

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 296175

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 30-025-48901
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 558H

7. Surface Location

UL - Lot L	Section 30	Township 21S	Range 33E	Lot Idn L	Feet From 2370	N/S Line S	Feet From 740	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 330	E/W Line W	County Lea
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9. Pool Information

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

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

☒ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

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

Casing/Cement Program: Additional Comments

--

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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DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3480 Fax: (505) 476-3482State 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

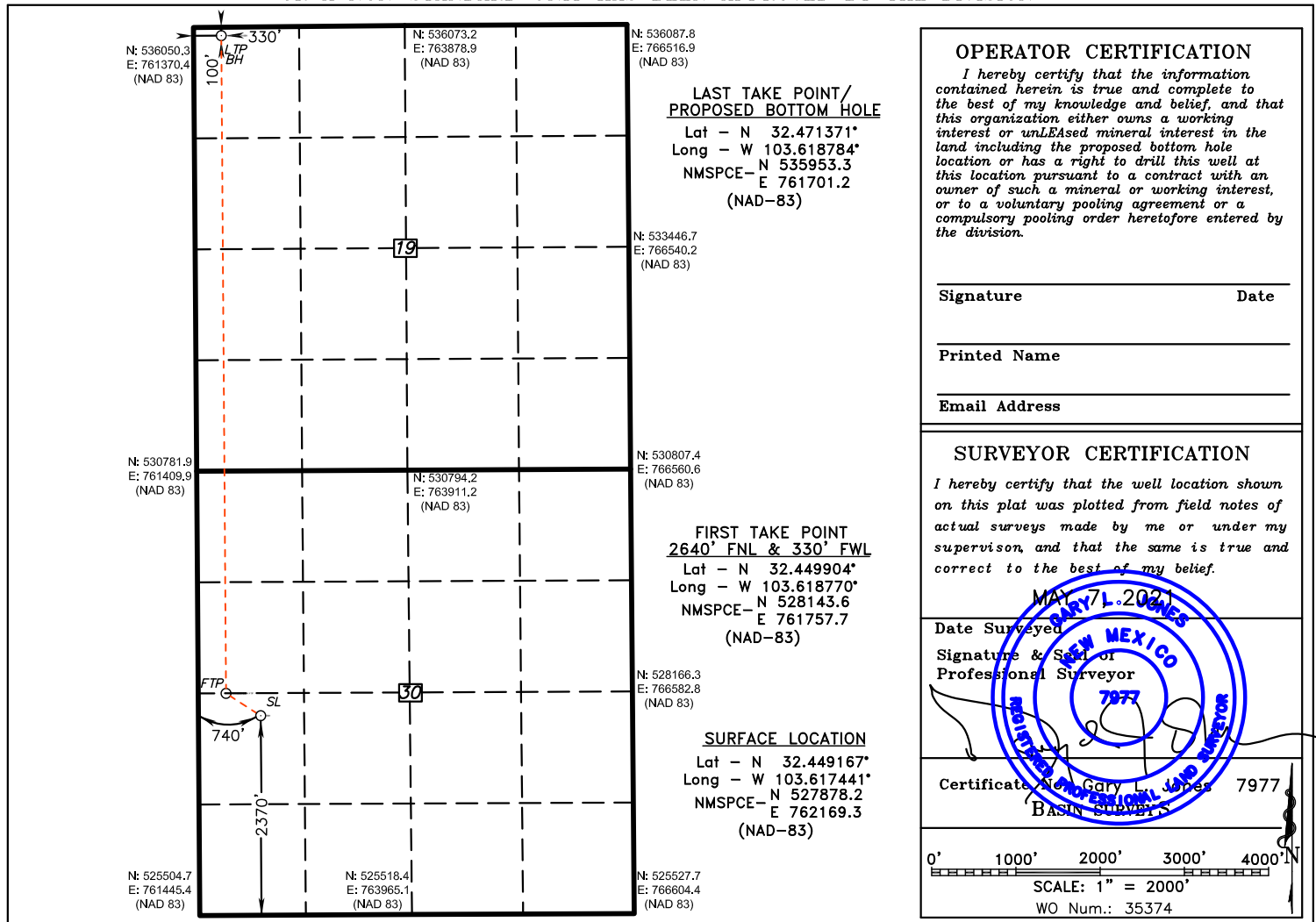
API Number	Pool Code	Pool Name
	97929	WC-025 G-06 S213326D; BONE SPRING
Property Code	Property Name	Well Number
319601	DAGGER STATE COM	558H
OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3815'

Surface Location

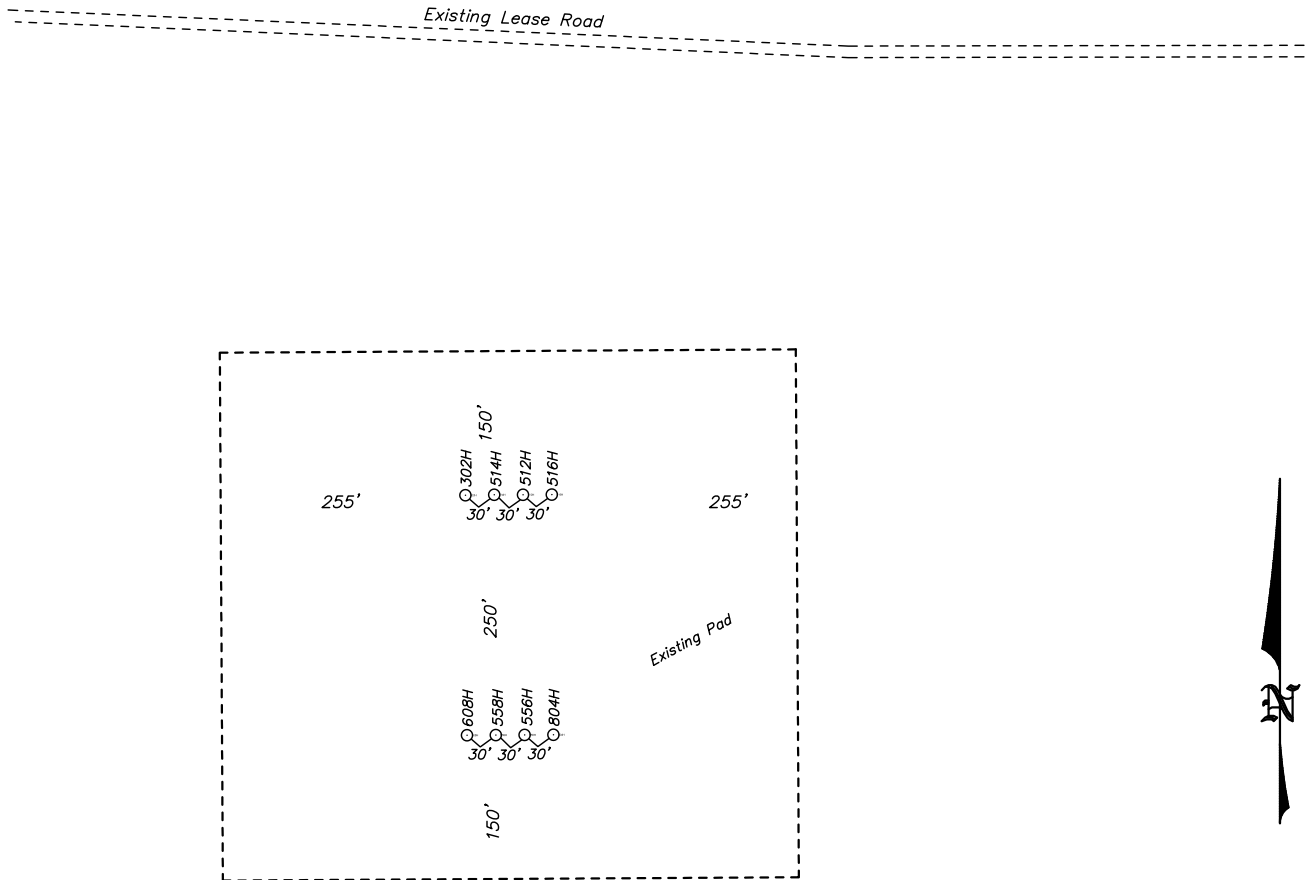
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
L	30	21 S	33 E		2370	SOUTH	740	WEST	LEA

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	330	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

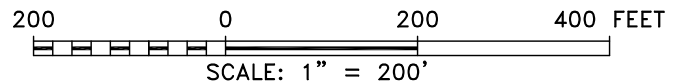
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #558H
ELEV. - 3815'**

Lat - N 32.449167°
Long - W 103.617441°
NMSPCE- N 527878.2
E 762169.3
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #558H / WELL PAD TOPO

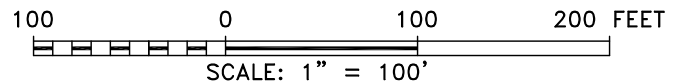
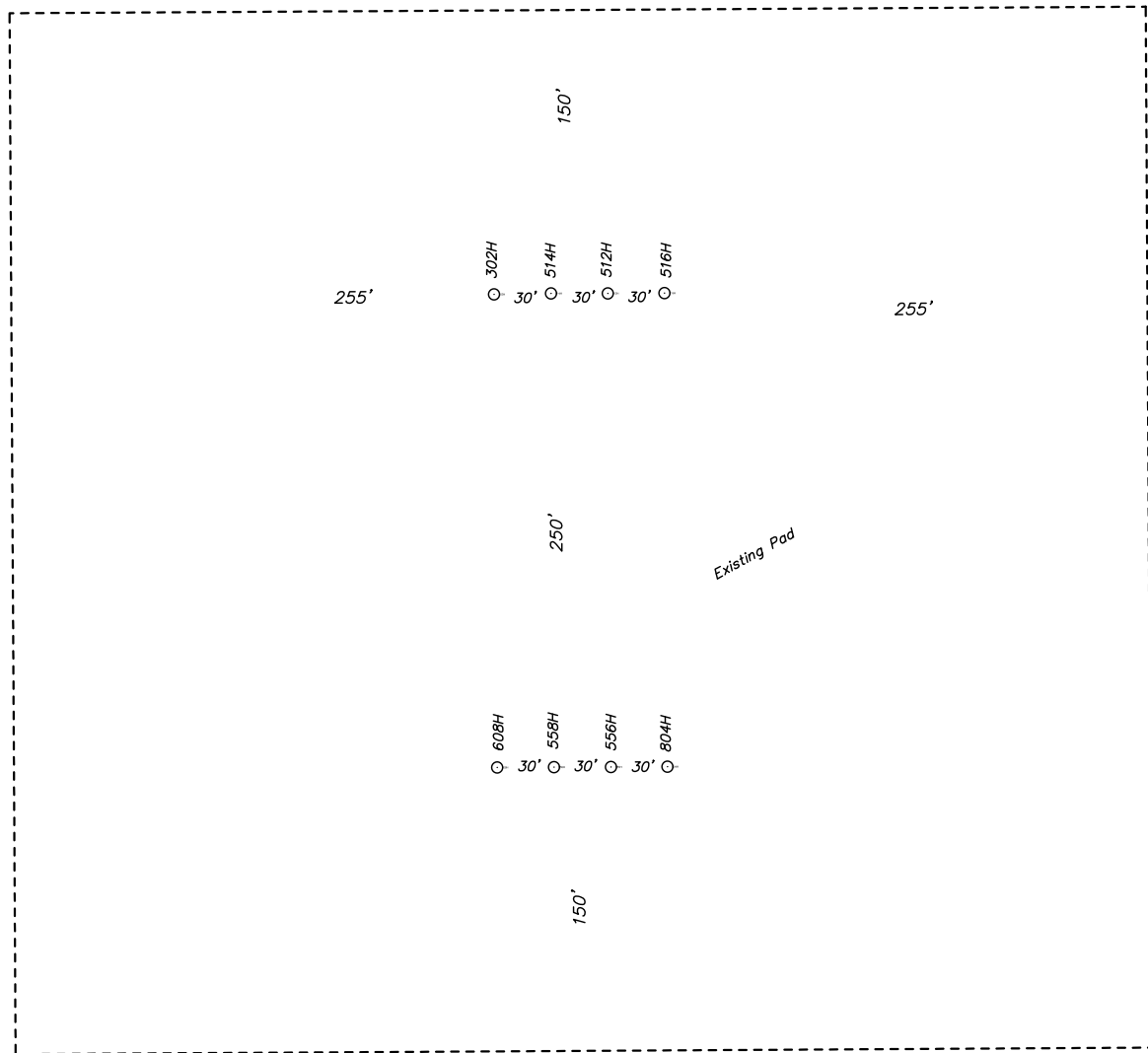
THE DAGGER STATE COM #558H LOCATED 2370' FROM
THE SOUTH LINE AND 740' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #558H / WELL PAD TOPO

THE DAGGER STATE COM #558H LOCATED 2370' FROM
THE SOUTH LINE AND 740' FROM THE WEST LINE OF
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DAGGER STATE COM #558H

Located 2370' FSL and 740' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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 1120 N. West County Rd.
 Hobbs, New Mexico 88241
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 basinsurveys.com

