

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101
August 1, 2011

Permit 296190

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 30-025-48903
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 804H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn L	Feet From 2370	N/S Line S	Feet From 800	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-10 S213328O;WOLFCAMP	98033
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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 3816
16. Multiple N	17. Proposed Depth 21300	18. Formation Wolfcamp	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	14.75	10.75	40.5	1600	585	0
Int1	9.875	7.625	29.7	10550	700	0
Prod	8.5	5.5	20	21300	1065	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: 5/14/2021	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	Pool Name
	98033	WC-025 G-10 S2133280; WOLF CAMP
Property Code	Property Name	Well Number
319601	DAGGER STATE COM	804H
OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3816'

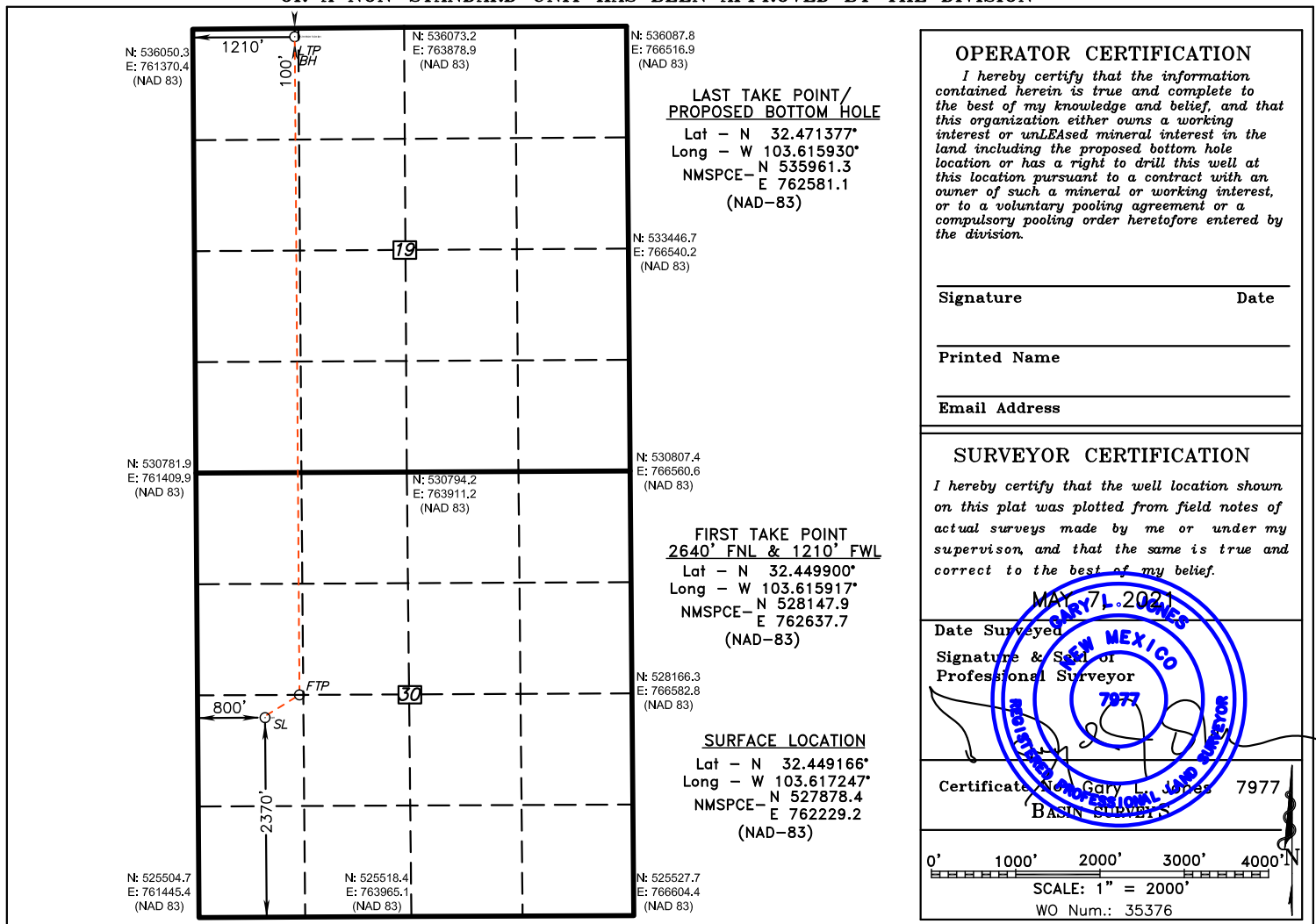
Surface Location

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		2370	SOUTH	800	WEST	LEA

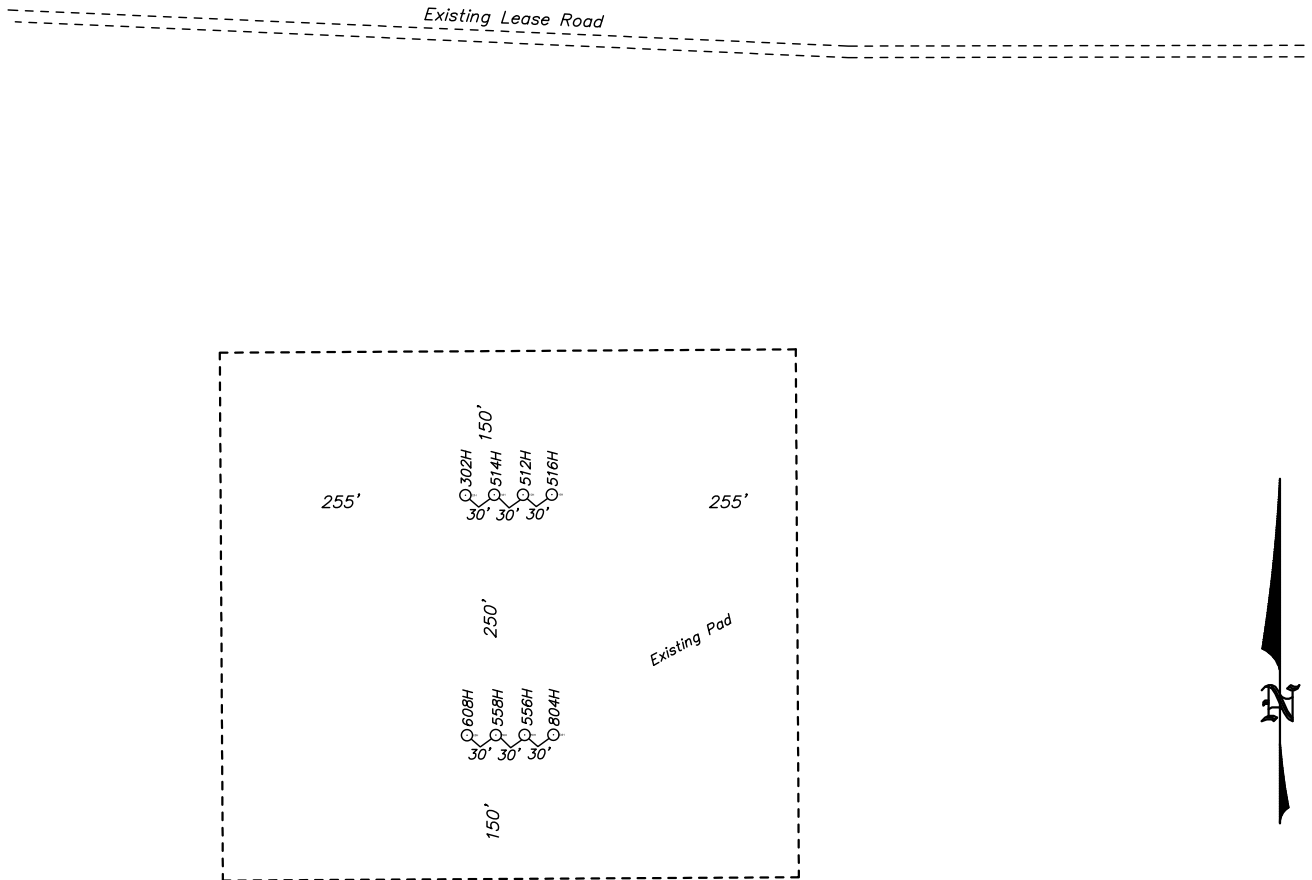
Bottom Hole Location If Different From Surface

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



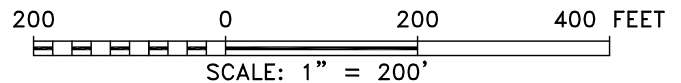
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #806H
ELEV. - 3816'**

Lat - N 32.449166°
Long - W 103.617247°
NMSPCE - N 527878.4
E 762229.2
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #806H / WELL PAD TOPO

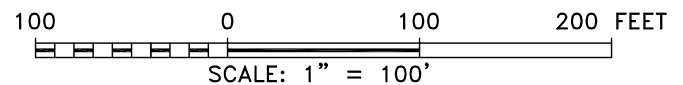
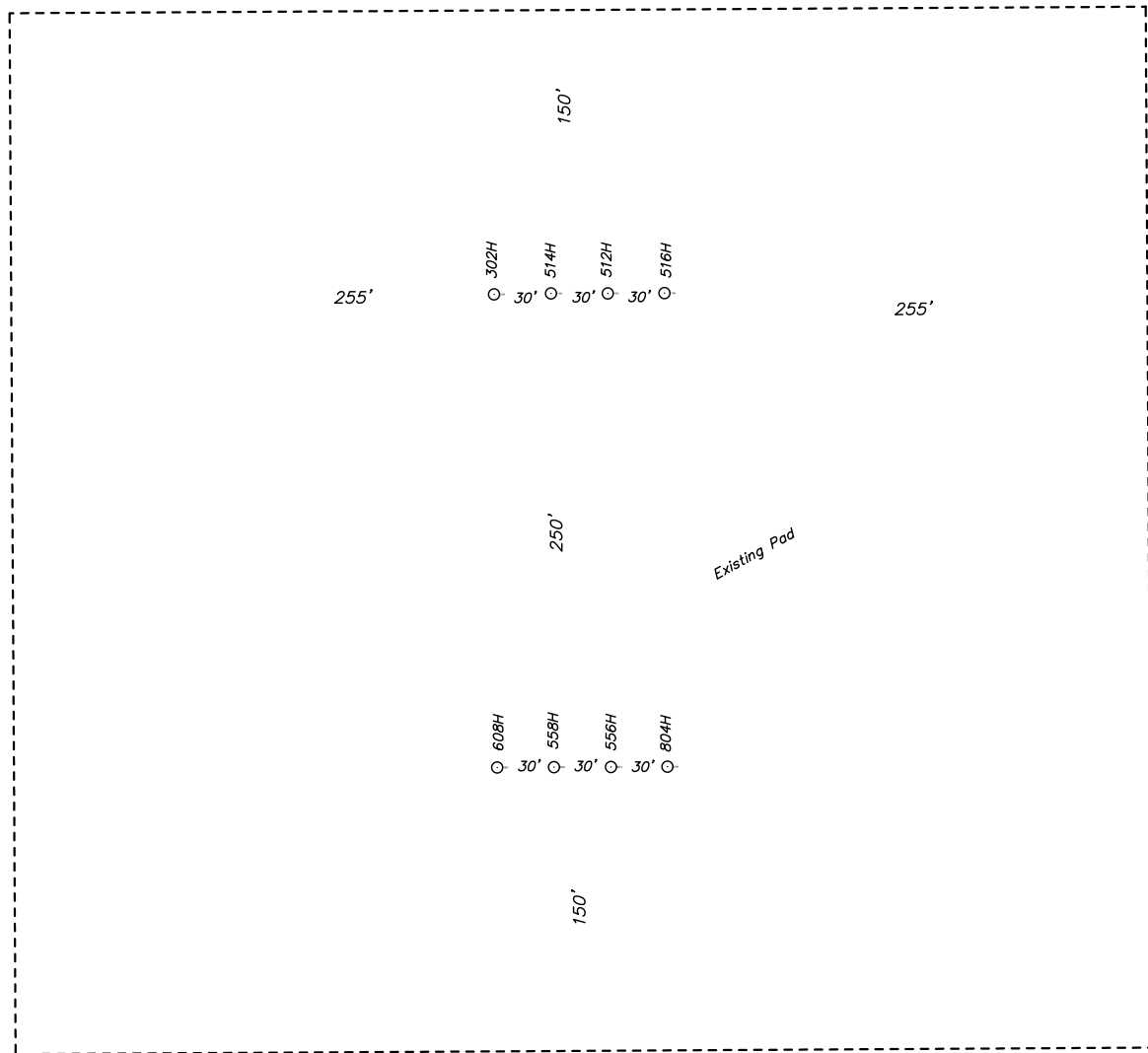
THE DAGGER STATE COM #806H LOCATED 2370' FROM
THE SOUTH LINE AND 800' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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.**



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DAGGER STATE COM #806H

Located 2370' FSL and 800' 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'

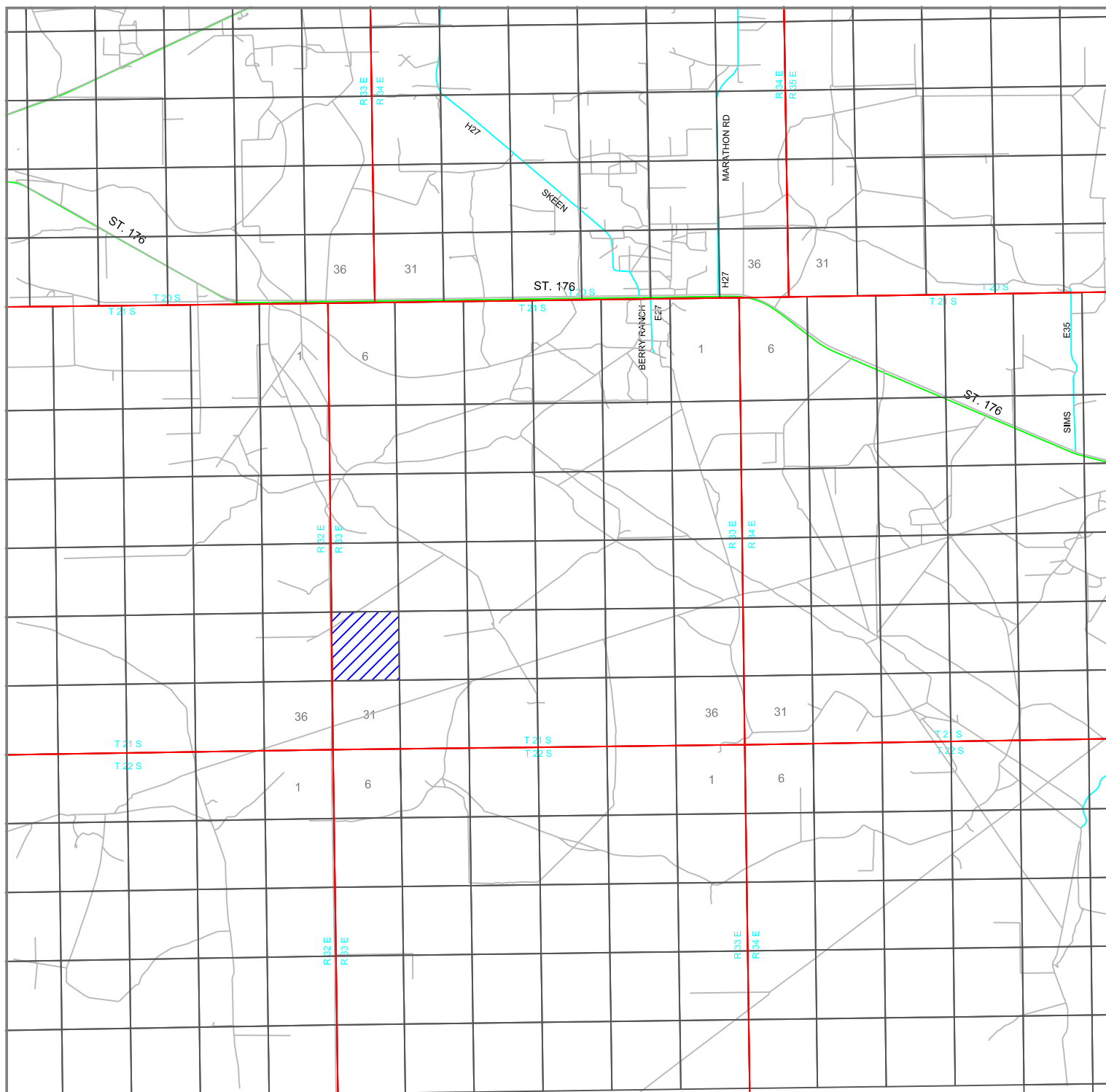
W.O. Number: KJG 35376

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 #806H

Located 2370' FSL and 800' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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0 1 MI 2 MI 3 MI 4 MI

