM
THE SOUTH LINE AND 770' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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

**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #512H / WELL PAD TOPO

THE DAGGER STATE COM #512H LOCATED 2620' FROM
THE SOUTH LINE AND 770' FROM THE WEST LINE OF
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DAGGER STATE COM #512H

Located 2620' FSL and 770' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 1500'
 SCALE: 1" = 2000'

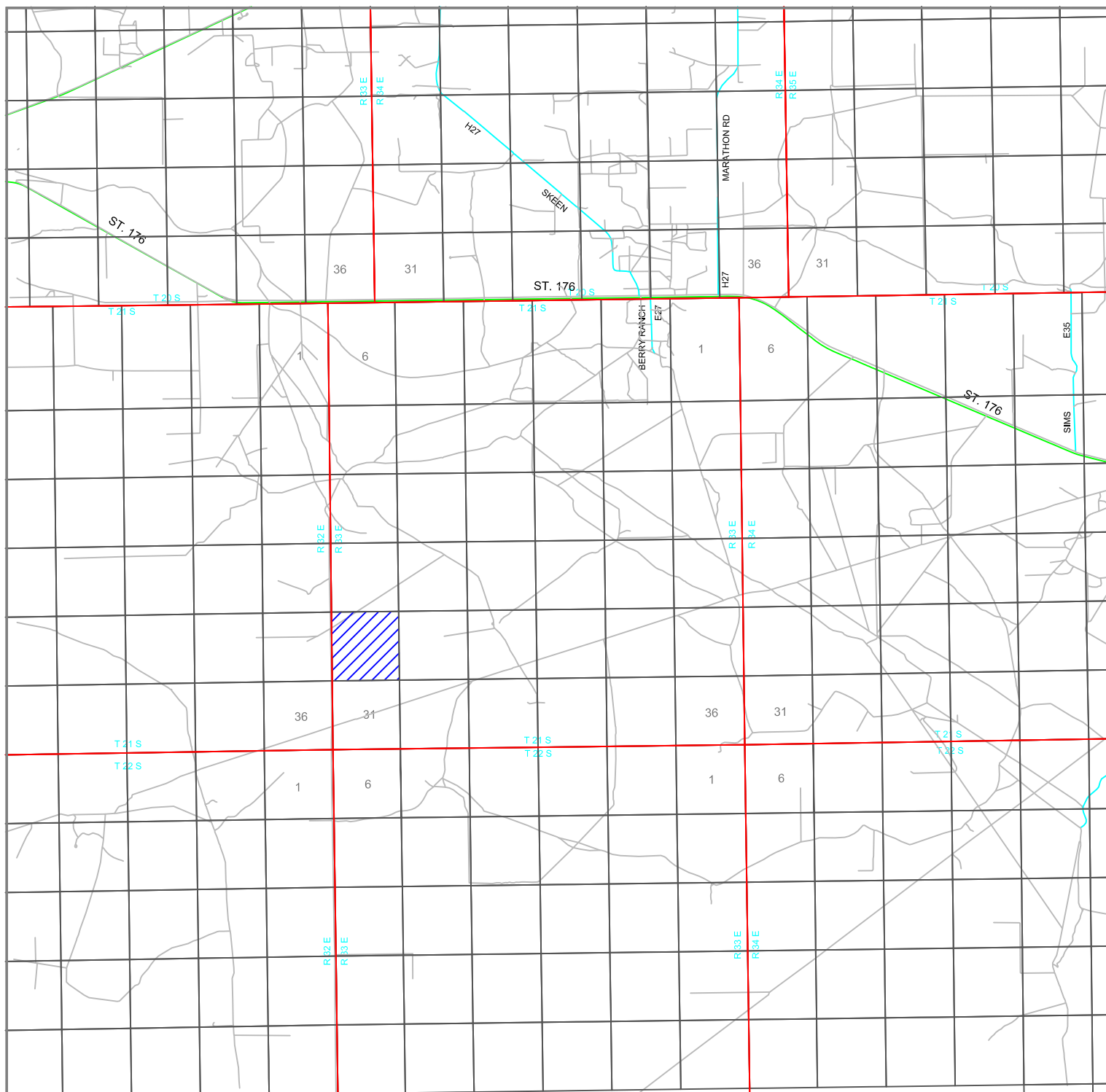
W.O. Number: KJG 35371

Survey Date: 05-07-2021

YELLOW TINT - USA LAND
 BLUE TINT - STATE LAND
 NATURAL COLOR - FEE LAND



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #512H

Located 2620' FSL and 770' FWL
Section 30, Township 21 South, Range 33 East,
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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

W.O. Number: KJG 35371

Survey Date: 05-07-2021

YELLOW TINT - USA LAND
BLUE TINT - STATE LAND
NATURAL COLOR - FEE LAND



**ADVANCE
ENERGY
PARTNERS
HAT MESA**



DAGGER STATE COM #512H

Located 2620' FSL and 770' FWL
 Section 30, Township 21 South, Range 33 East,
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0' 1000' 2000' 3000' 1500'
 SCALE: 1" = 2000'

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

GAS CAPTURE PLAN

Date: 5/21/2021

☒ Original

Operator & OGRID No.: [372417] ADVANCE ENERGY PARTNERS HAT MESA, LLC

☐ Amended - Reason for
Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
DAGGER STATE COM #512H	30-025-48897	L-30-21S-33E	2620S 0770W	1500	Flared	Flare during initial testing and cleanup

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 250' of pipeline to connect the facility to Low Pressure gathering system. ADVANCE ENERGY PARTNERS HAT MESA, LLC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, ADVANCE ENERGY PARTNERS HAT MESA, LLC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 30, Twn. 21S, Rng. 33E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is ADVANCE ENERGY PARTNERS HAT MESA, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Form APD Conditions

Permit 296228

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-48897
	Well: DAGGER STATE COM #512H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.
pkautz	Salt Protection String - If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the surface.
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.

State of New Mexico
Energy, Minerals and Natural Resources Department

Michelle Lujan Grisham
Governor

Sarah Cottrell Propst
Cabinet Secretary Designate

Todd E. Leahy, JD, PhD
Deputy Secretary

Adrienne Sandoval, Division Director
Oil Conservation Division



May 20, 2021

BUREAU OF LAND MANAGEMENT
ATT: James S. Rutley
620 E Greene Street
Carlsbad, NM 88220

STATE LAND OFFICE
ATT: Niranjana Khalsa
PO BOX 1148
Santa Fe, NM 87505

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: ADVANCE ENERGY PARTNERS HAT MESA, LLC

LEASE NAME: DAGGER STATE COMT #512H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2620 FSL 770 FWL

Lat. 32.449854 Long. -103.617344 NAD83

PROPOSED DEPTH: 19119' MD 10990' TVD

Gentleman:

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuant to the provisions of Oil Conservation Division Order R – 111 - P, please advise this office whether the location is within an established Life-of-Mine-Reserve that are filed with and approved by your office. If not, please advise whether it is within the buffer zone established by the order.

Thank you for your assistance. Please Return as soon as possible.

Very truly yours,

OIL CONSERVATION DIVISION

P. Kautz
Paul Kautz

Hobbs District Geologist, District I

RESPONSE:

The above referenced location is in LMR (2021 year) -----Yes ☒ No ☐

The above referenced location is within the Buffer Zone -----Yes ☒ No ☐

Signed *[Signature]*

Printed Signature **JAMES RUTLEY**

Representing **BLM - CFO**

ON DAGGER DI w/in Dagger Demo DA



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 512H

Dagger State Com 512H

Plan: Dagger State Com 512H - Prelim 1

Standard Planning Report

17 May, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 512H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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	Dagger State			
Site Position:		Northing:	529,194.79 usft	Latitude: 32° 27' 9.770 N
From:	Lat/Long	Easting:	766,028.88 usft	Longitude: 103° 36' 17.644 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	

Well	Dagger State Com 512H			
Well Position	+N/-S	0.0 usft	Northing:	528,128.34 usft
	+E/-W	0.0 usft	Easting:	762,197.62 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft	Ground Level: 3,815.0 usft
Grid Convergence:	0.38 °			

Wellbore	Dagger State Com 512H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/19/2021	6.60	60.21	47,694.02682521

Design	Dagger State Com 512H - 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	2.80

Plan Survey Tool Program	Date	5/17/2021		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,119.0	Dagger State Com 512H - Prelim	MWD+HRGM
				OWSG MWD + HRGM



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Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,851.2	6.51	151.21	5,849.8	-32.4	17.8	1.00	1.00	0.00	151.21	
9,776.9	6.51	151.21	9,750.2	-422.6	232.2	0.00	0.00	0.00	0.00	
10,428.1	0.00	0.00	10,400.0	-455.0	250.0	1.00	-1.00	0.00	180.00	
10,540.7	0.00	0.00	10,512.5	-455.0	250.0	0.00	0.00	0.00	0.00	
11,290.7	90.00	12.82	10,990.0	10.6	355.9	12.00	12.00	0.00	12.82	
11,300.0	90.00	12.82	10,990.0	19.7	358.0	0.00	0.00	0.00	0.00	Dagger State Com 51
11,959.2	90.00	359.63	10,990.0	673.5	429.3	2.00	0.00	-2.00	-90.00	
19,119.0	90.00	359.63	10,990.0	7,833.1	383.6	0.00	0.00	0.00	0.00	Dagger State Com 51



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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
1,300.0	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
4,800.0	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
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
KOP - Start Build 1.00									



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 512H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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)
5,300.0	1.00	151.21	5,300.0	-0.8	0.4	-0.7	1.00	1.00	0.00
5,400.0	2.00	151.21	5,400.0	-3.1	1.7	-3.0	1.00	1.00	0.00
5,500.0	3.00	151.21	5,499.9	-6.9	3.8	-6.7	1.00	1.00	0.00
5,600.0	4.00	151.21	5,599.7	-12.2	6.7	-11.9	1.00	1.00	0.00
5,700.0	5.00	151.21	5,699.4	-19.1	10.5	-18.6	1.00	1.00	0.00
5,800.0	6.00	151.21	5,798.9	-27.5	15.1	-26.7	1.00	1.00	0.00
5,851.2	6.51	151.21	5,849.8	-32.4	17.8	-31.5	1.00	1.00	0.00
Start 3925.7 hold at 5851.2 MD									
5,900.0	6.51	151.21	5,898.3	-37.2	20.5	-36.2	0.00	0.00	0.00
6,000.0	6.51	151.21	5,997.6	-47.2	25.9	-45.9	0.00	0.00	0.00
6,100.0	6.51	151.21	6,097.0	-57.1	31.4	-55.5	0.00	0.00	0.00
6,200.0	6.51	151.21	6,196.3	-67.1	36.9	-65.2	0.00	0.00	0.00
6,300.0	6.51	151.21	6,295.7	-77.0	42.3	-74.8	0.00	0.00	0.00
6,400.0	6.51	151.21	6,395.1	-86.9	47.8	-84.5	0.00	0.00	0.00
6,500.0	6.51	151.21	6,494.4	-96.9	53.2	-94.2	0.00	0.00	0.00
6,600.0	6.51	151.21	6,593.8	-106.8	58.7	-103.8	0.00	0.00	0.00
6,700.0	6.51	151.21	6,693.1	-116.8	64.2	-113.5	0.00	0.00	0.00
6,800.0	6.51	151.21	6,792.5	-126.7	69.6	-123.1	0.00	0.00	0.00
6,900.0	6.51	151.21	6,891.8	-136.6	75.1	-132.8	0.00	0.00	0.00
7,000.0	6.51	151.21	6,991.2	-146.6	80.5	-142.5	0.00	0.00	0.00
7,100.0	6.51	151.21	7,090.5	-156.5	86.0	-152.1	0.00	0.00	0.00
7,200.0	6.51	151.21	7,189.9	-166.5	91.5	-161.8	0.00	0.00	0.00
7,300.0	6.51	151.21	7,289.3	-176.4	96.9	-171.5	0.00	0.00	0.00
7,400.0	6.51	151.21	7,388.6	-186.3	102.4	-181.1	0.00	0.00	0.00
7,500.0	6.51	151.21	7,488.0	-196.3	107.8	-190.8	0.00	0.00	0.00
7,600.0	6.51	151.21	7,587.3	-206.2	113.3	-200.4	0.00	0.00	0.00
7,700.0	6.51	151.21	7,686.7	-216.2	118.8	-210.1	0.00	0.00	0.00
7,800.0	6.51	151.21	7,786.0	-226.1	124.2	-219.8	0.00	0.00	0.00
7,900.0	6.51	151.21	7,885.4	-236.0	129.7	-229.4	0.00	0.00	0.00
8,000.0	6.51	151.21	7,984.7	-246.0	135.2	-239.1	0.00	0.00	0.00
8,100.0	6.51	151.21	8,084.1	-255.9	140.6	-248.7	0.00	0.00	0.00
8,200.0	6.51	151.21	8,183.4	-265.9	146.1	-258.4	0.00	0.00	0.00
8,300.0	6.51	151.21	8,282.8	-275.8	151.5	-268.1	0.00	0.00	0.00
8,400.0	6.51	151.21	8,382.2	-285.7	157.0	-277.7	0.00	0.00	0.00
8,500.0	6.51	151.21	8,481.5	-295.7	162.5	-287.4	0.00	0.00	0.00
8,600.0	6.51	151.21	8,580.9	-305.6	167.9	-297.0	0.00	0.00	0.00
8,700.0	6.51	151.21	8,680.2	-315.6	173.4	-306.7	0.00	0.00	0.00
8,800.0	6.51	151.21	8,779.6	-325.5	178.8	-316.4	0.00	0.00	0.00
8,900.0	6.51	151.21	8,878.9	-335.4	184.3	-326.0	0.00	0.00	0.00
9,000.0	6.51	151.21	8,978.3	-345.4	189.8	-335.7	0.00	0.00	0.00
9,100.0	6.51	151.21	9,077.6	-355.3	195.2	-345.3	0.00	0.00	0.00
9,200.0	6.51	151.21	9,177.0	-365.3	200.7	-355.0	0.00	0.00	0.00
9,300.0	6.51	151.21	9,276.3	-375.2	206.2	-364.7	0.00	0.00	0.00
9,400.0	6.51	151.21	9,375.7	-385.1	211.6	-374.3	0.00	0.00	0.00
9,500.0	6.51	151.21	9,475.1	-395.1	217.1	-384.0	0.00	0.00	0.00
9,600.0	6.51	151.21	9,574.4	-405.0	222.5	-393.6	0.00	0.00	0.00
9,700.0	6.51	151.21	9,673.8	-415.0	228.0	-403.3	0.00	0.00	0.00
9,776.9	6.51	151.21	9,750.2	-422.6	232.2	-410.7	0.00	0.00	0.00
Start Drop -1.00									
9,800.0	6.28	151.21	9,773.1	-424.9	233.4	-412.9	1.00	-1.00	0.00
9,900.0	5.28	151.21	9,872.6	-433.7	238.3	-421.5	1.00	-1.00	0.00
10,000.0	4.28	151.21	9,972.3	-441.0	242.3	-428.6	1.00	-1.00	0.00
10,100.0	3.28	151.21	10,072.0	-446.8	245.5	-434.2	1.00	-1.00	0.00
10,200.0	2.28	151.21	10,171.9	-451.0	247.8	-438.4	1.00	-1.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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)
10,300.0	1.28	151.21	10,271.9	-453.7	249.3	-441.0	1.00	-1.00	0.00
10,400.0	0.28	151.21	10,371.9	-454.9	250.0	-442.2	1.00	-1.00	0.00
10,428.1	0.00	0.00	10,400.0	-455.0	250.0	-442.2	1.00	-1.00	0.00
Start 112.5 hold at 10428.1 MD									
10,500.0	0.00	0.00	10,471.9	-455.0	250.0	-442.2	0.00	0.00	0.00
10,540.7	0.00	0.00	10,512.5	-455.0	250.0	-442.2	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
10,600.0	7.12	12.82	10,571.7	-451.4	250.8	-438.6	12.00	12.00	0.00
10,700.0	19.12	12.82	10,668.9	-429.3	255.8	-416.3	12.00	12.00	0.00
10,800.0	31.12	12.82	10,759.3	-388.0	265.2	-374.6	12.00	12.00	0.00
10,900.0	43.12	12.82	10,838.9	-329.3	278.6	-315.2	12.00	12.00	0.00
11,000.0	55.12	12.82	10,904.2	-255.7	295.4	-240.9	12.00	12.00	0.00
11,100.0	67.12	12.82	10,952.4	-170.4	314.7	-154.8	12.00	12.00	0.00
11,200.0	79.12	12.82	10,981.4	-77.3	335.9	-60.8	12.00	12.00	0.00
11,290.7	90.00	12.82	10,990.0	10.6	355.9	28.0	12.00	12.00	0.00
LP - Start 9.4 hold at 11290.7 MD									
11,300.0	90.00	12.82	10,990.0	19.7	358.0	37.2	0.00	0.00	0.00
Start DLS 2.00 TFO -90.00 - Dagger State Com 512H LP									
11,400.0	90.00	10.82	10,990.0	117.5	378.5	135.9	2.00	0.00	-2.00
11,500.0	90.00	8.82	10,990.0	216.1	395.5	235.2	2.00	0.00	-2.00
11,600.0	90.00	6.82	10,990.0	315.1	409.1	334.8	2.00	0.00	-2.00
11,700.0	90.00	4.82	10,990.0	414.6	419.3	434.6	2.00	0.00	-2.00
11,800.0	90.00	2.82	10,990.0	514.4	425.9	534.6	2.00	0.00	-2.00
11,900.0	90.00	0.82	10,990.0	614.3	429.1	634.6	2.00	0.00	-2.00
11,959.2	90.00	359.63	10,990.0	673.5	429.3	693.7	2.00	0.00	-2.00
Start 7159.7 hold at 11959.2 MD									
12,000.0	90.00	359.63	10,990.0	714.3	429.1	734.5	0.00	0.00	0.00
12,100.0	90.00	359.63	10,990.0	814.3	428.4	834.3	0.00	0.00	0.00
12,200.0	90.00	359.63	10,990.0	914.3	427.8	934.2	0.00	0.00	0.00
12,300.0	90.00	359.63	10,990.0	1,014.3	427.1	1,034.0	0.00	0.00	0.00
12,400.0	90.00	359.63	10,990.0	1,114.3	426.5	1,133.9	0.00	0.00	0.00
12,500.0	90.00	359.63	10,990.0	1,214.3	425.9	1,233.7	0.00	0.00	0.00
12,600.0	90.00	359.63	10,990.0	1,314.3	425.2	1,333.5	0.00	0.00	0.00
12,700.0	90.00	359.63	10,990.0	1,414.3	424.6	1,433.4	0.00	0.00	0.00
12,800.0	90.00	359.63	10,990.0	1,514.3	424.0	1,533.2	0.00	0.00	0.00
12,900.0	90.00	359.63	10,990.0	1,614.3	423.3	1,633.1	0.00	0.00	0.00
13,000.0	90.00	359.63	10,990.0	1,714.3	422.7	1,732.9	0.00	0.00	0.00
13,100.0	90.00	359.63	10,990.0	1,814.3	422.0	1,832.8	0.00	0.00	0.00
13,200.0	90.00	359.63	10,990.0	1,914.3	421.4	1,932.6	0.00	0.00	0.00
13,300.0	90.00	359.63	10,990.0	2,014.3	420.8	2,032.5	0.00	0.00	0.00
13,400.0	90.00	359.63	10,990.0	2,114.3	420.1	2,132.3	0.00	0.00	0.00
13,500.0	90.00	359.63	10,990.0	2,214.3	419.5	2,232.2	0.00	0.00	0.00
13,600.0	90.00	359.63	10,990.0	2,314.3	418.8	2,332.0	0.00	0.00	0.00
13,700.0	90.00	359.63	10,990.0	2,414.3	418.2	2,431.9	0.00	0.00	0.00
13,800.0	90.00	359.63	10,990.0	2,514.3	417.6	2,531.7	0.00	0.00	0.00
13,900.0	90.00	359.63	10,990.0	2,614.3	416.9	2,631.6	0.00	0.00	0.00
14,000.0	90.00	359.63	10,990.0	2,714.3	416.3	2,731.4	0.00	0.00	0.00
14,100.0	90.00	359.63	10,990.0	2,814.3	415.6	2,831.3	0.00	0.00	0.00
14,200.0	90.00	359.63	10,990.0	2,914.3	415.0	2,931.1	0.00	0.00	0.00
14,300.0	90.00	359.63	10,990.0	3,014.3	414.4	3,030.9	0.00	0.00	0.00
14,400.0	90.00	359.63	10,990.0	3,114.3	413.7	3,130.8	0.00	0.00	0.00
14,500.0	90.00	359.63	10,990.0	3,214.3	413.1	3,230.6	0.00	0.00	0.00
14,600.0	90.00	359.63	10,990.0	3,314.3	412.4	3,330.5	0.00	0.00	0.00



Planning Report

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Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - 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)	
14,700.0	90.00	359.63	10,990.0	3,414.3	411.8	3,430.3	0.00	0.00	0.00	
14,800.0	90.00	359.63	10,990.0	3,514.3	411.2	3,530.2	0.00	0.00	0.00	
14,900.0	90.00	359.63	10,990.0	3,614.3	410.5	3,630.0	0.00	0.00	0.00	
15,000.0	90.00	359.63	10,990.0	3,714.3	409.9	3,729.9	0.00	0.00	0.00	
15,100.0	90.00	359.63	10,990.0	3,814.3	409.3	3,829.7	0.00	0.00	0.00	
15,200.0	90.00	359.63	10,990.0	3,914.3	408.6	3,929.6	0.00	0.00	0.00	
15,300.0	90.00	359.63	10,990.0	4,014.3	408.0	4,029.4	0.00	0.00	0.00	
15,400.0	90.00	359.63	10,990.0	4,114.3	407.3	4,129.3	0.00	0.00	0.00	
15,500.0	90.00	359.63	10,990.0	4,214.3	406.7	4,229.1	0.00	0.00	0.00	
15,600.0	90.00	359.63	10,990.0	4,314.3	406.1	4,329.0	0.00	0.00	0.00	
15,700.0	90.00	359.63	10,990.0	4,414.3	405.4	4,428.8	0.00	0.00	0.00	
15,800.0	90.00	359.63	10,990.0	4,514.3	404.8	4,528.7	0.00	0.00	0.00	
15,900.0	90.00	359.63	10,990.0	4,614.3	404.1	4,628.5	0.00	0.00	0.00	
16,000.0	90.00	359.63	10,990.0	4,714.3	403.5	4,728.3	0.00	0.00	0.00	
16,100.0	90.00	359.63	10,990.0	4,814.3	402.9	4,828.2	0.00	0.00	0.00	
16,200.0	90.00	359.63	10,990.0	4,914.2	402.2	4,928.0	0.00	0.00	0.00	
16,300.0	90.00	359.63	10,990.0	5,014.2	401.6	5,027.9	0.00	0.00	0.00	
16,400.0	90.00	359.63	10,990.0	5,114.2	400.9	5,127.7	0.00	0.00	0.00	
16,500.0	90.00	359.63	10,990.0	5,214.2	400.3	5,227.6	0.00	0.00	0.00	
16,600.0	90.00	359.63	10,990.0	5,314.2	399.7	5,327.4	0.00	0.00	0.00	
16,700.0	90.00	359.63	10,990.0	5,414.2	399.0	5,427.3	0.00	0.00	0.00	
16,800.0	90.00	359.63	10,990.0	5,514.2	398.4	5,527.1	0.00	0.00	0.00	
16,900.0	90.00	359.63	10,990.0	5,614.2	397.7	5,627.0	0.00	0.00	0.00	
17,000.0	90.00	359.63	10,990.0	5,714.2	397.1	5,726.8	0.00	0.00	0.00	
17,100.0	90.00	359.63	10,990.0	5,814.2	396.5	5,826.7	0.00	0.00	0.00	
17,200.0	90.00	359.63	10,990.0	5,914.2	395.8	5,926.5	0.00	0.00	0.00	
17,300.0	90.00	359.63	10,990.0	6,014.2	395.2	6,026.4	0.00	0.00	0.00	
17,400.0	90.00	359.63	10,990.0	6,114.2	394.5	6,126.2	0.00	0.00	0.00	
17,500.0	90.00	359.63	10,990.0	6,214.2	393.9	6,226.1	0.00	0.00	0.00	
17,600.0	90.00	359.63	10,990.0	6,314.2	393.3	6,325.9	0.00	0.00	0.00	
17,700.0	90.00	359.63	10,990.0	6,414.2	392.6	6,425.7	0.00	0.00	0.00	
17,800.0	90.00	359.63	10,990.0	6,514.2	392.0	6,525.6	0.00	0.00	0.00	
17,900.0	90.00	359.63	10,990.0	6,614.2	391.4	6,625.4	0.00	0.00	0.00	
18,000.0	90.00	359.63	10,990.0	6,714.2	390.7	6,725.3	0.00	0.00	0.00	
18,100.0	90.00	359.63	10,990.0	6,814.2	390.1	6,825.1	0.00	0.00	0.00	
18,200.0	90.00	359.63	10,990.0	6,914.2	389.4	6,925.0	0.00	0.00	0.00	
18,300.0	90.00	359.63	10,990.0	7,014.2	388.8	7,024.8	0.00	0.00	0.00	
18,400.0	90.00	359.63	10,990.0	7,114.2	388.2	7,124.7	0.00	0.00	0.00	
18,500.0	90.00	359.63	10,990.0	7,214.2	387.5	7,224.5	0.00	0.00	0.00	
18,600.0	90.00	359.63	10,990.0	7,314.2	386.9	7,324.4	0.00	0.00	0.00	
18,700.0	90.00	359.63	10,990.0	7,414.2	386.2	7,424.2	0.00	0.00	0.00	
18,800.0	90.00	359.63	10,990.0	7,514.2	385.6	7,524.1	0.00	0.00	0.00	
18,900.0	90.00	359.63	10,990.0	7,614.2	385.0	7,623.9	0.00	0.00	0.00	
19,000.0	90.00	359.63	10,990.0	7,714.2	384.3	7,723.8	0.00	0.00	0.00	
19,100.0	90.00	359.63	10,990.0	7,814.2	383.7	7,823.6	0.00	0.00	0.00	
19,119.0	90.00	359.63	10,990.0	7,833.1	383.6	7,842.5	0.00	0.00	0.00	
TD at 19119.0 - Dagger State Com 512H BHL										



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 512H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 512H		
Design:	Dagger State Com 512H - Prelim 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Dagger State Com 512H- - plan hits target center - Point	0.00	0.00	10,990.0	7,833.1	383.6	535,961.48	762,581.18	32° 28' 16.957 N	103° 36' 57.348 W
Dagger State Com 512H- - plan hits target center - Point	0.00	0.01	10,990.0	19.7	358.0	528,148.03	762,555.62	32° 26' 59.645 N	103° 36' 58.259 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
11,290.7	10,990.0	LP	5-1/2	5-1/2	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,200.0	5,200.0	0.0	0.0	KOP - Start Build 1.00	
5,851.2	5,849.8	-32.4	17.8	Start 3925.7 hold at 5851.2 MD	
9,776.9	9,750.2	-422.6	232.2	Start Drop -1.00	
10,428.1	10,400.0	-455.0	250.0	Start 112.5 hold at 10428.1 MD	
10,540.7	10,512.5	-455.0	250.0	KOP #2 - Start Build 12.00	
11,290.7	10,990.0	10.6	355.9	LP - Start 9.4 hold at 11290.7 MD	
11,300.0	10,990.0	19.7	358.0	Start DLS 2.00 TFO -90.00	
11,959.2	10,990.0	673.5	429.3	Start 7159.7 hold at 11959.2 MD	
19,119.0	10,990.0	7,833.1	383.6	TD at 19119.0	