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

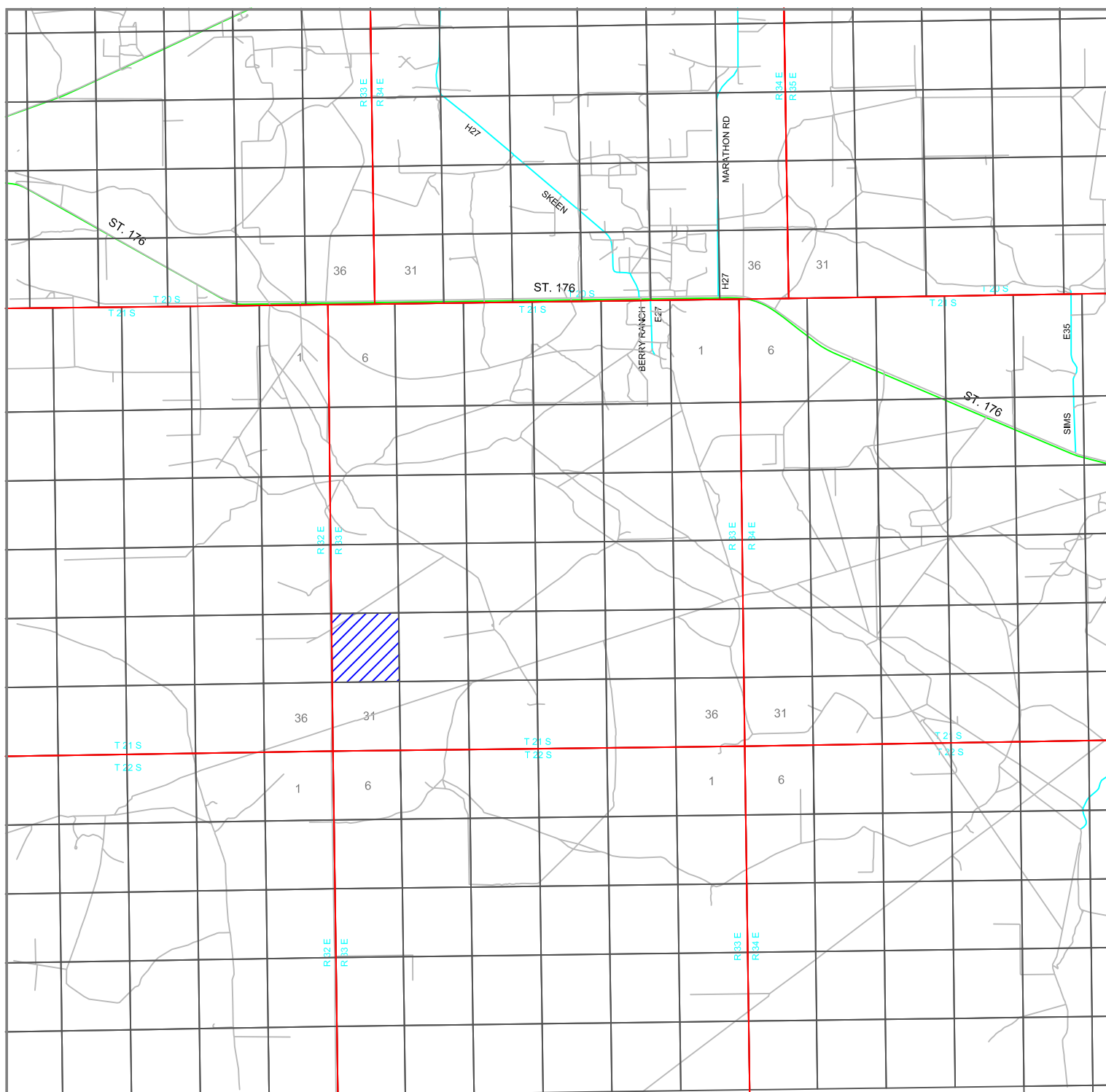
W.O. Number: KJG 35374

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 #558H

Located 2370' FSL and 740' 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

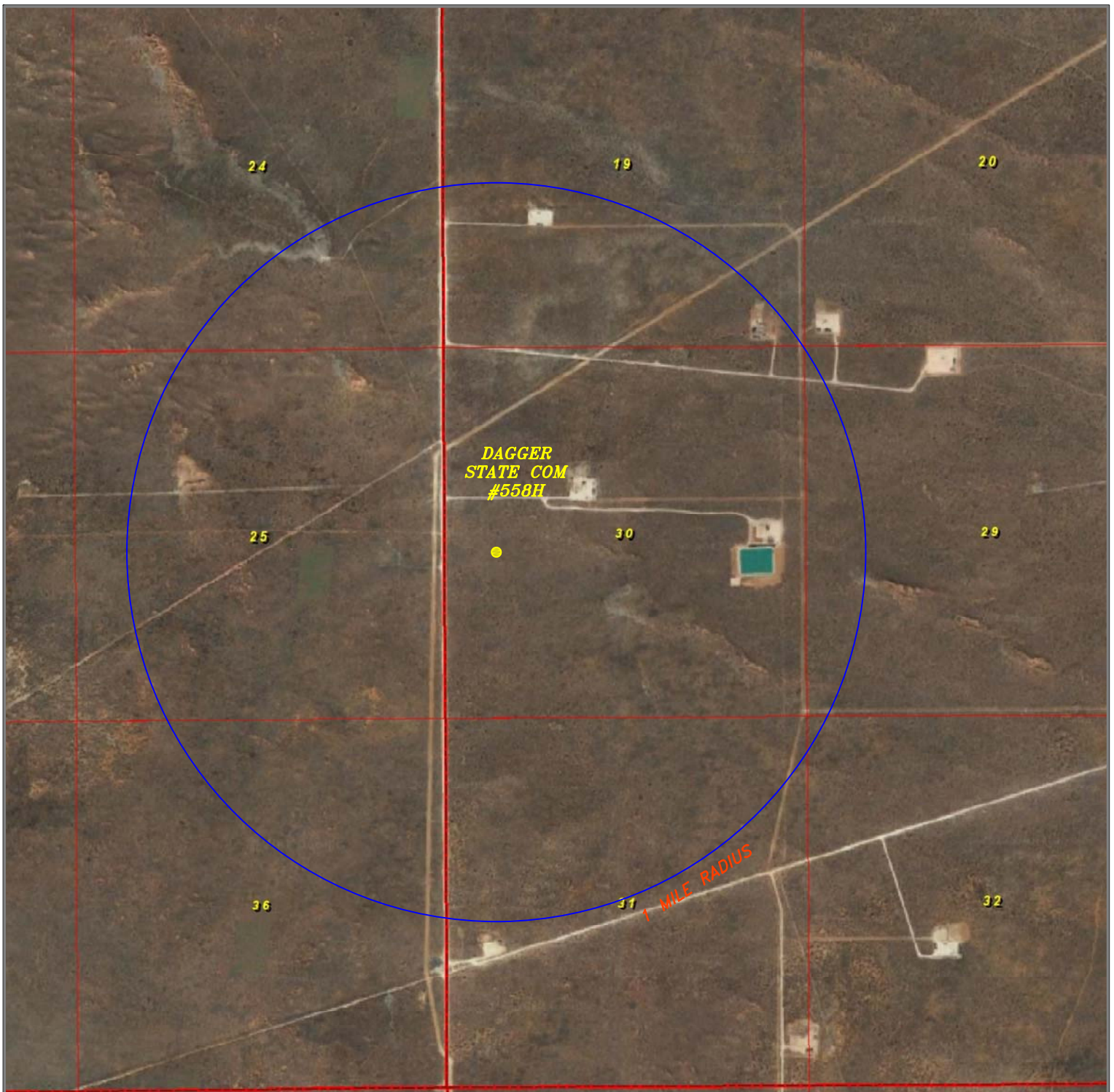
W.O. Number: KJG 35374

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**ADVANCE
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 HAT MESA**



DAGGER STATE COM #558H

Located 2370' FSL and 740' FWL
Section 30, Township 21 South, Range 33 East,
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0' 1000' 2000' 3000' 1500'
SCALE: 1" = 2000'

W.O. Number: KJG 35374

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

GAS CAPTURE PLAN

Date: 5/21/2021

☒ Original

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

☐ Amended - Reason for
Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
DAGGER STATE COM #558H	30-025-48901	L-30-21S-33E	2370S 0740W	1500	Flared	Flare during initial testing and setup.

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 296175

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: 30-025-48901
	Well: DAGGER STATE COM #558H

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	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 NMOCB 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 #558H

PROPOSED LOCATION: U/L L Sec 30 T21S R33E 2370 FSL 740 FWL

Lat. 32.449167 Long. -103.617441 NAD83

PROPOSED DEPTH: 19386' MD 11265' 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

Representing

JAMES RUTLEY
BLM CFO

ON DAGGER DI w/in approved Dagger Draw DA

**WELL DETAILS: Dagger State Com 558H**

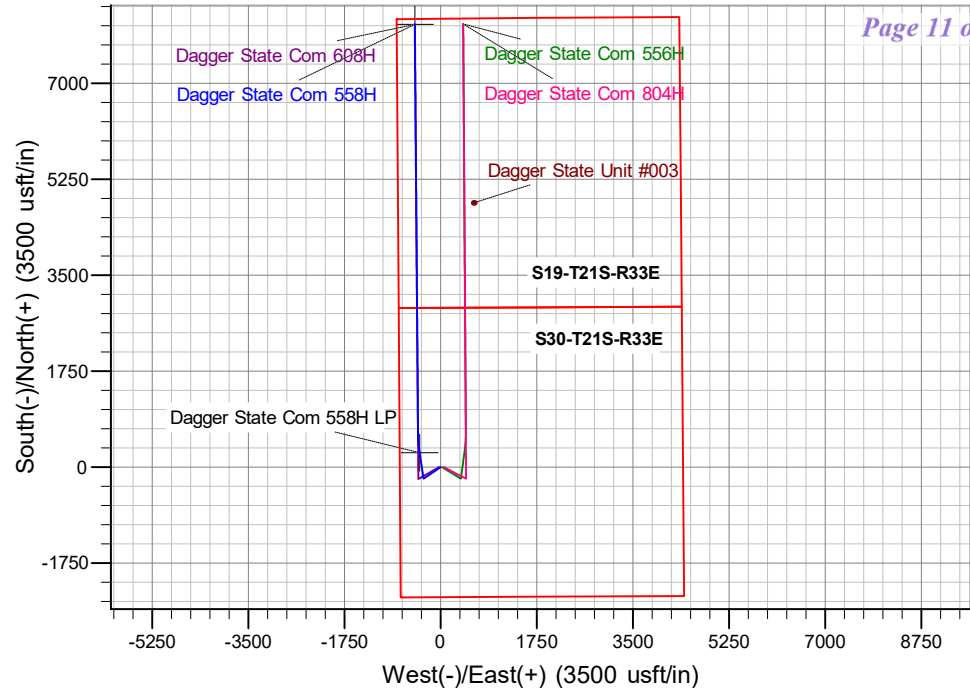
Ground Elev: 3815.0 KB: 3847.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	527878.20	762169.37	32° 26' 57.001 N	103° 37' 2.788 W

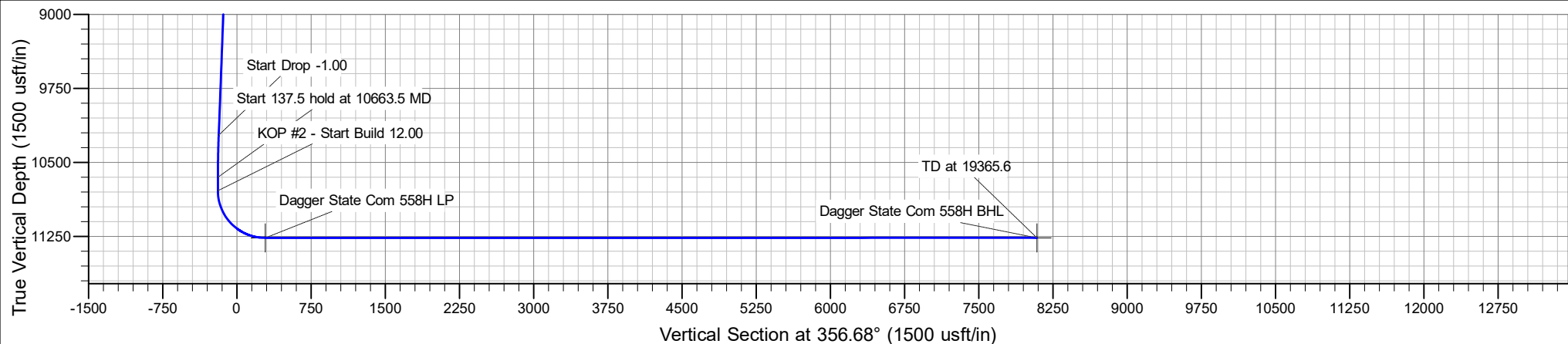
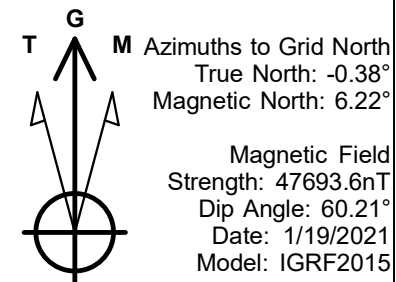
PROJECT DETAILS: Hat Mesa

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

System Datum: Mean Sea Level

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5200.0	0.00	0.00	5200.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5626.3	4.26	235.89	5625.9	-8.9	-13.1	1.00	235.89	-8.1	Start 4611.0 hold at 5626.3 MD
4	10237.3	4.26	235.89	10224.1	-201.1	-296.9	0.00	0.00	-183.6	Start Drop -1.00
5	10663.5	0.00	0.00	10650.0	-210.0	-310.0	1.00	180.00	-191.7	Start 137.5 hold at 10663.5 MD
6	10801.1	0.00	0.00	10787.5	-210.0	-310.0	0.00	0.00	-191.7	KOP #2 - Start Build 12.00
7	11551.1	90.00	351.62	11265.0	262.4	-379.6	12.00	351.62	283.9	LP - Start 3.0 hold at 11551.1 MD
8	11554.1	90.00	351.62	11265.0	265.4	-380.0	0.00	0.00	286.9	Start DLS 2.00 TFO 90.00
9	11950.6	90.00	359.55	11265.0	660.4	-410.5	2.00	90.00	683.0	Start 7415.1 hold at 11950.6 MD
10	19365.6	90.00	359.55	11265.0	8075.2	-468.4	0.00	0.00	8088.8	TD at 19365.6





Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 558H

Dagger State Com 558H

Plan: Dagger State Com 558H - 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 558H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - 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 558H					
Well Position	+N/-S	0.0 usft	Northing:	527,878.21 usft	Latitude:	32° 26' 57.001 N
	+E/-W	0.0 usft	Easting:	762,169.37 usft	Longitude:	103° 37' 2.788 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,815.0 usft
Grid Convergence:		0.38 °				

Wellbore	Dagger State Com 558H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/19/2021	6.60	60.21	47,693.61354398

Design	Dagger State Com 558H - Prelim 1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	356.68	

Plan Survey Tool Program	Date	5/14/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	19,365.6	Dagger State Com 558H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 558H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - Prelim 1		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,626.3	4.26	235.89	5,625.9	-8.9	-13.1	1.00	1.00	0.00	235.89	
10,237.3	4.26	235.89	10,224.1	-201.1	-296.9	0.00	0.00	0.00	0.00	
10,663.5	0.00	0.00	10,650.0	-210.0	-310.0	1.00	-1.00	0.00	180.00	
10,801.1	0.00	0.00	10,787.5	-210.0	-310.0	0.00	0.00	0.00	0.00	
11,551.1	90.00	351.62	11,265.0	262.4	-379.6	12.00	12.00	0.00	351.62	
11,554.1	90.00	351.62	11,265.0	265.4	-380.0	0.00	0.00	0.00	0.00	Dagger State Com 55
11,950.6	90.00	359.55	11,265.0	660.4	-410.5	2.00	0.00	2.00	90.00	
19,365.6	90.00	359.55	11,265.0	8,075.2	-468.4	0.00	0.00	0.00	0.00	Dagger State Com 55



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 558H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 558H
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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
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Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	1.00	235.89	5,300.0	-0.5	-0.7	-0.4	1.00	1.00	0.00
5,400.0	2.00	235.89	5,400.0	-2.0	-2.9	-1.8	1.00	1.00	0.00
5,500.0	3.00	235.89	5,499.9	-4.4	-6.5	-4.0	1.00	1.00	0.00
5,600.0	4.00	235.89	5,599.7	-7.8	-11.6	-7.1	1.00	1.00	0.00
5,626.3	4.26	235.89	5,625.9	-8.9	-13.1	-8.1	1.00	1.00	0.00
Start 4611.0 hold at 5626.3 MD									
5,700.0	4.26	235.89	5,699.4	-12.0	-17.7	-10.9	0.00	0.00	0.00
5,800.0	4.26	235.89	5,799.1	-16.1	-23.8	-14.7	0.00	0.00	0.00
5,900.0	4.26	235.89	5,898.8	-20.3	-30.0	-18.5	0.00	0.00	0.00
6,000.0	4.26	235.89	5,998.6	-24.5	-36.1	-22.3	0.00	0.00	0.00
6,100.0	4.26	235.89	6,098.3	-28.6	-42.3	-26.1	0.00	0.00	0.00
6,200.0	4.26	235.89	6,198.0	-32.8	-48.4	-29.9	0.00	0.00	0.00
6,300.0	4.26	235.89	6,297.7	-37.0	-54.6	-33.8	0.00	0.00	0.00
6,400.0	4.26	235.89	6,397.5	-41.1	-60.7	-37.6	0.00	0.00	0.00
6,500.0	4.26	235.89	6,497.2	-45.3	-66.9	-41.4	0.00	0.00	0.00
6,600.0	4.26	235.89	6,596.9	-49.5	-73.0	-45.2	0.00	0.00	0.00
6,700.0	4.26	235.89	6,696.6	-53.7	-79.2	-49.0	0.00	0.00	0.00
6,800.0	4.26	235.89	6,796.4	-57.8	-85.4	-52.8	0.00	0.00	0.00
6,900.0	4.26	235.89	6,896.1	-62.0	-91.5	-56.6	0.00	0.00	0.00
7,000.0	4.26	235.89	6,995.8	-66.2	-97.7	-60.4	0.00	0.00	0.00
7,100.0	4.26	235.89	7,095.5	-70.3	-103.8	-64.2	0.00	0.00	0.00
7,200.0	4.26	235.89	7,195.3	-74.5	-110.0	-68.0	0.00	0.00	0.00
7,300.0	4.26	235.89	7,295.0	-78.7	-116.1	-71.8	0.00	0.00	0.00
7,400.0	4.26	235.89	7,394.7	-82.8	-122.3	-75.6	0.00	0.00	0.00
7,500.0	4.26	235.89	7,494.4	-87.0	-128.4	-79.4	0.00	0.00	0.00
7,600.0	4.26	235.89	7,594.1	-91.2	-134.6	-83.2	0.00	0.00	0.00
7,700.0	4.26	235.89	7,693.9	-95.3	-140.7	-87.0	0.00	0.00	0.00
7,800.0	4.26	235.89	7,793.6	-99.5	-146.9	-90.8	0.00	0.00	0.00
7,900.0	4.26	235.89	7,893.3	-103.7	-153.0	-94.6	0.00	0.00	0.00
8,000.0	4.26	235.89	7,993.0	-107.8	-159.2	-98.4	0.00	0.00	0.00
8,100.0	4.26	235.89	8,092.8	-112.0	-165.4	-102.3	0.00	0.00	0.00
8,200.0	4.26	235.89	8,192.5	-116.2	-171.5	-106.1	0.00	0.00	0.00
8,300.0	4.26	235.89	8,292.2	-120.4	-177.7	-109.9	0.00	0.00	0.00
8,400.0	4.26	235.89	8,391.9	-124.5	-183.8	-113.7	0.00	0.00	0.00
8,500.0	4.26	235.89	8,491.7	-128.7	-190.0	-117.5	0.00	0.00	0.00
8,600.0	4.26	235.89	8,591.4	-132.9	-196.1	-121.3	0.00	0.00	0.00
8,700.0	4.26	235.89	8,691.1	-137.0	-202.3	-125.1	0.00	0.00	0.00
8,800.0	4.26	235.89	8,790.8	-141.2	-208.4	-128.9	0.00	0.00	0.00
8,900.0	4.26	235.89	8,890.6	-145.4	-214.6	-132.7	0.00	0.00	0.00
9,000.0	4.26	235.89	8,990.3	-149.5	-220.7	-136.5	0.00	0.00	0.00
9,100.0	4.26	235.89	9,090.0	-153.7	-226.9	-140.3	0.00	0.00	0.00
9,200.0	4.26	235.89	9,189.7	-157.9	-233.0	-144.1	0.00	0.00	0.00
9,300.0	4.26	235.89	9,289.4	-162.0	-239.2	-147.9	0.00	0.00	0.00
9,400.0	4.26	235.89	9,389.2	-166.2	-245.4	-151.7	0.00	0.00	0.00
9,500.0	4.26	235.89	9,488.9	-170.4	-251.5	-155.5	0.00	0.00	0.00
9,600.0	4.26	235.89	9,588.6	-174.5	-257.7	-159.3	0.00	0.00	0.00
9,700.0	4.26	235.89	9,688.3	-178.7	-263.8	-163.1	0.00	0.00	0.00
9,800.0	4.26	235.89	9,788.1	-182.9	-270.0	-166.9	0.00	0.00	0.00
9,900.0	4.26	235.89	9,887.8	-187.1	-276.1	-170.7	0.00	0.00	0.00
10,000.0	4.26	235.89	9,987.5	-191.2	-282.3	-174.6	0.00	0.00	0.00
10,100.0	4.26	235.89	10,087.2	-195.4	-288.4	-178.4	0.00	0.00	0.00
10,200.0	4.26	235.89	10,187.0	-199.6	-294.6	-182.2	0.00	0.00	0.00
10,237.3	4.26	235.89	10,224.1	-201.1	-296.9	-183.6	0.00	0.00	0.00
Start Drop -1.00									



