

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 291572

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 30-025-48466
4. Property Code 319601	5. Property Name DAGGER STATE COM	6. Well No. 554H

7. Surface Location

UL - Lot F	Section 30	Township 21S	Range 33E	Lot Idn F	Feet From 2560	N/S Line N	Feet From 2010	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot C	Section 19	Township 21S	Range 33E	Lot Idn C	Feet From 100	N/S Line N	Feet From 2090	E/W Line W	County Lea
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9. Pool Information

WC-025 G-07 S213330F:BONE SPRING	97927
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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 3823
16. Multiple N	17. Proposed Depth 18600	18. Formation Bone Spring	19. Contractor	20. Spud Date 1/28/2021
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	1650	500	0
Int1	12.25	9.625	40	4000	950	0
Int1	12.25	9.625	40	5300	330	4000
Prod	8.5	5.5	20	19270	2300	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by Braden Harris	Approved By: Paul F Kautz	
Title: Vice President	Title: Geologist	
Email Address: bharris@advanceenergypartners.com	Approved Date: 2/9/2021	Expiration Date: 2/9/2023
Date: 2/2/2021	Phone: 406-300-3310	Conditions of Approval Attached

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Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 4, 2011

Submit one copy to appropriate
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code WC-025 G-08 S213326D 97927	Pool Name Bone Spring WC-025 G-07 S213330F; BONE SPRING
Property Code 97929 319601	Property Name DAGGER STATE COM	Well Number 554H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA	Elevation 3820'

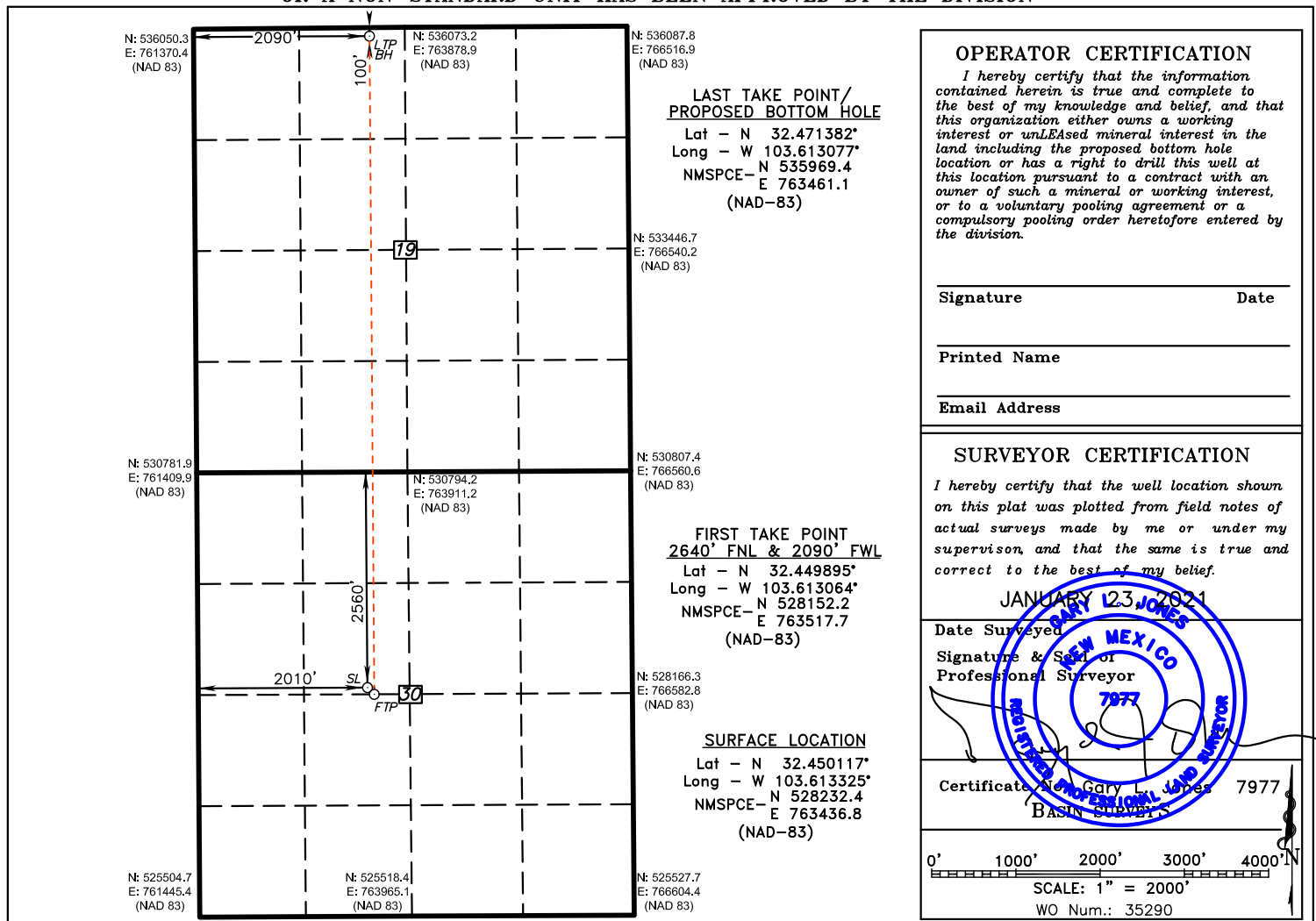
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
F	30	21 S	33 E		2560	NORTH	2010	WEST	LEA

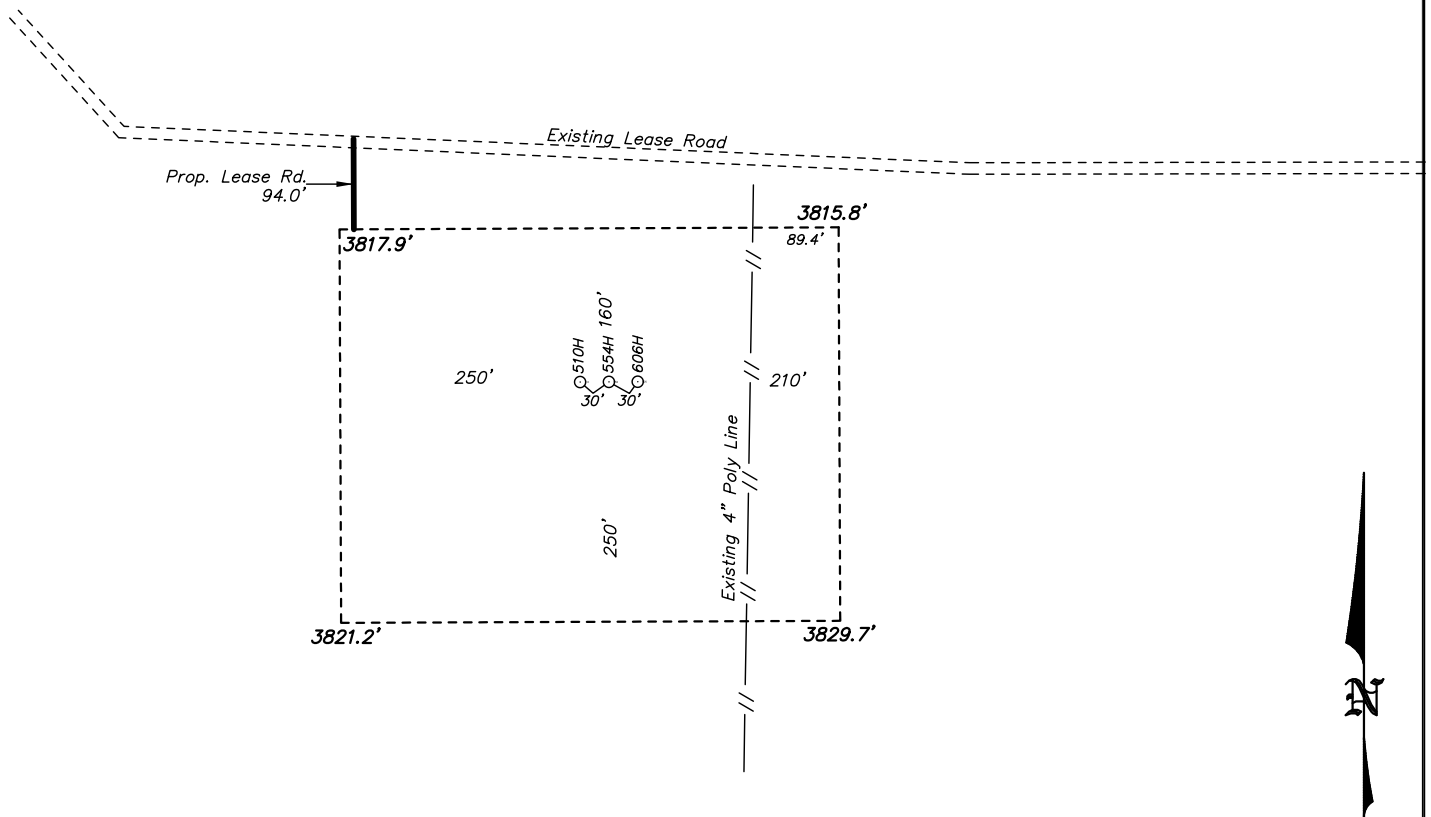
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
C	19	21 S	33 E		100	NORTH	2090	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



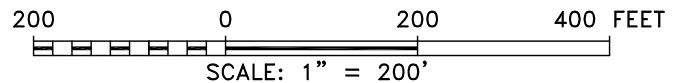
**SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA
DAGGER STATE COM #554H
ELEV. - 3823'**

Lat - N 32.450117°
Long - W 103.613325°
NMSPCE - N 528232.4
E 763436.8
(NAD-83)

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



ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM #554H / WELL PAD TOPO

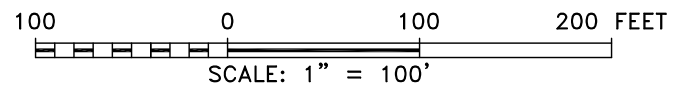
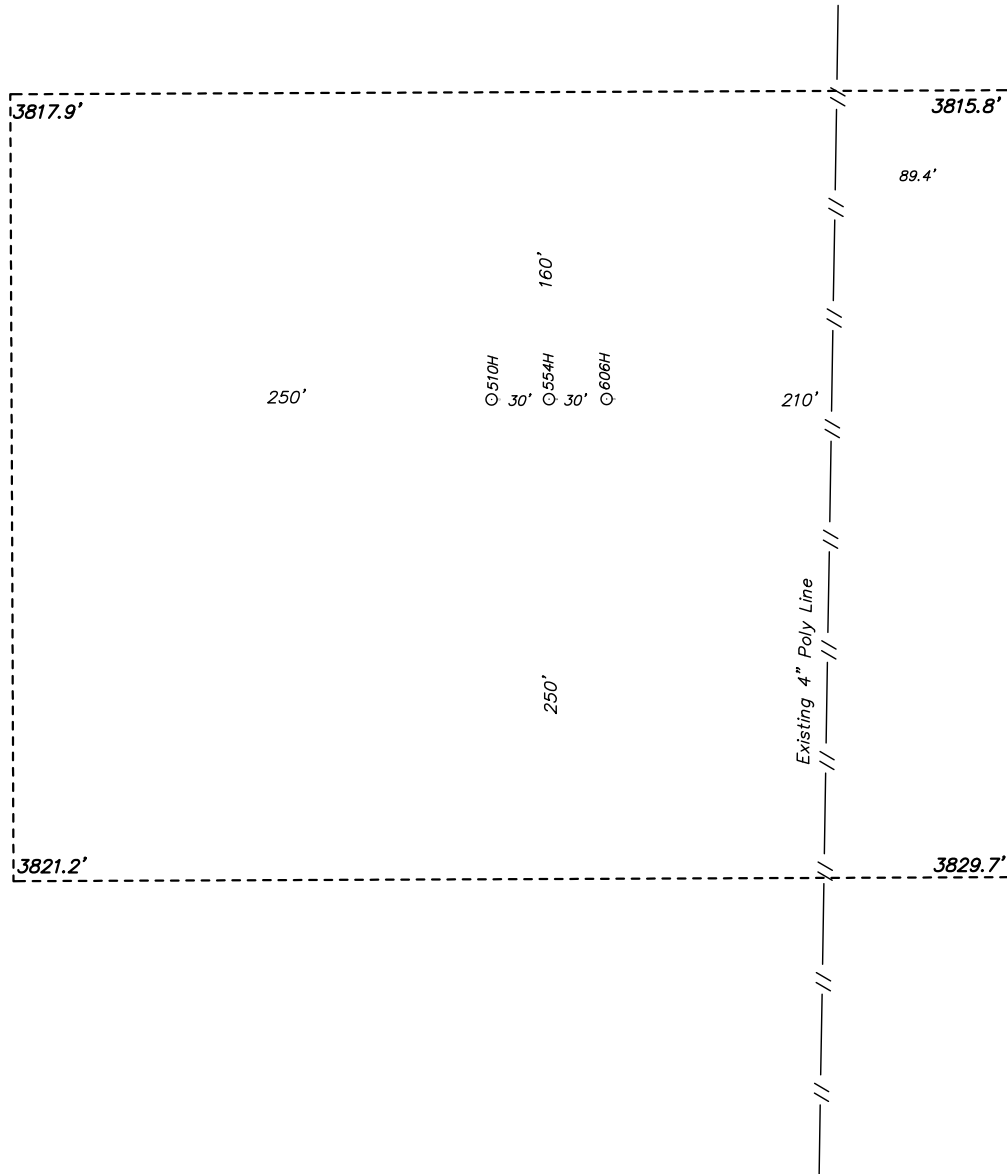
THE DAGGER STATE COM #554H LOCATED 2560' FROM
THE NORTH LINE AND 2010' FROM THE WEST LINE OF
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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 #554H / WELL PAD TOPO

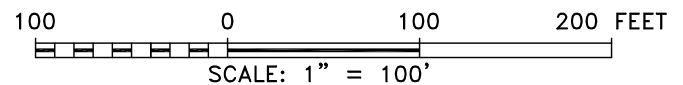
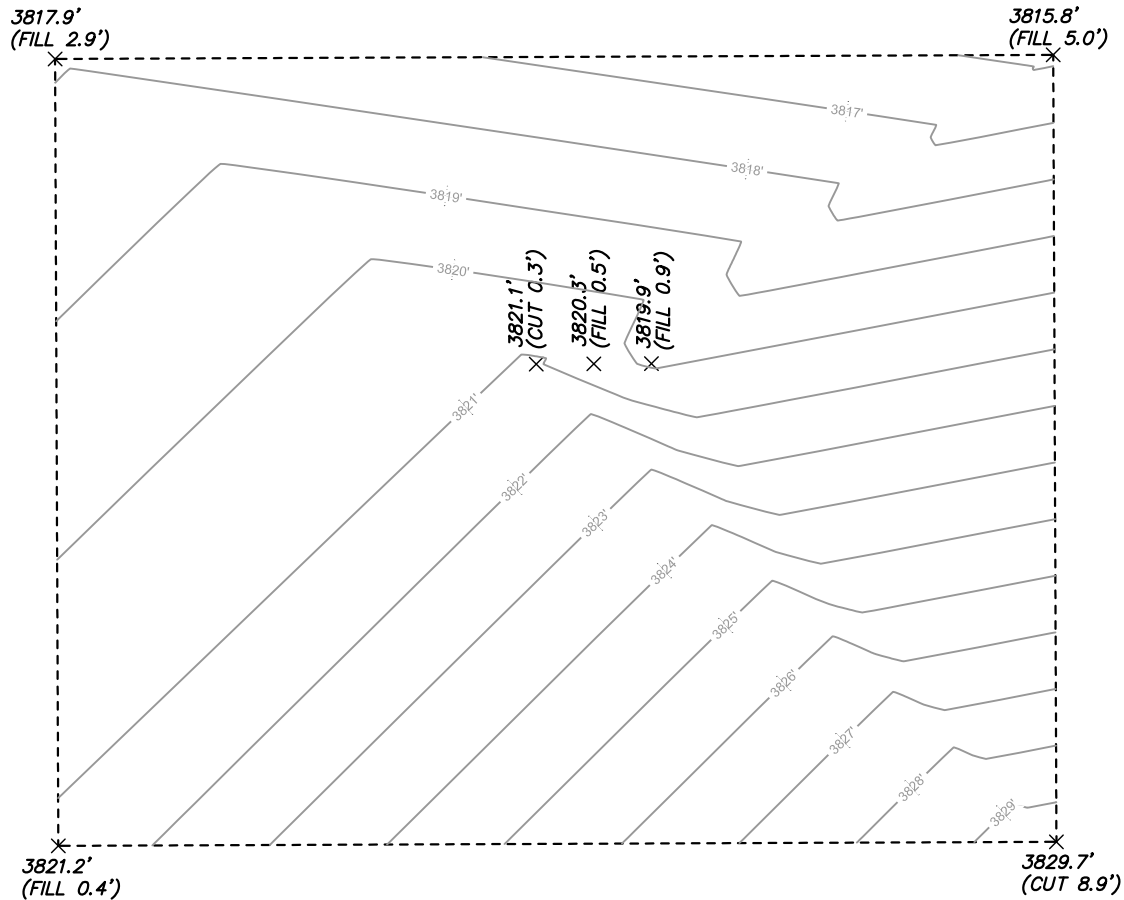
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LEA COUNTY, NEW MEXICO.**