SCALE: 1" = 2 MILES

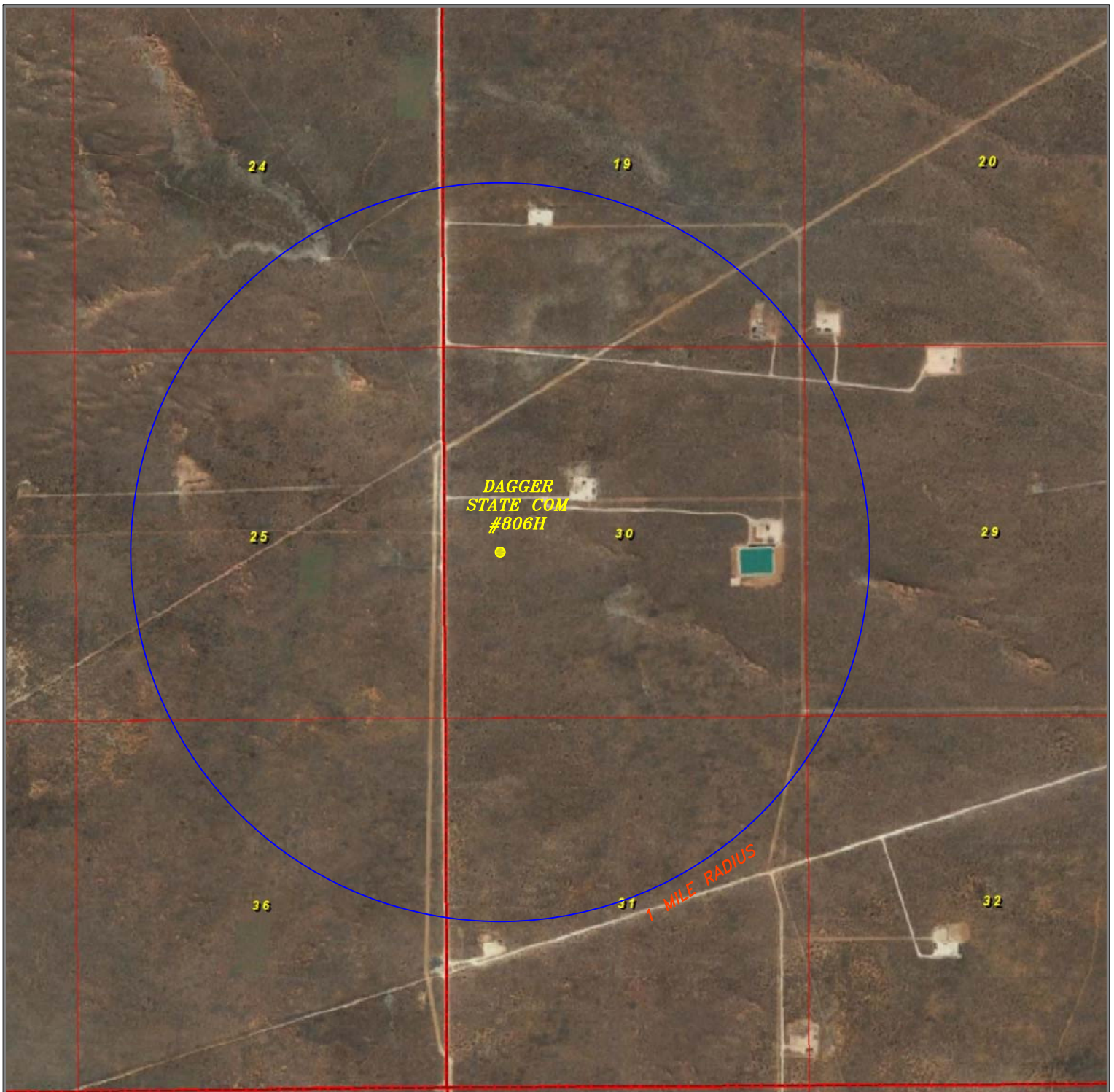
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Survey Date: 05-07-2021

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 NATURAL COLOR - FEE LAND



**ADVANCE
 ENERGY
 PARTNERS
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DAGGER STATE COM #806H

Located 2370' FSL and 800' 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'
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W.O. Number: KJG 35376

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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 #804H	30-025-48903	L-30-21S-33E	2370S 0800W	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 200' 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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Form APD Conditions

Permit 296190

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: 30-025-48903
	Well: DAGGER STATE COM #804H

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 #804H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2370 FSL 800 FWL

Lat. 32.449166 Long. -103.617247 NAD83

PROPOSED DEPTH: 20165' MD 12060' 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 _____

Printed Signature **JAMES RUTLEY**

Representing **BLM-CFO**

*ON DAGGER DRILL ISLAND w/in Approved
Dagger Draw Development Area*



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 804H

Dagger State Com 804H

Dagger State Com 804H - Prelim 1

Anticollision Report

14 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 804H - 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 5/14/2021				
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	20,165.3	Dagger State Com 804H - 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 556H - Dagger State Com 556H - Da	5,000.0	5,000.0	29.9	3.8	1.145	Level 3, CC, ES
Dagger State Com 556H - Dagger State Com 556H - Da	10,400.0	10,402.5	57.2	5.7	1.111	Level 3, SF
Dagger State Com 558H - Dagger State Com 558H - Da	5,000.0	4,999.0	59.8	33.7	2.291	CC, ES, SF
Dagger State Com 608H - Dagger State Com 608H - Da	5,000.0	5,000.0	89.8	63.6	3.436	CC, ES
Dagger State Com 608H - Dagger State Com 608H - Da	20,165.3	20,021.2	891.3	559.1	2.683	SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg	16,900.6	12,020.5	171.0	36.9	1.275	Level 3, CC, ES, SF

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		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		

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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			Minimum Separation	Separation Factor	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)				
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	1.290 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		
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, CC, ES		
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	153.64	0.2	-29.9	30.7	4.3	26.38	1.164 Level 3		
5,200.0	5,200.0	5,200.0	5,200.0	13.3	13.4	155.65	0.2	-29.9	33.1	6.4	26.64	1.242 Level 3		
5,300.0	5,299.9	5,300.4	5,300.4	13.4	13.5	157.82	-0.3	-29.2	36.3	9.5	26.84	1.352 Level 3		
5,400.0	5,399.7	5,401.0	5,400.9	13.5	13.6	159.46	-1.7	-26.9	39.6	12.6	27.05	1.465 Level 3		
5,433.6	5,433.2	5,434.8	5,434.8	13.5	13.6	159.91	-2.4	-25.8	40.8	13.6	27.11	1.503		
5,500.0	5,499.4	5,501.6	5,501.4	13.6	13.7	160.51	-4.0	-23.2	42.6	15.4	27.24	1.566		
5,600.0	5,599.1	5,602.3	5,601.9	13.8	13.8	160.57	-7.3	-17.9	44.2	16.7	27.50	1.606		
5,700.0	5,698.8	5,702.5	5,701.9	14.0	13.9	159.91	-11.2	-11.5	44.4	16.6	27.75	1.600		
5,800.0	5,798.5	5,802.5	5,801.6	14.2	14.0	159.19	-15.2	-5.0	44.5	16.5	28.08	1.586		
5,900.0	5,898.3	5,902.5	5,901.3	14.4	14.2	158.47	-19.3	1.5	44.7	16.2	28.44	1.571		
6,000.0	5,998.0	6,002.5	6,001.0	14.6	14.4	157.76	-23.3	8.0	44.8	16.0	28.83	1.555		
6,100.0	6,097.7	6,102.5	6,100.7	14.9	14.6	157.06	-27.3	14.5	45.0	15.8	29.24	1.539		
6,200.0	6,197.4	6,202.5	6,200.4	15.1	14.9	156.35	-31.3	21.0	45.2	15.5	29.67	1.522		
6,300.0	6,297.1	6,302.5	6,300.1	15.4	15.1	155.66	-35.3	27.5	45.3	15.2	30.12	1.505		
6,400.0	6,396.8	6,402.5	6,399.9	15.7	15.4	154.97	-39.3	34.0	45.5	14.9	30.59	1.488 Level 3		
6,500.0	6,496.5	6,502.5	6,499.6	16.0	15.6	154.29	-43.4	40.6	45.7	14.6	31.07	1.471 Level 3		
6,600.0	6,596.2	6,602.5	6,599.3	16.3	15.9	153.61	-47.4	47.1	45.9	14.3	31.56	1.454 Level 3		
6,700.0	6,696.0	6,702.5	6,699.0	16.6	16.2	152.94	-51.4	53.6	46.1	14.0	32.07	1.438 Level 3		
6,800.0	6,795.7	6,802.5	6,798.7	17.0	16.5	152.27	-55.4	60.1	46.3	13.7	32.58	1.421 Level 3		
6,900.0	6,895.4	6,902.5	6,898.4	17.3	16.8	151.61	-59.4	66.6	46.5	13.4	33.11	1.405 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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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	
7,000.0	6,995.1	7,002.5	6,998.1	17.7	17.2	150.95	-63.5	73.1	46.7	13.1	33.64	1.389	Level 3
7,100.0	7,094.8	7,102.5	7,097.8	18.0	17.5	150.31	-67.5	79.6	47.0	12.8	34.18	1.374	Level 3
7,200.0	7,194.5	7,202.5	7,197.5	18.4	17.9	149.66	-71.5	86.1	47.2	12.5	34.73	1.359	Level 3
7,300.0	7,294.2	7,302.5	7,297.2	18.8	18.2	149.03	-75.5	92.6	47.4	12.2	35.28	1.345	Level 3
7,400.0	7,394.0	7,402.5	7,396.9	19.2	18.6	148.40	-79.5	99.1	47.7	11.9	35.83	1.331	Level 3
7,500.0	7,493.7	7,502.5	7,496.6	19.5	19.0	147.78	-83.5	105.6	47.9	11.5	36.39	1.317	Level 3
7,600.0	7,593.4	7,602.5	7,596.3	19.9	19.3	147.16	-87.6	112.1	48.2	11.2	36.94	1.304	Level 3
7,700.0	7,693.1	7,702.5	7,696.0	20.3	19.7	146.55	-91.6	118.6	48.4	10.9	37.50	1.292	Level 3
7,800.0	7,792.8	7,802.5	7,795.7	20.8	20.1	145.95	-95.6	125.1	48.7	10.7	38.06	1.280	Level 3
7,900.0	7,892.5	7,902.5	7,895.4	21.2	20.5	145.35	-99.6	131.6	49.0	10.4	38.62	1.268	Level 3
8,000.0	7,992.2	8,002.5	7,995.1	21.6	20.9	144.76	-103.6	138.1	49.3	10.1	39.17	1.257	Level 3
8,100.0	8,092.0	8,102.5	8,094.8	22.0	21.3	144.18	-107.7	144.6	49.5	9.8	39.73	1.247	Level 3
8,200.0	8,191.7	8,202.5	8,194.6	22.4	21.7	143.60	-111.7	151.1	49.8	9.5	40.28	1.237	Level 3
8,300.0	8,291.4	8,302.5	8,294.3	22.9	22.1	143.03	-115.7	157.6	50.1	9.3	40.84	1.227	Level 3
8,400.0	8,391.1	8,402.5	8,394.0	23.3	22.6	142.47	-119.7	164.1	50.4	9.0	41.38	1.218	Level 3
8,500.0	8,490.8	8,502.5	8,493.7	23.7	23.0	141.91	-123.7	170.7	50.7	8.8	41.93	1.209	Level 3
8,600.0	8,590.5	8,602.5	8,593.4	24.2	23.4	141.36	-127.7	177.2	51.0	8.5	42.47	1.201	Level 3
8,700.0	8,690.2	8,702.5	8,693.1	24.6	23.9	140.82	-131.8	183.7	51.3	8.3	43.01	1.193	Level 3
8,800.0	8,789.9	8,802.5	8,792.8	25.1	24.3	140.28	-135.8	190.2	51.6	8.1	43.55	1.186	Level 3
8,900.0	8,889.7	8,902.5	8,892.5	25.5	24.7	139.75	-139.8	196.7	52.0	7.9	44.08	1.179	Level 3
9,000.0	8,989.4	9,002.5	8,992.2	26.0	25.2	139.23	-143.8	203.2	52.3	7.7	44.61	1.172	Level 3
9,100.0	9,089.1	9,102.5	9,091.9	26.4	25.6	138.71	-147.8	209.7	52.6	7.5	45.13	1.166	Level 3
9,200.0	9,188.8	9,202.5	9,191.6	26.9	26.1	138.20	-151.8	216.2	52.9	7.3	45.65	1.160	Level 3
9,300.0	9,288.5	9,302.5	9,291.3	27.3	26.5	137.70	-155.9	222.7	53.3	7.1	46.16	1.154	Level 3
9,400.0	9,388.2	9,402.5	9,391.0	27.8	27.0	137.20	-159.9	229.2	53.6	7.0	46.67	1.149	Level 3
9,500.0	9,487.9	9,502.5	9,490.7	28.3	27.5	136.71	-163.9	235.7	54.0	6.8	47.17	1.144	Level 3
9,600.0	9,587.7	9,602.5	9,590.4	28.7	27.9	136.22	-167.9	242.2	54.3	6.6	47.67	1.139	Level 3
9,700.0	9,687.4	9,702.5	9,690.1	29.2	28.4	135.74	-171.9	248.7	54.7	6.5	48.17	1.135	Level 3
9,800.0	9,787.1	9,802.5	9,789.8	29.7	28.9	135.27	-176.0	255.2	55.0	6.4	48.66	1.131	Level 3
9,900.0	9,886.8	9,902.5	9,889.6	30.1	29.3	134.80	-180.0	261.7	55.4	6.2	49.14	1.127	Level 3
10,000.0	9,986.5	10,002.5	9,989.3	30.6	29.8	134.34	-184.0	268.2	55.7	6.1	49.62	1.123	Level 3
10,100.0	10,086.2	10,102.5	10,089.0	31.1	30.3	133.88	-188.0	274.7	56.1	6.0	50.10	1.120	Level 3
10,200.0	10,185.9	10,202.5	10,188.7	31.6	30.7	133.44	-192.0	281.2	56.5	5.9	50.57	1.117	Level 3
10,300.0	10,285.7	10,302.5	10,288.4	32.1	31.2	132.99	-196.0	287.7	56.9	5.8	51.03	1.114	Level 3
10,400.0	10,385.4	10,402.5	10,388.1	32.5	31.7	132.56	-200.1	294.2	57.2	5.7	51.49	1.111	Level 3, SF
10,500.0	10,485.1	10,502.0	10,487.4	33.0	32.1	132.52	-203.8	300.3	57.9	5.8	52.08	1.112	Level 3
10,600.0	10,584.8	10,601.3	10,586.5	33.5	32.6	133.74	-206.7	304.9	59.7	6.4	53.24	1.121	Level 3
10,700.0	10,684.5	10,700.6	10,685.7	34.0	33.0	136.09	-208.6	308.1	62.6	7.7	54.92	1.139	Level 3
10,800.0	10,784.2	10,800.0	10,785.1	34.5	33.3	139.30	-209.6	309.8	66.8	9.8	56.98	1.172	Level 3
10,900.0	10,883.9	10,898.8	10,883.9	35.0	33.4	142.96	-209.8	310.1	72.4	13.4	59.06	1.226	Level 3
11,000.0	10,983.7	10,999.0	10,984.1	35.4	33.5	146.39	-209.7	310.1	78.6	17.6	60.97	1.289	Level 3
11,033.2	11,016.8	11,033.2	11,018.3	35.6	33.4	148.84	-207.7	310.4	80.3	18.1	62.12	1.292	Level 3
11,100.0	11,083.4	11,100.1	11,084.2	35.9	33.3	158.00	-196.7	311.9	83.1	17.5	65.60	1.267	Level 3
11,200.0	11,183.2	11,191.4	11,170.4	36.4	33.1	178.04	-167.3	315.8	93.5	24.5	69.07	1.354	Level 3
11,300.0	11,283.2	11,269.1	11,238.1	36.8	33.0	-163.25	-129.9	320.9	122.4	55.5	66.91	1.829	
11,400.0	11,383.1	11,332.9	11,288.7	37.1	32.9	-150.70	-91.3	326.1	170.7	106.9	63.84	2.674	
11,466.9	11,450.0	11,368.8	11,314.6	37.3	32.9	-27.80	-66.8	329.5	211.1	148.3	62.74	3.364	
11,500.0	11,483.1	11,384.8	11,325.6	37.3	32.8	-25.54	-55.2	331.0	232.9	170.4	62.47	3.729	
11,599.4	11,582.5	11,425.0	11,351.4	37.3	32.8	-20.64	-24.7	335.2	304.4	241.9	62.52	4.869	
11,625.0	11,608.1	11,436.2	11,358.1	37.3	32.8	-18.02	-15.8	336.4	323.5	261.0	62.56	5.172	
11,650.0	11,633.0	11,450.0	11,366.1	37.2	32.8	-15.95	-4.6	337.9	341.9	279.3	62.52	5.468	
11,675.0	11,657.8	11,455.6	11,369.2	37.2	32.8	-14.75	0.0	338.5	359.6	296.8	62.87	5.721	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		
11,700.0	11,682.4	11,465.5	11,374.7	37.1	32.8	-13.43	8.2	339.6	376.9	313.9	63.07	5.977		
11,725.0	11,706.7	11,475.0	11,379.7	37.1	32.8	-12.31	16.2	340.7	393.8	330.4	63.31	6.219		
11,750.0	11,730.7	11,485.6	11,385.1	37.0	32.8	-11.28	25.2	341.9	410.0	346.5	63.54	6.453		
11,775.0	11,754.2	11,500.0	11,392.2	37.0	32.8	-10.22	37.6	343.6	425.8	362.2	63.66	6.689		
11,800.0	11,777.3	11,506.0	11,395.0	36.9	32.8	-9.60	42.9	344.3	441.0	376.9	64.08	6.881		
11,825.0	11,799.8	11,516.3	11,399.7	36.8	32.8	-8.90	51.9	345.6	455.6	391.2	64.38	7.077		
11,850.0	11,821.8	11,525.0	11,403.5	36.8	32.8	-8.32	59.7	346.6	469.6	404.9	64.73	7.255		
11,875.0	11,843.1	11,537.1	11,408.6	36.7	32.9	-7.70	70.6	348.1	483.0	418.0	64.99	7.432		
11,900.0	11,863.7	11,550.0	11,413.7	36.7	32.9	-7.13	82.3	349.7	495.8	430.5	65.24	7.600		
11,925.0	11,883.5	11,558.1	11,416.7	36.6	32.9	-6.73	89.8	350.7	507.9	442.3	65.62	7.740		
11,950.0	11,902.5	11,575.0	11,422.6	36.6	32.9	-6.16	105.5	352.8	519.5	453.7	65.79	7.897		
11,975.0	11,920.6	11,575.0	11,422.6	36.5	32.9	-6.01	105.5	352.8	530.3	464.0	66.37	7.991		
12,000.0	11,937.8	11,589.9	11,427.4	36.5	32.9	-5.57	119.5	354.7	540.5	473.9	66.59	8.117		
12,025.0	11,954.0	11,600.0	11,430.4	36.5	33.0	-5.26	129.0	356.0	550.1	483.1	66.93	8.219		
12,050.0	11,969.2	11,611.3	11,433.4	36.4	33.0	-4.95	139.8	357.5	558.9	491.7	67.23	8.313		
12,075.0	11,983.3	11,625.0	11,436.8	36.4	33.0	-4.62	152.9	359.2	567.1	499.6	67.50	8.402		
12,100.0	11,996.3	11,632.8	11,438.6	36.4	33.0	-4.41	160.5	360.3	574.6	506.7	67.86	8.467		
12,125.0	12,008.2	11,650.0	11,442.0	36.4	33.1	-4.07	177.2	362.5	581.5	513.4	68.07	8.542		
12,150.0	12,019.0	11,650.0	11,442.0	36.4	33.1	-4.02	177.2	362.5	587.5	519.0	68.53	8.574		
12,175.0	12,028.5	11,665.2	11,444.5	36.5	33.1	-3.74	192.0	364.5	592.9	524.1	68.76	8.622		
12,200.0	12,036.8	11,675.0	11,445.9	36.5	33.2	-3.56	201.6	365.8	597.6	528.5	69.06	8.653		
12,225.0	12,043.9	11,686.8	11,447.3	36.5	33.2	-3.36	213.3	367.4	601.6	532.2	69.33	8.677		
12,250.0	12,049.7	11,700.0	11,448.5	36.6	33.3	-3.15	226.3	369.2	604.8	535.2	69.58	8.693		
12,275.0	12,054.2	11,708.5	11,449.1	36.6	33.3	-3.02	234.7	370.3	607.3	537.5	69.86	8.694		
12,300.0	12,057.4	11,725.0	11,449.8	36.7	33.4	-2.78	251.0	372.5	609.2	539.2	70.07	8.694		
12,325.0	12,059.4	11,730.2	11,449.9	36.8	33.4	-2.70	256.2	373.2	610.3	539.9	70.34	8.675		
12,349.4	12,060.0	11,745.2	11,450.0	36.9	33.5	-2.50	271.1	375.2	610.6	540.1	70.54	8.656		
12,400.0	12,060.0	11,795.0	11,450.0	37.1	33.7	-1.89	320.4	381.5	610.3	539.5	70.85	8.614		
12,500.0	12,060.0	11,893.9	11,450.0	37.6	34.3	-0.91	418.9	391.3	610.1	538.6	71.49	8.534		
12,600.0	12,060.0	11,993.5	11,450.0	38.1	35.1	-0.24	518.2	397.8	610.0	537.8	72.17	8.453		
12,658.6	12,060.0	12,052.0	11,450.0	38.5	35.5	0.00	576.7	400.0	610.0	537.4	72.58	8.404		
12,700.0	12,060.0	12,093.4	11,450.0	38.8	35.9	0.10	618.0	400.8	610.0	537.1	72.86	8.372		
12,800.0	12,060.0	12,193.4	11,450.0	39.5	36.7	0.15	718.1	400.7	610.0	536.4	73.56	8.293		
12,900.0	12,060.0	12,293.4	11,450.0	40.3	37.6	0.15	818.1	400.0	610.0	535.7	74.30	8.210		
13,000.0	12,060.0	12,393.4	11,450.0	41.2	38.5	0.15	918.1	399.3	610.0	534.9	75.10	8.122		
13,100.0	12,060.0	12,493.4	11,450.0	42.2	39.5	0.14	1,018.1	398.7	610.0	534.0	75.96	8.031		
13,200.0	12,060.0	12,593.4	11,450.0	43.2	40.6	0.14	1,118.1	398.0	610.0	533.1	76.87	7.935		
13,300.0	12,060.0	12,693.4	11,450.0	44.3	41.7	0.14	1,218.1	397.4	610.0	532.2	77.83	7.837		
13,400.0	12,060.0	12,793.4	11,450.0	45.5	42.9	0.14	1,318.0	396.7	610.0	531.2	78.84	7.737		
13,500.0	12,060.0	12,893.4	11,450.0	46.7	44.2	0.14	1,418.0	396.0	610.0	530.1	79.90	7.634		
13,600.0	12,060.0	12,993.4	11,450.0	48.0	45.5	0.13	1,518.0	395.4	610.0	529.0	81.00	7.530		
13,700.0	12,060.0	13,093.4	11,450.0	49.3	46.9	0.13	1,618.0	394.7	610.0	527.9	82.15	7.425		
13,800.0	12,060.0	13,193.4	11,450.0	50.6	48.3	0.13	1,718.0	394.1	610.0	526.7	83.34	7.319		
13,900.0	12,060.0	13,293.4	11,450.0	52.1	49.8	0.13	1,818.0	393.4	610.0	525.4	84.57	7.213		
14,000.0	12,060.0	13,393.4	11,450.0	53.5	51.3	0.13	1,918.0	392.7	610.0	524.2	85.83	7.107		
14,100.0	12,060.0	13,493.4	11,450.0	55.0	52.8	0.12	2,018.0	392.1	610.0	522.9	87.14	7.000		
14,200.0	12,060.0	13,593.4	11,450.0	56.5	54.4	0.12	2,118.0	391.4	610.0	521.5	88.48	6.895		
14,300.0	12,060.0	13,693.4	11,450.0	58.1	56.0	0.12	2,218.0	390.7	610.0	520.2	89.85	6.789		
14,400.0	12,060.0	13,793.4	11,450.0	59.6	57.6	0.12	2,318.0	390.1	610.0	518.8	91.25	6.685		
14,500.0	12,060.0	13,893.4	11,450.0	61.3	59.3	0.12	2,418.0	389.4	610.0	517.3	92.68	6.582		
14,600.0	12,060.0	13,993.4	11,450.0	62.9	61.0	0.11	2,518.0	388.8	610.0	515.9	94.15	6.479		
14,700.0	12,060.0	14,093.4	11,450.0	64.5	62.6	0.11	2,618.0	388.1	610.0	514.4	95.64	6.378		

