District I
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Phone:(575) 393-6161 Fax:(575) 393-0720
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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 304963

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

1. Operator Name and Address	2. OGRID Number
ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077	372417
	3. API Number 30-025-49640

4. Property Code	5. Property Name	6. Well No.
325948	WOOL HEAD 20 STATE COM	302H

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
N	20	21S	33E	N	250	S	2112	W	Lea

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
K	17	21S	33E	K	2540	S	2640	W	Lea

9. Pool Information

WC-025 G-08 S213304D;BONE SPRING	97895

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	3722
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
N	21675	Bone Spring		12/14/2021
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

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

21. Proposed Casing and Cement Program

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

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	10000	10000	

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.** Signature:		**OIL CONSERVATION DIVISION**	
Printed Name:	Electronically filed by Braden Harris	Approved By:	Paul F Kautz
Title:	Vice President	Title:	Geologist
Email Address:	bharris@advanceenergypartners.com	Approved Date:	12/16/2021 Expiration Date: 12/16/2023
Date:	12/8/2021 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

OIL CONSERVATION DIVISION

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

Form C-102
Revised August 4, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-49640	97895	WC-025 G-08 S 213304D; BONE SPRING

Property Code	Property Name	Well Number
325948	WOOL HEAD 20 STATE COM	302H

OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3722'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
N	20	21 S	33 E		250	SOUTH	2112	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
K	17	21 S	33 E		2540	SOUTH	2640	WEST	LEA

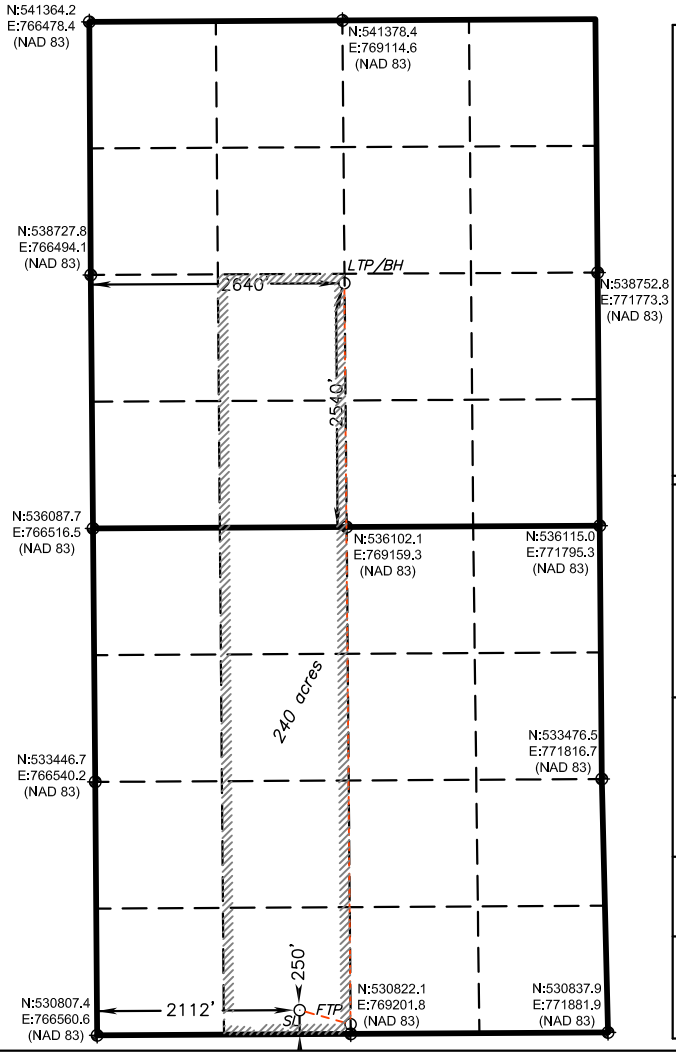
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
240			

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

LAST TAKE POINT
BOTTOM HOLE LOCATION
Lat – N 32.478622°
Long – W 103.594620°
NMSPCE– N 538642.0
E 769134.9
(NAD-83)

FIRST TAKE POINT
100' FSL & 2640' FWL
Lat – N 32.457402°
Long – W 103.594583°
NMSPCE– N 530922.1
E 769199.8
(NAD-83)

SURFACE LOCATION
Lat – N 32.457816°
Long – W 103.596297°
NMSPCE– N 531069.1
E 768670.2
(NAD-83)



OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unLEAsed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

Email Address

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

DECEMBER 6, 2021
Date Surveyed

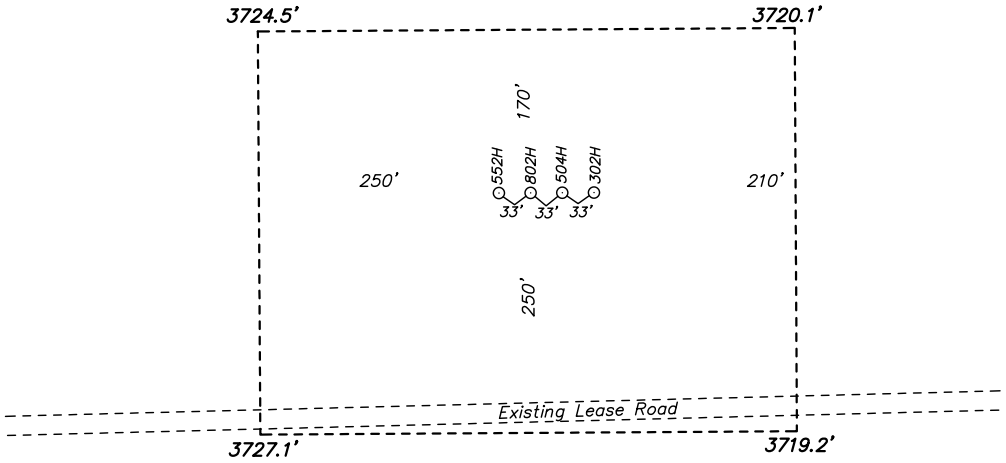
Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate No. Gary L. Jones 7977
BASIN SURVEYS

0' 1000' 2000' 3000' 4000' N
SCALE: 1" = 2000'
WO Num.: 35530

SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS HAT MESA
WOOL HEAD 20 STATE COM 302H
ELEV. – 3722'

Lat – N 32.457816°
Long – W 103.596297°
NMSPCE– N 531069.1
E 768670.2
(NAD–83)

N

200 0 200 400 FEET
SCALE: 1" = 200'

