Form 3160-3
(June 2015)

HOBBS OCD
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FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM106696

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
ANDERSON FED COM
704H (326484)

2. Name of Operator
ADVANCE ENERGY PARTNERS HAT MESA LLC (372417)

9. API Well No.
30-025-46532

3a. Address
11490 Westheimer Rd, Suite 950 Houston TX 77707

3b. Phone No. *(include area code)*
(346)444-9739

10. Field and Pool, or Exploratory
~~MESA VERDE / BONE SPRING~~ WC 98033

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface LOT 1 / 580 FNL / 1030 FEL / LAT 32.426483 / LONG -103.640293
At proposed prod. zone SESE / 990 FSL / 990 FEL / LAT 32.445319 / LONG -103.640153

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 2 / T22S / R32E / NMP

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State
26 miles	LEA	NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
290 feet	279.84	159.99
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. in file**
1565 feet	11890 feet / 18501 feet	FED: NMB001444
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3652 feet	08/01/2018	90 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	Brian Wood / Ph: (505)466-8120	06/18/2018
Title: President		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	11/14/2019
Title: Assistant Field Manager Lands & Minerals	Office: CARLSBAD	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 11/20/19

APPROVED WITH CONDITIONS

KZ 11/22/19

SL

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 11/14/2019

PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Advanced Energy Partners Hat Mesa, LLC**
LEASE NO.:	**NMNM-106696**
WELL NAME & NO.:	**Anderson Fed Com 704H**
SURFACE HOLE FOOTAGE:	**0580' FNL & 1030' FEL**
BOTTOM HOLE FOOTAGE	**0990' FSL & 0990' FEL Sec. 26, T. 21 S., R 32 E.**
LOCATION:	**Section 02, T. 22 S., R 32 E., NMPM**
COUNTY:	**County, New Mexico**

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☐ **Lea County**
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. Option – Setting surface casing with Surface Rig

   a. Notify the BLM when removing the Surface Rig.

   b. Notify the BLM when moving in the H&P Flex Rig. Rig to be moved in within 60 days of notification that Surface Rig has left the location. Failure to notify or have rig on location within 60 days will result in an Incident of Non-Compliance.

   c. Once the H&P Flex Rig is on location, it shall not be removed from over the hole without prior approval unless the production casing has been run and cemented or the well has been properly plugged. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

   d. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as H&P Flex Rig is rigged up on well. CIT for the surface casing shall be performed and results recorded on subsequent sundry – pressure to be 1200 psi.

4. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

5. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Potash Areas:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash
Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Rustler, Red Beds, and Delaware.

1. The **10-3/4** inch surface casing shall be set at approximately **1100** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 10-3/4" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

3. The minimum required fill of cement behind the **5-1/2 X 5** inch production casing is:

☐ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.**
    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.**
    e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

    a. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

    c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

    d. The results of the test shall be reported to the appropriate BLM office.

    e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

    g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 092519

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

ator Certification Data Report

11/15/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Brian Wood **Signed on:** 06/18/2018

Title: President

Street Address:

City: **State:** **Zip:**

Phone: (505)466-8120

Email address: afmss@permitswest.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

11/15/2019

APD ID: 10400031317 **Submission Date:** 06/18/2018

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400031317 **Tie to previous NOS?** **Submission Date:** 06/18/2018

BLM Office: CARLSBAD **User:** Brian Wood **Title:** President

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM106696 **Lease Acres:** 279.84

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? NO

Permitting Agent? YES **APD Operator:** ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator letter of designation:

Operator Info

Operator Organization Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Operator Address: 11490 Westheimer Rd, Suite 950 **Zip:** 77707

Operator PO Box:

Operator City: Houston **State:** TX

Operator Phone: (346)444-9739

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO **Master Development Plan name:**

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: ANDERSON FED COM **Well Number:** 704H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** MESA VERDE **Pool Name:** BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,CO2,OIL

APD ID: 10400031317 **Submission Date:** 06/18/2018

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	QUATERNARY	3652	0	0	OTHER : Caliche	USEABLE WATER	N
2	RUSTLER ANHYDRITE	2582	1070	1070		NONE	N
3	TOP SALT	2532	1120	1120		NONE	N
4	BASE OF SALT	-1158	4810	4810		NONE	N
5	BELL CANYON	-1158	4810	4810	LIMESTONE	NATURAL GAS,CO2,OIL	N
6	CHERRY CANYON	-2033	5685	5685	SANDSTONE	NATURAL GAS,CO2,OIL	N
7	BRUSHY CANYON LOWER	-4848	8500	8500	SANDSTONE	NATURAL GAS,CO2,OIL	N
8	---	-5348	9000	9000	OTHER : AVALON SHALE	NATURAL GAS,CO2,OIL	N
9	BONE SPRING 1ST	-6248	9900	9900	SANDSTONE	NATURAL GAS,CO2,OIL	N
10	BONE SPRING 2ND	-6748	10400	10400	SANDSTONE	NATURAL GAS,CO2,OIL	N
11	BONE SPRING 3RD	-7373	11025	11025	OTHER : Carbonate	NATURAL GAS,CO2,OIL	N
12	BONE SPRING 3RD	-7892	11544	11550	SANDSTONE	NATURAL GAS,CO2,OIL	N
13	WOLFCAMP	-8197	11849	12000	OTHER : Carbonate	NATURAL GAS,CO2,OIL	Y

Section 2 - Blowout Prevention

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Pressure Rating (PSI): 5M **Rating Depth:** 12000

Equipment: See attached 5000 psi Helmerich & Payne BOP Testing – BLM manual for equipment and procedures.

Requesting Variance? YES

Variance request: Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used. Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached.
Testing Procedure: See attached 5000 psi Helmerich & Payne BOP Testing – BLM manual for equipment and procedures.

Choke Diagram Attachment:

Anderson_704H_BOP_Choke_20190527093715.pdf

BOP Diagram Attachment:

Anderson_704H_BOP_Choke_20190527093745.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1100	0	1100	3652		1100	J-55	40.5	OTHER - BTC	1.125	1.125	DRY	1.6	DRY	1.6
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11025	0	11025	3652		11025	HCP-110	29.7	LT&C	1.125	1.125	DRY	1.6	DRY	1.6
3	INTERMEDIATE	6.75	5.5	NEW	API	N	0	11317	0	11317	3652		11317	HCP-110	20	OTHER - Ultra DQX	1.125	1.125	DRY	1.6	DRY	1.6
4	PRODUCTION	6.75	5.0	NEW	API	N	11317	18501	11317	11890			7184	HCP-110	18	OTHER - Ultra DQX	1.125	1.125	DRY	1.6	DRY	1.6

Casing Attachments

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

ANDERSON_704H_Casing_Design_Assumptions_20180618145326.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

ANDERSON_704H_Casing_Design_Assumptions_20180618145515.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