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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)			
14,800.0	12,060.0	14,193.4	11,450.0	66.2	64.4	0.11	2,718.0	387.4	610.0	512.8	97.15	6.279	
14,900.0	12,060.0	14,293.4	11,450.0	67.9	66.1	0.11	2,818.0	386.8	610.0	511.3	98.69	6.181	
15,000.0	12,060.0	14,393.4	11,450.0	69.6	67.8	0.11	2,918.0	386.1	610.0	509.7	100.26	6.084	
15,100.0	12,060.0	14,493.4	11,450.0	71.3	69.6	0.10	3,018.0	385.5	610.0	508.2	101.85	5.989	
15,200.0	12,060.0	14,593.4	11,450.0	73.1	71.4	0.10	3,118.0	384.8	610.0	506.5	103.46	5.896	
15,300.0	12,060.0	14,693.4	11,450.0	74.9	73.2	0.10	3,218.0	384.1	610.0	504.9	105.09	5.805	
15,400.0	12,060.0	14,793.4	11,450.0	76.6	75.0	0.10	3,318.0	383.5	610.0	503.3	106.74	5.715	
15,500.0	12,060.0	14,893.4	11,450.0	78.4	76.8	0.10	3,418.0	382.8	610.0	501.6	108.41	5.627	
15,600.0	12,060.0	14,993.4	11,450.0	80.2	78.6	0.09	3,518.0	382.2	610.0	499.9	110.10	5.540	
15,700.0	12,060.0	15,093.4	11,450.0	82.0	80.5	0.09	3,618.0	381.5	610.0	498.2	111.80	5.456	
15,800.0	12,060.0	15,193.4	11,450.0	83.8	82.3	0.09	3,718.0	380.8	610.0	496.5	113.53	5.373	
15,900.0	12,060.0	15,293.4	11,450.0	85.6	84.1	0.09	3,818.0	380.2	610.0	494.7	115.26	5.292	
16,000.0	12,060.0	15,393.4	11,450.0	87.5	86.0	0.09	3,918.0	379.5	610.0	493.0	117.02	5.213	
16,100.0	12,060.0	15,493.4	11,450.0	89.3	87.9	0.08	4,018.0	378.8	610.0	491.2	118.79	5.135	
16,200.0	12,060.0	15,593.4	11,450.0	91.2	89.7	0.08	4,118.0	378.2	610.0	489.4	120.57	5.059	
16,300.0	12,060.0	15,693.4	11,450.0	93.0	91.6	0.08	4,218.0	377.5	610.0	487.6	122.36	4.985	
16,400.0	12,060.0	15,793.4	11,450.0	94.9	93.5	0.08	4,318.0	376.9	610.0	485.8	124.17	4.913	
16,500.0	12,060.0	15,893.4	11,450.0	96.8	95.4	0.07	4,418.0	376.2	610.0	484.0	125.99	4.842	
16,600.0	12,060.0	15,993.4	11,450.0	98.6	97.3	0.07	4,518.0	375.5	610.0	482.2	127.82	4.772	
16,700.0	12,060.0	16,093.4	11,450.0	100.5	99.2	0.07	4,618.0	374.9	610.0	480.3	129.66	4.705	
16,800.0	12,060.0	16,193.4	11,450.0	102.4	101.1	0.07	4,718.0	374.2	610.0	478.5	131.51	4.638	
16,900.0	12,060.0	16,293.4	11,450.0	104.3	103.0	0.07	4,818.0	373.6	610.0	476.6	133.37	4.574	
17,000.0	12,060.0	16,393.4	11,450.0	106.2	104.9	0.06	4,918.0	372.9	610.0	474.8	135.25	4.510	
17,100.0	12,060.0	16,493.4	11,450.0	108.1	106.8	0.06	5,018.0	372.2	610.0	472.9	137.13	4.448	
17,200.0	12,060.0	16,593.4	11,450.0	110.0	108.8	0.06	5,118.0	371.6	610.0	471.0	139.02	4.388	
17,300.0	12,060.0	16,693.4	11,450.0	111.9	110.7	0.06	5,218.0	370.9	610.0	469.1	140.92	4.329	
17,400.0	12,060.0	16,793.4	11,450.0	113.8	112.6	0.06	5,318.0	370.2	610.0	467.2	142.82	4.271	
17,500.0	12,060.0	16,893.4	11,450.0	115.7	114.5	0.05	5,418.0	369.6	610.0	465.3	144.74	4.214	
17,600.0	12,060.0	16,993.4	11,450.0	117.7	116.5	0.05	5,518.0	368.9	610.0	463.3	146.66	4.159	
17,700.0	12,060.0	17,093.4	11,450.0	119.6	118.4	0.05	5,618.0	368.3	610.0	461.4	148.59	4.105	
17,800.0	12,060.0	17,193.4	11,450.0	121.5	120.4	0.05	5,718.0	367.6	610.0	459.5	150.53	4.052	
17,900.0	12,060.0	17,293.4	11,450.0	123.4	122.3	0.05	5,818.0	366.9	610.0	457.5	152.47	4.001	
18,000.0	12,060.0	17,393.4	11,450.0	125.4	124.2	0.04	5,917.9	366.3	610.0	455.6	154.42	3.950	
18,100.0	12,060.0	17,493.4	11,450.0	127.3	126.2	0.04	6,017.9	365.6	610.0	453.6	156.38	3.901	
18,200.0	12,060.0	17,593.4	11,450.0	129.2	128.1	0.04	6,117.9	365.0	610.0	451.7	158.34	3.852	
18,300.0	12,060.0	17,693.4	11,450.0	131.2	130.1	0.04	6,217.9	364.3	610.0	449.7	160.31	3.805	
18,400.0	12,060.0	17,793.4	11,450.0	133.1	132.0	0.04	6,317.9	363.6	610.0	447.7	162.29	3.759	
18,500.0	12,060.0	17,893.4	11,450.0	135.1	134.0	0.03	6,417.9	363.0	610.0	445.7	164.27	3.713	
18,600.0	12,060.0	17,993.4	11,450.0	137.0	136.0	0.03	6,517.9	362.3	610.0	443.7	166.25	3.669	
18,700.0	12,060.0	18,093.4	11,450.0	139.0	137.9	0.03	6,617.9	361.7	610.0	441.8	168.24	3.626	
18,800.0	12,060.0	18,193.4	11,450.0	140.9	139.9	0.03	6,717.9	361.0	610.0	439.8	170.24	3.583	
18,900.0	12,060.0	18,293.4	11,450.0	142.9	141.8	0.03	6,817.9	360.3	610.0	437.8	172.23	3.542	
19,000.0	12,060.0	18,393.4	11,450.0	144.8	143.8	0.02	6,917.9	359.7	610.0	435.8	174.24	3.501	
19,100.0	12,060.0	18,493.4	11,450.0	146.8	145.8	0.02	7,017.9	359.0	610.0	433.8	176.25	3.461	
19,200.0	12,060.0	18,593.4	11,450.0	148.7	147.7	0.02	7,117.9	358.3	610.0	431.7	178.26	3.422	
19,300.0	12,060.0	18,693.4	11,450.0	150.7	149.7	0.02	7,217.9	357.7	610.0	429.7	180.28	3.384	
19,400.0	12,060.0	18,793.4	11,450.0	152.6	151.7	0.02	7,317.9	357.0	610.0	427.7	182.30	3.346	
19,500.0	12,060.0	18,893.4	11,450.0	154.6	153.6	0.01	7,417.9	356.4	610.0	425.7	184.32	3.309	
19,600.0	12,060.0	18,993.4	11,450.0	156.6	155.6	0.01	7,517.9	355.7	610.0	423.7	186.35	3.273	
19,700.0	12,060.0	19,093.4	11,450.0	158.5	157.6	0.01	7,617.9	355.0	610.0	421.6	188.38	3.238	
19,800.0	12,060.0	19,193.4	11,450.0	160.5	159.6	0.01	7,717.9	354.4	610.0	419.6	190.42	3.204	
19,900.0	12,060.0	19,293.4	11,450.0	162.5	161.5	0.01	7,817.9	353.7	610.0	417.5	192.45	3.170	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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				Rule Assigned:	
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	+N/-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning	
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
20,000.0	12,060.0	19,393.4	11,450.0	164.4	163.5	0.00	7,917.9	353.1	610.0	415.5	194.50	3.136		
20,100.0	12,060.0	19,493.4	11,450.0	166.4	165.5	0.00	8,017.9	352.4	610.0	413.5	196.54	3.104		
20,165.3	12,060.0	19,558.7	11,450.0	167.7	166.8	0.00	8,083.2	352.0	610.0	412.1	197.88	3.083		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		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	-90.04	0.0	-59.8	59.9				
100.0	100.0	99.0	99.0	0.5	0.5	-90.04	0.0	-59.8	59.8	58.8	1.06	56.727	
200.0	200.0	199.0	199.0	1.7	1.7	-90.04	0.0	-59.8	59.8	56.4	3.41	17.542	
300.0	300.0	299.0	299.0	2.4	2.4	-90.04	0.0	-59.8	59.8	55.0	4.82	12.427	
400.0	400.0	399.0	399.0	3.0	2.9	-90.04	0.0	-59.8	59.8	53.9	5.90	10.139	
500.0	500.0	499.0	499.0	3.4	3.4	-90.04	0.0	-59.8	59.8	53.0	6.83	8.768	
600.0	600.0	599.0	599.0	3.8	3.8	-90.04	0.0	-59.8	59.8	52.2	7.64	7.829	
700.0	700.0	699.0	699.0	4.2	4.2	-90.04	0.0	-59.8	59.8	51.5	8.39	7.133	
800.0	800.0	799.0	799.0	4.5	4.5	-90.04	0.0	-59.8	59.8	50.8	9.08	6.591	
900.0	900.0	899.0	899.0	4.9	4.9	-90.04	0.0	-59.8	59.8	50.1	9.73	6.153	
1,000.0	1,000.0	999.0	999.0	5.2	5.2	-90.04	0.0	-59.8	59.8	49.5	10.34	5.789	
1,100.0	1,100.0	1,099.0	1,099.0	5.5	5.5	-90.04	0.0	-59.8	59.8	48.9	10.92	5.480	
1,200.0	1,200.0	1,199.0	1,199.0	5.7	5.7	-90.04	0.0	-59.8	59.8	48.4	11.48	5.215	
1,300.0	1,300.0	1,299.0	1,299.0	6.0	6.0	-90.04	0.0	-59.8	59.8	47.8	12.01	4.982	
1,400.0	1,400.0	1,399.0	1,399.0	6.3	6.3	-90.04	0.0	-59.8	59.8	47.3	12.53	4.777	
1,500.0	1,500.0	1,499.0	1,499.0	6.5	6.5	-90.04	0.0	-59.8	59.8	46.8	13.03	4.593	
1,600.0	1,600.0	1,599.0	1,599.0	6.8	6.8	-90.04	0.0	-59.8	59.8	46.3	13.51	4.428	
1,700.0	1,700.0	1,699.0	1,699.0	7.0	7.0	-90.04	0.0	-59.8	59.8	45.9	13.99	4.279	
1,800.0	1,800.0	1,799.0	1,799.0	7.2	7.2	-90.04	0.0	-59.8	59.8	45.4	14.45	4.142	
1,900.0	1,900.0	1,899.0	1,899.0	7.4	7.4	-90.04	0.0	-59.8	59.8	44.9	14.90	4.017	
2,000.0	2,000.0	1,999.0	1,999.0	7.7	7.7	-90.04	0.0	-59.8	59.8	44.5	15.34	3.902	
2,100.0	2,100.0	2,099.0	2,099.0	7.9	7.9	-90.04	0.0	-59.8	59.8	44.1	15.77	3.795	
2,200.0	2,200.0	2,199.0	2,199.0	8.1	8.1	-90.04	0.0	-59.8	59.8	43.7	16.19	3.696	
2,300.0	2,300.0	2,299.0	2,299.0	8.3	8.3	-90.04	0.0	-59.8	59.8	43.2	16.61	3.604	
2,400.0	2,400.0	2,399.0	2,399.0	8.5	8.5	-90.04	0.0	-59.8	59.8	42.8	17.01	3.518	
2,500.0	2,500.0	2,499.0	2,499.0	8.7	8.7	-90.04	0.0	-59.8	59.8	42.4	17.42	3.437	
2,600.0	2,600.0	2,599.0	2,599.0	8.9	8.9	-90.04	0.0	-59.8	59.8	42.0	17.81	3.360	
2,700.0	2,700.0	2,699.0	2,699.0	9.1	9.1	-90.04	0.0	-59.8	59.8	41.6	18.20	3.288	
2,800.0	2,800.0	2,799.0	2,799.0	9.3	9.3	-90.04	0.0	-59.8	59.8	41.3	18.58	3.220	
2,900.0	2,900.0	2,899.0	2,899.0	9.5	9.5	-90.04	0.0	-59.8	59.8	40.9	18.96	3.156	
3,000.0	3,000.0	2,999.0	2,999.0	9.7	9.7	-90.04	0.0	-59.8	59.8	40.5	19.34	3.095	
3,100.0	3,100.0	3,099.0	3,099.0	9.9	9.9	-90.04	0.0	-59.8	59.8	40.1	19.71	3.037	
3,200.0	3,200.0	3,199.0	3,199.0	10.0	10.0	-90.04	0.0	-59.8	59.8	39.8	20.07	2.982	
3,300.0	3,300.0	3,299.0	3,299.0	10.2	10.2	-90.04	0.0	-59.8	59.8	39.4	20.43	2.929	
3,400.0	3,400.0	3,399.0	3,399.0	10.4	10.4	-90.04	0.0	-59.8	59.8	39.1	20.79	2.878	
3,500.0	3,500.0	3,499.0	3,499.0	10.6	10.6	-90.04	0.0	-59.8	59.8	38.7	21.15	2.830	
3,600.0	3,600.0	3,599.0	3,599.0	10.7	10.7	-90.04	0.0	-59.8	59.8	38.3	21.50	2.784	
3,700.0	3,700.0	3,699.0	3,699.0	10.9	10.9	-90.04	0.0	-59.8	59.8	38.0	21.84	2.740	
3,800.0	3,800.0	3,799.0	3,799.0	11.1	11.1	-90.04	0.0	-59.8	59.8	37.7	22.19	2.697	
3,900.0	3,900.0	3,899.0	3,899.0	11.3	11.3	-90.04	0.0	-59.8	59.8	37.3	22.53	2.656	
4,000.0	4,000.0	3,999.0	3,999.0	11.4	11.4	-90.04	0.0	-59.8	59.8	37.0	22.87	2.617	
4,100.0	4,100.0	4,099.0	4,099.0	11.6	11.6	-90.04	0.0	-59.8	59.8	36.6	23.21	2.579	
4,200.0	4,200.0	4,199.0	4,199.0	11.8	11.8	-90.04	0.0	-59.8	59.8	36.3	23.54	2.543	
4,300.0	4,300.0	4,299.0	4,299.0	11.9	11.9	-90.04	0.0	-59.8	59.8	36.0	23.87	2.507	
4,400.0	4,400.0	4,399.0	4,399.0	12.1	12.1	-90.04	0.0	-59.8	59.8	35.6	24.20	2.473	
4,500.0	4,500.0	4,499.0	4,499.0	12.3	12.3	-90.04	0.0	-59.8	59.8	35.3	24.52	2.440	
4,600.0	4,600.0	4,599.0	4,599.0	12.4	12.4	-90.04	0.0	-59.8	59.8	35.0	24.85	2.409	
4,700.0	4,700.0	4,699.0	4,699.0	12.6	12.6	-90.04	0.0	-59.8	59.8	34.7	25.17	2.378	
4,800.0	4,800.0	4,799.0	4,799.0	12.7	12.7	-90.04	0.0	-59.8	59.8	34.4	25.49	2.348	
4,900.0	4,900.0	4,899.0	4,899.0	12.9	12.9	-90.04	0.0	-59.8	59.8	34.0	25.81	2.319	
5,000.0	5,000.0	4,999.0	4,999.0	13.1	13.1	-90.04	0.0	-59.8	59.8	33.7	26.12	2.291 CC, ES, SF	
5,100.0	5,100.0	5,099.0	5,099.0	13.2	13.2	152.93	0.0	-59.8	60.6	34.2	26.38	2.298	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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	5,199.0	5,199.0	13.3	13.4	154.01	0.0	-59.8	63.0	36.3	26.63	2.364	
5,300.0	5,299.9	5,297.9	5,297.9	13.4	13.5	155.18	-0.5	-60.5	67.6	40.8	26.84	2.518	
5,400.0	5,399.7	5,396.7	5,396.6	13.5	13.6	155.92	-1.9	-62.6	75.2	48.2	27.04	2.781	
5,433.6	5,433.2	5,429.8	5,429.7	13.5	13.6	156.08	-2.6	-63.7	78.4	51.3	27.09	2.894	
5,500.0	5,499.4	5,495.1	5,494.9	13.6	13.7	156.20	-4.3	-66.1	85.4	58.2	27.22	3.138	
5,600.0	5,599.1	5,593.1	5,592.8	13.8	13.8	155.83	-7.6	-71.0	97.1	69.6	27.46	3.534	
5,700.0	5,698.8	5,691.9	5,691.3	14.0	13.9	155.12	-11.7	-77.0	109.8	82.1	27.70	3.963	
5,800.0	5,798.5	5,791.0	5,790.2	14.2	14.0	154.53	-15.8	-83.1	122.6	94.6	28.00	4.377	
5,900.0	5,898.3	5,890.2	5,889.1	14.4	14.2	154.05	-19.9	-89.2	135.4	107.0	28.34	4.776	
6,000.0	5,998.0	5,989.4	5,988.0	14.6	14.4	153.65	-24.1	-95.3	148.2	119.5	28.71	5.162	
6,100.0	6,097.7	6,088.5	6,086.9	14.9	14.6	153.32	-28.2	-101.4	161.0	131.9	29.10	5.533	
6,200.0	6,197.4	6,187.7	6,185.8	15.1	14.8	153.03	-32.3	-107.5	173.9	144.3	29.51	5.891	
6,300.0	6,297.1	6,286.9	6,284.7	15.4	15.1	152.78	-36.5	-113.6	186.7	156.7	29.95	6.234	
6,400.0	6,396.8	6,386.0	6,383.6	15.7	15.3	152.57	-40.6	-119.7	199.5	169.1	30.41	6.562	
6,500.0	6,496.5	6,485.2	6,482.4	16.0	15.6	152.38	-44.7	-125.8	212.4	181.5	30.88	6.876	
6,600.0	6,596.2	6,584.4	6,581.3	16.3	15.8	152.22	-48.9	-131.9	225.2	193.8	31.38	7.177	
6,700.0	6,696.0	6,683.6	6,680.2	16.6	16.1	152.07	-53.0	-138.0	238.1	206.2	31.90	7.463	
6,800.0	6,795.7	6,782.7	6,779.1	17.0	16.4	151.93	-57.1	-144.1	250.9	218.5	32.43	7.737	
6,900.0	6,895.4	6,881.9	6,878.0	17.3	16.7	151.81	-61.3	-150.2	263.8	230.8	32.98	7.997	
7,000.0	6,995.1	6,981.1	6,976.9	17.7	17.1	151.70	-65.4	-156.3	276.6	243.1	33.55	8.245	
7,100.0	7,094.8	7,080.2	7,075.8	18.0	17.4	151.60	-69.5	-162.4	289.4	255.3	34.13	8.481	
7,200.0	7,194.5	7,179.4	7,174.7	18.4	17.7	151.51	-73.7	-168.5	302.3	267.6	34.72	8.706	
7,300.0	7,294.2	7,278.6	7,273.6	18.8	18.1	151.43	-77.8	-174.7	315.1	279.8	35.33	8.919	
7,400.0	7,394.0	7,377.7	7,372.5	19.2	18.4	151.35	-81.9	-180.8	328.0	292.0	35.96	9.122	
7,500.0	7,493.7	7,476.9	7,471.4	19.5	18.8	151.28	-86.1	-186.9	340.9	304.3	36.59	9.315	
7,600.0	7,593.4	7,576.1	7,570.3	19.9	19.2	151.21	-90.2	-193.0	353.7	316.5	37.24	9.498	
7,700.0	7,693.1	7,675.3	7,669.2	20.3	19.5	151.15	-94.3	-199.1	366.6	328.7	37.90	9.672	
7,800.0	7,792.8	7,774.4	7,768.1	20.8	19.9	151.10	-98.5	-205.2	379.4	340.8	38.57	9.838	
7,900.0	7,892.5	7,873.6	7,867.0	21.2	20.3	151.04	-102.6	-211.3	392.3	353.0	39.25	9.995	
8,000.0	7,992.2	7,972.8	7,965.9	21.6	20.7	150.99	-106.7	-217.4	405.1	365.2	39.94	10.144	
8,100.0	8,092.0	8,071.9	8,064.8	22.0	21.1	150.94	-110.9	-223.5	418.0	377.3	40.63	10.286	
8,200.0	8,191.7	8,171.1	8,163.7	22.4	21.5	150.90	-115.0	-229.6	430.8	389.5	41.34	10.422	
8,300.0	8,291.4	8,270.3	8,262.6	22.9	21.9	150.86	-119.1	-235.7	443.7	401.6	42.05	10.550	
8,400.0	8,391.1	8,369.4	8,361.5	23.3	22.3	150.82	-123.3	-241.8	456.5	413.8	42.78	10.672	
8,500.0	8,490.8	8,468.6	8,460.4	23.7	22.8	150.78	-127.4	-247.9	469.4	425.9	43.51	10.789	
8,600.0	8,590.5	8,567.8	8,559.3	24.2	23.2	150.75	-131.6	-254.0	482.2	438.0	44.24	10.900	
8,700.0	8,690.2	8,667.0	8,658.2	24.6	23.6	150.71	-135.7	-260.1	495.1	450.1	44.99	11.005	
8,800.0	8,789.9	8,766.1	8,757.0	25.1	24.0	150.68	-139.8	-266.2	508.0	462.2	45.74	11.106	
8,900.0	8,889.7	8,865.3	8,855.9	25.5	24.5	150.65	-144.0	-272.3	520.8	474.3	46.49	11.202	
9,000.0	8,989.4	8,964.5	8,954.8	26.0	24.9	150.62	-148.1	-278.4	533.7	486.4	47.26	11.293	
9,100.0	9,089.1	9,063.6	9,053.7	26.4	25.3	150.60	-152.2	-284.5	546.5	498.5	48.02	11.380	
9,200.0	9,188.8	9,162.8	9,152.6	26.9	25.8	150.57	-156.4	-290.6	559.4	510.6	48.80	11.463	
9,300.0	9,288.5	9,262.0	9,251.5	27.3	26.2	150.54	-160.5	-296.7	572.2	522.7	49.57	11.543	
9,400.0	9,388.2	9,361.1	9,350.4	27.8	26.7	150.52	-164.6	-302.8	585.1	534.7	50.36	11.619	
9,500.0	9,487.9	9,460.3	9,449.3	28.3	27.1	150.50	-168.8	-308.9	597.9	546.8	51.14	11.691	
9,600.0	9,587.7	9,559.5	9,548.2	28.7	27.6	150.48	-172.9	-315.0	610.8	558.9	51.94	11.761	
9,700.0	9,687.4	9,658.7	9,647.1	29.2	28.0	150.46	-177.0	-321.1	623.7	570.9	52.73	11.827	
9,800.0	9,787.1	9,757.8	9,746.0	29.7	28.5	150.44	-181.2	-327.2	636.5	583.0	53.53	11.891	
9,900.0	9,886.8	9,857.0	9,844.9	30.1	29.0	150.42	-185.3	-333.3	649.4	595.0	54.33	11.951	
10,000.0	9,986.5	9,956.2	9,943.8	30.6	29.4	150.40	-189.4	-339.4	662.2	607.1	55.14	12.010	
10,100.0	10,086.2	10,055.3	10,042.7	31.1	29.9	150.38	-193.6	-345.5	675.1	619.1	55.95	12.065	
10,200.0	10,185.9	10,154.5	10,141.6	31.6	30.3	150.36	-197.7	-351.6	687.9	631.2	56.77	12.119	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		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)				
10,300.0	10,285.7	10,255.6	10,242.4	32.1	30.8	150.35	-201.9	-357.8	700.8	643.2	57.57	12.172		
10,400.0	10,385.4	10,366.5	10,353.1	32.5	31.3	150.39	-205.7	-363.5	712.5	654.1	58.41	12.199		
10,500.0	10,485.1	10,477.8	10,464.2	33.0	31.7	150.52	-208.3	-367.4	722.7	663.5	59.23	12.201		
10,600.0	10,584.8	10,589.3	10,575.8	33.5	32.1	150.74	-209.8	-369.4	731.2	671.2	60.00	12.187		
10,700.0	10,684.5	10,697.1	10,683.5	34.0	32.3	151.03	-210.0	-369.8	738.2	677.6	60.55	12.190		
10,800.0	10,784.2	10,796.8	10,783.2	34.5	32.3	151.32	-210.0	-369.8	744.8	683.8	61.03	12.203		
10,900.0	10,883.9	10,879.6	10,865.7	35.0	32.2	152.03	-203.7	-370.8	752.5	691.0	61.50	12.235		
11,000.0	10,983.7	10,956.2	10,940.0	35.4	32.1	153.62	-185.3	-373.5	763.1	701.1	61.97	12.313		
11,033.2	11,016.8	10,979.9	10,962.2	35.6	32.0	154.28	-177.3	-374.7	767.4	705.3	62.12	12.354		
11,100.0	11,083.4	11,025.0	11,003.3	35.9	31.9	155.77	-159.0	-377.4	777.3	714.9	62.41	12.454		
11,200.0	11,183.2	11,083.8	11,054.1	36.4	31.8	158.08	-129.6	-381.7	795.4	732.6	62.85	12.655		
11,300.0	11,283.2	11,134.6	11,094.6	36.8	31.8	160.35	-99.4	-386.1	818.3	755.0	63.29	12.930		
11,400.0	11,383.1	11,175.0	11,124.4	37.1	31.7	162.33	-72.4	-390.1	846.7	783.0	63.71	13.289		
11,466.9	11,450.0	11,200.0	11,141.6	37.3	31.7	-78.97	-54.5	-392.7	868.9	805.0	63.92	13.594		
11,500.0	11,483.1	11,214.7	11,151.4	37.3	31.7	-78.24	-43.6	-394.4	881.0	817.0	63.99	13.768		
11,599.4	11,582.5	11,250.0	11,173.2	37.3	31.6	-76.44	-16.2	-398.4	921.8	857.6	64.27	14.344		
11,625.0	11,608.1	11,250.0	11,173.2	37.3	31.6	-74.58	-16.2	-398.4	933.3	868.9	64.36	14.502		
11,650.0	11,633.0	11,260.8	11,179.5	37.2	31.6	-72.60	-7.5	-399.7	944.6	880.2	64.42	14.664		
11,675.0	11,657.8	11,275.0	11,187.4	37.2	31.6	-70.52	4.2	-401.4	956.0	891.5	64.47	14.828		
11,700.0	11,682.4	11,275.0	11,187.4	37.1	31.6	-69.10	4.2	-401.4	967.3	902.7	64.56	14.982		
11,725.0	11,706.7	11,284.3	11,192.4	37.1	31.7	-67.32	11.9	-402.5	978.6	914.0	64.64	15.139		
11,750.0	11,730.7	11,292.4	11,196.6	37.0	31.7	-65.64	18.8	-403.5	989.8	925.1	64.72	15.293		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		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	-90.15	-0.2	-89.8	89.8				
100.0	100.0	100.0	100.0	0.5	0.5	-90.15	-0.2	-89.8	89.8	88.7	1.06	84.664	
200.0	200.0	200.0	200.0	1.7	1.7	-90.15	-0.2	-89.8	89.8	86.3	3.42	26.221	
300.0	300.0	300.0	300.0	2.4	2.4	-90.15	-0.2	-89.8	89.8	84.9	4.82	18.613	
400.0	400.0	400.0	400.0	3.0	3.0	-90.15	-0.2	-89.8	89.8	83.9	5.91	15.195	
500.0	500.0	500.0	500.0	3.4	3.4	-90.15	-0.2	-89.8	89.8	82.9	6.83	13.143	
524.7	524.7	524.7	524.7	3.5	3.5	-90.15	-0.2	-89.8	89.8	82.7	7.03	12.765	
600.0	600.0	600.0	600.0	3.8	3.8	-90.15	-0.2	-89.8	89.8	82.1	7.65	11.737	
633.3	633.3	633.3	633.3	3.9	3.9	-90.15	-0.2	-89.8	89.8	81.9	7.90	11.367	
700.0	700.0	700.0	700.0	4.2	4.2	-90.15	-0.2	-89.8	89.8	81.4	8.39	10.695	
800.0	800.0	800.0	800.0	4.5	4.5	-90.15	-0.2	-89.8	89.8	80.7	9.08	9.882	
900.0	900.0	900.0	900.0	4.9	4.9	-90.15	-0.2	-89.8	89.8	80.0	9.73	9.226	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	-90.15	-0.2	-89.8	89.8	79.4	10.34	8.681	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	-90.15	-0.2	-89.8	89.8	78.8	10.92	8.218	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	-90.15	-0.2	-89.8	89.8	78.3	11.48	7.820	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	-90.15	-0.2	-89.8	89.8	77.8	12.01	7.471	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	-90.15	-0.2	-89.8	89.8	77.2	12.53	7.163	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	-90.15	-0.2	-89.8	89.8	76.7	13.03	6.889	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	-90.15	-0.2	-89.8	89.8	76.3	13.52	6.641	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	-90.15	-0.2	-89.8	89.8	75.8	13.99	6.417	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	-90.15	-0.2	-89.8	89.8	75.3	14.45	6.213	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	-90.15	-0.2	-89.8	89.8	74.9	14.90	6.025	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	-90.15	-0.2	-89.8	89.8	74.4	15.34	5.852	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	-90.15	-0.2	-89.8	89.8	74.0	15.77	5.692	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	-90.15	-0.2	-89.8	89.8	73.6	16.19	5.544	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	-90.15	-0.2	-89.8	89.8	73.2	16.61	5.405	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	-90.15	-0.2	-89.8	89.8	72.8	17.02	5.276	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.15	-0.2	-89.8	89.8	72.4	17.42	5.154	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	-90.15	-0.2	-89.8	89.8	72.0	17.81	5.040	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	-90.15	-0.2	-89.8	89.8	71.6	18.20	4.932	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	-90.15	-0.2	-89.8	89.8	71.2	18.59	4.830	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	-90.15	-0.2	-89.8	89.8	70.8	18.96	4.733	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	-90.15	-0.2	-89.8	89.8	70.4	19.34	4.642	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	-90.15	-0.2	-89.8	89.8	70.1	19.71	4.555	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	-90.15	-0.2	-89.8	89.8	69.7	20.07	4.472	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	-90.15	-0.2	-89.8	89.8	69.3	20.44	4.393	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	-90.15	-0.2	-89.8	89.8	69.0	20.79	4.317	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	-90.15	-0.2	-89.8	89.8	68.6	21.15	4.245	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	-90.15	-0.2	-89.8	89.8	68.3	21.50	4.176	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	-90.15	-0.2	-89.8	89.8	67.9	21.85	4.109	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	-90.15	-0.2	-89.8	89.8	67.6	22.19	4.045	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	-90.15	-0.2	-89.8	89.8	67.2	22.53	3.984	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	-90.15	-0.2	-89.8	89.8	66.9	22.87	3.925	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	-90.15	-0.2	-89.8	89.8	66.6	23.21	3.868	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	-90.15	-0.2	-89.8	89.8	66.2	23.54	3.813	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	-90.15	-0.2	-89.8	89.8	65.9	23.87	3.761	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	-90.15	-0.2	-89.8	89.8	65.6	24.20	3.710	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	-90.15	-0.2	-89.8	89.8	65.2	24.53	3.660	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	-90.15	-0.2	-89.8	89.8	64.9	24.85	3.613	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	-90.15	-0.2	-89.8	89.8	64.6	25.17	3.566	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	-90.15	-0.2	-89.8	89.8	64.3	25.49	3.522	
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	-90.15	-0.2	-89.8	89.8	64.0	25.81	3.478	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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	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	-90.15	-0.2	-89.8	89.8	63.6	26.12	3.436	CC, ES
5,100.0	5,100.0	5,098.6	5,098.6	13.2	13.2	152.42	-0.7	-90.5	91.3	65.0	26.33	3.468	
5,200.0	5,200.0	5,197.1	5,197.1	13.3	13.3	152.36	-1.9	-92.7	95.9	69.3	26.51	3.616	
5,300.0	5,299.9	5,295.4	5,295.2	13.4	13.4	152.27	-4.0	-96.4	103.4	76.7	26.71	3.873	
5,400.0	5,399.7	5,393.2	5,392.9	13.5	13.5	152.16	-6.9	-101.5	114.1	87.1	26.94	4.234	
5,433.6	5,433.2	5,426.1	5,425.7	13.5	13.5	152.12	-8.1	-103.5	118.3	91.3	26.98	4.385	
5,500.0	5,499.4	5,491.9	5,491.3	13.6	13.6	152.10	-10.5	-107.7	127.0	99.9	27.11	4.684	
5,600.0	5,599.1	5,591.0	5,590.2	13.8	13.8	152.07	-14.1	-114.0	140.0	112.6	27.39	5.111	
5,700.0	5,698.8	5,690.2	5,689.0	14.0	13.9	152.05	-17.7	-120.3	153.1	125.3	27.72	5.522	
5,800.0	5,798.5	5,789.3	5,787.9	14.2	14.1	152.03	-21.4	-126.6	166.1	138.0	28.07	5.917	
5,900.0	5,898.3	5,888.4	5,886.8	14.4	14.3	152.01	-25.0	-132.9	179.2	150.7	28.45	6.296	
6,000.0	5,998.0	5,987.6	5,985.7	14.6	14.6	152.00	-28.6	-139.2	192.2	163.3	28.86	6.660	
6,100.0	6,097.7	6,086.7	6,084.6	14.9	14.8	151.98	-32.2	-145.5	205.2	176.0	29.29	7.008	
6,200.0	6,197.4	6,185.9	6,183.4	15.1	15.1	151.97	-35.8	-151.8	218.3	188.6	29.74	7.340	
6,300.0	6,297.1	6,285.0	6,282.3	15.4	15.3	151.96	-39.4	-158.1	231.3	201.1	30.22	7.656	
6,400.0	6,396.8	6,384.2	6,381.2	15.7	15.6	151.95	-43.1	-164.4	244.4	213.7	30.71	7.958	
6,500.0	6,496.5	6,483.3	6,480.1	16.0	15.9	151.95	-46.7	-170.8	257.4	226.2	31.23	8.244	
6,600.0	6,596.2	6,582.5	6,579.0	16.3	16.2	151.94	-50.3	-177.1	270.5	238.7	31.76	8.516	
6,700.0	6,696.0	6,681.6	6,677.8	16.6	16.5	151.93	-53.9	-183.4	283.5	251.2	32.31	8.774	
6,800.0	6,795.7	6,780.7	6,776.7	17.0	16.9	151.93	-57.5	-189.7	296.6	263.7	32.88	9.019	
6,900.0	6,895.4	6,879.9	6,875.6	17.3	17.2	151.92	-61.1	-196.0	309.6	276.2	33.47	9.251	
7,000.0	6,995.1	6,979.0	6,974.5	17.7	17.5	151.92	-64.8	-202.3	322.7	288.6	34.07	9.471	
7,100.0	7,094.8	7,078.2	7,073.3	18.0	17.9	151.91	-68.4	-208.6	335.7	301.0	34.69	9.678	
7,200.0	7,194.5	7,177.3	7,172.2	18.4	18.3	151.91	-72.0	-214.9	348.8	313.4	35.32	9.875	
7,300.0	7,294.2	7,276.5	7,271.1	18.8	18.6	151.90	-75.6	-221.2	361.8	325.8	35.96	10.061	
7,400.0	7,394.0	7,375.6	7,370.0	19.2	19.0	151.90	-79.2	-227.5	374.9	338.2	36.62	10.238	
7,500.0	7,493.7	7,474.8	7,468.9	19.5	19.4	151.90	-82.8	-233.8	387.9	350.6	37.28	10.404	
7,600.0	7,593.4	7,573.9	7,567.7	19.9	19.8	151.89	-86.4	-240.1	400.9	363.0	37.96	10.562	
7,700.0	7,693.1	7,673.1	7,666.6	20.3	20.2	151.89	-90.1	-246.4	414.0	375.3	38.65	10.711	
7,800.0	7,792.8	7,772.2	7,765.5	20.8	20.6	151.89	-93.7	-252.7	427.0	387.7	39.35	10.853	
7,900.0	7,892.5	7,871.3	7,864.4	21.2	21.0	151.88	-97.3	-259.1	440.1	400.0	40.06	10.986	
8,000.0	7,992.2	7,970.5	7,963.2	21.6	21.4	151.88	-100.9	-265.4	453.1	412.4	40.78	11.113	
8,100.0	8,092.0	8,069.6	8,062.1	22.0	21.8	151.88	-104.5	-271.7	466.2	424.7	41.50	11.233	
8,200.0	8,191.7	8,168.8	8,161.0	22.4	22.2	151.88	-108.1	-278.0	479.2	437.0	42.24	11.346	
8,300.0	8,291.4	8,267.9	8,259.9	22.9	22.6	151.88	-111.8	-284.3	492.3	449.3	42.98	11.454	
8,400.0	8,391.1	8,367.1	8,358.8	23.3	23.0	151.87	-115.4	-290.6	505.3	461.6	43.73	11.556	
8,500.0	8,490.8	8,466.2	8,457.6	23.7	23.5	151.87	-119.0	-296.9	518.4	473.9	44.48	11.653	
8,600.0	8,590.5	8,565.4	8,556.5	24.2	23.9	151.87	-122.6	-303.2	531.4	486.2	45.25	11.745	
8,700.0	8,690.2	8,664.5	8,655.4	24.6	24.3	151.87	-126.2	-309.5	544.5	498.4	46.02	11.832	
8,800.0	8,789.9	8,763.7	8,754.3	25.1	24.8	151.87	-129.8	-315.8	557.5	510.7	46.79	11.915	
8,900.0	8,889.7	8,862.8	8,853.2	25.5	25.2	151.86	-133.5	-322.1	570.6	523.0	47.57	11.993	
9,000.0	8,989.4	8,961.9	8,952.0	26.0	25.7	151.86	-137.1	-328.4	583.6	535.2	48.36	12.068	
9,100.0	9,089.1	9,061.1	9,050.9	26.4	26.1	151.86	-140.7	-334.7	596.7	547.5	49.15	12.139	
9,200.0	9,188.8	9,160.2	9,149.8	26.9	26.6	151.86	-144.3	-341.0	609.7	559.7	49.95	12.207	
9,300.0	9,288.5	9,259.4	9,248.7	27.3	27.0	151.86	-147.9	-347.3	622.7	572.0	50.75	12.271	
9,400.0	9,388.2	9,358.5	9,347.5	27.8	27.5	151.86	-151.5	-353.7	635.8	584.2	51.55	12.332	
9,500.0	9,487.9	9,457.7	9,446.4	28.3	27.9	151.86	-155.1	-360.0	648.8	596.5	52.36	12.391	
9,600.0	9,587.7	9,556.8	9,545.3	28.7	28.4	151.86	-158.8	-366.3	661.9	608.7	53.18	12.446	
9,700.0	9,687.4	9,656.0	9,644.2	29.2	28.8	151.85	-162.4	-372.6	674.9	620.9	54.00	12.500	
9,800.0	9,787.1	9,755.1	9,743.1	29.7	29.3	151.85	-166.0	-378.9	688.0	633.2	54.82	12.550	
9,900.0	9,886.8	9,854.3	9,841.9	30.1	29.8	151.85	-169.6	-385.2	701.0	645.4	55.64	12.598	
10,000.0	9,986.5	9,953.4	9,940.8	30.6	30.2	151.85	-173.2	-391.5	714.1	657.6	56.47	12.645	