**WELL DETAILS: Dagger State Com 512H**

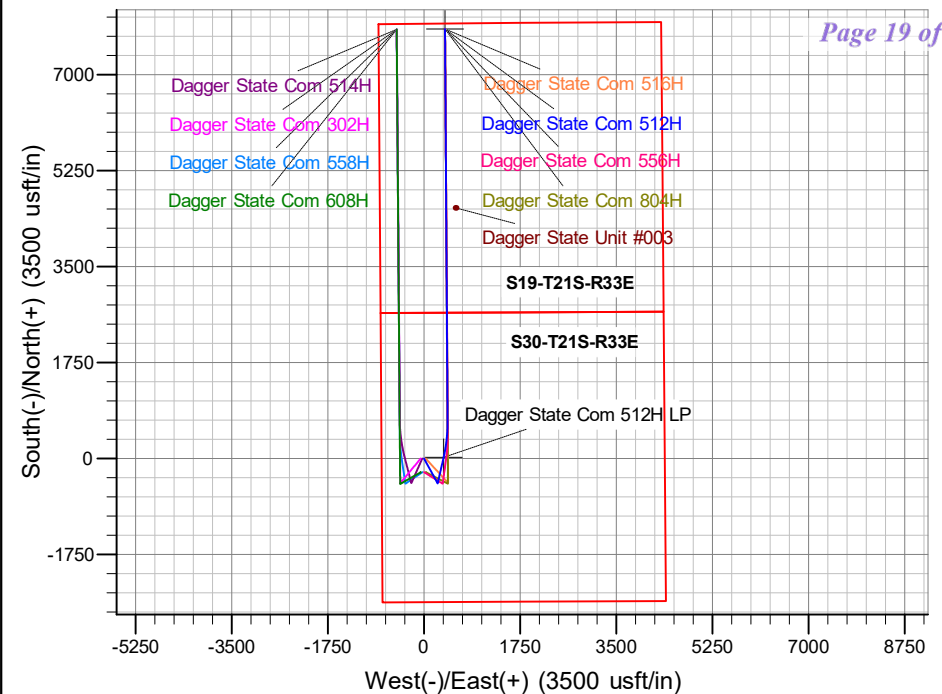
Ground Elev: 3815.0 KB: 3847.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	528128.34	762197.62	32° 26' 59.474 N	103° 37' 2.438 W

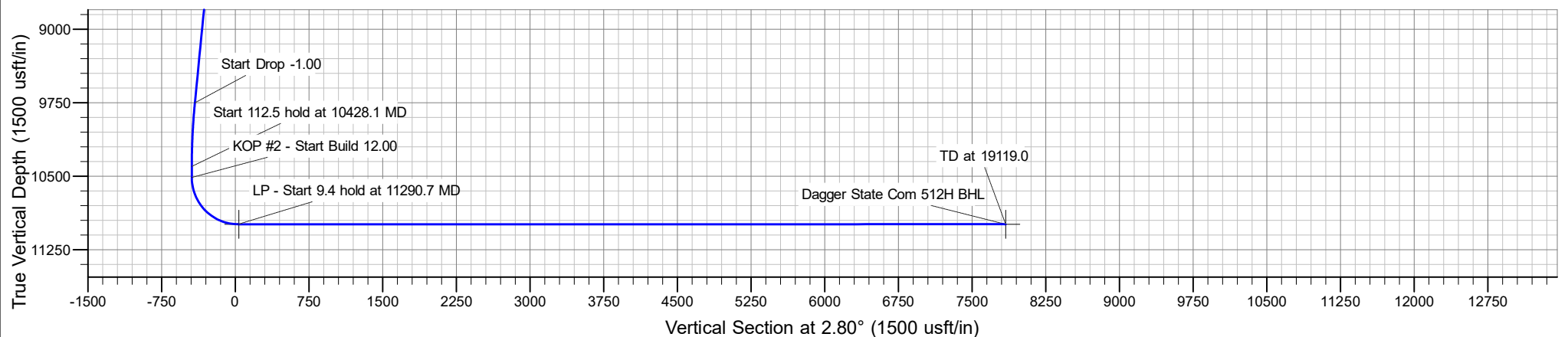
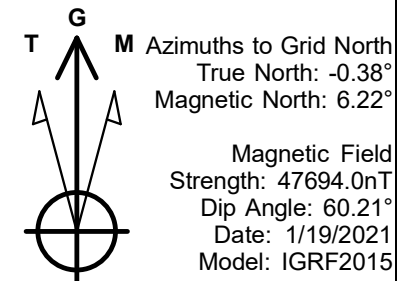
PROJECT DETAILS: Hat Mesa

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	5200.0	0.00	0.00	5200.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5851.2	6.51	151.21	5849.8	-32.4	17.8	1.00	151.21	-31.5	Start 3925.7 hold at 5851.2 MD
4	9776.9	6.51	151.21	9750.2	-422.6	232.2	0.00	0.00	-410.7	Start Drop -1.00
5	10428.1	0.00	0.00	10400.0	-455.0	250.0	1.00	180.00	-442.2	Start 112.5 hold at 10428.1 MD
6	10540.7	0.00	0.00	10512.5	-455.0	250.0	0.00	0.00	-442.2	KOP #2 - Start Build 12.00
7	11290.7	90.00	12.82	10990.0	10.6	355.9	12.00	12.82	28.0	LP - Start 9.4 hold at 11290.7 MD
8	11300.0	90.00	12.82	10990.0	19.7	358.0	0.00	0.00	37.2	Start DLS 2.00 TFO -90.00
9	11959.2	90.00	359.63	10990.0	673.5	429.3	2.00	-90.00	693.7	Start 7159.7 hold at 11959.2 MD
10	19119.0	90.00	359.63	10990.0	7833.1	383.6	0.00	0.00	7842.5	TD at 19119.0





Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 512H

Dagger State Com 512H

Dagger State Com 512H - Prelim 1

Anticollision Report

17 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 512H - 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 5/17/2021				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	19,119.0	Dagger State Com 512H - Prelim 1 (Dagge	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						
Dagger State						
Dagger State Com 302H - Dagger State Com 302H - Da	5,000.0	5,000.0	59.8	33.7	2.291	CC, ES
Dagger State Com 302H - Dagger State Com 302H - Da	5,100.0	5,099.3	60.4	34.0	2.291	SF
Dagger State Com 514H - Dagger State Com 514H - Da	5,200.0	5,200.0	29.9	3.2	1.119	Level 3, CC, ES, SF
Dagger State Com 516H - Dagger State Com 516H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES, SF
Dagger State Com 556H - Dagger State Com 556H - Da	9,600.0	9,583.6	51.7	0.3	1.006	Level 3, ES, SF
Dagger State Com 556H - Dagger State Com 556H - Da	9,659.6	9,643.1	51.5	0.8	1.016	Level 3, CC
Dagger State Com 558H - Dagger State Com 558H - Da	6,165.1	6,147.7	243.2	214.4	8.432	CC
Dagger State Com 558H - Dagger State Com 558H - Da	6,200.0	6,182.3	243.3	214.3	8.400	ES
Dagger State Com 558H - Dagger State Com 558H - Da	19,119.0	19,366.3	922.2	603.1	2.891	SF
Dagger State Com 608H - Dagger State Com 608H - Da	4,916.3	4,917.3	257.0	231.1	9.938	CC
Dagger State Com 608H - Dagger State Com 608H - Da	5,000.0	5,000.0	257.0	230.9	9.838	ES
Dagger State Com 608H - Dagger State Com 608H - Da	6,500.0	6,479.1	277.8	247.6	9.179	SF
Dagger State Com 804H - Dagger State Com 804H - Da	9,266.3	9,248.0	99.9	50.9	2.037	CC, ES, SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	15,854.2	10,951.5	171.0	45.4	1.362	Level 3, CC, ES, SF

Offset Design:	Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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	Rule Assigned:				Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-90.38	-0.4	-59.8	59.8				
100.0	100.0	100.0	100.0	0.5	0.5	-90.38	-0.4	-59.8	59.8	58.8	1.06	56.442	
200.0	200.0	200.0	200.0	1.7	1.7	-90.38	-0.4	-59.8	59.8	56.4	3.42	17.481	
300.0	300.0	300.0	300.0	2.4	2.4	-90.38	-0.4	-59.8	59.8	55.0	4.82	12.409	
400.0	400.0	400.0	400.0	3.0	3.0	-90.38	-0.4	-59.8	59.8	53.9	5.91	10.130	
500.0	500.0	500.0	500.0	3.4	3.4	-90.38	-0.4	-59.8	59.8	53.0	6.83	8.762	
524.8	524.8	524.8	524.8	3.5	3.5	-90.38	-0.4	-59.8	59.8	52.8	7.03	8.509	
600.0	600.0	600.0	600.0	3.8	3.8	-90.38	-0.4	-59.8	59.8	52.2	7.65	7.824	
633.3	633.3	633.3	633.3	3.9	3.9	-90.38	-0.4	-59.8	59.8	51.9	7.90	7.578	
700.0	700.0	700.0	700.0	4.2	4.2	-90.38	-0.4	-59.8	59.8	51.5	8.39	7.130	
800.0	800.0	800.0	800.0	4.5	4.5	-90.38	-0.4	-59.8	59.8	50.8	9.08	6.588	
900.0	900.0	900.0	900.0	4.9	4.9	-90.38	-0.4	-59.8	59.8	50.1	9.73	6.150	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.38	-0.4	-59.8	59.8	49.5	10.34	5.787	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.38	-0.4	-59.8	59.8	48.9	10.92	5.479	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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		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 (usft)	Factor		
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.38	-0.4	-59.8	59.8	48.4	11.48	5.213		
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.38	-0.4	-59.8	59.8	47.8	12.01	4.981		
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.38	-0.4	-59.8	59.8	47.3	12.53	4.776		
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.38	-0.4	-59.8	59.8	46.8	13.03	4.592		
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.38	-0.4	-59.8	59.8	46.3	13.52	4.427		
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.38	-0.4	-59.8	59.8	45.9	13.99	4.278		
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.38	-0.4	-59.8	59.8	45.4	14.45	4.142		
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.38	-0.4	-59.8	59.8	44.9	14.90	4.017		
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.38	-0.4	-59.8	59.8	44.5	15.34	3.901		
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.38	-0.4	-59.8	59.8	44.1	15.77	3.795		
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.38	-0.4	-59.8	59.8	43.7	16.19	3.696		
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.38	-0.4	-59.8	59.8	43.2	16.61	3.603		
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.38	-0.4	-59.8	59.8	42.8	17.02	3.517		
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.38	-0.4	-59.8	59.8	42.4	17.42	3.436		
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.38	-0.4	-59.8	59.8	42.0	17.81	3.360		
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.38	-0.4	-59.8	59.8	41.6	18.20	3.288		
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.38	-0.4	-59.8	59.8	41.3	18.59	3.220		
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.38	-0.4	-59.8	59.8	40.9	18.96	3.156		
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.38	-0.4	-59.8	59.8	40.5	19.34	3.095		
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.38	-0.4	-59.8	59.8	40.1	19.71	3.036		
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.38	-0.4	-59.8	59.8	39.8	20.07	2.981		
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.38	-0.4	-59.8	59.8	39.4	20.44	2.928		
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.38	-0.4	-59.8	59.8	39.1	20.79	2.878		
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.38	-0.4	-59.8	59.8	38.7	21.15	2.830		
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.38	-0.4	-59.8	59.8	38.3	21.50	2.784		
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.38	-0.4	-59.8	59.8	38.0	21.85	2.739		
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.38	-0.4	-59.8	59.8	37.7	22.19	2.697		
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.38	-0.4	-59.8	59.8	37.3	22.53	2.656		
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.38	-0.4	-59.8	59.8	37.0	22.87	2.617		
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.38	-0.4	-59.8	59.8	36.6	23.21	2.579		
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.38	-0.4	-59.8	59.8	36.3	23.54	2.542		
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.38	-0.4	-59.8	59.8	36.0	23.87	2.507		
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.38	-0.4	-59.8	59.8	35.6	24.20	2.473		
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.38	-0.4	-59.8	59.8	35.3	24.53	2.440		
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.38	-0.4	-59.8	59.8	35.0	24.85	2.408		
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.38	-0.4	-59.8	59.8	34.7	25.17	2.378		
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.38	-0.4	-59.8	59.8	34.4	25.49	2.348		
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.38	-0.4	-59.8	59.8	34.0	25.81	2.319		
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	-90.38	-0.4	-59.8	59.8	33.8	26.02	2.300		
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-90.38	-0.4	-59.8	59.8	33.7	26.12	2.291 CC, ES		
5,100.0	5,100.0	5,099.3	5,099.3	13.2	13.2	-91.01	-1.1	-60.4	60.4	34.0	26.37	2.291 SF		
5,200.0	5,200.0	5,198.6	5,198.6	13.4	13.2	-92.82	-3.1	-62.0	62.1	35.5	26.60	2.336		
5,300.0	5,300.0	5,297.8	5,297.6	13.5	13.3	113.83	-6.4	-64.8	65.5	38.7	26.76	2.446		
5,400.0	5,400.0	5,396.8	5,396.4	13.5	13.4	112.23	-11.0	-68.6	70.8	43.9	26.91	2.630		
5,500.0	5,499.9	5,495.6	5,494.9	13.6	13.6	111.16	-16.9	-73.4	78.0	51.0	27.08	2.882		
5,600.0	5,599.7	5,594.1	5,593.0	13.7	13.7	110.56	-24.2	-79.4	87.2	59.9	27.26	3.199		
5,700.0	5,699.4	5,692.3	5,690.6	13.9	13.9	110.33	-32.7	-86.4	98.2	70.8	27.46	3.577		
5,800.0	5,798.9	5,790.2	5,787.7	14.0	14.1	110.36	-42.4	-94.4	111.1	83.4	27.67	4.014		
5,851.2	5,849.8	5,840.1	5,837.1	14.1	14.2	110.44	-47.9	-98.9	118.4	90.6	27.77	4.264		
5,900.0	5,898.3	5,887.6	5,884.0	14.1	14.4	110.54	-53.4	-103.4	125.7	97.9	27.86	4.513		
6,000.0	5,997.6	5,985.0	5,980.2	14.3	14.6	110.38	-65.6	-113.5	141.7	113.6	28.08	5.045		
6,100.0	6,097.0	6,083.7	6,077.5	14.5	14.8	110.12	-78.4	-123.9	158.0	129.6	28.37	5.569		