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

basin surveys
focused on excellence in the oilfield

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

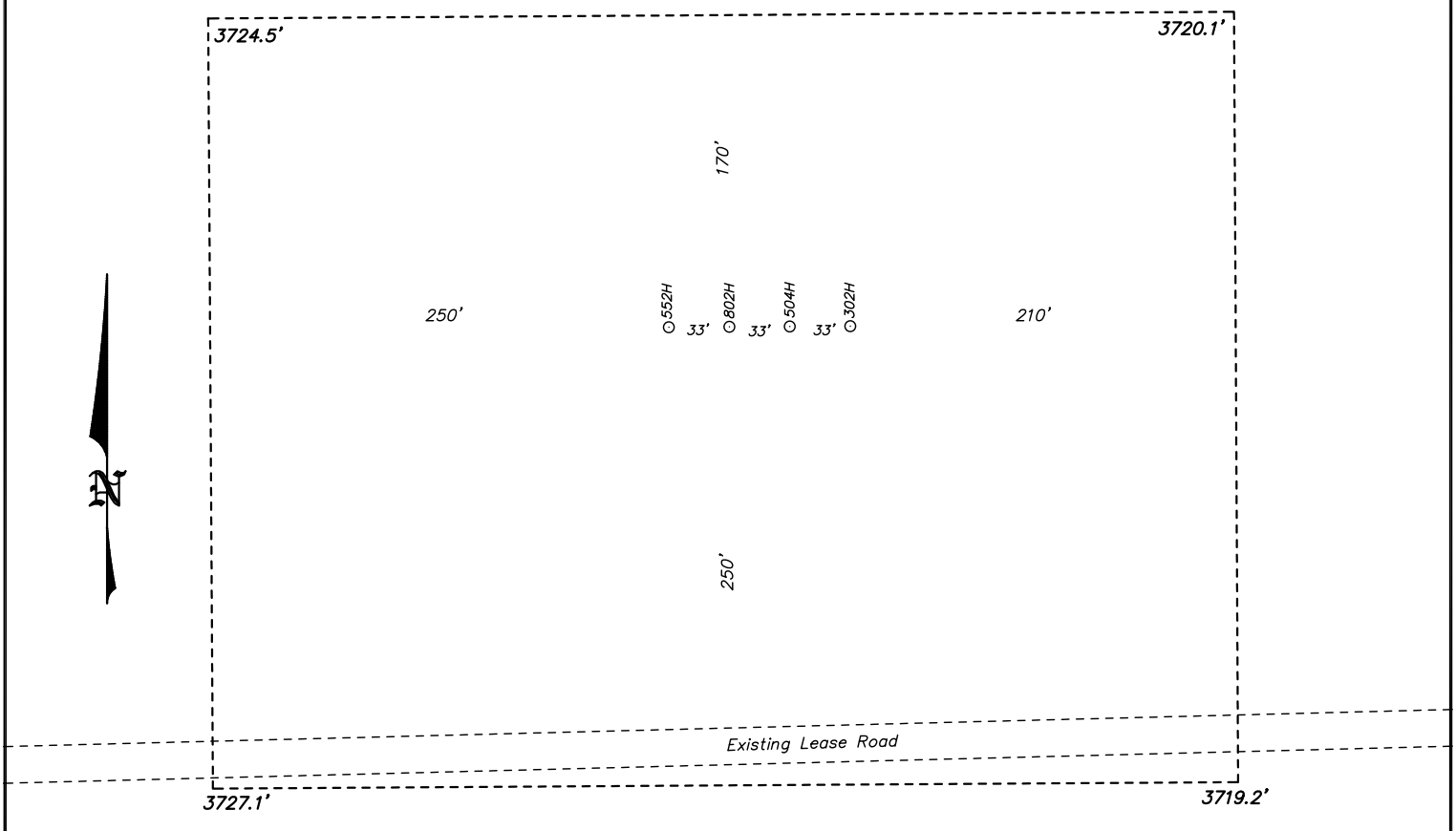
ADVANCE ENERGY PARTNERS HAT MESA

REF: WOOL HEAD 20 STATE COM 302H / WELL PAD TOPO

THE WOOL HEAD 20 STATE COM 302H LOCATED 250' FROM THE SOUTH LINE AND 2112' FROM THE WEST LINE OF SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35530	Drawn By: K. GOAD	Date: 12–07–2021	Survey Date: 12–06–2021	Sheet 1 of 1 Sheets

SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA

REF: WOOL HEAD 20 STATE COM 302H / WELL PAD TOPO

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W.O. Number: 35530	Drawn By: K. GOAD	Date: 12-07-2021	Survey Date: 12-06-2021	Sheet 1 of 1 Sheets

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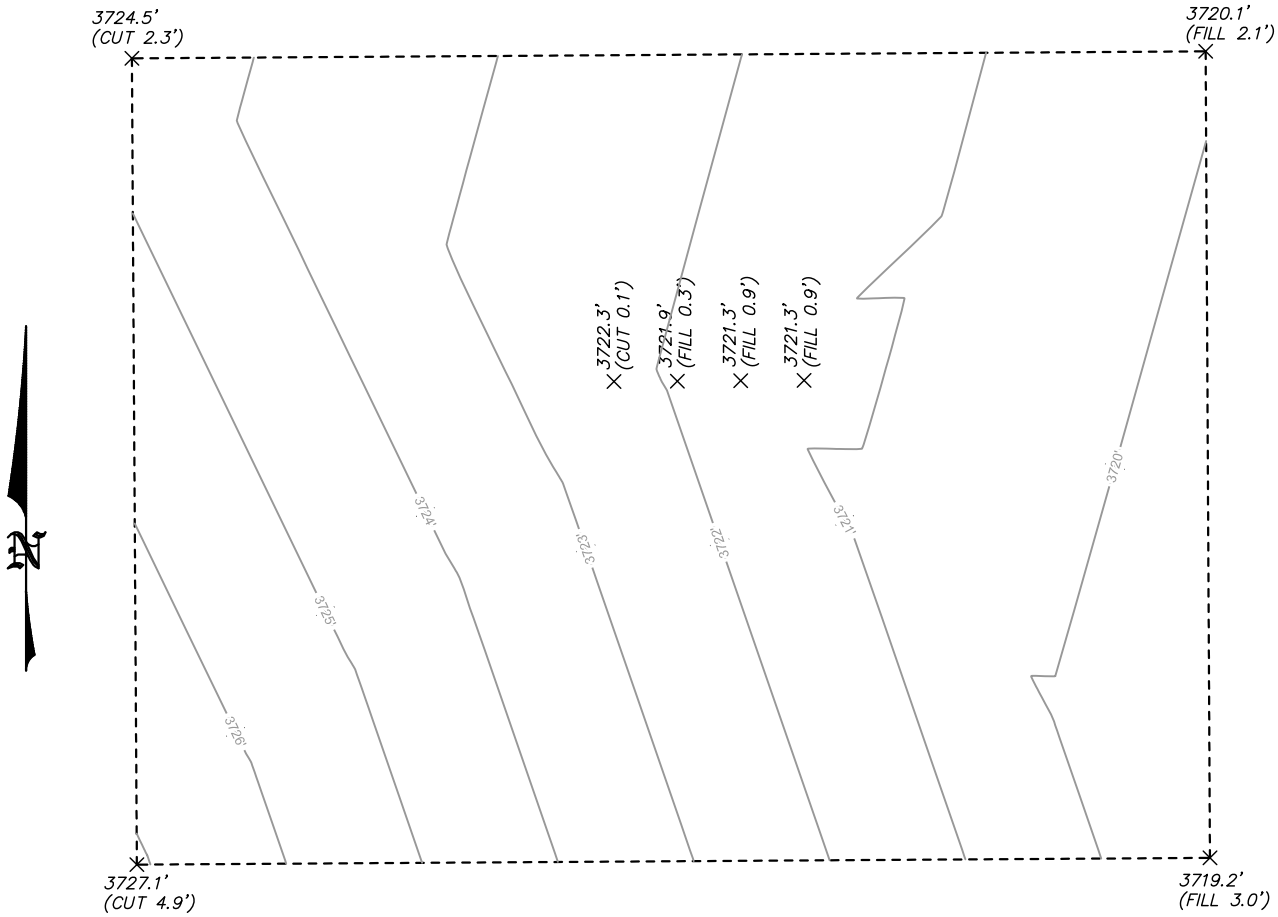
LEA COUNTY, NEW MEXICO.



100 0 100 200 FEET

SCALE: 1" = 100'