ANDERSON_704H_Casing_Design_Assumptions_20180618145655.pdf

Anderson_704H_5.5in_Casing_Spec_20190527094509.pdf

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,CO2,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 26 Miles **Distance to nearest well:** 1565 FT **Distance to lease line:** 290 FT

Reservoir well spacing assigned acres Measurement: 159.99 Acres

Well plat: ANDERSON_704H_Plat_GasCap_Plan_20180618140928.pdf

Well work start Date: 08/01/2018 **Duration:** 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 7977 **Reference Datum:**

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
SHL Leg #1	580	FNL	1030	FEL	22S	32E	2	Lot 1	32.426483	-103.640293	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 106696	3652	0	0	
KOP Leg #1	580	FNL	1030	FEL	22S	32E	2	Lot 1	32.426483	-103.640293	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 106696	-7665	11317	11317	
PPP Leg #1-1	0	FSL	993	FEL	21S	33E	26	Aliquot SESE	32.442594	-103.640169	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126968	-8238	17511	11890	

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce
PPP Leg #1-2	2640	FNL	1024	FEL	21S	32E	35	Aliquot SENE	32.435339	-103.640225	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 120905	-8238	14891	11890	
PPP Leg #1-3	0	FSL	1024	FEL	21S	32E	35	Aliquot SESE	32.428081	-103.640281	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8238	12251	11890	
PPP Leg #1-4	580	FNL	1030	FEL	22S	32E	2	Lot 1	32.426483	-103.640293	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 106696	3652	0	0	
EXIT Leg #1	990	FSL	990	FEL	21S	33E	26	Aliquot SESE	32.445319	-103.640153	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126968	-8238	18501	11890	
BHL Leg #1	990	FSL	990	FEL	21S	33E	26	Aliquot SESE	32.445319	-103.640153	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 126968	-8238	18501	11890	

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

ANDERSON_704H_Casing_Design_Assumptions_20180618145809.pdf

Anderson_704H_5in_Casing_Spec_20190527094458.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1100	570	1.74	13.5	991	90	100:0:4 Class C Premium Poz Gel	4% bentonite + 0.25% C-45 econolite + 0.3% C-503P defoamer + 1% CaCl2
SURFACE	Tail		0	1100	130	1.34	14.8	174	90	100:0:0 Class C Premium Poz Gel	0.1% C-45 econolite + 2% CaCl2
INTERMEDIATE	Lead		0	11025	860	3.17	10.6	2760	35	95:5:0 TXI Light Weight Poz Gel	0.82 #/sk NaCl + 0.25% C-45 econolite + 6% STE + 0.2% citric acid + 0.1% C-19 fluid loss additive + 0.25% CSA-1000 fluid loss additive + 6 #/sk coal seal + 0.5% C-503P defoamer + 1.5 #/sk phenoseal
INTERMEDIATE	Tail		0	11025	415	1.39	14.6	581	35	95:5:0 Class H Premium Poz Gel	0/27 #/sk NaCl + 3% STE + 0.05% CSA-1000 fluid loss additive + 0.3% C-20 retarder
INTERMEDIATE	Lead		0	11317	860	3.17	10.6	2760	35	95:5:0 TXI Light Weight Poz Gel	0.82 #/sk NaCl + 0.25% C-45 econolite + 6% STE + 0.2% citric acid + 0.1% C-19 fluid loss additive + 0.25% CSA-1000 fluid loss additive

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											+ 6 #/sk coal seal + 0.5% C-503P defoamer + 1.5 #/sk phenoseal
INTERMEDIATE	Tail		0	11317	415	1.39	14.6	581	35	95:5:0 TXI Light Weight Poz Gel	0.82 #/sk NaCl + 0.25% C-45 econolite + 6% STE + 0.2% citric acid + 0.1% C-19 fluid loss additive + 0.25% CSA-1000 fluid loss additive + 6 #/sk coal seal + 0.5% C-503P defoamer + 1.5 #/sk phenoseal
PRODUCTION	Lead		11317	18501	50	2.84	11.5	142	30	70:0:10 Class H Premium Poz Gel	10% bentonite +0.2% citric acid + 0.09% CSA-1000 fluid loss additive + 5 #/sk coal seal+ 0.1% C-47B fluid loss additive + 0.3% C-503P defoamer + 2 #/sk gyp seal
PRODUCTION	Tail		11317	18501	720	1.35	14.2	972	35	72:3:0 Class H Premium Poz Gel	0.09% CSA-1000 fluid loss additive + 0.25% C-47B fluid loss additive + 0.1% C-20 retarder

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used. Mud system is based on system used by Advance at its nearby (2.6 miles northeast) deeper Dagger State Com 701H (0-025-43565). That well has a TVD of 11924'.

Describe the mud monitoring system utilized: An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate.

Circulating Medium Table

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
11025	11350	OIL-BASED MUD	9	9.5							
0	1100	OTHER : Fresh water	8.4	9.8							
1100	11025	OIL-BASED MUD	8.8	9							
11350	18501	OIL-BASED MUD	10.5	11							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

None

List of open and cased hole logs run in the well:

OTH

Other log type(s):

None

Coring operation description for the well:

No core, drill stem test, or open hole log is planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 6753 **Anticipated Surface Pressure:** 6753

Anticipated Bottom Hole Temperature(F): 189

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

ANDERSON_704H_H2S_Plan_20180618143227.pdf

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

ANDERSON_704H_Horizontal_Drill_Plan_20180618143054.pdf

Other proposed operations facets description:

Single bow centralizer will be installed on every fourth joint of the surface and intermediate casing strings.

Single bow centralizers will be installed from 200' above the KOP (11350') up to 600' inside the previous casing shoe (10425'). Double bows will be installed from 200' above the KOP to 200' past the EOC (12227'). Solid bodies will be installed one per joint from 200' past EOC (12227') to TD.