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 302H - Dagger State Com 302H - Dagger State Com 302H - 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 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)			
6,200.0	6,196.3	6,182.4	6,174.8	14.8	15.1	109.91	-91.1	-134.4	174.3	145.6	28.70	6.073	
6,300.0	6,295.7	6,281.0	6,272.0	15.0	15.5	109.74	-103.8	-144.9	190.6	161.5	29.05	6.560	
6,400.0	6,395.1	6,379.7	6,369.3	15.3	15.8	109.60	-116.6	-155.4	206.9	177.5	29.43	7.031	
6,500.0	6,494.4	6,478.3	6,466.6	15.6	16.2	109.47	-129.3	-165.8	223.2	193.4	29.82	7.485	
6,600.0	6,593.8	6,577.0	6,563.8	15.9	16.5	109.37	-142.1	-176.3	239.5	209.3	30.23	7.922	
6,700.0	6,693.1	6,675.7	6,661.1	16.2	16.9	109.27	-154.8	-186.8	255.8	225.2	30.67	8.342	
6,800.0	6,792.5	6,774.3	6,758.4	16.6	17.3	109.19	-167.6	-197.3	272.1	241.0	31.12	8.746	
6,900.0	6,891.8	6,873.0	6,855.7	16.9	17.7	109.12	-180.3	-207.8	288.5	256.9	31.58	9.134	
7,000.0	6,991.2	6,971.6	6,952.9	17.3	18.1	109.05	-193.0	-218.2	304.8	272.7	32.06	9.505	
7,100.0	7,090.5	7,070.3	7,050.2	17.6	18.6	108.99	-205.8	-228.7	321.1	288.5	32.56	9.862	
7,200.0	7,189.9	7,169.0	7,147.5	18.0	19.0	108.94	-218.5	-239.2	337.4	304.3	33.07	10.203	
7,300.0	7,289.3	7,267.6	7,244.7	18.4	19.5	108.89	-231.3	-249.7	353.7	320.1	33.59	10.529	
7,400.0	7,388.6	7,366.3	7,342.0	18.8	20.0	108.85	-244.0	-260.1	370.0	335.9	34.13	10.841	
7,500.0	7,488.0	7,464.9	7,439.3	19.2	20.4	108.81	-256.7	-270.6	386.3	351.7	34.68	11.140	
7,600.0	7,587.3	7,563.6	7,536.5	19.6	20.9	108.77	-269.5	-281.1	402.7	367.4	35.24	11.426	
7,700.0	7,686.7	7,662.3	7,633.8	20.1	21.4	108.74	-282.2	-291.6	419.0	383.2	35.81	11.699	
7,800.0	7,786.0	7,760.9	7,731.1	20.5	21.9	108.71	-295.0	-302.0	435.3	398.9	36.40	11.960	
7,900.0	7,885.4	7,859.6	7,828.4	20.9	22.4	108.68	-307.7	-312.5	451.6	414.6	36.99	12.209	
8,000.0	7,984.7	7,958.2	7,925.6	21.4	22.9	108.65	-320.5	-323.0	467.9	430.3	37.59	12.448	
8,100.0	8,084.1	8,056.9	8,022.9	21.8	23.4	108.63	-333.2	-333.5	484.2	446.0	38.20	12.676	
8,200.0	8,183.4	8,155.6	8,120.2	22.3	23.9	108.60	-345.9	-344.0	500.5	461.7	38.82	12.894	
8,300.0	8,282.8	8,254.2	8,217.4	22.8	24.5	108.58	-358.7	-354.4	516.9	477.4	39.45	13.102	
8,400.0	8,382.2	8,352.9	8,314.7	23.2	25.0	108.56	-371.4	-364.9	533.2	493.1	40.08	13.302	
8,500.0	8,481.5	8,451.5	8,412.0	23.7	25.5	108.54	-384.2	-375.4	549.5	508.8	40.72	13.494	
8,600.0	8,580.9	8,555.7	8,514.8	24.2	26.1	108.55	-397.3	-386.1	565.5	524.1	41.36	13.672	
8,700.0	8,680.2	8,662.7	8,620.6	24.7	26.6	108.69	-409.3	-396.0	580.1	538.1	42.01	13.810	
8,800.0	8,779.6	8,770.1	8,727.1	25.2	27.2	108.95	-419.8	-404.7	593.4	550.8	42.64	13.916	
8,900.0	8,878.9	8,877.8	8,834.2	25.7	27.7	109.32	-428.8	-412.1	605.3	562.0	43.26	13.992	
9,000.0	8,978.3	8,985.7	8,941.7	26.1	28.3	109.80	-436.2	-418.2	615.8	571.9	43.85	14.043	
9,100.0	9,077.6	9,093.8	9,049.5	26.6	28.8	110.40	-442.1	-423.0	625.0	580.5	44.42	14.069	
9,200.0	9,177.0	9,201.9	9,157.5	27.1	29.2	111.10	-446.4	-426.6	632.8	587.8	44.96	14.075	
9,300.0	9,276.3	9,310.0	9,265.5	27.7	29.7	111.91	-449.2	-428.8	639.4	593.9	45.46	14.065	
9,400.0	9,375.7	9,418.1	9,373.6	28.2	30.0	112.83	-450.4	-429.8	644.7	598.8	45.90	14.048	
9,500.0	9,475.1	9,519.6	9,475.1	28.7	30.0	113.76	-450.4	-429.8	649.3	603.1	46.17	14.062	
9,600.0	9,574.4	9,622.6	9,578.0	29.2	30.0	114.89	-448.2	-429.9	653.8	607.4	46.42	14.084	
9,700.0	9,673.8	9,723.1	9,676.3	29.7	29.6	117.50	-428.2	-430.0	658.2	611.6	46.60	14.123	
9,776.9	9,750.2	9,790.1	9,738.6	30.1	29.4	120.16	-403.7	-430.2	662.8	616.0	46.78	14.170	
9,800.0	9,773.1	9,808.3	9,754.9	30.2	29.3	121.02	-395.5	-430.3	664.6	617.8	46.84	14.191	
9,900.0	9,872.6	9,878.0	9,813.9	30.7	29.1	124.69	-358.7	-430.6	675.6	628.4	47.23	14.306	
10,000.0	9,972.3	9,934.4	9,857.5	31.2	28.9	128.10	-322.8	-430.9	693.0	645.3	47.79	14.502	
10,100.0	10,072.0	9,980.2	9,889.5	31.6	28.7	131.13	-290.0	-431.1	718.1	669.6	48.49	14.808	
10,200.0	10,171.9	10,017.9	9,913.4	32.1	28.6	133.79	-260.9	-431.4	751.2	701.9	49.31	15.234	
10,300.0	10,271.9	10,050.0	9,931.9	32.5	28.6	136.19	-234.7	-431.6	792.0	741.8	50.18	15.781	
10,400.0	10,371.9	10,075.0	9,945.0	32.8	28.5	138.18	-213.4	-431.8	839.8	788.7	51.06	16.447	
10,428.1	10,400.0	10,082.6	9,948.8	32.8	28.5	-70.00	-206.9	-431.8	854.4	803.1	51.28	16.661	
10,500.0	10,471.9	10,100.0	9,957.0	32.8	28.5	-68.88	-191.5	-431.9	894.2	842.3	51.83	17.251	
10,540.7	10,512.5	10,100.0	9,957.0	32.8	28.5	-68.88	-191.5	-431.9	918.2	866.0	52.14	17.609	
10,550.0	10,521.9	10,108.5	9,960.8	32.8	28.5	-80.31	-184.0	-432.0	923.7	871.5	52.21	17.692	
10,575.0	10,546.8	10,113.6	9,963.1	32.8	28.5	-77.74	-179.4	-432.0	939.0	886.6	52.39	17.922	
10,600.0	10,571.7	10,125.0	9,967.9	32.7	28.5	-74.82	-169.0	-432.1	954.3	901.8	52.56	18.157	
10,625.0	10,596.4	10,125.0	9,967.9	32.6	28.5	-72.57	-169.0	-432.1	969.7	917.0	52.72	18.393	
10,650.0	10,620.9	10,125.0	9,967.9	32.5	28.5	-70.34	-169.0	-432.1	985.1	932.3	52.88	18.631	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	-89.69	0.2	-29.9	29.9				
100.0	100.0	100.0	100.0	0.5	0.5	-89.69	0.2	-29.9	29.9	28.9	1.06	28.223	
200.0	200.0	200.0	200.0	1.7	1.7	-89.69	0.2	-29.9	29.9	26.5	3.42	8.741	
300.0	300.0	300.0	300.0	2.4	2.4	-89.69	0.2	-29.9	29.9	25.1	4.82	6.205	
400.0	400.0	400.0	400.0	3.0	3.0	-89.69	0.2	-29.9	29.9	24.0	5.91	5.065	
500.0	500.0	500.0	500.0	3.4	3.4	-89.69	0.2	-29.9	29.9	23.1	6.83	4.381	
524.1	524.1	524.1	524.1	3.5	3.5	-89.69	0.2	-29.9	29.9	22.9	7.03	4.258	
600.0	600.0	600.0	600.0	3.8	3.8	-89.69	0.2	-29.9	29.9	22.3	7.65	3.912	
633.3	633.3	633.3	633.3	3.9	3.9	-89.69	0.2	-29.9	29.9	22.0	7.90	3.789	
700.0	700.0	700.0	700.0	4.2	4.2	-89.69	0.2	-29.9	29.9	21.5	8.39	3.565	
800.0	800.0	800.0	800.0	4.5	4.5	-89.69	0.2	-29.9	29.9	20.8	9.08	3.294	
900.0	900.0	900.0	900.0	4.9	4.9	-89.69	0.2	-29.9	29.9	20.2	9.73	3.075	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-89.69	0.2	-29.9	29.9	19.6	10.34	2.894	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-89.69	0.2	-29.9	29.9	19.0	10.92	2.740	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-89.69	0.2	-29.9	29.9	18.4	11.48	2.607	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-89.69	0.2	-29.9	29.9	17.9	12.01	2.491	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-89.69	0.2	-29.9	29.9	17.4	12.53	2.388	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-89.69	0.2	-29.9	29.9	16.9	13.03	2.296	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-89.69	0.2	-29.9	29.9	16.4	13.52	2.214	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-89.69	0.2	-29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-89.69	0.2	-29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-89.69	0.2	-29.9	29.9	15.0	14.90	2.008	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-89.69	0.2	-29.9	29.9	14.6	15.34	1.951	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-89.69	0.2	-29.9	29.9	14.2	15.77	1.898	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-89.69	0.2	-29.9	29.9	13.7	16.19	1.848	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-89.69	0.2	-29.9	29.9	13.3	16.61	1.802	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-89.69	0.2	-29.9	29.9	12.9	17.02	1.759	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-89.69	0.2	-29.9	29.9	12.5	17.42	1.718	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-89.69	0.2	-29.9	29.9	12.1	17.81	1.680	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-89.69	0.2	-29.9	29.9	11.7	18.20	1.644	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-89.69	0.2	-29.9	29.9	11.3	18.59	1.610	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-89.69	0.2	-29.9	29.9	11.0	18.96	1.578	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-89.69	0.2	-29.9	29.9	10.6	19.34	1.547	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-89.69	0.2	-29.9	29.9	10.2	19.71	1.518	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-89.69	0.2	-29.9	29.9	9.9	20.07	1.491 Level 3	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-89.69	0.2	-29.9	29.9	9.5	20.44	1.464 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-89.69	0.2	-29.9	29.9	9.1	20.79	1.439 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-89.69	0.2	-29.9	29.9	8.8	21.15	1.415 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-89.69	0.2	-29.9	29.9	8.4	21.50	1.392 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-89.69	0.2	-29.9	29.9	8.1	21.85	1.370 Level 3	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-89.69	0.2	-29.9	29.9	7.7	22.19	1.349 Level 3	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-89.69	0.2	-29.9	29.9	7.4	22.53	1.328 Level 3	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-89.69	0.2	-29.9	29.9	7.1	22.87	1.308 Level 3	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-89.69	0.2	-29.9	29.9	6.7	23.21	1.289 Level 3	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-89.69	0.2	-29.9	29.9	6.4	23.54	1.271 Level 3	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-89.69	0.2	-29.9	29.9	6.1	23.87	1.254 Level 3	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-89.69	0.2	-29.9	29.9	5.7	24.20	1.237 Level 3	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-89.69	0.2	-29.9	29.9	5.4	24.53	1.220 Level 3	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-89.69	0.2	-29.9	29.9	5.1	24.85	1.204 Level 3	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-89.69	0.2	-29.9	29.9	4.8	25.17	1.189 Level 3	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-89.69	0.2	-29.9	29.9	4.4	25.49	1.174 Level 3	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-89.69	0.2	-29.9	29.9	4.1	25.81	1.159 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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference	Offset	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-89.69	0.2	-29.9	29.9	3.8	26.12	1.145	Level 3
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-89.69	0.2	-29.9	29.9	3.5	26.44	1.132	Level 3
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	-89.69	0.2	-29.9	29.9	3.2	26.75	1.119	Level 3, CC, ES, SF
5,300.0	5,300.0	5,299.8	5,299.8	13.5	13.5	119.03	-0.6	-30.3	30.7	3.8	26.92	1.140	Level 3
5,400.0	5,400.0	5,399.5	5,399.5	13.5	13.5	118.83	-3.0	-31.3	33.0	6.0	27.04	1.221	Level 3
5,500.0	5,499.9	5,499.2	5,499.1	13.6	13.6	118.55	-7.0	-33.1	36.9	9.7	27.17	1.358	Level 3
5,600.0	5,599.7	5,598.8	5,598.5	13.7	13.7	118.25	-12.5	-35.6	42.3	15.0	27.31	1.549	
5,700.0	5,699.4	5,698.2	5,697.6	13.9	13.9	117.94	-19.6	-38.7	49.3	21.8	27.45	1.794	
5,800.0	5,798.9	5,797.5	5,796.4	14.0	14.0	117.66	-28.3	-42.6	57.7	30.1	27.62	2.091	
5,851.2	5,849.8	5,848.2	5,846.8	14.1	14.1	117.53	-33.3	-44.8	62.7	35.0	27.67	2.265	
5,900.0	5,898.3	5,896.5	5,894.8	14.1	14.2	117.30	-38.5	-47.1	67.7	39.9	27.72	2.441	
6,000.0	5,997.6	5,996.0	5,993.6	14.3	14.3	116.68	-49.4	-52.0	78.0	50.1	27.89	2.798	
6,100.0	6,097.0	6,095.4	6,092.3	14.5	14.6	116.22	-60.4	-56.8	88.4	60.3	28.10	3.146	
6,200.0	6,196.3	6,194.9	6,191.0	14.8	14.8	115.85	-71.3	-61.7	98.8	70.5	28.33	3.487	
6,300.0	6,295.7	6,294.4	6,289.8	15.0	15.0	115.55	-82.3	-66.6	109.2	80.6	28.58	3.820	
6,400.0	6,395.1	6,393.8	6,388.5	15.3	15.3	115.30	-93.2	-71.4	119.6	90.7	28.84	4.146	
6,500.0	6,494.4	6,493.3	6,487.2	15.6	15.6	115.09	-104.2	-76.3	129.9	100.8	29.11	4.463	
6,600.0	6,593.8	6,592.7	6,586.0	15.9	15.9	114.91	-115.1	-81.2	140.3	110.9	29.40	4.773	
6,700.0	6,693.1	6,692.2	6,684.7	16.2	16.2	114.76	-126.1	-86.0	150.7	121.0	29.71	5.074	
6,800.0	6,792.5	6,791.7	6,783.4	16.6	16.6	114.63	-137.0	-90.9	161.1	131.1	30.02	5.366	
6,900.0	6,891.8	6,891.1	6,882.2	16.9	16.9	114.51	-148.0	-95.8	171.5	141.1	30.35	5.650	
7,000.0	6,991.2	6,990.6	6,980.9	17.3	17.3	114.41	-158.9	-100.6	181.9	151.2	30.70	5.926	
7,100.0	7,090.5	7,090.0	7,079.6	17.6	17.7	114.32	-169.9	-105.5	192.3	161.2	31.05	6.192	
7,200.0	7,189.9	7,189.5	7,178.4	18.0	18.0	114.23	-180.8	-110.4	202.7	171.3	31.42	6.451	
7,300.0	7,289.3	7,288.9	7,277.1	18.4	18.4	114.16	-191.8	-115.2	213.1	181.3	31.80	6.701	
7,400.0	7,388.6	7,388.4	7,375.8	18.8	18.8	114.09	-202.7	-120.1	223.5	191.3	32.19	6.943	
7,500.0	7,488.0	7,487.9	7,474.6	19.2	19.3	114.03	-213.7	-125.0	233.9	201.3	32.59	7.176	
7,600.0	7,587.3	7,587.3	7,573.3	19.6	19.7	113.97	-224.6	-129.8	244.2	211.3	33.00	7.402	
7,700.0	7,686.7	7,686.8	7,672.0	20.1	20.1	113.92	-235.6	-134.7	254.6	221.2	33.42	7.620	
7,800.0	7,786.0	7,786.2	7,770.8	20.5	20.5	113.87	-246.5	-139.6	265.0	231.2	33.85	7.830	
7,900.0	7,885.4	7,885.7	7,869.5	20.9	21.0	113.83	-257.5	-144.4	275.4	241.1	34.29	8.033	
8,000.0	7,984.7	7,985.2	7,968.2	21.4	21.4	113.79	-268.5	-149.3	285.8	251.1	34.73	8.229	
8,100.0	8,084.1	8,084.6	8,067.0	21.8	21.9	113.75	-279.4	-154.2	296.2	261.0	35.19	8.418	
8,200.0	8,183.4	8,184.1	8,165.7	22.3	22.4	113.71	-290.4	-159.0	306.6	271.0	35.65	8.600	
8,300.0	8,282.8	8,283.5	8,264.4	22.8	22.8	113.68	-301.3	-163.9	317.0	280.9	36.13	8.775	
8,400.0	8,382.2	8,383.0	8,363.2	23.2	23.3	113.65	-312.3	-168.8	327.4	290.8	36.61	8.944	
8,500.0	8,481.5	8,482.4	8,461.9	23.7	23.8	113.62	-323.2	-173.6	337.8	300.7	37.09	9.107	
8,600.0	8,580.9	8,581.9	8,560.6	24.2	24.3	113.59	-334.2	-178.5	348.2	310.6	37.59	9.264	
8,700.0	8,680.2	8,681.4	8,659.4	24.7	24.8	113.57	-345.1	-183.4	358.6	320.5	38.09	9.415	
8,800.0	8,779.6	8,780.8	8,758.1	25.2	25.2	113.54	-356.1	-188.2	369.0	330.4	38.60	9.560	
8,900.0	8,878.9	8,880.3	8,856.8	25.7	25.7	113.52	-367.0	-193.1	379.4	340.3	39.11	9.701	
9,000.0	8,978.3	8,979.7	8,955.6	26.1	26.2	113.50	-378.0	-198.0	389.8	350.2	39.63	9.836	
9,100.0	9,077.6	9,079.2	9,054.3	26.6	26.7	113.48	-388.9	-202.8	400.2	360.0	40.15	9.966	
9,200.0	9,177.0	9,178.6	9,153.0	27.1	27.2	113.46	-399.9	-207.7	410.6	369.9	40.68	10.092	
9,300.0	9,276.3	9,278.1	9,251.8	27.7	27.7	113.44	-410.8	-212.6	421.0	379.8	41.21	10.215	
9,400.0	9,375.7	9,381.0	9,354.0	28.2	28.3	113.51	-421.4	-217.3	431.0	389.3	41.73	10.329	
9,500.0	9,475.1	9,484.4	9,456.9	28.7	28.8	113.79	-430.4	-221.3	440.2	397.9	42.24	10.420	
9,600.0	9,574.4	9,587.8	9,560.0	29.2	29.2	114.28	-437.7	-224.5	448.5	405.7	42.75	10.492	
9,700.0	9,673.8	9,691.2	9,663.2	29.7	29.7	114.95	-443.3	-227.0	456.0	412.8	43.23	10.548	
9,776.9	9,750.2	9,770.7	9,742.6	30.1	30.0	115.59	-446.4	-228.4	461.3	417.7	43.58	10.585	
9,800.0	9,773.1	9,794.5	9,766.5	30.2	30.1	115.81	-447.1	-228.7	462.8	419.1	43.67	10.595	
9,900.0	9,872.6	9,897.8	9,869.8	30.7	30.5	116.75	-449.3	-229.7	468.3	424.1	44.10	10.617	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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				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	
10,000.0	9,972.3	10,000.4	9,972.3	31.2	30.6	117.65	-449.8	-229.9	472.3	427.9	44.44	10.629	
10,100.0	10,072.0	10,100.1	10,072.0	31.6	30.7	118.38	-449.8	-229.9	475.4	430.7	44.74	10.625	
10,200.0	10,171.9	10,179.3	10,150.8	32.1	30.5	119.57	-443.6	-231.5	479.9	434.8	45.05	10.652	
10,300.0	10,271.9	10,253.5	10,222.9	32.5	30.2	121.90	-426.3	-236.0	488.5	443.1	45.45	10.748	
10,400.0	10,371.9	10,320.9	10,285.0	32.8	30.0	124.94	-401.5	-242.4	502.8	456.8	46.03	10.923	
10,428.1	10,400.0	10,338.4	10,300.6	32.8	29.9	-82.93	-393.7	-244.4	508.0	461.8	46.21	10.994	
10,500.0	10,471.9	10,380.1	10,336.4	32.8	29.8	-80.67	-372.8	-249.8	524.3	477.5	46.76	11.213	
10,540.7	10,512.5	10,400.0	10,352.7	32.8	29.7	-79.51	-361.9	-252.6	535.6	488.4	47.15	11.359	
10,550.0	10,521.9	10,406.7	10,358.0	32.8	29.7	-91.58	-358.1	-253.6	538.4	491.1	47.23	11.399	
10,575.0	10,546.8	10,419.5	10,368.2	32.8	29.6	-89.85	-350.5	-255.6	546.3	498.8	47.47	11.507	
10,600.0	10,571.7	10,432.3	10,378.2	32.7	29.6	-88.10	-342.7	-257.6	554.7	507.0	47.71	11.628	
10,625.0	10,596.4	10,450.0	10,391.6	32.6	29.5	-86.10	-331.5	-260.5	563.7	515.8	47.90	11.767	
10,650.0	10,620.9	10,457.7	10,397.2	32.5	29.5	-84.57	-326.5	-261.7	573.0	524.8	48.15	11.900	
10,675.0	10,645.1	10,475.0	10,409.7	32.4	29.4	-82.63	-314.9	-264.8	582.7	534.4	48.32	12.058	
10,700.0	10,668.9	10,482.7	10,415.1	32.4	29.4	-81.08	-309.5	-266.1	592.6	544.1	48.55	12.207	
10,725.0	10,692.3	10,500.0	10,426.9	32.3	29.4	-79.22	-297.3	-269.3	602.9	554.2	48.70	12.380	
10,750.0	10,715.2	10,507.5	10,431.9	32.2	29.3	-77.68	-291.9	-270.7	613.3	564.3	48.90	12.540	
10,775.0	10,737.6	10,525.0	10,443.2	32.1	29.3	-75.92	-278.9	-274.0	623.8	574.8	49.02	12.725	
10,800.0	10,759.3	10,531.9	10,447.5	32.0	29.3	-74.44	-273.7	-275.4	634.5	585.2	49.22	12.891	
10,825.0	10,780.4	10,544.0	10,454.9	31.9	29.2	-72.89	-264.4	-277.8	645.2	595.8	49.36	13.070	
10,850.0	10,800.7	10,556.1	10,462.0	31.8	29.2	-71.39	-255.0	-280.2	655.9	606.4	49.50	13.252	
10,875.0	10,820.2	10,568.1	10,468.8	31.7	29.2	-69.96	-245.4	-282.7	666.6	617.0	49.62	13.434	
10,900.0	10,838.9	10,575.0	10,472.6	31.6	29.2	-68.59	-239.8	-284.1	677.4	627.6	49.78	13.606	
10,925.0	10,856.7	10,591.9	10,481.6	31.5	29.1	-67.27	-226.0	-287.7	687.9	638.1	49.85	13.799	
10,950.0	10,873.5	10,600.0	10,485.7	31.5	29.1	-66.01	-219.2	-289.4	698.4	648.5	49.99	13.972	
10,975.0	10,889.4	10,615.4	10,493.2	31.4	29.1	-64.84	-206.2	-292.8	708.8	658.8	50.06	14.160	
11,000.0	10,904.2	10,625.0	10,497.7	31.3	29.1	-63.70	-197.9	-294.9	719.0	668.9	50.17	14.333	
11,025.0	10,918.0	10,638.6	10,503.7	31.3	29.1	-62.66	-186.1	-298.0	729.1	678.9	50.24	14.512	
11,050.0	10,930.6	10,650.0	10,508.5	31.2	29.1	-61.67	-176.1	-300.5	739.0	688.6	50.32	14.685	
11,075.0	10,942.1	10,661.7	10,513.1	31.2	29.1	-60.75	-165.7	-303.2	748.6	698.2	50.40	14.854	
11,100.0	10,952.4	10,675.0	10,518.1	31.2	29.1	-59.92	-153.8	-306.3	758.1	707.6	50.45	15.025	
11,125.0	10,961.5	10,684.6	10,521.4	31.2	29.1	-59.08	-145.1	-308.6	767.3	716.7	50.54	15.183	
11,150.0	10,969.4	10,700.0	10,526.4	31.2	29.1	-58.43	-131.0	-312.2	776.2	725.7	50.57	15.351	
11,175.0	10,976.1	10,707.2	10,528.6	31.2	29.1	-57.66	-124.3	-313.9	784.9	734.2	50.65	15.496	
11,200.0	10,981.4	10,718.5	10,531.8	31.2	29.1	-57.03	-113.8	-316.6	793.3	742.6	50.70	15.647	
11,225.0	10,985.5	10,725.0	10,533.6	31.2	29.1	-56.33	-107.8	-318.2	801.4	750.6	50.77	15.784	
11,250.0	10,988.3	10,741.0	10,537.5	31.3	29.1	-55.95	-92.8	-322.0	809.2	758.4	50.78	15.935	
11,275.0	10,989.7	10,750.0	10,539.4	31.3	29.1	-55.43	-84.2	-324.3	816.7	765.9	50.82	16.070	
11,290.7	10,990.0	10,759.1	10,541.3	31.4	29.1	-55.23	-75.6	-326.5	821.3	770.4	50.82	16.159	
11,300.0	10,990.0	10,763.3	10,542.0	31.4	29.1	-55.35	-71.6	-327.5	824.0	773.1	50.83	16.210	
11,400.0	10,990.0	10,809.1	10,548.2	31.7	29.2	-56.88	-27.7	-338.8	854.9	803.8	51.12	16.722	
11,500.0	10,990.0	10,864.7	10,550.0	32.2	29.4	-58.22	26.1	-352.7	888.6	836.7	51.80	17.152	
11,600.0	10,990.0	10,993.8	10,550.0	32.7	29.9	-60.12	151.9	-381.6	919.5	866.7	52.85	17.400	
11,700.0	10,990.0	11,128.5	10,550.0	33.3	30.6	-61.52	284.4	-405.8	944.0	889.6	54.45	17.339	
11,800.0	10,990.0	11,267.6	10,550.0	33.9	31.6	-62.48	422.3	-424.1	961.6	905.1	56.42	17.042	
11,900.0	10,990.0	11,409.6	10,550.0	34.6	32.7	-63.02	563.8	-435.9	971.8	913.1	58.69	16.557	
11,959.2	10,990.0	11,494.4	10,550.0	35.0	33.4	-63.15	648.5	-439.6	974.3	914.2	60.09	16.214	
12,000.0	10,990.0	11,553.0	10,550.0	35.3	33.9	-63.17	707.1	-440.7	974.7	913.7	61.01	15.976	
12,100.0	10,990.0	11,653.4	10,550.0	36.1	34.8	-63.17	807.5	-441.5	974.9	911.7	63.15	15.437	
12,200.0	10,990.0	11,753.4	10,550.0	37.0	35.8	-63.17	907.5	-442.2	975.0	909.5	65.44	14.899	
12,300.0	10,990.0	11,853.4	10,550.0	37.9	36.9	-63.18	1,007.5	-443.0	975.1	907.3	67.85	14.371	
12,400.0	10,990.0	11,953.4	10,550.0	39.0	38.1	-63.18	1,107.5	-443.8	975.2	904.9	70.39	13.856	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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			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
12,500.0	10,990.0	12,053.4	10,550.0	40.1	39.4	-63.19	1,207.5	-444.6	975.4	902.4	73.02	13.357
12,600.0	10,990.0	12,153.4	10,550.0	41.3	40.7	-63.19	1,307.5	-445.4	975.5	899.8	75.75	12.878
12,700.0	10,990.0	12,253.4	10,550.0	42.6	42.2	-63.19	1,407.5	-446.2	975.6	897.1	78.56	12.418
12,800.0	10,990.0	12,353.4	10,550.0	44.0	43.6	-63.20	1,507.5	-447.0	975.8	894.3	81.45	11.980
12,900.0	10,990.0	12,453.4	10,550.0	45.4	45.2	-63.20	1,607.5	-447.7	975.9	891.5	84.40	11.562
13,000.0	10,990.0	12,553.4	10,550.0	46.9	46.8	-63.20	1,707.5	-448.5	976.0	888.6	87.42	11.165
13,100.0	10,990.0	12,653.4	10,550.0	48.4	48.4	-63.21	1,807.5	-449.3	976.2	885.7	90.49	10.788
13,200.0	10,990.0	12,753.4	10,550.0	50.0	50.0	-63.21	1,907.5	-450.1	976.3	882.7	93.61	10.430
13,300.0	10,990.0	12,853.4	10,550.0	51.6	51.7	-63.22	2,007.5	-450.9	976.4	879.7	96.77	10.091
13,400.0	10,990.0	12,953.4	10,550.0	53.3	53.4	-63.22	2,107.5	-451.7	976.6	876.6	99.97	9.769
13,500.0	10,990.0	13,053.4	10,550.0	54.9	55.2	-63.22	2,207.5	-452.5	976.7	873.5	103.21	9.464
13,600.0	10,990.0	13,153.4	10,550.0	56.7	56.9	-63.23	2,307.4	-453.2	976.8	870.3	106.48	9.174
13,700.0	10,990.0	13,253.4	10,550.0	58.4	58.7	-63.23	2,407.4	-454.0	977.0	867.2	109.78	8.899
13,800.0	10,990.0	13,353.4	10,550.0	60.1	60.5	-63.24	2,507.4	-454.8	977.1	864.0	113.10	8.639
13,900.0	10,990.0	13,453.4	10,550.0	61.9	62.3	-63.24	2,607.4	-455.6	977.2	860.8	116.46	8.391
14,000.0	10,990.0	13,553.4	10,550.0	63.7	64.2	-63.24	2,707.4	-456.4	977.3	857.5	119.83	8.156
14,100.0	10,990.0	13,653.4	10,550.0	65.5	66.0	-63.25	2,807.4	-457.2	977.5	854.2	123.23	7.932
14,200.0	10,990.0	13,753.4	10,550.0	67.3	67.9	-63.25	2,907.4	-458.0	977.6	851.0	126.64	7.719
14,300.0	10,990.0	13,853.4	10,550.0	69.1	69.7	-63.26	3,007.4	-458.7	977.7	847.7	130.08	7.517
14,400.0	10,990.0	13,953.4	10,550.0	71.0	71.6	-63.26	3,107.4	-459.5	977.9	844.3	133.53	7.323
14,500.0	10,990.0	14,053.4	10,550.0	72.8	73.5	-63.26	3,207.4	-460.3	978.0	841.0	136.99	7.139
14,600.0	10,990.0	14,153.4	10,550.0	74.7	75.4	-63.27	3,307.4	-461.1	978.1	837.7	140.47	6.963
14,700.0	10,990.0	14,253.4	10,550.0	76.6	77.2	-63.27	3,407.4	-461.9	978.3	834.3	143.97	6.795
14,800.0	10,990.0	14,353.4	10,550.0	78.5	79.2	-63.27	3,507.4	-462.7	978.4	830.9	147.47	6.635
14,900.0	10,990.0	14,453.4	10,550.0	80.3	81.1	-63.28	3,607.4	-463.5	978.5	827.5	150.99	6.481
15,000.0	10,990.0	14,553.4	10,550.0	82.2	83.0	-63.28	3,707.4	-464.2	978.7	824.1	154.51	6.334
15,100.0	10,990.0	14,653.4	10,550.0	84.1	84.9	-63.29	3,807.4	-465.0	978.8	820.7	158.05	6.193
15,200.0	10,990.0	14,753.4	10,550.0	86.0	86.8	-63.29	3,907.4	-465.8	978.9	817.3	161.59	6.058
15,300.0	10,990.0	14,853.4	10,550.0	87.9	88.7	-63.29	4,007.4	-466.6	979.0	813.9	165.15	5.928
15,400.0	10,990.0	14,953.4	10,550.0	89.9	90.7	-63.30	4,107.4	-467.4	979.2	810.5	168.71	5.804
15,500.0	10,990.0	15,053.4	10,550.0	91.8	92.6	-63.30	4,207.4	-468.2	979.3	807.0	172.28	5.684
15,600.0	10,990.0	15,153.4	10,550.0	93.7	94.6	-63.31	4,307.4	-469.0	979.4	803.6	175.85	5.570
15,700.0	10,990.0	15,253.4	10,550.0	95.6	96.5	-63.31	4,407.4	-469.7	979.6	800.1	179.44	5.459
15,800.0	10,990.0	15,353.4	10,550.0	97.6	98.4	-63.31	4,507.4	-470.5	979.7	796.7	183.03	5.353
15,900.0	10,990.0	15,453.4	10,550.0	99.5	100.4	-63.32	4,607.4	-471.3	979.8	793.2	186.62	5.250
16,000.0	10,990.0	15,553.4	10,550.0	101.5	102.3	-63.32	4,707.4	-472.1	980.0	789.7	190.22	5.152
16,100.0	10,990.0	15,653.4	10,550.0	103.4	104.3	-63.32	4,807.4	-472.9	980.1	786.3	193.83	5.056
16,200.0	10,990.0	15,753.4	10,550.0	105.3	106.3	-63.33	4,907.4	-473.7	980.2	782.8	197.44	4.965
16,300.0	10,990.0	15,853.4	10,550.0	107.3	108.2	-63.33	5,007.4	-474.5	980.4	779.3	201.06	4.876
16,400.0	10,990.0	15,953.4	10,550.0	109.2	110.2	-63.34	5,107.4	-475.2	980.5	775.8	204.68	4.790
16,500.0	10,990.0	16,053.4	10,550.0	111.2	112.1	-63.34	5,207.4	-476.0	980.6	772.3	208.31	4.708
16,600.0	10,990.0	16,153.4	10,550.0	113.2	114.1	-63.34	5,307.4	-476.8	980.7	768.8	211.93	4.628
16,700.0	10,990.0	16,253.4	10,550.0	115.1	116.1	-63.35	5,407.3	-477.6	980.9	765.3	215.57	4.550
16,800.0	10,990.0	16,353.4	10,550.0	117.1	118.0	-63.35	5,507.3	-478.4	981.0	761.8	219.21	4.475
16,900.0	10,990.0	16,453.4	10,550.0	119.0	120.0	-63.36	5,607.3	-479.2	981.1	758.3	222.85	4.403
17,000.0	10,990.0	16,553.4	10,550.0	121.0	122.0	-63.36	5,707.3	-480.0	981.3	754.8	226.49	4.333
17,100.0	10,990.0	16,653.4	10,550.0	123.0	124.0	-63.36	5,807.3	-480.7	981.4	751.3	230.14	4.264
17,200.0	10,990.0	16,753.4	10,550.0	124.9	125.9	-63.37	5,907.3	-481.5	981.5	747.7	233.79	4.198
17,300.0	10,990.0	16,853.4	10,550.0	126.9	127.9	-63.37	6,007.3	-482.3	981.7	744.2	237.44	4.134
17,400.0	10,990.0	16,953.4	10,550.0	128.9	129.9	-63.37	6,107.3	-483.1	981.8	740.7	241.10	4.072
17,500.0	10,990.0	17,053.4	10,550.0	130.9	131.9	-63.38	6,207.3	-483.9	981.9	737.2	244.75	4.012
17,600.0	10,990.0	17,153.4	10,550.0	132.8	133.9	-63.38	6,307.3	-484.7	982.1	733.6	248.42	3.953