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
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Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,300.0	3.64	235.89	10,286.7	-203.5	-300.5	-185.8	1.00	-1.00	0.00
10,400.0	2.64	235.89	10,386.6	-206.6	-305.0	-188.6	1.00	-1.00	0.00
10,500.0	1.64	235.89	10,486.5	-208.7	-308.1	-190.5	1.00	-1.00	0.00
10,600.0	0.64	235.89	10,586.5	-209.8	-309.7	-191.5	1.00	-1.00	0.00
10,663.5	0.00	0.00	10,650.0	-210.0	-310.0	-191.7	1.00	-1.00	0.00
Start 137.5 hold at 10663.5 MD									
10,700.0	0.00	0.00	10,686.5	-210.0	-310.0	-191.7	0.00	0.00	0.00
10,800.0	0.00	0.00	10,786.5	-210.0	-310.0	-191.7	0.00	0.00	0.00
10,801.1	0.00	0.00	10,787.5	-210.0	-310.0	-191.7	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
10,900.0	11.87	351.62	10,885.8	-199.9	-311.5	-181.5	12.00	12.00	0.00
11,000.0	23.87	351.62	10,980.8	-169.6	-315.9	-151.0	12.00	12.00	0.00
11,100.0	35.87	351.62	11,067.3	-120.4	-323.2	-101.5	12.00	12.00	0.00
11,200.0	47.87	351.62	11,141.6	-54.5	-332.9	-35.1	12.00	12.00	0.00
11,300.0	59.87	351.62	11,200.5	25.3	-344.6	45.2	12.00	12.00	0.00
11,400.0	71.87	351.62	11,241.3	115.4	-357.9	135.9	12.00	12.00	0.00
11,500.0	83.87	351.62	11,262.3	211.9	-372.1	233.1	12.00	12.00	0.00
11,551.1	90.00	351.62	11,265.0	262.4	-379.6	283.9	12.00	12.00	0.00
LP - Start 3.0 hold at 11551.1 MD									
11,554.1	90.00	351.62	11,265.0	265.4	-380.0	286.9	0.00	0.00	0.00
Start DLS 2.00 TFO 90.00 - Dagger State Com 558H LP									
11,600.0	90.00	352.54	11,265.0	310.8	-386.3	332.7	2.00	0.00	2.00
11,700.0	90.00	354.54	11,265.0	410.2	-397.6	432.5	2.00	0.00	2.00
11,800.0	90.00	356.54	11,265.0	509.9	-405.3	532.5	2.00	0.00	2.00
11,900.0	90.00	358.54	11,265.0	609.8	-409.6	632.5	2.00	0.00	2.00
11,950.6	90.00	359.55	11,265.0	660.4	-410.5	683.0	2.00	0.00	2.00
Start 7415.1 hold at 11950.6 MD									
12,000.0	90.00	359.55	11,265.0	709.8	-410.9	732.4	0.00	0.00	0.00
12,100.0	90.00	359.55	11,265.0	809.8	-411.6	832.2	0.00	0.00	0.00
12,200.0	90.00	359.55	11,265.0	909.8	-412.4	932.1	0.00	0.00	0.00
12,300.0	90.00	359.55	11,265.0	1,009.8	-413.2	1,032.0	0.00	0.00	0.00
12,400.0	90.00	359.55	11,265.0	1,109.8	-414.0	1,131.9	0.00	0.00	0.00
12,500.0	90.00	359.55	11,265.0	1,209.8	-414.8	1,231.7	0.00	0.00	0.00
12,600.0	90.00	359.55	11,265.0	1,309.8	-415.5	1,331.6	0.00	0.00	0.00
12,700.0	90.00	359.55	11,265.0	1,409.7	-416.3	1,431.5	0.00	0.00	0.00
12,800.0	90.00	359.55	11,265.0	1,509.7	-417.1	1,531.4	0.00	0.00	0.00
12,900.0	90.00	359.55	11,265.0	1,609.7	-417.9	1,631.2	0.00	0.00	0.00
13,000.0	90.00	359.55	11,265.0	1,709.7	-418.7	1,731.1	0.00	0.00	0.00
13,100.0	90.00	359.55	11,265.0	1,809.7	-419.4	1,831.0	0.00	0.00	0.00
13,200.0	90.00	359.55	11,265.0	1,909.7	-420.2	1,930.9	0.00	0.00	0.00
13,300.0	90.00	359.55	11,265.0	2,009.7	-421.0	2,030.7	0.00	0.00	0.00
13,400.0	90.00	359.55	11,265.0	2,109.7	-421.8	2,130.6	0.00	0.00	0.00
13,500.0	90.00	359.55	11,265.0	2,209.7	-422.6	2,230.5	0.00	0.00	0.00
13,600.0	90.00	359.55	11,265.0	2,309.7	-423.4	2,330.4	0.00	0.00	0.00
13,700.0	90.00	359.55	11,265.0	2,409.7	-424.1	2,430.2	0.00	0.00	0.00
13,800.0	90.00	359.55	11,265.0	2,509.7	-424.9	2,530.1	0.00	0.00	0.00
13,900.0	90.00	359.55	11,265.0	2,609.7	-425.7	2,630.0	0.00	0.00	0.00
14,000.0	90.00	359.55	11,265.0	2,709.7	-426.5	2,729.9	0.00	0.00	0.00
14,100.0	90.00	359.55	11,265.0	2,809.7	-427.3	2,829.7	0.00	0.00	0.00
14,200.0	90.00	359.55	11,265.0	2,909.7	-428.0	2,929.6	0.00	0.00	0.00
14,300.0	90.00	359.55	11,265.0	3,009.7	-428.8	3,029.5	0.00	0.00	0.00
14,400.0	90.00	359.55	11,265.0	3,109.7	-429.6	3,129.4	0.00	0.00	0.00
14,500.0	90.00	359.55	11,265.0	3,209.7	-430.4	3,229.2	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - 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)	
14,600.0	90.00	359.55	11,265.0	3,309.7	-431.2	3,329.1	0.00	0.00	0.00	
14,700.0	90.00	359.55	11,265.0	3,409.7	-431.9	3,429.0	0.00	0.00	0.00	
14,800.0	90.00	359.55	11,265.0	3,509.7	-432.7	3,528.9	0.00	0.00	0.00	
14,900.0	90.00	359.55	11,265.0	3,609.7	-433.5	3,628.7	0.00	0.00	0.00	
15,000.0	90.00	359.55	11,265.0	3,709.7	-434.3	3,728.6	0.00	0.00	0.00	
15,100.0	90.00	359.55	11,265.0	3,809.7	-435.1	3,828.5	0.00	0.00	0.00	
15,200.0	90.00	359.55	11,265.0	3,909.7	-435.8	3,928.3	0.00	0.00	0.00	
15,300.0	90.00	359.55	11,265.0	4,009.7	-436.6	4,028.2	0.00	0.00	0.00	
15,400.0	90.00	359.55	11,265.0	4,109.7	-437.4	4,128.1	0.00	0.00	0.00	
15,500.0	90.00	359.55	11,265.0	4,209.7	-438.2	4,228.0	0.00	0.00	0.00	
15,600.0	90.00	359.55	11,265.0	4,309.7	-439.0	4,327.8	0.00	0.00	0.00	
15,700.0	90.00	359.55	11,265.0	4,409.7	-439.7	4,427.7	0.00	0.00	0.00	
15,800.0	90.00	359.55	11,265.0	4,509.7	-440.5	4,527.6	0.00	0.00	0.00	
15,900.0	90.00	359.55	11,265.0	4,609.7	-441.3	4,627.5	0.00	0.00	0.00	
16,000.0	90.00	359.55	11,265.0	4,709.6	-442.1	4,727.3	0.00	0.00	0.00	
16,100.0	90.00	359.55	11,265.0	4,809.6	-442.9	4,827.2	0.00	0.00	0.00	
16,200.0	90.00	359.55	11,265.0	4,909.6	-443.6	4,927.1	0.00	0.00	0.00	
16,300.0	90.00	359.55	11,265.0	5,009.6	-444.4	5,027.0	0.00	0.00	0.00	
16,400.0	90.00	359.55	11,265.0	5,109.6	-445.2	5,126.8	0.00	0.00	0.00	
16,500.0	90.00	359.55	11,265.0	5,209.6	-446.0	5,226.7	0.00	0.00	0.00	
16,600.0	90.00	359.55	11,265.0	5,309.6	-446.8	5,326.6	0.00	0.00	0.00	
16,700.0	90.00	359.55	11,265.0	5,409.6	-447.5	5,426.5	0.00	0.00	0.00	
16,800.0	90.00	359.55	11,265.0	5,509.6	-448.3	5,526.3	0.00	0.00	0.00	
16,900.0	90.00	359.55	11,265.0	5,609.6	-449.1	5,626.2	0.00	0.00	0.00	
17,000.0	90.00	359.55	11,265.0	5,709.6	-449.9	5,726.1	0.00	0.00	0.00	
17,100.0	90.00	359.55	11,265.0	5,809.6	-450.7	5,826.0	0.00	0.00	0.00	
17,200.0	90.00	359.55	11,265.0	5,909.6	-451.5	5,925.8	0.00	0.00	0.00	
17,300.0	90.00	359.55	11,265.0	6,009.6	-452.2	6,025.7	0.00	0.00	0.00	
17,400.0	90.00	359.55	11,265.0	6,109.6	-453.0	6,125.6	0.00	0.00	0.00	
17,500.0	90.00	359.55	11,265.0	6,209.6	-453.8	6,225.5	0.00	0.00	0.00	
17,600.0	90.00	359.55	11,265.0	6,309.6	-454.6	6,325.3	0.00	0.00	0.00	
17,700.0	90.00	359.55	11,265.0	6,409.6	-455.4	6,425.2	0.00	0.00	0.00	
17,800.0	90.00	359.55	11,265.0	6,509.6	-456.1	6,525.1	0.00	0.00	0.00	
17,900.0	90.00	359.55	11,265.0	6,609.6	-456.9	6,625.0	0.00	0.00	0.00	
18,000.0	90.00	359.55	11,265.0	6,709.6	-457.7	6,724.8	0.00	0.00	0.00	
18,100.0	90.00	359.55	11,265.0	6,809.6	-458.5	6,824.7	0.00	0.00	0.00	
18,200.0	90.00	359.55	11,265.0	6,909.6	-459.3	6,924.6	0.00	0.00	0.00	
18,300.0	90.00	359.55	11,265.0	7,009.6	-460.0	7,024.5	0.00	0.00	0.00	
18,400.0	90.00	359.55	11,265.0	7,109.6	-460.8	7,124.3	0.00	0.00	0.00	
18,500.0	90.00	359.55	11,265.0	7,209.6	-461.6	7,224.2	0.00	0.00	0.00	
18,600.0	90.00	359.55	11,265.0	7,309.6	-462.4	7,324.1	0.00	0.00	0.00	
18,700.0	90.00	359.55	11,265.0	7,409.6	-463.2	7,424.0	0.00	0.00	0.00	
18,800.0	90.00	359.55	11,265.0	7,509.6	-463.9	7,523.8	0.00	0.00	0.00	
18,900.0	90.00	359.55	11,265.0	7,609.6	-464.7	7,623.7	0.00	0.00	0.00	
19,000.0	90.00	359.55	11,265.0	7,709.6	-465.5	7,723.6	0.00	0.00	0.00	
19,100.0	90.00	359.55	11,265.0	7,809.6	-466.3	7,823.5	0.00	0.00	0.00	
19,200.0	90.00	359.55	11,265.0	7,909.6	-467.1	7,923.3	0.00	0.00	0.00	
19,300.0	90.00	359.55	11,265.0	8,009.5	-467.8	8,023.2	0.00	0.00	0.00	
19,365.6	90.00	359.55	11,265.0	8,075.2	-468.4	8,088.8	0.00	0.00	0.00	
TD at 19365.6 - Dagger State Com 558H BHL										



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 558H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 558H		
Design:	Dagger State Com 558H - Prelim 1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
Dagger State Com 558H- - plan hits target center - Point	0.00	0.00	11,265.0	265.4	-380.0	528,143.59	761,789.37	32° 26' 59.652 N	103° 37' 7.201 W
Dagger State Com 558H- - plan hits target center - Point	0.00	0.00	11,265.0	8,075.2	-468.4	535,953.40	761,701.01	32° 28' 16.936 N	103° 37' 7.622 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
11,551.1	11,265.0	LP	5-1/2	5-1/2	

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,200.0	5,200.0	0.0	0.0	KOP - Start Build 1.00
5,626.3	5,625.9	-8.9	-13.1	Start 4611.0 hold at 5626.3 MD
10,237.3	10,224.1	-201.1	-296.9	Start Drop -1.00
10,663.5	10,650.0	-210.0	-310.0	Start 137.5 hold at 10663.5 MD
10,801.1	10,787.5	-210.0	-310.0	KOP #2 - Start Build 12.00
11,551.1	11,265.0	262.4	-379.6	LP - Start 3.0 hold at 11551.1 MD
11,554.1	11,265.0	265.4	-380.0	Start DLS 2.00 TFO 90.00
11,950.6	11,265.0	660.4	-410.5	Start 7415.1 hold at 11950.6 MD
19,365.6	11,265.0	8,075.2	-468.4	TD at 19365.6



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 558H

Dagger State Com 558H

Dagger State Com 558H - Prelim 1

Anticollision Report

14 May, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 558H - 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	19,365.6	Dagger State Com 558H - 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	5,116.3	5,117.3	29.9	3.4	1.130	Level 3, CC
Dagger State Com 556H - Dagger State Com 556H - Da	5,200.0	5,201.0	29.9	3.2	1.119	Level 3, ES, SF
Dagger State Com 608H - Dagger State Com 608H - Da	4,916.3	4,917.3	29.9	4.1	1.157	Level 3, CC
Dagger State Com 608H - Dagger State Com 608H - Da	5,000.0	5,001.0	29.9	3.8	1.145	Level 3, ES
Dagger State Com 608H - Dagger State Com 608H - Da	10,237.3	10,235.7	55.7	5.9	1.119	Level 3, SF
Dagger State Com 804H - Dagger State Com 804H - Da	4,916.3	4,917.3	59.8	34.0	2.314	CC
Dagger State Com 804H - Dagger State Com 804H - Da	5,000.0	5,001.0	59.8	33.7	2.291	ES, SF
Dagger State Unit #003 - Dagger State Unit #003 - Dagg						Out of range

