

District I

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

District II

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

District III

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

District IV

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

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

Form C-101
August 1, 2011

Permit 276482

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

1. Operator Name and Address ADVANCE ENERGY PARTNERS HAT MESA, LLC 11490 Westheimer Rd., Ste 950 Houston, TX 77077		2. OGRID Number 372417
4. Property Code 319603		3. API Number 30-025-46703
5. Property Name MERCHANT STATE UNIT		6. Well No. 552H

7. Surface Location

UL - Lot C	Section 35	Township 21S	Range 33E	Lot Idn C	Feet From 200	N/S Line N	Feet From 1687	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot N	Section 2	Township 22S	Range 33E	Lot Idn N	Feet From 100	N/S Line S	Feet From 1650	E/W Line W	County Lea
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9. Pool Information

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

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3685
16. Multiple N	17. Proposed Depth 22131	18. Formation Bone Spring	19. Contractor	20. Spud Date 1/6/2020
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	4000	950	0
Int1	12.25	9.625	40	4000	330	4000
Prod	8.5	5.5	20	22131	2300	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.	OIL CONSERVATION DIVISION	
Signature:		
Printed Name: Electronically filed by David C Harwell	Approved By: Paul F Kautz	
Title: VP Engineering	Title: Geologist	
Email Address: dharwell@advanceenergypartners.com	Approved Date: 1/10/2020	Expiration Date: 1/10/2022
Date: 1/4/2020	Phone: 832-672-4604	Conditions of Approval Attached

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DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3480 Fax: (505) 476-3482State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-102

Revised August 4, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

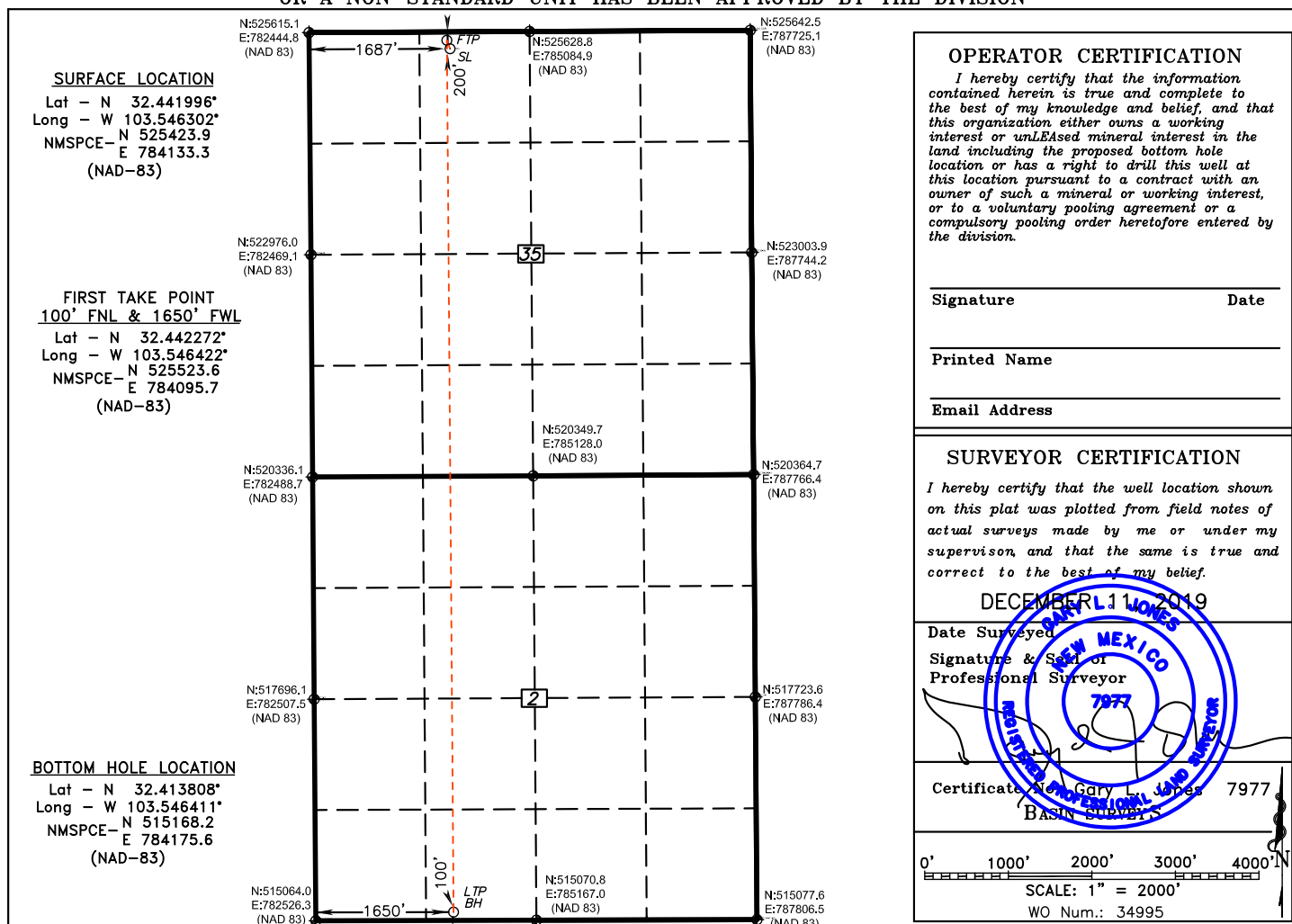
API Number	Pool Code	Pool Name
	97929	WC-025 G-06 S213326D; BONE SPRING
Property Code	Property Name	Well Number
319603	MERCHANT STATE UNIT	552H
OGRID No.	Operator Name	Elevation
372417	ADVANCE ENERGY PARTNERS HAT MESA	3685'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
C	35	21 S	33 E		200	NORTH	1687	WEST	LEA