ADVANCE ENERGY PARTNERS HAT MESA

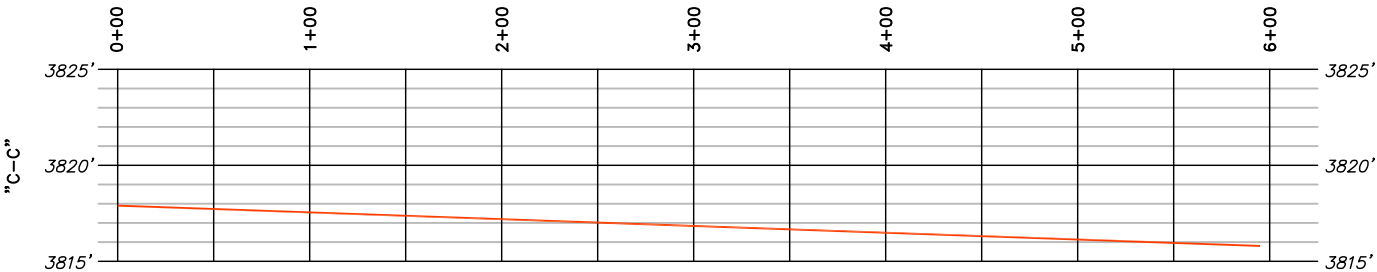
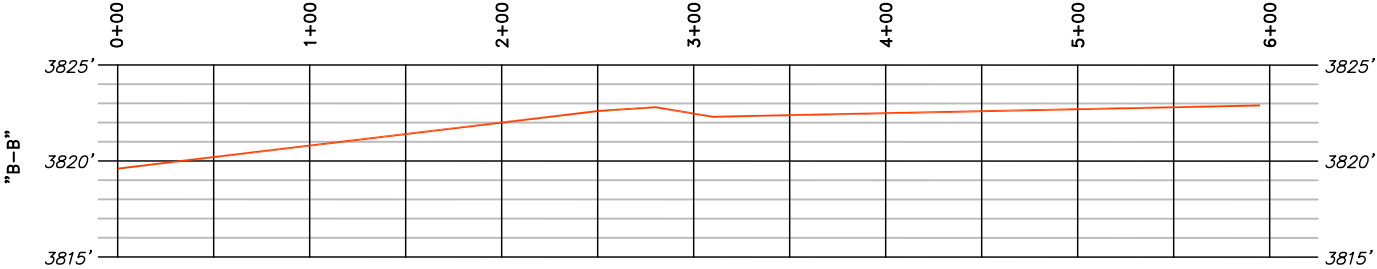
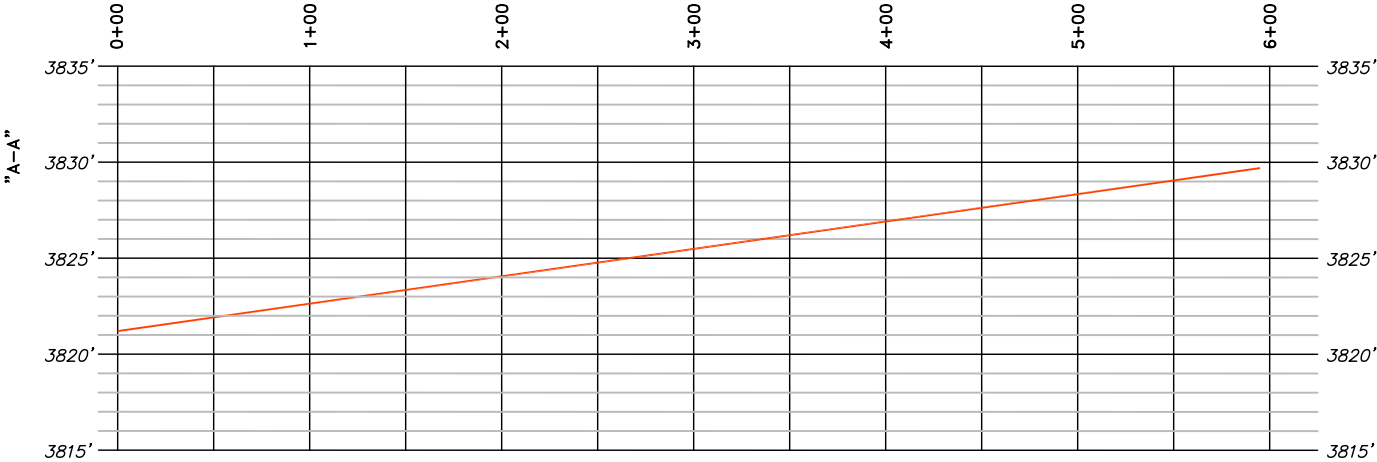
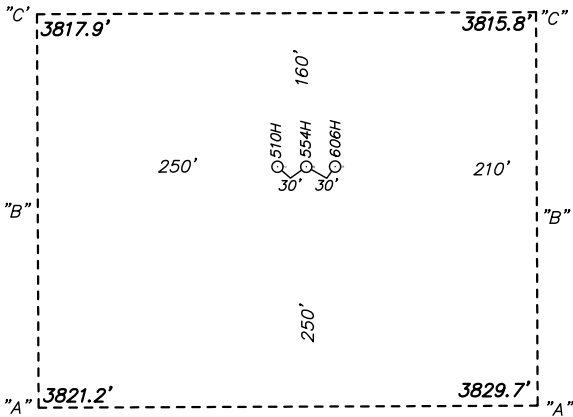
REF: DAGGER STATE COM PAD C / CUT & FILL

THE DAGGER STATE COM PAD C LOCATED IN
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.
N.M.P.M., LEA COUNTY, NEW MEXICO.

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



I HEREBY CERTIFY THAT THIS MAP WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.

GARY L. JONES
Professional Land Surveyor
No. 7977
No. 5074

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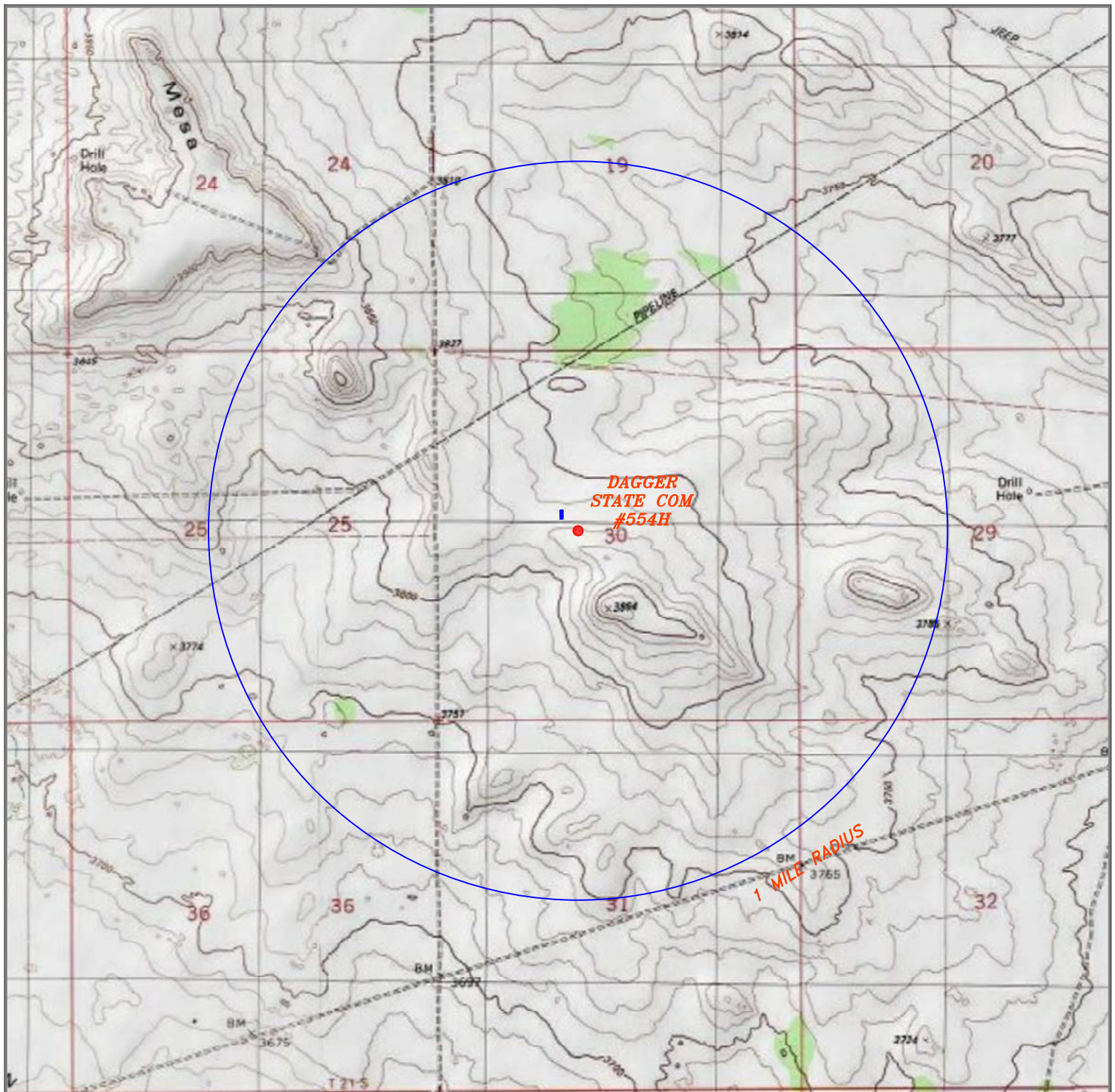
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CROSS SECTION
HORIZONTAL 1"=100'
VERTICAL 1"=50'

ADVANCE ENERGY PARTNERS HAT MESA

REF: DAGGER STATE COM PAD C

THE DAGGER STATE COM PAD C LOCATED IN
SECTION 30, TOWNSHIP 21 SOUTH, RANGE 33 EAST.
N.M.P.M., LEA COUNTY, NEW MEXICO.



DAGGER STATE COM #554H

Located 2560' FNL and 2010' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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0' 1000' 2000' 3000' 150'0"
 SCALE: 1" = 2000'

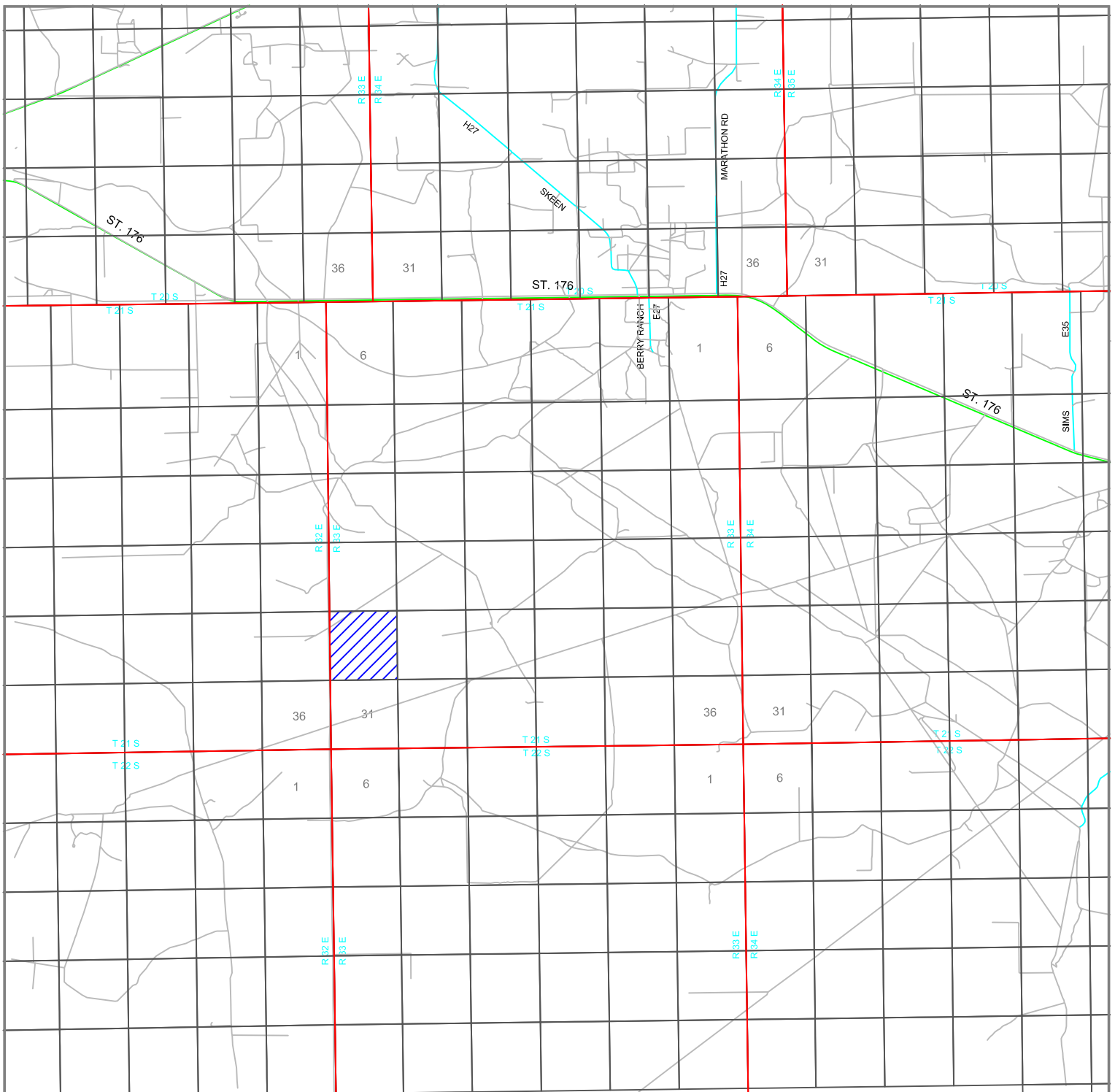
W.O. Number: KJG 35290

Survey Date: 01-23-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



DAGGER STATE COM #554H

Located 2560' FNL and 2010' 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 35290

Survey Date: 01-23-2021

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**

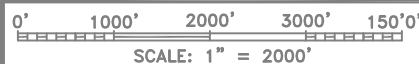


DAGGER STATE COM #554H

Located 2560' FNL and 2010' FWL
 Section 30, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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W.O. Number: KJG 35290

Survey Date: 01-23-2021

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

GAS CAPTURE PLAN

Date: 2/9/2021

☒ 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 #554H	30-025-48466	F-30-21S-33E	2560N 2010W	1500	Flared	Flare during initial testing and cleanup

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 0' 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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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comments

Permit 291572

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077		API Number: 30-025-48466
		Well: DAGGER STATE COM #554H
Created By	Comment	Comment Date

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

Form APD Conditions

Permit 291572

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: 30-025-48466
	Well: DAGGER STATE COM #554H

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	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.

Kautz, Paul, EMNRD

From: Martin, Ed <emartin@slo.state.nm.us>
Sent: Friday, July 15, 2016 7:37 AM
To: Rutley, James; Katie Keller; Kevin Ryan
Cc: Tate F. Savage
Subject: RE: AMTEX "Dagger Draw" Drill Island in Section 30 21S 33E

The New Mexico State Land Office concurs. Drill Island to which this email refers is approved.

Ed Martin
 Oil and Gas Manager
 Oil Gas and Minerals Division
 505.827.5746
 New Mexico State Land Office
 310 Old Santa Fe Trail
 P.O. Box 1148
 Santa Fe, NM 87504-1148
 emartin@slo.state.nm.us



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From: Rutley, James [mailto:jrutley@blm.gov]
Sent: Tuesday, July 05, 2016 6:48 AM
To: Katie Keller <katiek@intrepidpotash.com>; Kevin Ryan <Kevin.Ryan@intrepidpotash.com>
Cc: Tate F. Savage <tate.savage@amtexenergy.com>; Martin, Ed <emartin@slo.state.nm.us>
Subject: AMTEX "Dagger Draw" Drill Island in Section 30 21S 33E

Good Morning Katie and Kevin,

AMTEX Energy proposed to State Lands and BLM the AMTEX Drill Island for its Dagger Draw operations. The drill island and development area's 30 day notification period expired without objection or protest. The development area consists of all of sections 19, 30 and 31 in T21S R33E and all wells will be drilled from the AMTEX Drill Island in Section 30(see attached survey).

Because the drill island is on State Lands and not BLM, a formal Federal development area was not approved but would have been if on Federal Lands.

Only wells drilled from or proposed from the AMTEX Drill Island will be approved with respect to your LMR. All other wells not on drill island will be subject to provisions of Oil Conservation Division Order R-111-P as to whether the proposed locations are within an established Life-of-Mine-Reserve that is filed with BLM by you.

Thanks,

Jim

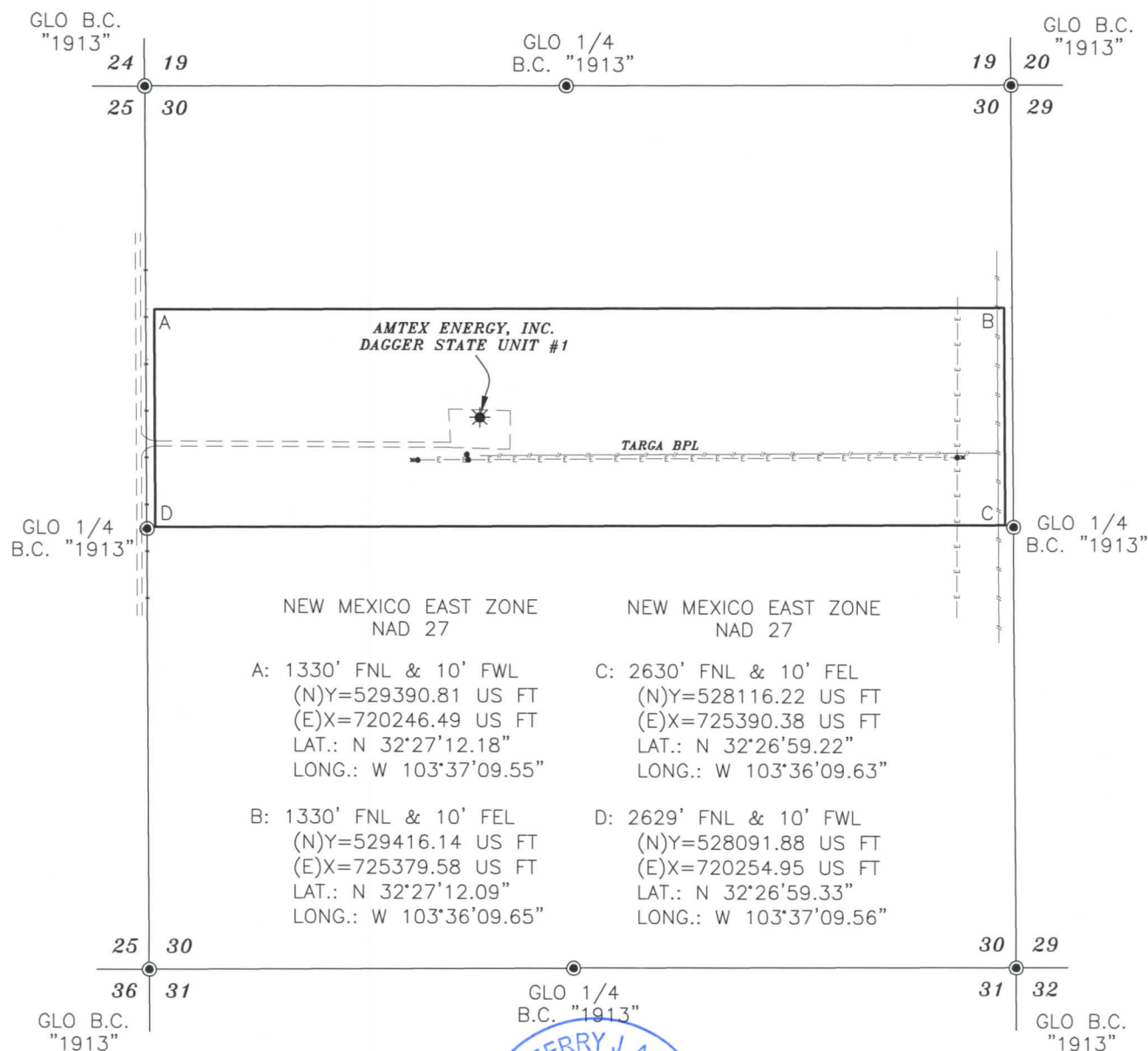
James S. Rutley
Geologist
Carlsbad Field Office
Bureau of Land Management
(575) 234-5904

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AMTEX ENERGY, INC.
AMTEX/COG DRILL ISLAND IN SECTION 30,
TOWNSHIP 21 SOUTH, RANGE 33 EAST,
N.M.P.M., LEA COUNTY, NEW MEXICO



SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.