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	Offset Wellbore Centre	Distance	Rule Assigned:	Minimum	Separation	Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Toolface (")	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor
0.0	0.0	1.0	1.0	0.0	0.0	89.62	0.2	29.9	29.9			
100.0	100.0	101.0	101.0	0.5	0.5	89.62	0.2	29.9	29.9	28.9	1.07	27.910
200.0	200.0	201.0	201.0	1.7	1.7	89.62	0.2	29.9	29.9	26.5	3.43	8.723
300.0	300.0	301.0	301.0	2.4	2.4	89.62	0.2	29.9	29.9	25.1	4.83	6.197
400.0	400.0	401.0	401.0	3.0	3.0	89.62	0.2	29.9	29.9	24.0	5.91	5.061
500.0	500.0	501.0	501.0	3.4	3.4	89.62	0.2	29.9	29.9	23.1	6.83	4.378
600.0	600.0	601.0	601.0	3.8	3.8	89.62	0.2	29.9	29.9	22.3	7.65	3.910
700.0	700.0	701.0	701.0	4.2	4.2	89.62	0.2	29.9	29.9	21.5	8.40	3.563
800.0	800.0	801.0	801.0	4.5	4.5	89.62	0.2	29.9	29.9	20.8	9.09	3.293
900.0	900.0	901.0	901.0	4.9	4.9	89.62	0.2	29.9	29.9	20.2	9.73	3.074
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	89.62	0.2	29.9	29.9	19.6	10.34	2.893
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	89.62	0.2	29.9	29.9	19.0	10.93	2.739
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	89.62	0.2	29.9	29.9	18.4	11.48	2.606
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	89.62	0.2	29.9	29.9	17.9	12.02	2.490
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	89.62	0.2	29.9	29.9	17.4	12.53	2.387
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	89.62	0.2	29.9	29.9	16.9	13.03	2.296
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	89.62	0.2	29.9	29.9	16.4	13.52	2.213
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	89.62	0.2	29.9	29.9	15.9	13.99	2.139
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	89.62	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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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		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		
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	89.62	0.2	29.9	29.9	15.0	14.90	2.008		
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	89.62	0.2	29.9	29.9	14.6	15.34	1.950		
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	89.62	0.2	29.9	29.9	14.2	15.77	1.897		
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	89.62	0.2	29.9	29.9	13.7	16.19	1.848		
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	89.62	0.2	29.9	29.9	13.3	16.61	1.802		
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	89.62	0.2	29.9	29.9	12.9	17.02	1.758		
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	89.62	0.2	29.9	29.9	12.5	17.42	1.718		
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	89.62	0.2	29.9	29.9	12.1	17.81	1.680		
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	89.62	0.2	29.9	29.9	11.7	18.20	1.644		
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	89.62	0.2	29.9	29.9	11.3	18.59	1.610		
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	89.62	0.2	29.9	29.9	11.0	18.97	1.578		
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	89.62	0.2	29.9	29.9	10.6	19.34	1.547		
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	89.62	0.2	29.9	29.9	10.2	19.71	1.518		
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	89.62	0.2	29.9	29.9	9.8	20.08	1.490 Level 3		
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	89.62	0.2	29.9	29.9	9.5	20.44	1.464 Level 3		
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	89.62	0.2	29.9	29.9	9.1	20.80	1.439 Level 3		
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	89.62	0.2	29.9	29.9	8.8	21.15	1.415 Level 3		
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	89.62	0.2	29.9	29.9	8.4	21.50	1.392 Level 3		
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	89.62	0.2	29.9	29.9	8.1	21.85	1.370 Level 3		
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	89.62	0.2	29.9	29.9	7.7	22.19	1.348 Level 3		
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	89.62	0.2	29.9	29.9	7.4	22.53	1.328 Level 3		
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	89.62	0.2	29.9	29.9	7.1	22.87	1.308 Level 3		
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	89.62	0.2	29.9	29.9	6.7	23.21	1.289 Level 3		
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	89.62	0.2	29.9	29.9	6.4	23.54	1.271 Level 3		
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	89.62	0.2	29.9	29.9	6.1	23.87	1.253 Level 3		
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	89.62	0.2	29.9	29.9	5.7	24.20	1.236 Level 3		
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	89.62	0.2	29.9	29.9	5.4	24.53	1.220 Level 3		
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	89.62	0.2	29.9	29.9	5.1	24.85	1.204 Level 3		
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	89.62	0.2	29.9	29.9	4.8	25.17	1.189 Level 3		
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	89.62	0.2	29.9	29.9	4.4	25.49	1.174 Level 3		
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	89.62	0.2	29.9	29.9	4.1	25.81	1.159 Level 3		
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	89.62	0.2	29.9	29.9	3.8	26.13	1.145 Level 3		
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	89.62	0.2	29.9	29.9	3.5	26.44	1.132 Level 3		
5,116.3	5,116.3	5,117.3	5,117.3	13.2	13.2	89.62	0.2	29.9	29.9	3.4	26.49	1.130 Level 3, CC		
5,200.0	5,200.0	5,201.0	5,201.0	13.4	13.4	89.62	0.2	29.9	29.9	3.2	26.75	1.119 Level 3, ES, SF		
5,300.0	5,300.0	5,300.5	5,300.5	13.5	13.5	-146.29	-0.3	30.7	31.4	4.5	26.95	1.165 Level 3		
5,400.0	5,400.0	5,400.0	5,400.0	13.6	13.6	-146.36	-1.6	32.9	35.8	8.7	27.11	1.320 Level 3		
5,500.0	5,499.9	5,499.1	5,499.0	13.7	13.7	-146.45	-3.9	36.6	43.1	15.8	27.30	1.579		
5,600.0	5,599.7	5,597.9	5,597.6	13.8	13.8	-146.52	-7.1	41.7	53.3	25.8	27.52	1.938		
5,626.3	5,625.9	5,623.7	5,623.4	13.8	13.8	-146.54	-8.0	43.2	56.5	28.9	27.54	2.051		
5,700.0	5,699.4	5,696.8	5,696.2	13.9	13.9	-146.54	-11.0	48.0	65.8	38.1	27.66	2.379		
5,800.0	5,799.1	5,796.0	5,795.1	14.0	14.0	-146.53	-14.9	54.4	78.4	50.5	27.91	2.809		
5,900.0	5,898.8	5,895.2	5,894.0	14.2	14.2	-146.53	-18.9	60.9	91.1	62.8	28.22	3.227		
6,000.0	5,998.6	5,994.4	5,992.9	14.4	14.4	-146.52	-22.9	67.3	103.7	75.1	28.54	3.633		
6,100.0	6,098.3	6,093.6	6,091.8	14.6	14.6	-146.52	-26.9	73.8	116.3	87.4	28.90	4.026		
6,200.0	6,198.0	6,192.8	6,190.7	14.8	14.8	-146.52	-30.9	80.2	129.0	99.7	29.27	4.406		
6,300.0	6,297.7	6,292.0	6,289.6	15.1	15.1	-146.52	-34.9	86.7	141.6	111.9	29.67	4.772		
6,400.0	6,397.5	6,391.1	6,388.5	15.3	15.3	-146.51	-38.9	93.2	154.2	124.1	30.09	5.125		
6,500.0	6,497.2	6,490.3	6,487.4	15.6	15.6	-146.51	-42.8	99.6	166.9	136.3	30.53	5.465		
6,600.0	6,596.9	6,589.5	6,586.3	15.9	15.9	-146.51	-46.8	106.1	179.5	148.5	30.99	5.792		
6,700.0	6,696.6	6,688.7	6,685.2	16.2	16.2	-146.51	-50.8	112.5	192.1	160.7	31.47	6.105		
6,800.0	6,796.4	6,787.9	6,784.2	16.5	16.5	-146.51	-54.8	119.0	204.8	172.8	31.97	6.405		

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 556H - Dagger State Com 556H - Dagger State Com 556H - Prelim 1													Offset Site Error:	0.0 usft	
Survey Program:		0-MWD+HRGM		Offset			Semi Major Axis		Offset Wellbore Centre		Rule Assigned:			Offset Well Error:	0.0 usft
Measured Depth (usft)	Reference Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
6,900.0	6,896.1	6,887.1	6,883.1	16.8	16.8	-146.51	-58.8	125.4	217.4	184.9	32.49	6.692			
7,000.0	6,995.8	6,986.3	6,982.0	17.1	17.1	-146.51	-62.8	131.9	230.0	197.0	33.02	6.967			
7,100.0	7,095.5	7,085.5	7,080.9	17.5	17.5	-146.51	-66.8	138.3	242.7	209.1	33.57	7.230			
7,200.0	7,195.3	7,184.7	7,179.8	17.8	17.8	-146.50	-70.7	144.8	255.3	221.2	34.13	7.480			
7,300.0	7,295.0	7,283.9	7,278.7	18.2	18.2	-146.50	-74.7	151.2	267.9	233.2	34.71	7.720			
7,400.0	7,394.7	7,383.1	7,377.6	18.5	18.5	-146.50	-78.7	157.7	280.6	245.3	35.30	7.949			
7,500.0	7,494.4	7,482.3	7,476.5	18.9	18.9	-146.50	-82.7	164.1	293.2	257.3	35.90	8.167			
7,600.0	7,594.1	7,581.5	7,575.4	19.3	19.3	-146.50	-86.7	170.6	305.8	269.3	36.52	8.375			
7,700.0	7,693.9	7,680.7	7,674.3	19.6	19.6	-146.50	-90.7	177.0	318.5	281.3	37.15	8.574			
7,800.0	7,793.6	7,779.9	7,773.2	20.0	20.0	-146.50	-94.7	183.5	331.1	293.3	37.79	8.763			
7,900.0	7,893.3	7,879.1	7,872.1	20.4	20.4	-146.50	-98.6	189.9	343.7	305.3	38.44	8.943			
8,000.0	7,993.0	7,978.3	7,971.1	20.8	20.8	-146.50	-102.6	196.4	356.4	317.3	39.10	9.116			
8,100.0	8,092.8	8,077.5	8,070.0	21.2	21.2	-146.50	-106.6	202.9	369.0	329.3	39.77	9.280			
8,200.0	8,192.5	8,176.7	8,168.9	21.6	21.6	-146.50	-110.6	209.3	381.7	341.2	40.44	9.437			
8,300.0	8,292.2	8,275.9	8,267.8	22.0	22.0	-146.50	-114.6	215.8	394.3	353.2	41.13	9.586			
8,400.0	8,391.9	8,375.1	8,366.7	22.5	22.5	-146.50	-118.6	222.2	406.9	365.1	41.83	9.729			
8,500.0	8,491.7	8,474.3	8,465.6	22.9	22.9	-146.50	-122.6	228.7	419.6	377.0	42.53	9.865			
8,600.0	8,591.4	8,573.5	8,564.5	23.3	23.3	-146.50	-126.5	235.1	432.2	388.9	43.24	9.995			
8,700.0	8,691.1	8,672.7	8,663.4	23.7	23.7	-146.50	-130.5	241.6	444.8	400.9	43.96	10.119			
8,800.0	8,790.8	8,771.9	8,762.3	24.2	24.2	-146.50	-134.5	248.0	457.5	412.8	44.68	10.238			
8,900.0	8,890.6	8,871.1	8,861.2	24.6	24.6	-146.50	-138.5	254.5	470.1	424.7	45.41	10.352			
9,000.0	8,990.3	8,970.3	8,960.1	25.1	25.0	-146.50	-142.5	260.9	482.7	436.6	46.15	10.460			
9,100.0	9,090.0	9,069.5	9,059.0	25.5	25.5	-146.50	-146.5	267.4	495.4	448.5	46.89	10.564			
9,200.0	9,189.7	9,168.7	9,157.9	26.0	25.9	-146.50	-150.5	273.8	508.0	460.4	47.64	10.663			
9,300.0	9,289.4	9,267.9	9,256.9	26.4	26.4	-146.50	-154.4	280.3	520.6	472.2	48.40	10.758			
9,400.0	9,389.2	9,367.1	9,355.8	26.9	26.8	-146.50	-158.4	286.7	533.3	484.1	49.15	10.849			
9,500.0	9,488.9	9,466.3	9,454.7	27.3	27.3	-146.50	-162.4	293.2	545.9	496.0	49.92	10.936			
9,600.0	9,588.6	9,565.5	9,553.6	27.8	27.8	-146.50	-166.4	299.7	558.5	507.9	50.69	11.020			
9,700.0	9,688.3	9,664.7	9,652.5	28.2	28.2	-146.50	-170.4	306.1	571.2	519.7	51.46	11.100			
9,800.0	9,788.1	9,763.9	9,751.4	28.7	28.7	-146.50	-174.4	312.6	583.8	531.6	52.24	11.176			
9,900.0	9,887.8	9,863.1	9,850.3	29.2	29.1	-146.50	-178.4	319.0	596.4	543.4	53.02	11.250			
10,000.0	9,987.5	9,962.3	9,949.2	29.6	29.6	-146.50	-182.3	325.5	609.1	555.3	53.80	11.321			
10,100.0	10,087.2	10,061.5	10,048.1	30.1	30.1	-146.50	-186.3	331.9	621.7	567.1	54.59	11.389			
10,200.0	10,187.0	10,160.7	10,147.0	30.6	30.5	-146.50	-190.3	338.4	634.3	579.0	55.38	11.454			
10,237.3	10,224.1	10,197.7	10,183.9	30.7	30.7	-146.50	-191.8	340.8	639.1	583.4	55.67	11.480			
10,300.0	10,286.7	10,259.9	10,246.0	31.0	31.0	-146.52	-194.3	344.8	646.7	590.5	56.15	11.518			
10,400.0	10,386.6	10,359.3	10,345.1	31.4	31.5	-146.49	-198.3	351.3	657.7	600.8	56.91	11.556			
10,500.0	10,486.5	10,462.4	10,447.8	31.8	32.0	-146.36	-202.4	357.9	667.2	609.5	57.65	11.573			
10,600.0	10,586.5	10,573.1	10,558.4	32.2	32.4	-146.20	-205.9	363.6	674.0	615.6	58.36	11.548			
10,663.5	10,650.0	10,643.6	10,628.8	32.3	32.7	89.79	-207.6	366.3	676.7	618.0	58.70	11.527			
10,700.0	10,686.5	10,684.1	10,669.3	32.3	32.9	89.86	-208.3	367.5	677.7	618.9	58.85	11.517			
10,801.1	10,787.5	10,796.5	10,781.6	32.3	33.3	89.97	-209.6	369.6	679.6	620.4	59.25	11.471			
10,825.0	10,811.4	10,823.1	10,808.2	32.3	33.4	98.37	-209.7	369.8	679.9	620.6	59.30	11.465			
10,850.0	10,836.4	10,850.8	10,836.0	32.3	33.4	98.51	-209.8	369.9	680.3	620.9	59.35	11.461			
10,875.0	10,861.2	10,877.0	10,862.2	32.3	33.4	98.73	-209.8	369.9	680.8	621.4	59.39	11.462			
10,900.0	10,885.8	10,901.6	10,886.8	32.2	33.4	99.02	-209.8	369.9	681.5	622.1	59.41	11.470			
10,925.0	10,910.1	10,925.9	10,911.1	32.2	33.5	99.37	-209.8	369.9	682.4	623.0	59.44	11.481			
10,950.0	10,934.1	10,949.9	10,935.1	32.1	33.5	99.78	-209.8	369.9	683.7	624.2	59.46	11.498			
10,975.0	10,957.6	10,973.5	10,958.6	32.1	33.5	100.25	-209.8	369.9	685.2	625.7	59.48	11.520			
11,000.0	10,980.8	10,995.7	10,980.8	32.0	33.5	100.72	-209.7	369.9	687.1	627.6	59.49	11.548			
11,025.0	11,003.3	11,016.6	11,001.7	31.9	33.4	101.12	-208.9	370.0	689.4	629.9	59.50	11.586			
11,050.0	11,025.3	11,037.8	11,022.8	31.9	33.4	101.48	-207.2	370.3	692.1	632.6	59.50	11.631			

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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
11,075.0	11,046.7	11,059.3	11,044.1	31.8	33.4	101.81	-204.5	370.6	695.3	635.8	59.50	11.686
11,100.0	11,067.3	11,081.1	11,065.6	31.8	33.3	102.10	-200.7	371.2	699.0	639.5	59.49	11.749
11,125.0	11,087.2	11,103.2	11,087.2	31.8	33.3	102.36	-196.0	371.8	703.1	643.6	59.48	11.820
11,150.0	11,106.2	11,125.7	11,108.9	31.7	33.3	102.58	-190.1	372.6	707.6	648.1	59.46	11.899
11,175.0	11,124.4	11,148.6	11,130.7	31.7	33.2	102.76	-183.1	373.5	712.5	653.0	59.44	11.986
11,200.0	11,141.6	11,172.0	11,152.5	31.7	33.2	102.91	-174.9	374.7	717.8	658.4	59.42	12.080
11,225.0	11,157.9	11,195.7	11,174.3	31.7	33.1	103.02	-165.5	375.9	723.5	664.1	59.40	12.180
11,250.0	11,173.2	11,220.0	11,196.0	31.6	33.1	103.09	-154.8	377.4	729.6	670.2	59.38	12.286
11,275.0	11,187.4	11,244.7	11,217.6	31.6	33.0	103.13	-142.7	379.0	736.0	676.6	59.37	12.396
11,300.0	11,200.5	11,270.1	11,239.0	31.7	33.0	103.13	-129.3	380.8	742.7	683.3	59.37	12.510
11,325.0	11,212.5	11,296.0	11,260.1	31.7	32.9	103.10	-114.4	382.9	749.7	690.4	59.38	12.626
11,350.0	11,223.3	11,322.5	11,280.8	31.7	32.9	103.04	-98.0	385.1	757.1	697.7	59.40	12.745
11,375.0	11,232.9	11,349.8	11,301.1	31.7	32.9	102.95	-80.0	387.5	764.6	705.2	59.45	12.863
11,400.0	11,241.3	11,377.7	11,320.8	31.8	32.8	102.82	-60.3	390.2	772.5	712.9	59.51	12.981
11,425.0	11,248.5	11,406.5	11,339.9	31.9	32.8	102.67	-38.9	393.1	780.5	720.9	59.59	13.096
11,450.0	11,254.3	11,436.1	11,358.1	31.9	32.8	102.48	-15.8	396.2	788.6	728.9	59.71	13.208
11,475.0	11,259.0	11,466.7	11,375.3	32.0	32.8	102.27	9.2	399.6	796.9	737.1	59.84	13.316
11,500.0	11,262.3	11,498.2	11,391.3	32.1	32.8	102.03	36.1	403.2	805.3	745.3	60.01	13.419
11,525.0	11,264.3	11,530.7	11,406.0	32.2	32.9	101.75	64.9	407.1	813.8	753.6	60.21	13.515
11,551.1	11,265.0	11,565.9	11,419.5	32.3	32.9	101.44	97.0	411.5	822.6	762.2	60.45	13.608
11,554.1	11,265.0	11,570.0	11,421.0	32.4	32.9	101.53	100.9	412.0	823.6	763.2	60.48	13.618
11,600.0	11,265.0	11,636.3	11,439.3	32.6	33.1	102.51	163.9	420.6	838.3	777.3	61.00	13.743
11,700.0	11,265.0	11,782.6	11,450.0	33.3	33.6	102.59	308.2	439.9	863.4	801.1	62.38	13.842
11,800.0	11,265.0	11,922.8	11,450.0	34.1	34.5	102.17	447.7	453.4	880.4	816.2	64.18	13.718
11,900.0	11,265.0	12,065.5	11,450.0	35.0	35.7	101.96	590.3	460.2	889.2	822.9	66.34	13.405
11,950.6	11,265.0	12,138.2	11,450.0	35.4	36.3	101.92	662.9	460.9	890.6	823.1	67.41	13.211
12,000.0	11,265.0	12,190.8	11,450.0	35.8	36.7	101.92	715.5	460.5	890.6	822.3	68.28	13.043
12,100.0	11,265.0	12,290.8	11,450.0	36.7	37.5	101.92	815.5	459.9	890.7	820.6	70.14	12.700
12,200.0	11,265.0	12,390.8	11,450.0	37.7	38.5	101.92	915.5	459.2	890.9	818.7	72.16	12.345
12,300.0	11,265.0	12,490.8	11,450.0	38.7	39.5	101.92	1,015.5	458.5	891.0	816.6	74.35	11.983
12,400.0	11,265.0	12,590.8	11,450.0	39.9	40.6	101.92	1,115.5	457.9	891.1	814.4	76.68	11.621
12,500.0	11,265.0	12,690.8	11,450.0	41.1	41.7	101.92	1,215.5	457.2	891.2	812.1	79.14	11.261
12,600.0	11,265.0	12,790.8	11,450.0	42.3	42.9	101.91	1,315.5	456.6	891.3	809.6	81.72	10.907
12,700.0	11,265.0	12,890.8	11,450.0	43.6	44.2	101.91	1,415.5	455.9	891.4	807.0	84.41	10.561
12,800.0	11,265.0	12,990.8	11,450.0	45.0	45.5	101.91	1,515.5	455.2	891.6	804.4	87.20	10.225
12,900.0	11,265.0	13,090.8	11,450.0	46.4	46.9	101.91	1,615.5	454.6	891.7	801.6	90.07	9.900
13,000.0	11,265.0	13,190.8	11,450.0	47.9	48.3	101.91	1,715.5	453.9	891.8	798.8	93.03	9.586
13,100.0	11,265.0	13,290.8	11,450.0	49.4	49.8	101.91	1,815.5	453.3	891.9	795.9	96.06	9.285
13,200.0	11,265.0	13,390.8	11,450.0	50.9	51.3	101.90	1,915.5	452.6	892.0	792.9	99.16	8.996
13,300.0	11,265.0	13,490.8	11,450.0	52.5	52.8	101.90	2,015.5	451.9	892.1	789.8	102.31	8.720
13,400.0	11,265.0	13,590.8	11,450.0	54.1	54.4	101.90	2,115.5	451.3	892.3	786.7	105.53	8.455
13,500.0	11,265.0	13,690.8	11,450.0	55.7	56.0	101.90	2,215.5	450.6	892.4	783.6	108.79	8.203
13,600.0	11,265.0	13,790.8	11,450.0	57.4	57.6	101.90	2,315.5	450.0	892.5	780.4	112.10	7.962
13,700.0	11,265.0	13,890.8	11,450.0	59.1	59.2	101.90	2,415.5	449.3	892.6	777.2	115.45	7.732
13,800.0	11,265.0	13,990.8	11,450.0	60.8	60.9	101.89	2,515.5	448.6	892.7	773.9	118.84	7.512
13,900.0	11,265.0	14,090.8	11,450.0	62.5	62.6	101.89	2,615.5	448.0	892.8	770.6	122.26	7.303
14,000.0	11,265.0	14,190.8	11,450.0	64.2	64.3	101.89	2,715.5	447.3	893.0	767.2	125.72	7.103
14,100.0	11,265.0	14,290.8	11,450.0	66.0	66.1	101.89	2,815.5	446.6	893.1	763.9	129.21	6.912
14,200.0	11,265.0	14,390.8	11,450.0	67.8	67.8	101.89	2,915.5	446.0	893.2	760.5	132.72	6.730
14,300.0	11,265.0	14,490.8	11,450.0	69.6	69.6	101.89	3,015.5	445.3	893.3	757.1	136.26	6.556
14,400.0	11,265.0	14,590.8	11,450.0	71.4	71.3	101.89	3,115.5	444.7	893.4	753.6	139.82	6.390
14,500.0	11,265.0	14,690.8	11,450.0	73.2	73.1	101.88	3,215.5	444.0	893.5	750.1	143.41	6.231