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				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		
10,100.0	10,086.2	10,052.5	10,039.7	31.1	30.7	151.85	-176.8	-397.8	727.1	669.8	57.30	12.689			
10,200.0	10,185.9	10,151.7	10,138.6	31.6	31.2	151.85	-180.5	-404.1	740.2	682.0	58.14	12.731			
10,300.0	10,285.7	10,250.8	10,237.5	32.1	31.6	151.85	-184.1	-410.4	753.2	694.2	58.98	12.771			
10,400.0	10,385.4	10,350.0	10,336.3	32.5	32.1	151.85	-187.7	-416.7	766.3	706.4	59.82	12.810			
10,500.0	10,485.1	10,449.1	10,435.2	33.0	32.6	151.85	-191.3	-423.0	779.3	718.6	60.66	12.847			
10,600.0	10,584.8	10,548.3	10,534.1	33.5	33.0	151.85	-194.9	-429.3	792.4	730.8	61.51	12.882			
10,700.0	10,684.5	10,647.4	10,633.0	34.0	33.5	151.85	-198.5	-435.6	805.4	743.0	62.36	12.916			
10,800.0	10,784.2	10,746.6	10,731.8	34.5	34.0	151.84	-202.2	-441.9	818.4	755.2	63.21	12.948			
10,900.0	10,883.9	10,845.7	10,830.7	35.0	34.5	151.84	-205.8	-448.3	831.5	767.4	64.06	12.980			
11,000.0	10,983.7	10,952.2	10,937.0	35.4	35.0	151.85	-209.5	-454.8	844.3	779.4	64.94	13.002			
11,033.2	11,016.8	10,990.1	10,974.7	35.6	35.2	151.87	-210.6	-456.8	848.3	783.0	65.23	13.005			
11,100.0	11,083.4	11,066.4	11,051.0	35.9	35.5	151.95	-212.5	-460.1	855.3	789.5	65.80	12.999			
11,200.0	11,183.2	11,181.1	11,165.6	36.4	36.0	152.06	-214.5	-463.4	863.1	796.5	66.61	12.958			
11,300.0	11,283.2	11,296.1	11,280.6	36.8	36.3	152.16	-215.2	-464.7	867.6	800.3	67.31	12.891			
11,400.0	11,383.1	11,398.6	11,383.1	37.1	36.4	152.23	-215.2	-464.8	869.4	801.8	67.68	12.846			
11,466.9	11,450.0	11,465.5	11,450.0	37.3	36.4	-90.34	-215.2	-464.8	869.8	802.0	67.80	12.828			
11,500.0	11,483.1	11,498.4	11,482.9	37.3	36.3	-90.23	-213.5	-464.8	869.8	802.0	67.81	12.827			
11,599.4	11,582.5	11,593.8	11,576.5	37.3	36.1	-89.08	-196.1	-464.9	870.0	802.2	67.83	12.826			
11,625.0	11,608.1	11,617.2	11,598.8	37.3	36.1	-88.26	-189.0	-465.0	870.3	802.4	67.83	12.830			
11,650.0	11,633.0	11,639.7	11,619.9	37.2	36.0	-87.83	-181.1	-465.0	870.5	802.7	67.81	12.837			
11,675.0	11,657.8	11,662.0	11,640.4	37.2	35.9	-87.40	-172.3	-465.1	870.8	803.0	67.80	12.844			
11,700.0	11,682.4	11,684.0	11,660.2	37.1	35.9	-86.97	-162.7	-465.2	871.2	803.4	67.78	12.853			
11,725.0	11,706.7	11,705.8	11,679.4	37.1	35.8	-86.56	-152.4	-465.3	871.5	803.8	67.76	12.863			
11,750.0	11,730.7	11,727.4	11,697.8	37.0	35.8	-86.16	-141.2	-465.3	872.0	804.2	67.73	12.874			
11,775.0	11,754.2	11,750.0	11,716.6	37.0	35.7	-85.74	-128.7	-465.4	872.4	804.7	67.71	12.886			
11,800.0	11,777.3	11,769.9	11,732.7	36.9	35.7	-85.38	-116.9	-465.5	872.9	805.2	67.69	12.897			
11,825.0	11,799.8	11,790.9	11,749.1	36.8	35.6	-85.01	-103.8	-465.6	873.4	805.8	67.67	12.908			
11,850.0	11,821.8	11,811.8	11,764.8	36.8	35.6	-84.65	-90.1	-465.7	874.0	806.3	67.65	12.919			
11,875.0	11,843.1	11,832.5	11,779.7	36.7	35.6	-84.30	-75.8	-465.8	874.5	806.9	67.63	12.930			
11,900.0	11,863.7	11,853.0	11,794.0	36.7	35.5	-83.96	-61.0	-465.9	875.0	807.4	67.63	12.939			
11,925.0	11,883.5	11,875.0	11,808.5	36.6	35.5	-83.62	-44.5	-466.1	875.6	808.0	67.62	12.949			
11,950.0	11,902.5	11,893.6	11,820.2	36.6	35.5	-83.34	-29.9	-466.2	876.1	808.5	67.63	12.956			
11,975.0	11,920.6	11,913.8	11,832.2	36.5	35.5	-83.05	-13.8	-466.3	876.7	809.0	67.64	12.962			
12,000.0	11,937.8	11,933.8	11,843.4	36.5	35.5	-82.78	2.8	-466.4	877.2	809.6	67.66	12.966			
12,025.0	11,954.0	11,953.7	11,853.9	36.5	35.4	-82.52	19.8	-466.6	877.7	810.0	67.68	12.968			
12,050.0	11,969.2	11,975.0	11,864.3	36.4	35.4	-82.27	38.3	-466.7	878.2	810.5	67.72	12.969			
12,075.0	11,983.3	11,993.4	11,872.5	36.4	35.4	-82.06	54.7	-466.8	878.7	810.9	67.76	12.967			
12,100.0	11,996.3	12,013.0	11,880.7	36.4	35.5	-81.85	72.6	-467.0	879.2	811.3	67.82	12.964			
12,125.0	12,008.2	12,032.7	11,888.2	36.4	35.5	-81.67	90.8	-467.1	879.6	811.7	67.88	12.958			
12,150.0	12,019.0	12,050.0	11,894.1	36.4	35.5	-81.51	107.1	-467.2	880.0	812.0	67.95	12.949			
12,175.0	12,028.5	12,071.7	11,900.7	36.5	35.5	-81.35	127.8	-467.4	880.3	812.3	68.04	12.938			
12,200.0	12,036.8	12,091.2	11,905.8	36.5	35.6	-81.22	146.6	-467.5	880.6	812.5	68.13	12.925			
12,225.0	12,043.9	12,110.6	11,910.1	36.5	35.6	-81.11	165.5	-467.7	880.9	812.7	68.24	12.909			
12,250.0	12,049.7	12,130.0	11,913.6	36.6	35.6	-81.02	184.5	-467.8	881.1	812.8	68.35	12.891			
12,275.0	12,054.2	12,150.0	11,916.5	36.6	35.7	-80.95	204.3	-468.0	881.3	812.8	68.47	12.870			
12,300.0	12,057.4	12,168.7	11,918.4	36.7	35.8	-80.90	223.0	-468.1	881.4	812.8	68.61	12.848			
12,325.0	12,059.4	12,188.1	11,919.6	36.8	35.8	-80.87	242.3	-468.3	881.5	812.8	68.75	12.822			
12,349.4	12,060.0	12,206.9	11,920.0	36.9	35.9	-80.86	261.1	-468.4	881.6	812.7	68.90	12.796			
12,400.0	12,060.0	12,257.2	11,920.0	37.1	36.1	-80.86	311.4	-468.8	881.6	812.3	69.30	12.722			
12,500.0	12,060.0	12,357.2	11,920.0	37.6	36.6	-80.86	411.4	-469.6	881.8	811.5	70.26	12.550			
12,600.0	12,060.0	12,457.2	11,920.0	38.1	37.2	-80.87	511.4	-470.3	881.9	810.5	71.43	12.346			
12,700.0	12,060.0	12,557.2	11,920.0	38.8	37.8	-80.87	611.4	-471.1	882.0	809.2	72.80	12.115			