ADVANCE ENERGY PARTNERS HAT MESA

REF: WOOL HEAD 20 STATE COM WELL PAD / CUT & FILL

THE WOOL HEAD 20 STATE COM WELL PAD LOCATED IN SECTION 20, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

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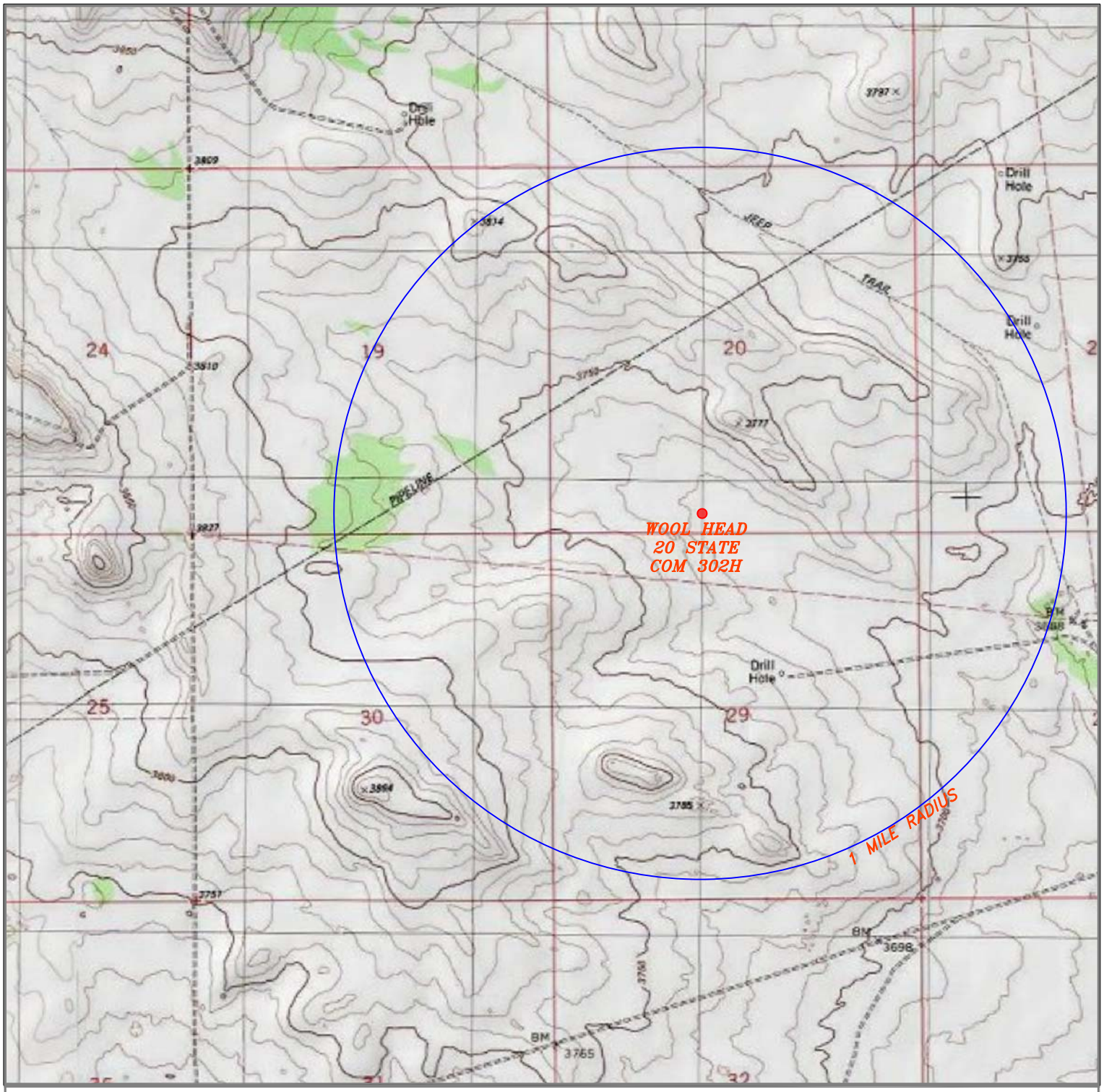

WOOL HEAD 20 STATE COM 302H

Located 250' FSL and 2112' FWL
Section 20, Township 21 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

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0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

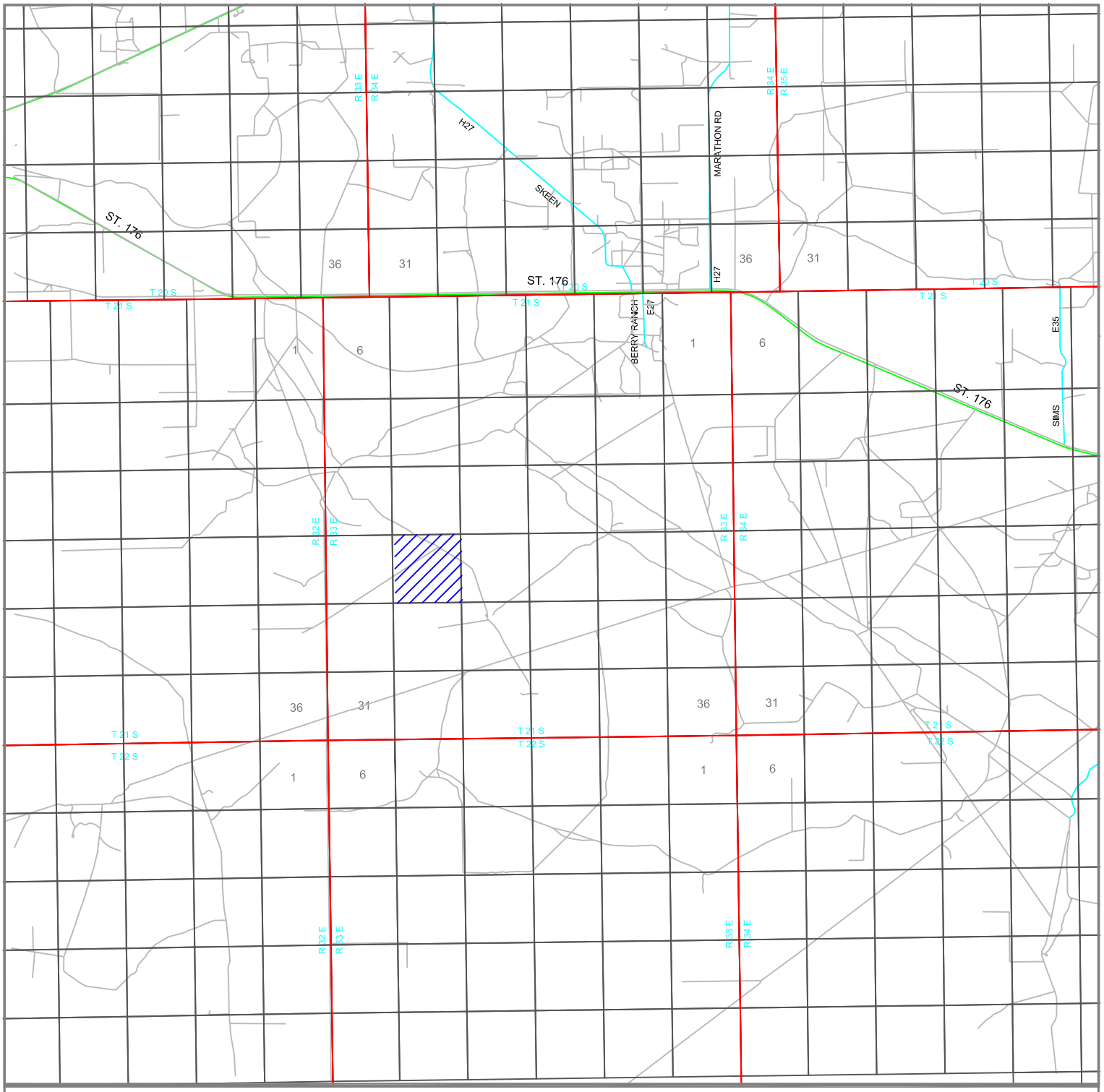
W.O. Number: KJG 35530

Survey Date: 12-06-2021

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

N

ADVANCE ENERGY PARTNERS HAT MESA



WOOL HEAD 20 STATE COM 302H

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0 1 MI 2 MI 3 MI 4 MI
SCALE: 1" = 2 MILES