Other proposed operations facets attachment:

Anderson_704H_Speedhead_Specs_20190527094333.pdf

Anderson_704H_Drill_Plan_revised_20190527094410.pdf

Other Variance attachment:

Anderson_704H_Casing_Cementing_Variance_Request_20190527094422.pdf

ADVANCE ENERGY PARTNERS

H_2S Drilling Operations Plan

a. All personnel will be trained in H_2S working conditions as required by Onshore Order 6 before drilling out of the surface casing.

b. Two briefing areas will be established. Each briefing area will be $\geq$150' from the wellhead, perpendicular from one another, and easily entered and exited. See H_2S page 5 for more details.

c. H_2S Safety Equipment/Systems:

i. Well Control Equipment

- Flare line will be $\geq$150' from the wellhead and ignited by a flare gun.
- Beware of SO_2 created by flaring.
- Choke manifold will have a remotely operated choke.
- Mud gas separator

ii. Protective Equipment for Personnel

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- One self-contained breathing apparatus (SCBA) 30-minute rescue pack will be at each briefing area. Two 30-minute SCBA packs will be stored in the safety trailer.
- Four work/escape packs will be on the rig floor. Each pack will have a sufficiently long hose to allow unimpaired work activity.
- Four emergency escape packs will be in the doghouse for emergency evacuation.
- Hand signals will be used when wearing protective breathing apparatus.
- Stokes litter or stretcher
- Two full OSHA compliant body harnesses
- A 100' long x 5/8" OSHA compliant rope
- One 20-pound ABC fire extinguisher

iii. H_2S Detection & Monitoring Equipment

- Every person on site will wear a personal H_2S and SO_2 monitor at all times while on site. Monitors will not be worn on hard hats. Monitors will be worn on the front of the waist or chest.
- A stationary detector with three sensors will be in the doghouse.
- Sensors will be installed on the rig floor, bell nipple, and at the end of the flow line or where drilling fluids are discharged.
- Visual alarm will be triggered at 10 ppm.
- Audible alarm will be triggered at 10 ppm.
- Calibration will occur at least every 30 days. Gas sample tubes will be kept in the safety trailer.

iv. Visual Warning System

- A color-coded H_2S condition sign will be set at each pad entrance.
- Color-coded condition flag will be installed to indicate current H_2S conditions.
- Two wind socks will be installed that will be visible from all sides.

v. Mud Program

- A water based mud with a pH of $\geq$10 will be maintained to control corrosion, H_2S gas returns to the surface, and minimize sulfide stress cracking and embrittlement.
- Drilling mud containing H_2S gas will be degassed at an optimum location for the rig configuration.
- This gas will be piped into the flare system.
- Enough mud additives will be on location to scavenge and/or neutralize H_2S where formation pressures are unknown.

vi. Metallurgy

- All equipment that has the potential to be exposed to H_2S will be suitable for H_2S service.
- Equipment that will meet these metallurgical standards include the drill string, casing, wellhead, BOP assembly, casing head and spool, rotating head, kill lines, choke, choke manifold and lines, valves, mud-gas separators, DST tools, test units, tubing, flanges, and other related equipment (elastomer packings and seals).

vii. Communication from well site

- Cell phones and/or two-way radios will be used to communicate from the well site.

d. A remote-controlled choke, mud-gas separator, and a rotating head will be installed before drilling or testing any formation expected to contain H_2S.

Company Personnel to be Notified

Braden Harris, Drilling Manager	Office: (832) 672-4700
	Mobile: (406) 600-3310

Local & County Agencies

Monument Fire Department	911 or (575) 393-4339
Eunice Fire & Ambulance Dept.	(575) 394-3258
Hobbs Fire Marshal	(575) 391-8185
Lea County Sheriff (Lovington)	911 or (575) 396-3611
Lea County Emergency Management (Lovington)	(575) 396-8602
Lea Regional Medical Center Hospital (Hobbs)	(575) 492-5000

State Agencies

NM State Police (Hobbs)	(575) 392-5588
NM Oil Conservation (Hobbs)	(575) 370-3186
NM Oil Conservation (Santa Fe)	(505) 476-3440
NM Dept. of Transportation (Roswell)	(575) 637-7201

Federal Agencies

BLM Carlsbad Field Office	(575) 234-5972
BLM Hobbs Field Station	(575) 393-3612
National Response Center	(800) 424-8802
US EPA Region 6 (Dallas)	(800) 887-6063
	(214) 665-6444

Veterinarians

Dal Paso Animal Hospital (Hobbs)	(575) 397-2286
Hobbs Animal Clinic & Pet Care (Hobbs)	(575) 392-5563
Great Plains Veterinary Clinic & Hospital (Hobbs)	(575) 392-5513

Residents within 2 miles

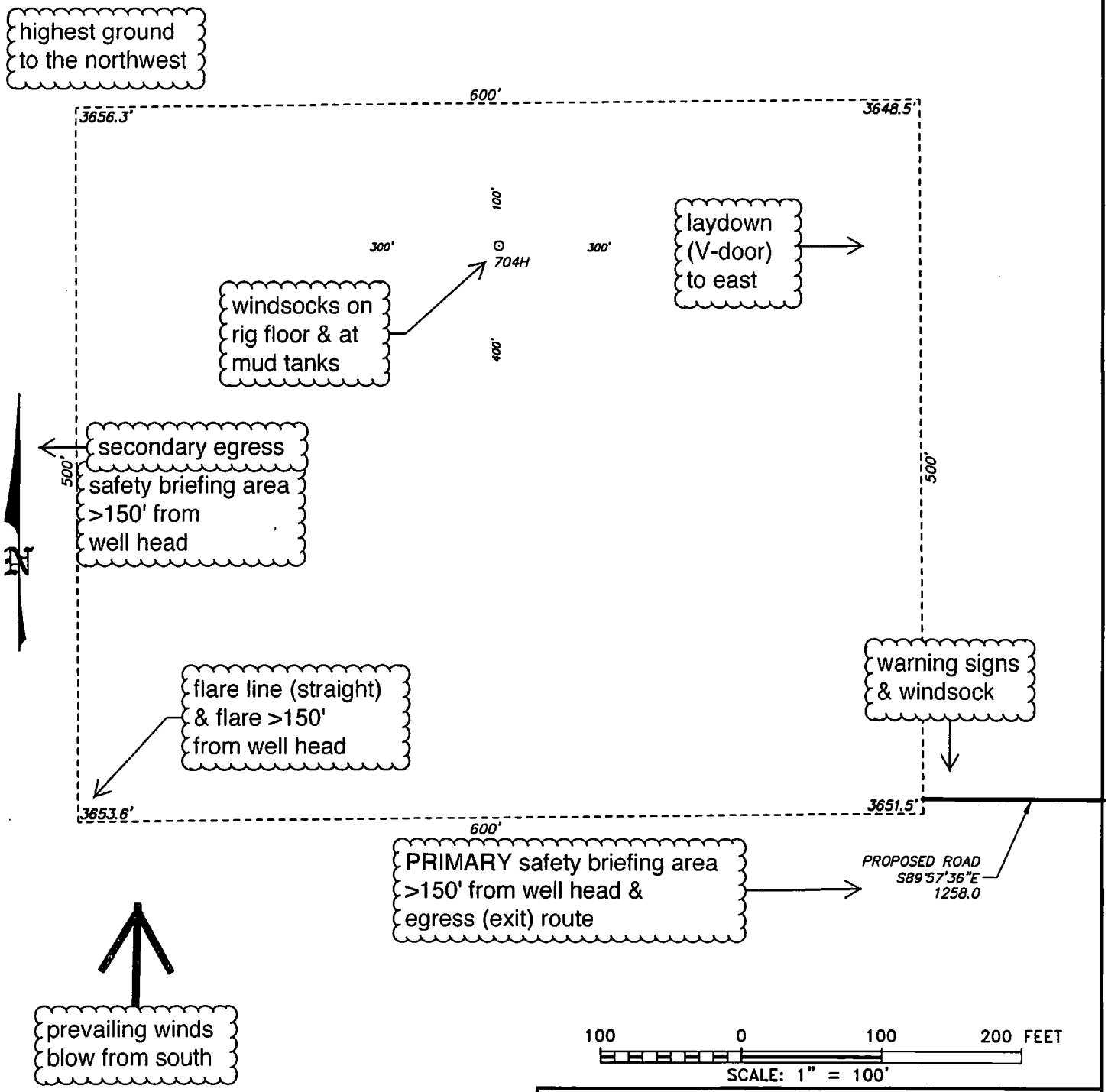
No residents are within 2 miles.