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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	
12,800.0	12,060.0	12,657.2	11,920.0	39.5	38.6	-80.87	711.4	-471.9	882.1	807.8	74.37	11.862	
12,900.0	12,060.0	12,757.2	11,920.0	40.3	39.4	-80.87	811.4	-472.6	882.3	806.1	76.11	11.592	
13,000.0	12,060.0	12,857.2	11,920.0	41.2	40.3	-80.87	911.4	-473.4	882.4	804.4	78.01	11.310	
13,100.0	12,060.0	12,957.2	11,920.0	42.2	41.3	-80.87	1,011.4	-474.2	882.5	802.4	80.07	11.021	
13,200.0	12,060.0	13,057.2	11,920.0	43.2	42.3	-80.87	1,111.4	-474.9	882.6	800.3	82.28	10.727	
13,300.0	12,060.0	13,157.2	11,920.0	44.3	43.4	-80.87	1,211.4	-475.7	882.8	798.1	84.61	10.433	
13,400.0	12,060.0	13,257.2	11,920.0	45.5	44.6	-80.88	1,311.4	-476.5	882.9	795.8	87.07	10.140	
13,500.0	12,060.0	13,357.2	11,920.0	46.7	45.8	-80.88	1,411.4	-477.2	883.0	793.4	89.63	9.851	
13,600.0	12,060.0	13,457.2	11,920.0	48.0	47.1	-80.88	1,511.4	-478.0	883.1	790.8	92.30	9.568	
13,700.0	12,060.0	13,557.2	11,920.0	49.3	48.5	-80.88	1,611.4	-478.7	883.2	788.2	95.06	9.291	
13,800.0	12,060.0	13,657.2	11,920.0	50.6	49.9	-80.88	1,711.4	-479.5	883.4	785.5	97.91	9.022	
13,900.0	12,060.0	13,757.2	11,920.0	52.1	51.3	-80.88	1,811.4	-480.3	883.5	782.7	100.83	8.762	
14,000.0	12,060.0	13,857.2	11,920.0	53.5	52.8	-80.88	1,911.4	-481.0	883.6	779.8	103.83	8.510	
14,100.0	12,060.0	13,957.2	11,920.0	55.0	54.3	-80.88	2,011.3	-481.8	883.7	776.8	106.89	8.268	
14,200.0	12,060.0	14,057.2	11,920.0	56.5	55.8	-80.89	2,111.3	-482.6	883.9	773.9	110.01	8.034	
14,300.0	12,060.0	14,157.2	11,920.0	58.1	57.4	-80.89	2,211.3	-483.3	884.0	770.8	113.19	7.810	
14,400.0	12,060.0	14,257.2	11,920.0	59.6	59.0	-80.89	2,311.3	-484.1	884.1	767.7	116.42	7.594	
14,500.0	12,060.0	14,357.2	11,920.0	61.3	60.6	-80.89	2,411.3	-484.9	884.2	764.5	119.69	7.387	
14,600.0	12,060.0	14,457.2	11,920.0	62.9	62.3	-80.89	2,511.3	-485.6	884.4	761.4	123.01	7.189	
14,700.0	12,060.0	14,557.2	11,920.0	64.5	63.9	-80.89	2,611.3	-486.4	884.5	758.1	126.37	6.999	
14,800.0	12,060.0	14,657.2	11,920.0	66.2	65.6	-80.89	2,711.3	-487.2	884.6	754.8	129.76	6.817	
14,900.0	12,060.0	14,757.2	11,920.0	67.9	67.3	-80.90	2,811.3	-487.9	884.7	751.5	133.19	6.643	
15,000.0	12,060.0	14,857.2	11,920.0	69.6	69.1	-80.90	2,911.3	-488.7	884.9	748.2	136.65	6.476	
15,100.0	12,060.0	14,957.2	11,920.0	71.3	70.8	-80.90	3,011.3	-489.5	885.0	744.9	140.13	6.315	
15,200.0	12,060.0	15,057.2	11,920.0	73.1	72.6	-80.90	3,111.3	-490.2	885.1	741.5	143.64	6.162	
15,300.0	12,060.0	15,157.2	11,920.0	74.9	74.3	-80.90	3,211.3	-491.0	885.2	738.0	147.18	6.015	
15,400.0	12,060.0	15,257.2	11,920.0	76.6	76.1	-80.90	3,311.3	-491.8	885.4	734.6	150.74	5.873	
15,500.0	12,060.0	15,357.2	11,920.0	78.4	77.9	-80.90	3,411.3	-492.5	885.5	731.2	154.33	5.738	
15,600.0	12,060.0	15,457.2	11,920.0	80.2	79.7	-80.90	3,511.3	-493.3	885.6	727.7	157.93	5.608	
15,700.0	12,060.0	15,557.2	11,920.0	82.0	81.6	-80.91	3,611.3	-494.0	885.7	724.2	161.55	5.483	
15,800.0	12,060.0	15,657.2	11,920.0	83.8	83.4	-80.91	3,711.3	-494.8	885.9	720.7	165.19	5.363	
15,900.0	12,060.0	15,757.2	11,920.0	85.6	85.2	-80.91	3,811.3	-495.6	886.0	717.1	168.84	5.247	
16,000.0	12,060.0	15,857.2	11,920.0	87.5	87.1	-80.91	3,911.3	-496.3	886.1	713.6	172.51	5.137	
16,100.0	12,060.0	15,957.2	11,920.0	89.3	88.9	-80.91	4,011.3	-497.1	886.2	710.0	176.19	5.030	
16,200.0	12,060.0	16,057.2	11,920.0	91.2	90.8	-80.91	4,111.3	-497.9	886.3	706.5	179.89	4.927	
16,300.0	12,060.0	16,157.2	11,920.0	93.0	92.7	-80.91	4,211.3	-498.6	886.5	702.9	183.60	4.828	
16,400.0	12,060.0	16,257.2	11,920.0	94.9	94.5	-80.91	4,311.3	-499.4	886.6	699.3	187.32	4.733	
16,500.0	12,060.0	16,357.2	11,920.0	96.8	96.4	-80.92	4,411.3	-500.2	886.7	695.7	191.05	4.641	
16,600.0	12,060.0	16,457.2	11,920.0	98.6	98.3	-80.92	4,511.3	-500.9	886.8	692.0	194.80	4.553	
16,700.0	12,060.0	16,557.2	11,920.0	100.5	100.2	-80.92	4,611.3	-501.7	887.0	688.4	198.55	4.467	
16,800.0	12,060.0	16,657.2	11,920.0	102.4	102.1	-80.92	4,711.3	-502.5	887.1	684.8	202.31	4.385	
16,900.0	12,060.0	16,757.2	11,920.0	104.3	104.0	-80.92	4,811.3	-503.2	887.2	681.1	206.09	4.305	
17,000.0	12,060.0	16,857.2	11,920.0	106.2	105.9	-80.92	4,911.3	-504.0	887.3	677.5	209.87	4.228	
17,100.0	12,060.0	16,957.2	11,920.0	108.1	107.8	-80.92	5,011.3	-504.8	887.5	673.8	213.65	4.154	
17,200.0	12,060.0	17,057.2	11,920.0	110.0	109.7	-80.92	5,111.3	-505.5	887.6	670.1	217.45	4.082	
17,300.0	12,060.0	17,157.2	11,920.0	111.9	111.6	-80.93	5,211.3	-506.3	887.7	666.5	221.25	4.012	
17,400.0	12,060.0	17,257.2	11,920.0	113.8	113.5	-80.93	5,311.3	-507.1	887.8	662.8	225.06	3.945	
17,500.0	12,060.0	17,357.2	11,920.0	115.7	115.5	-80.93	5,411.2	-507.8	888.0	659.1	228.88	3.880	
17,600.0	12,060.0	17,457.2	11,920.0	117.7	117.4	-80.93	5,511.2	-508.6	888.1	655.4	232.70	3.816	
17,700.0	12,060.0	17,557.2	11,920.0	119.6	119.3	-80.93	5,611.2	-509.4	888.2	651.7	236.52	3.755	
17,800.0	12,060.0	17,657.2	11,920.0	121.5	121.3	-80.93	5,711.2	-510.1	888.3	648.0	240.36	3.696	
17,900.0	12,060.0	17,757.2	11,920.0	123.4	123.2	-80.93	5,811.2	-510.9	888.5	644.3	244.20	3.638	