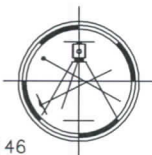
LEGEND

- - DENOTES FOUND MONUMENT AS NOTED
- E—E—E— - DENOTES ELECTRIC LINE
- P—P—P—P— - DENOTES PIPELINE
- X—X—X—X— - DENOTES FENCE LINE
- == == == - DENOTES CALICHE ROAD

Terry J. Asel 5/13/2016
 Terry J. Asel, N.M. R.P.L.S. No. 15079

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
 HOBBS, NEW MEXICO - 575-393-9146



1000' 0 1000' 2000' FEET
 SCALE: 1"=1000'

**WELL DETAILS: Dagger State Com 554H**

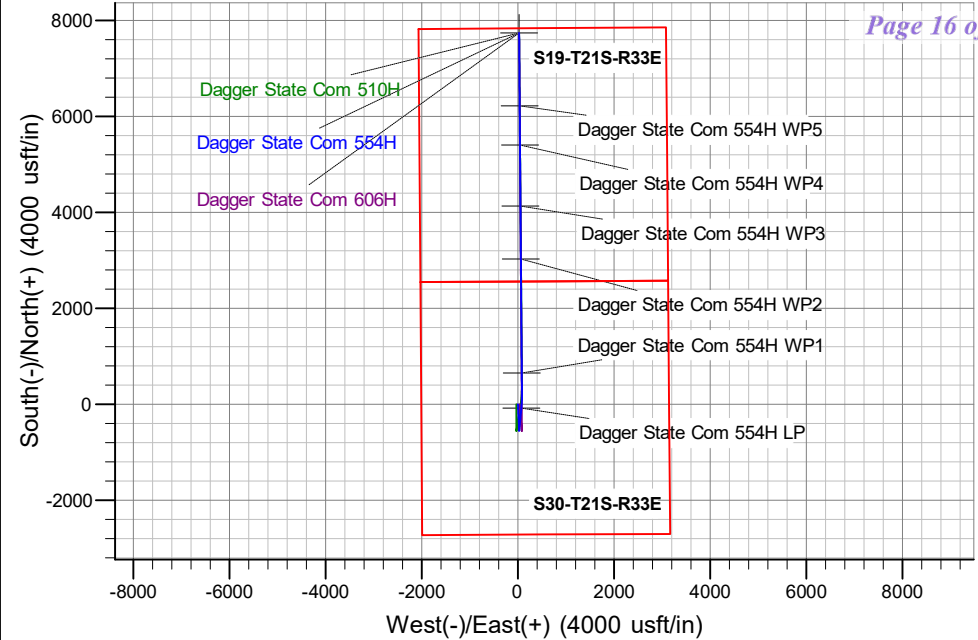
Ground Elev: 3820.0 KB: 3855.5

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	528232.36	763436.74	32° 27' 0.421 N	103° 36' 47.970 W

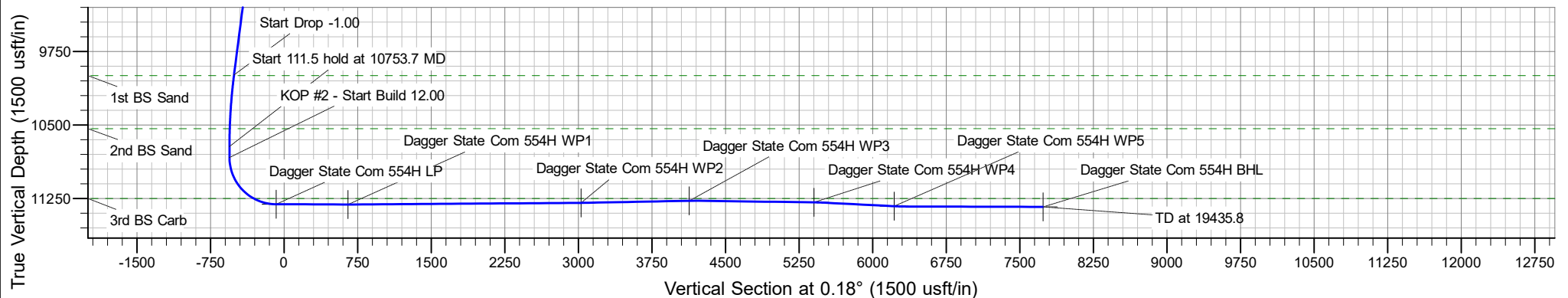
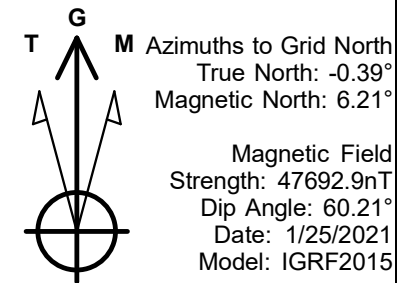
PROJECT DETAILS: Hat Mesa

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	VFace	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5650.0	0.00	0.00	5650.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	6382.7	7.33	177.43	6380.7	-46.7	2.1	1.00	177.43	-46.7	Start 3638.3 hold at 6382.7 MD
4	10021.0	7.33	177.43	9989.3	-510.3	22.9	0.00	0.00	-510.2	Start Drop -1.00
5	10753.7	0.00	0.00	10720.0	-557.0	25.0	1.00	180.00	-556.9	Start 111.5 hold at 10753.7 MD
6	10865.2	0.00	0.00	10831.5	-557.0	25.0	0.00	0.00	-556.9	KOP #2 - Start Build 12.00
7	11615.2	90.00	5.43	11309.0	-81.7	70.2	12.00	5.43	-81.5	LP - Start 1.5 hold at 11615.2 MD
8	11616.7	90.00	5.43	11309.0	-80.2	70.3	0.00	0.00	-80.0	Start DLS 2.00 TFO -92.87
9	11911.1	89.71	359.55	11309.8	213.8	83.1	2.00	-92.87	214.0	Start 437.4 hold at 11911.1 MD
10	12348.5	89.71	359.55	11312.0	651.1	79.7	0.00	0.00	651.4	WP1 - Start DLS 2.00 TFO -0.15
11	12383.9	90.42	359.55	11312.0	686.6	79.4	2.00	-0.15	686.8	Start 2340.3 hold at 12383.9 MD
12	14724.2	90.42	359.55	11295.0	3026.7	61.0	0.00	0.00	3026.9	WP2 - Start DLS 2.00 TFO 0.36
13	14758.5	91.10	359.55	11294.5	3061.0	60.7	2.00	0.36	3061.2	Start 1068.8 hold at 14758.5 MD
14	15827.3	91.10	359.55	11274.0	4129.6	52.4	0.00	0.00	4129.8	WP3 - Start DLS 2.00 TFO 179.97
15	15922.0	89.21	359.55	11273.7	4224.2	51.7	2.00	179.97	4224.4	Start 1178.2 hold at 15922.0 MD
16	17100.1	89.21	359.55	11290.0	5402.2	42.5	0.00	0.00	5402.3	WP4 - Start DLS 2.00 TFO -179.90
17	17203.9	87.13	359.55	11293.3	5506.0	41.7	2.00	-179.90	5506.1	Start 713.6 hold at 17203.9 MD
18	17917.5	87.13	359.55	11329.0	6218.6	36.1	0.00	0.00	6218.7	WP5 - Start DLS 2.00 TFO 0.09
19	18053.7	89.86	359.55	11332.6	6354.8	35.0	2.00	0.09	6354.9	Start 1382.1 hold at 18053.7 MD
20	19435.8	89.86	359.55	11336.0	7736.9	24.3	0.00	0.00	7736.9	TD at 19435.8





Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 554H

Dagger State Com 554H

Plan: Dagger State Com 554H - Prelim 1

Standard Planning Report

02 February, 2021



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 554H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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 554H					
Well Position	+N/-S	0.0 usft	Northing:	528,232.36 usft	Latitude:	32° 27' 0.421 N
	+E/-W	0.0 usft	Easting:	763,436.73 usft	Longitude:	103° 36' 47.970 W
Position Uncertainty		0.0 usft	Wellhead Elevation:	usft	Ground Level:	3,820.0 usft
Grid Convergence:		0.39 °				

Wellbore	Dagger State Com 554H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/25/2021	6.60	60.21	47,692.86224224

Design	Dagger State Com 554H - 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	0.18	

Plan Survey Tool Program	Date	2/2/2021			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.0	19,435.8	Dagger State Com 554H - Prelim	MWD+HRGM	
			OWSG MWD + HRGM		



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Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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	
5,650.0	0.00	0.00	5,650.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,382.7	7.33	177.43	6,380.7	-46.7	2.1	1.00	1.00	0.00	177.43	
10,021.0	7.33	177.43	9,989.3	-510.3	22.9	0.00	0.00	0.00	0.00	
10,753.7	0.00	0.00	10,720.0	-557.0	25.0	1.00	-1.00	0.00	180.00	
10,865.2	0.00	0.00	10,831.5	-557.0	25.0	0.00	0.00	0.00	0.00	
11,615.2	90.00	5.43	11,309.0	-81.7	70.2	12.00	12.00	0.00	5.43	
11,616.7	90.00	5.43	11,309.0	-80.2	70.3	0.00	0.00	0.00	0.00	Dagger State Com 55
11,911.1	89.71	359.55	11,309.8	213.8	83.1	2.00	-0.10	-2.00	-92.87	
12,348.5	89.71	359.55	11,312.0	651.1	79.7	0.00	0.00	0.00	0.00	Dagger State Com 55
12,383.9	90.42	359.55	11,312.0	686.6	79.4	2.00	2.00	-0.01	-0.15	
14,724.2	90.42	359.55	11,295.0	3,026.7	61.0	0.00	0.00	0.00	0.00	Dagger State Com 55
14,758.5	91.10	359.55	11,294.5	3,061.0	60.7	2.00	2.00	0.01	0.36	
15,827.3	91.10	359.55	11,274.0	4,129.6	52.4	0.00	0.00	0.00	0.00	Dagger State Com 55
15,922.0	89.21	359.55	11,273.7	4,224.2	51.7	2.00	-2.00	0.00	179.97	
17,100.1	89.21	359.55	11,290.0	5,402.2	42.5	0.00	0.00	0.00	0.00	Dagger State Com 55
17,203.9	87.13	359.55	11,293.3	5,506.0	41.7	2.00	-2.00	0.00	-179.90	
17,917.5	87.13	359.55	11,329.0	6,218.6	36.1	0.00	0.00	0.00	0.00	Dagger State Com 55
18,053.7	89.86	359.55	11,332.6	6,354.8	35.0	2.00	2.00	0.00	0.09	
19,435.8	89.86	359.55	11,336.0	7,736.9	24.3	0.00	0.00	0.00	0.00	Dagger State Com 55



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Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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
1,531.0	0.00	0.00	1,531.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
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



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Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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)
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00
5,357.0	0.00	0.00	5,357.0	0.0	0.0	0.0	0.00	0.00	0.00
Base of Limestone									
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,650.0	0.00	0.00	5,650.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,700.0	0.50	177.43	5,700.0	-0.2	0.0	-0.2	1.00	1.00	0.00
5,800.0	1.50	177.43	5,800.0	-2.0	0.1	-2.0	1.00	1.00	0.00
5,900.0	2.50	177.43	5,899.9	-5.4	0.2	-5.4	1.00	1.00	0.00
6,000.0	3.50	177.43	5,999.8	-10.7	0.5	-10.7	1.00	1.00	0.00
6,100.0	4.50	177.43	6,099.5	-17.6	0.8	-17.6	1.00	1.00	0.00
6,200.0	5.50	177.43	6,199.2	-26.4	1.2	-26.3	1.00	1.00	0.00
6,300.0	6.50	177.43	6,298.6	-36.8	1.7	-36.8	1.00	1.00	0.00
6,382.7	7.33	177.43	6,380.7	-46.7	2.1	-46.7	1.00	1.00	0.00
Start 3638.3 hold at 6382.7 MD									
6,400.0	7.33	177.43	6,397.9	-48.9	2.2	-48.9	0.00	0.00	0.00
6,500.0	7.33	177.43	6,497.0	-61.7	2.8	-61.7	0.00	0.00	0.00
6,600.0	7.33	177.43	6,596.2	-74.4	3.3	-74.4	0.00	0.00	0.00
6,700.0	7.33	177.43	6,695.4	-87.2	3.9	-87.1	0.00	0.00	0.00
6,800.0	7.33	177.43	6,794.6	-99.9	4.5	-99.9	0.00	0.00	0.00
6,900.0	7.33	177.43	6,893.8	-112.6	5.1	-112.6	0.00	0.00	0.00
7,000.0	7.33	177.43	6,993.0	-125.4	5.6	-125.4	0.00	0.00	0.00
7,100.0	7.33	177.43	7,092.1	-138.1	6.2	-138.1	0.00	0.00	0.00
7,200.0	7.33	177.43	7,191.3	-150.9	6.8	-150.8	0.00	0.00	0.00
7,300.0	7.33	177.43	7,290.5	-163.6	7.3	-163.6	0.00	0.00	0.00
7,400.0	7.33	177.43	7,389.7	-176.3	7.9	-176.3	0.00	0.00	0.00
7,500.0	7.33	177.43	7,488.9	-189.1	8.5	-189.1	0.00	0.00	0.00
7,600.0	7.33	177.43	7,588.1	-201.8	9.1	-201.8	0.00	0.00	0.00
7,700.0	7.33	177.43	7,687.2	-214.6	9.6	-214.5	0.00	0.00	0.00
7,800.0	7.33	177.43	7,786.4	-227.3	10.2	-227.3	0.00	0.00	0.00
7,900.0	7.33	177.43	7,885.6	-240.0	10.8	-240.0	0.00	0.00	0.00
8,000.0	7.33	177.43	7,984.8	-252.8	11.3	-252.7	0.00	0.00	0.00
8,100.0	7.33	177.43	8,084.0	-265.5	11.9	-265.5	0.00	0.00	0.00
8,200.0	7.33	177.43	8,183.2	-278.3	12.5	-278.2	0.00	0.00	0.00
8,300.0	7.33	177.43	8,282.3	-291.0	13.1	-291.0	0.00	0.00	0.00
8,400.0	7.33	177.43	8,381.5	-303.7	13.6	-303.7	0.00	0.00	0.00
8,500.0	7.33	177.43	8,480.7	-316.5	14.2	-316.4	0.00	0.00	0.00
8,543.6	7.33	177.43	8,524.0	-322.0	14.5	-322.0	0.00	0.00	0.00
Lower Brushy									
8,600.0	7.33	177.43	8,579.9	-329.2	14.8	-329.2	0.00	0.00	0.00
8,700.0	7.33	177.43	8,679.1	-342.0	15.3	-341.9	0.00	0.00	0.00
8,800.0	7.33	177.43	8,778.3	-354.7	15.9	-354.7	0.00	0.00	0.00
8,900.0	7.33	177.43	8,877.5	-367.4	16.5	-367.4	0.00	0.00	0.00
9,000.0	7.33	177.43	8,976.6	-380.2	17.1	-380.1	0.00	0.00	0.00
9,084.1	7.33	177.43	9,060.0	-390.9	17.5	-390.8	0.00	0.00	0.00
Avalon									
9,100.0	7.33	177.43	9,075.8	-392.9	17.6	-392.9	0.00	0.00	0.00
9,200.0	7.33	177.43	9,175.0	-405.7	18.2	-405.6	0.00	0.00	0.00
9,300.0	7.33	177.43	9,274.2	-418.4	18.8	-418.3	0.00	0.00	0.00
9,400.0	7.33	177.43	9,373.4	-431.1	19.4	-431.1	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 554H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - Prelim 1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.0	7.33	177.43	9,472.6	-443.9	19.9	-443.8	0.00	0.00	0.00
9,600.0	7.33	177.43	9,571.7	-456.6	20.5	-456.6	0.00	0.00	0.00
9,700.0	7.33	177.43	9,670.9	-469.4	21.1	-469.3	0.00	0.00	0.00
9,800.0	7.33	177.43	9,770.1	-482.1	21.6	-482.0	0.00	0.00	0.00
9,900.0	7.33	177.43	9,869.3	-494.8	22.2	-494.8	0.00	0.00	0.00
10,000.0	7.33	177.43	9,968.5	-507.6	22.8	-507.5	0.00	0.00	0.00
10,021.0	7.33	177.43	9,989.3	-510.3	22.9	-510.2	0.00	0.00	0.00
Start Drop -1.00									
10,027.8	7.26	177.43	9,996.0	-511.1	22.9	-511.0	1.00	-1.00	0.00
1st BS Sand									
10,100.0	6.54	177.43	10,067.7	-519.8	23.3	-519.7	1.00	-1.00	0.00
10,200.0	5.54	177.43	10,167.2	-530.3	23.8	-530.2	1.00	-1.00	0.00
10,300.0	4.54	177.43	10,266.8	-539.1	24.2	-539.0	1.00	-1.00	0.00
10,400.0	3.54	177.43	10,366.5	-546.1	24.5	-546.0	1.00	-1.00	0.00
10,500.0	2.54	177.43	10,466.4	-551.4	24.7	-551.3	1.00	-1.00	0.00
10,571.7	1.82	177.43	10,538.0	-554.1	24.9	-554.0	1.00	-1.00	0.00
2nd BS Sand									
10,600.0	1.54	177.43	10,566.3	-554.9	24.9	-554.9	1.00	-1.00	0.00
10,700.0	0.54	177.43	10,666.3	-556.7	25.0	-556.7	1.00	-1.00	0.00
10,753.7	0.00	0.00	10,720.0	-557.0	25.0	-556.9	1.00	-1.00	0.00
Start 111.5 hold at 10753.7 MD									
10,800.0	0.00	0.00	10,766.3	-557.0	25.0	-556.9	0.00	0.00	0.00
10,865.2	0.00	0.00	10,831.5	-557.0	25.0	-556.9	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
10,900.0	4.17	5.43	10,866.3	-555.7	25.1	-555.7	12.00	12.00	0.00
11,000.0	16.17	5.43	10,964.5	-538.2	26.8	-538.1	12.00	12.00	0.00
11,100.0	28.17	5.43	11,057.0	-500.7	30.4	-500.6	12.00	12.00	0.00
11,200.0	40.17	5.43	11,139.5	-444.9	35.7	-444.8	12.00	12.00	0.00
11,300.0	52.17	5.43	11,208.7	-373.2	42.5	-373.1	12.00	12.00	0.00
11,377.4	61.46	5.43	11,251.0	-308.7	48.6	-308.6	12.00	12.00	0.00
3rd BS Carb									
11,400.0	64.17	5.43	11,261.3	-288.8	50.5	-288.6	12.00	12.00	0.00
11,500.0	76.17	5.43	11,295.2	-195.3	59.4	-195.1	12.00	12.00	0.00
11,600.0	88.17	5.43	11,308.8	-96.8	68.8	-96.6	12.00	12.00	0.00
11,615.2	90.00	5.43	11,309.0	-81.7	70.2	-81.5	12.00	12.00	0.00
LP - Start 1.5 hold at 11615.2 MD									
11,616.7	90.00	5.43	11,309.0	-80.2	70.3	-80.0	0.00	0.00	0.00
Start DLS 2.00 TFO -92.87 - Dagger State Com 554H LP									
11,700.0	89.92	3.77	11,309.1	2.8	77.0	3.1	2.00	-0.10	-2.00
11,800.0	89.82	1.77	11,309.3	102.7	81.8	102.9	2.00	-0.10	-2.00
11,900.0	89.72	359.77	11,309.7	202.7	83.2	202.9	2.00	-0.10	-2.00
11,911.1	89.71	359.55	11,309.8	213.8	83.1	214.0	2.00	-0.10	-2.00
Start 437.4 hold at 11911.1 MD									
12,000.0	89.71	359.55	11,310.2	302.7	82.4	302.9	0.00	0.00	0.00
12,100.0	89.71	359.55	11,310.7	402.7	81.6	402.9	0.00	0.00	0.00
12,200.0	89.71	359.55	11,311.2	502.7	80.9	502.9	0.00	0.00	0.00
12,300.0	89.71	359.55	11,311.8	602.7	80.1	602.9	0.00	0.00	0.00
12,348.5	89.71	359.55	11,312.0	651.1	79.7	651.4	0.00	0.00	0.00
WP1 - Start DLS 2.00 TFO -0.15 - Dagger State Com 554H WP1									
12,383.9	90.42	359.55	11,312.0	686.6	79.4	686.8	2.00	2.00	-0.01
Start 2340.3 hold at 12383.9 MD									
12,400.0	90.42	359.55	11,311.8	702.7	79.3	702.9	0.00	0.00	0.00
12,500.0	90.42	359.55	11,311.1	802.6	78.5	802.9	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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)
12,600.0	90.42	359.55	11,310.4	902.6	77.7	902.9	0.00	0.00	0.00
12,700.0	90.42	359.55	11,309.7	1,002.6	76.9	1,002.9	0.00	0.00	0.00
12,800.0	90.42	359.55	11,308.9	1,102.6	76.1	1,102.9	0.00	0.00	0.00
12,900.0	90.42	359.55	11,308.2	1,202.6	75.4	1,202.9	0.00	0.00	0.00
13,000.0	90.42	359.55	11,307.5	1,302.6	74.6	1,302.8	0.00	0.00	0.00
13,100.0	90.42	359.55	11,306.8	1,402.6	73.8	1,402.8	0.00	0.00	0.00
13,200.0	90.42	359.55	11,306.0	1,502.6	73.0	1,502.8	0.00	0.00	0.00
13,300.0	90.42	359.55	11,305.3	1,602.6	72.2	1,602.8	0.00	0.00	0.00
13,400.0	90.42	359.55	11,304.6	1,702.6	71.4	1,702.8	0.00	0.00	0.00
13,500.0	90.42	359.55	11,303.9	1,802.6	70.6	1,802.8	0.00	0.00	0.00
13,600.0	90.42	359.55	11,303.1	1,902.6	69.8	1,902.8	0.00	0.00	0.00
13,700.0	90.42	359.55	11,302.4	2,002.6	69.1	2,002.8	0.00	0.00	0.00
13,800.0	90.42	359.55	11,301.7	2,102.6	68.3	2,102.8	0.00	0.00	0.00
13,900.0	90.42	359.55	11,301.0	2,202.6	67.5	2,202.8	0.00	0.00	0.00
14,000.0	90.42	359.55	11,300.2	2,302.6	66.7	2,302.8	0.00	0.00	0.00
14,100.0	90.42	359.55	11,299.5	2,402.6	65.9	2,402.7	0.00	0.00	0.00
14,200.0	90.42	359.55	11,298.8	2,502.5	65.1	2,502.7	0.00	0.00	0.00
14,300.0	90.42	359.55	11,298.1	2,602.5	64.3	2,602.7	0.00	0.00	0.00
14,400.0	90.42	359.55	11,297.3	2,702.5	63.6	2,702.7	0.00	0.00	0.00
14,500.0	90.42	359.55	11,296.6	2,802.5	62.8	2,802.7	0.00	0.00	0.00
14,600.0	90.42	359.55	11,295.9	2,902.5	62.0	2,902.7	0.00	0.00	0.00
14,700.0	90.42	359.55	11,295.2	3,002.5	61.2	3,002.7	0.00	0.00	0.00
14,724.2	90.42	359.55	11,295.0	3,026.7	61.0	3,026.9	0.00	0.00	0.00
WP2 - Start DLS 2.00 TFO 0.36 - Dagger State Com 554H WP2									
14,758.5	91.10	359.55	11,294.5	3,061.0	60.7	3,061.2	2.00	2.00	0.01
Start 1068.8 hold at 14758.5 MD									
14,800.0	91.10	359.55	11,293.7	3,102.5	60.4	3,102.7	0.00	0.00	0.00
14,900.0	91.10	359.55	11,291.8	3,202.5	59.6	3,202.7	0.00	0.00	0.00
15,000.0	91.10	359.55	11,289.9	3,302.5	58.8	3,302.6	0.00	0.00	0.00
15,100.0	91.10	359.55	11,288.0	3,402.4	58.1	3,402.6	0.00	0.00	0.00
15,200.0	91.10	359.55	11,286.1	3,502.4	57.3	3,502.6	0.00	0.00	0.00
15,300.0	91.10	359.55	11,284.1	3,602.4	56.5	3,602.6	0.00	0.00	0.00
15,400.0	91.10	359.55	11,282.2	3,702.4	55.7	3,702.5	0.00	0.00	0.00
15,500.0	91.10	359.55	11,280.3	3,802.4	55.0	3,802.5	0.00	0.00	0.00
15,600.0	91.10	359.55	11,278.4	3,902.3	54.2	3,902.5	0.00	0.00	0.00
15,700.0	91.10	359.55	11,276.4	4,002.3	53.4	4,002.5	0.00	0.00	0.00
15,800.0	91.10	359.55	11,274.5	4,102.3	52.6	4,102.4	0.00	0.00	0.00
15,827.3	91.10	359.55	11,274.0	4,129.6	52.4	4,129.8	0.00	0.00	0.00
WP3 - Start DLS 2.00 TFO 179.97 - Dagger State Com 554H WP3									
15,900.0	89.65	359.55	11,273.5	4,202.3	51.8	4,202.4	2.00	-2.00	0.00
15,922.0	89.21	359.55	11,273.7	4,224.2	51.7	4,224.4	2.00	-2.00	0.00
Start 1178.2 hold at 15922.0 MD									
16,000.0	89.21	359.55	11,274.8	4,302.3	51.1	4,302.4	0.00	0.00	0.00
16,100.0	89.21	359.55	11,276.2	4,402.3	50.3	4,402.4	0.00	0.00	0.00
16,200.0	89.21	359.55	11,277.6	4,502.2	49.5	4,502.4	0.00	0.00	0.00
16,300.0	89.21	359.55	11,279.0	4,602.2	48.7	4,602.4	0.00	0.00	0.00
16,400.0	89.21	359.55	11,280.3	4,702.2	47.9	4,702.3	0.00	0.00	0.00
16,500.0	89.21	359.55	11,281.7	4,802.2	47.2	4,802.3	0.00	0.00	0.00
16,600.0	89.21	359.55	11,283.1	4,902.2	46.4	4,902.3	0.00	0.00	0.00
16,700.0	89.21	359.55	11,284.5	5,002.2	45.6	5,002.3	0.00	0.00	0.00
16,800.0	89.21	359.55	11,285.9	5,102.2	44.8	5,102.3	0.00	0.00	0.00
16,900.0	89.21	359.55	11,287.2	5,202.2	44.1	5,202.3	0.00	0.00	0.00
17,000.0	89.21	359.55	11,288.6	5,302.1	43.3	5,302.3	0.00	0.00	0.00