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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
14,600.0	11,265.0	14,790.8	11,450.0	75.0	74.9	101.88	3,315.5	443.3	893.7	746.7	147.01	6.079
14,700.0	11,265.0	14,890.8	11,450.0	76.8	76.7	101.88	3,415.5	442.7	893.8	743.1	150.63	5.933
14,800.0	11,265.0	14,990.8	11,450.0	78.7	78.6	101.88	3,515.5	442.0	893.9	739.6	154.27	5.794
14,900.0	11,265.0	15,090.8	11,450.0	80.5	80.4	101.88	3,615.5	441.4	894.0	736.1	157.93	5.661
15,000.0	11,265.0	15,190.8	11,450.0	82.4	82.2	101.88	3,715.5	440.7	894.1	732.5	161.60	5.533
15,100.0	11,265.0	15,290.8	11,450.0	84.2	84.1	101.87	3,815.5	440.0	894.2	729.0	165.29	5.410
15,200.0	11,265.0	15,390.8	11,450.0	86.1	86.0	101.87	3,915.5	439.4	894.4	725.4	168.98	5.293
15,300.0	11,265.0	15,490.8	11,450.0	88.0	87.8	101.87	4,015.5	438.7	894.5	721.8	172.69	5.180
15,400.0	11,265.0	15,590.8	11,450.0	89.9	89.7	101.87	4,115.5	438.0	894.6	718.2	176.42	5.071
15,500.0	11,265.0	15,690.8	11,450.0	91.8	91.6	101.87	4,215.5	437.4	894.7	714.6	180.15	4.967
15,600.0	11,265.0	15,790.8	11,450.0	93.7	93.5	101.87	4,315.5	436.7	894.8	710.9	183.89	4.866
15,700.0	11,265.0	15,890.8	11,450.0	95.6	95.3	101.86	4,415.4	436.1	894.9	707.3	187.64	4.769
15,800.0	11,265.0	15,990.8	11,450.0	97.5	97.2	101.86	4,515.4	435.4	895.1	703.7	191.40	4.676
15,900.0	11,265.0	16,090.8	11,450.0	99.4	99.1	101.86	4,615.4	434.7	895.2	700.0	195.17	4.587
16,000.0	11,265.0	16,190.8	11,450.0	101.3	101.1	101.86	4,715.4	434.1	895.3	696.3	198.95	4.500
16,100.0	11,265.0	16,290.8	11,450.0	103.2	103.0	101.86	4,815.4	433.4	895.4	692.7	202.74	4.417
16,200.0	11,265.0	16,390.8	11,450.0	105.2	104.9	101.86	4,915.4	432.8	895.5	689.0	206.53	4.336
16,300.0	11,265.0	16,490.8	11,450.0	107.1	106.8	101.86	5,015.4	432.1	895.6	685.3	210.33	4.258
16,400.0	11,265.0	16,590.8	11,450.0	109.0	108.7	101.85	5,115.4	431.4	895.8	681.6	214.13	4.183
16,500.0	11,265.0	16,690.8	11,450.0	110.9	110.6	101.85	5,215.4	430.8	895.9	677.9	217.94	4.111
16,600.0	11,265.0	16,790.8	11,450.0	112.9	112.6	101.85	5,315.4	430.1	896.0	674.2	221.76	4.040
16,700.0	11,265.0	16,890.8	11,450.0	114.8	114.5	101.85	5,415.4	429.5	896.1	670.5	225.58	3.972
16,800.0	11,265.0	16,990.8	11,450.0	116.8	116.4	101.85	5,515.4	428.8	896.2	666.8	229.41	3.907
16,900.0	11,265.0	17,090.8	11,450.0	118.7	118.4	101.85	5,615.4	428.1	896.3	663.1	233.24	3.843
17,000.0	11,265.0	17,190.8	11,450.0	120.7	120.3	101.84	5,715.4	427.5	896.5	659.4	237.08	3.781
17,100.0	11,265.0	17,290.8	11,450.0	122.6	122.2	101.84	5,815.4	426.8	896.6	655.7	240.92	3.721
17,200.0	11,265.0	17,390.8	11,450.0	124.6	124.2	101.84	5,915.4	426.1	896.7	651.9	244.76	3.664
17,300.0	11,265.0	17,490.8	11,450.0	126.5	126.1	101.84	6,015.4	425.5	896.8	648.2	248.61	3.607
17,400.0	11,265.0	17,590.8	11,450.0	128.5	128.1	101.84	6,115.4	424.8	896.9	644.5	252.47	3.553
17,500.0	11,265.0	17,690.8	11,450.0	130.4	130.0	101.84	6,215.4	424.2	897.0	640.7	256.32	3.500
17,600.0	11,265.0	17,790.8	11,450.0	132.4	132.0	101.83	6,315.4	423.5	897.2	637.0	260.19	3.448
17,700.0	11,265.0	17,890.8	11,450.0	134.3	133.9	101.83	6,415.4	422.8	897.3	633.2	264.05	3.398
17,800.0	11,265.0	17,990.8	11,450.0	136.3	135.9	101.83	6,515.4	422.2	897.4	629.5	267.92	3.350
17,900.0	11,265.0	18,090.8	11,450.0	138.3	137.9	101.83	6,615.4	421.5	897.5	625.7	271.79	3.302
18,000.0	11,265.0	18,190.8	11,450.0	140.2	139.8	101.83	6,715.4	420.9	897.6	622.0	275.66	3.256
18,100.0	11,265.0	18,290.8	11,450.0	142.2	141.8	101.83	6,815.4	420.2	897.7	618.2	279.54	3.212
18,200.0	11,265.0	18,390.8	11,450.0	144.2	143.8	101.83	6,915.4	419.5	897.9	614.5	283.41	3.168
18,300.0	11,265.0	18,490.8	11,450.0	146.1	145.7	101.82	7,015.4	418.9	898.0	610.7	287.30	3.126
18,400.0	11,265.0	18,590.8	11,450.0	148.1	147.7	101.82	7,115.4	418.2	898.1	606.9	291.18	3.084
18,500.0	11,265.0	18,690.8	11,450.0	150.1	149.6	101.82	7,215.4	417.5	898.2	603.1	295.07	3.044
18,600.0	11,265.0	18,790.8	11,450.0	152.1	151.6	101.82	7,315.4	416.9	898.3	599.4	298.95	3.005
18,700.0	11,265.0	18,890.8	11,450.0	154.0	153.6	101.82	7,415.4	416.2	898.4	595.6	302.84	2.967
18,800.0	11,265.0	18,990.8	11,450.0	156.0	155.6	101.82	7,515.4	415.6	898.6	591.8	306.74	2.929
18,900.0	11,265.0	19,090.8	11,450.0	158.0	157.5	101.81	7,615.4	414.9	898.7	588.0	310.63	2.893
19,000.0	11,265.0	19,190.8	11,450.0	160.0	159.5	101.81	7,715.4	414.2	898.8	584.3	314.53	2.858
19,100.0	11,265.0	19,290.8	11,450.0	161.9	161.5	101.81	7,815.4	413.6	898.9	580.5	318.43	2.823
19,200.0	11,265.0	19,390.8	11,450.0	163.9	163.5	101.81	7,915.4	412.9	899.0	576.7	322.33	2.789
19,300.0	11,265.0	19,490.8	11,450.0	165.9	165.4	101.81	8,015.4	412.3	899.1	572.9	326.23	2.756
19,365.6	11,265.0	19,556.5	11,450.0	167.2	166.7	101.81	8,081.0	411.8	899.2	570.4	328.79	2.735
19,366.3	11,265.0	19,557.1	11,450.0	167.2	166.7	101.81	8,081.6	411.8	899.2	570.4	328.82	2.735

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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	
0.0	0.0	1.0	1.0	0.0	0.0	-90.38	-0.2	-29.9	29.9				
100.0	100.0	101.0	101.0	0.5	0.5	-90.38	-0.2	-29.9	29.9	28.9	1.07	27.910	
200.0	200.0	201.0	201.0	1.7	1.7	-90.38	-0.2	-29.9	29.9	26.5	3.43	8.723	
300.0	300.0	301.0	301.0	2.4	2.4	-90.38	-0.2	-29.9	29.9	25.1	4.83	6.197	
400.0	400.0	401.0	401.0	3.0	3.0	-90.38	-0.2	-29.9	29.9	24.0	5.91	5.061	
500.0	500.0	501.0	501.0	3.4	3.4	-90.38	-0.2	-29.9	29.9	23.1	6.83	4.378	
600.0	600.0	601.0	601.0	3.8	3.8	-90.38	-0.2	-29.9	29.9	22.3	7.65	3.910	
700.0	700.0	701.0	701.0	4.2	4.2	-90.38	-0.2	-29.9	29.9	21.5	8.40	3.563	
800.0	800.0	801.0	801.0	4.5	4.5	-90.38	-0.2	-29.9	29.9	20.8	9.09	3.293	
900.0	900.0	901.0	901.0	4.9	4.9	-90.38	-0.2	-29.9	29.9	20.2	9.73	3.074	
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-90.38	-0.2	-29.9	29.9	19.6	10.34	2.893	
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-90.38	-0.2	-29.9	29.9	19.0	10.93	2.739	
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-90.38	-0.2	-29.9	29.9	18.4	11.48	2.606	
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-90.38	-0.2	-29.9	29.9	17.9	12.02	2.490	
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-90.38	-0.2	-29.9	29.9	17.4	12.53	2.387	
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-90.38	-0.2	-29.9	29.9	16.9	13.03	2.296	
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-90.38	-0.2	-29.9	29.9	16.4	13.52	2.213	
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-90.38	-0.2	-29.9	29.9	15.9	13.99	2.139	
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-90.38	-0.2	-29.9	29.9	15.5	14.45	2.071	
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-90.38	-0.2	-29.9	29.9	15.0	14.90	2.008	
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-90.38	-0.2	-29.9	29.9	14.6	15.34	1.950	
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-90.38	-0.2	-29.9	29.9	14.2	15.77	1.897	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-90.38	-0.2	-29.9	29.9	13.7	16.19	1.848	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-90.38	-0.2	-29.9	29.9	13.3	16.61	1.802	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-90.38	-0.2	-29.9	29.9	12.9	17.02	1.758	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-90.38	-0.2	-29.9	29.9	12.5	17.42	1.718	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-90.38	-0.2	-29.9	29.9	12.1	17.81	1.680	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-90.38	-0.2	-29.9	29.9	11.7	18.20	1.644	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-90.38	-0.2	-29.9	29.9	11.3	18.59	1.610	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-90.38	-0.2	-29.9	29.9	11.0	18.97	1.578	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-90.38	-0.2	-29.9	29.9	10.6	19.34	1.547	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-90.38	-0.2	-29.9	29.9	10.2	19.71	1.518	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-90.38	-0.2	-29.9	29.9	9.8	20.08	1.490 Level 3	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-90.38	-0.2	-29.9	29.9	9.5	20.44	1.464 Level 3	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-90.38	-0.2	-29.9	29.9	9.1	20.80	1.439 Level 3	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-90.38	-0.2	-29.9	29.9	8.8	21.15	1.415 Level 3	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-90.38	-0.2	-29.9	29.9	8.4	21.50	1.392 Level 3	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-90.38	-0.2	-29.9	29.9	8.1	21.85	1.370 Level 3	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-90.38	-0.2	-29.9	29.9	7.7	22.19	1.348 Level 3	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-90.38	-0.2	-29.9	29.9	7.4	22.53	1.328 Level 3	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-90.38	-0.2	-29.9	29.9	7.1	22.87	1.308 Level 3	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-90.38	-0.2	-29.9	29.9	6.7	23.21	1.289 Level 3	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-90.38	-0.2	-29.9	29.9	6.4	23.54	1.271 Level 3	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-90.38	-0.2	-29.9	29.9	6.1	23.87	1.253 Level 3	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-90.38	-0.2	-29.9	29.9	5.7	24.20	1.236 Level 3	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-90.38	-0.2	-29.9	29.9	5.4	24.53	1.220 Level 3	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-90.38	-0.2	-29.9	29.9	5.1	24.85	1.204 Level 3	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-90.38	-0.2	-29.9	29.9	4.8	25.17	1.189 Level 3	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-90.38	-0.2	-29.9	29.9	4.4	25.49	1.174 Level 3	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-90.38	-0.2	-29.9	29.9	4.1	25.81	1.159 Level 3	
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	-90.38	-0.2	-29.9	29.9	4.1	25.86	1.157 Level 3, CC	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-90.38	-0.2	-29.9	29.9	3.8	26.13	1.145 Level 3, ES	