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Anticollision Report

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Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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)			
18,000.0	12,060.0	17,857.2	11,920.0	125.4	125.1	-80.93	5,911.2	-511.6	888.6	640.5	248.04	3.582	
18,100.0	12,060.0	17,957.2	11,920.0	127.3	127.1	-80.94	6,011.2	-512.4	888.7	636.8	251.89	3.528	
18,200.0	12,060.0	18,057.2	11,920.0	129.2	129.0	-80.94	6,111.2	-513.2	888.8	633.1	255.74	3.476	
18,300.0	12,060.0	18,157.2	11,920.0	131.2	131.0	-80.94	6,211.2	-513.9	889.0	629.4	259.60	3.424	
18,400.0	12,060.0	18,257.2	11,920.0	133.1	132.9	-80.94	6,311.2	-514.7	889.1	625.6	263.46	3.375	
18,500.0	12,060.0	18,357.2	11,920.0	135.1	134.9	-80.94	6,411.2	-515.5	889.2	621.9	267.32	3.326	
18,600.0	12,060.0	18,457.2	11,920.0	137.0	136.8	-80.94	6,511.2	-516.2	889.3	618.1	271.19	3.279	
18,700.0	12,060.0	18,557.2	11,920.0	139.0	138.8	-80.94	6,611.2	-517.0	889.4	614.4	275.07	3.234	
18,800.0	12,060.0	18,657.2	11,920.0	140.9	140.7	-80.95	6,711.2	-517.8	889.6	610.6	278.94	3.189	
18,900.0	12,060.0	18,757.2	11,920.0	142.9	142.7	-80.95	6,811.2	-518.5	889.7	606.9	282.82	3.146	
19,000.0	12,060.0	18,857.2	11,920.0	144.8	144.6	-80.95	6,911.2	-519.3	889.8	603.1	286.70	3.104	
19,100.0	12,060.0	18,957.2	11,920.0	146.8	146.6	-80.95	7,011.2	-520.1	889.9	599.4	290.59	3.063	
19,200.0	12,060.0	19,057.2	11,920.0	148.7	148.5	-80.95	7,111.2	-520.8	890.1	595.6	294.48	3.023	
19,300.0	12,060.0	19,157.2	11,920.0	150.7	150.5	-80.95	7,211.2	-521.6	890.2	591.8	298.37	2.983	
19,400.0	12,060.0	19,257.2	11,920.0	152.6	152.5	-80.95	7,311.2	-522.4	890.3	588.0	302.27	2.945	
19,500.0	12,060.0	19,357.2	11,920.0	154.6	154.4	-80.95	7,411.2	-523.1	890.4	584.3	306.16	2.908	
19,600.0	12,060.0	19,457.2	11,920.0	156.6	156.4	-80.96	7,511.2	-523.9	890.6	580.5	310.06	2.872	
19,700.0	12,060.0	19,557.2	11,920.0	158.5	158.4	-80.96	7,611.2	-524.7	890.7	576.7	313.97	2.837	
19,800.0	12,060.0	19,657.2	11,920.0	160.5	160.3	-80.96	7,711.2	-525.4	890.8	572.9	317.87	2.802	
19,900.0	12,060.0	19,757.2	11,920.0	162.5	162.3	-80.96	7,811.2	-526.2	890.9	569.2	321.78	2.769	
20,000.0	12,060.0	19,857.2	11,920.0	164.4	164.3	-80.96	7,911.2	-527.0	891.1	565.4	325.69	2.736	
20,100.0	12,060.0	19,957.2	11,920.0	166.4	166.3	-80.96	8,011.2	-527.7	891.2	561.6	329.60	2.704	
20,165.3	12,060.0	20,021.2	11,920.0	167.7	167.5	-80.96	8,075.2	-528.2	891.3	559.1	332.13	2.683 SF	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - 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		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)			
16,000.0	12,060.0	12,020.5	12,020.5	87.5	30.0	90.00	4,819.7	543.8	916.7	859.5	57.16	16.038	
16,100.0	12,060.0	12,020.5	12,020.5	89.3	30.0	90.00	4,819.7	543.8	818.7	760.6	58.05	14.102	
16,200.0	12,060.0	12,020.5	12,020.5	91.2	30.0	90.00	4,819.7	543.8	721.2	661.8	59.38	12.146	
16,300.0	12,060.0	12,020.5	12,020.5	93.0	30.0	90.00	4,819.7	543.8	624.5	563.1	61.39	10.172	
16,400.0	12,060.0	12,020.5	12,020.5	94.9	30.0	90.00	4,819.7	543.8	529.0	464.4	64.56	8.194	
16,500.0	12,060.0	12,020.5	12,020.5	96.8	30.0	90.00	4,819.7	543.8	435.6	365.9	69.70	6.249	
16,600.0	12,060.0	12,020.5	12,020.5	98.6	30.0	90.00	4,819.7	543.8	345.8	267.5	78.31	4.416	
16,700.0	12,060.0	12,020.5	12,020.5	100.5	30.0	90.00	4,819.7	543.8	263.6	170.7	92.92	2.837	
16,800.0	12,060.0	12,020.5	12,020.5	102.4	30.0	90.00	4,819.7	543.8	198.4	82.9	115.43	1.719	
16,900.0	12,060.0	12,020.5	12,020.5	104.3	30.0	90.00	4,819.7	543.8	171.0	37.0	134.00	1.276 Level 3	
16,900.6	12,060.0	12,020.5	12,020.5	104.3	30.0	90.00	4,819.7	543.8	171.0	36.9	134.04	1.275 Level 3, CC, ES, SF	
17,000.0	12,060.0	12,020.5	12,020.5	106.2	30.0	90.00	4,819.7	543.8	197.7	71.5	126.26	1.566	
17,100.0	12,060.0	12,020.5	12,020.5	108.1	30.0	90.00	4,819.7	543.8	262.6	154.0	108.62	2.418	
17,200.0	12,060.0	12,020.5	12,020.5	110.0	30.0	90.00	4,819.7	543.8	344.7	249.3	95.42	3.613	
17,300.0	12,060.0	12,020.5	12,020.5	111.9	30.0	90.00	4,819.7	543.8	434.4	347.6	86.86	5.002	
17,400.0	12,060.0	12,020.5	12,020.5	113.8	30.0	90.00	4,819.7	543.8	527.8	446.6	81.23	6.498	
17,500.0	12,060.0	12,020.5	12,020.5	115.7	30.0	90.00	4,819.7	543.8	623.3	545.9	77.38	8.054	
17,600.0	12,060.0	12,020.5	12,020.5	117.7	30.0	90.00	4,819.7	543.8	720.0	645.3	74.67	9.642	
17,700.0	12,060.0	12,020.5	12,020.5	119.6	30.0	90.00	4,819.7	543.8	817.5	744.8	72.69	11.246	
17,800.0	12,060.0	12,020.5	12,020.5	121.5	30.0	90.00	4,819.7	543.8	915.5	844.3	71.22	12.855	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