Air Evacuation

Med Flight Air Ambulance (Albuquerque)	(800) 842-4431
Lifeguard (Albuquerque)	(888) 866-7256

SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,

LEA COUNTY, NEW MEXICO.



ADVANCE ENERGY PARTNERS, LLC

REF: ANDERSON 704H / WELL PAD TOPO

THE ANDERSON 704H LOCATED 580' FROM THE NORTH LINE AND 1030' FROM THE EAST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

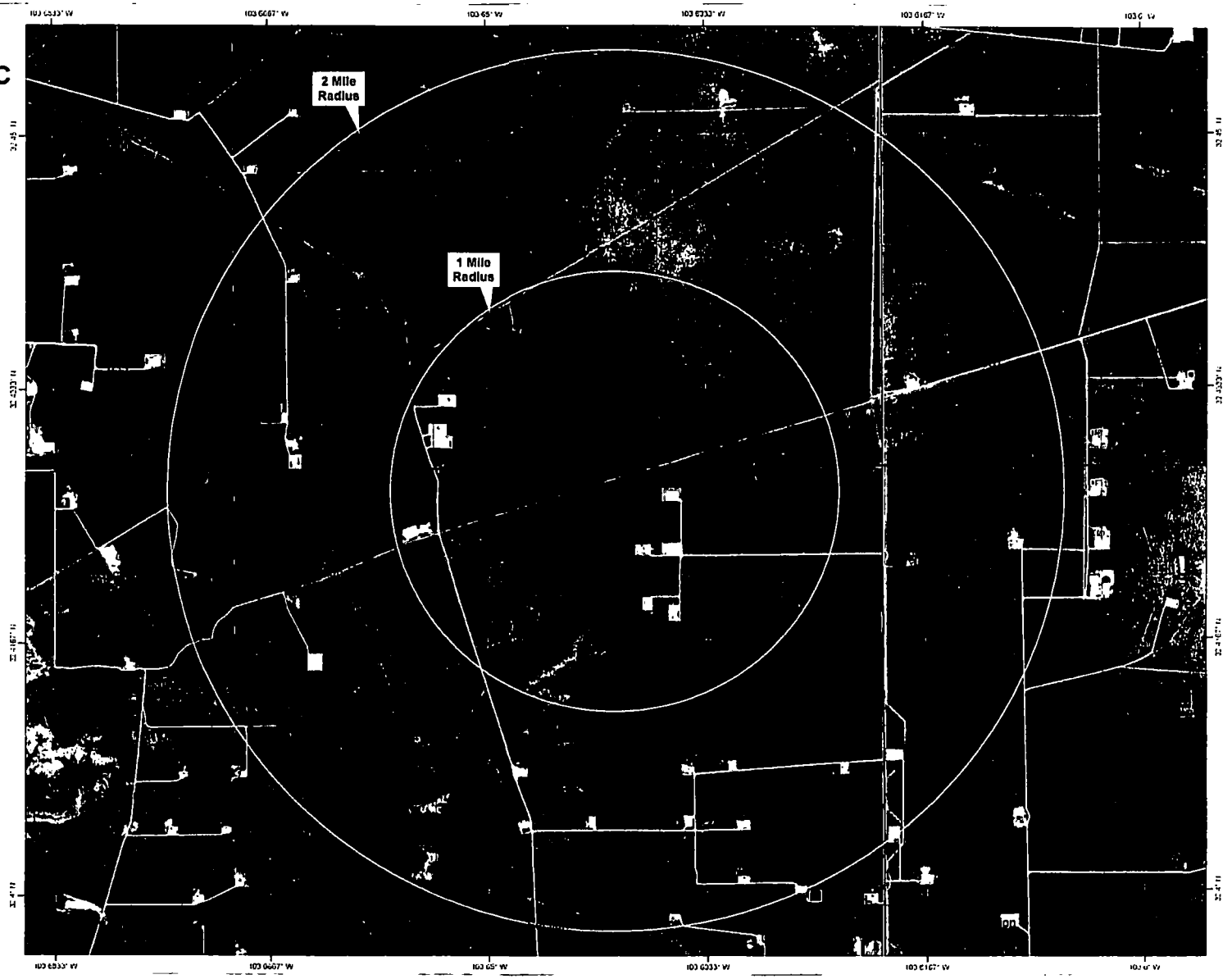
basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number: 33515	Drawn By: J GOAD	Date: 2-9-2018	Survey Date: 1-29-2018	Sheet 1 of 1 Sheets

Advance Energy Partners Hat Mesa, LLC

Anderson Fed Com 704H
H_2S Contingency Plan:
Radius Map

Section 02, Township 22S, Range 32E
Lea County, New Mexico



Surface Hole Location

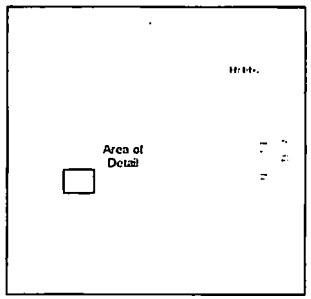
1:26,000
0 0.225 0.45 0.9
Miles

N

NAD 1983 New Mexico State Plane East FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., June 12, 2018 for Advance Energy Partners Hat Mesa, LLC



Advance Energy Partners, LLC

Anderson 704H
Lea County, New Mexico
H&P 262
Plan 0.2

ADVANCE ENERGY PARTNERS

Aim Directional Services

SITE DETAILS: Anderson 704H	
Site Centre Northing:	519575.20
Easting:	755173.60
Positional Uncertainty:	0.00
Convergence:	0.37
Local North:	Grid

T G M

Azimuths to Grid North
True North: -0.37°
Magnetic North: 6.42°

Magnetic Field
Strength: 48207.0snT
Dip Angle: 60.24°
Date: 6/16/2018
Model: MVHD