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



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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		Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Rule Assigned: Distance		Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
5,100.0	5,100.0	5,100.5	5,100.5	13.2	13.2	-91.19	-0.6	-30.7	30.7	4.3	26.38	1.164	Level 3		
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.3	-93.36	-1.9	-33.0	33.0	6.4	26.63	1.240	Level 3		
5,300.0	5,300.0	5,299.4	5,299.3	13.5	13.4	28.38	-4.1	-36.7	36.2	9.4	26.82	1.350	Level 3		
5,400.0	5,400.0	5,398.7	5,398.4	13.6	13.5	26.57	-7.1	-42.0	39.5	12.5	27.02	1.461	Level 3		
5,500.0	5,499.9	5,498.6	5,498.0	13.7	13.6	25.46	-10.7	-48.3	42.3	15.1	27.21	1.556			
5,600.0	5,599.7	5,598.5	5,597.7	13.8	13.8	25.42	-14.4	-54.6	43.7	16.2	27.48	1.589			
5,626.3	5,625.9	5,624.8	5,623.9	13.8	13.8	25.57	-15.3	-56.3	43.8	16.2	27.53	1.589			
5,700.0	5,699.4	5,698.5	5,697.4	13.9	13.9	26.10	-18.0	-61.0	43.9	16.1	27.72	1.582			
5,800.0	5,799.1	5,798.5	5,797.1	14.0	14.1	26.81	-21.7	-67.4	44.0	15.9	28.05	1.568			
5,900.0	5,898.8	5,898.5	5,896.9	14.2	14.4	27.52	-25.3	-73.7	44.1	15.7	28.40	1.554			
6,000.0	5,998.6	5,998.5	5,996.6	14.4	14.6	28.22	-29.0	-80.1	44.3	15.5	28.77	1.539			
6,100.0	6,098.3	6,098.5	6,096.3	14.6	14.8	28.92	-32.6	-86.4	44.4	15.3	29.17	1.523			
6,200.0	6,198.0	6,198.5	6,196.1	14.8	15.1	29.61	-36.2	-92.8	44.6	15.0	29.58	1.507			
6,300.0	6,297.7	6,298.5	6,295.8	15.1	15.4	30.29	-39.9	-99.2	44.8	14.7	30.02	1.491	Level 3		
6,400.0	6,397.5	6,398.5	6,395.5	15.3	15.7	30.98	-43.5	-105.5	44.9	14.5	30.47	1.475	Level 3		
6,500.0	6,497.2	6,498.5	6,495.3	15.6	16.0	31.65	-47.2	-111.9	45.1	14.2	30.93	1.459	Level 3		
6,600.0	6,596.9	6,598.5	6,595.0	15.9	16.3	32.32	-50.8	-118.2	45.3	13.9	31.41	1.443	Level 3		
6,700.0	6,696.6	6,698.5	6,694.7	16.2	16.6	32.99	-54.5	-124.6	45.5	13.6	31.89	1.427	Level 3		
6,800.0	6,796.4	6,798.5	6,794.4	16.5	16.9	33.65	-58.1	-131.0	45.7	13.3	32.39	1.411	Level 3		
6,900.0	6,896.1	6,898.5	6,894.2	16.8	17.3	34.30	-61.8	-137.3	45.9	13.0	32.90	1.396	Level 3		
7,000.0	6,995.8	6,998.5	6,993.9	17.1	17.6	34.95	-65.4	-143.7	46.1	12.7	33.41	1.381	Level 3		
7,100.0	7,095.5	7,098.5	7,093.6	17.5	18.0	35.59	-69.1	-150.0	46.3	12.4	33.93	1.366	Level 3		
7,200.0	7,195.3	7,198.5	7,193.4	17.8	18.3	36.22	-72.7	-156.4	46.6	12.1	34.45	1.352	Level 3		
7,300.0	7,295.0	7,298.5	7,293.1	18.2	18.7	36.85	-76.4	-162.8	46.8	11.8	34.98	1.338	Level 3		
7,400.0	7,394.7	7,398.5	7,392.8	18.5	19.1	37.48	-80.0	-169.1	47.0	11.5	35.51	1.324	Level 3		
7,500.0	7,494.4	7,498.5	7,492.5	18.9	19.5	38.09	-83.7	-175.5	47.3	11.2	36.04	1.311	Level 3		
7,600.0	7,594.1	7,598.5	7,592.3	19.3	19.9	38.70	-87.3	-181.8	47.5	10.9	36.58	1.299	Level 3		
7,700.0	7,693.9	7,698.5	7,692.0	19.6	20.3	39.31	-91.0	-188.2	47.8	10.6	37.11	1.287	Level 3		
7,800.0	7,793.6	7,798.5	7,791.7	20.0	20.7	39.91	-94.6	-194.6	48.0	10.4	37.65	1.275	Level 3		
7,900.0	7,893.3	7,898.5	7,891.5	20.4	21.1	40.50	-98.2	-200.9	48.3	10.1	38.18	1.264	Level 3		
8,000.0	7,993.0	7,998.5	7,991.2	20.8	21.5	41.08	-101.9	-207.3	48.5	9.8	38.72	1.254	Level 3		
8,100.0	8,092.8	8,098.5	8,090.9	21.2	21.9	41.66	-105.5	-213.7	48.8	9.6	39.25	1.244	Level 3		
8,200.0	8,192.5	8,198.5	8,190.6	21.6	22.3	42.23	-109.2	-220.0	49.1	9.3	39.78	1.234	Level 3		
8,300.0	8,292.2	8,298.5	8,290.4	22.0	22.7	42.80	-112.8	-226.4	49.4	9.1	40.31	1.225	Level 3		
8,400.0	8,391.9	8,398.5	8,390.1	22.5	23.2	43.36	-116.5	-232.7	49.7	8.8	40.83	1.216	Level 3		
8,500.0	8,491.7	8,498.5	8,489.8	22.9	23.6	43.91	-120.1	-239.1	49.9	8.6	41.35	1.208	Level 3		
8,600.0	8,591.4	8,598.5	8,589.6	23.3	24.0	44.46	-123.8	-245.5	50.2	8.4	41.87	1.200	Level 3		
8,700.0	8,691.1	8,698.5	8,689.3	23.7	24.5	45.00	-127.4	-251.8	50.5	8.2	42.39	1.192	Level 3		
8,800.0	8,790.8	8,798.5	8,789.0	24.2	24.9	45.53	-131.1	-258.2	50.8	8.0	42.90	1.185	Level 3		
8,900.0	8,890.6	8,898.5	8,888.8	24.6	25.4	46.06	-134.7	-264.5	51.2	7.8	43.41	1.179	Level 3		
9,000.0	8,990.3	8,998.5	8,988.5	25.1	25.8	46.58	-138.4	-270.9	51.5	7.6	43.91	1.172	Level 3		
9,100.0	9,090.0	9,098.5	9,088.2	25.5	26.3	47.09	-142.0	-277.3	51.8	7.4	44.41	1.166	Level 3		
9,200.0	9,189.7	9,198.5	9,187.9	26.0	26.7	47.60	-145.7	-283.6	52.1	7.2	44.90	1.161	Level 3		
9,300.0	9,289.4	9,298.5	9,287.7	26.4	27.2	48.10	-149.3	-290.0	52.4	7.0	45.39	1.155	Level 3		
9,400.0	9,389.2	9,398.5	9,387.4	26.9	27.6	48.60	-153.0	-296.3	52.8	6.9	45.87	1.150	Level 3		
9,500.0	9,488.9	9,498.5	9,487.1	27.3	28.1	49.09	-156.6	-302.7	53.1	6.7	46.35	1.145	Level 3		
9,600.0	9,588.6	9,598.5	9,586.9	27.8	28.6	49.57	-160.2	-309.1	53.4	6.6	46.83	1.141	Level 3		
9,700.0	9,688.3	9,698.5	9,686.6	28.2	29.0	50.05	-163.9	-315.4	53.8	6.5	47.30	1.137	Level 3		
9,800.0	9,788.1	9,798.5	9,786.3	28.7	29.5	50.52	-167.5	-321.8	54.1	6.3	47.77	1.133	Level 3		
9,900.0	9,887.8	9,898.5	9,886.0	29.2	30.0	50.98	-171.2	-328.2	54.5	6.2	48.23	1.129	Level 3		
10,000.0	9,987.5	9,998.5	9,985.8	29.6	30.4	51.44	-174.8	-334.5	54.8	6.1	48.68	1.126	Level 3		
10,100.0	10,087.2	10,098.5	10,085.5	30.1	30.9	51.90	-178.5	-340.9	55.2	6.0	49.13	1.123	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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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	
10,200.0	10,187.0	10,198.5	10,185.2	30.6	31.4	52.34	-182.1	-347.2	55.5	5.9	49.58	1.120	Level 3
10,237.3	10,224.1	10,235.7	10,222.4	30.7	31.6	52.51	-183.5	-349.6	55.7	5.9	49.73	1.119	Level 3, SF
10,300.0	10,286.7	10,298.5	10,285.0	31.0	31.9	52.51	-185.8	-353.6	56.1	6.0	50.10	1.120	Level 3
10,400.0	10,386.6	10,398.5	10,384.7	31.4	32.3	51.40	-189.4	-360.0	57.7	6.5	51.18	1.127	Level 3
10,500.0	10,486.5	10,498.4	10,484.3	31.8	32.8	49.08	-193.1	-366.3	60.4	7.6	52.79	1.144	Level 3
10,600.0	10,586.5	10,598.2	10,583.9	32.2	33.3	45.84	-196.7	-372.7	64.4	9.6	54.80	1.175	Level 3
10,663.5	10,650.0	10,661.6	10,647.1	32.3	33.6	-80.65	-199.0	-376.7	67.7	11.6	56.14	1.206	Level 3
10,700.0	10,686.5	10,698.0	10,683.4	32.3	33.8	-82.04	-200.3	-379.0	69.8	12.9	56.87	1.227	Level 3
10,801.1	10,787.5	10,798.8	10,783.9	32.3	34.3	-85.47	-204.0	-385.4	75.8	17.1	58.73	1.291	Level 3
10,825.0	10,811.4	10,822.6	10,807.7	32.3	34.4	-78.10	-204.9	-386.9	77.1	17.8	59.30	1.301	Level 3
10,850.0	10,836.4	10,847.4	10,832.5	32.3	34.5	-80.04	-205.8	-388.5	78.3	18.1	60.23	1.300	Level 3
10,875.0	10,861.2	10,872.1	10,857.0	32.3	34.6	-82.83	-206.7	-390.1	79.5	18.0	61.42	1.294	Level 3
10,900.0	10,885.8	10,896.5	10,881.4	32.2	34.7	-86.38	-207.6	-391.6	80.7	17.9	62.78	1.285	Level 3
10,925.0	10,910.1	10,920.9	10,905.7	32.2	34.8	-90.63	-208.4	-393.1	82.2	18.1	64.18	1.281	Level 3
10,950.0	10,934.1	10,945.0	10,929.8	32.1	34.9	-95.39	-209.2	-394.5	84.3	18.8	65.47	1.287	Level 3
10,975.0	10,957.6	10,968.7	10,953.4	32.1	35.1	-100.49	-210.0	-395.8	87.1	20.6	66.50	1.310	Level 3
11,000.0	10,980.8	10,991.9	10,976.6	32.0	35.2	-105.74	-210.7	-397.0	91.0	23.9	67.12	1.356	Level 3
11,025.0	11,003.3	11,014.7	10,999.3	31.9	35.3	-110.93	-211.3	-398.1	96.2	28.9	67.25	1.430	Level 3
11,050.0	11,025.3	11,036.8	11,021.4	31.9	35.4	-115.88	-211.8	-399.0	102.8	35.9	66.89	1.537	
11,075.0	11,046.7	11,058.3	11,042.9	31.8	35.5	-120.47	-212.3	-399.9	110.9	44.8	66.11	1.678	
11,100.0	11,067.3	11,079.1	11,063.6	31.8	35.5	-124.59	-212.8	-400.7	120.7	55.6	65.01	1.856	
11,125.0	11,087.2	11,099.1	11,083.7	31.8	35.6	-128.22	-213.2	-401.4	131.9	68.2	63.73	2.070	
11,150.0	11,106.2	11,118.3	11,102.9	31.7	35.7	-131.34	-213.5	-402.0	144.7	82.3	62.36	2.320	
11,175.0	11,124.4	11,136.7	11,121.2	31.7	35.8	-133.95	-213.8	-402.5	158.9	97.9	61.00	2.604	
11,200.0	11,141.6	11,154.2	11,138.7	31.7	35.8	-136.09	-214.1	-403.0	174.3	114.6	59.69	2.920	
11,225.0	11,157.9	11,170.7	11,155.2	31.7	35.9	-137.76	-214.3	-403.3	191.0	132.5	58.48	3.266	
11,250.0	11,173.2	11,186.2	11,170.7	31.6	36.0	-138.98	-214.5	-403.7	208.8	151.4	57.37	3.639	
11,275.0	11,187.4	11,200.6	11,185.1	31.6	36.0	-139.77	-214.6	-403.9	227.6	171.2	56.37	4.037	
11,300.0	11,200.5	11,213.9	11,198.5	31.7	36.1	-140.10	-214.8	-404.1	247.3	191.8	55.47	4.458	
11,325.0	11,212.5	11,226.2	11,210.7	31.7	36.1	-139.96	-214.9	-404.3	267.9	213.2	54.67	4.900	
11,350.0	11,223.3	11,237.2	11,221.7	31.7	36.1	-139.29	-214.9	-404.5	289.2	235.2	53.96	5.359	
11,375.0	11,232.9	11,247.0	11,231.6	31.7	36.2	-138.00	-215.0	-404.6	311.2	257.8	53.33	5.835	
11,400.0	11,241.3	11,255.6	11,240.2	31.8	36.2	-135.95	-215.0	-404.7	333.7	281.0	52.77	6.324	
11,425.0	11,248.5	11,263.0	11,247.5	31.9	36.2	-132.95	-215.1	-404.7	356.8	304.5	52.28	6.825	
11,450.0	11,254.3	11,269.0	11,253.5	31.9	36.2	-128.68	-215.1	-404.8	380.3	328.5	51.84	7.336	
11,475.0	11,259.0	11,273.8	11,258.3	32.0	36.2	-122.70	-215.1	-404.8	404.2	352.7	51.46	7.855	
11,500.0	11,262.3	11,277.2	11,261.7	32.1	36.3	-114.46	-215.1	-404.8	428.3	377.2	51.11	8.380	
11,525.0	11,264.3	11,279.2	11,263.7	32.2	36.3	-103.43	-215.1	-404.8	452.7	401.9	50.81	8.909	
11,551.1	11,265.0	11,279.9	11,264.4	32.3	36.3	-89.02	-215.1	-404.8	478.2	427.7	50.53	9.463	
11,554.1	11,265.0	11,279.9	11,264.4	32.4	36.3	-89.02	-215.1	-404.8	481.2	430.7	50.50	9.528	
11,600.0	11,265.0	11,279.8	11,264.3	32.6	36.3	-88.85	-215.1	-404.8	526.3	476.2	50.10	10.504	
11,700.0	11,265.0	11,279.5	11,264.0	33.3	36.3	-88.29	-215.1	-404.8	625.4	575.8	49.55	12.620	
11,800.0	11,265.0	12,455.6	11,920.0	34.1	37.2	-179.55	509.8	-410.5	654.0	583.5	70.48	9.279	
11,900.0	11,265.0	12,555.6	11,920.0	35.0	37.8	-179.86	609.8	-411.2	654.0	582.8	71.17	9.190	
11,950.6	11,265.0	12,606.1	11,920.0	35.4	38.2	-179.90	660.3	-411.6	654.0	582.5	71.51	9.146	
12,000.0	11,265.0	12,655.6	11,920.0	35.8	38.6	-179.90	709.8	-412.0	654.0	582.1	71.85	9.102	
12,100.0	11,265.0	12,755.6	11,920.0	36.7	39.4	-179.90	809.8	-412.8	654.0	581.4	72.60	9.009	
12,200.0	11,265.0	12,855.6	11,920.0	37.7	40.3	-179.90	909.8	-413.5	654.0	580.6	73.40	8.910	
12,300.0	11,265.0	12,955.6	11,920.0	38.7	41.2	-179.90	1,009.8	-414.3	654.0	579.7	74.27	8.806	
12,400.0	11,265.0	13,055.6	11,920.0	39.9	42.3	-179.91	1,109.7	-415.1	654.0	578.8	75.18	8.699	
12,500.0	11,265.0	13,155.6	11,920.0	41.1	43.4	-179.91	1,209.7	-415.8	654.0	577.9	76.15	8.588	
12,600.0	11,265.0	13,255.6	11,920.0	42.3	44.6	-179.91	1,309.7	-416.6	654.0	576.8	77.17	8.475	