Planning Report

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Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - 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)	
17,100.0	89.21	359.55	11,290.0	5,402.1	42.5	5,402.2	0.00	0.00	0.00	
17,100.1	89.21	359.55	11,290.0	5,402.2	42.5	5,402.3	0.00	0.00	0.00	
WP4 - Start DLS 2.00 TFO -179.90 - Dagger State Com 554H WP4										
17,200.0	87.21	359.55	11,293.1	5,502.1	41.7	5,502.2	2.00	-2.00	0.00	
17,203.9	87.13	359.55	11,293.3	5,506.0	41.7	5,506.1	2.00	-2.00	0.00	
Start 713.6 hold at 17203.9 MD										
17,300.0	87.13	359.55	11,298.1	5,601.9	40.9	5,602.0	0.00	0.00	0.00	
17,400.0	87.13	359.55	11,303.1	5,701.8	40.2	5,701.9	0.00	0.00	0.00	
17,500.0	87.13	359.55	11,308.1	5,801.7	39.4	5,801.8	0.00	0.00	0.00	
17,600.0	87.13	359.55	11,313.1	5,901.6	38.6	5,901.7	0.00	0.00	0.00	
17,700.0	87.13	359.55	11,318.1	6,001.4	37.8	6,001.5	0.00	0.00	0.00	
17,800.0	87.13	359.55	11,323.1	6,101.3	37.0	6,101.4	0.00	0.00	0.00	
17,900.0	87.13	359.55	11,328.1	6,201.2	36.2	6,201.3	0.00	0.00	0.00	
17,917.5	87.13	359.55	11,329.0	6,218.6	36.1	6,218.7	0.00	0.00	0.00	
WP5 - Start DLS 2.00 TFO 0.09 - Dagger State Com 554H WP5										
18,000.0	88.78	359.55	11,331.9	6,301.1	35.5	6,301.2	2.00	2.00	0.00	
18,053.7	89.86	359.55	11,332.6	6,354.8	35.0	6,354.9	2.00	2.00	0.00	
Start 1382.1 hold at 18053.7 MD										
18,100.0	89.86	359.55	11,332.7	6,401.1	34.7	6,401.2	0.00	0.00	0.00	
18,200.0	89.86	359.55	11,332.9	6,501.1	33.9	6,501.2	0.00	0.00	0.00	
18,300.0	89.86	359.55	11,333.2	6,601.1	33.1	6,601.2	0.00	0.00	0.00	
18,400.0	89.86	359.55	11,333.4	6,701.1	32.3	6,701.1	0.00	0.00	0.00	
18,500.0	89.86	359.55	11,333.7	6,801.1	31.6	6,801.1	0.00	0.00	0.00	
18,600.0	89.86	359.55	11,333.9	6,901.1	30.8	6,901.1	0.00	0.00	0.00	
18,700.0	89.86	359.55	11,334.2	7,001.1	30.0	7,001.1	0.00	0.00	0.00	
18,800.0	89.86	359.55	11,334.4	7,101.1	29.2	7,101.1	0.00	0.00	0.00	
18,900.0	89.86	359.55	11,334.7	7,201.1	28.5	7,201.1	0.00	0.00	0.00	
19,000.0	89.86	359.55	11,334.9	7,301.1	27.7	7,301.1	0.00	0.00	0.00	
19,100.0	89.86	359.55	11,335.2	7,401.1	26.9	7,401.1	0.00	0.00	0.00	
19,200.0	89.86	359.55	11,335.4	7,501.0	26.1	7,501.1	0.00	0.00	0.00	
19,300.0	89.86	359.55	11,335.7	7,601.0	25.4	7,601.1	0.00	0.00	0.00	
19,400.0	89.86	359.55	11,335.9	7,701.0	24.6	7,701.1	0.00	0.00	0.00	
19,435.8	89.86	359.55	11,336.0	7,736.9	24.3	7,736.9	0.00	0.00	0.00	
TD at 19435.8 - Dagger State Com 554H BHL										



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Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - Prelim 1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Dagger State Com 554H - plan hits target center - Point	0.00	0.01	11,274.0	4,129.6	52.4	532,361.99	763,489.13	32° 27' 41.280 N	103° 36' 47.033 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,290.0	5,402.2	42.5	533,634.59	763,479.23	32° 27' 53.873 N	103° 36' 47.049 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,295.0	3,026.7	61.0	531,259.09	763,497.73	32° 27' 30.366 N	103° 36' 47.020 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,309.0	-80.2	70.3	528,152.14	763,507.07	32° 26' 59.623 N	103° 36' 47.156 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,312.0	651.1	79.7	528,883.49	763,516.43	32° 27' 6.859 N	103° 36' 46.989 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,329.0	6,218.6	36.1	534,450.99	763,472.83	32° 28' 1.952 N	103° 36' 47.059 W
Dagger State Com 554H - plan hits target center - Point	0.00	0.00	11,336.0	7,736.9	24.3	535,969.23	763,461.04	32° 28' 16.975 N	103° 36' 47.077 W

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
11,434.0	11,275.0	LP	5-1/2	5-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,531.0	1,531.0	Rustler		0.00		
5,357.0	5,357.0	Base of Limestone		0.00		
8,543.6	8,524.0	Lower Brushy		0.00		
9,084.1	9,060.0	Avalon		0.00		
10,027.8	9,996.0	1st BS Sand		0.00		
10,571.7	10,538.0	2nd BS Sand		0.00		
11,377.4	11,251.0	3rd BS Carb		0.00		



Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well Dagger State Com 554H
Company:	Advance Energy Partners	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Project:	Hat Mesa	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site:	Dagger State	North Reference:	Grid
Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dagger State Com 554H		
Design:	Dagger State Com 554H - Prelim 1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
5,650.0	5,650.0	0.0	0.0	KOP - Start Build 1.00
6,382.7	6,380.7	-46.7	2.1	Start 3638.3 hold at 6382.7 MD
10,021.0	9,989.3	-510.3	22.9	Start Drop -1.00
10,753.7	10,720.0	-557.0	25.0	Start 111.5 hold at 10753.7 MD
10,865.2	10,831.5	-557.0	25.0	KOP #2 - Start Build 12.00
11,615.2	11,309.0	-81.7	70.2	LP - Start 1.5 hold at 11615.2 MD
11,616.7	11,309.0	-80.2	70.3	Start DLS 2.00 TFO -92.87
11,911.1	11,309.8	213.8	83.1	Start 437.4 hold at 11911.1 MD
12,348.5	11,312.0	651.1	79.7	WP1 - Start DLS 2.00 TFO -0.15
12,383.9	11,312.0	686.6	79.4	Start 2340.3 hold at 12383.9 MD
14,724.2	11,295.0	3,026.7	61.0	WP2 - Start DLS 2.00 TFO 0.36
14,758.5	11,294.5	3,061.0	60.7	Start 1068.8 hold at 14758.5 MD
15,827.3	11,274.0	4,129.6	52.4	WP3 - Start DLS 2.00 TFO 179.97
15,922.0	11,273.7	4,224.2	51.7	Start 1178.2 hold at 15922.0 MD
17,100.1	11,290.0	5,402.2	42.5	WP4 - Start DLS 2.00 TFO -179.90
17,203.9	11,293.3	5,506.0	41.7	Start 713.6 hold at 17203.9 MD
17,917.5	11,329.0	6,218.6	36.1	WP5 - Start DLS 2.00 TFO 0.09
18,053.7	11,332.6	6,354.8	35.0	Start 1382.1 hold at 18053.7 MD
19,435.8	11,336.0	7,736.9	24.3	TD at 19435.8



Advance Energy Partners

Hat Mesa

Dagger State

Dagger State Com 554H

Dagger State Com 554H

Dagger State Com 554H - Prelim 1

Anticollision Report

02 February, 2021



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference	Dagger State Com 554H - 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 2/2/2021	
From (usft)	To (usft)	Survey (Wellbore)
0.0	19,435.8	Dagger State Com 554H - Prelim 1 (Dagge
		Tool Name
		MWD+HRGM
		Description
		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 510H - Dagger State Com 510H - Da	5,404.3	5,405.3	33.1	5.8	1.210	Level 3, CC
Dagger State Com 510H - Dagger State Com 510H - Da	5,500.0	5,501.0	33.2	5.6	1.202	Level 3, ES
Dagger State Com 510H - Dagger State Com 510H - Da	5,600.0	5,600.9	33.4	5.6	1.201	Level 3, SF
Dagger State Com 606H - Dagger State Com 606H - Da	5,764.9	5,764.9	30.2	1.9	1.066	Level 3, CC
Dagger State Com 606H - Dagger State Com 606H - Da	5,800.0	5,800.0	30.2	1.8	1.064	Level 3, ES, SF

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - Prelim 1													Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)				
0.0	0.0	1.0	1.0	0.0	0.0	-95.43	-3.1	-33.0	33.1					
100.0	100.0	101.0	101.0	0.5	0.5	-95.43	-3.1	-33.0	33.1	32.1	1.07	30.907		
200.0	200.0	201.0	201.0	1.7	1.7	-95.43	-3.1	-33.0	33.1	29.7	3.43	9.659		
300.0	300.0	301.0	301.0	2.4	2.4	-95.43	-3.1	-33.0	33.1	28.3	4.83	6.863		
400.0	400.0	401.0	401.0	3.0	3.0	-95.43	-3.1	-33.0	33.1	27.2	5.91	5.604		
500.0	500.0	501.0	501.0	3.4	3.4	-95.43	-3.1	-33.0	33.1	26.3	6.83	4.848		
600.0	600.0	601.0	601.0	3.8	3.8	-95.43	-3.1	-33.0	33.1	25.5	7.65	4.330		
700.0	700.0	701.0	701.0	4.2	4.2	-95.43	-3.1	-33.0	33.1	24.7	8.40	3.946		
800.0	800.0	801.0	801.0	4.5	4.5	-95.43	-3.1	-33.0	33.1	24.0	9.09	3.646		
900.0	900.0	901.0	901.0	4.9	4.9	-95.43	-3.1	-33.0	33.1	23.4	9.73	3.404		
1,000.0	1,000.0	1,001.0	1,001.0	5.2	5.2	-95.43	-3.1	-33.0	33.1	22.8	10.34	3.203		
1,100.0	1,100.0	1,101.0	1,101.0	5.5	5.5	-95.43	-3.1	-33.0	33.1	22.2	10.93	3.033		
1,200.0	1,200.0	1,201.0	1,201.0	5.7	5.7	-95.43	-3.1	-33.0	33.1	21.7	11.48	2.886		
1,300.0	1,300.0	1,301.0	1,301.0	6.0	6.0	-95.43	-3.1	-33.0	33.1	21.1	12.02	2.757		
1,400.0	1,400.0	1,401.0	1,401.0	6.3	6.3	-95.43	-3.1	-33.0	33.1	20.6	12.53	2.644		
1,500.0	1,500.0	1,501.0	1,501.0	6.5	6.5	-95.43	-3.1	-33.0	33.1	20.1	13.03	2.542		
1,600.0	1,600.0	1,601.0	1,601.0	6.8	6.8	-95.43	-3.1	-33.0	33.1	19.6	13.52	2.451		
1,700.0	1,700.0	1,701.0	1,701.0	7.0	7.0	-95.43	-3.1	-33.0	33.1	19.1	13.99	2.368		
1,800.0	1,800.0	1,801.0	1,801.0	7.2	7.2	-95.43	-3.1	-33.0	33.1	18.7	14.45	2.293		
1,900.0	1,900.0	1,901.0	1,901.0	7.4	7.5	-95.43	-3.1	-33.0	33.1	18.2	14.90	2.224		
2,000.0	2,000.0	2,001.0	2,001.0	7.7	7.7	-95.43	-3.1	-33.0	33.1	17.8	15.34	2.160		
2,100.0	2,100.0	2,101.0	2,101.0	7.9	7.9	-95.43	-3.1	-33.0	33.1	17.4	15.77	2.101		