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 514H - Dagger State Com 514H - Dagger State Com 514H - 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 Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,700.0	10,990.0	17,253.4	10,550.0	134.8	135.8	-63.39	6,407.3	-485.5	982.2	730.1	252.08	3.896		
17,800.0	10,990.0	17,353.4	10,550.0	136.8	137.8	-63.39	6,507.3	-486.2	982.3	726.6	255.75	3.841		
17,900.0	10,990.0	17,453.4	10,550.0	138.8	139.8	-63.39	6,607.3	-487.0	982.5	723.0	259.41	3.787		
18,000.0	10,990.0	17,553.4	10,550.0	140.7	141.8	-63.40	6,707.3	-487.8	982.6	719.5	263.08	3.735		
18,100.0	10,990.0	17,653.4	10,550.0	142.7	143.8	-63.40	6,807.3	-488.6	982.7	716.0	266.76	3.684		
18,200.0	10,990.0	17,753.4	10,550.0	144.7	145.8	-63.41	6,907.3	-489.4	982.8	712.4	270.43	3.634		
18,300.0	10,990.0	17,853.4	10,550.0	146.7	147.7	-63.41	7,007.3	-490.2	983.0	708.9	274.11	3.586		
18,400.0	10,990.0	17,953.4	10,550.0	148.7	149.7	-63.41	7,107.3	-491.0	983.1	705.3	277.79	3.539		
18,500.0	10,990.0	18,053.4	10,550.0	150.6	151.7	-63.42	7,207.3	-491.7	983.2	701.8	281.47	3.493		
18,600.0	10,990.0	18,153.4	10,550.0	152.6	153.7	-63.42	7,307.3	-492.5	983.4	698.2	285.15	3.449		
18,700.0	10,990.0	18,253.4	10,550.0	154.6	155.7	-63.42	7,407.3	-493.3	983.5	694.7	288.83	3.405		
18,800.0	10,990.0	18,353.4	10,550.0	156.6	157.7	-63.43	7,507.3	-494.1	983.6	691.1	292.52	3.363		
18,900.0	10,990.0	18,453.4	10,550.0	158.6	159.7	-63.43	7,607.3	-494.9	983.8	687.6	296.20	3.321		
19,000.0	10,990.0	18,553.4	10,550.0	160.6	161.7	-63.44	7,707.3	-495.7	983.9	684.0	299.89	3.281		
19,100.0	10,990.0	18,653.4	10,550.0	162.6	163.7	-63.44	7,807.3	-496.5	984.0	680.4	303.58	3.241		
19,119.0	10,990.0	18,671.5	10,550.0	162.9	164.0	-63.44	7,825.4	-496.6	984.0	679.8	304.28	3.234		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - Prelim 1											Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM											Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
0.0	0.0	0.0	0.0	0.0	0.0	89.62	0.2	29.9	29.9			
100.0	100.0	100.0	100.0	0.5	0.5	89.62	0.2	29.9	29.9	28.9	1.06	28.221
200.0	200.0	200.0	200.0	1.7	1.7	89.62	0.2	29.9	29.9	26.5	3.42	8.740
300.0	300.0	300.0	300.0	2.4	2.4	89.62	0.2	29.9	29.9	25.1	4.82	6.204
400.0	400.0	400.0	400.0	3.0	3.0	89.62	0.2	29.9	29.9	24.0	5.91	5.065
500.0	500.0	500.0	500.0	3.4	3.4	89.62	0.2	29.9	29.9	23.1	6.83	4.381
524.1	524.1	524.1	524.1	3.5	3.5	89.62	0.2	29.9	29.9	22.9	7.03	4.258
600.0	600.0	600.0	600.0	3.8	3.8	89.62	0.2	29.9	29.9	22.3	7.65	3.912
633.3	633.3	633.3	633.3	3.9	3.9	89.62	0.2	29.9	29.9	22.0	7.90	3.789
700.0	700.0	700.0	700.0	4.2	4.2	89.62	0.2	29.9	29.9	21.5	8.39	3.565
800.0	800.0	800.0	800.0	4.5	4.5	89.62	0.2	29.9	29.9	20.8	9.08	3.294
900.0	900.0	900.0	900.0	4.9	4.9	89.62	0.2	29.9	29.9	20.2	9.73	3.075
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	89.62	0.2	29.9	29.9	19.6	10.34	2.894
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	89.62	0.2	29.9	29.9	19.0	10.92	2.739
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	89.62	0.2	29.9	29.9	18.4	11.48	2.607
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	89.62	0.2	29.9	29.9	17.9	12.01	2.490
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	89.62	0.2	29.9	29.9	17.4	12.53	2.388
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	89.62	0.2	29.9	29.9	16.9	13.03	2.296
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	89.62	0.2	29.9	29.9	16.4	13.52	2.214
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	89.62	0.2	29.9	29.9	15.9	13.99	2.139
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	89.62	0.2	29.9	29.9	15.5	14.45	2.071
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	89.62	0.2	29.9	29.9	15.0	14.90	2.008
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	89.62	0.2	29.9	29.9	14.6	15.34	1.951
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.62	0.2	29.9	29.9	14.2	15.77	1.897
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	89.62	0.2	29.9	29.9	13.7	16.19	1.848
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	89.62	0.2	29.9	29.9	13.3	16.61	1.802
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	89.62	0.2	29.9	29.9	12.9	17.02	1.759
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	89.62	0.2	29.9	29.9	12.5	17.42	1.718
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	89.62	0.2	29.9	29.9	12.1	17.81	1.680
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	89.62	0.2	29.9	29.9	11.7	18.20	1.644
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	89.62	0.2	29.9	29.9	11.3	18.59	1.610
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	89.62	0.2	29.9	29.9	11.0	18.96	1.578
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	89.62	0.2	29.9	29.9	10.6	19.34	1.547
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	89.62	0.2	29.9	29.9	10.2	19.71	1.518
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	89.62	0.2	29.9	29.9	9.8	20.07	1.491 Level 3
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	89.62	0.2	29.9	29.9	9.5	20.44	1.464 Level 3
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	89.62	0.2	29.9	29.9	9.1	20.79	1.439 Level 3
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	89.62	0.2	29.9	29.9	8.8	21.15	1.415 Level 3
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	89.62	0.2	29.9	29.9	8.4	21.50	1.392 Level 3
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	89.62	0.2	29.9	29.9	8.1	21.85	1.370 Level 3
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	89.62	0.2	29.9	29.9	7.7	22.19	1.348 Level 3
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	89.62	0.2	29.9	29.9	7.4	22.53	1.328 Level 3
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	89.62	0.2	29.9	29.9	7.1	22.87	1.308 Level 3
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	89.62	0.2	29.9	29.9	6.7	23.21	1.289 Level 3
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	89.62	0.2	29.9	29.9	6.4	23.54	1.271 Level 3
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	89.62	0.2	29.9	29.9	6.1	23.87	1.254 Level 3
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	89.62	0.2	29.9	29.9	5.7	24.20	1.237 Level 3
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	89.62	0.2	29.9	29.9	5.4	24.53	1.220 Level 3
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	89.62	0.2	29.9	29.9	5.1	24.85	1.204 Level 3
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	89.62	0.2	29.9	29.9	4.8	25.17	1.189 Level 3
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	89.62	0.2	29.9	29.9	4.4	25.49	1.174 Level 3
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	89.62	0.2	29.9	29.9	4.1	25.81	1.159 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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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 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)			
4,966.7	4,966.7	4,966.7	4,966.7	13.0	13.0	89.62	0.2	29.9	29.9	3.9	26.02	1.150	Level 3
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	89.62	0.2	29.9	29.9	3.8	26.12	1.145	Level 3, CC, ES, SF
5,100.0	5,100.0	5,099.6	5,099.6	13.2	13.2	90.82	-0.4	30.5	30.5	4.1	26.37	1.157	Level 3
5,200.0	5,200.0	5,199.2	5,199.2	13.4	13.2	94.16	-2.3	32.3	32.4	5.8	26.60	1.217	Level 3
5,300.0	5,300.0	5,298.7	5,298.6	13.5	13.3	-53.39	-5.5	35.2	35.1	8.4	26.77	1.312	Level 3
5,400.0	5,400.0	5,398.2	5,397.8	13.5	13.5	-50.73	-10.0	39.3	38.3	11.4	26.93	1.422	Level 3
5,500.0	5,499.9	5,497.5	5,496.9	13.6	13.6	-48.92	-15.7	44.5	41.8	14.7	27.11	1.542	
5,600.0	5,599.7	5,596.8	5,595.7	13.7	13.8	-47.79	-22.6	51.0	45.6	18.3	27.32	1.670	
5,700.0	5,699.4	5,696.0	5,694.3	13.9	13.9	-47.21	-30.9	58.5	49.7	22.1	27.56	1.804	
5,800.0	5,798.9	5,795.2	5,792.7	14.0	14.2	-47.06	-40.3	67.3	54.1	26.2	27.82	1.943	
5,851.2	5,849.8	5,845.9	5,842.9	14.1	14.3	-47.11	-45.6	72.2	56.4	28.4	27.95	2.017	
5,900.0	5,898.3	5,894.3	5,890.6	14.1	14.4	-47.11	-51.0	77.1	58.8	30.7	28.08	2.094	
6,000.0	5,997.6	5,994.0	5,989.1	14.3	14.7	-46.79	-62.6	87.8	64.3	35.9	28.42	2.262	
6,100.0	6,097.0	6,093.9	6,087.7	14.5	14.9	-46.52	-74.1	98.4	69.8	41.0	28.80	2.422	
6,200.0	6,196.3	6,193.7	6,186.3	14.8	15.2	-46.29	-85.7	109.1	75.3	46.0	29.23	2.575	
6,300.0	6,295.7	6,293.6	6,284.9	15.0	15.6	-46.09	-97.3	119.7	80.8	51.1	29.68	2.721	
6,400.0	6,395.1	6,393.4	6,383.5	15.3	15.9	-45.91	-108.9	130.4	86.3	56.1	30.16	2.860	
6,500.0	6,494.4	6,493.3	6,482.1	15.6	16.3	-45.76	-120.4	141.1	91.8	61.1	30.67	2.992	
6,600.0	6,593.8	6,593.1	6,580.8	15.9	16.6	-45.62	-132.0	151.7	97.3	66.1	31.20	3.117	
6,700.0	6,693.1	6,693.0	6,679.4	16.2	17.0	-45.50	-143.6	162.4	102.8	71.0	31.76	3.236	
6,800.0	6,792.5	6,792.8	6,778.0	16.6	17.4	-45.39	-155.2	173.1	108.3	75.9	32.34	3.348	
6,900.0	6,891.8	6,892.7	6,876.6	16.9	17.8	-45.29	-166.7	183.7	113.8	80.8	32.94	3.453	
7,000.0	6,991.2	6,992.5	6,975.2	17.3	18.3	-45.20	-178.3	194.4	119.3	85.7	33.57	3.553	
7,100.0	7,090.5	7,092.4	7,073.8	17.6	18.7	-45.12	-189.9	205.0	124.8	90.6	34.21	3.647	
7,200.0	7,189.9	7,192.2	7,172.4	18.0	19.1	-45.05	-201.4	215.7	130.3	95.4	34.87	3.735	
7,300.0	7,289.3	7,292.0	7,271.0	18.4	19.6	-44.98	-213.0	226.4	135.8	100.2	35.55	3.819	
7,400.0	7,388.6	7,391.9	7,369.6	18.8	20.1	-44.91	-224.6	237.0	141.3	105.0	36.25	3.897	
7,500.0	7,488.0	7,491.7	7,468.2	19.2	20.5	-44.85	-236.2	247.7	146.8	109.8	36.96	3.971	
7,600.0	7,587.3	7,591.6	7,566.8	19.6	21.0	-44.80	-247.7	258.4	152.3	114.6	37.69	4.040	
7,700.0	7,686.7	7,691.4	7,665.4	20.1	21.5	-44.75	-259.3	269.0	157.8	119.3	38.43	4.106	
7,800.0	7,786.0	7,791.3	7,764.0	20.5	22.0	-44.70	-270.9	279.7	163.3	124.1	39.18	4.167	
7,900.0	7,885.4	7,891.1	7,862.6	20.9	22.5	-44.66	-282.5	290.4	168.8	128.8	39.95	4.225	
8,000.0	7,984.7	7,991.0	7,961.2	21.4	23.0	-44.62	-294.0	301.0	174.3	133.6	40.73	4.279	
8,100.0	8,084.1	8,090.8	8,059.8	21.8	23.5	-44.58	-305.6	311.7	179.8	138.3	41.52	4.330	
8,200.0	8,183.4	8,190.7	8,158.4	22.3	24.0	-44.54	-317.2	322.3	185.3	143.0	42.32	4.379	
8,300.0	8,282.8	8,290.5	8,257.0	22.8	24.6	-44.51	-328.8	333.0	190.8	147.7	43.13	4.424	
8,400.0	8,382.2	8,390.4	8,355.6	23.2	25.1	-44.47	-340.3	343.7	196.3	152.3	43.94	4.467	
8,500.0	8,481.5	8,490.2	8,454.2	23.7	25.6	-44.44	-351.9	354.3	201.8	157.0	44.77	4.507	
8,600.0	8,580.9	8,590.1	8,552.8	24.2	26.2	-44.41	-363.5	365.0	207.3	161.7	45.61	4.545	
8,700.0	8,680.2	8,689.9	8,651.4	24.7	26.7	-44.39	-375.0	375.7	212.8	166.3	46.45	4.581	
8,800.0	8,779.6	8,789.8	8,750.0	25.2	27.3	-44.36	-386.6	386.3	218.3	171.0	47.30	4.615	
8,900.0	8,878.9	8,891.4	8,850.4	25.7	27.8	-44.37	-398.2	397.0	223.6	175.5	48.13	4.646	
9,000.0	8,978.3	8,994.9	8,952.8	26.1	28.3	-44.59	-408.8	406.8	227.5	178.6	48.91	4.651	
9,100.0	9,077.6	9,098.4	9,055.5	26.6	28.9	-45.04	-418.1	415.3	229.9	180.3	49.63	4.633	
9,200.0	9,177.0	9,201.9	9,158.5	27.1	29.4	-45.73	-425.9	422.5	230.7	180.5	50.24	4.593	
9,300.0	9,276.3	9,305.3	9,261.6	27.7	29.9	-46.66	-432.4	428.5	230.1	179.4	50.75	4.534	
9,400.0	9,375.7	9,408.6	9,364.6	28.2	30.4	-47.85	-437.6	433.3	228.0	176.9	51.13	4.460	
9,500.0	9,475.1	9,511.8	9,467.6	28.7	30.8	-49.34	-441.3	436.7	224.6	173.2	51.36	4.373	
9,600.0	9,574.4	9,614.6	9,570.5	29.2	31.2	-51.16	-443.7	438.9	219.9	168.5	51.40	4.277	
9,700.0	9,673.8	9,717.2	9,673.0	29.7	31.5	-53.37	-444.8	439.9	214.0	162.8	51.20	4.179	
9,776.9	9,750.2	9,794.4	9,750.2	30.1	31.6	-55.29	-444.8	439.9	208.9	158.1	50.79	4.113	
9,800.0	9,773.1	9,817.3	9,773.1	30.2	31.6	-55.86	-444.8	439.9	207.4	156.8	50.65	4.096	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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				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	
9,900.0	9,872.6	9,917.8	9,873.5	30.7	31.5	-58.69	-443.0	439.9	201.8	151.9	49.90	4.045	
10,000.0	9,972.3	10,014.1	9,968.0	31.2	31.2	-65.76	-425.2	439.8	198.2	150.6	47.55	4.168	
10,010.5	9,982.8	10,023.6	9,977.1	31.2	31.2	-66.74	-422.4	439.8	198.1	150.9	47.23	4.195	
10,100.0	10,072.0	10,098.5	10,046.4	31.6	30.9	-75.97	-394.2	439.6	202.7	158.0	44.68	4.537	
10,200.0	10,171.9	10,169.5	10,107.3	32.1	30.7	-86.47	-357.8	439.3	222.6	179.0	43.60	5.105	
10,300.0	10,271.9	10,225.0	10,150.7	32.5	30.5	-95.04	-323.3	439.1	260.2	215.1	45.05	5.775	
10,400.0	10,371.9	10,275.0	10,186.2	32.8	30.3	-102.46	-288.1	438.9	313.0	265.8	47.25	6.625	
10,428.1	10,400.0	10,288.4	10,195.1	32.8	30.3	46.86	-278.1	438.8	330.1	282.2	47.85	6.898	
10,500.0	10,471.9	10,316.2	10,212.5	32.8	30.2	43.53	-256.4	438.6	377.2	327.8	49.41	7.634	
10,540.7	10,512.5	10,325.0	10,217.8	32.8	30.2	42.53	-249.4	438.6	405.9	355.5	50.34	8.062	
10,550.0	10,521.9	10,333.4	10,222.7	32.8	30.2	28.23	-242.6	438.5	412.5	362.1	50.38	8.187	
10,575.0	10,546.8	10,341.8	10,227.5	32.8	30.2	26.02	-235.6	438.5	430.1	379.3	50.83	8.461	
10,600.0	10,571.7	10,350.0	10,232.0	32.7	30.1	24.09	-228.8	438.5	447.4	396.1	51.28	8.724	
10,625.0	10,596.4	10,359.2	10,237.0	32.6	30.1	22.29	-221.0	438.4	464.2	412.5	51.69	8.979	
10,650.0	10,620.9	10,368.2	10,241.7	32.5	30.1	20.71	-213.5	438.3	480.5	428.4	52.11	9.222	
10,675.0	10,645.1	10,375.0	10,245.2	32.4	30.1	19.43	-207.6	438.3	496.3	443.8	52.55	9.445	
10,700.0	10,668.9	10,386.3	10,250.7	32.4	30.1	18.03	-197.7	438.2	511.6	458.7	52.90	9.671	
10,725.0	10,692.3	10,400.0	10,257.2	32.3	30.1	16.66	-185.6	438.2	526.5	473.2	53.21	9.894	
10,750.0	10,715.2	10,400.0	10,257.2	32.2	30.1	16.08	-185.6	438.2	540.7	486.9	53.77	10.055	
10,775.0	10,737.6	10,414.3	10,263.5	32.1	30.0	14.92	-172.8	438.1	554.2	500.2	54.06	10.252	
10,800.0	10,759.3	10,425.0	10,268.0	32.0	30.0	14.03	-163.1	438.0	567.3	512.8	54.42	10.425	
10,825.0	10,780.4	10,433.3	10,271.4	31.9	30.0	13.31	-155.5	438.0	579.7	524.8	54.81	10.575	
10,850.0	10,800.7	10,443.0	10,275.1	31.8	30.0	12.61	-146.6	437.9	591.4	536.2	55.19	10.717	
10,875.0	10,820.2	10,450.0	10,277.7	31.7	30.0	12.06	-140.1	437.8	602.6	547.0	55.60	10.837	
10,900.0	10,838.9	10,462.3	10,282.0	31.6	30.0	11.39	-128.5	437.8	613.0	557.1	55.93	10.961	
10,925.0	10,856.7	10,475.0	10,286.1	31.5	30.0	10.77	-116.5	437.7	622.8	566.6	56.25	11.072	
10,950.0	10,873.5	10,475.0	10,286.1	31.5	30.0	10.55	-116.5	437.7	632.0	575.3	56.78	11.132	
10,975.0	10,889.4	10,491.8	10,291.1	31.4	30.0	9.91	-100.5	437.6	640.4	583.3	57.04	11.227	
11,000.0	10,904.2	10,500.0	10,293.3	31.3	30.0	9.53	-92.6	437.5	648.1	590.7	57.43	11.285	
11,025.0	10,918.0	10,511.5	10,296.2	31.3	30.0	9.10	-81.4	437.4	655.2	597.4	57.77	11.340	
11,050.0	10,930.6	10,525.0	10,299.2	31.2	30.0	8.66	-68.3	437.4	661.5	603.4	58.09	11.388	
11,075.0	10,942.1	10,525.0	10,299.2	31.2	30.0	8.56	-68.3	437.4	667.2	608.6	58.60	11.385	
11,100.0	10,952.4	10,541.4	10,302.4	31.2	30.1	8.11	-52.2	437.2	672.0	613.1	58.87	11.414	
11,125.0	10,961.5	10,550.0	10,303.8	31.2	30.1	7.85	-43.7	437.2	676.1	616.9	59.26	11.410	
11,150.0	10,969.4	10,561.4	10,305.5	31.2	30.1	7.56	-32.5	437.1	679.5	619.9	59.60	11.402	
11,175.0	10,976.1	10,575.0	10,307.2	31.2	30.1	7.24	-19.0	437.0	682.2	622.3	59.91	11.388	
11,200.0	10,981.4	10,575.0	10,307.2	31.2	30.1	7.21	-19.0	437.0	684.2	623.8	60.40	11.329	
11,225.0	10,985.5	10,591.5	10,308.7	31.2	30.1	6.87	-2.6	436.9	685.4	624.7	60.67	11.297	
11,250.0	10,988.3	10,600.0	10,309.3	31.3	30.2	6.69	5.9	436.9	685.8	624.8	61.04	11.236	
11,275.0	10,989.7	10,611.5	10,309.8	31.3	30.2	6.48	17.5	436.8	685.6	624.2	61.37	11.170	
11,290.7	10,990.0	10,617.8	10,309.9	31.4	30.2	6.37	23.8	436.7	685.0	623.4	61.58	11.123	
11,300.0	10,990.0	10,626.7	10,310.0	31.4	30.2	6.20	32.7	436.7	684.7	623.0	61.64	11.107	
11,400.0	10,990.0	10,712.0	10,310.0	31.7	30.5	4.75	117.9	436.1	682.4	620.0	62.41	10.935	
11,500.0	10,990.0	10,810.4	10,310.0	32.2	30.9	3.31	216.3	435.4	681.2	618.2	62.99	10.815	
11,600.0	10,990.0	10,909.4	10,310.0	32.7	31.3	2.14	315.3	434.7	680.5	616.9	63.61	10.697	
11,700.0	10,990.0	11,008.8	10,310.0	33.3	31.9	1.24	414.7	434.1	680.2	615.9	64.31	10.576	
11,800.0	10,990.0	11,108.5	10,310.0	33.9	32.5	0.63	514.4	433.4	680.0	614.9	65.09	10.447	
11,900.0	10,990.0	11,208.4	10,310.0	34.6	33.3	0.30	614.4	432.7	680.0	614.0	65.98	10.307	
11,959.2	10,990.0	11,267.7	10,310.0	35.0	33.8	0.25	673.6	432.3	680.0	613.5	66.55	10.218	
12,000.0	10,990.0	11,308.4	10,310.0	35.3	34.1	0.25	714.4	432.0	680.0	613.0	66.96	10.155	
12,100.0	10,990.0	11,408.4	10,310.0	36.1	35.0	0.25	814.4	431.3	680.0	612.0	68.02	9.998	
12,200.0	10,990.0	11,508.4	10,310.0	37.0	36.1	0.24	914.4	430.7	680.0	610.9	69.13	9.837	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - Prelim 1													Offset Site Error: 0.0 usft		
Survey Program: Reference		0-MWD+HRGM Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
12,300.0	10,990.0	11,608.4	10,310.0	37.9	37.2	0.24	1,014.3	430.0	680.0	609.7	70.29	9.674			
12,400.0	10,990.0	11,708.4	10,310.0	39.0	38.4	0.24	1,114.3	429.3	680.0	608.5	71.50	9.510			
12,500.0	10,990.0	11,808.4	10,310.0	40.1	39.6	0.23	1,214.3	428.6	680.0	607.2	72.76	9.346			
12,600.0	10,990.0	11,908.4	10,310.0	41.3	41.0	0.23	1,314.3	427.9	680.0	605.9	74.06	9.182			
12,700.0	10,990.0	12,008.4	10,310.0	42.6	42.4	0.23	1,414.3	427.3	680.0	604.6	75.40	9.018			
12,800.0	10,990.0	12,108.4	10,310.0	44.0	43.8	0.22	1,514.3	426.6	680.0	603.2	76.78	8.856			
12,900.0	10,990.0	12,208.4	10,310.0	45.4	45.3	0.22	1,614.3	425.9	680.0	601.8	78.20	8.696			
13,000.0	10,990.0	12,308.4	10,310.0	46.9	46.9	0.21	1,714.3	425.2	680.0	600.4	79.65	8.538			
13,100.0	10,990.0	12,408.4	10,310.0	48.4	48.4	0.21	1,814.3	424.5	680.0	598.9	81.13	8.381			
13,200.0	10,990.0	12,508.4	10,310.0	50.0	50.1	0.21	1,914.3	423.9	680.0	597.4	82.65	8.228			
13,300.0	10,990.0	12,608.4	10,310.0	51.6	51.7	0.20	2,014.3	423.2	680.0	595.8	84.19	8.077			
13,400.0	10,990.0	12,708.4	10,310.0	53.3	53.4	0.20	2,114.3	422.5	680.0	594.2	85.77	7.928			
13,500.0	10,990.0	12,808.4	10,310.0	54.9	55.1	0.20	2,214.3	421.8	680.0	592.6	87.37	7.783			
13,600.0	10,990.0	12,908.4	10,310.0	56.7	56.8	0.19	2,314.3	421.1	680.0	591.0	88.99	7.641			
13,700.0	10,990.0	13,008.4	10,310.0	58.4	58.6	0.19	2,414.3	420.5	680.0	589.4	90.64	7.502			
13,800.0	10,990.0	13,108.4	10,310.0	60.1	60.4	0.19	2,514.3	419.8	680.0	587.7	92.31	7.367			
13,900.0	10,990.0	13,208.4	10,310.0	61.9	62.2	0.18	2,614.3	419.1	680.0	586.0	94.00	7.234			
14,000.0	10,990.0	13,308.4	10,310.0	63.7	64.0	0.18	2,714.3	418.4	680.0	584.3	95.71	7.105			
14,100.0	10,990.0	13,408.4	10,310.0	65.5	65.8	0.18	2,814.3	417.7	680.0	582.6	97.44	6.978			
14,200.0	10,990.0	13,508.4	10,310.0	67.3	67.6	0.17	2,914.3	417.1	680.0	580.8	99.19	6.855			
14,300.0	10,990.0	13,608.4	10,310.0	69.1	69.4	0.17	3,014.3	416.4	680.0	579.0	100.96	6.735			
14,400.0	10,990.0	13,708.4	10,310.0	71.0	71.3	0.17	3,114.3	415.7	680.0	577.3	102.74	6.619			
14,500.0	10,990.0	13,808.4	10,310.0	72.8	73.2	0.16	3,214.3	415.0	680.0	575.5	104.54	6.505			
14,600.0	10,990.0	13,908.4	10,310.0	74.7	75.0	0.16	3,314.3	414.3	680.0	573.7	106.35	6.394			
14,700.0	10,990.0	14,008.4	10,310.0	76.6	76.9	0.15	3,414.3	413.6	680.0	571.8	108.18	6.286			
14,800.0	10,990.0	14,108.4	10,310.0	78.5	78.8	0.15	3,514.3	413.0	680.0	570.0	110.02	6.181			
14,900.0	10,990.0	14,208.4	10,310.0	80.3	80.7	0.15	3,614.3	412.3	680.0	568.1	111.87	6.079			
15,000.0	10,990.0	14,308.4	10,310.0	82.2	82.6	0.14	3,714.3	411.6	680.0	566.3	113.73	5.979			
15,100.0	10,990.0	14,408.4	10,310.0	84.1	84.5	0.14	3,814.3	410.9	680.0	564.4	115.61	5.882			
15,200.0	10,990.0	14,508.4	10,310.0	86.0	86.4	0.14	3,914.3	410.2	680.0	562.5	117.49	5.788			
15,300.0	10,990.0	14,608.4	10,310.0	87.9	88.3	0.13	4,014.3	409.6	680.0	560.6	119.39	5.696			
15,400.0	10,990.0	14,708.4	10,310.0	89.9	90.2	0.13	4,114.3	408.9	680.0	558.7	121.29	5.606			
15,500.0	10,990.0	14,808.4	10,310.0	91.8	92.1	0.13	4,214.3	408.2	680.0	556.8	123.21	5.519			
15,600.0	10,990.0	14,908.4	10,310.0	93.7	94.1	0.12	4,314.3	407.5	680.0	554.9	125.13	5.434			
15,700.0	10,990.0	15,008.4	10,310.0	95.6	96.0	0.12	4,414.3	406.8	680.0	552.9	127.07	5.352			
15,800.0	10,990.0	15,108.4	10,310.0	97.6	97.9	0.12	4,514.3	406.2	680.0	551.0	129.01	5.271			
15,900.0	10,990.0	15,208.4	10,310.0	99.5	99.9	0.11	4,614.3	405.5	680.0	549.0	130.96	5.193			
16,000.0	10,990.0	15,308.4	10,310.0	101.5	101.8	0.11	4,714.3	404.8	680.0	547.1	132.91	5.116			
16,100.0	10,990.0	15,408.4	10,310.0	103.4	103.8	0.11	4,814.3	404.1	680.0	545.1	134.87	5.042			
16,200.0	10,990.0	15,508.4	10,310.0	105.3	105.7	0.10	4,914.3	403.4	680.0	543.2	136.84	4.969			
16,300.0	10,990.0	15,608.4	10,310.0	107.3	107.7	0.10	5,014.3	402.8	680.0	541.2	138.82	4.898			
16,400.0	10,990.0	15,708.4	10,310.0	109.2	109.6	0.10	5,114.3	402.1	680.0	539.2	140.80	4.829			
16,500.0	10,990.0	15,808.4	10,310.0	111.2	111.6	0.09	5,214.3	401.4	680.0	537.2	142.79	4.762			
16,600.0	10,990.0	15,908.4	10,310.0	113.2	113.5	0.09	5,314.2	400.7	680.0	535.2	144.79	4.697			
16,700.0	10,990.0	16,008.4	10,310.0	115.1	115.5	0.08	5,414.2	400.0	680.0	533.2	146.79	4.633			
16,800.0	10,990.0	16,108.4	10,310.0	117.1	117.4	0.08	5,514.2	399.3	680.0	531.2	148.79	4.570			
16,900.0	10,990.0	16,208.4	10,310.0	119.0	119.4	0.08	5,614.2	398.7	680.0	529.2	150.80	4.509			
17,000.0	10,990.0	16,308.4	10,310.0	121.0	121.4	0.07	5,714.2	398.0	680.0	527.2	152.82	4.450			
17,100.0	10,990.0	16,408.4	10,310.0	123.0	123.3	0.07	5,814.2	397.3	680.0	525.2	154.84	4.392			
17,200.0	10,990.0	16,508.4	10,310.0	124.9	125.3	0.07	5,914.2	396.6	680.0	523.1	156.86	4.335			
17,300.0	10,990.0	16,608.4	10,310.0	126.9	127.3	0.06	6,014.2	395.9	680.0	521.1	158.89	4.280			
17,400.0	10,990.0	16,708.4	10,310.0	128.9	129.2	0.06	6,114.2	395.3	680.0	519.1	160.92	4.226			