Magnetic North: 6.42° to Grid North

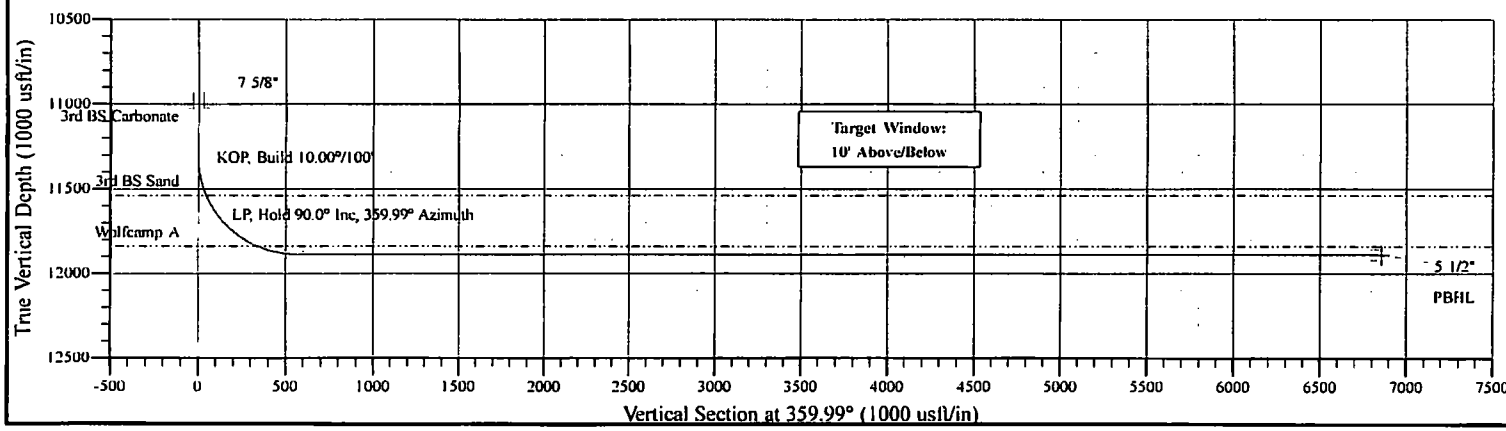
*Note - Aim is not responsible for any collision issues against unknown offset wells.

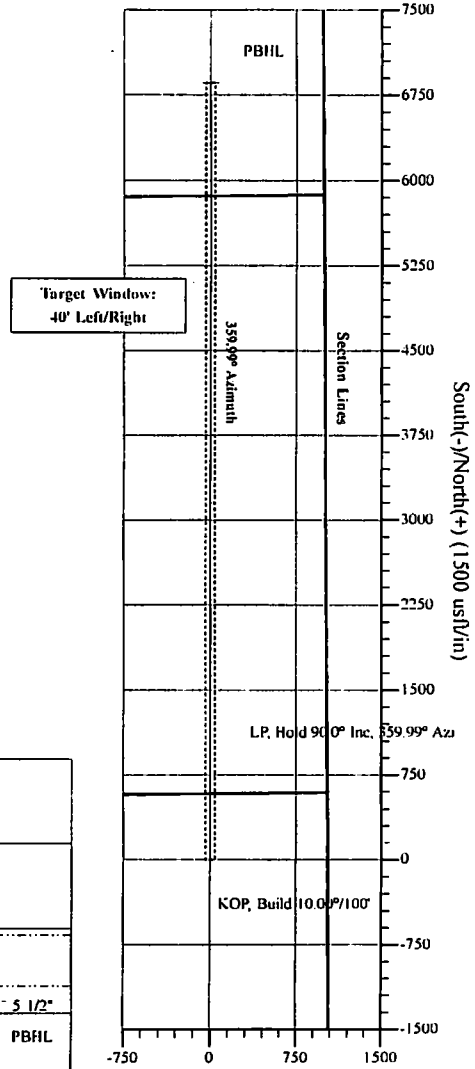
PROJECT DETAILS: Lea County, New Mexico	
Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level
Depth Reference:	3652'GL+25'KB @ 3677.00usft (H&P 262)

CASING DETAILS		
TVD	MD	Name
1070.00	1070.00	10 3/4"
11025.00	11025.00	7 5/8"
11890.00	18500.58	5 1/2"

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	11317.04	0.00	0.00	11317.04	0.00	0.00	0.00	0.00	0.00	KOP, Build 10.00°/100'
3	12217.04	90.00	359.99	11890.00	572.96	-0.09	10.00	359.99	572.96	LP, Hold 90.0° Inc, 359.99° Azimuth
4	18500.58	90.00	359.99	11890.00	6856.50	-1.10	0.00	0.00	6856.50	PBHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL r1 (Anderson704H)	11890.00	6856.50	-1.10	526431.70	755172.50	32° 26' 43.145 N	103° 38' 24.549 W





Drawn By: IG
Date Created: 5/21/2018
Date Revised: 6/18/2018
File: Advance Energy - Anderson 704H Plan 0.2.wpc

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

Project	Lea County, New Mexico		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Anderson 704H				
Site Position:		**Northing:**	519,575.20 usft	**Latitude:**	32° 25' 35.300 N
From:	Map	**Easting:**	755,173.60 usft	**Longitude:**	103° 38' 25.055 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.37 °

Well	704H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	519,575.20 usft	**Latitude:**	32° 25' 35.300 N
	+E/-W	0.00 usft	**Easting:**	755,173.60 usft	**Longitude:**	103° 38' 25.055 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,652.00 usft

Wellbore	Lateral 1r1				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	MVHD	6/16/2018	6.79	60.24	48,207.03857705

Design	Plan 0.2					
Audit Notes:						
Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**		0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**		
	0.00	0.00	0.00	359.99		

Survey Tool Program **Date** 6/16/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	18,500.58	Plan 0.2 (Lateral 1r1)	B001Mb_MWD+HRGM	OWSG MWD + HRGM