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



Anticollision Report

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Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - 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	
2,200.0	2,200.0	2,201.0	2,201.0	8.1	8.1	-95.43	-3.1	-33.0	33.1	16.9	16.19	2.046	
2,300.0	2,300.0	2,301.0	2,301.0	8.3	8.3	-95.43	-3.1	-33.0	33.1	16.5	16.61	1.995	
2,400.0	2,400.0	2,401.0	2,401.0	8.5	8.5	-95.43	-3.1	-33.0	33.1	16.1	17.02	1.947	
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-95.43	-3.1	-33.0	33.1	15.7	17.42	1.902	
2,600.0	2,600.0	2,601.0	2,601.0	8.9	8.9	-95.43	-3.1	-33.0	33.1	15.3	17.81	1.860	
2,700.0	2,700.0	2,701.0	2,701.0	9.1	9.1	-95.43	-3.1	-33.0	33.1	14.9	18.20	1.820	
2,800.0	2,800.0	2,801.0	2,801.0	9.3	9.3	-95.43	-3.1	-33.0	33.1	14.5	18.59	1.783	
2,900.0	2,900.0	2,901.0	2,901.0	9.5	9.5	-95.43	-3.1	-33.0	33.1	14.2	18.97	1.747	
3,000.0	3,000.0	3,001.0	3,001.0	9.7	9.7	-95.43	-3.1	-33.0	33.1	13.8	19.34	1.713	
3,100.0	3,100.0	3,101.0	3,101.0	9.9	9.9	-95.43	-3.1	-33.0	33.1	13.4	19.71	1.681	
3,200.0	3,200.0	3,201.0	3,201.0	10.0	10.0	-95.43	-3.1	-33.0	33.1	13.1	20.08	1.650	
3,300.0	3,300.0	3,301.0	3,301.0	10.2	10.2	-95.43	-3.1	-33.0	33.1	12.7	20.44	1.621	
3,400.0	3,400.0	3,401.0	3,401.0	10.4	10.4	-95.43	-3.1	-33.0	33.1	12.3	20.80	1.593	
3,500.0	3,500.0	3,501.0	3,501.0	10.6	10.6	-95.43	-3.1	-33.0	33.1	12.0	21.15	1.567	
3,600.0	3,600.0	3,601.0	3,601.0	10.7	10.8	-95.43	-3.1	-33.0	33.1	11.6	21.50	1.541	
3,700.0	3,700.0	3,701.0	3,701.0	10.9	10.9	-95.43	-3.1	-33.0	33.1	11.3	21.85	1.517	
3,800.0	3,800.0	3,801.0	3,801.0	11.1	11.1	-95.43	-3.1	-33.0	33.1	10.9	22.19	1.493 Level 3	
3,900.0	3,900.0	3,901.0	3,901.0	11.3	11.3	-95.43	-3.1	-33.0	33.1	10.6	22.53	1.470 Level 3	
4,000.0	4,000.0	4,001.0	4,001.0	11.4	11.4	-95.43	-3.1	-33.0	33.1	10.3	22.87	1.449 Level 3	
4,100.0	4,100.0	4,101.0	4,101.0	11.6	11.6	-95.43	-3.1	-33.0	33.1	9.9	23.21	1.428 Level 3	
4,200.0	4,200.0	4,201.0	4,201.0	11.8	11.8	-95.43	-3.1	-33.0	33.1	9.6	23.54	1.408 Level 3	
4,300.0	4,300.0	4,301.0	4,301.0	11.9	11.9	-95.43	-3.1	-33.0	33.1	9.3	23.87	1.388 Level 3	
4,400.0	4,400.0	4,401.0	4,401.0	12.1	12.1	-95.43	-3.1	-33.0	33.1	8.9	24.20	1.369 Level 3	
4,500.0	4,500.0	4,501.0	4,501.0	12.3	12.3	-95.43	-3.1	-33.0	33.1	8.6	24.53	1.351 Level 3	
4,600.0	4,600.0	4,601.0	4,601.0	12.4	12.4	-95.43	-3.1	-33.0	33.1	8.3	24.85	1.333 Level 3	
4,700.0	4,700.0	4,701.0	4,701.0	12.6	12.6	-95.43	-3.1	-33.0	33.1	8.0	25.17	1.316 Level 3	
4,800.0	4,800.0	4,801.0	4,801.0	12.7	12.7	-95.43	-3.1	-33.0	33.1	7.6	25.49	1.300 Level 3	
4,900.0	4,900.0	4,901.0	4,901.0	12.9	12.9	-95.43	-3.1	-33.0	33.1	7.3	25.81	1.284 Level 3	
5,000.0	5,000.0	5,001.0	5,001.0	13.1	13.1	-95.43	-3.1	-33.0	33.1	7.0	26.13	1.268 Level 3	
5,100.0	5,100.0	5,101.0	5,101.0	13.2	13.2	-95.43	-3.1	-33.0	33.1	6.7	26.44	1.253 Level 3	
5,200.0	5,200.0	5,201.0	5,201.0	13.4	13.4	-95.43	-3.1	-33.0	33.1	6.4	26.75	1.239 Level 3	
5,300.0	5,300.0	5,301.0	5,301.0	13.5	13.5	-95.43	-3.1	-33.0	33.1	6.1	27.06	1.224 Level 3	
5,400.0	5,400.0	5,401.0	5,401.0	13.7	13.7	-95.43	-3.1	-33.0	33.1	5.8	27.37	1.211 Level 3	
5,404.3	5,404.3	5,405.3	5,405.3	13.7	13.7	-95.43	-3.1	-33.0	33.1	5.8	27.38	1.210 Level 3, CC	
5,500.0	5,500.0	5,501.0	5,501.0	13.8	13.8	-95.82	-3.4	-33.0	33.2	5.6	27.59	1.202 Level 3, ES	
5,600.0	5,600.0	5,600.9	5,600.9	14.0	13.8	-98.82	-5.1	-33.0	33.4	5.6	27.79	1.201 Level 3, SF	
5,650.0	5,650.0	5,650.8	5,650.8	14.0	13.8	-101.40	-6.7	-33.0	33.7	5.8	27.86	1.208 Level 3	
5,700.0	5,700.0	5,700.7	5,700.6	14.1	13.9	78.28	-8.6	-33.0	34.1	6.1	27.91	1.220 Level 3	
5,800.0	5,800.0	5,800.5	5,800.3	14.1	14.0	72.78	-13.8	-33.0	35.2	7.2	28.00	1.256 Level 3	
5,900.0	5,899.9	5,900.2	5,899.7	14.2	14.1	67.70	-20.8	-33.0	36.6	8.5	28.12	1.303 Level 3	
6,000.0	5,999.8	5,999.8	5,999.0	14.3	14.2	63.12	-29.5	-33.0	38.4	10.2	28.25	1.361 Level 3	
6,100.0	6,099.5	6,099.4	6,098.0	14.4	14.4	59.03	-39.9	-33.0	40.5	12.1	28.42	1.426 Level 3	
6,200.0	6,199.2	6,198.9	6,196.8	14.5	14.5	55.43	-52.0	-33.0	42.9	14.2	28.62	1.498 Level 3	
6,300.0	6,298.6	6,298.4	6,295.3	14.6	14.7	52.29	-65.8	-33.0	45.4	16.5	28.86	1.573	
6,382.7	6,380.7	6,381.0	6,377.0	14.8	14.9	50.53	-78.0	-33.0	47.2	18.2	29.06	1.625	
6,400.0	6,397.9	6,398.3	6,394.2	14.8	15.0	50.30	-80.6	-33.0	47.5	18.4	29.09	1.634	
6,500.0	6,497.0	6,498.3	6,493.0	15.0	15.2	49.02	-95.3	-33.0	49.3	19.9	29.39	1.678	
6,600.0	6,596.2	6,598.3	6,591.9	15.2	15.5	47.83	-110.0	-33.0	51.1	21.4	29.75	1.719	
6,700.0	6,695.4	6,698.3	6,690.8	15.4	15.8	46.72	-124.7	-33.0	53.0	22.8	30.14	1.757	
6,800.0	6,794.6	6,798.3	6,789.7	15.7	16.1	45.68	-139.5	-33.0	54.8	24.2	30.57	1.793	
6,900.0	6,893.8	6,898.2	6,888.6	16.0	16.4	44.71	-154.2	-33.0	56.7	25.6	31.04	1.826	
7,000.0	6,993.0	6,998.2	6,987.5	16.3	16.7	43.81	-168.9	-33.0	58.6	27.0	31.54	1.857	

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



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Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - 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	
7,100.0	7,092.1	7,098.2	7,086.4	16.6	17.1	42.96	-183.7	-33.0	60.5	28.4	32.07	1.885	
7,200.0	7,191.3	7,198.2	7,185.3	16.9	17.5	42.16	-198.4	-33.0	62.4	29.7	32.64	1.911	
7,300.0	7,290.5	7,298.1	7,284.1	17.2	17.9	41.41	-213.1	-33.0	64.3	31.0	33.24	1.934	
7,400.0	7,389.7	7,398.1	7,383.0	17.6	18.3	40.70	-227.8	-33.0	66.2	32.3	33.87	1.955	
7,500.0	7,488.9	7,498.1	7,481.9	17.9	18.7	40.04	-242.6	-33.0	68.1	33.6	34.52	1.974	
7,600.0	7,588.1	7,598.1	7,580.8	18.3	19.1	39.41	-257.3	-33.0	70.1	34.9	35.20	1.991	
7,700.0	7,687.2	7,698.1	7,679.7	18.7	19.5	38.81	-272.0	-33.0	72.0	36.1	35.91	2.006	
7,800.0	7,786.4	7,798.0	7,778.6	19.1	20.0	38.25	-286.8	-33.0	74.0	37.4	36.64	2.020	
7,900.0	7,885.6	7,898.0	7,877.5	19.5	20.4	37.72	-301.5	-33.0	76.0	38.6	37.40	2.032	
8,000.0	7,984.8	7,998.0	7,976.4	19.9	20.9	37.21	-316.2	-33.0	78.0	39.8	38.17	2.042	
8,100.0	8,084.0	8,098.0	8,075.2	20.4	21.3	36.73	-330.9	-33.0	79.9	41.0	38.97	2.051	
8,200.0	8,183.2	8,197.9	8,174.1	20.8	21.8	36.27	-345.7	-33.0	81.9	42.1	39.78	2.059	
8,300.0	8,282.3	8,297.9	8,273.0	21.2	22.3	35.83	-360.4	-33.0	83.9	43.3	40.61	2.066	
8,400.0	8,381.5	8,397.9	8,371.9	21.7	22.8	35.41	-375.1	-33.0	85.9	44.5	41.46	2.072	
8,500.0	8,480.7	8,497.9	8,470.8	22.1	23.3	35.01	-389.8	-33.0	87.9	45.6	42.33	2.077	
8,600.0	8,579.9	8,597.9	8,569.7	22.6	23.8	34.63	-404.6	-33.0	89.9	46.7	43.21	2.081	
8,700.0	8,679.1	8,697.8	8,668.6	23.1	24.3	34.27	-419.3	-33.0	91.9	47.8	44.10	2.085	
8,800.0	8,778.3	8,797.8	8,767.5	23.5	24.8	33.92	-434.0	-33.0	93.9	48.9	45.01	2.087	
8,900.0	8,877.5	8,897.8	8,866.3	24.0	25.3	33.59	-448.8	-33.0	96.0	50.0	45.93	2.089	
9,000.0	8,976.6	8,997.8	8,965.2	24.5	25.8	33.27	-463.5	-33.0	98.0	51.1	46.86	2.091	
9,100.0	9,075.8	9,097.8	9,064.1	25.0	26.3	32.96	-478.2	-33.0	100.0	52.2	47.80	2.092	
9,200.0	9,175.0	9,197.7	9,163.0	25.5	26.9	32.67	-492.9	-33.0	102.0	53.3	48.75	2.093	
9,300.0	9,274.2	9,299.0	9,263.3	26.0	27.4	32.35	-507.3	-33.0	103.5	53.9	49.64	2.086	
9,400.0	9,373.4	9,400.6	9,364.1	26.5	27.9	32.02	-519.9	-33.0	103.5	53.1	50.43	2.053	
9,500.0	9,472.6	9,502.1	9,465.0	27.0	28.4	31.70	-530.7	-33.0	102.0	51.0	51.06	1.998	
9,600.0	9,571.7	9,603.6	9,566.1	27.5	28.9	31.37	-539.7	-33.0	99.0	47.5	51.50	1.923	
9,700.0	9,670.9	9,704.8	9,667.1	28.0	29.3	31.04	-546.9	-33.0	94.7	43.0	51.68	1.832	
9,800.0	9,770.1	9,805.9	9,767.9	28.5	29.8	30.71	-552.4	-33.0	89.1	37.6	51.49	1.729	
9,900.0	9,869.3	9,906.6	9,868.6	29.1	30.2	30.38	-556.0	-33.0	82.4	31.6	50.77	1.623	
10,000.0	9,968.5	10,007.0	9,969.0	29.6	30.5	30.05	-557.9	-33.0	75.1	25.8	49.26	1.524	
10,021.0	9,989.3	10,028.0	9,990.0	29.7	30.5	30.05	-558.0	-33.0	73.5	24.7	48.78	1.507	
10,100.0	10,067.7	10,106.7	10,068.7	30.1	30.6	29.72	-558.1	-33.0	68.1	21.4	46.77	1.457 Level 3	
10,200.0	10,167.2	10,209.4	10,171.3	30.6	30.5	29.39	-556.2	-32.7	62.2	18.5	43.69	1.424 Level 3	
10,300.0	10,266.8	10,310.0	10,269.8	31.1	30.1	29.06	-537.0	-29.5	53.8	13.9	39.86	1.350 Level 3	
10,312.7	10,279.4	10,321.9	10,281.1	31.1	30.0	29.06	-533.4	-28.9	53.6	13.3	40.32	1.329 Level 3	
10,400.0	10,366.5	10,396.9	10,350.1	31.5	29.7	28.73	-504.3	-24.2	66.5	16.2	50.31	1.321 Level 3	
10,500.0	10,466.4	10,469.0	10,411.1	32.0	29.3	28.40	-466.7	-18.0	110.3	53.9	56.36	1.956	
10,600.0	10,566.3	10,525.0	10,454.3	32.4	29.1	28.07	-431.5	-12.2	171.5	114.0	57.44	2.986	
10,700.0	10,666.3	10,575.0	10,489.0	32.7	28.9	27.74	-396.0	-6.4	242.1	184.4	57.78	4.190	
10,753.7	10,720.0	10,600.0	10,504.9	32.8	28.8	-8.92	-377.0	-3.3	282.7	224.8	57.90	4.883	
10,800.0	10,766.3	10,615.1	10,514.0	32.8	28.7	-7.80	-365.0	-1.3	318.9	260.9	57.98	5.501	
10,865.2	10,831.5	10,636.9	10,526.4	32.8	28.6	-6.38	-347.4	1.6	371.7	313.6	58.17	6.391	
10,875.0	10,841.3	10,640.0	10,528.1	32.8	28.6	-11.29	-344.9	2.0	379.7	321.5	58.19	6.526	
10,900.0	10,866.3	10,650.0	10,533.5	32.7	28.6	-10.03	-336.5	3.4	399.9	341.7	58.24	6.866	
10,925.0	10,891.1	10,656.2	10,536.8	32.6	28.6	-9.13	-331.3	4.2	419.5	361.2	58.31	7.195	
10,950.0	10,915.9	10,664.6	10,541.0	32.5	28.5	-8.29	-324.2	5.4	438.6	380.3	58.37	7.515	
10,975.0	10,940.3	10,675.0	10,546.2	32.4	28.5	-7.51	-315.3	6.9	457.2	398.8	58.43	7.825	
11,000.0	10,964.5	10,681.8	10,549.5	32.3	28.5	-6.94	-309.4	7.8	475.2	416.7	58.52	8.121	
11,025.0	10,988.3	10,690.7	10,553.6	32.2	28.5	-6.40	-301.6	9.1	492.6	434.0	58.60	8.406	
11,050.0	11,011.7	10,700.0	10,557.7	32.1	28.4	-5.91	-293.4	10.4	509.4	450.7	58.69	8.680	
11,075.0	11,034.6	10,708.8	10,561.5	31.9	28.4	-5.50	-285.6	11.7	525.6	466.8	58.80	8.939	
11,100.0	11,057.0	10,718.0	10,565.3	31.8	28.4	-5.13	-277.3	13.1	541.2	482.3	58.92	9.186	

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
11,125.0	11,078.7	10,725.0	10,568.1	31.7	28.4	-4.83	-271.0	14.1	556.1	497.1	59.06	9.416	
11,150.0	11,099.7	10,736.6	10,572.5	31.6	28.3	-4.50	-260.3	15.9	570.4	511.2	59.18	9.638	
11,175.0	11,120.0	10,750.0	10,577.2	31.4	28.3	-4.19	-248.0	17.9	584.0	524.7	59.30	9.849	
11,200.0	11,139.5	10,750.0	10,577.2	31.3	28.3	-4.06	-248.0	17.9	597.0	537.4	59.55	10.024	
11,225.0	11,158.2	10,765.2	10,582.2	31.2	28.3	-3.78	-233.8	20.2	609.1	549.5	59.67	10.208	
11,250.0	11,176.0	10,775.0	10,585.2	31.1	28.2	-3.59	-224.6	21.7	620.7	560.8	59.86	10.368	
11,275.0	11,192.8	10,784.6	10,587.9	31.0	28.2	-3.41	-215.5	23.2	631.5	571.4	60.06	10.514	
11,300.0	11,208.7	10,800.0	10,591.8	30.9	28.2	-3.20	-200.8	25.6	641.6	581.4	60.22	10.655	
11,325.0	11,223.5	10,800.0	10,591.8	30.8	28.2	-3.13	-200.8	25.6	651.0	590.4	60.55	10.752	
11,350.0	11,237.2	10,814.1	10,595.1	30.7	28.2	-2.96	-187.3	27.9	659.6	598.8	60.74	10.859	
11,375.0	11,249.8	10,825.0	10,597.3	30.6	28.2	-2.83	-176.8	29.6	667.5	606.5	60.98	10.946	
11,400.0	11,261.3	10,833.9	10,598.9	30.5	28.2	-2.72	-168.1	31.0	674.6	613.4	61.25	11.014	
11,425.0	11,271.6	10,850.0	10,601.4	30.4	28.1	-2.58	-152.4	33.6	681.1	619.6	61.45	11.083	
11,450.0	11,280.7	10,850.0	10,601.4	30.4	28.1	-2.54	-152.4	33.6	686.6	624.8	61.85	11.103	
11,475.0	11,288.6	10,863.9	10,603.1	30.3	28.1	-2.43	-138.8	35.8	691.5	629.4	62.10	11.136	
11,500.0	11,295.2	10,875.0	10,604.2	30.3	28.1	-2.34	-127.9	37.6	695.6	633.2	62.39	11.149	
11,525.0	11,300.5	10,884.0	10,604.9	30.2	28.1	-2.27	-119.1	39.0	698.9	636.2	62.71	11.145	
11,550.0	11,304.6	10,900.0	10,605.7	30.2	28.1	-2.16	-103.3	41.6	701.5	638.6	62.97	11.141	
11,575.0	11,307.3	10,900.0	10,605.7	30.2	28.1	-2.15	-103.3	41.6	703.3	639.9	63.40	11.092	
11,600.0	11,308.8	10,916.5	10,606.0	30.2	28.1	-2.06	-87.0	44.3	704.3	640.6	63.66	11.062	
11,615.2	11,309.0	10,925.9	10,606.0	30.2	28.1	-2.00	-77.7	45.8	704.4	640.6	63.82	11.038	
11,616.7	11,309.0	10,927.4	10,606.0	30.2	28.1	-2.00	-76.3	46.1	704.4	640.6	63.83	11.036	
11,700.0	11,309.1	11,009.7	10,606.0	30.2	28.1	-1.55	5.1	58.1	704.3	640.0	64.33	10.949	
11,701.6	11,309.1	11,011.2	10,606.0	30.2	28.1	-1.54	6.7	58.3	704.3	640.0	64.34	10.947	
11,800.0	11,309.3	11,108.6	10,605.9	30.2	28.2	-1.01	103.4	69.5	704.5	639.5	65.01	10.836	
11,900.0	11,309.7	11,207.9	10,605.9	30.2	28.2	-0.47	202.3	77.5	704.9	639.1	65.75	10.720	
11,911.1	11,309.8	11,218.9	10,605.8	30.2	28.2	-0.41	213.3	78.1	704.9	639.1	65.84	10.707	
12,000.0	11,310.2	11,307.4	10,605.7	30.3	28.3	-0.03	301.7	82.0	705.5	638.9	66.54	10.602	
12,100.0	11,310.7	11,407.1	10,605.6	30.3	28.3	0.12	401.5	83.1	706.1	638.8	67.39	10.478	
12,200.0	11,311.2	11,507.1	10,605.4	30.3	28.4	0.12	501.4	82.3	706.8	638.5	68.29	10.350	
12,300.0	11,311.8	11,607.1	10,605.2	30.4	28.5	0.12	601.4	81.5	707.5	638.3	69.25	10.216	
12,348.5	11,312.0	11,655.6	10,605.2	30.4	28.6	0.12	649.9	81.2	707.8	638.1	69.74	10.150	
12,383.9	11,312.0	11,691.0	10,605.1	30.5	28.7	0.12	685.4	80.9	707.9	637.8	70.10	10.098	
12,400.0	11,311.8	11,707.1	10,605.1	30.5	28.8	0.12	701.4	80.7	707.8	637.5	70.26	10.073	
12,500.0	11,311.1	11,807.1	10,604.9	30.7	29.5	0.11	801.4	79.9	707.2	635.9	71.33	9.915	
12,600.0	11,310.4	11,907.1	10,604.7	31.3	30.6	0.11	901.4	79.1	706.7	634.2	72.45	9.755	
12,700.0	11,309.7	12,007.1	10,604.5	32.3	32.0	0.11	1,001.4	78.3	706.1	632.5	73.61	9.592	
12,800.0	11,308.9	12,107.1	10,604.4	33.7	33.5	0.11	1,101.4	77.5	705.6	630.8	74.83	9.430	
12,900.0	11,308.2	12,207.1	10,604.2	35.3	35.1	0.11	1,201.4	76.7	705.0	628.9	76.08	9.267	
13,000.0	11,307.5	12,307.1	10,604.0	36.9	36.7	0.11	1,301.4	75.9	704.5	627.1	77.38	9.104	
13,032.6	11,307.3	12,335.8	10,603.9	37.5	37.2	0.11	1,330.2	75.7	704.4	626.4	77.96	9.035	
13,100.0	11,306.8	12,389.9	10,603.0	38.6	38.1	0.11	1,384.2	75.3	705.0	625.6	79.37	8.882	
13,200.0	11,306.0	12,479.2	10,599.7	40.3	39.7	0.11	1,473.4	74.5	708.0	626.8	81.17	8.723	
13,300.0	11,305.3	12,579.2	10,595.6	42.1	41.4	0.10	1,573.3	73.7	711.4	628.8	82.60	8.612	
13,400.0	11,304.6	12,679.1	10,591.4	43.8	43.2	0.10	1,673.2	72.9	714.8	630.7	84.06	8.503	
13,500.0	11,303.9	12,779.0	10,587.3	45.6	45.0	0.10	1,773.0	72.1	718.2	632.6	85.56	8.393	
13,600.0	11,303.1	12,879.0	10,583.2	47.5	46.8	0.10	1,872.9	71.3	721.6	634.5	87.09	8.285	
13,700.0	11,302.4	12,978.9	10,579.1	49.3	48.6	0.09	1,972.7	70.5	725.0	636.3	88.64	8.178	
13,800.0	11,301.7	13,078.9	10,575.0	51.1	50.4	0.09	2,072.6	69.7	728.3	638.1	90.23	8.073	
13,900.0	11,301.0	13,178.8	10,570.9	53.0	52.3	0.09	2,172.4	68.9	731.7	639.9	91.83	7.968	
14,000.0	11,300.2	13,297.7	10,566.9	54.9	54.5	0.09	2,291.3	67.9	734.4	641.8	92.64	7.928	
14,100.0	11,299.5	13,425.4	10,567.7	56.8	56.9	0.09	2,419.0	66.9	733.0	639.9	93.06	7.876	