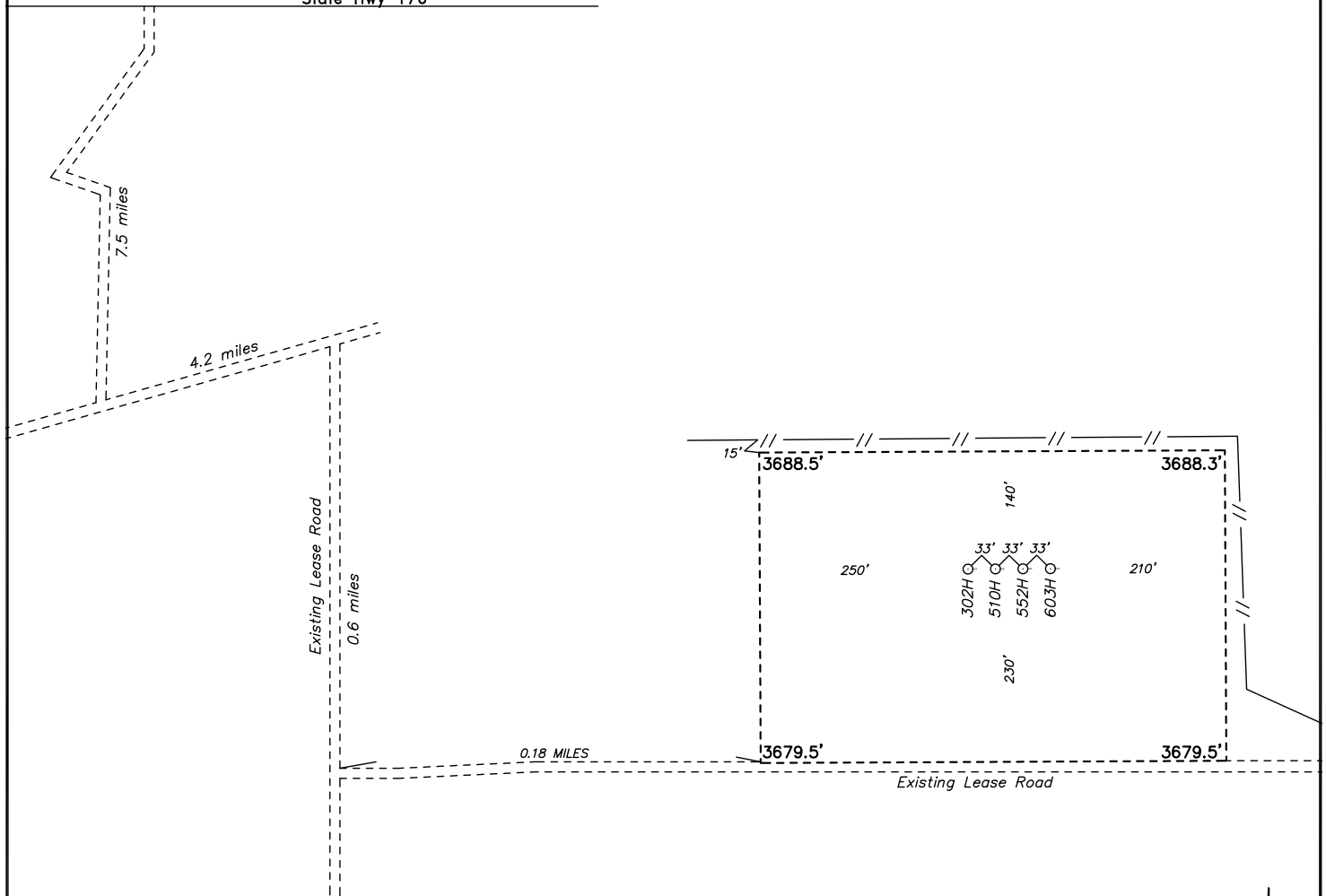
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
N	2	22 S	33 E		100	SOUTH	1650	WEST	LEA
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