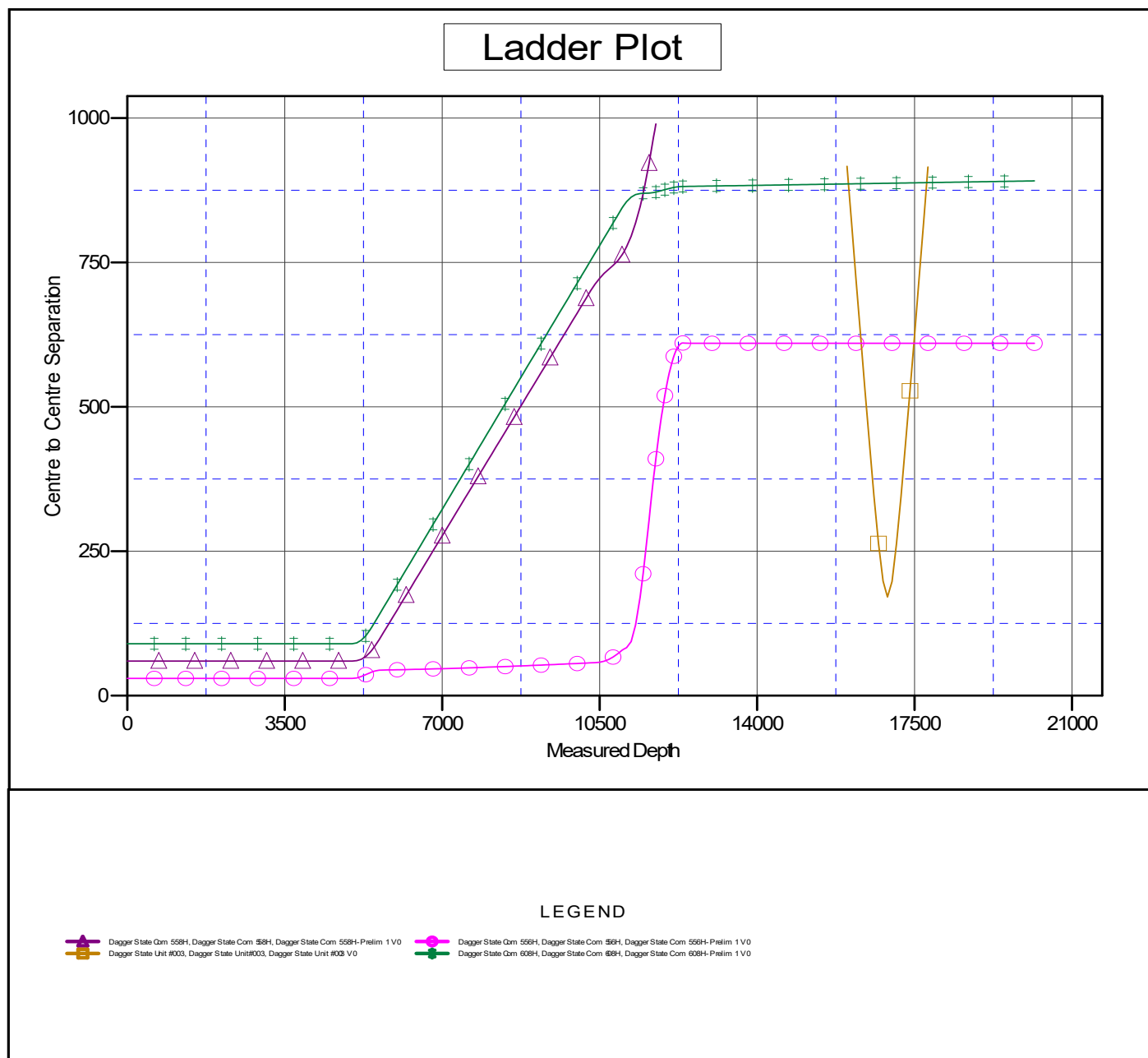
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 804H

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 804H
Project:	Hat Mesa	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 804H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 804H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3848.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

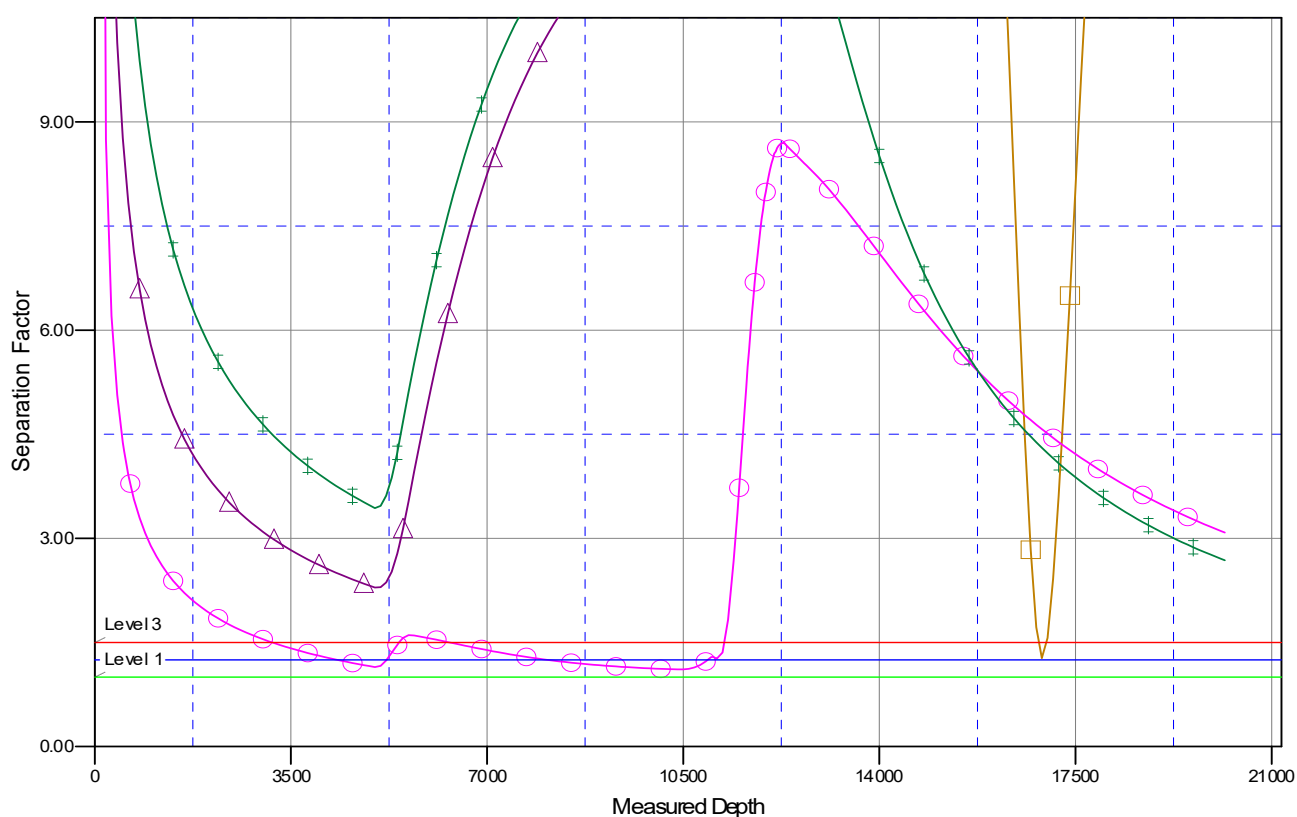
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 804H

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 568H, Dagger State Com 558H-Prelim 1 V0
- Dagger State Com 558H, Dagger State Com 568H, Dagger State Com 558H-Prelim 1 V0
- Dagger State Unit #003, Dagger State Unit #003, Dagger State Unit #003 V0
- Dagger State Com 608H, Dagger State Com 608H, Dagger State Com 608H-Prelim 1 V0



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 804H

Dagger State Com 804H

Plan: Dagger State Com 804H - Prelim 1

Standard Planning Report

14 May, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 804H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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 804H					
Well Position	+N/-S	0.0 usft	Northing:	527,878.24 usft	Latitude:	32° 26' 56.998 N
	+E/-W	0.0 usft	Easting:	762,229.22 usft	Longitude:	103° 37' 2.089 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,816.0 usft
Grid Convergence:		0.38 °				

Wellbore	Dagger State Com 804H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/25/2021	6.60	60.21	47,691.93051770

Design	Dagger State Com 804H - 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	2.49	

Plan Survey Tool Program	Date	5/14/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	20,165.3	Dagger State Com 804H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		

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	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,433.6	4.34	117.41	5,433.2	-7.6	14.6	1.00	1.00	0.00	117.41	
11,033.2	4.34	117.41	11,016.8	-202.4	390.4	0.00	0.00	0.00	0.00	
11,466.9	0.00	0.00	11,450.0	-210.0	405.0	1.00	-1.00	0.00	180.00	
11,599.4	0.00	0.00	11,582.5	-210.0	405.0	0.00	0.00	0.00	0.00	
12,349.4	90.00	359.63	12,060.0	267.5	401.9	12.00	12.00	0.00	359.63	
20,165.3	90.00	359.63	12,060.0	8,083.2	352.0	0.00	0.00	0.00	0.00	Dagger State Com 80