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,020.00	0.00	0.00	1,020.00	0.00	0.00	0.00	0.00	0.00	0.00
Rustler									
1,070.00	0.00	0.00	1,070.00	0.00	0.00	0.00	0.00	0.00	0.00
10 3/4"									
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,810.00	0.00	0.00	4,810.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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)
Limestone Base									
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,452.00	0.00	0.00	8,452.00	0.00	0.00	0.00	0.00	0.00	0.00
Lower Brushy									
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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)
8,950.00	0.00	0.00	8,950.00	0.00	0.00	0.00	0.00	0.00	0.00
Avalon									
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00
9,819.00	0.00	0.00	9,819.00	0.00	0.00	0.00	0.00	0.00	0.00
1st BS Sand									
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,380.00	0.00	0.00	10,380.00	0.00	0.00	0.00	0.00	0.00	0.00
2nd BS Sand									
10,400.00	0.00	0.00	10,400.00	0.00	0.00	0.00	0.00	0.00	0.00
10,500.00	0.00	0.00	10,500.00	0.00	0.00	0.00	0.00	0.00	0.00
10,600.00	0.00	0.00	10,600.00	0.00	0.00	0.00	0.00	0.00	0.00
10,700.00	0.00	0.00	10,700.00	0.00	0.00	0.00	0.00	0.00	0.00
10,800.00	0.00	0.00	10,800.00	0.00	0.00	0.00	0.00	0.00	0.00
10,900.00	0.00	0.00	10,900.00	0.00	0.00	0.00	0.00	0.00	0.00
11,000.00	0.00	0.00	11,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3rd BS Carbonate									
11,025.00	0.00	0.00	11,025.00	0.00	0.00	0.00	0.00	0.00	0.00
7 5/8"									
11,100.00	0.00	0.00	11,100.00	0.00	0.00	0.00	0.00	0.00	0.00
11,200.00	0.00	0.00	11,200.00	0.00	0.00	0.00	0.00	0.00	0.00
11,300.00	0.00	0.00	11,300.00	0.00	0.00	0.00	0.00	0.00	0.00
11,317.04	0.00	0.00	11,317.04	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Build 10.00°/100'									
11,350.00	3.30	359.99	11,349.98	0.95	0.00	0.95	10.00	10.00	0.00
11,400.00	8.30	359.99	11,399.71	6.00	0.00	6.00	10.00	10.00	0.00
11,450.00	13.30	359.99	11,448.81	15.36	0.00	15.36	10.00	10.00	0.00
11,500.00	18.30	359.99	11,496.91	28.96	0.00	28.96	10.00	10.00	0.00
11,546.05	22.90	359.99	11,540.00	45.16	-0.01	45.16	10.00	10.00	0.00
3rd BS Sand									
11,550.00	23.30	359.99	11,543.63	46.71	-0.01	46.71	10.00	10.00	0.00
11,600.00	28.30	359.99	11,588.64	68.46	-0.01	68.46	10.00	10.00	0.00
11,650.00	33.30	359.99	11,631.57	94.05	-0.02	94.05	10.00	10.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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)
11,700.00	38.30	359.99	11,672.12	123.29	-0.02	123.29	10.00	10.00	0.00
11,750.00	43.30	359.99	11,709.96	155.95	-0.03	155.95	10.00	10.00	0.00
11,800.00	48.30	359.99	11,744.81	191.78	-0.03	191.78	10.00	10.00	0.00
11,850.00	53.30	359.99	11,776.40	230.51	-0.04	230.51	10.00	10.00	0.00
11,900.00	58.30	359.99	11,804.50	271.85	-0.04	271.85	10.00	10.00	0.00
11,950.00	63.30	359.99	11,828.89	315.48	-0.05	315.48	10.00	10.00	0.00
11,975.90	65.89	359.99	11,840.00	338.87	-0.05	338.87	10.00	10.00	0.00
Wolfcamp A									
12,000.00	68.30	359.99	11,849.38	361.07	-0.06	361.07	10.00	10.00	0.00
12,050.00	73.30	359.99	11,865.82	408.27	-0.07	408.27	10.00	10.00	0.00
12,100.00	78.30	359.99	11,878.09	456.73	-0.07	456.73	10.00	10.00	0.00
12,150.00	83.30	359.99	11,886.08	506.07	-0.08	506.07	10.00	10.00	0.00
12,200.00	88.30	359.99	11,889.75	555.92	-0.09	555.92	10.00	10.00	0.00
12,217.04	90.00	359.99	11,890.00	572.96	-0.09	572.96	10.00	10.00	0.00
LP, Hold 90.0° Inc, 359.99° Azimuth									
12,300.00	90.00	359.99	11,890.00	655.92	-0.11	655.92	0.00	0.00	0.00
12,400.00	90.00	359.99	11,890.00	755.92	-0.12	755.92	0.00	0.00	0.00
12,500.00	90.00	359.99	11,890.00	855.92	-0.14	855.92	0.00	0.00	0.00
12,600.00	90.00	359.99	11,890.00	955.92	-0.15	955.92	0.00	0.00	0.00
12,700.00	90.00	359.99	11,890.00	1,055.92	-0.17	1,055.92	0.00	0.00	0.00
12,800.00	90.00	359.99	11,890.00	1,155.92	-0.19	1,155.92	0.00	0.00	0.00
12,900.00	90.00	359.99	11,890.00	1,255.92	-0.20	1,255.92	0.00	0.00	0.00
13,000.00	90.00	359.99	11,890.00	1,355.92	-0.22	1,355.92	0.00	0.00	0.00
13,100.00	90.00	359.99	11,890.00	1,455.92	-0.23	1,455.92	0.00	0.00	0.00
13,200.00	90.00	359.99	11,890.00	1,555.92	-0.25	1,555.92	0.00	0.00	0.00
13,300.00	90.00	359.99	11,890.00	1,655.92	-0.27	1,655.92	0.00	0.00	0.00
13,400.00	90.00	359.99	11,890.00	1,755.92	-0.28	1,755.92	0.00	0.00	0.00
13,500.00	90.00	359.99	11,890.00	1,855.92	-0.30	1,855.92	0.00	0.00	0.00
13,600.00	90.00	359.99	11,890.00	1,955.92	-0.31	1,955.92	0.00	0.00	0.00
13,700.00	90.00	359.99	11,890.00	2,055.92	-0.33	2,055.92	0.00	0.00	0.00
13,800.00	90.00	359.99	11,890.00	2,155.92	-0.35	2,155.92	0.00	0.00	0.00
13,900.00	90.00	359.99	11,890.00	2,255.92	-0.36	2,255.92	0.00	0.00	0.00
14,000.00	90.00	359.99	11,890.00	2,355.92	-0.38	2,355.92	0.00	0.00	0.00
14,100.00	90.00	359.99	11,890.00	2,455.92	-0.39	2,455.92	0.00	0.00	0.00
14,200.00	90.00	359.99	11,890.00	2,555.92	-0.41	2,555.92	0.00	0.00	0.00
14,300.00	90.00	359.99	11,890.00	2,655.92	-0.43	2,655.92	0.00	0.00	0.00
14,400.00	90.00	359.99	11,890.00	2,755.92	-0.44	2,755.92	0.00	0.00	0.00
14,500.00	90.00	359.99	11,890.00	2,855.92	-0.46	2,855.92	0.00	0.00	0.00
14,600.00	90.00	359.99	11,890.00	2,955.92	-0.47	2,955.92	0.00	0.00	0.00
14,700.00	90.00	359.99	11,890.00	3,055.92	-0.49	3,055.92	0.00	0.00	0.00
14,800.00	90.00	359.99	11,890.00	3,155.92	-0.51	3,155.92	0.00	0.00	0.00
14,900.00	90.00	359.99	11,890.00	3,255.92	-0.52	3,255.92	0.00	0.00	0.00
15,000.00	90.00	359.99	11,890.00	3,355.92	-0.54	3,355.92	0.00	0.00	0.00
15,100.00	90.00	359.99	11,890.00	3,455.92	-0.55	3,455.92	0.00	0.00	0.00