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 516H - Dagger State Com 516H - Dagger State Com 516H - 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 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)				
17,500.0	10,990.0	16,808.4	10,310.0	130.9	131.2	0.06	6,214.2	394.6	680.0	517.0	162.96	4.173		
17,600.0	10,990.0	16,908.4	10,310.0	132.8	133.2	0.05	6,314.2	393.9	680.0	515.0	165.00	4.121		
17,700.0	10,990.0	17,008.4	10,310.0	134.8	135.2	0.05	6,414.2	393.2	680.0	513.0	167.04	4.071		
17,800.0	10,990.0	17,108.4	10,310.0	136.8	137.1	0.05	6,514.2	392.5	680.0	510.9	169.09	4.021		
17,900.0	10,990.0	17,208.4	10,310.0	138.8	139.1	0.04	6,614.2	391.9	680.0	508.9	171.14	3.973		
18,000.0	10,990.0	17,308.4	10,310.0	140.7	141.1	0.04	6,714.2	391.2	680.0	506.8	173.20	3.926		
18,100.0	10,990.0	17,408.4	10,310.0	142.7	143.1	0.04	6,814.2	390.5	680.0	504.7	175.26	3.880		
18,200.0	10,990.0	17,508.4	10,310.0	144.7	145.1	0.03	6,914.2	389.8	680.0	502.7	177.32	3.835		
18,300.0	10,990.0	17,608.4	10,310.0	146.7	147.0	0.03	7,014.2	389.1	680.0	500.6	179.38	3.791		
18,400.0	10,990.0	17,708.4	10,310.0	148.7	149.0	0.03	7,114.2	388.5	680.0	498.6	181.45	3.748		
18,500.0	10,990.0	17,808.4	10,310.0	150.6	151.0	0.02	7,214.2	387.8	680.0	496.5	183.52	3.705		
18,600.0	10,990.0	17,908.4	10,310.0	152.6	153.0	0.02	7,314.2	387.1	680.0	494.4	185.59	3.664		
18,700.0	10,990.0	18,008.4	10,310.0	154.6	155.0	0.01	7,414.2	386.4	680.0	492.3	187.67	3.623		
18,800.0	10,990.0	18,108.4	10,310.0	156.6	157.0	0.01	7,514.2	385.7	680.0	490.3	189.74	3.584		
18,900.0	10,990.0	18,208.4	10,310.0	158.6	158.9	0.01	7,614.2	385.1	680.0	488.2	191.82	3.545		
19,000.0	10,990.0	18,308.4	10,310.0	160.6	160.9	0.00	7,714.2	384.4	680.0	486.1	193.91	3.507		
19,100.0	10,990.0	18,408.4	10,310.0	162.6	162.9	0.00	7,814.2	383.7	680.0	484.0	195.99	3.470		
19,119.0	10,990.0	18,427.4	10,310.0	162.9	163.3	0.00	7,833.1	383.6	680.0	483.6	196.38	3.463		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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 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	1.0	1.0	0.0	0.0	179.62	-249.9	1.7	249.9				
100.0	100.0	101.0	101.0	0.5	0.5	179.62	-249.9	1.7	249.9	248.9	1.07	233.127	
200.0	200.0	201.0	201.0	1.7	1.7	179.62	-249.9	1.7	249.9	246.5	3.43	72.857	
300.0	300.0	301.0	301.0	2.4	2.4	179.62	-249.9	1.7	249.9	245.1	4.83	51.765	
400.0	400.0	401.0	401.0	3.0	3.0	179.62	-249.9	1.7	249.9	244.0	5.91	42.272	
500.0	500.0	501.0	501.0	3.4	3.4	179.62	-249.9	1.7	249.9	243.1	6.83	36.571	
600.0	600.0	601.0	601.0	3.8	3.8	179.62	-249.9	1.7	249.9	242.3	7.65	32.662	
700.0	700.0	701.0	701.0	4.2	4.2	179.62	-249.9	1.7	249.9	241.5	8.40	29.764	
800.0	800.0	801.0	801.0	4.5	4.5	179.62	-249.9	1.7	249.9	240.9	9.09	27.505	
900.0	900.0	901.0	901.0	4.9	4.9	179.62	-249.9	1.7	249.9	240.2	9.73	25.679	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	179.62	-249.9	1.7	249.9	239.6	10.34	24.162	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	179.62	-249.9	1.7	249.9	239.0	10.93	22.876	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	179.62	-249.9	1.7	249.9	238.5	11.48	21.767	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	179.62	-249.9	1.7	249.9	237.9	12.02	20.798	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	179.62	-249.9	1.7	249.9	237.4	12.53	19.941	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	179.62	-249.9	1.7	249.9	236.9	13.03	19.176	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	179.62	-249.9	1.7	249.9	236.4	13.52	18.488	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	179.62	-249.9	1.7	249.9	235.9	13.99	17.864	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	179.62	-249.9	1.7	249.9	235.5	14.45	17.295	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	179.62	-249.9	1.7	249.9	235.0	14.90	16.773	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	179.62	-249.9	1.7	249.9	234.6	15.34	16.292	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	179.62	-249.9	1.7	249.9	234.2	15.77	15.847	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	179.62	-249.9	1.7	249.9	233.7	16.19	15.433	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	179.62	-249.9	1.7	249.9	233.3	16.61	15.048	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	179.62	-249.9	1.7	249.9	232.9	17.02	14.687	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	179.62	-249.9	1.7	249.9	232.5	17.42	14.349	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	179.62	-249.9	1.7	249.9	232.1	17.81	14.030	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	179.62	-249.9	1.7	249.9	231.7	18.20	13.730	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	179.62	-249.9	1.7	249.9	231.4	18.59	13.447	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	179.62	-249.9	1.7	249.9	231.0	18.97	13.178	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	179.62	-249.9	1.7	249.9	230.6	19.34	12.923	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	179.62	-249.9	1.7	249.9	230.2	19.71	12.680	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	179.62	-249.9	1.7	249.9	229.9	20.08	12.449	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	179.62	-249.9	1.7	249.9	229.5	20.44	12.229	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	179.62	-249.9	1.7	249.9	229.1	20.80	12.019	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	179.62	-249.9	1.7	249.9	228.8	21.15	11.818	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	179.62	-249.9	1.7	249.9	228.4	21.50	11.625	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	179.62	-249.9	1.7	249.9	228.1	21.85	11.440	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	179.62	-249.9	1.7	249.9	227.7	22.19	11.262	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	179.62	-249.9	1.7	249.9	227.4	22.53	11.092	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	179.62	-249.9	1.7	249.9	227.1	22.87	10.928	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	179.62	-249.9	1.7	249.9	226.7	23.21	10.769	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	179.62	-249.9	1.7	249.9	226.4	23.54	10.617	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	179.62	-249.9	1.7	249.9	226.1	23.87	10.470	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	179.62	-249.9	1.7	249.9	225.7	24.20	10.328	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	179.62	-249.9	1.7	249.9	225.4	24.53	10.190	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	179.62	-249.9	1.7	249.9	225.1	24.85	10.058	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	179.62	-249.9	1.7	249.9	224.8	25.17	9.929	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	179.62	-249.9	1.7	249.9	224.4	25.49	9.804	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	179.62	-249.9	1.7	249.9	224.1	25.81	9.684	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	179.62	-249.9	1.7	249.9	223.8	26.13	9.567	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	179.62	-249.9	1.7	249.9	223.5	26.44	9.453	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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				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	5,200.0	5,200.0	13.4	13.4	179.62	-249.9	1.7	249.9	223.2	26.75	9.343	
5,216.8	5,216.8	5,217.4	5,217.4	13.4	13.4	28.40	-249.9	1.7	249.9	223.2	26.78	9.332	
5,300.0	5,300.0	5,298.7	5,298.7	13.5	13.5	28.33	-250.4	2.4	249.6	222.7	26.93	9.269	
5,400.0	5,400.0	5,396.4	5,396.4	13.5	13.6	28.12	-251.7	4.5	248.7	221.6	27.09	9.182	
5,500.0	5,499.9	5,494.1	5,494.0	13.6	13.7	27.78	-253.9	8.1	247.2	219.9	27.26	9.067	
5,600.0	5,599.7	5,591.8	5,591.5	13.7	13.8	27.29	-257.0	13.1	245.0	217.5	27.45	8.925	
5,700.0	5,699.4	5,690.6	5,690.0	13.9	13.9	26.68	-260.8	19.3	242.1	214.5	27.62	8.765	
5,800.0	5,798.9	5,790.5	5,789.6	14.0	14.0	26.21	-264.9	25.8	237.8	209.9	27.87	8.534	
5,851.2	5,849.8	5,841.6	5,840.6	14.1	14.1	26.04	-266.9	29.2	235.0	207.0	27.98	8.399	
5,900.0	5,898.3	5,890.3	5,889.2	14.1	14.2	25.88	-268.9	32.3	232.1	204.0	28.09	8.263	
6,000.0	5,997.6	5,990.2	5,988.7	14.3	14.4	25.54	-272.9	38.8	226.3	197.9	28.40	7.969	
6,100.0	6,097.0	6,090.0	6,088.2	14.5	14.6	25.18	-276.9	45.3	220.4	191.7	28.74	7.670	
6,200.0	6,196.3	6,189.8	6,187.8	14.8	14.8	24.80	-280.9	51.8	214.6	185.5	29.10	7.373	
6,300.0	6,295.7	6,289.6	6,287.3	15.0	15.1	24.41	-284.9	58.3	208.7	179.2	29.50	7.077	
6,400.0	6,395.1	6,389.4	6,386.8	15.3	15.3	23.99	-288.9	64.8	202.9	173.0	29.91	6.783	
6,500.0	6,494.4	6,489.3	6,486.3	15.6	15.6	23.54	-292.9	71.3	197.1	166.7	30.36	6.492	
6,600.0	6,593.8	6,589.1	6,585.9	15.9	15.9	23.07	-296.9	77.8	191.3	160.4	30.83	6.204	
6,700.0	6,693.1	6,688.9	6,685.4	16.2	16.2	22.57	-301.0	84.3	185.5	154.2	31.33	5.921	
6,800.0	6,792.5	6,788.7	6,784.9	16.6	16.5	22.03	-305.0	90.8	179.7	147.9	31.85	5.642	
6,900.0	6,891.8	6,888.5	6,884.4	16.9	16.8	21.46	-309.0	97.3	174.0	141.6	32.40	5.369	
7,000.0	6,991.2	6,988.3	6,984.0	17.3	17.1	20.85	-313.0	103.8	168.2	135.2	32.98	5.101	
7,100.0	7,090.5	7,088.2	7,083.5	17.6	17.5	20.20	-317.0	110.2	162.5	128.9	33.58	4.839	
7,200.0	7,189.9	7,188.0	7,183.0	18.0	17.8	19.50	-321.0	116.7	156.8	122.6	34.21	4.584	
7,300.0	7,289.3	7,287.8	7,282.5	18.4	18.2	18.75	-325.0	123.2	151.1	116.3	34.87	4.334	
7,400.0	7,388.6	7,387.6	7,382.1	18.8	18.5	17.94	-329.0	129.7	145.5	109.9	35.55	4.092	
7,500.0	7,488.0	7,487.4	7,481.6	19.2	18.9	17.07	-333.0	136.2	139.9	103.6	36.26	3.857	
7,600.0	7,587.3	7,587.3	7,581.1	19.6	19.3	16.12	-337.0	142.7	134.3	97.3	37.01	3.628	
7,700.0	7,686.7	7,687.1	7,680.7	20.1	19.7	15.09	-341.1	149.2	128.7	91.0	37.79	3.407	
7,800.0	7,786.0	7,786.9	7,780.2	20.5	20.0	13.97	-345.1	155.7	123.2	84.7	38.59	3.193	
7,900.0	7,885.4	7,886.7	7,879.7	20.9	20.4	12.74	-349.1	162.2	117.8	78.4	39.44	2.987	
8,000.0	7,984.7	7,986.5	7,979.2	21.4	20.8	11.40	-353.1	168.7	112.4	72.1	40.31	2.789	
8,100.0	8,084.1	8,086.4	8,078.8	21.8	21.3	9.92	-357.1	175.2	107.1	65.9	41.22	2.598	
8,200.0	8,183.4	8,186.2	8,178.3	22.3	21.7	8.29	-361.1	181.7	101.9	59.7	42.17	2.416	
8,300.0	8,282.8	8,286.0	8,277.8	22.8	22.1	6.48	-365.1	188.2	96.7	53.6	43.15	2.241	
8,400.0	8,382.2	8,385.8	8,377.3	23.2	22.5	4.48	-369.1	194.7	91.7	47.5	44.17	2.076	
8,500.0	8,481.5	8,485.6	8,476.9	23.7	22.9	2.24	-373.1	201.2	86.8	41.6	45.22	1.919	
8,600.0	8,580.9	8,585.4	8,576.4	24.2	23.4	-0.26	-377.2	207.7	82.0	35.7	46.29	1.772	
8,700.0	8,680.2	8,685.3	8,675.9	24.7	23.8	-3.06	-381.2	214.1	77.4	30.0	47.37	1.634	
8,800.0	8,779.6	8,785.1	8,775.4	25.2	24.2	-6.21	-385.2	220.6	73.0	24.6	48.45	1.508	
8,900.0	8,878.9	8,884.9	8,875.0	25.7	24.7	-9.74	-389.2	227.1	68.9	19.4	49.49	1.392 Level 3	
9,000.0	8,978.3	8,984.7	8,974.5	26.1	25.1	-13.71	-393.2	233.6	65.1	14.6	50.46	1.289 Level 3	
9,100.0	9,077.6	9,084.5	9,074.0	26.6	25.6	-18.15	-397.2	240.1	61.6	10.3	51.30	1.200 Level 3	
9,200.0	9,177.0	9,184.4	9,173.5	27.1	26.0	-23.09	-401.2	246.6	58.5	6.5	51.96	1.126 Level 3	
9,300.0	9,276.3	9,284.2	9,273.1	27.7	26.5	-28.53	-405.2	253.1	55.9	3.5	52.35	1.068 Level 3	
9,400.0	9,375.7	9,384.0	9,372.6	28.2	26.9	-34.43	-409.2	259.6	53.9	1.5	52.40	1.028 Level 3	
9,500.0	9,475.1	9,483.8	9,472.1	28.7	27.4	-40.73	-413.3	266.1	52.4	0.4	52.07	1.007 Level 3	
9,600.0	9,574.4	9,583.6	9,571.7	29.2	27.8	-47.30	-417.3	272.6	51.7	0.3	51.33	1.006 Level 3, ES, SF	
9,659.6	9,633.6	9,643.1	9,630.9	29.5	28.1	-51.27	-419.6	276.5	51.5	0.8	50.72	1.016 Level 3, CC	
9,700.0	9,673.8	9,683.4	9,671.2	29.7	28.3	-53.97	-421.3	279.1	51.6	1.3	50.25	1.027 Level 3	
9,776.9	9,750.2	9,760.2	9,747.7	30.1	28.7	-59.07	-424.4	284.1	52.0	2.8	49.24	1.056 Level 3	
9,800.0	9,773.1	9,783.3	9,770.7	30.2	28.8	-60.53	-425.3	285.6	52.2	3.3	48.93	1.068 Level 3	
9,900.0	9,872.6	9,883.1	9,870.3	30.7	29.2	-65.67	-429.3	292.1	54.1	6.2	47.91	1.128 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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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				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	
10,000.0	9,972.3	9,983.1	9,969.9	31.2	29.7	-68.80	-433.3	298.6	56.9	9.4	47.49	1.198	Level 3
10,100.0	10,072.0	10,083.0	10,069.5	31.6	30.2	-70.07	-437.3	305.1	60.4	12.8	47.64	1.268	Level 3
10,200.0	10,171.9	10,182.9	10,169.2	32.1	30.6	-69.74	-441.3	311.6	64.6	16.3	48.32	1.337	Level 3
10,300.0	10,271.9	10,282.8	10,268.7	32.5	31.1	-68.11	-445.4	318.1	69.4	19.9	49.45	1.403	Level 3
10,400.0	10,371.9	10,382.5	10,368.2	32.8	31.6	-65.48	-449.4	324.6	74.9	24.0	50.96	1.471	Level 3
10,428.1	10,400.0	10,410.6	10,396.2	32.8	31.7	86.62	-450.5	326.4	76.7	25.2	51.42	1.491	Level 3
10,500.0	10,471.9	10,482.9	10,468.3	32.8	32.0	88.76	-453.2	330.8	81.0	28.5	52.51	1.543	
10,540.7	10,512.5	10,524.0	10,509.3	32.8	32.2	89.73	-454.6	333.1	83.2	30.1	53.02	1.568	
10,550.0	10,521.9	10,533.4	10,518.8	32.8	32.3	77.12	-454.9	333.5	83.6	30.4	53.16	1.573	
10,575.0	10,546.8	10,558.7	10,543.9	32.8	32.4	78.27	-455.6	334.7	84.6	30.8	53.74	1.573	
10,600.0	10,571.7	10,583.8	10,569.0	32.7	32.5	80.25	-456.3	335.8	85.2	30.6	54.61	1.561	
10,625.0	10,596.4	10,608.8	10,594.0	32.6	32.6	83.03	-456.9	336.8	85.7	30.0	55.75	1.538	
10,650.0	10,620.9	10,633.5	10,618.7	32.5	32.7	86.55	-457.5	337.7	86.2	29.1	57.11	1.510	
10,675.0	10,645.1	10,657.9	10,643.1	32.4	32.8	90.74	-458.0	338.5	87.0	28.4	58.63	1.484	Level 3
10,700.0	10,668.9	10,682.0	10,667.2	32.4	32.9	95.48	-458.4	339.2	88.3	28.1	60.20	1.467	Level 3
10,725.0	10,692.3	10,705.7	10,690.8	32.3	33.0	100.62	-458.8	339.8	90.4	28.8	61.66	1.466	Level 3
10,750.0	10,715.2	10,728.9	10,714.0	32.2	33.1	105.94	-459.1	340.3	93.6	30.8	62.86	1.490	Level 3
10,775.0	10,737.6	10,751.5	10,736.6	32.1	33.2	111.25	-459.3	340.7	98.2	34.5	63.66	1.542	
10,800.0	10,759.3	10,773.5	10,758.7	32.0	33.2	116.36	-459.6	341.1	104.3	40.3	64.01	1.629	
10,825.0	10,780.4	10,794.9	10,780.1	31.9	33.3	121.10	-459.7	341.3	112.0	48.1	63.91	1.752	
10,850.0	10,800.7	10,815.6	10,800.7	31.8	33.4	125.39	-459.8	341.5	121.4	58.0	63.41	1.914	
10,875.0	10,820.2	10,835.5	10,820.6	31.7	33.4	129.16	-459.9	341.6	132.5	69.8	62.65	2.114	
10,900.0	10,838.9	10,854.5	10,839.7	31.6	33.4	132.41	-459.9	341.7	145.1	83.4	61.73	2.350	
10,925.0	10,856.7	10,872.6	10,857.7	31.5	33.4	135.10	-459.9	341.7	159.2	98.5	60.74	2.621	
10,950.0	10,873.5	10,889.4	10,874.5	31.5	33.4	137.23	-459.9	341.7	174.7	115.0	59.74	2.925	
10,975.0	10,889.4	10,905.3	10,890.4	31.4	33.4	138.87	-459.9	341.7	191.5	132.7	58.78	3.258	
11,000.0	10,904.2	10,920.1	10,905.2	31.3	33.4	140.05	-459.9	341.7	209.5	151.6	57.90	3.618	
11,025.0	10,918.0	10,933.8	10,919.0	31.3	33.5	140.76	-459.9	341.7	228.5	171.4	57.08	4.002	
11,050.0	10,930.6	10,946.5	10,931.6	31.2	33.5	141.00	-459.9	341.7	248.4	192.1	56.35	4.408	
11,075.0	10,942.1	10,958.0	10,943.1	31.2	33.5	140.73	-459.9	341.7	269.2	213.5	55.69	4.834	
11,100.0	10,952.4	10,968.3	10,953.4	31.2	33.5	139.89	-459.9	341.7	290.7	235.6	55.10	5.277	
11,125.0	10,961.5	10,977.4	10,962.5	31.2	33.5	138.39	-459.9	341.7	312.9	258.4	54.57	5.735	
11,150.0	10,969.4	10,985.3	10,970.4	31.2	33.5	136.05	-459.9	341.7	335.7	281.6	54.10	6.205	
11,175.0	10,976.1	10,996.6	10,981.7	31.2	33.5	134.15	-459.8	341.7	358.9	305.3	53.62	6.693	
11,200.0	10,981.4	11,017.2	11,002.3	31.2	33.4	134.71	-458.9	341.8	382.1	329.1	53.06	7.202	
11,225.0	10,985.5	11,075.8	11,060.4	31.2	33.4	144.64	-451.8	342.8	405.4	353.0	52.34	7.745	
11,250.0	10,988.3	11,142.3	11,124.7	31.3	33.2	152.38	-435.3	345.0	428.2	376.1	52.13	8.215	
11,275.0	10,989.7	11,288.8	11,254.3	31.3	33.0	163.34	-368.8	354.0	449.4	395.5	53.94	8.333	
11,290.7	10,990.0	11,514.4	11,398.9	31.4	32.8	170.65	-199.8	376.9	459.4	399.3	60.10	7.644	
11,300.0	10,990.0	11,737.6	11,450.0	31.4	33.4	174.03	13.4	405.8	461.5	396.4	65.10	7.089	
11,400.0	10,990.0	11,838.5	11,450.0	31.7	34.0	175.09	113.5	417.8	460.7	395.0	65.69	7.013	
11,500.0	10,990.0	11,939.3	11,450.0	32.2	34.7	176.17	214.0	426.3	460.0	393.6	66.41	6.928	
11,600.0	10,990.0	12,039.9	11,450.0	32.7	35.4	177.25	314.4	431.2	459.5	392.3	67.22	6.837	
11,700.0	10,990.0	12,140.1	11,450.0	33.3	36.3	178.34	414.7	432.6	459.2	391.1	68.11	6.742	
11,800.0	10,990.0	12,239.9	11,450.0	33.9	37.1	179.25	514.4	432.0	459.0	390.0	69.05	6.648	
11,900.0	10,990.0	12,339.8	11,450.0	34.6	38.0	179.72	614.4	431.3	459.0	389.0	69.98	6.559	
11,959.2	10,990.0	12,399.0	11,450.0	35.0	38.5	179.80	673.6	430.9	459.0	388.5	70.51	6.510	
12,000.0	10,990.0	12,439.8	11,450.0	35.3	39.0	179.80	714.3	430.6	459.0	388.1	70.88	6.475	
12,100.0	10,990.0	12,539.8	11,450.0	36.1	40.0	179.81	814.3	430.0	459.0	387.2	71.83	6.390	
12,200.0	10,990.0	12,639.8	11,450.0	37.0	41.1	179.81	914.3	429.3	459.0	386.2	72.84	6.301	
12,300.0	10,990.0	12,739.8	11,450.0	37.9	42.3	179.81	1,014.3	428.7	459.0	385.1	73.90	6.211	
12,400.0	10,990.0	12,839.8	11,450.0	39.0	43.5	179.81	1,114.3	428.0	459.0	384.0	75.01	6.119	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - Prelim 1													Offset Site Error: 0.0 usft		
Survey Program: 0-MWD+HRGM		Offset		Semi Major Axis			Offset Wellbore Centre			Rule Assigned: Distance				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
12,500.0	10,990.0	12,939.8	11,450.0	40.1	44.8	179.82	1,214.3	427.3	459.0	382.8	76.16	6.026			
12,600.0	10,990.0	13,039.8	11,450.0	41.3	46.2	179.82	1,314.3	426.7	459.0	381.6	77.36	5.933			
12,700.0	10,990.0	13,139.8	11,450.0	42.6	47.6	179.82	1,414.3	426.0	459.0	380.4	78.61	5.839			
12,800.0	10,990.0	13,239.8	11,450.0	44.0	49.0	179.83	1,514.3	425.3	459.0	379.1	79.89	5.745			
12,900.0	10,990.0	13,339.8	11,450.0	45.4	50.5	179.83	1,614.3	424.7	459.0	377.8	81.21	5.652			
13,000.0	10,990.0	13,439.8	11,450.0	46.9	52.0	179.83	1,714.3	424.0	459.0	376.4	82.57	5.559			
13,100.0	10,990.0	13,539.8	11,450.0	48.4	53.6	179.83	1,814.3	423.4	459.0	375.0	83.97	5.467			
13,200.0	10,990.0	13,639.8	11,450.0	50.0	55.1	179.84	1,914.3	422.7	459.0	373.6	85.39	5.375			
13,300.0	10,990.0	13,739.8	11,450.0	51.6	56.8	179.84	2,014.3	422.0	459.0	372.1	86.85	5.285			
13,400.0	10,990.0	13,839.8	11,450.0	53.3	58.4	179.84	2,114.3	421.4	459.0	370.7	88.34	5.196			
13,500.0	10,990.0	13,939.8	11,450.0	54.9	60.1	179.85	2,214.3	420.7	459.0	369.1	89.86	5.108			
13,600.0	10,990.0	14,039.8	11,450.0	56.7	61.7	179.85	2,314.3	420.1	459.0	367.6	91.41	5.022			
13,700.0	10,990.0	14,139.8	11,450.0	58.4	63.4	179.85	2,414.3	419.4	459.0	366.0	92.98	4.937			
13,800.0	10,990.0	14,239.8	11,450.0	60.1	65.2	179.85	2,514.3	418.7	459.0	364.4	94.58	4.853			
13,900.0	10,990.0	14,339.8	11,450.0	61.9	66.9	179.86	2,614.3	418.1	459.0	362.8	96.19	4.772			
14,000.0	10,990.0	14,439.8	11,450.0	63.7	68.7	179.86	2,714.3	417.4	459.0	361.2	97.84	4.691			
14,100.0	10,990.0	14,539.8	11,450.0	65.5	70.4	179.86	2,814.3	416.8	459.0	359.5	99.50	4.613			
14,200.0	10,990.0	14,639.8	11,450.0	67.3	72.2	179.86	2,914.3	416.1	459.0	357.8	101.18	4.536			
14,300.0	10,990.0	14,739.8	11,450.0	69.1	74.0	179.87	3,014.3	415.4	459.0	356.1	102.89	4.461			
14,400.0	10,990.0	14,839.8	11,450.0	71.0	75.8	179.87	3,114.3	414.8	459.0	354.4	104.61	4.388			
14,500.0	10,990.0	14,939.8	11,450.0	72.8	77.6	179.87	3,214.3	414.1	459.0	352.7	106.34	4.316			
14,600.0	10,990.0	15,039.8	11,450.0	74.7	79.5	179.88	3,314.3	413.4	459.0	350.9	108.10	4.246			
14,700.0	10,990.0	15,139.8	11,450.0	76.6	81.3	179.88	3,414.3	412.8	459.0	349.1	109.87	4.178			
14,800.0	10,990.0	15,239.8	11,450.0	78.5	83.2	179.88	3,514.3	412.1	459.0	347.3	111.65	4.111			
14,900.0	10,990.0	15,339.8	11,450.0	80.3	85.0	179.88	3,614.3	411.5	459.0	345.5	113.45	4.046			
15,000.0	10,990.0	15,439.8	11,450.0	82.2	86.9	179.89	3,714.3	410.8	459.0	343.7	115.27	3.982			
15,100.0	10,990.0	15,539.8	11,450.0	84.1	88.7	179.89	3,814.3	410.1	459.0	341.9	117.09	3.920			
15,200.0	10,990.0	15,639.8	11,450.0	86.0	90.6	179.89	3,914.3	409.5	459.0	340.1	118.93	3.859			
15,300.0	10,990.0	15,739.8	11,450.0	87.9	92.5	179.89	4,014.3	408.8	459.0	338.2	120.78	3.800			
15,400.0	10,990.0	15,839.8	11,450.0	89.9	94.4	179.90	4,114.3	408.2	459.0	336.4	122.64	3.743			
15,500.0	10,990.0	15,939.8	11,450.0	91.8	96.3	179.90	4,214.3	407.5	459.0	334.5	124.51	3.686			
15,600.0	10,990.0	16,039.8	11,450.0	93.7	98.2	179.90	4,314.3	406.8	459.0	332.6	126.39	3.632			
15,700.0	10,990.0	16,139.8	11,450.0	95.6	100.1	179.91	4,414.3	406.2	459.0	330.7	128.29	3.578			
15,800.0	10,990.0	16,239.8	11,450.0	97.6	102.0	179.91	4,514.3	405.5	459.0	328.8	130.19	3.526			
15,900.0	10,990.0	16,339.8	11,450.0	99.5	103.9	179.91	4,614.3	404.8	459.0	326.9	132.10	3.475			
16,000.0	10,990.0	16,439.8	11,450.0	101.5	105.8	179.91	4,714.3	404.2	459.0	325.0	134.02	3.425			
16,100.0	10,990.0	16,539.8	11,450.0	103.4	107.7	179.92	4,814.3	403.5	459.0	323.1	135.94	3.376			
16,200.0	10,990.0	16,639.8	11,450.0	105.3	109.7	179.92	4,914.3	402.9	459.0	321.1	137.88	3.329			
16,300.0	10,990.0	16,739.8	11,450.0	107.3	111.6	179.92	5,014.3	402.2	459.0	319.2	139.82	3.283			
16,400.0	10,990.0	16,839.8	11,450.0	109.2	113.5	179.93	5,114.2	401.5	459.0	317.2	141.77	3.238			
16,500.0	10,990.0	16,939.8	11,450.0	111.2	115.4	179.93	5,214.2	400.9	459.0	315.3	143.73	3.194			
16,600.0	10,990.0	17,039.8	11,450.0	113.2	117.4	179.93	5,314.2	400.2	459.0	313.3	145.69	3.151			
16,700.0	10,990.0	17,139.8	11,450.0	115.1	119.3	179.93	5,414.2	399.6	459.0	311.3	147.66	3.109			
16,800.0	10,990.0	17,239.8	11,450.0	117.1	121.3	179.94	5,514.2	398.9	459.0	309.4	149.64	3.067			
16,900.0	10,990.0	17,339.8	11,450.0	119.0	123.2	179.94	5,614.2	398.2	459.0	307.4	151.62	3.027			
17,000.0	10,990.0	17,439.8	11,450.0	121.0	125.1	179.94	5,714.2	397.6	459.0	305.4	153.60	2.988			
17,100.0	10,990.0	17,539.8	11,450.0	123.0	127.1	179.94	5,814.2	396.9	459.0	303.4	155.60	2.950			
17,200.0	10,990.0	17,639.8	11,450.0	124.9	129.0	179.95	5,914.2	396.3	459.0	301.4	157.60	2.913			
17,300.0	10,990.0	17,739.8	11,450.0	126.9	131.0	179.95	6,014.2	395.6	459.0	299.4	159.60	2.876			
17,400.0	10,990.0	17,839.8	11,450.0	128.9	133.0	179.95	6,114.2	394.9	459.0	297.4	161.61	2.840			
17,500.0	10,990.0	17,939.8	11,450.0	130.9	134.9	179.96	6,214.2	394.3	459.0	295.4	163.62	2.805			
17,600.0	10,990.0	18,039.8	11,450.0	132.8	136.9	179.96	6,314.2	393.6	459.0	293.4	165.64	2.771			