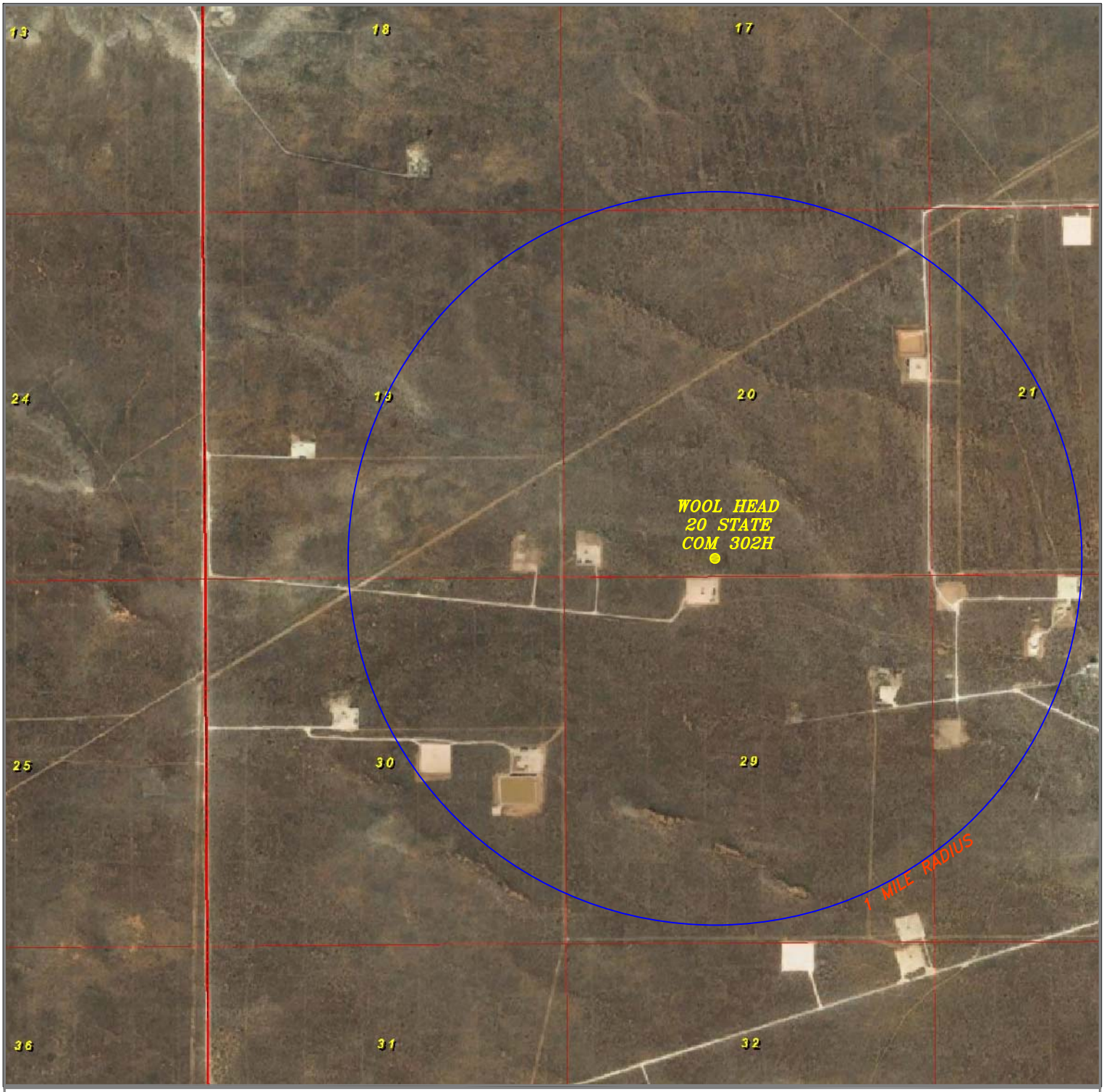
W.O. Number: KJG 35530

Survey Date: 12-06-2021

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

N

ADVANCE ENERGY PARTNERS HAT MESA



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0' 1000' 2000' 3000' 4000'
SCALE: 1" = 2000'

W.O. Number: KJG 35530

Survey Date: 12-06-2021

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

N

ADVANCE ENERGY PARTNERS HAT MESA

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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 304963

PERMIT COMMENTS

Operator Name and Address:	API Number:
ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	30-025-49640
	Well: WOOL HEAD 20 STATE COM #302H

Created By	Comment	Comment Date
pkautz	HOLD FOR NEW C-102	12/13/2021
pkautz	HOLD NGMP INCOMPLETE	12/13/2021

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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

Form APD Conditions

Permit 304963

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	30-025-49640
	Well: WOOL HEAD 20 STATE COM #302H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	Potash Area - Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface.

ADVANCE ENERGY PARTNERS

11490 Westheimer Road, Suite 950, Houston, Texas 77077 • Phone 832-672-4700 • Fax 832-672-4609

Date: February 17, 2020

Intrepid Potash-New Mexico, LLC
1996 Potash Mines Road.
Carlsbad, New Mexico 88220

Attention: Mr. Robert Baldridge

Re: Proposed Well APDs – Wool Head Wells
State Lands in Section 20, T21S-R33E and
S/2 Section 17, T21S-R33E
Lea County, New Mexico

Dear Mr. Baldridge,

This letter is to request waivers from Intrepid Potash-New Mexico, LLC (Intrepid) for the wells Advance Energy Partners Hat Mesa, LLC (Advance) plans to drill, having surface locations in the S/2SW/4 of Sec 20 and bottom-hole locations in the N/2SW/4 of Section 17 in T21S-R33E. The planned wells include, but are not necessarily limited to, the wells listed in the attached Exhibit "A". In the event Advance desires to drill additional wells in the above stated lands, Intrepid agrees to grant waivers for such additional wells.

Please provide your waiver by signing below and returning one signed counterpart of this letter to my attention at Advance. Please feel free to contact me about this request if you have any questions.

Sincerely,
Advance Energy Partners Hat Mesa, LLC

Paul Burdick
Land Advisor
(832) 672-4623
Email: PBurdick@AdvanceEnergyPartners.com

Waiver Granted this ____ day of February, 2020

Intrepid Potash-New Mexico, LLC

By: _____

Name: ROBERT BALDRIDGE

EXHIBIT A

WELLS

Well Name	Surface Location	Bottom-hole Location
Wool Head 20 State Com 501H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 502H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 503H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 504H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 551H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 552H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 601H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 602H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 603H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 604H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 801H	SW4SW/4 Sec 20-21S-33E	NW/4SW/4 Sec 17-21S-33E
Wool Head 20 State Com 802H	SE4SW/4 Sec 20-21S-33E	NE/4SW/4 Sec 17-21S-33E

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Electronically
Via E-permitting

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (A PD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Advance Energy Partners Hat Mesa **OGRID:** 372417 **Date:** 12 /8/21

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Wool Head 20 Fed Com 302H		N-20-21S-33E	250 FSL &2112 FWL	1000	1590	3100

IV. Central Delivery Point Name: Wool Head Fed Com Pad C [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Wool Head 20 Fed Com # 302H		12/14/2021	12/26/2021	01/15/2022	03/01/2022	04/01/2022

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

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☐ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☑ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Debbie Moughon
Printed Name:Debbie Moughon
Title: Eng. Tech
E-mail Address:dmoughon@advanceenergypartners.com
Date: 12/8/2021
Phone: 713-447-0744
OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan - Attachment

VI. Separation equipment will be sized by construction engineering staff based on stated manufacturer daily throughput capacities and anticipated daily production rates to ensure adequate capacity. Closed vent system piping, compression needs, and VRUs will be sized utilizing ProMax modelling software to ensure adequate capacity for anticipated production volumes and conditions.

VII. Advance Energy Partners Hat Mesa, LLC (AEP) will take the following actions to comply with the regulations listed in 19.15.27.8:

A. AEP will maximize the recovery of natural gas by minimizing the waste, as defined by 19.15.2 NMAC, of natural gas through venting and flaring. AEP will ensure that well(s) will be connected to a natural gas gathering system with sufficient capacity to transport natural gas. If there is no adequate takeaway for the gas, well(s) will be shut in until the natural gas gathering system is available.

B. All drilling operations will be equipped with a rig flare located at least 100' from the nearest surface hole. Rig flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency venting or flaring the volumes will be estimated and repo1ted appropriately.

C. During completion operations any natural gas brought to smface will be flared. Immediately following the finish of completion operations, all well flowback will be directed to permanent separation equipment. Produced natural gas from separation equipment will be sent to sales. It is not anticipated that gas will not meet pipeline standards. However, if natural gas does not meet gathering pipeline quality specifications, AEP will flare the natural gas for 60 days or until the natural gas meets the pipeline quality specifications, whichever is sooner. AEP will ensure that the flare is sized properly and is equipped with automatic igniter or continuous pilot. The gas sample will be analyzed twice per week and the gas will be routed into a gathering system as soon as pipeline specifications are met.

D. Natural gas will not be flared with the exceptions and provisions listed in the 19.15.27.8 D.(I) through (4). If there is no adequate takeaway for the separator gas, well(s) will be shut in until the natural gas gathering system is available with exception of emergency or malfunction situations. Venting and/or flaring volumes will be estimated and repo1ted appropriately.

E. AEP will comply with the performance standards requirements and provisions listed in 19.15.27.8 E.(l)through (8). All equipment will be designed and sized to handle maximum anticipated pressures and throughputs to minimize the waste. Production storage tanks constructed after May 25, 2021, will be equipped with automatic gauging system. Flares constructed after May 25, 2021, will be equipped with automatic igniter or continuous pilot. Flares will be located at least 100' from the well and storage tanks unless otherwise approved by the division. AEP will conduct AVO inspections as described in 19.15.27.8 E (5) (a) with frequencies specified in 19.15.27.8 E (5) (b) and (c). All emergencies will be resolved as quickly and safely as feasible to minimize waste.