**SECTION 35, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY,
NEW MEXICO.**

State Hwy 176



**ADVANCE ENERGY PARTNERS HAT MESA
MERCHANT STATE UNIT 552H
ELEV. - 3685'**

Lat - N 32.441996°
Long - W 103.546302°
NMSPCE - N 525423.9
E 784133.3
(NAD-83)

EUNICE, NM IS ±22 MILES TO THE EAST OF LOCATION.

200 0 200 400 FEET

SCALE: 1" = 200'

ADVANCE ENERGY PARTNERS HAT MESA

REF: MERCHANT STATE UNIT 552H / WELL PAD TOPO

THE MERCHANT STATE UNIT 552H LOCATED 200' FROM
THE NORTH LINE AND 1687' FROM THE WEST LINE OF
SECTION 35, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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

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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: 34995

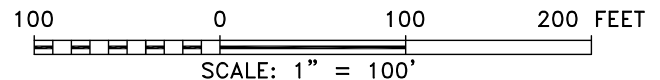
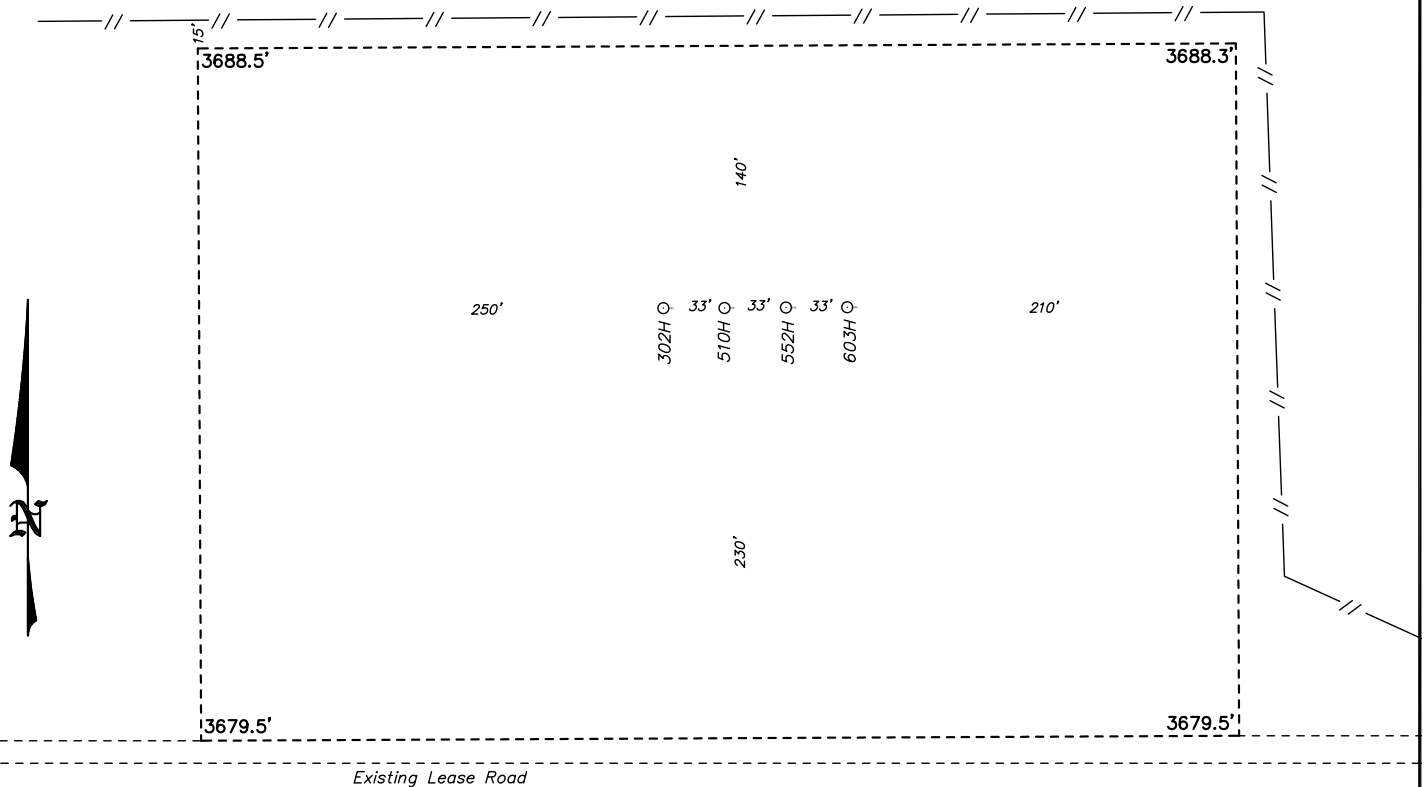
Drawn By: J. GOAD