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - 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 Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,700.0	10,990.0	18,139.8	11,450.0	134.8	138.8	179.96	6,414.2	392.9	459.0	291.3	167.66	2.738		
17,800.0	10,990.0	18,239.8	11,450.0	136.8	140.8	179.96	6,514.2	392.3	459.0	289.3	169.69	2.705		
17,900.0	10,990.0	18,339.8	11,450.0	138.8	142.7	179.97	6,614.2	391.6	459.0	287.3	171.72	2.673		
18,000.0	10,990.0	18,439.8	11,450.0	140.7	144.7	179.97	6,714.2	391.0	459.0	285.2	173.75	2.642		
18,100.0	10,990.0	18,539.8	11,450.0	142.7	146.7	179.97	6,814.2	390.3	459.0	283.2	175.79	2.611		
18,200.0	10,990.0	18,639.8	11,450.0	144.7	148.6	179.97	6,914.2	389.6	459.0	281.2	177.83	2.581		
18,300.0	10,990.0	18,739.8	11,450.0	146.7	150.6	179.98	7,014.2	389.0	459.0	279.1	179.87	2.552		
18,400.0	10,990.0	18,839.8	11,450.0	148.7	152.6	179.98	7,114.2	388.3	459.0	277.1	181.92	2.523		
18,500.0	10,990.0	18,939.8	11,450.0	150.6	154.6	179.98	7,214.2	387.7	459.0	275.0	183.97	2.495		
18,600.0	10,990.0	19,039.8	11,450.0	152.6	156.5	179.99	7,314.2	387.0	459.0	273.0	186.03	2.467		
18,700.0	10,990.0	19,139.8	11,450.0	154.6	158.5	179.99	7,414.2	386.3	459.0	270.9	188.09	2.440		
18,800.0	10,990.0	19,239.8	11,450.0	156.6	160.5	179.99	7,514.2	385.7	459.0	268.9	190.15	2.414		
18,900.0	10,990.0	19,339.8	11,450.0	158.6	162.4	179.99	7,614.2	385.0	459.0	266.8	192.21	2.388		
19,000.0	10,990.0	19,439.8	11,450.0	160.6	164.4	180.00	7,714.2	384.3	459.0	264.7	194.28	2.363		
19,100.0	10,990.0	19,539.8	11,450.0	162.6	166.4	180.00	7,814.2	383.7	459.0	262.7	196.35	2.338		
19,119.0	10,990.0	19,558.7	11,450.0	162.9	166.8	180.00	7,833.1	383.6	459.0	262.3	196.74	2.333		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Rule Assigned:											
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
							+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	0.0	0.0	-173.56	-250.1	-28.2	251.7				
100.0	100.0	100.0	100.0	0.5	0.5	-173.56	-250.1	-28.2	251.7	250.7	1.06	237.408	
200.0	200.0	200.0	200.0	1.7	1.7	-173.56	-250.1	-28.2	251.7	248.3	3.42	73.528	
300.0	300.0	300.0	300.0	2.4	2.4	-173.56	-250.1	-28.2	251.7	246.9	4.82	52.193	
400.0	400.0	400.0	400.0	3.0	3.0	-173.56	-250.1	-28.2	251.7	245.8	5.91	42.608	
500.0	500.0	500.0	500.0	3.4	3.4	-173.56	-250.1	-28.2	251.7	244.9	6.83	36.855	
600.0	600.0	600.0	600.0	3.8	3.8	-173.56	-250.1	-28.2	251.7	244.1	7.65	32.911	
700.0	700.0	700.0	700.0	4.2	4.2	-173.56	-250.1	-28.2	251.7	243.3	8.39	29.989	
800.0	800.0	800.0	800.0	4.5	4.5	-173.56	-250.1	-28.2	251.7	242.6	9.08	27.711	
900.0	900.0	900.0	900.0	4.9	4.9	-173.56	-250.1	-28.2	251.7	242.0	9.73	25.870	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-173.56	-250.1	-28.2	251.7	241.4	10.34	24.342	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-173.56	-250.1	-28.2	251.7	240.8	10.92	23.045	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-173.56	-250.1	-28.2	251.7	240.2	11.48	21.928	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-173.56	-250.1	-28.2	251.7	239.7	12.01	20.951	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-173.56	-250.1	-28.2	251.7	239.2	12.53	20.087	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-173.56	-250.1	-28.2	251.7	238.7	13.03	19.316	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-173.56	-250.1	-28.2	251.7	238.2	13.52	18.623	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-173.56	-250.1	-28.2	251.7	237.7	13.99	17.994	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-173.56	-250.1	-28.2	251.7	237.3	14.45	17.421	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-173.56	-250.1	-28.2	251.7	236.8	14.90	16.895	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-173.56	-250.1	-28.2	251.7	236.4	15.34	16.410	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-173.56	-250.1	-28.2	251.7	236.0	15.77	15.962	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-173.56	-250.1	-28.2	251.7	235.5	16.19	15.545	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-173.56	-250.1	-28.2	251.7	235.1	16.61	15.157	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-173.56	-250.1	-28.2	251.7	234.7	17.02	14.794	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-173.56	-250.1	-28.2	251.7	234.3	17.42	14.453	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-173.56	-250.1	-28.2	251.7	233.9	17.81	14.132	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-173.56	-250.1	-28.2	251.7	233.5	18.20	13.830	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-173.56	-250.1	-28.2	251.7	233.1	18.59	13.544	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-173.56	-250.1	-28.2	251.7	232.8	18.96	13.273	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-173.56	-250.1	-28.2	251.7	232.4	19.34	13.016	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-173.56	-250.1	-28.2	251.7	232.0	19.71	12.772	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-173.56	-250.1	-28.2	251.7	231.7	20.07	12.539	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-173.56	-250.1	-28.2	251.7	231.3	20.44	12.318	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-173.56	-250.1	-28.2	251.7	230.9	20.79	12.106	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-173.56	-250.1	-28.2	251.7	230.6	21.15	11.903	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-173.56	-250.1	-28.2	251.7	230.2	21.50	11.709	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-173.56	-250.1	-28.2	251.7	229.9	21.85	11.522	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-173.56	-250.1	-28.2	251.7	229.5	22.19	11.344	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-173.56	-250.1	-28.2	251.7	229.2	22.53	11.172	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-173.56	-250.1	-28.2	251.7	228.9	22.87	11.006	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-173.56	-250.1	-28.2	251.7	228.5	23.21	10.847	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-173.56	-250.1	-28.2	251.7	228.2	23.54	10.693	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-173.56	-250.1	-28.2	251.7	227.9	23.87	10.545	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-173.56	-250.1	-28.2	251.7	227.5	24.20	10.402	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-173.56	-250.1	-28.2	251.7	227.2	24.53	10.264	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-173.56	-250.1	-28.2	251.7	226.9	24.85	10.130	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-173.56	-250.1	-28.2	251.7	226.6	25.17	10.000	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-173.56	-250.1	-28.2	251.7	226.2	25.49	9.875	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-173.56	-250.1	-28.2	251.7	225.9	25.81	9.753	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-173.56	-250.1	-28.2	251.7	225.6	26.12	9.635	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	-173.56	-250.1	-28.2	251.7	225.3	26.44	9.521	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - 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				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	5,200.0	5,200.0	13.4	13.4	-173.56	-250.1	-28.2	251.7	225.0	26.75	9.410	
5,300.0	5,300.0	5,297.2	5,297.2	13.5	13.5	35.48	-250.6	-28.9	251.6	224.6	26.93	9.341	
5,400.0	5,400.0	5,394.3	5,394.3	13.5	13.6	36.25	-252.0	-31.0	251.1	224.0	27.08	9.273	
5,500.0	5,499.9	5,491.3	5,491.2	13.6	13.7	37.53	-254.3	-34.4	250.5	223.2	27.25	9.193	
5,600.0	5,599.7	5,588.1	5,587.8	13.7	13.8	39.32	-257.5	-39.1	249.8	222.4	27.43	9.106	
5,700.0	5,699.4	5,686.4	5,685.8	13.9	13.9	41.62	-261.5	-45.1	249.1	221.5	27.60	9.023	
5,800.0	5,798.9	5,785.7	5,784.9	14.0	14.0	44.26	-265.7	-51.2	247.6	219.8	27.84	8.895	
5,851.2	5,849.8	5,836.5	5,835.5	14.1	14.1	45.73	-267.8	-54.3	246.6	218.7	27.94	8.825	
5,900.0	5,898.3	5,884.9	5,883.8	14.1	14.2	47.17	-269.8	-57.3	245.6	217.6	28.05	8.758	
6,000.0	5,997.6	5,984.0	5,982.6	14.3	14.4	50.16	-273.9	-63.4	244.2	215.8	28.33	8.620	
6,100.0	6,097.0	6,083.2	6,081.5	14.5	14.6	53.17	-278.1	-69.5	243.4	214.7	28.63	8.499	
6,165.1	6,161.6	6,147.7	6,145.9	14.7	14.7	55.14	-280.8	-73.5	243.2	214.4	28.85	8.432 CC	
6,200.0	6,196.3	6,182.3	6,180.4	14.8	14.8	56.20	-282.2	-75.6	243.3	214.3	28.96	8.400 ES	
6,300.0	6,295.7	6,281.5	6,279.3	15.0	15.0	59.21	-286.3	-81.7	243.9	214.6	29.30	8.322	
6,400.0	6,395.1	6,380.7	6,378.2	15.3	15.3	62.21	-290.5	-87.8	245.1	215.5	29.66	8.265	
6,500.0	6,494.4	6,479.8	6,477.1	15.6	15.6	65.17	-294.6	-93.9	247.1	217.0	30.03	8.229	
6,600.0	6,593.8	6,579.0	6,576.0	15.9	15.8	68.07	-298.7	-100.0	249.7	219.3	30.41	8.211	
6,700.0	6,693.1	6,678.1	6,674.8	16.2	16.1	70.91	-302.9	-106.1	252.9	222.1	30.80	8.212	
6,800.0	6,792.5	6,777.3	6,773.7	16.6	16.4	73.67	-307.0	-112.2	256.7	225.6	31.20	8.230	
6,900.0	6,891.8	6,876.5	6,872.6	16.9	16.7	76.34	-311.1	-118.3	261.2	229.6	31.61	8.264	
7,000.0	6,991.2	6,975.6	6,971.5	17.3	17.0	78.92	-315.3	-124.4	266.2	234.1	32.03	8.311	
7,100.0	7,090.5	7,074.8	7,070.4	17.6	17.4	81.41	-319.4	-130.5	271.7	239.2	32.45	8.371	
7,200.0	7,189.9	7,173.9	7,169.3	18.0	17.7	83.79	-323.5	-136.6	277.7	244.8	32.89	8.442	
7,300.0	7,289.3	7,273.1	7,268.1	18.4	18.1	86.06	-327.7	-142.7	284.2	250.8	33.34	8.523	
7,400.0	7,388.6	7,372.2	7,367.0	18.8	18.4	88.24	-331.8	-148.8	291.1	257.3	33.80	8.611	
7,500.0	7,488.0	7,471.4	7,465.9	19.2	18.8	90.31	-335.9	-154.9	298.4	264.1	34.28	8.705	
7,600.0	7,587.3	7,570.6	7,564.8	19.6	19.1	92.28	-340.1	-161.0	306.1	271.3	34.76	8.805	
7,700.0	7,686.7	7,669.7	7,663.7	20.1	19.5	94.15	-344.2	-167.1	314.1	278.8	35.26	8.909	
7,800.0	7,786.0	7,768.9	7,762.6	20.5	19.9	95.93	-348.3	-173.2	322.4	286.7	35.76	9.016	
7,900.0	7,885.4	7,868.0	7,861.4	20.9	20.3	97.62	-352.5	-179.3	331.1	294.8	36.28	9.125	
8,000.0	7,984.7	7,967.2	7,960.3	21.4	20.7	99.22	-356.6	-185.4	340.0	303.2	36.81	9.236	
8,100.0	8,084.1	8,066.4	8,059.2	21.8	21.1	100.74	-360.7	-191.5	349.2	311.8	37.36	9.347	
8,200.0	8,183.4	8,165.5	8,158.1	22.3	21.5	102.19	-364.9	-197.6	358.6	320.7	37.91	9.458	
8,300.0	8,282.8	8,264.7	8,257.0	22.8	21.9	103.55	-369.0	-203.7	368.2	329.7	38.48	9.569	
8,400.0	8,382.2	8,363.8	8,355.9	23.2	22.3	104.85	-373.1	-209.8	378.0	339.0	39.06	9.679	
8,500.0	8,481.5	8,463.0	8,454.7	23.7	22.7	106.08	-377.3	-215.9	388.0	348.4	39.64	9.788	
8,600.0	8,580.9	8,562.1	8,553.6	24.2	23.2	107.25	-381.4	-222.0	398.2	358.0	40.24	9.895	
8,700.0	8,680.2	8,661.3	8,652.5	24.7	23.6	108.37	-385.5	-228.1	408.5	367.7	40.85	10.001	
8,800.0	8,779.6	8,760.5	8,751.4	25.2	24.0	109.42	-389.7	-234.2	419.0	377.5	41.46	10.105	
8,900.0	8,878.9	8,859.6	8,850.3	25.7	24.4	110.43	-393.8	-240.3	429.6	387.5	42.09	10.207	
9,000.0	8,978.3	8,958.8	8,949.2	26.1	24.9	111.39	-397.9	-246.4	440.3	397.6	42.72	10.307	
9,100.0	9,077.6	9,057.9	9,048.1	26.6	25.3	112.30	-402.1	-252.5	451.2	407.8	43.36	10.405	
9,200.0	9,177.0	9,157.1	9,146.9	27.1	25.8	113.17	-406.2	-258.7	462.1	418.1	44.01	10.500	
9,300.0	9,276.3	9,256.3	9,245.8	27.7	26.2	113.99	-410.3	-264.8	473.2	428.5	44.67	10.594	
9,400.0	9,375.7	9,355.4	9,344.7	28.2	26.7	114.78	-414.5	-270.9	484.4	439.0	45.33	10.685	
9,500.0	9,475.1	9,454.6	9,443.6	28.7	27.1	115.54	-418.6	-277.0	495.6	449.6	46.00	10.774	
9,600.0	9,574.4	9,553.7	9,542.5	29.2	27.6	116.26	-422.8	-283.1	506.9	460.2	46.67	10.861	
9,700.0	9,673.8	9,652.9	9,641.4	29.7	28.0	116.95	-426.9	-289.2	518.3	471.0	47.35	10.946	
9,776.9	9,750.2	9,729.2	9,717.4	30.1	28.4	117.46	-430.1	-293.9	527.1	479.3	47.86	11.013	
9,800.0	9,773.1	9,752.0	9,740.2	30.2	28.5	117.63	-431.0	-295.3	529.8	481.7	48.01	11.034	
9,900.0	9,872.6	9,851.3	9,839.3	30.7	28.9	118.24	-435.2	-301.4	540.7	492.0	48.68	11.108	
10,000.0	9,972.3	9,950.8	9,938.4	31.2	29.4	118.66	-439.3	-307.5	550.8	501.5	49.33	11.166	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - 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
10,100.0	10,072.0	10,050.3	10,037.7	31.6	29.9	118.91	-443.5	-313.6	560.2	510.2	49.97	11.211	
10,200.0	10,171.9	10,150.0	10,137.0	32.1	30.3	118.99	-447.6	-319.8	568.6	518.1	50.58	11.243	
10,300.0	10,271.9	10,250.8	10,237.6	32.5	30.8	118.91	-451.8	-325.9	576.3	525.1	51.15	11.266	
10,400.0	10,371.9	10,359.7	10,346.3	32.8	31.3	118.71	-455.6	-331.6	582.1	530.4	51.70	11.260	
10,428.1	10,400.0	10,390.4	10,376.9	32.8	31.4	-90.15	-456.5	-332.9	583.3	531.5	51.82	11.256	
10,500.0	10,471.9	10,468.8	10,455.3	32.8	31.7	-90.32	-458.3	-335.5	585.8	533.6	52.11	11.241	
10,540.7	10,512.5	10,513.3	10,499.7	32.8	31.9	-90.39	-459.0	-336.6	586.8	534.5	52.26	11.228	
10,550.0	10,521.9	10,523.5	10,509.9	32.8	31.9	-103.21	-459.2	-336.8	587.0	534.7	52.29	11.226	
10,575.0	10,546.8	10,550.7	10,537.2	32.8	32.0	-103.28	-459.5	-337.3	587.7	535.3	52.38	11.220	
10,600.0	10,571.7	10,577.9	10,564.4	32.7	32.1	-103.44	-459.8	-337.7	588.6	536.2	52.46	11.220	
10,625.0	10,596.4	10,604.9	10,591.4	32.6	32.2	-103.71	-460.0	-338.0	589.8	537.3	52.54	11.226	
10,650.0	10,620.9	10,631.7	10,618.1	32.5	32.2	-104.07	-460.1	-338.2	591.2	538.6	52.57	11.247	
10,675.0	10,645.1	10,658.2	10,644.6	32.4	32.3	-104.50	-460.1	-338.2	592.9	540.3	52.59	11.273	
10,700.0	10,668.9	10,682.5	10,668.9	32.4	32.3	-104.96	-460.1	-338.2	594.9	542.3	52.58	11.313	
10,725.0	10,692.3	10,705.9	10,692.3	32.3	32.3	-105.44	-460.1	-338.2	597.3	544.8	52.57	11.363	
10,750.0	10,715.2	10,728.8	10,715.2	32.2	32.3	-105.95	-460.1	-338.2	600.3	547.7	52.55	11.423	
10,775.0	10,737.6	10,751.1	10,737.6	32.1	32.3	-106.47	-460.1	-338.2	603.7	551.2	52.53	11.494	
10,800.0	10,759.3	10,772.8	10,759.3	32.0	32.3	-106.98	-460.1	-338.2	607.8	555.3	52.50	11.577	
10,825.0	10,780.4	10,793.9	10,780.4	31.9	32.3	-107.48	-460.1	-338.2	612.4	560.0	52.47	11.673	
10,850.0	10,800.7	10,814.5	10,800.9	31.8	32.3	-107.93	-459.9	-338.3	617.8	565.3	52.43	11.783	
10,875.0	10,820.2	10,835.4	10,821.9	31.7	32.3	-108.32	-458.9	-338.4	623.8	571.4	52.39	11.907	
10,900.0	10,838.9	10,856.8	10,843.2	31.6	32.3	-108.66	-456.9	-338.7	630.4	578.1	52.34	12.045	
10,925.0	10,856.7	10,878.7	10,864.8	31.5	32.2	-108.95	-453.9	-339.2	637.7	585.4	52.29	12.196	
10,950.0	10,873.5	10,901.2	10,886.9	31.5	32.2	-109.17	-449.8	-339.8	645.6	593.3	52.23	12.360	
10,975.0	10,889.4	10,924.2	10,909.3	31.4	32.2	-109.35	-444.5	-340.5	654.0	601.8	52.18	12.535	
11,000.0	10,904.2	10,947.9	10,932.0	31.3	32.1	-109.47	-438.0	-341.5	663.0	610.9	52.12	12.721	
11,025.0	10,918.0	10,972.3	10,955.1	31.3	32.1	-109.55	-430.1	-342.7	672.5	620.5	52.07	12.916	
11,050.0	10,930.6	10,997.5	10,978.5	31.2	32.0	-109.57	-420.7	-344.1	682.5	630.5	52.03	13.119	
11,075.0	10,942.1	11,023.7	11,002.1	31.2	32.0	-109.55	-409.7	-345.7	693.0	641.0	51.99	13.328	
11,100.0	10,952.4	11,050.8	11,026.0	31.2	31.9	-109.49	-397.0	-347.5	703.8	651.8	51.97	13.542	
11,125.0	10,961.5	11,079.1	11,050.1	31.2	31.8	-109.40	-382.3	-349.7	715.0	663.0	51.97	13.758	
11,150.0	10,969.4	11,108.7	11,074.3	31.2	31.8	-109.26	-365.5	-352.2	726.5	674.5	51.99	13.974	
11,175.0	10,976.1	11,139.7	11,098.5	31.2	31.7	-109.10	-346.2	-355.0	738.3	686.2	52.04	14.187	
11,200.0	10,981.4	11,172.3	11,122.5	31.2	31.7	-108.91	-324.4	-358.2	750.2	698.1	52.12	14.395	
11,225.0	10,985.5	11,206.9	11,146.2	31.2	31.7	-108.69	-299.6	-361.9	762.3	710.1	52.24	14.594	
11,250.0	10,988.3	11,243.5	11,169.3	31.3	31.7	-108.45	-271.5	-366.0	774.5	722.1	52.40	14.780	
11,275.0	10,989.7	11,282.4	11,191.4	31.3	31.7	-108.17	-239.7	-370.7	786.7	734.1	52.62	14.951	
11,290.7	10,990.0	11,308.2	11,204.5	31.4	31.7	-107.98	-217.8	-373.9	794.3	741.5	52.78	15.049	
11,300.0	10,990.0	11,324.2	11,212.1	31.4	31.7	-108.44	-203.9	-376.0	798.8	745.9	52.89	15.103	
11,400.0	10,990.0	11,526.7	11,264.4	31.7	32.2	-110.23	-11.9	-404.2	839.5	784.9	54.56	15.385	
11,500.0	10,990.0	11,668.6	11,265.0	32.2	33.1	-109.08	128.8	-422.7	867.6	811.5	56.07	15.473	
11,600.0	10,990.0	11,806.3	11,265.0	32.7	34.1	-108.30	266.0	-434.0	888.2	830.1	58.02	15.307	
11,700.0	10,990.0	11,947.3	11,265.0	33.3	35.3	-107.84	406.9	-438.7	901.0	840.7	60.32	14.936	
11,800.0	10,990.0	12,048.0	11,265.0	33.9	36.2	-107.66	507.6	-439.5	908.1	845.9	62.18	14.604	
11,900.0	10,990.0	12,147.9	11,265.0	34.6	37.2	-107.56	607.6	-440.3	911.8	847.6	64.20	14.203	
11,959.2	10,990.0	12,207.1	11,265.0	35.0	37.7	-107.54	666.8	-440.7	912.5	847.1	65.41	13.950	
12,000.0	10,990.0	12,247.9	11,265.0	35.3	38.2	-107.54	707.5	-441.0	912.6	846.3	66.27	13.770	
12,100.0	10,990.0	12,347.9	11,265.0	36.1	39.3	-107.54	807.5	-441.8	912.7	844.2	68.48	13.328	
12,200.0	10,990.0	12,447.9	11,265.0	37.0	40.4	-107.53	907.5	-442.6	912.8	842.0	70.84	12.886	
12,300.0	10,990.0	12,547.9	11,265.0	37.9	41.7	-107.53	1,007.5	-443.4	913.0	839.6	73.33	12.450	
12,400.0	10,990.0	12,647.9	11,265.0	39.0	42.9	-107.53	1,107.5	-444.2	913.1	837.2	75.94	12.024	
12,500.0	10,990.0	12,747.9	11,265.0	40.1	44.3	-107.53	1,207.5	-444.9	913.2	834.6	78.65	11.611	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - Prelim 1													Offset Site Error: 0.0 usft						
Survey Program: 0-MWD+HRGM				Reference Offset		Semi Major Axis				Offset Wellbore Centre				Rule Assigned: Distance				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning						
12,600.0	10,990.0	12,847.9	11,265.0	41.3	45.7	-107.52	1,307.5	-445.7	913.4	831.9	81.47	11.212							
12,700.0	10,990.0	12,947.9	11,265.0	42.6	47.1	-107.52	1,407.5	-446.5	913.5	829.1	84.36	10.828							
12,800.0	10,990.0	13,047.9	11,265.0	44.0	48.6	-107.52	1,507.5	-447.3	913.6	826.3	87.34	10.461							
12,900.0	10,990.0	13,147.9	11,265.0	45.4	50.1	-107.51	1,607.5	-448.1	913.8	823.4	90.39	10.110							
13,000.0	10,990.0	13,247.9	11,265.0	46.9	51.7	-107.51	1,707.5	-448.8	913.9	820.4	93.50	9.775							
13,100.0	10,990.0	13,347.9	11,265.0	48.4	53.3	-107.51	1,807.5	-449.6	914.0	817.4	96.66	9.456							
13,200.0	10,990.0	13,447.9	11,265.0	50.0	54.9	-107.51	1,907.5	-450.4	914.2	814.3	99.88	9.152							
13,300.0	10,990.0	13,547.9	11,265.0	51.6	56.5	-107.50	2,007.5	-451.2	914.3	811.2	103.15	8.864							
13,400.0	10,990.0	13,647.9	11,265.0	53.3	58.2	-107.50	2,107.5	-452.0	914.4	808.0	106.46	8.589							
13,500.0	10,990.0	13,747.9	11,265.0	54.9	59.9	-107.50	2,207.5	-452.8	914.6	804.8	109.81	8.329							
13,600.0	10,990.0	13,847.9	11,265.0	56.7	61.6	-107.50	2,307.5	-453.5	914.7	801.5	113.19	8.081							
13,700.0	10,990.0	13,947.9	11,265.0	58.4	63.3	-107.49	2,407.5	-454.3	914.9	798.2	116.61	7.845							
13,800.0	10,990.0	14,047.9	11,265.0	60.1	65.1	-107.49	2,507.5	-455.1	915.0	794.9	120.06	7.621							
13,900.0	10,990.0	14,147.9	11,265.0	61.9	66.8	-107.49	2,607.5	-455.9	915.1	791.6	123.53	7.408							
14,000.0	10,990.0	14,247.9	11,265.0	63.7	68.6	-107.49	2,707.5	-456.7	915.3	788.2	127.03	7.205							
14,100.0	10,990.0	14,347.9	11,265.0	65.5	70.4	-107.48	2,807.5	-457.4	915.4	784.8	130.55	7.012							
14,200.0	10,990.0	14,447.9	11,265.0	67.3	72.2	-107.48	2,907.5	-458.2	915.5	781.4	134.10	6.827							
14,300.0	10,990.0	14,547.9	11,265.0	69.1	74.0	-107.48	3,007.5	-459.0	915.7	778.0	137.66	6.652							
14,400.0	10,990.0	14,647.9	11,265.0	71.0	75.9	-107.47	3,107.5	-459.8	915.8	774.6	141.24	6.484							
14,500.0	10,990.0	14,747.9	11,265.0	72.8	77.7	-107.47	3,207.5	-460.6	915.9	771.1	144.84	6.324							
14,600.0	10,990.0	14,847.9	11,265.0	74.7	79.6	-107.47	3,307.5	-461.3	916.1	767.6	148.45	6.171							
14,700.0	10,990.0	14,947.9	11,265.0	76.6	81.4	-107.47	3,407.5	-462.1	916.2	764.1	152.08	6.025							
14,800.0	10,990.0	15,047.9	11,265.0	78.5	83.3	-107.46	3,507.5	-462.9	916.3	760.6	155.72	5.885							
14,900.0	10,990.0	15,147.9	11,265.0	80.3	85.1	-107.46	3,607.5	-463.7	916.5	757.1	159.37	5.750							
15,000.0	10,990.0	15,247.9	11,265.0	82.2	87.0	-107.46	3,707.4	-464.5	916.6	753.6	163.04	5.622							
15,100.0	10,990.0	15,347.9	11,265.0	84.1	88.9	-107.46	3,807.4	-465.2	916.7	750.0	166.71	5.499							
15,200.0	10,990.0	15,447.9	11,265.0	86.0	90.8	-107.45	3,907.4	-466.0	916.9	746.5	170.40	5.381							
15,300.0	10,990.0	15,547.9	11,265.0	87.9	92.7	-107.45	4,007.4	-466.8	917.0	742.9	174.10	5.267							
15,400.0	10,990.0	15,647.9	11,265.0	89.9	94.6	-107.45	4,107.4	-467.6	917.1	739.3	177.80	5.158							
15,500.0	10,990.0	15,747.9	11,265.0	91.8	96.5	-107.45	4,207.4	-468.4	917.3	735.8	181.51	5.053							
15,600.0	10,990.0	15,847.9	11,265.0	93.7	98.4	-107.44	4,307.4	-469.1	917.4	732.2	185.24	4.953							
15,700.0	10,990.0	15,947.9	11,265.0	95.6	100.3	-107.44	4,407.4	-469.9	917.5	728.6	188.97	4.856							
15,800.0	10,990.0	16,047.9	11,265.0	97.6	102.2	-107.44	4,507.4	-470.7	917.7	725.0	192.70	4.762							
15,900.0	10,990.0	16,147.9	11,265.0	99.5	104.2	-107.44	4,607.4	-471.5	917.8	721.4	196.44	4.672							
16,000.0	10,990.0	16,247.9	11,265.0	101.5	106.1	-107.43	4,707.4	-472.3	918.0	717.8	200.19	4.585							
16,100.0	10,990.0	16,347.9	11,265.0	103.4	108.0	-107.43	4,807.4	-473.0	918.1	714.1	203.95	4.502							
16,200.0	10,990.0	16,447.9	11,265.0	105.3	109.9	-107.43	4,907.4	-473.8	918.2	710.5	207.71	4.421							
16,300.0	10,990.0	16,547.9	11,265.0	107.3	111.9	-107.42	5,007.4	-474.6	918.4	706.9	211.47	4.343							
16,400.0	10,990.0	16,647.9	11,265.0	109.2	113.8	-107.42	5,107.4	-475.4	918.5	703.2	215.24	4.267							
16,500.0	10,990.0	16,747.9	11,265.0	111.2	115.8	-107.42	5,207.4	-476.2	918.6	699.6	219.02	4.194							
16,600.0	10,990.0	16,847.9	11,265.0	113.2	117.7	-107.42	5,307.4	-477.0	918.8	696.0	222.80	4.124							
16,700.0	10,990.0	16,947.9	11,265.0	115.1	119.6	-107.41	5,407.4	-477.7	918.9	692.3	226.59	4.055							
16,800.0	10,990.0	17,047.9	11,265.0	117.1	121.6	-107.41	5,507.4	-478.5	919.0	688.7	230.37	3.989							
16,900.0	10,990.0	17,147.9	11,265.0	119.0	123.5	-107.41	5,607.4	-479.3	919.2	685.0	234.17	3.925							
17,000.0	10,990.0	17,247.9	11,265.0	121.0	125.5	-107.41	5,707.4	-480.1	919.3	681.3	237.96	3.863							
17,100.0	10,990.0	17,347.9	11,265.0	123.0	127.4	-107.40	5,807.4	-480.9	919.4	677.7	241.76	3.803							
17,200.0	10,990.0	17,447.9	11,265.0	124.9	129.4	-107.40	5,907.4	-481.6	919.6	674.0	245.57	3.745							
17,300.0	10,990.0	17,547.9	11,265.0	126.9	131.4	-107.40	6,007.4	-482.4	919.7	670.3	249.37	3.688							
17,400.0	10,990.0	17,647.9	11,265.0	128.9	133.3	-107.40	6,107.4	-483.2	919.8	666.7	253.18	3.633							
17,500.0	10,990.0	17,747.9	11,265.0	130.9	135.3	-107.39	6,207.4	-484.0	920.0	663.0	257.00	3.580							
17,600.0	10,990.0	17,847.9	11,265.0	132.8	137.2	-107.39	6,307.4	-484.8	920.1	659.3	260.81	3.528							
17,700.0	10,990.0	17,947.9	11,265.0	134.8	139.2	-107.39	6,407.4	-485.5	920.2	655.6	264.63	3.477							