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 804H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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
KOP - Start Build 1.00									
5,100.0	1.00	117.41	5,100.0	-0.4	0.8	-0.4	1.00	1.00	0.00
5,200.0	2.00	117.41	5,200.0	-1.6	3.1	-1.5	1.00	1.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 804H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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	3.00	117.41	5,299.9	-3.6	7.0	-3.3	1.00	1.00	0.00
5,400.0	4.00	117.41	5,399.7	-6.4	12.4	-5.9	1.00	1.00	0.00
5,433.6	4.34	117.41	5,433.2	-7.6	14.6	-6.9	1.00	1.00	0.00
Start 5599.6 hold at 5433.6 MD									
5,500.0	4.34	117.41	5,499.4	-9.9	19.0	-9.0	0.00	0.00	0.00
5,600.0	4.34	117.41	5,599.1	-13.3	25.7	-12.2	0.00	0.00	0.00
5,700.0	4.34	117.41	5,698.8	-16.8	32.4	-15.4	0.00	0.00	0.00
5,800.0	4.34	117.41	5,798.5	-20.3	39.2	-18.6	0.00	0.00	0.00
5,900.0	4.34	117.41	5,898.3	-23.8	45.9	-21.8	0.00	0.00	0.00
6,000.0	4.34	117.41	5,998.0	-27.3	52.6	-24.9	0.00	0.00	0.00
6,100.0	4.34	117.41	6,097.7	-30.7	59.3	-28.1	0.00	0.00	0.00
6,200.0	4.34	117.41	6,197.4	-34.2	66.0	-31.3	0.00	0.00	0.00
6,300.0	4.34	117.41	6,297.1	-37.7	72.7	-34.5	0.00	0.00	0.00
6,400.0	4.34	117.41	6,396.8	-41.2	79.4	-37.7	0.00	0.00	0.00
6,500.0	4.34	117.41	6,496.5	-44.7	86.1	-40.9	0.00	0.00	0.00
6,600.0	4.34	117.41	6,596.2	-48.1	92.9	-44.1	0.00	0.00	0.00
6,700.0	4.34	117.41	6,696.0	-51.6	99.6	-47.2	0.00	0.00	0.00
6,800.0	4.34	117.41	6,795.7	-55.1	106.3	-50.4	0.00	0.00	0.00
6,900.0	4.34	117.41	6,895.4	-58.6	113.0	-53.6	0.00	0.00	0.00
7,000.0	4.34	117.41	6,995.1	-62.1	119.7	-56.8	0.00	0.00	0.00
7,100.0	4.34	117.41	7,094.8	-65.5	126.4	-60.0	0.00	0.00	0.00
7,200.0	4.34	117.41	7,194.5	-69.0	133.1	-63.2	0.00	0.00	0.00
7,300.0	4.34	117.41	7,294.2	-72.5	139.8	-66.4	0.00	0.00	0.00
7,400.0	4.34	117.41	7,394.0	-76.0	146.6	-69.5	0.00	0.00	0.00
7,500.0	4.34	117.41	7,493.7	-79.5	153.3	-72.7	0.00	0.00	0.00
7,600.0	4.34	117.41	7,593.4	-83.0	160.0	-75.9	0.00	0.00	0.00
7,700.0	4.34	117.41	7,693.1	-86.4	166.7	-79.1	0.00	0.00	0.00
7,800.0	4.34	117.41	7,792.8	-89.9	173.4	-82.3	0.00	0.00	0.00
7,900.0	4.34	117.41	7,892.5	-93.4	180.1	-85.5	0.00	0.00	0.00
8,000.0	4.34	117.41	7,992.2	-96.9	186.8	-88.7	0.00	0.00	0.00
8,100.0	4.34	117.41	8,092.0	-100.4	193.5	-91.8	0.00	0.00	0.00
8,200.0	4.34	117.41	8,191.7	-103.8	200.3	-95.0	0.00	0.00	0.00
8,300.0	4.34	117.41	8,291.4	-107.3	207.0	-98.2	0.00	0.00	0.00
8,400.0	4.34	117.41	8,391.1	-110.8	213.7	-101.4	0.00	0.00	0.00
8,500.0	4.34	117.41	8,490.8	-114.3	220.4	-104.6	0.00	0.00	0.00
8,600.0	4.34	117.41	8,590.5	-117.8	227.1	-107.8	0.00	0.00	0.00
8,700.0	4.34	117.41	8,690.2	-121.2	233.8	-111.0	0.00	0.00	0.00
8,800.0	4.34	117.41	8,789.9	-124.7	240.5	-114.1	0.00	0.00	0.00
8,900.0	4.34	117.41	8,889.7	-128.2	247.2	-117.3	0.00	0.00	0.00
9,000.0	4.34	117.41	8,989.4	-131.7	254.0	-120.5	0.00	0.00	0.00
9,100.0	4.34	117.41	9,089.1	-135.2	260.7	-123.7	0.00	0.00	0.00
9,200.0	4.34	117.41	9,188.8	-138.6	267.4	-126.9	0.00	0.00	0.00
9,300.0	4.34	117.41	9,288.5	-142.1	274.1	-130.1	0.00	0.00	0.00
9,400.0	4.34	117.41	9,388.2	-145.6	280.8	-133.3	0.00	0.00	0.00
9,500.0	4.34	117.41	9,487.9	-149.1	287.5	-136.4	0.00	0.00	0.00
9,600.0	4.34	117.41	9,587.7	-152.6	294.2	-139.6	0.00	0.00	0.00
9,700.0	4.34	117.41	9,687.4	-156.0	300.9	-142.8	0.00	0.00	0.00
9,800.0	4.34	117.41	9,787.1	-159.5	307.7	-146.0	0.00	0.00	0.00
9,900.0	4.34	117.41	9,886.8	-163.0	314.4	-149.2	0.00	0.00	0.00
10,000.0	4.34	117.41	9,986.5	-166.5	321.1	-152.4	0.00	0.00	0.00
10,100.0	4.34	117.41	10,086.2	-170.0	327.8	-155.5	0.00	0.00	0.00
10,200.0	4.34	117.41	10,185.9	-173.4	334.5	-158.7	0.00	0.00	0.00
10,300.0	4.34	117.41	10,285.7	-176.9	341.2	-161.9	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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)
10,400.0	4.34	117.41	10,385.4	-180.4	347.9	-165.1	0.00	0.00	0.00
10,500.0	4.34	117.41	10,485.1	-183.9	354.6	-168.3	0.00	0.00	0.00
10,600.0	4.34	117.41	10,584.8	-187.4	361.4	-171.5	0.00	0.00	0.00
10,700.0	4.34	117.41	10,684.5	-190.9	368.1	-174.7	0.00	0.00	0.00
10,800.0	4.34	117.41	10,784.2	-194.3	374.8	-177.8	0.00	0.00	0.00
10,900.0	4.34	117.41	10,883.9	-197.8	381.5	-181.0	0.00	0.00	0.00
11,000.0	4.34	117.41	10,983.7	-201.3	388.2	-184.2	0.00	0.00	0.00
11,033.2	4.34	117.41	11,016.8	-202.4	390.4	-185.3	0.00	0.00	0.00
Start Drop -1.00									
11,100.0	3.67	117.41	11,083.4	-204.6	394.6	-187.2	1.00	-1.00	0.00
11,200.0	2.67	117.41	11,183.2	-207.1	399.5	-189.6	1.00	-1.00	0.00
11,300.0	1.67	117.41	11,283.2	-208.9	402.8	-191.2	1.00	-1.00	0.00
11,400.0	0.67	117.41	11,383.1	-209.8	404.7	-192.0	1.00	-1.00	0.00
11,466.9	0.00	0.00	11,450.0	-210.0	405.0	-192.2	1.00	-1.00	0.00
Start 132.5 hold at 11466.9 MD									
11,500.0	0.00	0.00	11,483.1	-210.0	405.0	-192.2	0.00	0.00	0.00
11,599.4	0.00	0.00	11,582.5	-210.0	405.0	-192.2	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
11,600.0	0.07	359.63	11,583.1	-210.0	405.0	-192.2	12.00	12.00	0.00
11,700.0	12.07	359.63	11,682.4	-199.4	404.9	-181.6	12.00	12.00	0.00
11,800.0	24.07	359.63	11,777.3	-168.5	404.7	-150.7	12.00	12.00	0.00
11,900.0	36.07	359.63	11,863.7	-118.5	404.4	-100.8	12.00	12.00	0.00
12,000.0	48.07	359.63	11,937.8	-51.6	404.0	-34.0	12.00	12.00	0.00
12,100.0	60.07	359.63	11,996.3	29.3	403.5	46.8	12.00	12.00	0.00
12,200.0	72.07	359.63	12,036.8	120.5	402.9	137.9	12.00	12.00	0.00
12,300.0	84.07	359.63	12,057.4	218.2	402.3	235.4	12.00	12.00	0.00
12,349.4	90.00	359.63	12,060.0	267.5	401.9	284.7	12.00	12.00	0.00
LP - Start 7815.9 hold at 12349.4 MD									
12,351.7	90.00	359.63	12,060.0	269.7	401.9	287.0	0.00	0.00	0.00
Dagger State Com 804H LP									
12,400.0	90.00	359.63	12,060.0	318.1	401.6	335.2	0.00	0.00	0.00
12,500.0	90.00	359.63	12,060.0	418.1	401.0	435.1	0.00	0.00	0.00
12,600.0	90.00	359.63	12,060.0	518.1	400.3	535.0	0.00	0.00	0.00
12,700.0	90.00	359.63	12,060.0	618.1	399.7	634.9	0.00	0.00	0.00
12,800.0	90.00	359.63	12,060.0	718.1	399.1	734.7	0.00	0.00	0.00
12,900.0	90.00	359.63	12,060.0	818.1	398.4	834.6	0.00	0.00	0.00
13,000.0	90.00	359.63	12,060.0	918.0	397.8	934.5	0.00	0.00	0.00
13,100.0	90.00	359.63	12,060.0	1,018.0	397.1	1,034.4	0.00	0.00	0.00
13,200.0	90.00	359.63	12,060.0	1,118.0	396.5	1,134.2	0.00	0.00	0.00
13,300.0	90.00	359.63	12,060.0	1,218.0	395.9	1,234.1	0.00	0.00	0.00
13,400.0	90.00	359.63	12,060.0	1,318.0	395.2	1,334.0	0.00	0.00	0.00
13,500.0	90.00	359.63	12,060.0	1,418.0	394.6	1,433.9	0.00	0.00	0.00
13,600.0	90.00	359.63	12,060.0	1,518.0	393.9	1,533.7	0.00	0.00	0.00
13,700.0	90.00	359.63	12,060.0	1,618.0	393.3	1,633.6	0.00	0.00	0.00
13,800.0	90.00	359.63	12,060.0	1,718.0	392.7	1,733.5	0.00	0.00	0.00
13,900.0	90.00	359.63	12,060.0	1,818.0	392.0	1,833.4	0.00	0.00	0.00
14,000.0	90.00	359.63	12,060.0	1,918.0	391.4	1,933.2	0.00	0.00	0.00
14,100.0	90.00	359.63	12,060.0	2,018.0	390.8	2,033.1	0.00	0.00	0.00
14,200.0	90.00	359.63	12,060.0	2,118.0	390.1	2,133.0	0.00	0.00	0.00
14,300.0	90.00	359.63	12,060.0	2,218.0	389.5	2,232.9	0.00	0.00	0.00
14,400.0	90.00	359.63	12,060.0	2,318.0	388.8	2,332.7	0.00	0.00	0.00
14,500.0	90.00	359.63	12,060.0	2,418.0	388.2	2,432.6	0.00	0.00	0.00
14,600.0	90.00	359.63	12,060.0	2,518.0	387.6	2,532.5	0.00	0.00	0.00
14,700.0	90.00	359.63	12,060.0	2,618.0	386.9	2,632.4	0.00	0.00	0.00



Planning Report

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Site:	Dagger State	North Reference:	Grid
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Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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)
14,800.0	90.00	359.63	12,060.0	2,718.0	386.3	2,732.2	0.00	0.00	0.00
14,900.0	90.00	359.63	12,060.0	2,818.0	385.6	2,832.1	0.00	0.00	0.00
15,000.0	90.00	359.63	12,060.0	2,918.0	385.0	2,932.0	0.00	0.00	0.00
15,100.0	90.00	359.63	12,060.0	3,018.0	384.4	3,031.9	0.00	0.00	0.00
15,200.0	90.00	359.63	12,060.0	3,118.0	383.7	3,131.7	0.00	0.00	0.00
15,300.0	90.00	359.63	12,060.0	3,218.0	383.1	3,231.6	0.00	0.00	0.00
15,400.0	90.00	359.63	12,060.0	3,318.0	382.4	3,331.5	0.00	0.00	0.00
15,500.0	90.00	359.63	12,060.0	3,418.0	381.8	3,431.4	0.00	0.00	0.00
15,600.0	90.00	359.63	12,060.0	3,518.0	381.2	3,531.2	0.00	0.00	0.00
15,700.0	90.00	359.63	12,060.0	3,618.0	380.5	3,631.1	0.00	0.00	0.00
15,800.0	90.00	359.63	12,060.0	3,718.0	379.9	3,731.0	0.00	0.00	0.00
15,900.0	90.00	359.63	12,060.0	3,818.0	379.2	3,830.9	0.00	0.00	0.00
16,000.0	90.00	359.63	12,060.0	3,918.0	378.6	3,930.7	0.00	0.00	0.00
16,100.0	90.00	359.63	12,060.0	4,018.0	378.0	4,030.6	0.00	0.00	0.00
16,200.0	90.00	359.63	12,060.0	4,118.0	377.3	4,130.5	0.00	0.00	0.00
16,300.0	90.00	359.63	12,060.0	4,218.0	376.7	4,230.4	0.00	0.00	0.00
16,400.0	90.00	359.63	12,060.0	4,318.0	376.0	4,330.2	0.00	0.00	0.00
16,500.0	90.00	359.63	12,060.0	4,418.0	375.4	4,430.1	0.00	0.00	0.00
16,600.0	90.00	359.63	12,060.0	4,518.0	374.8	4,530.0	0.00	0.00	0.00
16,700.0	90.00	359.63	12,060.0	4,618.0	374.1	4,629.9	0.00	0.00	0.00
16,800.0	90.00	359.63	12,060.0	4,718.0	373.5	4,729.8	0.00	0.00	0.00
16,900.0	90.00	359.63	12,060.0	4,818.0	372.8	4,829.6	0.00	0.00	0.00
17,000.0	90.00	359.63	12,060.0	4,918.0	372.2	4,929.5	0.00	0.00	0.00
17,100.0	90.00	359.63	12,060.0	5,018.0	371.6	5,029.4	0.00	0.00	0.00
17,200.0	90.00	359.63	12,060.0	5,118.0	370.9	5,129.3	0.00	0.00	0.00
17,300.0	90.00	359.63	12,060.0	5,218.0	370.3	5,229.1	0.00	0.00	0.00
17,400.0	90.00	359.63	12,060.0	5,318.0	369.6	5,329.0	0.00	0.00	0.00
17,500.0	90.00	359.63	12,060.0	5,418.0	369.0	5,428.9	0.00	0.00	0.00
17,600.0	90.00	359.63	12,060.0	5,518.0	368.4	5,528.8	0.00	0.00	0.00
17,700.0	90.00	359.63	12,060.0	5,618.0	367.7	5,628.6	0.00	0.00	0.00
17,800.0	90.00	359.63	12,060.0	5,718.0	367.1	5,728.5	0.00	0.00	0.00
17,900.0	90.00	359.63	12,060.0	5,817.9	366.4	5,828.4	0.00	0.00	0.00
18,000.0	90.00	359.63	12,060.0	5,917.9	365.8	5,928.3	0.00	0.00	0.00
18,100.0	90.00	359.63	12,060.0	6,017.9	365.2	6,028.1	0.00	0.00	0.00
18,200.0	90.00	359.63	12,060.0	6,117.9	364.5	6,128.0	0.00	0.00	0.00
18,300.0	90.00	359.63	12,060.0	6,217.9	363.9	6,227.9	0.00	0.00	0.00
18,400.0	90.00	359.63	12,060.0	6,317.9	363.2	6,327.8	0.00	0.00	0.00
18,500.0	90.00	359.63	12,060.0	6,417.9	362.6	6,427.6	0.00	0.00	0.00
18,600.0	90.00	359.63	12,060.0	6,517.9	362.0	6,527.5	0.00	0.00	0.00
18,700.0	90.00	359.63	12,060.0	6,617.9	361.3	6,627.4	0.00	0.00	0.00
18,800.0	90.00	359.63	12,060.0	6,717.9	360.7	6,727.3	0.00	0.00	0.00
18,900.0	90.00	359.63	12,060.0	6,817.9	360.1	6,827.1	0.00	0.00	0.00
19,000.0	90.00	359.63	12,060.0	6,917.9	359.4	6,927.0	0.00	0.00	0.00
19,100.0	90.00	359.63	12,060.0	7,017.9	358.8	7,026.9	0.00	0.00	0.00
19,200.0	90.00	359.63	12,060.0	7,117.9	358.1	7,126.8	0.00	0.00	0.00
19,300.0	90.00	359.63	12,060.0	7,217.9	357.5	7,226.6	0.00	0.00	0.00
19,400.0	90.00	359.63	12,060.0	7,317.9	356.9	7,326.5	0.00	0.00	0.00
19,500.0	90.00	359.63	12,060.0	7,417.9	356.2	7,426.4	0.00	0.00	0.00
19,600.0	90.00	359.63	12,060.0	7,517.9	355.6	7,526.3	0.00	0.00	0.00
19,700.0	90.00	359.63	12,060.0	7,617.9	354.9	7,626.1	0.00	0.00	0.00
19,800.0	90.00	359.63	12,060.0	7,717.9	354.3	7,726.0	0.00	0.00	0.00
19,900.0	90.00	359.63	12,060.0	7,817.9	353.7	7,825.9	0.00	0.00	0.00
20,000.0	90.00	359.63	12,060.0	7,917.9	353.0	7,925.8	0.00	0.00	0.00
20,100.0	90.00	359.63	12,060.0	8,017.9	352.4	8,025.6	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 804H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3848.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3848.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 804H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 804H		
Design:	Dagger State Com 804H - 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)	
20,165.3	90.00	359.63	12,060.0	8,083.2	352.0	8,090.9	0.00	0.00	0.00	
TD at 20165.3 - Dagger State Com 804H BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Dagger State Com 804H-	0.00	0.00	12,060.0	269.8	408.5	528,148.03	762,637.70	32° 26' 59.640 N	103° 36' 57.301 W	
- plan misses target center by 6.5usft at 12351.7usft MD (12060.0 TVD, 269.7 N, 401.9 E)										
- Point										
Dagger State Com 804H-	0.00	0.00	12,060.0	8,083.2	352.0	535,961.48	762,581.18	32° 28' 16.957 N	103° 36' 57.348 W	
- plan hits target center										
- Point										

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")		
12,349.4	12,060.0	LP	5-1/2	5-1/2		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
5,000.0	5,000.0	0.0	0.0	KOP - Start Build 1.00	
5,433.6	5,433.2	-7.6	14.6	Start 5599.6 hold at 5433.6 MD	
11,033.2	11,016.8	-202.4	390.4	Start Drop -1.00	
11,466.9	11,450.0	-210.0	405.0	Start 132.5 hold at 11466.9 MD	
11,599.4	11,582.5	-210.0	405.0	KOP #2 - Start Build 12.00	
12,349.4	12,060.0	267.5	401.9	LP - Start 7815.9 hold at 12349.4 MD	
20,165.3	12,060.0	8,083.2	352.0	TD at 20165.3	

**WELL DETAILS: Dagger State Com 804H**

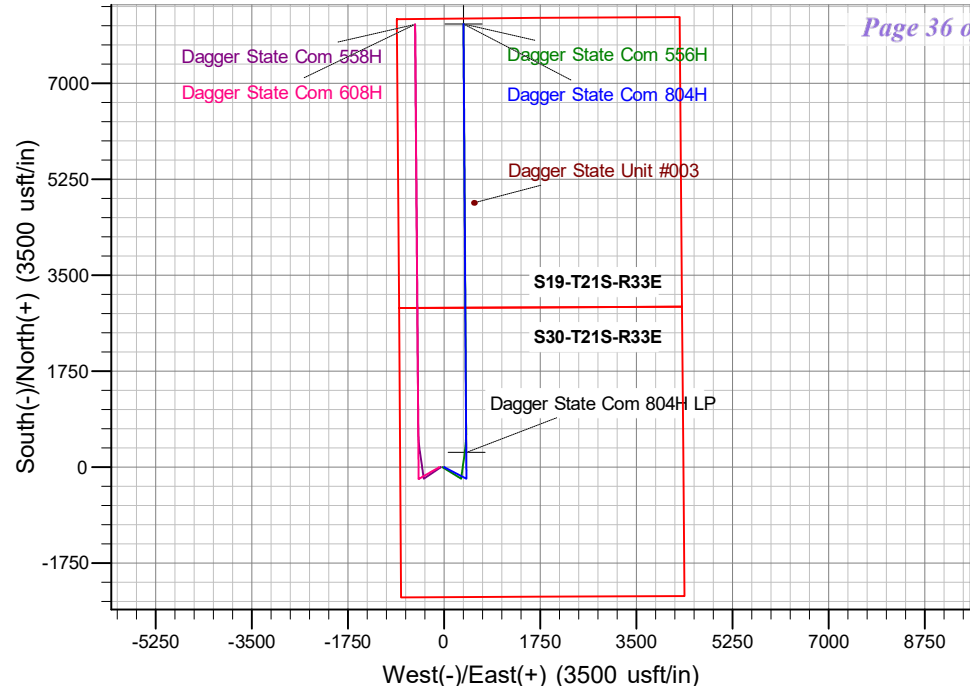
Ground Elev: 3816.0 KB: 3848.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	527878.24	762229.22	32° 26' 56.998 N	103° 37' 2.089 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	5000.0	0.00	0.00	5000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5433.6	4.34	117.41	5433.2	-7.6	14.6	1.00	117.41	-6.9	Start 5599.6 hold at 5433.6 MD
4	11033.2	4.34	117.41	11016.8	-202.4	390.4	0.00	0.00	-185.3	Start Drop -1.00
5	11466.9	0.00	0.00	11450.0	-210.0	405.0	1.00	180.00	-192.2	Start 132.5 hold at 11466.9 MD
6	11599.4	0.00	0.00	11582.5	-210.0	405.0	0.00	0.00	-192.2	KOP #2 - Start Build 12.00
7	12349.4	90.00	359.63	12060.0	267.5	401.9	12.00	359.63	284.7	LP - Start 7815.9 hold at 12349.4 MD
8	20165.3	90.00	359.63	12060.0	8083.2	352.0	0.00	0.00	8090.9	TD at 20165.3