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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)
15,200.00	90.00	359.99	11,890.00	3,555.92	-0.57	3,555.92	0.00	0.00	0.00
15,300.00	90.00	359.99	11,890.00	3,655.92	-0.59	3,655.92	0.00	0.00	0.00
15,400.00	90.00	359.99	11,890.00	3,755.92	-0.60	3,755.92	0.00	0.00	0.00
15,500.00	90.00	359.99	11,890.00	3,855.92	-0.62	3,855.92	0.00	0.00	0.00
15,600.00	90.00	359.99	11,890.00	3,955.92	-0.63	3,955.92	0.00	0.00	0.00
15,700.00	90.00	359.99	11,890.00	4,055.92	-0.65	4,055.92	0.00	0.00	0.00
15,800.00	90.00	359.99	11,890.00	4,155.92	-0.67	4,155.92	0.00	0.00	0.00
15,900.00	90.00	359.99	11,890.00	4,255.92	-0.68	4,255.92	0.00	0.00	0.00
16,000.00	90.00	359.99	11,890.00	4,355.92	-0.70	4,355.92	0.00	0.00	0.00
16,100.00	90.00	359.99	11,890.00	4,455.92	-0.71	4,455.92	0.00	0.00	0.00
16,200.00	90.00	359.99	11,890.00	4,555.92	-0.73	4,555.92	0.00	0.00	0.00
16,300.00	90.00	359.99	11,890.00	4,655.92	-0.75	4,655.92	0.00	0.00	0.00
16,400.00	90.00	359.99	11,890.00	4,755.92	-0.76	4,755.92	0.00	0.00	0.00
16,500.00	90.00	359.99	11,890.00	4,855.92	-0.78	4,855.92	0.00	0.00	0.00
16,600.00	90.00	359.99	11,890.00	4,955.92	-0.80	4,955.92	0.00	0.00	0.00
16,700.00	90.00	359.99	11,890.00	5,055.92	-0.81	5,055.92	0.00	0.00	0.00
16,800.00	90.00	359.99	11,890.00	5,155.92	-0.83	5,155.92	0.00	0.00	0.00
16,900.00	90.00	359.99	11,890.00	5,255.92	-0.84	5,255.92	0.00	0.00	0.00
17,000.00	90.00	359.99	11,890.00	5,355.92	-0.86	5,355.92	0.00	0.00	0.00
17,100.00	90.00	359.99	11,890.00	5,455.92	-0.88	5,455.92	0.00	0.00	0.00
17,200.00	90.00	359.99	11,890.00	5,555.92	-0.89	5,555.92	0.00	0.00	0.00
17,300.00	90.00	359.99	11,890.00	5,655.92	-0.91	5,655.92	0.00	0.00	0.00
17,400.00	90.00	359.99	11,890.00	5,755.92	-0.92	5,755.92	0.00	0.00	0.00
17,500.00	90.00	359.99	11,890.00	5,855.92	-0.94	5,855.92	0.00	0.00	0.00
17,600.00	90.00	359.99	11,890.00	5,955.92	-0.96	5,955.92	0.00	0.00	0.00
17,700.00	90.00	359.99	11,890.00	6,055.92	-0.97	6,055.92	0.00	0.00	0.00
17,800.00	90.00	359.99	11,890.00	6,155.92	-0.99	6,155.92	0.00	0.00	0.00
17,900.00	90.00	359.99	11,890.00	6,255.92	-1.00	6,255.92	0.00	0.00	0.00
18,000.00	90.00	359.99	11,890.00	6,355.92	-1.02	6,355.92	0.00	0.00	0.00
18,100.00	90.00	359.99	11,890.00	6,455.92	-1.04	6,455.92	0.00	0.00	0.00
18,200.00	90.00	359.99	11,890.00	6,555.92	-1.05	6,555.92	0.00	0.00	0.00
18,300.00	90.00	359.99	11,890.00	6,655.92	-1.07	6,655.92	0.00	0.00	0.00
18,400.00	90.00	359.99	11,890.00	6,755.92	-1.08	6,755.92	0.00	0.00	0.00
18,500.58	90.00	359.99	11,890.00	6,856.50	-1.10	6,856.50	0.00	0.00	0.00
PBHL - 5 1/2" - PBHL r1 (Anderson704H)									

Aim Directional Services, LLC

Survey Report

Company:	Advance Energy Partners, LLC	**Local Co-ordinate Reference:**	Site Anderson 704H
Project:	Lea County, New Mexico	**TVD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Site:	Anderson 704H	**MD Reference:**	3652'GL+25'KB @ 3677.00usft (H&P 262)
Well:	704H	**North Reference:**	Grid
Wellbore:	Lateral 1r1	**Survey Calculation Method:**	Minimum Curvature
Design:	Plan 0.2	**Database:**	EDM 5000.14 Single User Db

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
PBHL r1 (Anderson704H - plan hits target center - Point	0.00	0.00	11,890.00	6,856.50	-1.10	526,431.70	755,172.50	32° 26' 43.145 N	103° 38' 24.549 W

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,070.00	1,070.00	10 3/4"	10-3/4	12-1/4
11,025.00	11,025.00	7 5/8"	7-5/8	7-5/8
18,500.58	11,890.00	5 1/2"	5-1/2	6

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,020.00	1,020.00	Rustler		0.00	
4,810.00	4,810.00	Limestone Base		0.00	
8,452.00	8,452.00	Lower Brushy		0.00	
8,950.00	8,950.00	Avalon		0.00	
9,819.00	9,819.00	Ist BS Sand		0.00	
10,380.00	10,380.00	2nd BS Sand		0.00	
11,000.00	11,000.00	3rd BS Carbonate		0.00	
11,546.05	11,540.00	3rd BS Sand		0.00	
11,975.90	11,840.00	Wolfcamp A		0.00	

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
11,317	11,317	0	0	KOP, Build 10.00°/100'
12,217	11,890	573	0	LP, Hold 90.0° Inc, 359.99° Azimuth
18,501	11,890	6856	-1	PBHL

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary caliche	000'	000'	water
Rustler anhydrite	1070'	1070'	N/A
Top salt	1120'	1120'	N/A
Base salt	4810'	4810'	N/A
Bell Canyon limestone	4810'	4810'	hydrocarbons
Cherry Canyon sandstone	5685'	5685'	hydrocarbons
Lower Brushy Canyon sandstone	8500'	8500'	hydrocarbons
Avalon shale	9000'	9000'	hydrocarbons
1st Bone Spring sandstone	9900'	9900'	hydrocarbons
2nd Bone Spring sandstone	10400'	10400'	hydrocarbons
3rd Bone Spring carbonate	11025'	11025'	hydrocarbons
(KOP	11350'	11350'	hydrocarbons
3rd Bone Spring sandstone	11544'	11550'	hydrocarbons
Wolfcamp carbonate (goal)	11849'	12000'	hydrocarbons
TD	11890'	18501'	hydrocarbons

2. NOTABLE ZONES

Wolfcamp A carbonate is the goal. Closest water well (CP 02821) is 2.48 miles southwest. Water bearing strata were reported at 410' in this 540' deep well.