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 558H - Dagger State Com 558H - Dagger State Com 558H - 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		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		
17,800.0	10,990.0	18,047.9	11,265.0	136.8	141.2	-107.38	6,507.4	-486.3	920.4	651.9	268.45	3.428		
17,900.0	10,990.0	18,147.9	11,265.0	138.8	143.1	-107.38	6,607.4	-487.1	920.5	648.2	272.27	3.381		
18,000.0	10,990.0	18,247.9	11,265.0	140.7	145.1	-107.38	6,707.4	-487.9	920.6	644.6	276.10	3.334		
18,100.0	10,990.0	18,347.9	11,265.0	142.7	147.1	-107.38	6,807.4	-488.7	920.8	640.9	279.93	3.289		
18,200.0	10,990.0	18,447.9	11,265.0	144.7	149.1	-107.37	6,907.3	-489.4	920.9	637.2	283.76	3.245		
18,300.0	10,990.0	18,547.9	11,265.0	146.7	151.0	-107.37	7,007.3	-490.2	921.1	633.5	287.59	3.203		
18,400.0	10,990.0	18,647.9	11,265.0	148.7	153.0	-107.37	7,107.3	-491.0	921.2	629.8	291.42	3.161		
18,500.0	10,990.0	18,747.9	11,265.0	150.6	155.0	-107.37	7,207.3	-491.8	921.3	626.1	295.26	3.120		
18,600.0	10,990.0	18,847.9	11,265.0	152.6	157.0	-107.36	7,307.3	-492.6	921.5	622.4	299.10	3.081		
18,700.0	10,990.0	18,947.9	11,265.0	154.6	158.9	-107.36	7,407.3	-493.3	921.6	618.7	302.94	3.042		
18,800.0	10,990.0	19,047.9	11,265.0	156.6	160.9	-107.36	7,507.3	-494.1	921.7	614.9	306.78	3.005		
18,900.0	10,990.0	19,147.9	11,265.0	158.6	162.9	-107.36	7,607.3	-494.9	921.9	611.2	310.63	2.968		
19,000.0	10,990.0	19,247.9	11,265.0	160.6	164.9	-107.35	7,707.3	-495.7	922.0	607.5	314.47	2.932		
19,100.0	10,990.0	19,347.9	11,265.0	162.6	166.9	-107.35	7,807.3	-496.5	922.1	603.8	318.32	2.897		
19,119.0	10,990.0	19,366.3	11,265.0	162.9	167.2	-107.35	7,825.7	-496.6	922.2	603.1	319.03	2.891 SF		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	1.0	1.0	0.0	0.0	-166.92	-250.3	-58.2	257.0				
100.0	100.0	101.0	101.0	0.5	0.5	-166.92	-250.3	-58.2	257.0	255.9	1.07	239.716	
200.0	200.0	201.0	201.0	1.7	1.7	-166.92	-250.3	-58.2	257.0	253.6	3.43	74.917	
300.0	300.0	301.0	301.0	2.4	2.4	-166.92	-250.3	-58.2	257.0	252.2	4.83	53.228	
400.0	400.0	401.0	401.0	3.0	3.0	-166.92	-250.3	-58.2	257.0	251.1	5.91	43.467	
500.0	500.0	501.0	501.0	3.4	3.4	-166.92	-250.3	-58.2	257.0	250.2	6.83	37.605	
600.0	600.0	601.0	601.0	3.8	3.8	-166.92	-250.3	-58.2	257.0	249.4	7.65	33.585	
700.0	700.0	701.0	701.0	4.2	4.2	-166.92	-250.3	-58.2	257.0	248.6	8.40	30.606	
800.0	800.0	801.0	801.0	4.5	4.5	-166.92	-250.3	-58.2	257.0	247.9	9.09	28.283	
900.0	900.0	901.0	901.0	4.9	4.9	-166.92	-250.3	-58.2	257.0	247.3	9.73	26.405	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-166.92	-250.3	-58.2	257.0	246.7	10.34	24.845	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-166.92	-250.3	-58.2	257.0	246.1	10.93	23.523	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-166.92	-250.3	-58.2	257.0	245.5	11.48	22.383	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-166.92	-250.3	-58.2	257.0	245.0	12.02	21.386	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-166.92	-250.3	-58.2	257.0	244.5	12.53	20.505	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-166.92	-250.3	-58.2	257.0	244.0	13.03	19.718	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-166.92	-250.3	-58.2	257.0	243.5	13.52	19.010	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-166.92	-250.3	-58.2	257.0	243.0	13.99	18.369	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-166.92	-250.3	-58.2	257.0	242.6	14.45	17.783	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-166.92	-250.3	-58.2	257.0	242.1	14.90	17.247	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-166.92	-250.3	-58.2	257.0	241.7	15.34	16.752	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-166.92	-250.3	-58.2	257.0	241.2	15.77	16.295	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-166.92	-250.3	-58.2	257.0	240.8	16.19	15.870	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-166.92	-250.3	-58.2	257.0	240.4	16.61	15.473	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-166.92	-250.3	-58.2	257.0	240.0	17.02	15.102	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-166.92	-250.3	-58.2	257.0	239.6	17.42	14.754	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-166.92	-250.3	-58.2	257.0	239.2	17.81	14.427	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-166.92	-250.3	-58.2	257.0	238.8	18.20	14.118	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-166.92	-250.3	-58.2	257.0	238.4	18.59	13.827	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-166.92	-250.3	-58.2	257.0	238.0	18.97	13.550	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-166.92	-250.3	-58.2	257.0	237.7	19.34	13.288	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-166.92	-250.3	-58.2	257.0	237.3	19.71	13.039	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-166.92	-250.3	-58.2	257.0	236.9	20.08	12.801	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-166.92	-250.3	-58.2	257.0	236.6	20.44	12.575	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-166.92	-250.3	-58.2	257.0	236.2	20.80	12.359	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-166.92	-250.3	-58.2	257.0	235.9	21.15	12.152	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-166.92	-250.3	-58.2	257.0	235.5	21.50	11.953	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-166.92	-250.3	-58.2	257.0	235.2	21.85	11.763	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-166.92	-250.3	-58.2	257.0	234.8	22.19	11.581	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-166.92	-250.3	-58.2	257.0	234.5	22.53	11.405	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-166.92	-250.3	-58.2	257.0	234.1	22.87	11.236	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-166.92	-250.3	-58.2	257.0	233.8	23.21	11.074	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-166.92	-250.3	-58.2	257.0	233.5	23.54	10.917	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-166.92	-250.3	-58.2	257.0	233.1	23.87	10.766	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-166.92	-250.3	-58.2	257.0	232.8	24.20	10.620	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-166.92	-250.3	-58.2	257.0	232.5	24.53	10.478	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-166.92	-250.3	-58.2	257.0	232.2	24.85	10.342	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-166.92	-250.3	-58.2	257.0	231.8	25.17	10.210	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-166.92	-250.3	-58.2	257.0	231.5	25.49	10.082	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-166.92	-250.3	-58.2	257.0	231.2	25.81	9.957	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	-166.92	-250.3	-58.2	257.0	231.1	25.86	9.938 CC	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	-166.92	-250.3	-58.2	257.0	230.9	26.12	9.838 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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - 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				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	5,098.0	5,098.0	13.2	13.2	-166.78	-250.8	-58.9	257.6	231.2	26.38	9.764	
5,200.0	5,200.0	5,195.0	5,194.9	13.4	13.3	-166.38	-252.0	-61.0	259.3	232.7	26.62	9.741	
5,300.0	5,300.0	5,291.8	5,291.7	13.5	13.4	43.17	-254.0	-64.6	261.6	234.8	26.80	9.763	
5,400.0	5,400.0	5,388.5	5,388.2	13.5	13.5	44.42	-256.9	-69.6	264.0	237.0	26.97	9.786	
5,500.0	5,499.9	5,487.1	5,486.5	13.6	13.6	46.13	-260.4	-75.8	266.1	239.0	27.13	9.811	
5,600.0	5,599.7	5,586.6	5,585.8	13.7	13.7	48.12	-264.1	-82.1	267.5	240.1	27.34	9.782	
5,700.0	5,699.4	5,686.1	5,685.0	13.9	13.9	50.38	-267.7	-88.4	268.0	240.4	27.59	9.713	
5,800.0	5,798.9	5,785.3	5,784.0	14.0	14.1	52.91	-271.3	-94.8	267.9	240.0	27.86	9.614	
5,851.2	5,849.8	5,836.1	5,834.6	14.1	14.2	54.32	-273.2	-98.0	267.7	239.7	27.99	9.564	
5,900.0	5,898.3	5,884.5	5,882.8	14.1	14.3	55.71	-274.9	-101.1	267.5	239.3	28.10	9.516	
5,936.4	5,934.4	5,920.5	5,918.8	14.2	14.4	56.74	-276.2	-103.4	267.4	239.2	28.22	9.477	
6,000.0	5,997.6	5,983.6	5,981.7	14.3	14.6	58.55	-278.5	-107.4	267.5	239.1	28.41	9.416	
6,100.0	6,097.0	6,082.7	6,080.5	14.5	14.8	61.38	-282.2	-113.7	268.3	239.6	28.75	9.332	
6,200.0	6,196.3	6,181.8	6,179.3	14.8	15.1	64.18	-285.8	-120.0	269.7	240.6	29.11	9.266	
6,300.0	6,295.7	6,280.9	6,278.2	15.0	15.3	66.95	-289.4	-126.3	271.8	242.3	29.48	9.219	
6,400.0	6,395.1	6,380.0	6,377.0	15.3	15.6	69.68	-293.0	-132.6	274.5	244.6	29.87	9.191	
6,500.0	6,494.4	6,479.1	6,475.9	15.6	15.9	72.34	-296.6	-138.9	277.8	247.6	30.27	9.179 SF	
6,600.0	6,593.8	6,578.2	6,574.7	15.9	16.2	74.94	-300.2	-145.2	281.7	251.1	30.68	9.183	
6,700.0	6,693.1	6,677.3	6,673.5	16.2	16.5	77.46	-303.8	-151.5	286.2	255.1	31.10	9.203	
6,800.0	6,792.5	6,776.4	6,772.4	16.6	16.9	79.91	-307.5	-157.8	291.3	259.7	31.54	9.236	
6,900.0	6,891.8	6,875.5	6,871.2	16.9	17.2	82.26	-311.1	-164.1	296.8	264.8	31.98	9.281	
7,000.0	6,991.2	6,974.6	6,970.0	17.3	17.5	84.53	-314.7	-170.4	302.9	270.4	32.44	9.337	
7,100.0	7,090.5	7,073.7	7,068.9	17.6	17.9	86.70	-318.3	-176.7	309.4	276.5	32.90	9.402	
7,200.0	7,189.9	7,172.8	7,167.7	18.0	18.2	88.79	-321.9	-183.0	316.3	282.9	33.38	9.475	
7,300.0	7,289.3	7,271.9	7,266.5	18.4	18.6	90.78	-325.5	-189.3	323.6	289.8	33.87	9.555	
7,400.0	7,388.6	7,371.0	7,365.4	18.8	19.0	92.69	-329.1	-195.6	331.3	297.0	34.37	9.641	
7,500.0	7,488.0	7,470.1	7,464.2	19.2	19.4	94.50	-332.8	-201.9	339.4	304.5	34.88	9.731	
7,600.0	7,587.3	7,569.2	7,563.0	19.6	19.7	96.24	-336.4	-208.2	347.8	312.4	35.40	9.824	
7,700.0	7,686.7	7,668.3	7,661.9	20.1	20.1	97.89	-340.0	-214.5	356.5	320.6	35.94	9.920	
7,800.0	7,786.0	7,767.4	7,760.7	20.5	20.5	99.46	-343.6	-220.8	365.5	329.0	36.48	10.018	
7,900.0	7,885.4	7,866.5	7,859.6	20.9	20.9	100.95	-347.2	-227.1	374.7	337.7	37.04	10.117	
8,000.0	7,984.7	7,965.6	7,958.4	21.4	21.3	102.37	-350.8	-233.4	384.2	346.6	37.61	10.216	
8,100.0	8,084.1	8,064.7	8,057.2	21.8	21.8	103.73	-354.4	-239.8	393.9	355.7	38.19	10.315	
8,200.0	8,183.4	8,163.8	8,156.1	22.3	22.2	105.02	-358.1	-246.1	403.8	365.0	38.78	10.414	
8,300.0	8,282.8	8,262.9	8,254.9	22.8	22.6	106.24	-361.7	-252.4	413.9	374.6	39.38	10.512	
8,400.0	8,382.2	8,362.0	8,353.7	23.2	23.0	107.41	-365.3	-258.7	424.2	384.2	39.99	10.609	
8,500.0	8,481.5	8,461.1	8,452.6	23.7	23.4	108.53	-368.9	-265.0	434.7	394.1	40.61	10.704	
8,600.0	8,580.9	8,560.2	8,551.4	24.2	23.9	109.59	-372.5	-271.3	445.3	404.1	41.24	10.798	
8,700.0	8,680.2	8,659.3	8,650.2	24.7	24.3	110.60	-376.1	-277.6	456.1	414.2	41.88	10.890	
8,800.0	8,779.6	8,758.4	8,749.1	25.2	24.8	111.56	-379.7	-283.9	467.0	424.4	42.53	10.980	
8,900.0	8,878.9	8,857.5	8,847.9	25.7	25.2	112.48	-383.4	-290.2	478.0	434.8	43.18	11.069	
9,000.0	8,978.3	8,956.6	8,946.7	26.1	25.6	113.36	-387.0	-296.5	489.1	445.3	43.85	11.156	
9,100.0	9,077.6	9,055.7	9,045.6	26.6	26.1	114.20	-390.6	-302.8	500.4	455.8	44.52	11.240	
9,200.0	9,177.0	9,154.8	9,144.4	27.1	26.5	115.01	-394.2	-309.1	511.7	466.5	45.19	11.323	
9,300.0	9,276.3	9,254.0	9,243.3	27.7	27.0	115.77	-397.8	-315.4	523.2	477.3	45.88	11.403	
9,400.0	9,375.7	9,353.1	9,342.1	28.2	27.4	116.51	-401.4	-321.7	534.7	488.1	46.57	11.482	
9,500.0	9,475.1	9,452.2	9,440.9	28.7	27.9	117.21	-405.0	-328.0	546.3	499.0	47.26	11.559	
9,600.0	9,574.4	9,551.3	9,539.8	29.2	28.3	117.89	-408.7	-334.3	558.0	510.0	47.97	11.633	
9,700.0	9,673.8	9,650.4	9,638.6	29.7	28.8	118.54	-412.3	-340.6	569.8	521.1	48.67	11.706	
9,776.9	9,750.2	9,726.6	9,714.6	30.1	29.2	119.02	-415.1	-345.5	578.9	529.7	49.21	11.764	
9,800.0	9,773.1	9,749.5	9,737.4	30.2	29.3	119.18	-415.9	-346.9	581.6	532.2	49.36	11.783	
9,900.0	9,872.6	9,848.7	9,836.4	30.7	29.7	119.77	-419.5	-353.2	592.9	542.8	50.05	11.845	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 608H - Dagger State Com 608H - Dagger State Com 608H - 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 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)			
10,000.0	9,972.3	9,948.1	9,935.5	31.2	30.2	120.18	-423.1	-359.6	603.3	552.6	50.73	11.892	
10,100.0	10,072.0	10,047.6	10,034.8	31.6	30.7	120.44	-426.8	-365.9	612.9	561.5	51.39	11.925	
10,200.0	10,171.9	10,147.2	10,134.1	32.1	31.1	120.55	-430.4	-372.2	621.6	569.6	52.03	11.946	
10,300.0	10,271.9	10,246.9	10,233.6	32.5	31.6	120.51	-434.0	-378.6	629.4	576.8	52.64	11.957	
10,400.0	10,371.9	10,346.6	10,333.0	32.8	32.1	120.33	-437.7	-384.9	636.4	583.1	53.21	11.959	
10,428.1	10,400.0	10,374.7	10,361.0	32.8	32.2	-88.53	-438.7	-386.7	638.2	584.8	53.34	11.964	
10,500.0	10,471.9	10,446.4	10,432.5	32.8	32.6	-88.78	-441.3	-391.3	642.7	589.0	53.65	11.979	
10,540.7	10,512.5	10,486.9	10,472.9	32.8	32.8	-88.91	-442.8	-393.8	645.2	591.4	53.82	11.988	
10,550.0	10,521.9	10,496.2	10,482.2	32.8	32.8	-101.70	-443.1	-394.4	645.8	592.0	53.86	11.990	
10,575.0	10,546.8	10,521.1	10,507.0	32.8	32.9	-101.67	-444.0	-396.0	647.6	593.7	53.97	11.999	
10,600.0	10,571.7	10,545.8	10,531.6	32.7	33.0	-101.71	-444.9	-397.6	649.7	595.6	54.08	12.015	
10,625.0	10,596.4	10,570.2	10,556.0	32.6	33.2	-101.83	-445.8	-399.1	652.1	597.9	54.17	12.037	
10,650.0	10,620.9	10,594.4	10,580.1	32.5	33.3	-102.01	-446.7	-400.7	654.8	600.5	54.26	12.067	
10,675.0	10,645.1	10,618.2	10,603.8	32.4	33.4	-102.24	-447.6	-402.2	657.8	603.5	54.35	12.104	
10,700.0	10,668.9	10,641.6	10,627.2	32.4	33.5	-102.52	-448.4	-403.7	661.2	606.8	54.42	12.150	
10,725.0	10,692.3	10,664.5	10,650.0	32.3	33.6	-102.82	-449.3	-405.1	664.9	610.5	54.49	12.204	
10,750.0	10,715.2	10,686.8	10,672.3	32.2	33.7	-103.14	-450.1	-406.5	669.2	614.6	54.55	12.268	
10,775.0	10,737.6	10,708.6	10,694.0	32.1	33.8	-103.47	-450.9	-407.9	673.8	619.2	54.60	12.341	
10,800.0	10,759.3	10,729.6	10,715.0	32.0	33.9	-103.78	-451.6	-409.3	679.0	624.4	54.65	12.426	
10,825.0	10,780.4	10,750.0	10,735.2	31.9	34.0	-104.05	-452.4	-410.6	684.8	630.1	54.69	12.521	
10,850.0	10,800.7	10,769.5	10,754.7	31.8	34.1	-104.28	-453.1	-411.8	691.1	636.4	54.72	12.629	
10,875.0	10,820.2	10,788.2	10,773.4	31.7	34.2	-104.45	-453.8	-413.0	698.0	643.3	54.75	12.750	
10,900.0	10,838.9	10,806.0	10,791.1	31.6	34.3	-104.53	-454.4	-414.1	705.6	650.9	54.77	12.883	
10,925.0	10,856.7	10,822.9	10,808.0	31.5	34.4	-104.52	-455.0	-415.2	713.9	659.1	54.79	13.030	
10,950.0	10,873.5	10,838.8	10,823.8	31.5	34.4	-104.40	-455.6	-416.2	722.9	668.1	54.80	13.191	
10,975.0	10,889.4	10,853.6	10,838.6	31.4	34.5	-104.14	-456.2	-417.2	732.6	677.8	54.81	13.367	
11,000.0	10,904.2	10,867.4	10,852.4	31.3	34.6	-103.74	-456.7	-418.0	743.0	688.2	54.81	13.556	
11,025.0	10,918.0	10,880.1	10,865.0	31.3	34.6	-103.18	-457.1	-418.8	754.2	699.4	54.81	13.759	
11,050.0	10,930.6	10,891.6	10,876.5	31.2	34.7	-102.44	-457.5	-419.6	766.1	711.3	54.81	13.976	
11,075.0	10,942.1	10,903.1	10,887.9	31.2	34.8	-101.59	-458.0	-420.3	778.7	723.9	54.81	14.207	
11,100.0	10,952.4	10,913.7	10,898.5	31.2	34.8	-100.58	-458.3	-421.0	791.9	737.1	54.81	14.450	
11,125.0	10,961.5	10,923.0	10,907.8	31.2	34.8	-99.34	-458.7	-421.5	805.8	751.0	54.80	14.705	
11,150.0	10,969.4	10,930.9	10,915.7	31.2	34.9	-97.86	-458.9	-422.0	820.4	765.6	54.79	14.972	
11,175.0	10,976.1	10,937.3	10,922.1	31.2	34.9	-96.14	-459.1	-422.3	835.5	780.7	54.78	15.251	
11,200.0	10,981.4	10,942.3	10,927.1	31.2	34.9	-94.17	-459.3	-422.6	851.1	796.3	54.77	15.539	
11,225.0	10,985.5	10,945.8	10,930.6	31.2	34.9	-91.94	-459.4	-422.8	867.3	812.5	54.76	15.837	
11,250.0	10,988.3	10,947.8	10,932.6	31.3	35.0	-89.45	-459.5	-422.9	883.8	829.1	54.75	16.144	
11,275.0	10,989.7	10,948.3	10,933.1	31.3	35.0	-86.73	-459.5	-423.0	900.8	846.1	54.74	16.457	
11,290.7	10,990.0	10,947.8	10,932.6	31.4	35.0	-84.90	-459.5	-422.9	911.6	856.9	54.73	16.657	
11,300.0	10,990.0	10,947.3	10,932.1	31.4	35.0	-84.86	-459.5	-422.9	918.1	863.4	54.72	16.777	
11,400.0	10,990.0	10,942.2	10,926.9	31.7	34.9	-84.61	-459.3	-422.6	989.2	934.5	54.76	18.065	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - 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 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	1.0	1.0	0.0	0.0	172.80	-250.1	31.6	252.1				
100.0	100.0	101.0	101.0	0.5	0.5	172.80	-250.1	31.6	252.1	251.0	1.07	235.128	
200.0	200.0	201.0	201.0	1.7	1.7	172.80	-250.1	31.6	252.1	248.7	3.43	73.483	
300.0	300.0	301.0	301.0	2.4	2.4	172.80	-250.1	31.6	252.1	247.3	4.83	52.209	
400.0	400.0	401.0	401.0	3.0	3.0	172.80	-250.1	31.6	252.1	246.2	5.91	42.635	
500.0	500.0	501.0	501.0	3.4	3.4	172.80	-250.1	31.6	252.1	245.3	6.83	36.885	
600.0	600.0	601.0	601.0	3.8	3.8	172.80	-250.1	31.6	252.1	244.4	7.65	32.942	
700.0	700.0	701.0	701.0	4.2	4.2	172.80	-250.1	31.6	252.1	243.7	8.40	30.020	
800.0	800.0	801.0	801.0	4.5	4.5	172.80	-250.1	31.6	252.1	243.0	9.09	27.741	
900.0	900.0	901.0	901.0	4.9	4.9	172.80	-250.1	31.6	252.1	242.4	9.73	25.899	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	172.80	-250.1	31.6	252.1	241.7	10.34	24.370	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	172.80	-250.1	31.6	252.1	241.2	10.93	23.073	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	172.80	-250.1	31.6	252.1	240.6	11.48	21.954	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	172.80	-250.1	31.6	252.1	240.1	12.02	20.976	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	172.80	-250.1	31.6	252.1	239.6	12.53	20.112	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	172.80	-250.1	31.6	252.1	239.1	13.03	19.341	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	172.80	-250.1	31.6	252.1	238.6	13.52	18.646	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	172.80	-250.1	31.6	252.1	238.1	13.99	18.017	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	172.80	-250.1	31.6	252.1	237.6	14.45	17.443	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	172.80	-250.1	31.6	252.1	237.2	14.90	16.917	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	172.80	-250.1	31.6	252.1	236.7	15.34	16.432	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	172.80	-250.1	31.6	252.1	236.3	15.77	15.983	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	172.80	-250.1	31.6	252.1	235.9	16.19	15.566	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	172.80	-250.1	31.6	252.1	235.5	16.61	15.177	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	172.80	-250.1	31.6	252.1	235.1	17.02	14.813	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	172.80	-250.1	31.6	252.1	234.7	17.42	14.472	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	172.80	-250.1	31.6	252.1	234.3	17.81	14.151	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	172.80	-250.1	31.6	252.1	233.9	18.20	13.848	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	172.80	-250.1	31.6	252.1	233.5	18.59	13.562	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	172.80	-250.1	31.6	252.1	233.1	18.97	13.291	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	172.80	-250.1	31.6	252.1	232.7	19.34	13.034	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	172.80	-250.1	31.6	252.1	232.4	19.71	12.789	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	172.80	-250.1	31.6	252.1	232.0	20.08	12.556	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	172.80	-250.1	31.6	252.1	231.6	20.44	12.334	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	172.80	-250.1	31.6	252.1	231.3	20.80	12.122	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	172.80	-250.1	31.6	252.1	230.9	21.15	11.919	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	172.80	-250.1	31.6	252.1	230.6	21.50	11.725	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	172.80	-250.1	31.6	252.1	230.2	21.85	11.538	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	172.80	-250.1	31.6	252.1	229.9	22.19	11.359	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	172.80	-250.1	31.6	252.1	229.6	22.53	11.187	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	172.80	-250.1	31.6	252.1	229.2	22.87	11.021	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	172.80	-250.1	31.6	252.1	228.9	23.21	10.862	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	172.80	-250.1	31.6	252.1	228.5	23.54	10.708	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	172.80	-250.1	31.6	252.1	228.2	23.87	10.560	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	172.80	-250.1	31.6	252.1	227.9	24.20	10.416	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	172.80	-250.1	31.6	252.1	227.6	24.53	10.278	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	172.80	-250.1	31.6	252.1	227.2	24.85	10.144	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	172.80	-250.1	31.6	252.1	226.9	25.17	10.014	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	172.80	-250.1	31.6	252.1	226.6	25.49	9.889	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	172.80	-250.1	31.6	252.1	226.3	25.81	9.767	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	172.80	-250.1	31.6	252.1	226.2	25.86	9.747	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	172.80	-250.1	31.6	252.1	226.0	26.12	9.649	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - 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 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)			
5,100.0	5,100.0	5,098.5	5,098.5	13.2	13.2	172.64	-250.5	32.4	252.6	226.2	26.38	9.574	
5,200.0	5,200.0	5,196.0	5,196.0	13.4	13.3	172.18	-251.6	34.6	254.1	227.4	26.63	9.541	
5,300.0	5,300.0	5,293.4	5,293.3	13.5	13.4	20.26	-253.6	38.3	255.7	228.9	26.80	9.540	
5,400.0	5,400.0	5,390.8	5,390.5	13.5	13.5	19.41	-256.2	43.4	256.8	229.8	26.98	9.519	
5,500.0	5,499.9	5,489.5	5,488.9	13.6	13.6	18.42	-259.6	49.9	257.2	230.0	27.13	9.480	
5,600.0	5,599.7	5,589.4	5,588.6	13.7	13.7	17.52	-263.1	56.6	256.0	228.7	27.35	9.362	
5,700.0	5,699.4	5,689.3	5,688.2	13.9	13.9	16.73	-266.5	63.3	253.3	225.7	27.61	9.173	
5,800.0	5,798.9	5,789.2	5,787.7	14.0	14.1	16.03	-270.0	70.0	249.0	221.0	27.91	8.919	
5,851.2	5,849.8	5,840.3	5,838.7	14.1	14.2	15.71	-271.8	73.5	246.1	218.0	28.05	8.773	
5,900.0	5,898.3	5,889.0	5,887.3	14.1	14.4	15.40	-273.5	76.7	243.2	215.0	28.19	8.626	
6,000.0	5,997.6	5,988.8	5,986.7	14.3	14.6	14.75	-277.0	83.4	237.2	208.6	28.54	8.310	
6,100.0	6,097.0	6,088.5	6,086.2	14.5	14.8	14.06	-280.4	90.1	231.2	202.3	28.94	7.990	
6,200.0	6,196.3	6,188.3	6,185.7	14.8	15.1	13.33	-283.9	96.8	225.3	195.9	29.36	7.672	
6,300.0	6,295.7	6,288.1	6,285.2	15.0	15.4	12.57	-287.4	103.5	219.4	189.6	29.82	7.357	
6,400.0	6,395.1	6,387.9	6,384.7	15.3	15.7	11.76	-290.9	110.2	213.6	183.2	30.32	7.045	
6,500.0	6,494.4	6,487.7	6,484.2	15.6	16.0	10.91	-294.3	116.9	207.8	176.9	30.84	6.737	
6,600.0	6,593.8	6,587.4	6,583.7	15.9	16.3	10.01	-297.8	123.6	202.0	170.6	31.39	6.435	
6,700.0	6,693.1	6,687.2	6,683.2	16.2	16.6	9.06	-301.3	130.3	196.3	164.3	31.98	6.139	
6,800.0	6,792.5	6,787.0	6,782.7	16.6	16.9	8.06	-304.8	137.0	190.7	158.1	32.59	5.850	
6,900.0	6,891.8	6,886.8	6,882.2	16.9	17.3	6.99	-308.2	143.7	185.1	151.9	33.24	5.569	
7,000.0	6,991.2	6,986.6	6,981.7	17.3	17.6	5.85	-311.7	150.4	179.6	145.7	33.92	5.295	
7,100.0	7,090.5	7,086.4	7,081.2	17.6	18.0	4.65	-315.2	157.1	174.2	139.5	34.62	5.030	
7,200.0	7,189.9	7,186.1	7,180.7	18.0	18.3	3.36	-318.6	163.8	168.8	133.4	35.36	4.774	
7,300.0	7,289.3	7,285.9	7,280.2	18.4	18.7	2.00	-322.1	170.5	163.5	127.4	36.12	4.528	
7,400.0	7,388.6	7,385.7	7,379.7	18.8	19.1	0.54	-325.6	177.2	158.4	121.5	36.91	4.291	
7,500.0	7,488.0	7,485.5	7,479.2	19.2	19.5	-1.01	-329.1	183.9	153.3	115.6	37.73	4.064	
7,600.0	7,587.3	7,585.3	7,578.7	19.6	19.9	-2.67	-332.5	190.6	148.4	109.8	38.56	3.848	
7,700.0	7,686.7	7,685.1	7,678.2	20.1	20.3	-4.44	-336.0	197.3	143.6	104.2	39.42	3.642	
7,800.0	7,786.0	7,784.8	7,777.7	20.5	20.7	-6.33	-339.5	204.0	138.9	98.6	40.30	3.448	
7,900.0	7,885.4	7,884.6	7,877.2	20.9	21.1	-8.35	-343.0	210.7	134.4	93.3	41.18	3.265	
8,000.0	7,984.7	7,984.4	7,976.7	21.4	21.5	-10.50	-346.4	217.4	130.1	88.1	42.07	3.093	
8,100.0	8,084.1	8,084.2	8,076.2	21.8	21.9	-12.80	-349.9	224.1	126.0	83.0	42.96	2.933	
8,200.0	8,183.4	8,184.0	8,175.7	22.3	22.4	-15.25	-353.4	230.8	122.1	78.3	43.84	2.785	
8,300.0	8,282.8	8,283.8	8,275.2	22.8	22.8	-17.85	-356.8	237.5	118.4	73.7	44.70	2.650	
8,400.0	8,382.2	8,383.5	8,374.7	23.2	23.2	-20.62	-360.3	244.2	115.0	69.5	45.52	2.527	
8,500.0	8,481.5	8,483.3	8,474.2	23.7	23.7	-23.54	-363.8	250.9	111.9	65.6	46.29	2.418	
8,600.0	8,580.9	8,583.1	8,573.7	24.2	24.1	-26.63	-367.3	257.6	109.1	62.1	47.00	2.322	
8,700.0	8,680.2	8,682.9	8,673.2	24.7	24.5	-29.86	-370.7	264.3	106.6	59.0	47.62	2.239	
8,800.0	8,779.6	8,782.7	8,772.7	25.2	25.0	-33.24	-374.2	271.0	104.5	56.4	48.15	2.170	
8,900.0	8,878.9	8,882.5	8,872.2	25.7	25.4	-36.75	-377.7	277.7	102.8	54.2	48.57	2.116	
9,000.0	8,978.3	8,982.2	8,971.7	26.1	25.9	-40.36	-381.2	284.4	101.4	52.6	48.87	2.075	
9,100.0	9,077.6	9,082.0	9,071.2	26.6	26.3	-44.05	-384.6	291.1	100.5	51.5	49.04	2.049	
9,200.0	9,177.0	9,181.8	9,170.7	27.1	26.8	-47.80	-388.1	297.8	100.0	50.9	49.08	2.037	
9,266.3	9,242.9	9,248.0	9,236.6	27.5	27.1	-50.29	-390.4	302.2	99.9	50.9	49.04	2.037 CC, ES, SF	
9,300.0	9,276.3	9,281.6	9,270.2	27.7	27.3	-51.56	-391.6	304.5	99.9	50.9	49.01	2.039	
9,400.0	9,375.7	9,381.4	9,369.7	28.2	27.7	-55.32	-395.1	311.2	100.3	51.5	48.82	2.054	
9,500.0	9,475.1	9,481.2	9,469.2	28.7	28.2	-59.03	-398.5	317.9	101.1	52.5	48.54	2.082	
9,600.0	9,574.4	9,580.9	9,568.6	29.2	28.6	-62.67	-402.0	324.6	102.3	54.1	48.20	2.122	
9,700.0	9,673.8	9,680.7	9,668.1	29.7	29.1	-66.22	-405.5	331.3	103.9	56.1	47.81	2.173	
9,776.9	9,750.2	9,757.5	9,744.7	30.1	29.5	-68.86	-408.1	336.4	105.4	57.9	47.48	2.220	
9,800.0	9,773.1	9,780.5	9,767.6	30.2	29.6	-69.62	-408.9	337.9	105.9	58.5	47.39	2.235	
9,900.0	9,872.6	9,880.3	9,867.2	30.7	30.1	-72.29	-412.4	344.7	108.7	61.5	47.16	2.304	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - 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)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,972.3	9,980.2	9,966.8	31.2	30.5	-73.97	-415.9	351.4	112.1	64.9	47.22	2.374	
10,100.0	10,072.0	10,080.1	10,066.4	31.6	31.0	-74.73	-419.4	358.1	116.1	68.5	47.54	2.441	
10,200.0	10,171.9	10,180.0	10,166.0	32.1	31.5	-74.64	-422.9	364.8	120.5	72.4	48.11	2.505	
10,300.0	10,271.9	10,279.9	10,265.6	32.5	32.0	-73.80	-426.3	371.5	125.4	76.5	48.92	2.563	
10,400.0	10,371.9	10,379.7	10,365.1	32.8	32.4	-72.29	-429.8	378.2	130.9	80.9	49.96	2.619	
10,428.1	10,400.0	10,407.7	10,393.1	32.8	32.6	79.45	-430.8	380.1	132.5	82.2	50.28	2.636	
10,500.0	10,471.9	10,479.4	10,464.5	32.8	32.9	80.85	-433.3	384.9	136.9	85.8	51.09	2.679	
10,540.7	10,512.5	10,520.0	10,505.0	32.8	33.1	81.60	-434.7	387.6	139.3	87.8	51.54	2.704	
10,550.0	10,521.9	10,529.3	10,514.3	32.8	33.2	68.93	-435.0	388.2	139.9	88.2	51.65	2.708	
10,575.0	10,546.8	10,554.1	10,539.1	32.8	33.3	69.67	-435.9	389.9	141.0	88.9	52.10	2.707	
10,600.0	10,571.7	10,578.9	10,563.8	32.7	33.4	70.94	-436.7	391.5	141.8	89.0	52.72	2.689	
10,625.0	10,596.4	10,603.5	10,588.3	32.6	33.5	72.70	-437.6	393.2	142.2	88.7	53.53	2.657	
10,650.0	10,620.9	10,627.8	10,612.5	32.5	33.6	74.94	-438.4	394.8	142.4	87.9	54.51	2.613	
10,675.0	10,645.1	10,651.8	10,636.4	32.4	33.8	77.61	-439.3	396.4	142.6	87.0	55.65	2.563	
10,700.0	10,668.9	10,675.4	10,660.0	32.4	33.9	80.69	-440.1	398.0	142.9	86.0	56.93	2.511	
10,725.0	10,692.3	10,698.6	10,683.1	32.3	34.0	84.09	-440.9	399.6	143.6	85.3	58.32	2.462	
10,750.0	10,715.2	10,721.2	10,705.7	32.2	34.1	87.74	-441.7	401.1	144.8	85.0	59.74	2.423	
10,775.0	10,737.6	10,743.3	10,727.7	32.1	34.2	91.54	-442.5	402.6	146.8	85.6	61.13	2.401	
10,800.0	10,759.3	10,764.7	10,749.0	32.0	34.3	95.38	-443.2	404.0	149.8	87.4	62.39	2.401	
10,825.0	10,780.4	10,785.4	10,769.7	31.9	34.4	99.16	-443.9	405.4	154.0	90.6	63.45	2.427	
10,850.0	10,800.7	10,805.4	10,789.6	31.8	34.5	102.76	-444.6	406.7	159.7	95.4	64.24	2.486	
10,875.0	10,820.2	10,824.6	10,808.8	31.7	34.6	106.09	-445.3	408.0	166.9	102.1	64.72	2.578	
10,900.0	10,838.9	10,842.9	10,827.0	31.6	34.7	109.10	-445.9	409.3	175.6	110.7	64.90	2.706	
10,925.0	10,856.7	10,860.3	10,844.4	31.5	34.8	111.72	-446.5	410.4	186.0	121.2	64.81	2.870	
10,950.0	10,873.5	10,876.8	10,860.8	31.5	34.8	113.92	-447.1	411.5	198.0	133.5	64.48	3.070	
10,975.0	10,889.4	10,892.2	10,876.2	31.4	34.9	115.67	-447.6	412.6	211.5	147.5	63.99	3.305	
11,000.0	10,904.2	10,906.6	10,890.5	31.3	35.0	116.95	-448.1	413.5	226.3	163.0	63.37	3.572	
11,025.0	10,918.0	10,919.9	10,903.8	31.3	35.1	117.74	-448.6	414.4	242.5	179.8	62.68	3.869	
11,050.0	10,930.6	10,932.1	10,916.0	31.2	35.1	118.01	-449.0	415.3	259.9	198.0	61.96	4.195	
11,075.0	10,942.1	10,943.2	10,927.0	31.2	35.2	117.74	-449.4	416.0	278.4	217.1	61.24	4.546	
11,100.0	10,952.4	10,953.0	10,936.8	31.2	35.2	116.88	-449.8	416.7	297.8	237.3	60.53	4.920	
11,125.0	10,961.5	10,961.7	10,945.4	31.2	35.3	115.37	-450.1	417.2	318.1	258.2	59.85	5.314	
11,150.0	10,969.4	10,969.1	10,952.8	31.2	35.3	113.13	-450.3	417.7	339.1	279.8	59.21	5.727	
11,175.0	10,976.1	10,975.2	10,959.0	31.2	35.3	110.06	-450.5	418.1	360.7	302.1	58.60	6.155	
11,200.0	10,981.4	10,980.1	10,963.8	31.2	35.3	106.06	-450.7	418.5	382.9	324.8	58.04	6.596	
11,225.0	10,985.5	10,983.7	10,967.4	31.2	35.4	101.03	-450.8	418.7	405.5	347.9	57.53	7.048	
11,250.0	10,988.3	10,986.0	10,969.7	31.3	35.4	94.93	-450.9	418.9	428.4	371.4	57.06	7.509	
11,275.0	10,989.7	10,987.0	10,970.7	31.3	35.4	87.81	-450.9	418.9	451.6	395.0	56.62	7.976	
11,290.7	10,990.0	10,987.0	10,970.6	31.4	35.4	82.92	-450.9	418.9	466.2	409.9	56.37	8.271	
11,300.0	10,990.0	10,986.8	10,970.5	31.4	35.4	82.86	-450.9	418.9	475.0	418.8	56.23	8.448	
11,400.0	10,990.0	10,984.8	10,968.4	31.7	35.4	81.23	-450.9	418.8	570.3	515.3	55.03	10.364	
11,500.0	10,990.0	10,982.5	10,966.2	32.2	35.4	78.77	-450.8	418.6	667.7	613.4	54.28	12.301	
11,600.0	10,990.0	10,979.9	10,963.6	32.7	35.3	74.73	-450.7	418.5	766.4	712.5	53.83	14.237	
11,700.0	10,990.0	10,977.1	10,960.9	33.3	35.3	67.20	-450.6	418.3	865.7	812.2	53.58	16.158	
11,800.0	10,990.0	10,974.1	10,957.8	33.9	35.3	50.06	-450.5	418.1	965.5	912.0	53.46	18.059	