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (usft)	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)			
14,200.0	11,298.8	13,525.4	10,570.0	58.7	58.8	0.08	2,518.9	66.1	730.0	635.3	94.74	7.706	
14,300.0	11,298.1	13,625.4	10,572.2	60.6	60.7	0.08	2,618.8	65.3	727.1	630.6	96.41	7.541	
14,400.0	11,297.3	13,725.3	10,574.4	62.5	62.6	0.08	2,718.8	64.5	724.1	626.0	98.10	7.381	
14,500.0	11,296.6	13,825.3	10,576.7	64.4	64.5	0.08	2,818.7	63.7	721.1	621.3	99.81	7.225	
14,600.0	11,295.9	13,925.2	10,578.9	66.3	66.4	0.08	2,918.6	62.8	718.2	616.6	101.53	7.073	
14,700.0	11,295.2	14,022.7	10,580.8	68.2	68.3	0.08	3,016.0	62.1	715.5	612.1	103.41	6.919	
14,724.2	11,295.0	14,046.9	10,581.2	68.7	68.8	0.08	3,040.2	61.9	714.9	611.1	103.83	6.885	
14,758.5	11,294.5	14,081.2	10,581.9	69.3	69.4	0.08	3,074.5	61.6	713.8	609.3	104.43	6.835	
14,800.0	11,293.7	14,122.6	10,582.7	70.1	70.2	0.08	3,116.0	61.3	712.2	607.0	105.16	6.772	
14,900.0	11,291.8	14,222.5	10,584.6	72.1	72.2	0.08	3,215.9	60.5	708.4	601.5	106.94	6.624	
15,000.0	11,289.9	14,322.5	10,586.4	74.0	74.1	0.08	3,315.8	59.7	704.6	595.9	108.73	6.480	
15,100.0	11,288.0	14,422.4	10,588.3	76.0	76.0	0.07	3,415.7	58.9	700.8	590.2	110.53	6.340	
15,200.0	11,286.1	14,522.3	10,590.2	77.9	78.0	0.07	3,515.6	58.1	697.0	584.6	112.35	6.204	
15,300.0	11,284.1	14,622.2	10,592.1	79.9	79.9	0.07	3,615.5	57.3	693.2	579.0	114.18	6.071	
15,400.0	11,282.2	14,722.2	10,594.0	81.8	81.9	0.07	3,715.4	56.5	689.3	573.3	116.02	5.941	
15,500.0	11,280.3	14,822.1	10,595.9	83.8	83.8	0.07	3,815.3	55.7	685.5	567.7	117.88	5.816	
15,600.0	11,278.4	14,914.5	10,597.4	85.7	85.6	0.07	3,907.7	54.9	682.0	561.7	120.21	5.673	
15,700.0	11,276.4	15,014.5	10,598.2	87.7	87.6	0.07	4,007.7	54.1	679.2	557.2	122.09	5.564	
15,800.0	11,274.5	15,114.5	10,599.0	89.7	89.6	0.07	4,107.6	53.3	676.5	552.6	123.98	5.457	
15,827.3	11,274.0	15,141.8	10,599.2	90.2	90.1	0.06	4,135.0	53.1	675.8	551.3	124.49	5.428	
15,900.0	11,273.5	15,214.4	10,599.8	91.6	91.5	0.06	4,207.6	52.5	674.7	548.9	125.88	5.360	
15,905.0	11,273.6	15,219.5	10,599.8	91.7	91.6	0.06	4,212.7	52.5	674.7	548.8	125.98	5.356	
15,922.0	11,273.7	15,236.4	10,600.0	92.1	92.0	0.06	4,229.6	52.4	674.8	548.5	126.30	5.343	
16,000.0	11,274.8	15,314.4	10,600.6	93.6	93.5	0.06	4,307.6	51.7	675.3	547.5	127.79	5.284	
16,100.0	11,276.2	15,414.4	10,601.4	95.6	95.5	0.06	4,407.6	50.9	675.8	546.1	129.71	5.210	
16,200.0	11,277.6	15,514.4	10,602.2	97.5	97.4	0.06	4,507.6	50.1	676.4	544.8	131.64	5.138	
16,300.0	11,279.0	15,614.4	10,603.0	99.5	99.4	0.05	4,607.6	49.3	677.0	543.4	133.58	5.068	
16,400.0	11,280.3	15,714.4	10,603.7	101.5	101.4	0.05	4,707.6	48.5	677.6	542.1	135.53	5.000	
16,500.0	11,281.7	15,814.4	10,604.5	103.5	103.4	0.05	4,807.6	47.7	678.2	540.7	137.48	4.933	
16,600.0	11,283.1	15,914.4	10,605.3	105.4	105.4	0.05	4,907.6	46.9	678.8	539.3	139.44	4.868	
16,700.0	11,284.5	16,014.4	10,606.1	107.4	107.3	0.05	5,007.5	46.1	679.4	538.0	141.41	4.804	
16,800.0	11,285.9	16,114.4	10,606.9	109.4	109.3	0.04	5,107.5	45.3	680.0	536.6	143.39	4.742	
16,900.0	11,287.2	16,214.4	10,607.7	111.4	111.3	0.04	5,207.5	44.5	680.6	535.2	145.36	4.682	
17,000.0	11,288.6	16,314.4	10,608.5	113.4	113.3	0.04	5,307.5	43.7	681.2	533.8	147.35	4.623	
17,100.1	11,290.0	16,414.5	10,609.3	115.4	115.3	0.04	5,407.6	42.9	681.7	532.4	149.34	4.565	
17,203.9	11,293.3	16,518.3	10,610.1	117.4	117.3	0.03	5,511.4	42.1	684.2	532.8	151.44	4.518	
17,300.0	11,298.1	16,614.3	10,610.9	119.3	119.2	0.03	5,607.4	41.3	688.3	534.9	153.39	4.487	
17,400.0	11,303.1	16,714.2	10,611.6	121.3	121.2	0.03	5,707.3	40.5	692.5	537.1	155.40	4.456	
17,500.0	11,308.1	16,814.1	10,612.4	123.3	123.2	0.03	5,807.2	39.7	696.7	539.3	157.41	4.426	
17,600.0	11,313.1	16,914.0	10,613.2	125.3	125.2	0.03	5,907.1	38.9	700.9	541.5	159.43	4.396	
17,700.0	11,318.1	17,013.9	10,614.0	127.3	127.2	0.03	6,007.0	38.1	705.1	543.7	161.46	4.367	
17,800.0	11,323.1	17,113.9	10,614.8	129.3	129.2	0.02	6,106.9	37.3	709.3	545.9	163.48	4.339	
17,900.0	11,328.1	17,213.8	10,615.6	131.2	131.2	0.02	6,206.8	36.5	713.6	548.0	165.51	4.311	
17,917.5	11,329.0	17,231.2	10,615.7	131.6	131.5	0.02	6,224.3	36.3	714.3	548.4	165.87	4.306	
18,000.0	11,331.9	17,313.7	10,616.4	133.2	133.2	0.02	6,306.8	35.7	716.6	549.0	167.55	4.277	
18,053.7	11,332.6	17,367.4	10,616.8	134.3	134.2	0.02	6,360.5	35.2	716.8	548.1	168.65	4.250	
18,100.0	11,332.7	17,413.7	10,617.2	135.2	135.2	0.02	6,406.7	34.9	716.5	547.0	169.59	4.225	
18,200.0	11,332.9	17,513.7	10,618.0	137.2	137.1	0.02	6,506.7	34.1	716.0	544.4	171.63	4.172	
18,300.0	11,333.2	17,615.3	10,618.8	139.2	139.2	0.02	6,608.3	33.3	715.4	541.9	173.57	4.122	
18,400.0	11,333.4	17,710.6	10,619.3	141.2	141.1	0.02	6,703.6	32.5	715.1	539.2	175.92	4.065	
18,500.0	11,333.7	17,810.6	10,619.7	143.2	143.1	0.01	6,803.6	31.7	715.0	537.1	177.96	4.018	
18,600.0	11,333.9	17,910.6	10,620.0	145.2	145.1	0.01	6,903.6	30.9	714.9	534.9	180.02	3.971	

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 510H - Dagger State Com 510H - Dagger State Com 510H - Prelim 1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error:	0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Rule Assigned:				Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
18,700.0	11,334.2	18,010.6	10,620.4	147.2	147.1	0.01	7,003.6	30.1	714.8	532.7	182.07	3.926		
18,800.0	11,334.4	18,110.6	10,620.7	149.2	149.1	0.01	7,103.6	29.3	714.7	530.6	184.13	3.881		
18,900.0	11,334.7	18,210.6	10,621.1	151.2	151.1	0.01	7,203.6	28.5	714.6	528.4	186.20	3.838		
19,000.0	11,334.9	18,310.6	10,621.4	153.2	153.1	0.01	7,303.6	27.7	714.5	526.2	188.26	3.795		
19,100.0	11,335.2	18,410.6	10,621.8	155.2	155.1	0.00	7,403.6	27.0	714.4	524.0	190.33	3.753		
19,200.0	11,335.4	18,510.6	10,622.2	157.2	157.1	0.00	7,503.6	26.2	714.3	521.9	192.40	3.712		
19,300.0	11,335.7	18,610.6	10,622.5	159.2	159.1	0.00	7,603.6	25.4	714.1	519.7	194.48	3.672		
19,400.0	11,335.9	18,710.6	10,622.9	161.2	161.1	0.00	7,703.6	24.6	714.0	517.5	196.55	3.633		
19,435.0	11,336.0	18,743.9	10,623.0	161.9	161.7	0.00	7,736.9	24.3	714.0	516.6	197.39	3.617		
19,435.8	11,336.0	18,743.9	10,623.0	161.9	161.7	0.00	7,736.9	24.3	714.0	516.5	197.46	3.616		



Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 606H - Dagger State Com 606H - Dagger State Com 606H - Prelim 1												Offset Site Error:	0.0 usft
Survey Program: 0-MWD+HRGM												Offset Well Error:	0.0 usft
Reference	Offset	Semi Major Axis		Distance		Rule Assigned:		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
0.0	0.0	0.0	0.0	0.0	0.0	89.61	0.2	30.2	30.2				
100.0	100.0	100.0	100.0	0.5	0.5	89.61	0.2	30.2	30.2	29.2	1.06	28.512	
200.0	200.0	200.0	200.0	1.7	1.7	89.61	0.2	30.2	30.2	26.8	3.42	8.830	
300.0	300.0	300.0	300.0	2.4	2.4	89.61	0.2	30.2	30.2	25.4	4.82	6.268	
400.0	400.0	400.0	400.0	3.0	3.0	89.61	0.2	30.2	30.2	24.3	5.91	5.117	
423.6	423.6	423.6	423.6	3.1	3.1	89.61	0.2	30.2	30.2	24.1	6.13	4.935	
500.0	500.0	500.0	500.0	3.4	3.4	89.61	0.2	30.2	30.2	23.4	6.83	4.426	
524.1	524.1	524.1	524.1	3.5	3.5	89.61	0.2	30.2	30.2	23.2	7.03	4.302	
600.0	600.0	600.0	600.0	3.8	3.8	89.61	0.2	30.2	30.2	22.6	7.65	3.952	
633.3	633.3	633.3	633.3	3.9	3.9	89.61	0.2	30.2	30.2	22.3	7.90	3.828	
700.0	700.0	700.0	700.0	4.2	4.2	89.61	0.2	30.2	30.2	21.8	8.39	3.602	
800.0	800.0	800.0	800.0	4.5	4.5	89.61	0.2	30.2	30.2	21.1	9.08	3.328	
900.0	900.0	900.0	900.0	4.9	4.9	89.61	0.2	30.2	30.2	20.5	9.73	3.107	
1,000.0	1,000.0	1,000.0	1,000.0	5.2	5.2	89.61	0.2	30.2	30.2	19.9	10.34	2.923	
1,100.0	1,100.0	1,100.0	1,100.0	5.5	5.5	89.61	0.2	30.2	30.2	19.3	10.92	2.768	
1,200.0	1,200.0	1,200.0	1,200.0	5.7	5.7	89.61	0.2	30.2	30.2	18.8	11.48	2.633	
1,300.0	1,300.0	1,300.0	1,300.0	6.0	6.0	89.61	0.2	30.2	30.2	18.2	12.01	2.516	
1,400.0	1,400.0	1,400.0	1,400.0	6.3	6.3	89.61	0.2	30.2	30.2	17.7	12.53	2.412	
1,500.0	1,500.0	1,500.0	1,500.0	6.5	6.5	89.61	0.2	30.2	30.2	17.2	13.03	2.320	
1,600.0	1,600.0	1,600.0	1,600.0	6.8	6.8	89.61	0.2	30.2	30.2	16.7	13.52	2.237	
1,700.0	1,700.0	1,700.0	1,700.0	7.0	7.0	89.61	0.2	30.2	30.2	16.2	13.99	2.161	
1,800.0	1,800.0	1,800.0	1,800.0	7.2	7.2	89.61	0.2	30.2	30.2	15.8	14.45	2.092	
1,900.0	1,900.0	1,900.0	1,900.0	7.4	7.4	89.61	0.2	30.2	30.2	15.3	14.90	2.029	
2,000.0	2,000.0	2,000.0	2,000.0	7.7	7.7	89.61	0.2	30.2	30.2	14.9	15.34	1.971	
2,100.0	2,100.0	2,100.0	2,100.0	7.9	7.9	89.61	0.2	30.2	30.2	14.5	15.77	1.917	
2,200.0	2,200.0	2,200.0	2,200.0	8.1	8.1	89.61	0.2	30.2	30.2	14.0	16.19	1.867	
2,300.0	2,300.0	2,300.0	2,300.0	8.3	8.3	89.61	0.2	30.2	30.2	13.6	16.61	1.820	
2,400.0	2,400.0	2,400.0	2,400.0	8.5	8.5	89.61	0.2	30.2	30.2	13.2	17.02	1.777	
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	89.61	0.2	30.2	30.2	12.8	17.42	1.736	
2,600.0	2,600.0	2,600.0	2,600.0	8.9	8.9	89.61	0.2	30.2	30.2	12.4	17.81	1.697	
2,700.0	2,700.0	2,700.0	2,700.0	9.1	9.1	89.61	0.2	30.2	30.2	12.0	18.20	1.661	
2,800.0	2,800.0	2,800.0	2,800.0	9.3	9.3	89.61	0.2	30.2	30.2	11.6	18.59	1.627	
2,900.0	2,900.0	2,900.0	2,900.0	9.5	9.5	89.61	0.2	30.2	30.2	11.3	18.96	1.594	
3,000.0	3,000.0	3,000.0	3,000.0	9.7	9.7	89.61	0.2	30.2	30.2	10.9	19.34	1.563	
3,100.0	3,100.0	3,100.0	3,100.0	9.9	9.9	89.61	0.2	30.2	30.2	10.5	19.71	1.534	
3,200.0	3,200.0	3,200.0	3,200.0	10.0	10.0	89.61	0.2	30.2	30.2	10.2	20.07	1.506	
3,300.0	3,300.0	3,300.0	3,300.0	10.2	10.2	89.61	0.2	30.2	30.2	9.8	20.44	1.479 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	10.4	10.4	89.61	0.2	30.2	30.2	9.4	20.79	1.454 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	10.6	10.6	89.61	0.2	30.2	30.2	9.1	21.15	1.429 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	10.7	10.7	89.61	0.2	30.2	30.2	8.7	21.50	1.406 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	10.9	10.9	89.61	0.2	30.2	30.2	8.4	21.85	1.384 Level 3	
3,800.0	3,800.0	3,800.0	3,800.0	11.1	11.1	89.61	0.2	30.2	30.2	8.0	22.19	1.362 Level 3	
3,900.0	3,900.0	3,900.0	3,900.0	11.3	11.3	89.61	0.2	30.2	30.2	7.7	22.53	1.342 Level 3	
4,000.0	4,000.0	4,000.0	4,000.0	11.4	11.4	89.61	0.2	30.2	30.2	7.4	22.87	1.322 Level 3	
4,100.0	4,100.0	4,100.0	4,100.0	11.6	11.6	89.61	0.2	30.2	30.2	7.0	23.21	1.303 Level 3	
4,200.0	4,200.0	4,200.0	4,200.0	11.8	11.8	89.61	0.2	30.2	30.2	6.7	23.54	1.284 Level 3	
4,300.0	4,300.0	4,300.0	4,300.0	11.9	11.9	89.61	0.2	30.2	30.2	6.4	23.87	1.266 Level 3	
4,400.0	4,400.0	4,400.0	4,400.0	12.1	12.1	89.61	0.2	30.2	30.2	6.0	24.20	1.249 Level 3	
4,500.0	4,500.0	4,500.0	4,500.0	12.3	12.3	89.61	0.2	30.2	30.2	5.7	24.53	1.233 Level 3	
4,600.0	4,600.0	4,600.0	4,600.0	12.4	12.4	89.61	0.2	30.2	30.2	5.4	24.85	1.217 Level 3	
4,700.0	4,700.0	4,700.0	4,700.0	12.6	12.6	89.61	0.2	30.2	30.2	5.1	25.17	1.201 Level 3	
4,800.0	4,800.0	4,800.0	4,800.0	12.7	12.7	89.61	0.2	30.2	30.2	4.7	25.49	1.186 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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 606H - Dagger State Com 606H - Dagger State Com 606H - 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		
4,900.0	4,900.0	4,900.0	4,900.0	12.9	12.9	89.61	0.2	30.2	30.2	4.4	25.81	1.171	Level 3	
5,000.0	5,000.0	5,000.0	5,000.0	13.1	13.1	89.61	0.2	30.2	30.2	4.1	26.12	1.157	Level 3	
5,100.0	5,100.0	5,100.0	5,100.0	13.2	13.2	89.61	0.2	30.2	30.2	3.8	26.44	1.143	Level 3	
5,200.0	5,200.0	5,200.0	5,200.0	13.4	13.4	89.61	0.2	30.2	30.2	3.5	26.75	1.130	Level 3	
5,300.0	5,300.0	5,300.0	5,300.0	13.5	13.5	89.61	0.2	30.2	30.2	3.2	27.06	1.117	Level 3	
5,400.0	5,400.0	5,400.0	5,400.0	13.7	13.7	89.61	0.2	30.2	30.2	2.9	27.37	1.104	Level 3	
5,500.0	5,500.0	5,500.0	5,500.0	13.8	13.8	89.61	0.2	30.2	30.2	2.6	27.68	1.092	Level 3	
5,600.0	5,600.0	5,600.0	5,600.0	14.0	14.0	89.61	0.2	30.2	30.2	2.2	27.98	1.080	Level 3	
5,650.0	5,650.0	5,650.0	5,650.0	14.0	14.1	89.61	0.2	30.2	30.2	2.1	28.11	1.075	Level 3	
5,700.0	5,700.0	5,700.0	5,700.0	14.1	14.1	-88.23	0.2	30.2	30.2	2.0	28.20	1.072	Level 3	
5,764.9	5,764.9	5,764.9	5,764.9	14.1	14.2	-90.00	0.2	30.2	30.2	1.9	28.33	1.066	Level 3, CC	
5,800.0	5,800.0	5,800.0	5,800.0	14.1	14.3	-91.54	0.2	30.2	30.2	1.8	28.39	1.064	Level 3, ES, SF	
5,900.0	5,899.9	5,899.9	5,899.9	14.2	14.4	-97.69	0.0	30.2	30.5	2.0	28.51	1.070	Level 3	
6,000.0	5,999.8	6,000.0	5,999.9	14.3	14.4	-104.03	-1.8	30.4	31.2	2.6	28.60	1.092	Level 3	
6,100.0	6,099.5	6,100.0	6,100.0	14.4	14.5	-109.96	-5.2	30.7	32.4	3.7	28.70	1.129	Level 3	
6,200.0	6,199.2	6,200.2	6,200.0	14.5	14.6	-115.37	-10.5	31.2	34.0	5.1	28.83	1.178	Level 3	
6,300.0	6,298.6	6,300.4	6,299.9	14.6	14.7	-120.19	-17.4	31.8	35.9	6.9	28.99	1.238	Level 3	
6,382.7	6,380.7	6,383.3	6,382.5	14.8	14.8	-123.74	-24.5	32.4	37.7	8.5	29.13	1.293	Level 3	
6,400.0	6,397.9	6,400.6	6,399.8	14.8	14.8	-124.41	-26.1	32.6	38.1	8.9	29.15	1.305	Level 3	
6,500.0	6,497.0	6,501.0	6,499.6	15.0	14.9	-126.79	-36.6	33.5	39.8	10.4	29.36	1.355	Level 3	
6,600.0	6,596.2	6,601.0	6,598.9	15.2	15.1	-127.80	-48.0	34.6	41.0	11.4	29.59	1.384	Level 3	
6,700.0	6,695.4	6,701.0	6,698.3	15.4	15.3	-128.75	-59.5	35.6	42.2	12.3	29.86	1.412	Level 3	
6,800.0	6,794.6	6,801.0	6,797.6	15.7	15.5	-129.65	-70.9	36.6	43.4	13.2	30.16	1.438	Level 3	
6,900.0	6,893.8	6,901.0	6,896.9	16.0	15.7	-130.49	-82.4	37.6	44.6	14.1	30.49	1.462	Level 3	
7,000.0	6,993.0	7,001.0	6,996.3	16.3	16.0	-131.30	-93.8	38.7	45.8	15.0	30.84	1.485	Level 3	
7,100.0	7,092.1	7,101.0	7,095.6	16.6	16.2	-132.06	-105.3	39.7	47.0	15.8	31.23	1.506		
7,200.0	7,191.3	7,201.0	7,194.9	16.9	16.5	-132.78	-116.7	40.7	48.3	16.6	31.65	1.526		
7,300.0	7,290.5	7,300.9	7,294.2	17.2	16.8	-133.47	-128.2	41.7	49.5	17.4	32.09	1.543		
7,400.0	7,389.7	7,400.9	7,393.6	17.6	17.1	-134.12	-139.6	42.8	50.8	18.2	32.57	1.559		
7,500.0	7,488.9	7,500.9	7,492.9	17.9	17.4	-134.74	-151.0	43.8	52.0	19.0	33.06	1.574		
7,600.0	7,588.1	7,600.9	7,592.2	18.3	17.8	-135.33	-162.5	44.8	53.3	19.7	33.59	1.587		
7,700.0	7,687.2	7,700.9	7,691.6	18.7	18.1	-135.89	-173.9	45.8	54.6	20.4	34.14	1.599		
7,800.0	7,786.4	7,800.9	7,790.9	19.1	18.5	-136.43	-185.4	46.9	55.9	21.1	34.72	1.609		
7,900.0	7,885.6	7,900.9	7,890.2	19.5	18.8	-136.94	-196.8	47.9	57.1	21.8	35.31	1.618		
8,000.0	7,984.8	8,000.9	7,989.5	19.9	19.2	-137.43	-208.3	48.9	58.4	22.5	35.93	1.626		
8,100.0	8,084.0	8,100.9	8,088.9	20.4	19.6	-137.90	-219.7	49.9	59.7	23.2	36.57	1.633		
8,200.0	8,183.2	8,200.9	8,188.2	20.8	20.0	-138.35	-231.2	51.0	61.0	23.8	37.24	1.639		
8,300.0	8,282.3	8,300.8	8,287.5	21.2	20.4	-138.78	-242.6	52.0	62.3	24.4	37.92	1.644		
8,400.0	8,381.5	8,400.8	8,386.9	21.7	20.8	-139.20	-254.1	53.0	63.6	25.0	38.62	1.647		
8,500.0	8,480.7	8,500.8	8,486.2	22.1	21.3	-139.59	-265.5	54.0	64.9	25.6	39.34	1.651		
8,600.0	8,579.9	8,600.8	8,585.5	22.6	21.7	-139.98	-277.0	55.1	66.2	26.2	40.07	1.653		
8,700.0	8,679.1	8,700.8	8,684.8	23.1	22.1	-140.34	-288.4	56.1	67.5	26.7	40.82	1.655		
8,800.0	8,778.3	8,800.8	8,784.2	23.5	22.6	-140.69	-299.8	57.1	68.9	27.3	41.59	1.656		
8,900.0	8,877.5	8,900.8	8,883.5	24.0	23.0	-141.03	-311.3	58.1	70.2	27.8	42.36	1.656		
9,000.0	8,976.6	9,000.8	8,982.8	24.5	23.5	-141.36	-322.7	59.2	71.5	28.3	43.16	1.657		
9,100.0	9,075.8	9,100.8	9,082.1	25.0	23.9	-141.68	-334.2	60.2	72.8	28.8	43.97	1.656		
9,200.0	9,175.0	9,200.8	9,181.5	25.5	24.4	-141.98	-345.6	61.2	74.1	29.4	44.78	1.655		
9,300.0	9,274.2	9,300.8	9,280.8	26.0	24.9	-142.27	-357.1	62.2	75.5	29.8	45.61	1.654		
9,400.0	9,373.4	9,400.7	9,380.1	26.5	25.3	-142.56	-368.5	63.3	76.8	30.3	46.46	1.653		
9,500.0	9,472.6	9,500.7	9,479.5	27.0	25.8	-142.83	-380.0	64.3	78.1	30.8	47.31	1.651		
9,600.0	9,571.7	9,600.7	9,578.8	27.5	26.3	-143.09	-391.4	65.3	79.4	31.3	48.17	1.649		
9,700.0	9,670.9	9,700.7	9,678.1	28.0	26.8	-143.35	-402.9	66.3	80.8	31.7	49.04	1.647		

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 606H - Dagger State Com 606H - Dagger State Com 606H - Prelim 1													Offset Site Error: 0.0 usft
Survey Program: 0-MWD+HRGM													Offset Well Error: 0.0 usft
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
9,800.0	9,770.1	9,800.7	9,777.4	28.5	27.3	-143.60	-414.3	67.4	82.1	32.2	49.92	1.645	
9,900.0	9,869.3	9,900.7	9,876.8	29.1	27.8	-143.83	-425.8	68.4	83.4	32.6	50.81	1.642	
10,000.0	9,968.5	10,000.7	9,976.1	29.6	28.3	-144.07	-437.2	69.4	84.8	33.1	51.71	1.640	
10,021.0	9,989.3	10,021.7	9,997.0	29.7	28.4	-144.11	-439.6	69.6	85.1	33.2	51.89	1.639	
10,100.0	10,067.7	10,100.7	10,075.4	30.1	28.8	-144.08	-448.6	70.4	85.7	33.2	52.52	1.631	
10,200.0	10,167.2	10,200.7	10,174.8	30.6	29.3	-143.42	-460.1	71.5	85.2	32.1	53.12	1.604	
10,300.0	10,266.8	10,300.6	10,274.1	31.1	29.8	-142.01	-471.5	72.5	83.3	29.9	53.43	1.560	
10,400.0	10,366.5	10,400.5	10,373.3	31.5	30.3	-139.74	-483.0	73.5	80.2	26.8	53.37	1.503	
10,500.0	10,466.4	10,500.3	10,472.4	32.0	30.8	-136.40	-494.4	74.5	75.9	23.1	52.81	1.438 Level 3	
10,600.0	10,566.3	10,600.0	10,571.5	32.4	31.3	-131.63	-505.8	75.6	70.8	19.2	51.53	1.373 Level 3	
10,700.0	10,666.3	10,699.5	10,670.3	32.7	31.8	-124.93	-517.2	76.6	65.1	15.9	49.28	1.322 Level 3	
10,753.7	10,720.0	10,752.8	10,723.2	32.8	32.1	57.05	-523.2	77.1	62.2	14.6	47.58	1.307 Level 3	
10,800.0	10,766.3	10,798.6	10,768.8	32.8	32.3	61.16	-528.1	77.6	60.1	14.0	46.07	1.304 Level 3	
10,865.2	10,831.5	10,863.3	10,833.2	32.8	32.6	66.83	-534.3	78.1	57.8	13.6	44.20	1.308 Level 3	
10,875.0	10,841.3	10,873.0	10,842.8	32.8	32.7	62.34	-535.1	78.2	57.5	13.6	43.92	1.309 Level 3	
10,900.0	10,866.3	10,897.7	10,867.4	32.7	32.8	65.58	-537.3	78.4	56.4	13.4	43.01	1.311 Level 3	
10,925.0	10,891.1	10,922.2	10,891.9	32.6	32.9	70.07	-539.3	78.6	55.0	13.1	41.97	1.311 Level 3	
10,950.0	10,915.9	10,946.5	10,916.1	32.5	33.0	75.89	-541.2	78.7	53.7	12.6	41.09	1.306 Level 3	
10,975.0	10,940.3	10,970.6	10,940.1	32.4	33.2	83.03	-543.0	78.9	52.7	11.8	40.90	1.290 Level 3	
10,989.6	10,954.5	10,984.5	10,954.0	32.3	33.2	87.74	-543.9	79.0	52.6	11.2	41.35	1.271 Level 3	
11,000.0	10,964.5	10,994.3	10,963.8	32.3	33.3	91.28	-544.6	79.0	52.7	10.7	42.00	1.254 Level 3	
11,025.0	10,988.3	11,017.6	10,987.1	32.2	33.4	100.22	-546.1	79.2	54.0	9.3	44.69	1.208 Level 3	
11,050.0	11,011.7	11,040.6	11,009.9	32.1	33.5	109.23	-547.6	79.3	57.1	8.6	48.55	1.176 Level 3	
11,075.0	11,034.6	11,063.0	11,032.3	31.9	33.6	117.70	-548.8	79.4	62.3	9.7	52.68	1.183 Level 3	
11,100.0	11,057.0	11,084.9	11,054.2	31.8	33.7	125.23	-550.0	79.5	69.7	13.4	56.32	1.238 Level 3	
11,125.0	11,078.7	11,106.2	11,075.4	31.7	33.8	131.64	-551.1	79.6	79.1	20.0	59.13	1.338 Level 3	
11,150.0	11,099.7	11,126.8	11,096.1	31.6	33.9	136.95	-552.1	79.7	90.3	29.2	61.15	1.477 Level 3	
11,175.0	11,120.0	11,146.8	11,116.0	31.4	33.9	141.27	-552.9	79.8	103.2	40.7	62.54	1.650	
11,200.0	11,139.5	11,166.1	11,135.3	31.3	34.0	144.74	-553.7	79.9	117.5	54.0	63.48	1.851	
11,225.0	11,158.2	11,184.5	11,153.7	31.2	34.1	147.51	-554.3	79.9	133.1	69.0	64.09	2.077	
11,250.0	11,176.0	11,202.1	11,171.3	31.1	34.2	149.69	-554.9	80.0	149.9	85.4	64.49	2.324	
11,275.0	11,192.8	11,218.9	11,188.0	31.0	34.2	151.36	-555.4	80.0	167.7	103.0	64.74	2.591	
11,300.0	11,208.7	11,234.7	11,203.8	30.9	34.3	152.60	-555.9	80.1	186.6	121.7	64.90	2.875	
11,325.0	11,223.5	11,249.5	11,218.7	30.8	34.3	153.44	-556.2	80.1	206.3	141.3	64.98	3.174	
11,350.0	11,237.2	11,263.3	11,232.4	30.7	34.4	153.91	-556.5	80.1	226.8	161.7	65.02	3.487	
11,375.0	11,249.8	11,276.0	11,245.2	30.6	34.4	154.00	-556.8	80.1	248.0	183.0	65.04	3.813	
11,400.0	11,261.3	11,287.6	11,256.8	30.5	34.5	153.69	-557.0	80.2	269.9	204.9	65.03	4.150	
11,425.0	11,271.6	11,298.1	11,267.2	30.4	34.5	152.90	-557.2	80.2	292.4	227.4	65.01	4.498	
11,450.0	11,280.7	11,307.3	11,276.5	30.4	34.5	151.54	-557.3	80.2	315.4	250.5	64.97	4.855	
11,475.0	11,288.6	11,315.3	11,284.5	30.3	34.5	149.39	-557.4	80.2	338.9	274.0	64.93	5.220	
11,500.0	11,295.2	11,322.1	11,291.3	30.3	34.6	146.12	-557.5	80.2	362.8	297.9	64.88	5.592	
11,525.0	11,300.5	11,327.5	11,296.7	30.2	34.6	141.12	-557.5	80.2	387.0	322.2	64.84	5.968	
11,550.0	11,304.6	11,331.6	11,300.8	30.2	34.6	133.29	-557.6	80.2	411.5	346.7	64.81	6.349	
11,575.0	11,307.3	11,334.4	11,303.5	30.2	34.6	120.70	-557.6	80.2	436.1	371.3	64.78	6.732	
11,600.0	11,308.8	11,335.7	11,304.9	30.2	34.6	101.04	-557.6	80.2	460.9	396.1	64.77	7.117	
11,615.2	11,309.0	11,335.9	11,305.0	30.2	34.6	85.87	-557.6	80.2	476.0	411.3	64.76	7.351	
11,616.7	11,309.0	11,335.8	11,305.0	30.2	34.6	85.85	-557.6	80.2	477.5	412.7	64.76	7.374	
11,700.0	11,309.1	11,335.2	11,304.3	30.2	34.6	84.39	-557.6	80.2	560.4	495.7	64.73	8.658	
11,800.0	11,309.3	11,334.5	11,303.6	30.2	34.6	79.27	-557.6	80.2	660.3	595.6	64.72	10.202	
11,900.0	11,309.7	12,572.1	11,972.1	30.2	32.1	-179.65	212.3	79.2	662.5	590.3	72.14	9.183	
11,911.1	11,309.8	12,583.2	11,971.9	30.2	32.1	-179.66	223.4	79.1	662.2	590.0	72.22	9.170	
12,000.0	11,310.2	12,672.0	11,970.6	30.3	32.1	-179.66	312.3	78.4	660.5	587.6	72.87	9.065	