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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				Reference		Offset		Semi Major Axis		Highside		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)	Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning				
12,700.0	11,265.0	13,355.6	11,920.0	43.6	45.8	-179.91	1,409.7	-417.4	654.0	575.8	78.23	8.360					
12,800.0	11,265.0	13,455.6	11,920.0	45.0	47.1	-179.91	1,509.7	-418.1	654.0	574.7	79.35	8.242					
12,900.0	11,265.0	13,555.6	11,920.0	46.4	48.4	-179.91	1,609.7	-418.9	654.0	573.5	80.50	8.124					
13,000.0	11,265.0	13,655.6	11,920.0	47.9	49.8	-179.91	1,709.7	-419.7	654.0	572.3	81.70	8.005					
13,100.0	11,265.0	13,755.6	11,920.0	49.4	51.3	-179.92	1,809.7	-420.4	654.0	571.1	82.94	7.885					
13,200.0	11,265.0	13,855.6	11,920.0	50.9	52.7	-179.92	1,909.7	-421.2	654.0	569.8	84.22	7.765					
13,300.0	11,265.0	13,955.6	11,920.0	52.5	54.2	-179.92	2,009.7	-421.9	654.0	568.5	85.54	7.646					
13,400.0	11,265.0	14,055.6	11,920.0	54.1	55.8	-179.92	2,109.7	-422.7	654.0	567.1	86.89	7.527					
13,500.0	11,265.0	14,155.6	11,920.0	55.7	57.4	-179.92	2,209.7	-423.5	654.0	565.7	88.27	7.409					
13,600.0	11,265.0	14,255.6	11,920.0	57.4	59.0	-179.92	2,309.7	-424.2	654.0	564.3	89.69	7.292					
13,700.0	11,265.0	14,355.6	11,920.0	59.1	60.6	-179.92	2,409.7	-425.0	654.0	562.9	91.13	7.176					
13,800.0	11,265.0	14,455.6	11,920.0	60.8	62.2	-179.92	2,509.7	-425.8	654.0	561.4	92.61	7.062					
13,900.0	11,265.0	14,555.6	11,920.0	62.5	63.9	-179.93	2,609.7	-426.5	654.0	559.9	94.11	6.949					
14,000.0	11,265.0	14,655.6	11,920.0	64.2	65.6	-179.93	2,709.7	-427.3	654.0	558.4	95.64	6.838					
14,100.0	11,265.0	14,755.6	11,920.0	66.0	67.3	-179.93	2,809.7	-428.1	654.0	556.8	97.20	6.728					
14,200.0	11,265.0	14,855.6	11,920.0	67.8	69.0	-179.93	2,909.7	-428.8	654.0	555.2	98.78	6.621					
14,300.0	11,265.0	14,955.6	11,920.0	69.6	70.8	-179.93	3,009.7	-429.6	654.0	553.6	100.38	6.515					
14,400.0	11,265.0	15,055.6	11,920.0	71.4	72.5	-179.93	3,109.7	-430.4	654.0	552.0	102.01	6.411					
14,500.0	11,265.0	15,155.6	11,920.0	73.2	74.3	-179.93	3,209.7	-431.1	654.0	550.3	103.65	6.310					
14,600.0	11,265.0	15,255.6	11,920.0	75.0	76.1	-179.94	3,309.7	-431.9	654.0	548.7	105.32	6.210					
14,700.0	11,265.0	15,355.6	11,920.0	76.8	77.9	-179.94	3,409.7	-432.7	654.0	547.0	107.00	6.112					
14,800.0	11,265.0	15,455.6	11,920.0	78.7	79.7	-179.94	3,509.7	-433.4	654.0	545.3	108.70	6.016					
14,900.0	11,265.0	15,555.6	11,920.0	80.5	81.5	-179.94	3,609.7	-434.2	654.0	543.6	110.42	5.923					
15,000.0	11,265.0	15,655.6	11,920.0	82.4	83.4	-179.94	3,709.7	-435.0	654.0	541.8	112.16	5.831					
15,100.0	11,265.0	15,755.6	11,920.0	84.2	85.2	-179.94	3,809.7	-435.7	654.0	540.1	113.91	5.741					
15,200.0	11,265.0	15,855.6	11,920.0	86.1	87.0	-179.94	3,909.7	-436.5	654.0	538.3	115.68	5.654					
15,300.0	11,265.0	15,955.6	11,920.0	88.0	88.9	-179.94	4,009.7	-437.2	654.0	536.5	117.46	5.568					
15,400.0	11,265.0	16,055.6	11,920.0	89.9	90.8	-179.95	4,109.7	-438.0	654.0	534.7	119.25	5.484					
15,500.0	11,265.0	16,155.6	11,920.0	91.8	92.6	-179.95	4,209.7	-438.8	654.0	532.9	121.06	5.402					
15,600.0	11,265.0	16,255.6	11,920.0	93.7	94.5	-179.95	4,309.7	-439.5	654.0	531.1	122.88	5.322					
15,700.0	11,265.0	16,355.6	11,920.0	95.6	96.4	-179.95	4,409.7	-440.3	654.0	529.3	124.71	5.244					
15,800.0	11,265.0	16,455.6	11,920.0	97.5	98.3	-179.95	4,509.7	-441.1	654.0	527.4	126.55	5.168					
15,900.0	11,265.0	16,555.6	11,920.0	99.4	100.1	-179.95	4,609.6	-441.8	654.0	525.6	128.41	5.093					
16,000.0	11,265.0	16,655.6	11,920.0	101.3	102.0	-179.95	4,709.6	-442.6	654.0	523.7	130.27	5.020					
16,100.0	11,265.0	16,755.6	11,920.0	103.2	103.9	-179.96	4,809.6	-443.4	654.0	521.9	132.15	4.949					
16,200.0	11,265.0	16,855.6	11,920.0	105.2	105.8	-179.96	4,909.6	-444.1	654.0	520.0	134.03	4.879					
16,300.0	11,265.0	16,955.6	11,920.0	107.1	107.8	-179.96	5,009.6	-444.9	654.0	518.1	135.93	4.811					
16,400.0	11,265.0	17,055.6	11,920.0	109.0	109.7	-179.96	5,109.6	-445.7	654.0	516.2	137.83	4.745					
16,500.0	11,265.0	17,155.6	11,920.0	110.9	111.6	-179.96	5,209.6	-446.4	654.0	514.3	139.74	4.680					
16,600.0	11,265.0	17,255.6	11,920.0	112.9	113.5	-179.96	5,309.6	-447.2	654.0	512.3	141.66	4.617					
16,700.0	11,265.0	17,355.6	11,920.0	114.8	115.4	-179.96	5,409.6	-448.0	654.0	510.4	143.58	4.555					
16,800.0	11,265.0	17,455.6	11,920.0	116.8	117.4	-179.97	5,509.6	-448.7	654.0	508.5	145.52	4.494					
16,900.0	11,265.0	17,555.6	11,920.0	118.7	119.3	-179.97	5,609.6	-449.5	654.0	506.5	147.46	4.435					
17,000.0	11,265.0	17,655.6	11,920.0	120.7	121.2	-179.97	5,709.6	-450.3	654.0	504.6	149.41	4.377					
17,100.0	11,265.0	17,755.6	11,920.0	122.6	123.2	-179.97	5,809.6	-451.0	654.0	502.6	151.36	4.321					
17,200.0	11,265.0	17,855.6	11,920.0	124.6	125.1	-179.97	5,909.6	-451.8	654.0	500.7	153.32	4.266					
17,300.0	11,265.0	17,955.6	11,920.0	126.5	127.0	-179.97	6,009.6	-452.6	654.0	498.7	155.29	4.212					
17,400.0	11,265.0	18,055.6	11,920.0	128.5	129.0	-179.97	6,109.6	-453.3	654.0	496.7	157.26	4.159					
17,500.0	11,265.0	18,155.6	11,920.0	130.4	130.9	-179.97	6,209.6	-454.1	654.0	494.8	159.24	4.107					
17,600.0	11,265.0	18,255.6	11,920.0	132.4	132.9	-179.98	6,309.6	-454.8	654.0	492.8	161.22	4.056					
17,700.0	11,265.0	18,355.6	11,920.0	134.3	134.8	-179.98	6,409.6	-455.6	654.0	490.8	163.21	4.007					
17,800.0	11,265.0	18,455.6	11,920.0	136.3	136.8	-179.98	6,509.6	-456.4	654.0	488.8	165.21	3.959					

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - 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		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
17,900.0	11,265.0	18,555.6	11,920.0	138.3	138.7	-179.98	6,609.6	-457.1	654.0	486.8	167.21	3.911		
18,000.0	11,265.0	18,655.6	11,920.0	140.2	140.7	-179.98	6,709.6	-457.9	654.0	484.8	169.21	3.865		
18,100.0	11,265.0	18,755.6	11,920.0	142.2	142.6	-179.98	6,809.6	-458.7	654.0	482.8	171.22	3.820		
18,200.0	11,265.0	18,855.6	11,920.0	144.2	144.6	-179.98	6,909.6	-459.4	654.0	480.8	173.23	3.775		
18,300.0	11,265.0	18,955.6	11,920.0	146.1	146.6	-179.99	7,009.6	-460.2	654.0	478.7	175.25	3.732		
18,400.0	11,265.0	19,055.6	11,920.0	148.1	148.5	-179.99	7,109.6	-461.0	654.0	476.7	177.27	3.689		
18,500.0	11,265.0	19,155.6	11,920.0	150.1	150.5	-179.99	7,209.6	-461.7	654.0	474.7	179.30	3.648		
18,600.0	11,265.0	19,255.6	11,920.0	152.1	152.4	-179.99	7,309.6	-462.5	654.0	472.7	181.33	3.607		
18,700.0	11,265.0	19,355.6	11,920.0	154.0	154.4	-179.99	7,409.6	-463.3	654.0	470.6	183.36	3.567		
18,800.0	11,265.0	19,455.6	11,920.0	156.0	156.4	-179.99	7,509.6	-464.0	654.0	468.6	185.40	3.528		
18,900.0	11,265.0	19,555.6	11,920.0	158.0	158.3	-179.99	7,609.6	-464.8	654.0	466.6	187.44	3.489		
19,000.0	11,265.0	19,655.6	11,920.0	160.0	160.3	-180.00	7,709.6	-465.6	654.0	464.5	189.48	3.452		
19,100.0	11,265.0	19,755.6	11,920.0	161.9	162.3	-180.00	7,809.6	-466.3	654.0	462.5	191.53	3.415		
19,200.0	11,265.0	19,855.6	11,920.0	163.9	164.3	-180.00	7,909.6	-467.1	654.0	460.4	193.58	3.379		
19,300.0	11,265.0	19,955.6	11,920.0	165.9	166.2	-180.00	8,009.5	-467.9	654.0	458.4	195.63	3.343		
19,365.6	11,265.0	20,021.2	11,920.0	167.2	167.5	180.00	8,075.2	-468.4	654.0	457.0	196.98	3.320		
19,366.3	11,265.0	20,021.2	11,920.0	167.2	167.5	180.00	8,075.2	-468.4	654.0	457.1	196.95	3.321		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													Offset Site Error: 0.0 usft	
Survey Program: Reference		0-MWD+HRGM Offset		Semi Major Axis			Offset Wellbore Centre		Rule Assigned: Distance				Offset Well Error: 0.0 usft	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	1.0	1.0	0.0	0.0	89.96	0.0	59.8	59.8					
100.0	100.0	101.0	101.0	0.5	0.5	89.96	0.0	59.8	59.8	58.8	1.07	55.821		
200.0	200.0	201.0	201.0	1.7	1.7	89.96	0.0	59.8	59.8	56.4	3.43	17.445		
300.0	300.0	301.0	301.0	2.4	2.4	89.96	0.0	59.8	59.8	55.0	4.83	12.395		
400.0	400.0	401.0	401.0	3.0	3.0	89.96	0.0	59.8	59.8	53.9	5.91	10.122		
500.0	500.0	501.0	501.0	3.4	3.4	89.96	0.0	59.8	59.8	53.0	6.83	8.757		
600.0	600.0	601.0	601.0	3.8	3.8	89.96	0.0	59.8	59.8	52.2	7.65	7.821		
700.0	700.0	701.0	701.0	4.2	4.2	89.96	0.0	59.8	59.8	51.4	8.40	7.127		
800.0	800.0	801.0	801.0	4.5	4.5	89.96	0.0	59.8	59.8	50.8	9.09	6.586		
900.0	900.0	901.0	901.0	4.9	4.9	89.96	0.0	59.8	59.8	50.1	9.73	6.149		
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	89.96	0.0	59.8	59.8	49.5	10.34	5.786		
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	89.96	0.0	59.8	59.8	48.9	10.93	5.478		
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	89.96	0.0	59.8	59.8	48.4	11.48	5.212		
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	89.96	0.0	59.8	59.8	47.8	12.02	4.980		
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	89.96	0.0	59.8	59.8	47.3	12.53	4.775		
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	89.96	0.0	59.8	59.8	46.8	13.03	4.592		
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	89.96	0.0	59.8	59.8	46.3	13.52	4.427		
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	89.96	0.0	59.8	59.8	45.9	13.99	4.277		
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	89.96	0.0	59.8	59.8	45.4	14.45	4.141		
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	89.96	0.0	59.8	59.8	44.9	14.90	4.016		
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	89.96	0.0	59.8	59.8	44.5	15.34	3.901		
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	89.96	0.0	59.8	59.8	44.1	15.77	3.794		
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	89.96	0.0	59.8	59.8	43.7	16.19	3.695		
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	89.96	0.0	59.8	59.8	43.2	16.61	3.603		
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	89.96	0.0	59.8	59.8	42.8	17.02	3.517		
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	89.96	0.0	59.8	59.8	42.4	17.42	3.436		
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	89.96	0.0	59.8	59.8	42.0	17.81	3.360		
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	89.96	0.0	59.8	59.8	41.6	18.20	3.288		
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	89.96	0.0	59.8	59.8	41.3	18.59	3.220		
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	89.96	0.0	59.8	59.8	40.9	18.97	3.155		
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	89.96	0.0	59.8	59.8	40.5	19.34	3.094		
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	89.96	0.0	59.8	59.8	40.1	19.71	3.036		
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	89.96	0.0	59.8	59.8	39.8	20.08	2.981		
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	89.96	0.0	59.8	59.8	39.4	20.44	2.928		
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	89.96	0.0	59.8	59.8	39.1	20.80	2.878		
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	89.96	0.0	59.8	59.8	38.7	21.15	2.830		
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	89.96	0.0	59.8	59.8	38.3	21.50	2.783		
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	89.96	0.0	59.8	59.8	38.0	21.85	2.739		
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	89.96	0.0	59.8	59.8	37.7	22.19	2.697		
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	89.96	0.0	59.8	59.8	37.3	22.53	2.656		
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	89.96	0.0	59.8	59.8	37.0	22.87	2.617		
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	89.96	0.0	59.8	59.8	36.6	23.21	2.579		
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	89.96	0.0	59.8	59.8	36.3	23.54	2.542		
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	89.96	0.0	59.8	59.8	36.0	23.87	2.507		
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	89.96	0.0	59.8	59.8	35.6	24.20	2.473		
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	89.96	0.0	59.8	59.8	35.3	24.53	2.440		
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	89.96	0.0	59.8	59.8	35.0	24.85	2.408		
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	89.96	0.0	59.8	59.8	34.7	25.17	2.377		
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	89.96	0.0	59.8	59.8	34.4	25.49	2.348		
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	89.96	0.0	59.8	59.8	34.0	25.81	2.319		
4,916.3	4,916.3	4,917.3	4,917.3	12.9	12.9	89.96	0.0	59.8	59.8	34.0	25.86	2.314 CC		
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	89.96	0.0	59.8	59.8	33.7	26.13	2.291 ES, SF		

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	90.34	-0.4	60.6	60.6	34.2	26.38	2.298	
5,200.0	5,200.0	5,199.1	5,199.0	13.4	13.3	91.42	-1.6	62.9	63.0	36.3	26.63	2.365	
5,300.0	5,300.0	5,297.9	5,297.8	13.5	13.4	-143.27	-3.5	66.7	67.6	40.8	26.83	2.520	
5,400.0	5,400.0	5,396.5	5,396.2	13.6	13.5	-142.49	-6.3	72.0	75.2	48.2	27.02	2.782	
5,500.0	5,499.9	5,495.5	5,495.0	13.7	13.6	-142.18	-9.7	78.6	85.4	58.2	27.20	3.141	
5,600.0	5,599.7	5,594.9	5,594.0	13.8	13.8	-142.52	-13.1	85.2	97.2	69.7	27.45	3.539	
5,626.3	5,625.9	5,620.9	5,620.0	13.8	13.8	-142.69	-14.0	87.0	100.5	73.0	27.51	3.653	
5,700.0	5,699.4	5,694.0	5,692.9	13.9	13.9	-143.22	-16.6	91.9	109.9	82.2	27.69	3.969	
5,800.0	5,799.1	5,793.2	5,791.8	14.0	14.1	-143.81	-20.0	98.5	122.7	94.7	28.00	4.382	
5,900.0	5,898.8	5,892.4	5,890.6	14.2	14.4	-144.29	-23.5	105.2	135.5	107.2	28.34	4.781	
6,000.0	5,998.6	5,991.5	5,989.5	14.4	14.6	-144.69	-26.9	111.9	148.3	119.6	28.71	5.167	
6,100.0	6,098.3	6,090.7	6,088.4	14.6	14.8	-145.02	-30.4	118.5	161.2	132.1	29.10	5.538	
6,200.0	6,198.0	6,189.9	6,187.3	14.8	15.1	-145.31	-33.8	125.2	174.0	144.5	29.51	5.895	
6,300.0	6,297.7	6,289.0	6,286.2	15.1	15.4	-145.55	-37.3	131.8	186.8	156.9	29.95	6.238	
6,400.0	6,397.5	6,388.2	6,385.1	15.3	15.7	-145.77	-40.7	138.5	199.7	169.3	30.41	6.566	
6,500.0	6,497.2	6,487.4	6,484.0	15.6	16.0	-145.96	-44.2	145.1	212.5	181.6	30.89	6.880	
6,600.0	6,596.9	6,586.6	6,582.8	15.9	16.3	-146.12	-47.6	151.8	225.4	194.0	31.38	7.180	
6,700.0	6,696.6	6,685.7	6,681.7	16.2	16.6	-146.27	-51.1	158.5	238.2	206.3	31.90	7.467	
6,800.0	6,796.4	6,784.9	6,780.6	16.5	16.9	-146.40	-54.5	165.1	251.0	218.6	32.43	7.740	
6,900.0	6,896.1	6,884.1	6,879.5	16.8	17.3	-146.52	-58.0	171.8	263.9	230.9	32.99	8.000	
7,000.0	6,995.8	6,983.2	6,978.4	17.1	17.6	-146.63	-61.4	178.4	276.7	243.2	33.55	8.248	
7,100.0	7,095.5	7,082.4	7,077.3	17.5	18.0	-146.73	-64.9	185.1	289.6	255.5	34.13	8.484	
7,200.0	7,195.3	7,181.6	7,176.2	17.8	18.3	-146.82	-68.4	191.7	302.4	267.7	34.73	8.708	
7,300.0	7,295.0	7,280.7	7,275.0	18.2	18.7	-146.91	-71.8	198.4	315.3	279.9	35.34	8.921	
7,400.0	7,394.7	7,379.9	7,373.9	18.5	19.1	-146.98	-75.3	205.1	328.1	292.2	35.96	9.124	
7,500.0	7,494.4	7,479.1	7,472.8	18.9	19.5	-147.06	-78.7	211.7	341.0	304.4	36.60	9.317	
7,600.0	7,594.1	7,578.3	7,571.7	19.3	19.9	-147.12	-82.2	218.4	353.8	316.6	37.25	9.500	
7,700.0	7,693.9	7,677.4	7,670.6	19.6	20.3	-147.18	-85.6	225.0	366.7	328.8	37.91	9.674	
7,800.0	7,793.6	7,776.6	7,769.5	20.0	20.7	-147.24	-89.1	231.7	379.5	341.0	38.58	9.839	
7,900.0	7,893.3	7,875.8	7,868.4	20.4	21.1	-147.29	-92.5	238.3	392.4	353.1	39.26	9.996	
8,000.0	7,993.0	7,974.9	7,967.2	20.8	21.5	-147.34	-96.0	245.0	405.3	365.3	39.95	10.145	
8,100.0	8,092.8	8,074.1	8,066.1	21.2	21.9	-147.39	-99.4	251.7	418.1	377.5	40.64	10.287	
8,200.0	8,192.5	8,173.3	8,165.0	21.6	22.3	-147.44	-102.9	258.3	431.0	389.6	41.35	10.422	
8,300.0	8,292.2	8,272.4	8,263.9	22.0	22.7	-147.48	-106.3	265.0	443.8	401.8	42.07	10.551	
8,400.0	8,391.9	8,371.6	8,362.8	22.5	23.2	-147.52	-109.8	271.6	456.7	413.9	42.79	10.673	
8,500.0	8,491.7	8,470.8	8,461.7	22.9	23.6	-147.55	-113.2	278.3	469.5	426.0	43.52	10.789	
8,600.0	8,591.4	8,570.0	8,560.6	23.3	24.0	-147.59	-116.7	284.9	482.4	438.1	44.26	10.900	
8,700.0	8,691.1	8,669.1	8,659.4	23.7	24.5	-147.62	-120.1	291.6	495.2	450.2	45.00	11.005	
8,800.0	8,790.8	8,768.3	8,758.3	24.2	24.9	-147.65	-123.6	298.3	508.1	462.3	45.75	11.106	
8,900.0	8,890.6	8,867.5	8,857.2	24.6	25.4	-147.68	-127.0	304.9	520.9	474.4	46.51	11.202	
9,000.0	8,990.3	8,966.6	8,956.1	25.1	25.8	-147.71	-130.5	311.6	533.8	486.5	47.27	11.293	
9,100.0	9,090.0	9,065.8	9,055.0	25.5	26.3	-147.74	-133.9	318.2	546.7	498.6	48.04	11.380	
9,200.0	9,189.7	9,165.0	9,153.9	26.0	26.7	-147.77	-137.4	324.9	559.5	510.7	48.81	11.463	
9,300.0	9,289.4	9,264.1	9,252.8	26.4	27.2	-147.79	-140.8	331.5	572.4	522.8	49.59	11.543	
9,400.0	9,389.2	9,363.3	9,351.6	26.9	27.6	-147.82	-144.3	338.2	585.2	534.9	50.37	11.618	
9,500.0	9,488.9	9,462.5	9,450.5	27.3	28.1	-147.84	-147.7	344.8	598.1	546.9	51.16	11.691	
9,600.0	9,588.6	9,561.7	9,549.4	27.8	28.6	-147.86	-151.2	351.5	610.9	559.0	51.95	11.760	
9,700.0	9,688.3	9,660.8	9,648.3	28.2	29.0	-147.88	-154.6	358.2	623.8	571.0	52.75	11.827	
9,800.0	9,788.1	9,760.0	9,747.2	28.7	29.5	-147.90	-158.1	364.8	636.6	583.1	53.55	11.890	
9,900.0	9,887.8	9,859.2	9,846.1	29.2	30.0	-147.92	-161.5	371.5	649.5	595.2	54.35	11.951	
10,000.0	9,987.5	9,958.3	9,945.0	29.6	30.4	-147.94	-165.0	378.1	662.4	607.2	55.16	12.009	
10,100.0	10,087.2	10,057.5	10,043.9	30.1	30.9	-147.96	-168.5	384.8	675.2	619.3	55.97	12.065	