F. The volume of natural gas that is vented or flared as the result of malfunction or emergency during drilling and completions operations will be estimated. The volume of natural gas that is vented, flared, or beneficially used during production operations, will be measured, or estimated. AEP will install equipment to measure

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

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

Advance Energy Partners

Hat Mesa
Wool Head 20 State Com Pad C
Wool Head 20 State Com 302H

Wool Head 20 State Com 302H
Wool Head 20 State Com 302H

Anticollision Summary Report

08 December, 2021

ADVANCE ENERGY PARTNERS

Anticollision Summary Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Reference Site:	Wool Head 20 State Com Pad C	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Wool Head 20 State Com 302H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Wool Head 20 State Com 302H	**Offset TVD Reference:**	Offset Datum

Reference	Wool Head 20 State Com 302H		
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** 12/8/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	17,685.8	Wool Head 20 State Com 302H (Wool Hea	MWD+HRGM	OWSG MWD + HRGM

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Wool Head 20 State Com Pad C						
Wool Head 20 State Com 504H - Wool Head 20 State Co	5,000.0	5,000.0	33.0	6.9	1.263	Level 3, CC, ES, SF
Wool Head 20 State Com 552H - Wool Head 20 State Co	5,000.0	5,000.0	99.0	72.9	3.790	CC, ES, SF
Wool Head 20 State Com 802H - Wool Head 20 State Co	5,000.0	5,000.0	66.0	39.9	2.527	CC, ES, SF
Wool Head 20 State Com Pad D						
Crockett State #02 - Crockett State #02 - Crockett State						Out of range
Wool Head 20 State Com #03 - Wool Head 20 State Com						Out of range
Wool Head 20 State Com 301H - Wool Head 20 State Co						Out of range
Wool Head 20 State Com 501H - Wool Head 20 State Co						Out of range
Wool Head 20 State Com 503H - Wool Head 20 State Co	10,388.4	10,678.7	971.2	881.4	10.811	CC
Wool Head 20 State Com 503H - Wool Head 20 State Co	16,900.0	17,184.5	998.8	707.6	3.431	ES, SF

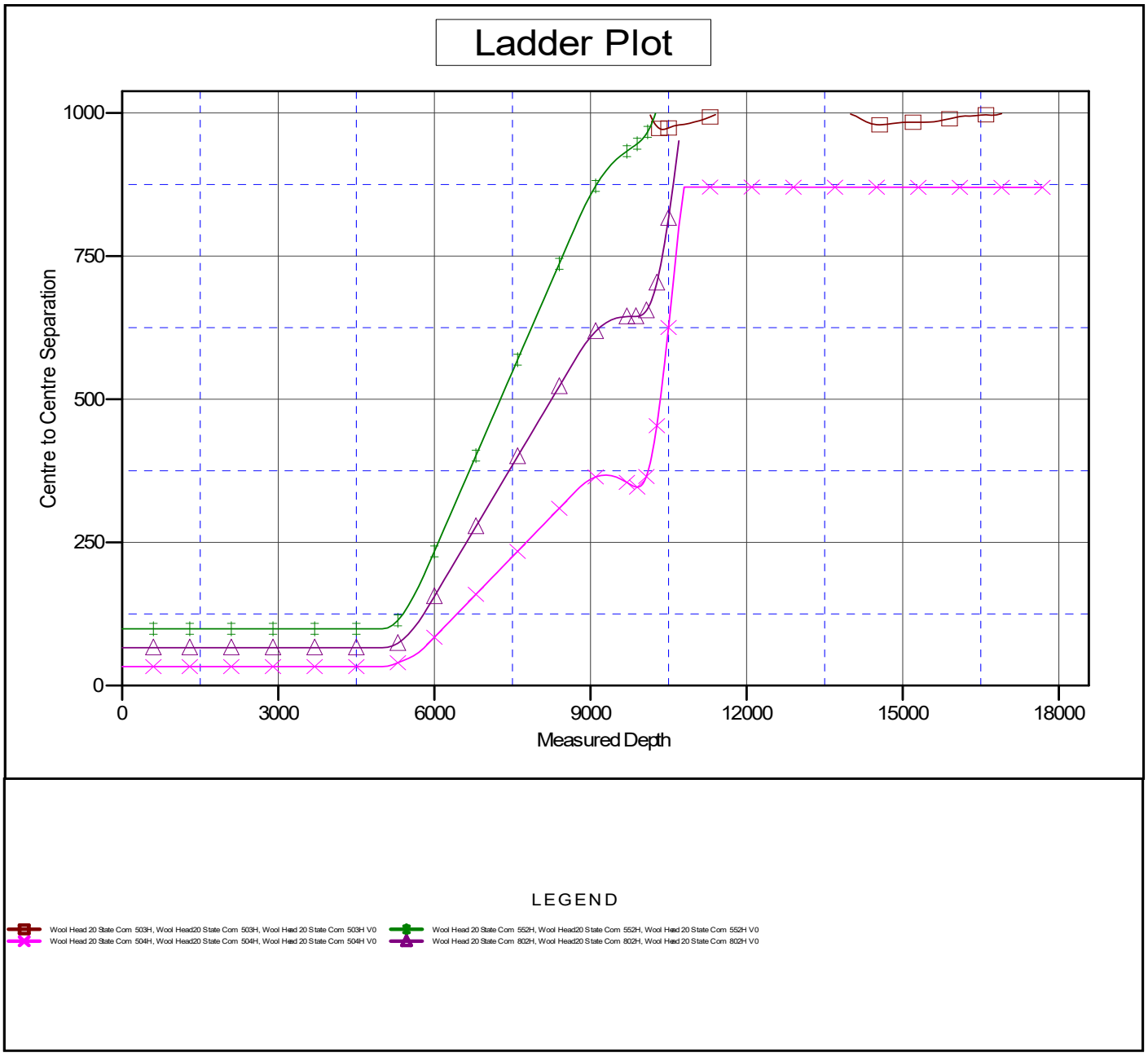
ADVANCE ENERGY PARTNERS

Anticollision Summary Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Reference Site:	Wool Head 20 State Com Pad C	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Wool Head 20 State Com 302H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Wool Head 20 State Com 302H	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 3754.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Wool Head 20 State Com 302H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.40°