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 606H - Dagger State Com 606H - Dagger State Com 606H - 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				
12,100.0	11,310.7	12,772.0	11,969.2	30.3	32.1	-179.66	412.3	77.7	658.5	584.9	73.66	8.941					
12,200.0	11,311.2	12,872.0	11,967.7	30.3	32.2	-179.67	512.2	77.0	656.5	582.0	74.50	8.812					
12,300.0	11,311.8	12,972.0	11,966.2	30.4	32.2	-179.67	612.2	76.2	654.6	579.2	75.40	8.681					
12,348.5	11,312.0	13,020.5	11,965.5	30.4	32.3	-179.67	660.7	75.9	653.6	577.8	75.86	8.617					
12,383.9	11,312.0	13,055.9	11,965.0	30.5	32.3	-179.67	696.1	75.6	653.1	576.9	76.19	8.572					
12,400.0	11,311.8	13,072.0	11,964.8	30.5	32.3	-179.67	712.2	75.5	653.0	576.7	76.35	8.553					
12,500.0	11,311.1	13,172.0	11,963.3	30.7	32.5	-179.68	812.1	74.8	652.3	574.9	77.34	8.434					
12,600.0	11,310.4	13,272.0	11,961.9	31.3	32.7	-179.68	912.1	74.1	651.5	573.1	78.39	8.311					
12,700.0	11,309.7	13,372.0	11,960.4	32.3	33.3	-179.69	1,012.1	73.3	650.8	571.3	79.49	8.187					
12,800.0	11,308.9	13,472.0	11,958.9	33.7	34.4	-179.69	1,112.1	72.6	650.1	569.4	80.63	8.062					
12,900.0	11,308.2	13,572.0	11,957.5	35.3	35.8	-179.70	1,212.1	71.9	649.3	567.5	81.81	7.937					
13,000.0	11,307.5	13,672.0	11,956.0	36.9	37.4	-179.70	1,312.1	71.2	648.6	565.6	83.03	7.811					
13,100.0	11,306.8	13,772.0	11,954.6	38.6	39.1	-179.71	1,412.1	70.4	647.9	563.6	84.30	7.685					
13,200.0	11,306.0	13,872.0	11,953.1	40.3	40.8	-179.71	1,512.0	69.7	647.1	561.5	85.60	7.560					
13,300.0	11,305.3	13,971.9	11,951.6	42.1	42.5	-179.72	1,612.0	69.0	646.4	559.4	86.93	7.435					
13,400.0	11,304.6	14,071.9	11,950.2	43.8	44.3	-179.72	1,712.0	68.2	645.6	557.3	88.30	7.312					
13,500.0	11,303.9	14,179.8	11,947.6	45.6	46.2	-179.73	1,819.8	67.5	644.0	553.8	90.20	7.140					
13,600.0	11,303.1	14,279.8	11,944.9	47.5	48.0	-179.73	1,919.8	66.7	642.0	550.4	91.64	7.006					
13,700.0	11,302.4	14,379.8	11,942.3	49.3	49.9	-179.74	2,019.7	66.0	640.1	547.0	93.11	6.874					
13,800.0	11,301.7	14,479.8	11,939.6	51.1	51.7	-179.74	2,119.7	65.3	638.1	543.5	94.61	6.745					
13,900.0	11,301.0	14,579.7	11,936.9	53.0	53.6	-179.75	2,219.6	64.5	636.2	540.0	96.14	6.617					
14,000.0	11,300.2	14,679.7	11,934.2	54.9	55.5	-179.75	2,319.5	63.8	634.2	536.5	97.69	6.492					
14,100.0	11,299.5	14,779.7	11,931.5	56.8	57.3	-179.76	2,419.5	63.1	632.2	533.0	99.26	6.369					
14,200.0	11,298.8	14,879.7	11,928.9	58.7	59.2	-179.76	2,519.4	62.4	630.3	529.4	100.86	6.249					
14,300.0	11,298.1	14,979.7	11,926.2	60.6	61.1	-179.76	2,619.4	61.6	628.3	525.9	102.48	6.131					
14,400.0	11,297.3	15,079.6	11,923.5	62.5	63.0	-179.77	2,719.3	60.9	626.4	522.3	104.12	6.016					
14,500.0	11,296.6	15,179.6	11,920.8	64.4	65.0	-179.77	2,819.3	60.2	624.4	518.6	105.78	5.903					
14,600.0	11,295.9	15,279.6	11,918.1	66.3	66.9	-179.78	2,919.2	59.4	622.5	515.0	107.46	5.792					
14,700.0	11,295.2	15,379.6	11,915.4	68.2	68.8	-179.78	3,019.1	58.7	620.5	511.3	109.16	5.684					
14,724.2	11,295.0	15,403.8	11,914.8	68.7	69.3	-179.78	3,043.3	58.5	620.0	510.5	109.57	5.659					
14,758.5	11,294.5	15,438.1	11,913.9	69.3	69.9	-179.78	3,077.6	58.3	619.6	509.4	110.16	5.624					
14,800.0	11,293.7	15,479.6	11,912.8	70.1	70.7	-179.79	3,119.1	58.0	619.2	508.4	110.87	5.585					
14,900.0	11,291.8	15,579.6	11,910.1	72.1	72.7	-179.79	3,219.1	57.2	618.5	505.9	112.59	5.493					
15,000.0	11,289.9	15,679.6	11,907.4	74.0	74.6	-179.80	3,319.0	56.5	617.7	503.4	114.34	5.403					
15,100.0	11,288.0	15,780.9	11,904.7	76.0	76.6	-179.80	3,420.3	55.8	616.9	500.7	116.21	5.309					
15,200.0	11,286.1	15,880.9	11,901.8	77.9	78.5	-179.80	3,520.2	55.0	616.0	498.0	117.98	5.221					
15,300.0	11,284.1	15,980.9	11,898.9	79.9	80.5	-179.81	3,620.2	54.3	615.0	495.2	119.77	5.135					
15,400.0	11,282.2	16,080.9	11,896.0	81.8	82.4	-179.81	3,720.1	53.6	614.0	492.5	121.57	5.051					
15,500.0	11,280.3	16,180.9	11,893.1	83.8	84.4	-179.82	3,820.1	52.9	613.1	489.7	123.38	4.969					
15,600.0	11,278.4	16,280.8	11,890.2	85.7	86.3	-179.82	3,920.0	52.1	612.1	486.9	125.21	4.889					
15,700.0	11,276.4	16,380.8	11,887.3	87.7	88.3	-179.83	4,020.0	51.4	611.1	484.1	127.05	4.810					
15,800.0	11,274.5	16,480.8	11,884.4	89.7	90.3	-179.83	4,119.9	50.7	610.1	481.2	128.90	4.734					
15,827.3	11,274.0	16,508.2	11,883.6	90.2	90.8	-179.83	4,147.3	50.5	609.9	480.5	129.40	4.713					
15,900.0	11,273.5	16,580.8	11,881.5	91.6	92.2	-179.84	4,219.9	50.0	608.3	477.5	130.76	4.652					
15,922.0	11,273.7	16,602.8	11,880.9	92.1	92.7	-179.84	4,241.8	49.8	607.4	476.2	131.17	4.631					
16,000.0	11,274.8	16,680.7	11,878.6	93.6	94.2	-179.84	4,319.7	49.2	604.1	471.4	132.63	4.555					
16,100.0	11,276.2	16,780.6	11,875.7	95.6	96.2	-179.84	4,419.6	48.5	599.8	465.3	134.51	4.459					
16,200.0	11,277.6	16,880.5	11,872.8	97.5	98.2	-179.85	4,519.5	47.8	595.5	459.1	136.40	4.366					
16,300.0	11,279.0	16,980.5	11,870.0	99.5	100.1	-179.85	4,619.3	47.1	591.2	452.9	138.30	4.275					
16,400.0	11,280.3	17,080.4	11,867.1	101.5	102.1	-179.86	4,719.2	46.3	587.0	446.8	140.21	4.186					
16,500.0	11,281.7	17,180.3	11,864.2	103.5	104.1	-179.86	4,819.1	45.6	582.7	440.6	142.13	4.100					
16,600.0	11,283.1	17,276.0	11,861.5	105.4	106.0	-179.86	4,914.8	44.9	578.5	434.9	143.64	4.028					

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 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Offset Design: Dagger State - Dagger State Com 606H - Dagger State Com 606H - Dagger State Com 606H - Prelim 1												Offset Site Error: 0.0 usft	
Survey Program: 0-MWD+HRGM				Rule Assigned:								Offset Well Error: 0.0 usft	
Reference		Offset		Semi Major Axis			Offset Wellbore Centre		Distance				Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	
16,700.0	11,284.5	17,359.2	11,860.9	107.4	107.6	-179.87	4,998.0	44.3	576.4	432.6	143.85	4.007	
16,722.3	11,284.8	17,377.8	11,861.1	107.9	108.0	-179.87	5,016.6	44.2	576.3	432.5	143.89	4.005	
16,800.0	11,285.9	17,449.5	11,862.6	109.4	109.4	-179.87	5,088.3	43.6	577.0	432.2	144.76	3.986	
16,900.0	11,287.2	17,549.5	11,865.1	111.4	111.4	-179.88	5,188.2	42.9	578.0	431.3	146.71	3.940	
17,000.0	11,288.6	17,649.5	11,867.5	113.4	113.4	-179.88	5,288.2	42.2	579.0	430.4	148.66	3.895	
17,100.1	11,290.0	17,749.6	11,869.9	115.4	115.4	-179.89	5,388.2	41.5	580.0	429.4	150.61	3.851	
17,203.9	11,293.3	17,853.4	11,872.4	117.4	117.4	-179.89	5,492.0	40.7	579.2	426.6	152.68	3.794	
17,300.0	11,298.1	17,949.5	11,874.7	119.3	119.3	-179.90	5,588.0	40.0	576.7	422.2	154.59	3.731	
17,400.0	11,303.1	18,049.5	11,877.1	121.3	121.3	-179.90	5,688.0	39.3	574.2	417.6	156.57	3.667	
17,500.0	11,308.1	18,149.4	11,879.5	123.3	123.3	-179.91	5,787.9	38.6	571.6	413.0	158.55	3.605	
17,600.0	11,313.1	18,249.4	11,881.9	125.3	125.3	-179.91	5,887.8	37.8	569.0	408.4	160.53	3.544	
17,700.0	11,318.1	18,349.3	11,884.3	127.3	127.3	-179.92	5,987.8	37.1	566.4	403.8	162.52	3.485	
17,800.0	11,323.1	18,449.3	11,886.7	129.3	129.3	-179.92	6,087.7	36.4	563.8	399.3	164.52	3.427	
17,900.0	11,328.1	18,549.3	11,889.1	131.2	131.3	-179.93	6,187.6	35.6	561.2	394.7	166.52	3.370	
17,917.5	11,329.0	18,566.8	11,889.6	131.6	131.6	-179.93	6,205.1	35.5	560.7	393.9	166.87	3.360	
17,991.8	11,331.8	18,641.1	11,891.4	133.1	133.1	-179.93	6,279.4	35.0	559.8	391.4	168.36	3.325	
18,000.0	11,331.9	18,649.3	11,891.6	133.2	133.2	-179.93	6,287.6	34.9	559.8	391.3	168.53	3.322	
18,053.7	11,332.6	18,703.0	11,892.9	134.3	134.3	-179.94	6,341.3	34.5	560.4	390.8	169.61	3.304	
18,100.0	11,332.7	18,749.3	11,894.0	135.2	135.2	-179.94	6,387.6	34.2	561.4	390.9	170.54	3.292	
18,200.0	11,332.9	18,849.2	11,896.4	137.2	137.2	-179.94	6,487.5	33.5	563.6	391.1	172.55	3.266	
18,300.0	11,333.2	18,949.2	11,898.8	139.2	139.2	-179.95	6,587.4	32.7	565.8	391.2	174.56	3.241	
18,400.0	11,333.4	19,051.2	11,901.2	141.2	141.2	-179.95	6,689.4	32.0	567.9	391.1	176.81	3.212	
18,500.0	11,333.7	19,175.9	11,901.1	143.2	143.7	-179.96	6,814.1	31.1	567.5	386.0	181.60	3.125	
18,600.0	11,333.9	19,275.8	11,898.8	145.2	145.7	-179.96	6,914.0	30.3	565.0	381.4	183.62	3.077	
18,700.0	11,334.2	19,375.8	11,896.5	147.2	147.7	-179.97	7,013.9	29.6	562.5	376.8	185.65	3.030	
18,800.0	11,334.4	19,475.7	11,894.2	149.2	149.7	-179.97	7,113.8	28.9	560.0	372.3	187.68	2.984	
18,900.0	11,334.7	19,575.7	11,891.9	151.2	151.7	-179.98	7,213.8	28.1	557.4	367.7	189.72	2.938	
19,000.0	11,334.9	19,675.7	11,889.7	153.2	153.7	-179.98	7,313.7	27.4	554.9	363.1	191.76	2.894	
19,100.0	11,335.2	19,775.6	11,887.4	155.2	155.7	-179.99	7,413.7	26.7	552.4	358.6	193.80	2.850	
19,200.0	11,335.4	19,875.6	11,885.1	157.2	157.7	-179.99	7,513.6	25.9	549.8	354.0	195.85	2.807	
19,300.0	11,335.7	19,975.6	11,882.8	159.2	159.7	-179.99	7,613.5	25.2	547.3	349.4	197.90	2.765	
19,400.0	11,335.9	20,075.5	11,880.5	161.2	161.7	-180.00	7,713.5	24.5	544.8	344.8	199.96	2.724	
19,435.8	11,336.0	20,098.9	11,880.0	161.9	162.2	-180.00	7,736.9	24.3	544.0	344.7	199.26	2.730	

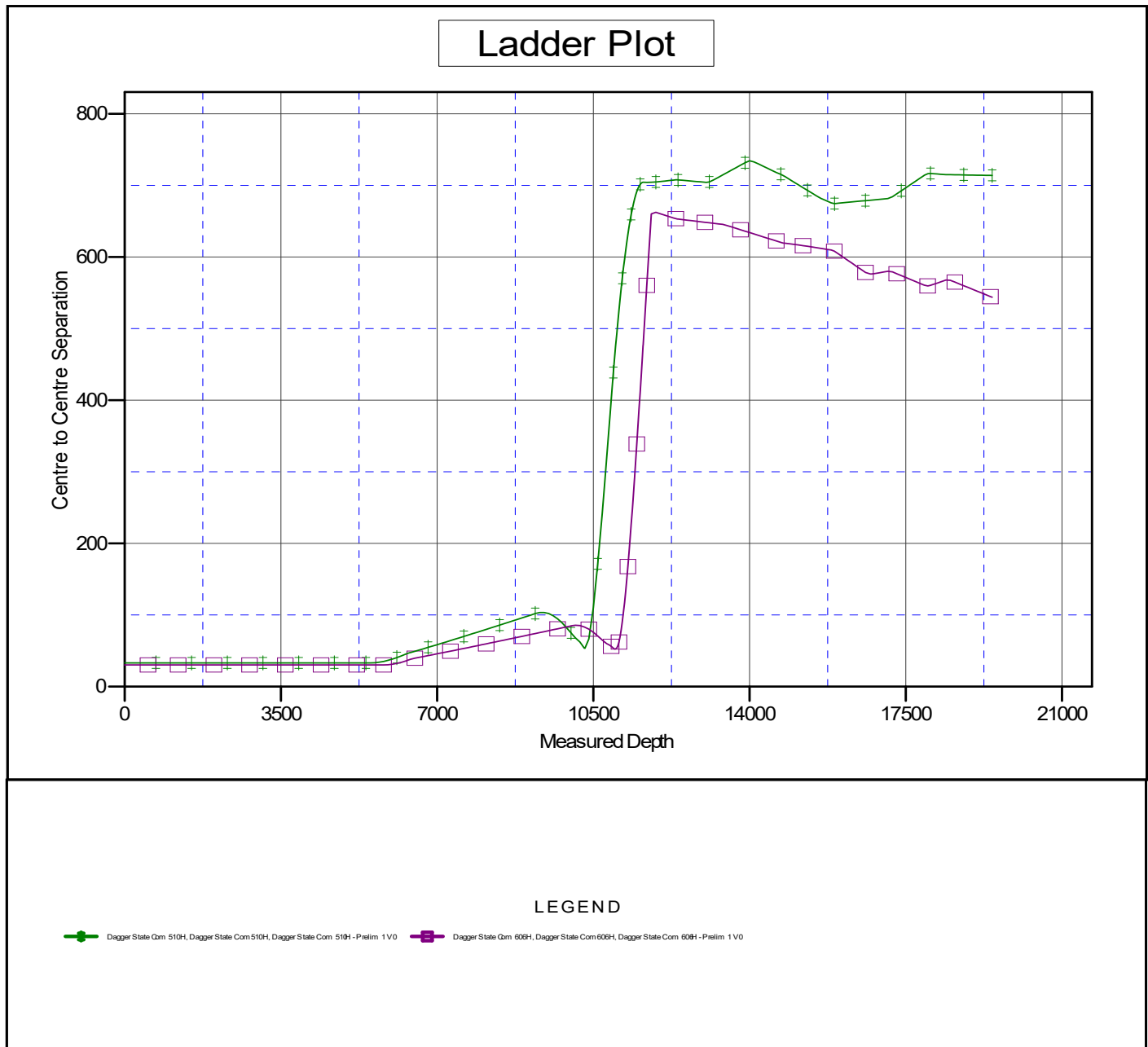


Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3852.5usft (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 554H
 Coordinate System is US State Plane 1983, New Mexico Eastern Zone
 Grid Convergence at Surface is: 0.39°



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



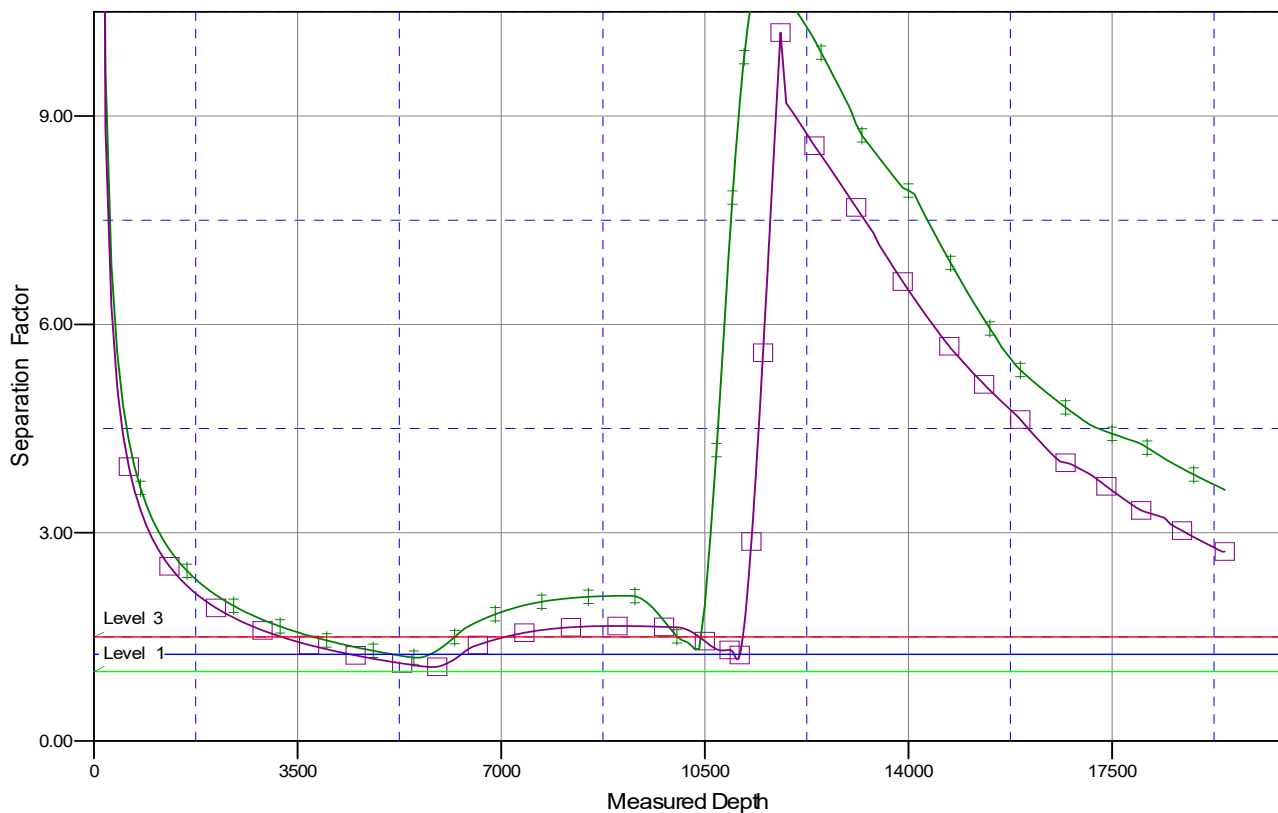
Anticollision Report

Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Dagger State Com 554H
Project:	Hat Mesa	TVD Reference:	WELL @ 3852.5usft (Original Well Elev)
Reference Site:	Dagger State	MD Reference:	WELL @ 3852.5usft (Original Well Elev)
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Reference Well:	Dagger State Com 554H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.79 sigma
Reference Wellbore	Dagger State Com 554H	Database:	EDM 5000.16 Single User Db
Reference Design:	Dagger State Com 554H - Prelim 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to WELL @ 3852.5usft (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 554H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.39°

Separation Factor Plot



LEGEND

Dagger State Com 510H, Dagger State Com 510H, Dagger State Com 510H - Prelim 1 V0
 Dagger State Com 606H, Dagger State Com 606H, Dagger State Com 606H - Prelim 1 V0