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 Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Unit #003 - Dagger State Unit #003 - Dagger State Unit #003											Offset Site Error:	0.0 usft
Survey Program: 14683-B001Mb. MWD+HRGM											Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Rule Assigned:	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor
14,900.0	10,990.0	10,951.5	10,951.5	80.3	27.3	90.00	4,569.6	575.4	969.4	913.0	56.47	17.166
15,000.0	10,990.0	10,951.5	10,951.5	82.2	27.3	90.00	4,569.6	575.4	871.2	814.3	56.91	15.308
15,100.0	10,990.0	10,951.5	10,951.5	84.1	27.3	90.00	4,569.6	575.4	773.4	715.8	57.60	13.427
15,200.0	10,990.0	10,951.5	10,951.5	86.0	27.3	90.00	4,569.6	575.4	676.2	617.5	58.70	11.519
15,300.0	10,990.0	10,951.5	10,951.5	87.9	27.3	90.00	4,569.6	575.4	580.0	519.5	60.53	9.583
15,400.0	10,990.0	10,951.5	10,951.5	89.9	27.3	90.00	4,569.6	575.4	485.3	421.7	63.62	7.629
15,500.0	10,990.0	10,951.5	10,951.5	91.8	27.3	90.00	4,569.6	575.4	393.3	324.3	69.01	5.700
15,600.0	10,990.0	10,951.5	10,951.5	93.7	27.3	90.00	4,569.6	575.4	306.4	227.8	78.62	3.897
15,700.0	10,990.0	10,951.5	10,951.5	95.6	27.3	90.00	4,569.6	575.4	230.3	134.9	95.31	2.416
15,800.0	10,990.0	10,951.5	10,951.5	97.6	27.3	90.00	4,569.6	575.4	179.4	61.6	117.81	1.522
15,854.2	10,990.0	10,951.5	10,951.5	98.6	27.3	90.00	4,569.6	575.4	171.0	45.4	125.55	1.362 Level 3, CC, ES, SF
15,900.0	10,990.0	10,951.5	10,951.5	99.5	27.3	90.00	4,569.6	575.4	177.0	51.4	125.60	1.409 Level 3
16,000.0	10,990.0	10,951.5	10,951.5	101.5	27.3	90.00	4,569.6	575.4	224.7	112.6	112.10	2.004
16,100.0	10,990.0	10,951.5	10,951.5	103.4	27.3	90.00	4,569.6	575.4	299.4	201.6	97.76	3.062
16,200.0	10,990.0	10,951.5	10,951.5	105.3	27.3	90.00	4,569.6	575.4	385.7	297.7	88.05	4.381
16,300.0	10,990.0	10,951.5	10,951.5	107.3	27.3	90.00	4,569.6	575.4	477.4	395.7	81.75	5.840
16,400.0	10,990.0	10,951.5	10,951.5	109.2	27.3	90.00	4,569.6	575.4	571.9	494.4	77.54	7.376
16,500.0	10,990.0	10,951.5	10,951.5	111.2	27.3	90.00	4,569.6	575.4	668.0	593.4	74.62	8.952
16,600.0	10,990.0	10,951.5	10,951.5	113.2	27.3	90.00	4,569.6	575.4	765.1	692.6	72.52	10.551
16,700.0	10,990.0	10,951.5	10,951.5	115.1	27.3	90.00	4,569.6	575.4	862.9	791.9	70.96	12.160
16,800.0	10,990.0	10,951.5	10,951.5	117.1	27.3	90.00	4,569.6	575.4	961.1	891.3	69.78	13.772

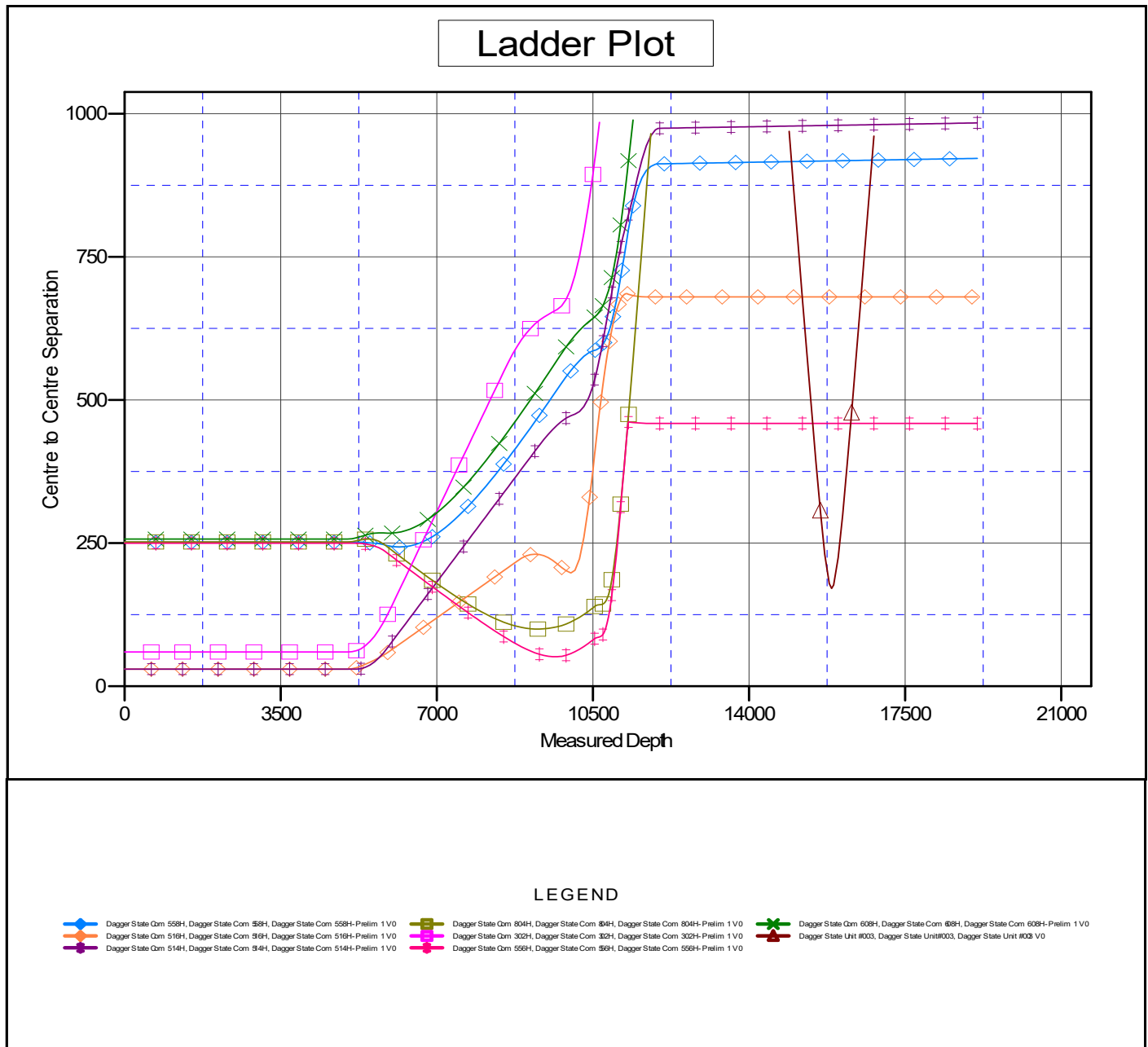


Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele)
 Offset Depths are relative to Offset Datum
 Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 512H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.38°



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



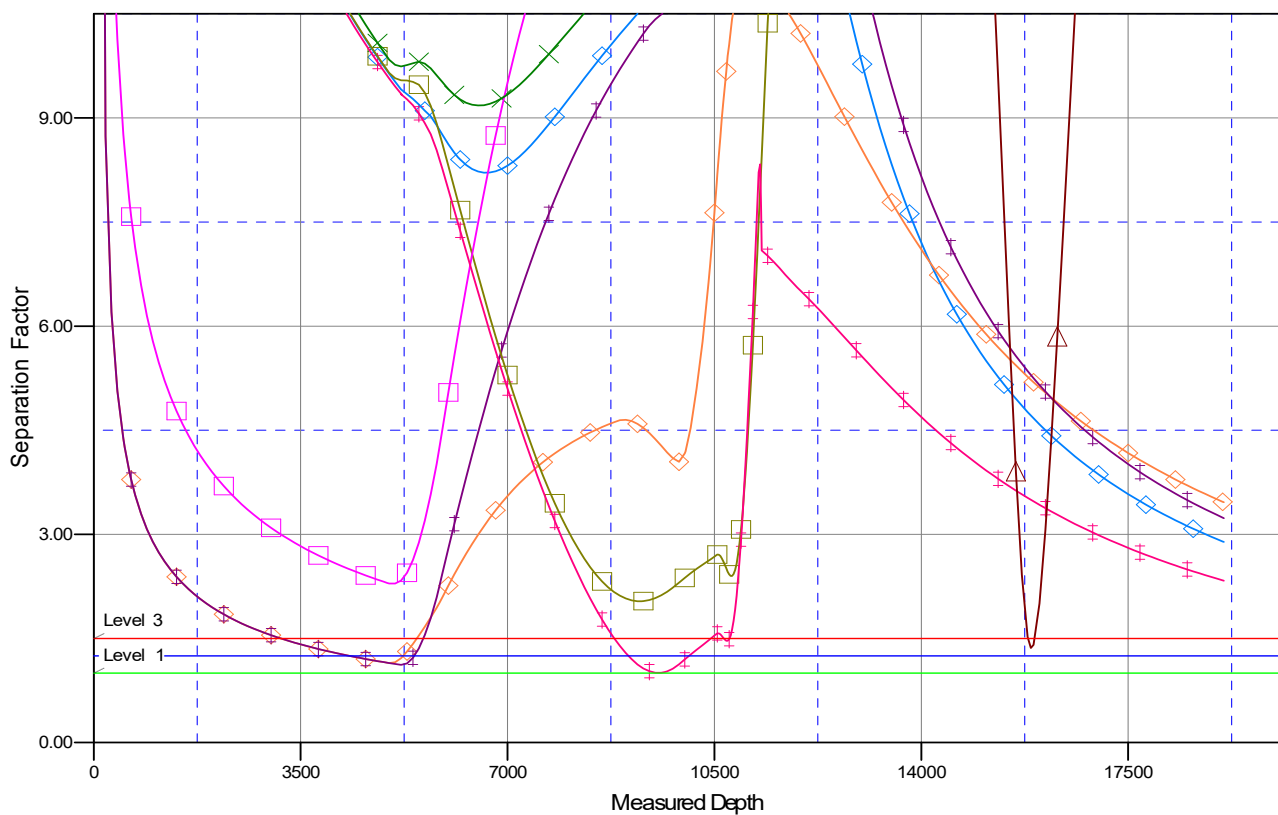
Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 512H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 512H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 512H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 512H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 512H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.38°

Separation Factor Plot



LEGEND

- Dagger State Com 558H, Dagger State Com 558H, Dagger State Com 558H-Prelim 1 V0
- Dagger State Com 516H, Dagger State Com 516H, Dagger State Com 516H-Prelim 1 V0
- Dagger State Com 514H, Dagger State Com 514H, Dagger State Com 514H-Prelim 1 V0
- Dagger State Com 804H, Dagger State Com 804H, Dagger State Com 804H-Prelim 1 V0
- Dagger State Com 302H, Dagger State Com 302H, Dagger State Com 302H-Prelim 1 V0
- Dagger State Com 556H, Dagger State Com 556H, Dagger State Com 556H-Prelim 1 V0
- Dagger State Com 608H, Dagger State Com 608H, Dagger State Com 608H-Prelim 1 V0
- Dagger State Unit #003, Dagger State Unit #003, Dagger State Unit #003 V0