ADVANCE ENERGY PARTNERS

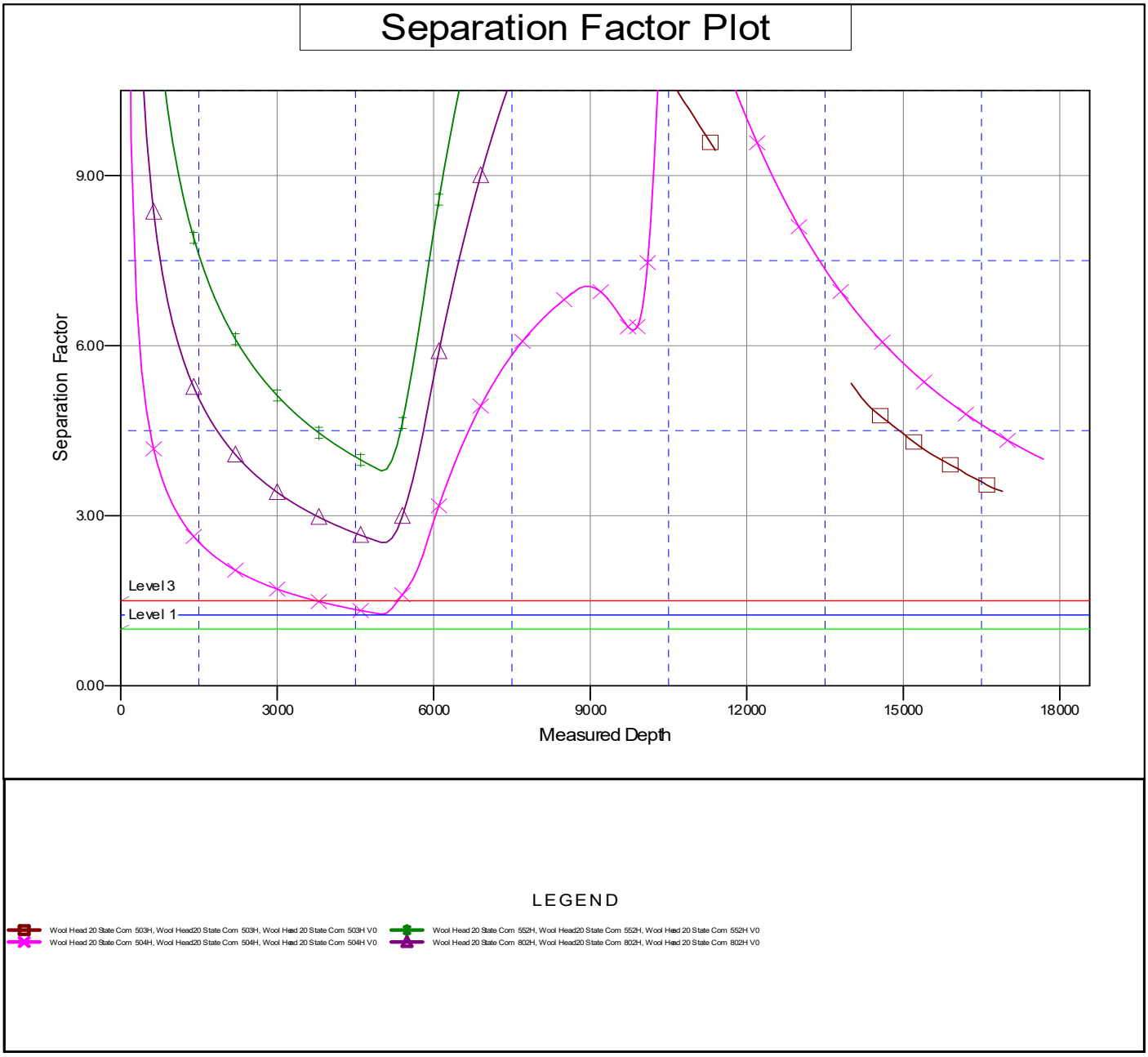
Anticollision Summary Report

Company:	Advance Energy Partners	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Project:	Hat Mesa	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Reference Site:	Wool Head 20 State Com Pad C	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	0.0 usft	**Output errors are at**	2.79 sigma
Reference Wellbore	Wool Head 20 State Com 302H	**Database:**	EDM 5000.16 Single User Db
Reference Design:	Wool Head 20 State Com 302H	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to WELL @ 3754.5usft (Original Well Ele
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Wool Head 20 State Com 302H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.40°

Separation Factor Plot



Advance Energy Partners

Hat Mesa
Wool Head 20 State Com Pad C
Wool Head 20 State Com 302H

Wool Head 20 State Com 302H

Plan: Wool Head 20 State Com 302H

Standard Planning Report

08 December, 2021

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

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 Wool Head 20 State Com Pad C

Site Position:		**Northing:**	531,069.15 usft	**Latitude:**	32° 27' 28.138 N
From:	Lat/Long	**Easting:**	768,670.11 usft	**Longitude:**	103° 35' 46.669 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "		

Well Wool Head 20 State Com 302H

Well Position	**+N/-S**	0.0 usft	**Northing:**	531,069.15 usft	**Latitude:**	32° 27' 28.138 N
	+E/-W	0.0 usft	**Easting:**	768,670.11 usft	**Longitude:**	103° 35' 46.669 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,722.0 usft
Grid Convergence:		0.40 °				

Wellbore Wool Head 20 State Com 302H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	12/8/2021	6.49	60.21	47,610.30716316

Design Wool Head 20 State Com 302H

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	3.51

Plan Survey Tool Program **Date** 12/8/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	17,685.8	Wool Head 20 State Com 302H (	MWD+HRGM	
				OWSG MWD + HRGM	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
5,843.6	8.44	105.30	5,840.6	-16.4	59.8	1.00	1.00	0.00	105.30	
8,743.9	8.44	105.30	8,709.4	-128.6	470.2	0.00	0.00	0.00	0.00	
9,587.5	0.00	0.00	9,550.0	-145.0	530.0	1.00	-1.00	0.00	180.00	
9,695.0	0.00	0.00	9,657.5	-145.0	530.0	0.00	0.00	0.00	0.00	
10,445.0	90.00	359.52	10,135.0	332.4	526.0	12.00	12.00	0.00	359.52	
17,685.8	90.00	359.52	10,135.0	7,573.0	464.9	0.00	0.00	0.00	0.00	Wool Head 20 State (

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start Build 1.00									
5,100.0	1.00	105.30	5,100.0	-0.2	0.8	-0.2	1.00	1.00	0.00
5,200.0	2.00	105.30	5,200.0	-0.9	3.4	-0.7	1.00	1.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	3.00	105.30	5,299.9	-2.1	7.6	-1.6	1.00	1.00	0.00
5,400.0	4.00	105.30	5,399.7	-3.7	13.5	-2.9	1.00	1.00	0.00
5,500.0	5.00	105.30	5,499.4	-5.8	21.0	-4.5	1.00	1.00	0.00
5,600.0	6.00	105.30	5,598.9	-8.3	30.3	-6.4	1.00	1.00	0.00
5,700.0	7.00	105.30	5,698.3	-11.3	41.2	-8.7	1.00	1.00	0.00
5,800.0	8.00	105.30	5,797.4	-14.7	53.8	-11.4	1.00	1.00	0.00
5,843.6	8.44	105.30	5,840.6	-16.4	59.8	-12.7	1.00	1.00	0.00
Start 2900.2 hold at 5843.6 MD									
5,900.0	8.44	105.30	5,896.3	-18.5	67.8	-14.4	0.00	0.00	0.00
6,000.0	8.44	105.30	5,995.3	-22.4	81.9	-17.4	0.00	0.00	0.00
6,100.0	8.44	105.30	6,094.2	-26.3	96.1	-20.3	0.00	0.00	0.00
6,200.0	8.44	105.30	6,193.1	-30.2	110.2	-23.3	0.00	0.00	0.00
6,300.0	8.44	105.30	6,292.0	-34.0	124.4	-26.3	0.00	0.00	0.00
6,400.0	8.44	105.30	6,390.9	-37.9	138.5	-29.3	0.00	0.00	0.00
6,500.0	8.44	105.30	6,489.9	-41.8	152.7	-32.3	0.00	0.00	0.00
6,600.0	8.44	105.30	6,588.8	-45.6	166.8	-35.3	0.00	0.00	0.00
6,700.0	8.44	105.30	6,687.7	-49.5	181.0	-38.3	0.00	0.00	0.00
6,800.0	8.44	105.30	6,786.6	-53.4	195.1	-41.3	0.00	0.00	0.00
6,900.0	8.44	105.30	6,885.5	-57.3	209.3	-44.3	0.00	0.00	0.00
7,000.0	8.44	105.30	6,984.4	-61.1	223.4	-47.3	0.00	0.00	0.00
7,100.0	8.44	105.30	7,083.4	-65.0	237.6	-50.3	0.00	0.00	0.00
7,200.0	8.44	105.30	7,182.3	-68.9	251.7	-53.3	0.00	0.00	0.00
7,300.0	8.44	105.30	7,281.2	-72.7	265.9	-56.3	0.00	0.00	0.00
7,400.0	8.44	105.30	7,380.1	-76.6	280.0	-59.3	0.00	0.00	0.00
7,500.0	8.44	105.30	7,479.0	-80.5	294.2	-62.3	0.00	0.00	0.00
7,600.0	8.44	105.30	7,578.0	-84.4	308.3	-65.3	0.00	0.00	0.00
7,700.0	8.44	105.30	7,676.9	-88.2	322.5	-68.3	0.00	0.00	0.00
7,800.0	8.44	105.30	7,775.8	-92.1	336.6	-71.3	0.00	0.00	0.00
7,900.0	8.44	105.30	7,874.7	-96.0	350.8	-74.3	0.00	0.00	0.00
8,000.0	8.44	105.30	7,973.6	-99.8	364.9	-77.3	0.00	0.00	0.00
8,100.0	8.44	105.30	8,072.5	-103.7	379.1	-80.3	0.00	0.00	0.00
8,200.0	8.44	105.30	8,171.5	-107.6	393.2	-83.3	0.00	0.00	0.00
8,300.0	8.44	105.30	8,270.4	-111.5	407.4	-86.3	0.00	0.00	0.00
8,400.0	8.44	105.30	8,369.3	-115.3	421.5	-89.3	0.00	0.00	0.00
8,500.0	8.44	105.30	8,468.2	-119.2	435.7	-92.3	0.00	0.00	0.00
8,600.0	8.44	105.30	8,567.1	-123.1	449.8	-95.3	0.00	0.00	0.00
8,700.0	8.44	105.30	8,666.0	-126.9	464.0	-98.3	0.00	0.00	0.00
8,743.9	8.44	105.30	8,709.4	-128.6	470.2	-99.6	0.00	0.00	0.00
Start Drop -1.00									
8,800.0	7.87	105.30	8,765.0	-130.7	477.9	-101.2	1.00	-1.00	0.00
8,900.0	6.87	105.30	8,864.2	-134.1	490.3	-103.8	1.00	-1.00	0.00
9,000.0	5.87	105.30	8,963.6	-137.1	501.0	-106.1	1.00	-1.00	0.00
9,100.0	4.87	105.30	9,063.1	-139.5	510.0	-108.0	1.00	-1.00	0.00
9,200.0	3.87	105.30	9,162.8	-141.5	517.4	-109.6	1.00	-1.00	0.00
9,300.0	2.87	105.30	9,262.6	-143.1	523.0	-110.8	1.00	-1.00	0.00
9,400.0	1.87	105.30	9,362.6	-144.2	527.0	-111.6	1.00	-1.00	0.00
9,500.0	0.87	105.30	9,462.5	-144.8	529.4	-112.1	1.00	-1.00	0.00
9,587.5	0.00	0.00	9,550.0	-145.0	530.0	-112.3	1.00	-1.00	0.00
Start 107.5 hold at 9587.5 MD									
9,600.0	0.00	0.00	9,562.5	-145.0	530.0	-112.3	0.00	0.00	0.00
9,695.0	0.00	0.00	9,657.5	-145.0	530.0	-112.3	0.00	0.00	0.00
KOP #2 - Start Build 12.00									
9,700.0	0.60	359.52	9,662.5	-145.0	530.0	-112.2	12.00	12.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