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 804H - Dagger State Com 804H - Dagger State Com 804H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance			Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
10,200.0	10,187.0	10,156.7	10,142.7	30.6	31.4	-147.97	-171.9	391.4	688.1	631.3	56.78	12.118	
10,237.3	10,224.1	10,193.6	10,179.6	30.7	31.5	-147.98	-173.2	393.9	692.9	635.8	57.07	12.140	
10,300.0	10,286.7	10,255.9	10,241.7	31.0	31.8	-148.02	-175.4	398.1	700.6	643.1	57.57	12.171	
10,400.0	10,386.6	10,355.2	10,340.7	31.4	32.3	-148.01	-178.8	404.8	711.8	653.5	58.36	12.198	
10,500.0	10,486.5	10,454.8	10,440.0	31.8	32.8	-147.92	-182.3	411.5	721.6	662.5	59.12	12.205	
10,600.0	10,586.5	10,554.4	10,539.3	32.2	33.3	-147.75	-185.7	418.1	729.8	670.0	59.84	12.196	
10,663.5	10,650.0	10,617.7	10,602.5	32.3	33.6	88.28	-188.0	422.4	734.3	674.1	60.20	12.198	
10,700.0	10,686.5	10,654.1	10,638.7	32.3	33.8	88.38	-189.2	424.8	736.7	676.4	60.36	12.205	
10,801.1	10,787.5	10,754.9	10,739.2	32.3	34.3	88.67	-192.7	431.6	743.4	682.6	60.85	12.217	
10,825.0	10,811.4	10,778.7	10,763.0	32.3	34.4	96.96	-193.6	433.2	745.1	684.1	60.96	12.222	
10,850.0	10,836.4	10,803.4	10,787.7	32.3	34.5	96.94	-194.4	434.9	747.0	685.9	61.08	12.229	
10,875.0	10,861.2	10,828.0	10,812.2	32.3	34.6	97.00	-195.3	436.5	749.1	687.9	61.20	12.239	
10,900.0	10,885.8	10,852.3	10,836.4	32.2	34.7	97.13	-196.1	438.1	751.3	690.0	61.32	12.252	
10,925.0	10,910.1	10,876.3	10,860.3	32.2	34.8	97.32	-197.0	439.8	753.8	692.4	61.44	12.270	
10,950.0	10,934.1	10,899.9	10,883.9	32.1	35.0	97.56	-197.8	441.3	756.5	695.0	61.55	12.291	
10,975.0	10,957.6	10,923.1	10,907.0	32.1	35.1	97.84	-198.6	442.9	759.5	697.8	61.65	12.318	
11,000.0	10,980.8	10,945.7	10,929.5	32.0	35.2	98.15	-199.4	444.4	762.7	701.0	61.76	12.351	
11,025.0	11,003.3	10,967.8	10,951.5	31.9	35.3	98.47	-200.1	445.9	766.3	704.5	61.85	12.390	
11,050.0	11,025.3	10,989.2	10,972.9	31.9	35.4	98.80	-200.9	447.3	770.3	708.4	61.94	12.436	
11,075.0	11,046.7	11,009.9	10,993.5	31.8	35.5	99.12	-201.6	448.7	774.7	712.7	62.02	12.492	
11,100.0	11,067.3	11,029.8	11,013.4	31.8	35.6	99.41	-202.3	450.1	779.5	717.4	62.08	12.557	
11,125.0	11,087.2	11,051.3	11,034.8	31.8	35.7	99.76	-203.0	451.5	784.8	722.7	62.14	12.630	
11,150.0	11,106.2	11,072.3	11,055.8	31.7	35.8	100.10	-203.7	452.8	790.6	728.4	62.19	12.712	
11,175.0	11,124.4	11,092.4	11,075.9	31.7	35.9	100.37	-204.3	454.0	796.8	734.6	62.23	12.804	
11,200.0	11,141.6	11,111.5	11,094.9	31.7	36.0	100.57	-204.9	455.1	803.6	741.4	62.25	12.909	
11,225.0	11,157.9	11,129.6	11,112.9	31.7	36.0	100.68	-205.4	456.0	811.0	748.7	62.26	13.026	
11,250.0	11,173.2	11,146.5	11,129.8	31.6	36.1	100.67	-205.8	456.9	819.0	756.7	62.25	13.156	
11,275.0	11,187.4	11,162.2	11,145.5	31.6	36.2	100.54	-206.2	457.7	827.6	765.3	62.22	13.300	
11,300.0	11,200.5	11,176.7	11,160.0	31.7	36.3	100.28	-206.6	458.3	836.8	774.6	62.18	13.458	
11,325.0	11,212.5	11,189.9	11,173.2	31.7	36.3	99.86	-206.9	458.9	846.7	784.6	62.12	13.631	
11,350.0	11,223.3	11,201.9	11,185.1	31.7	36.4	99.27	-207.1	459.4	857.3	795.2	62.04	13.818	
11,375.0	11,232.9	11,212.4	11,195.7	31.7	36.4	98.50	-207.4	459.8	868.5	806.5	61.94	14.022	
11,400.0	11,241.3	11,221.6	11,204.8	31.8	36.4	97.54	-207.5	460.2	880.3	818.5	61.82	14.240	
11,425.0	11,248.5	11,229.4	11,212.6	31.9	36.5	96.37	-207.7	460.5	892.8	831.1	61.69	14.473	
11,450.0	11,254.3	11,235.6	11,218.9	31.9	36.5	95.00	-207.8	460.7	905.9	844.3	61.54	14.720	
11,475.0	11,259.0	11,240.4	11,223.6	32.0	36.5	93.40	-207.9	460.9	919.5	858.1	61.38	14.981	
11,500.0	11,262.3	11,243.7	11,226.9	32.1	36.5	91.59	-208.0	461.0	933.7	872.5	61.20	15.256	
11,525.0	11,264.3	11,245.5	11,228.7	32.2	36.5	89.56	-208.0	461.1	948.3	887.3	61.01	15.542	
11,551.1	11,265.0	11,245.6	11,228.8	32.3	36.5	87.21	-208.0	461.1	964.0	903.2	60.81	15.854	
11,554.1	11,265.0	11,245.5	11,228.7	32.4	36.5	87.20	-208.0	461.1	965.8	905.1	60.78	15.891	
11,600.0	11,265.0	11,244.3	11,227.5	32.6	36.5	87.15	-208.0	461.0	994.3	933.9	60.41	16.459	



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele

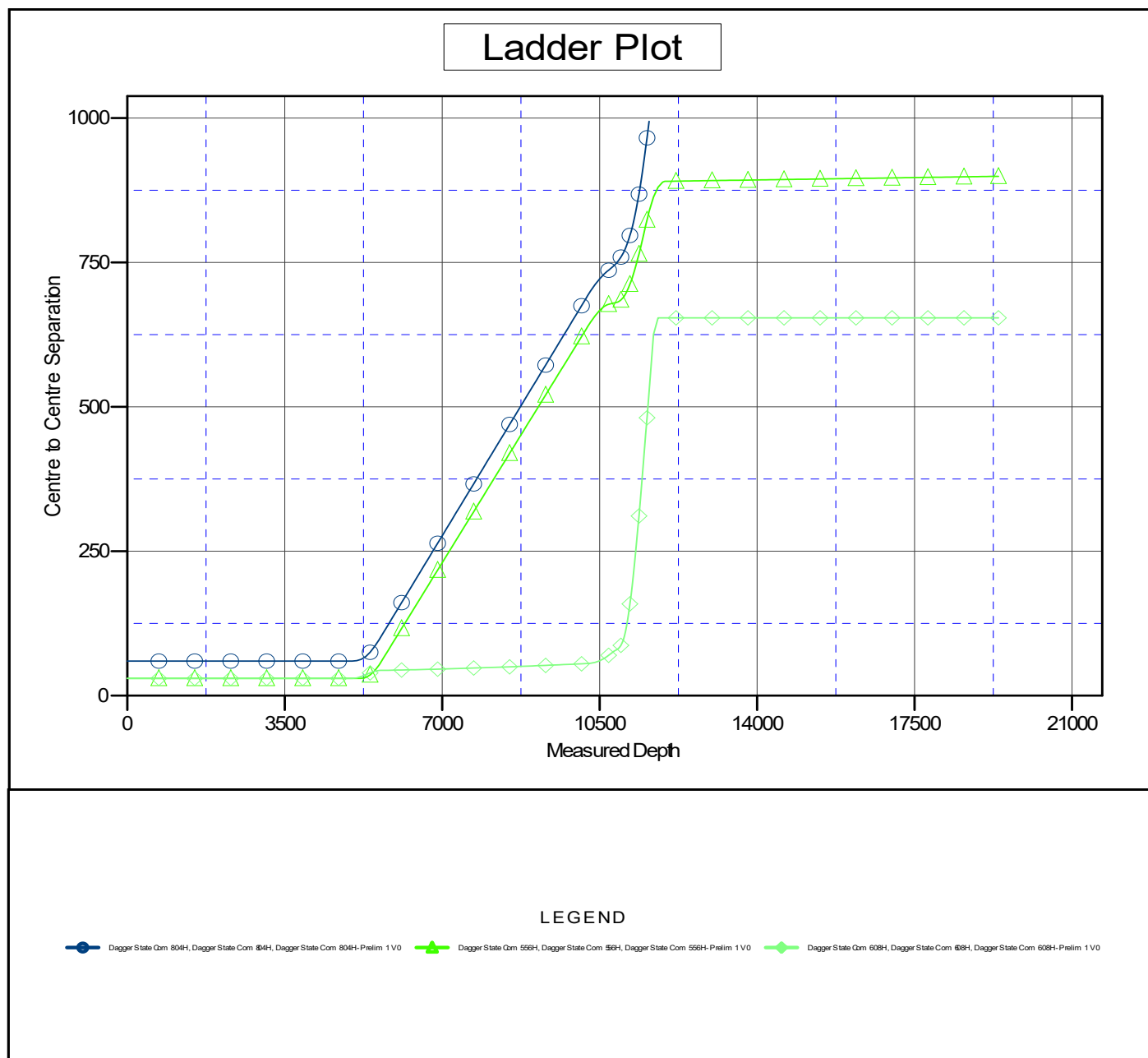
Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 558H

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 558H
Project:	Hat Mesa	TVD Reference:	WELL @ 3847.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3847.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 558H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 558H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 558H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3847.5usft (Original Well Ele

Offset Depths are relative to Offset Datum

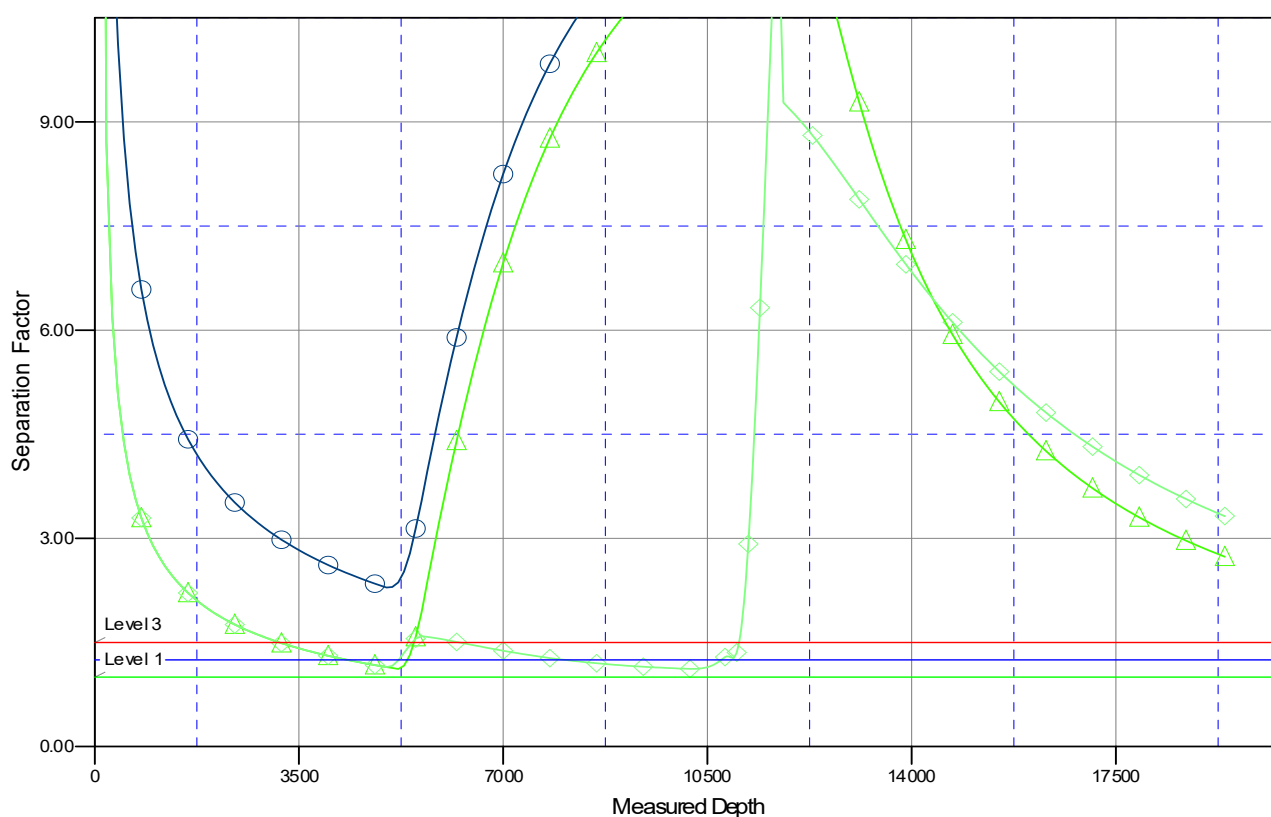
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Dagger State Com 558H

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 804H, Dagger State Com 804H, Dagger State Com 804H-Prelim 1 V0
 ▲ Dagger State Com 558H, Dagger State Com 558H, Dagger State Com 558H-Prelim 1 V0
 ◆ Dagger State Com 608H, Dagger State Com 608H, Dagger State Com 608H-Prelim 1 V0