3. PRESSURE CONTROL

See attached Helmerich & Payne BOP Testing - BLM manual for equipment and procedures.

Variance is requested to use a co-flex hose between the BOP and choke instead of a steel line. See attached 3" I. D. x 10K test certificate. If this hose is unavailable, then a hose of equal or higher-pressure rating will be used.

Variance is requested to use a speed head (aka, multi-bowl wellhead). Diagram is attached.

4. CASING & CEMENT

All casing will be API and new. See attached casing assumption worksheet.

Hole OD	Set MD	Set TVD	Casing O. D.	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
14.75"	0' - 1100'	0' - 1100'	Surface 10.75"	40.5	J-55	BTC	1.125	1.125	1.6
9.875"	0' - 11025'	0' - 11025'	Intermed. 7.625"	29.7	HCP-110	LTC	1.125	1.125	1.6
6.75"	0' - 11317'	0' - 11317'	Product. 5.5"	20	HCP-110	Ultra DQX	1.125	1.125	1.6
6.75"	11317' - 18501'	11317' - 11890'	Product. 5.0"	18	HCP-110	Ultra DQX	1.125	1.125	1.6

Single bow centralizer will be installed on every fourth joint of the surface and intermediate casing strings.

Single bow centralizers will be installed from 200' above the KOP (11350') up to 600' inside the previous casing shoe (10425'). Double bows will be installed from 200' above the KOP to 200' past the EOC (12227'). Solid bodies will be installed one per joint from 200' past EOC (12227') to TD.

Variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not be allow presetting the surface casing, then the primary rig will drill all of the well.

Advance Energy Partners Hat Mesa, LLC
Anderson Fed Com 704H
SHL 580' FNL & 1030' FEL Sec. 2, T. 22 S., R. 32 E.
BHL 990' FSL & 990' FEL Sec. 26, T 21 S., R. 32 E.
Lea County, NM

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	570	1.74	991	13.5	100:0:4 Class C Premium Poz Gel + 4% bentonite + 0.25% C-45 econolite + 0.3% C-503P defoamer + 1% $CaCl_2$
	Tail	130	1.34	174	14.8	100:0:0 Class C Premium Poz Gel + 0.1% C-45 econolite + 2% $CaCl_2$
TOC = GL		90% Excess				
Intermediate	Lead	860	3.17	2760	10.6	95:5:0 TXI Light Weight Poz Gel + 0.82 #/sk NaCl + 0.25% C-45 econolite + 6% STE + 0.2% citric acid + 0.1% C-19 fluid loss additive + 0.25% CSA-1000 fluid loss additive + 6 #/sk coal seal + 0.5% C-503P defoamer + 1.5 #/sk phenoseal
	Tail	415	1.39	581	14.6	95:5:0 Class H Premium Poz Gel + 0/27 #/sk NaCl + 3% STE + 0.05% CSA-1000 fluid loss additive + 0.3% C-20 retarder
TOC = GL		35% Excess				
Production	Lead	50	2.84	142	11.5	70:0:10 Class H Premium Poz Gel + 10% bentonite +0.2% citric acid + 0.09% CSA-1000 fluid loss additive + 5 #/sk coal seal+ 0.1% C-47B fluid loss additive + 0.3% C-503P defoamer + 2 #/sk gyp seal
	Tail	720	1.35	972	14.2	72:3:0 Class H Premium Poz Gel + 0.09% CSA-1000 fluid loss additive + 0.25% C-47B fluid loss additive + 0.1% C-20 retarder
TOC = 10525' MD		30% Excess				

5. MUD PROGRAM

An electronic pit volume totalizer (PVT) will be used to monitor volume, flow rate, pump pressure, and stroke rate. All necessary additives (e. g., barite, bentonite, LCM) to maintain mud properties and meet minimum lost circulation and weight increase needs will be on site at all times. Mud program may change due to hole conditions. A closed loop system will be used. Mud system is based on system used by Advance at its nearby (2.6 miles northeast) deeper Dagger State Com 701H (0-025-43565). That well has a TVD of 11924'.

Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss ml/30 mins
fresh water	0' - 1100'	8.4 - 9.8	28 - 36	N/C
OBM	1100' - 11025'	8.8 - 9.0	55 - 65	<8
OBM	11025' - 11350'	9.0 - 9.5	55 - 65	<8
OBM	11350' - 18501'	10.5 - 11.0	55 - 65	<8

6. CORES, TESTS, & LOGS

No core, drill stem test, or open hole log is planned.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈6753 psi. Expected bottom hole temperature is ≈189° F.

H2S monitors and detectors will be used from surface casing point to TD.

8. OTHER INFORMATION

Anticipated spud date is upon approval. It is expected it will take ≈3-4 months to drill and complete the well.

Anderson Fed Com 704H

Variance is requested for an option to use a surface rig to drill the surface hole and set and cement the surface casing. If time between rigs would not be allow presetting the surface casing, then the primary rig will drill all of the well.

APD ID: 10400031317 **Submission Date:** 06/18/2018

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

ANDERSON_704H_Road_Map_20180618150733.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Anderson_704H_New_Road_Map_revised_20190527094705.pdf

New road type: RESOURCE

Length: 1154 Feet **Width (ft.):** 30

Max slope (%): 0 **Max grade (%):** 2

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Crowned and ditched

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

11/15/2019

APD ID: 10400031317 **Submission Date:** 06/18/2018

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

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U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

11/15/2019

APD ID: 10400031317 **Submission Date:** 06/18/2018

Operator Name: ADVANCE ENERGY PARTNERS HAT MESA LLC

Well Name: ANDERSON FED COM **Well Number:** 704H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001444

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

PERMITS WEST, INC.
PROVIDING PERMITS for LAND USERS
37 Verano Loop, Santa Fe, New Mexico 87508 (505) 466-8120

November 18, 2019

Paul Kautz
New Mexico Oil Conservation Division
811 S. First Street
Artesia, NM 88210

Dear Paul:

On behalf of Advance Energy Partners Hat Mesa LLC, please accept the following BLM-approved APDs for processing:

Anderson Fed Com 704H

Please contact me if you have any questions regarding this APD.

Sincerely,

Brian Wood
Agent