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)
9,800.0	12.60	359.52	9,761.7	-133.5	529.9	-100.8	12.00	12.00	0.00
9,900.0	24.60	359.52	9,856.3	-101.7	529.6	-69.0	12.00	12.00	0.00
10,000.0	36.60	359.52	9,942.2	-50.9	529.2	-18.3	12.00	12.00	0.00
10,100.0	48.60	359.52	10,015.7	16.7	528.6	49.1	12.00	12.00	0.00
10,200.0	60.60	359.52	10,073.5	98.1	527.9	130.2	12.00	12.00	0.00
10,300.0	72.60	359.52	10,113.1	189.7	527.2	221.6	12.00	12.00	0.00
10,400.0	84.60	359.52	10,132.9	287.5	526.4	319.2	12.00	12.00	0.00
10,445.0	90.00	359.52	10,135.0	332.4	526.0	364.0	12.00	12.00	0.00
LP - Start 7240.8 hold at 10445.0 MD									
10,500.0	90.00	359.52	10,135.0	387.4	525.5	418.9	0.00	0.00	0.00
10,600.0	90.00	359.52	10,135.0	487.4	524.7	518.7	0.00	0.00	0.00
10,700.0	90.00	359.52	10,135.0	587.4	523.8	618.4	0.00	0.00	0.00
10,800.0	90.00	359.52	10,135.0	687.4	523.0	718.2	0.00	0.00	0.00
10,900.0	90.00	359.52	10,135.0	787.4	522.1	817.9	0.00	0.00	0.00
11,000.0	90.00	359.52	10,135.0	887.4	521.3	917.7	0.00	0.00	0.00
11,100.0	90.00	359.52	10,135.0	987.4	520.4	1,017.5	0.00	0.00	0.00
11,200.0	90.00	359.52	10,135.0	1,087.4	519.6	1,117.2	0.00	0.00	0.00
11,300.0	90.00	359.52	10,135.0	1,187.4	518.8	1,217.0	0.00	0.00	0.00
11,400.0	90.00	359.52	10,135.0	1,287.4	517.9	1,316.7	0.00	0.00	0.00
11,500.0	90.00	359.52	10,135.0	1,387.4	517.1	1,416.5	0.00	0.00	0.00
11,600.0	90.00	359.52	10,135.0	1,487.4	516.2	1,516.2	0.00	0.00	0.00
11,700.0	90.00	359.52	10,135.0	1,587.4	515.4	1,616.0	0.00	0.00	0.00
11,800.0	90.00	359.52	10,135.0	1,687.4	514.5	1,715.7	0.00	0.00	0.00
11,900.0	90.00	359.52	10,135.0	1,787.4	513.7	1,815.5	0.00	0.00	0.00
12,000.0	90.00	359.52	10,135.0	1,887.4	512.9	1,915.3	0.00	0.00	0.00
12,100.0	90.00	359.52	10,135.0	1,987.4	512.0	2,015.0	0.00	0.00	0.00
12,200.0	90.00	359.52	10,135.0	2,087.4	511.2	2,114.8	0.00	0.00	0.00
12,300.0	90.00	359.52	10,135.0	2,187.4	510.3	2,214.5	0.00	0.00	0.00
12,400.0	90.00	359.52	10,135.0	2,287.4	509.5	2,314.3	0.00	0.00	0.00
12,500.0	90.00	359.52	10,135.0	2,387.4	508.6	2,414.0	0.00	0.00	0.00
12,600.0	90.00	359.52	10,135.0	2,487.4	507.8	2,513.8	0.00	0.00	0.00
12,700.0	90.00	359.52	10,135.0	2,587.4	506.9	2,613.6	0.00	0.00	0.00
12,800.0	90.00	359.52	10,135.0	2,687.4	506.1	2,713.3	0.00	0.00	0.00
12,900.0	90.00	359.52	10,135.0	2,787.4	505.3	2,813.1	0.00	0.00	0.00
13,000.0	90.00	359.52	10,135.0	2,887.4	504.4	2,912.8	0.00	0.00	0.00
13,100.0	90.00	359.52	10,135.0	2,987.3	503.6	3,012.6	0.00	0.00	0.00
13,200.0	90.00	359.52	10,135.0	3,087.3	502.7	3,112.3	0.00	0.00	0.00
13,300.0	90.00	359.52	10,135.0	3,187.3	501.9	3,212.1	0.00	0.00	0.00
13,400.0	90.00	359.52	10,135.0	3,287.3	501.0	3,311.9	0.00	0.00	0.00
13,500.0	90.00	359.52	10,135.0	3,387.3	500.2	3,411.6	0.00	0.00	0.00
13,600.0	90.00	359.52	10,135.0	3,487.3	499.4	3,511.4	0.00	0.00	0.00
13,700.0	90.00	359.52	10,135.0	3,587.3	498.5	3,611.1	0.00	0.00	0.00
13,800.0	90.00	359.52	10,135.0	3,687.3	497.7	3,710.9	0.00	0.00	0.00
13,900.0	90.00	359.52	10,135.0	3,787.3	496.8	3,810.6	0.00	0.00	0.00
14,000.0	90.00	359.52	10,135.0	3,887.3	496.0	3,910.4	0.00	0.00	0.00
14,100.0	90.00	359.52	10,135.0	3,987.3	495.1	4,010.2	0.00	0.00	0.00
14,200.0	90.00	359.52	10,135.0	4,087.3	494.3	4,109.9	0.00	0.00	0.00
14,300.0	90.00	359.52	10,135.0	4,187.3	493.4	4,209.7	0.00	0.00	0.00
14,400.0	90.00	359.52	10,135.0	4,287.3	492.6	4,309.4	0.00	0.00	0.00
14,500.0	90.00	359.52	10,135.0	4,387.3	491.8	4,409.2	0.00	0.00	0.00
14,600.0	90.00	359.52	10,135.0	4,487.3	490.9	4,508.9	0.00	0.00	0.00
14,700.0	90.00	359.52	10,135.0	4,587.3	490.1	4,608.7	0.00	0.00	0.00
14,800.0	90.00	359.52	10,135.0	4,687.3	489.2	4,708.5	0.00	0.00	0.00
14,900.0	90.00	359.52	10,135.0	4,787.3	488.4	4,808.2	0.00	0.00	0.00

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

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)
15,000.0	90.00	359.52	10,135.0	4,887.3	487.5	4,908.0	0.00	0.00	0.00
15,100.0	90.00	359.52	10,135.0	4,987.3	486.7	5,007.7	0.00	0.00	0.00
15,200.0	90.00	359.52	10,135.0	5,087.3	485.8	5,107.5	0.00	0.00	0.00
15,300.0	90.00	359.52	10,135.0	5,187.3	485.0	5,207.2	0.00	0.00	0.00
15,400.0	90.00	359.52	10,135.0	5,287.3	484.2	5,307.0	0.00	0.00	0.00
15,500.0	90.00	359.52	10,135.0	5,387.3	483.3	5,406.8	0.00	0.00	0.00
15,600.0	90.00	359.52	10,135.0	5,487.3	482.5	5,506.5	0.00	0.00	0.00
15,700.0	90.00	359.52	10,135.0	5,587.3	481.6	5,606.3	0.00	0.00	0.00
15,800.0	90.00	359.52	10,135.0	5,687.3	480.8	5,706.0	0.00	0.00	0.00
15,900.0	90.00	359.52	10,135.0	5,787.2	479.9	5,805.8	0.00	0.00	0.00
16,000.0	90.00	359.52	10,135.0	5,887.2	479.1	5,905.5	0.00	0.00	0.00
16,100.0	90.00	359.52	10,135.0	5,987.2	478.3	6,005.3	0.00	0.00	0.00
16,200.0	90.00	359.52	10,135.0	6,087.2	477.4	6,105.1	0.00	0.00	0.00
16,300.0	90.00	359.52	10,135.0	6,187.2	476.6	6,204.8	0.00	0.00	0.00
16,400.0	90.00	359.52	10,135.0	6,287.2	475.7	6,304.6	0.00	0.00	0.00
16,500.0	90.00	359.52	10,135.0	6,387.2	474.9	6,404.3	0.00	0.00	0.00
16,600.0	90.00	359.52	10,135.0	6,487.2	474.0	6,504.1	0.00	0.00	0.00
16,700.0	90.00	359.52	10,135.0	6,587.2	473.2	6,603.8	0.00	0.00	0.00
16,800.0	90.00	359.52	10,135.0	6,687.2	472.3	6,703.6	0.00	0.00	0.00
16,900.0	90.00	359.52	10,135.0	6,787.2	471.5	6,803.3	0.00	0.00	0.00
17,000.0	90.00	359.52	10,135.0	6,887.2	470.7	6,903.1	0.00	0.00	0.00
17,100.0	90.00	359.52	10,135.0	6,987.2	469.8	7,002.9	0.00	0.00	0.00
17,200.0	90.00	359.52	10,135.0	7,087.2	469.0	7,102.6	0.00	0.00	0.00
17,300.0	90.00	359.52	10,135.0	7,187.2	468.1	7,202.4	0.00	0.00	0.00
17,400.0	90.00	359.52	10,135.0	7,287.2	467.3	7,302.1	0.00	0.00	0.00
17,500.0	90.00	359.52	10,135.0	7,387.2	466.4	7,401.9	0.00	0.00	0.00
17,600.0	90.00	359.52	10,135.0	7,487.2	465.6	7,501.6	0.00	0.00	0.00
17,685.8	90.00	359.52	10,135.0	7,573.0	464.9	7,587.2	0.00	0.00	0.00
TD at 17685.8 - Wool Head 20 State Com 302H BHL									

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
Wool Head 20 State Cor - plan hits target center - Point	0.00	0.00	10,135.0	7,573.0	464.9	538,642.11	769,134.98	32° 28' 43.039 N	103° 35' 40.632 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
10,445.0	10,135.0	LP	5-1/2	5-1/2

ADVANCE ENERGY PARTNERS

Planning Report

Database:	EDM 5000.16 Single User Db	**Local Co-ordinate Reference:**	Well Wool Head 20 State Com 302H
Company:	Advance Energy Partners	**TVD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Project:	Hat Mesa	**MD Reference:**	WELL @ 3754.5usft (Original Well Elev)
Site:	Wool Head 20 State Com Pad C	**North Reference:**	Grid
Well:	Wool Head 20 State Com 302H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wool Head 20 State Com 302H		
Design:	Wool Head 20 State Com 302H		

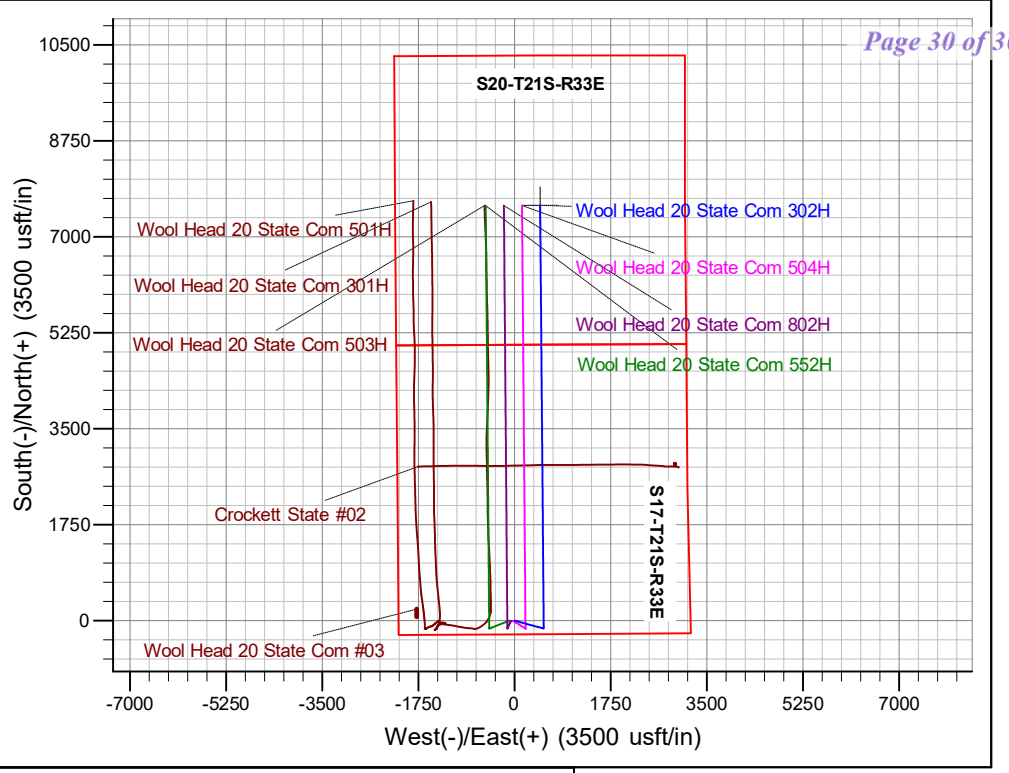
Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,000.0	5,000.0	0.0	0.0	KOP - Start Build 1.00
5,843.6	5,840.6	-16.4	59.8	Start 2900.2 hold at 5843.6 MD
8,743.9	8,709.4	-128.6	470.2	Start Drop -1.00
9,587.5	9,550.0	-145.0	530.0	Start 107.5 hold at 9587.5 MD
9,695.0	9,657.5	-145.0	530.0	KOP #2 - Start Build 12.00
10,445.0	10,135.0	332.4	526.0	LP - Start 7240.8 hold at 10445.0 MD
17,685.8	10,135.0	7,573.0	464.9	TD at 17685.8

ADVANCE ENERGY PARTNERS

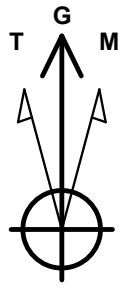
WELL DETAILS: Wool Head 20 State Com 302H					
Ground Elev: 3722.0		KB: 3754.5			
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	531069.15	768670.11	32° 27' 28.138 N	103° 35' 46.669 W

PROJECT DETAILS: Hat Mesa	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5000.0	0.00	0.00	5000.0	0.0	0.0	0.00	0.00	0.0	KOP - Start Build 1.00
3	5843.6	8.44	105.30	5840.6	-16.4	59.8	1.00	105.30	-12.7	Start 2900.2 hold at 5843.6 MD
4	8743.9	8.44	105.30	8709.4	-128.6	470.2	0.00	0.00	-99.6	Start Drop -1.00
5	9587.5	0.00	0.00	9550.0	-145.0	530.0	1.00	180.00	-112.3	Start 107.5 hold at 9587.5 MD
6	9695.0	0.00	0.00	9657.5	-145.0	530.0	0.00	0.00	-112.3	KOP #2 - Start Build 12.00
7	10445.0	90.00	359.52	10135.0	332.4	526.0	12.00	359.52	364.0	LP - Start 7240.8 hold at 10445.0 MD
8	17685.8	90.00	359.52	10135.0	7573.0	464.9	0.00	0.00	7587.2	TD at 17685.8



Azimuths to Grid North
True North: -0.40°
Magnetic North: 6.10°

Magnetic Field
Strength: 47610.3nT
Dip Angle: 60.21°
Date: 12/8/2021
Model: IGRF2015