Date: 12-30-2019

Survey Date: 12-11-2019

Sheet 1 of 1 Sheets

**SECTION 35, TOWNSHIP 21 SOUTH, RANGE 33 EAST. N.M.P.M.,
LEA COUNTY, NEW MEXICO.**



ADVANCE ENERGY PARTNERS HAT MESA

REF: MERCHANT STATE UNIT 552H / WELL PAD TOPO

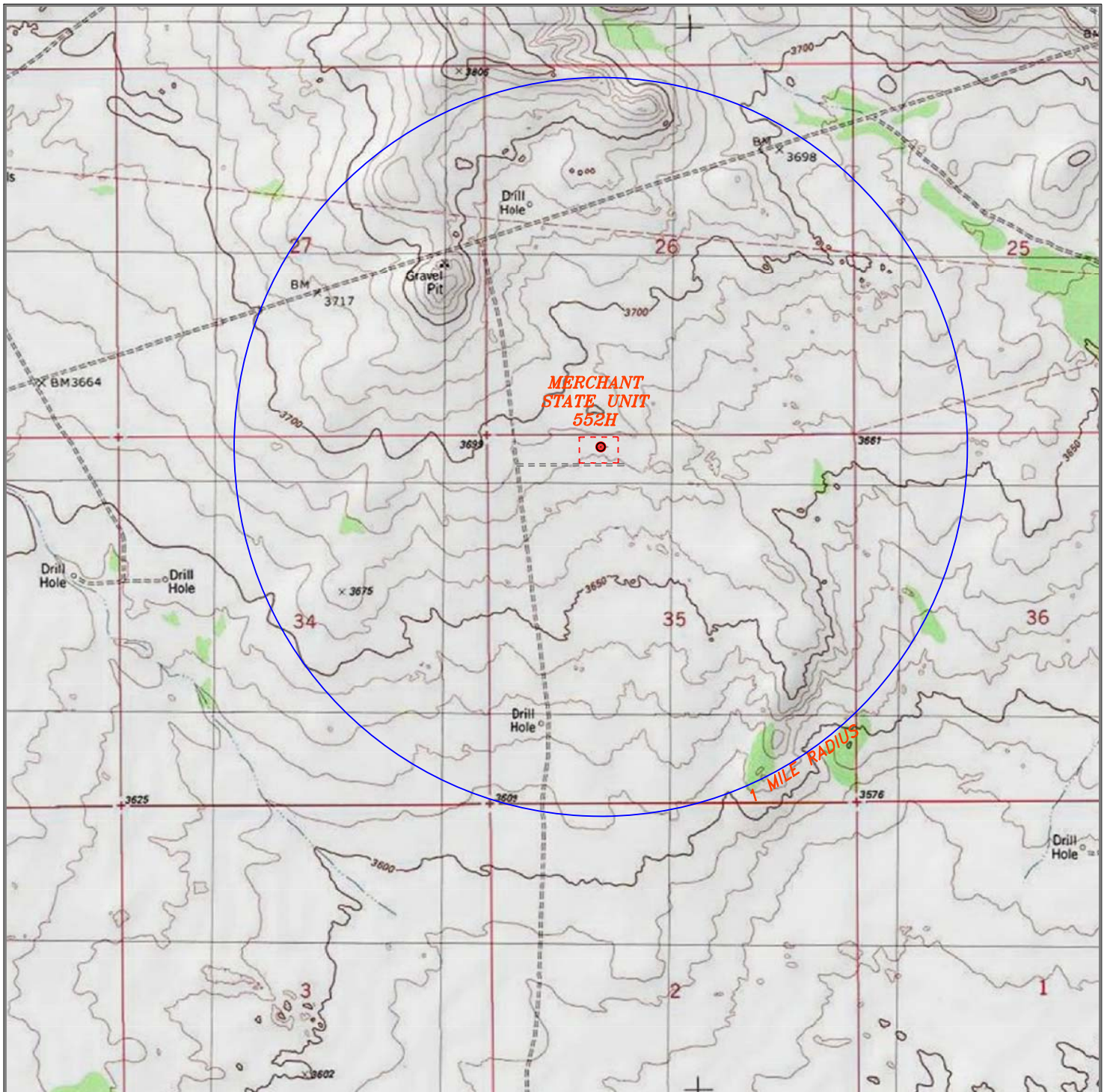
THE MERCHANT STATE UNIT 552H LOCATED 200' FROM
THE NORTH LINE AND 1687' FROM THE WEST LINE OF
SECTION 35, TOWNSHIP 21 SOUTH, RANGE 33 EAST.

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W.O. Number: 34995	Drawn By: J. GOAD	Date: 12-30-2019	Survey Date: 12-11-2019	Sheet 1 of 1 Sheets
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MERCHANT STATE UNIT 552H

Located 200' FNL and 1687' FWL
 Section 35, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.

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

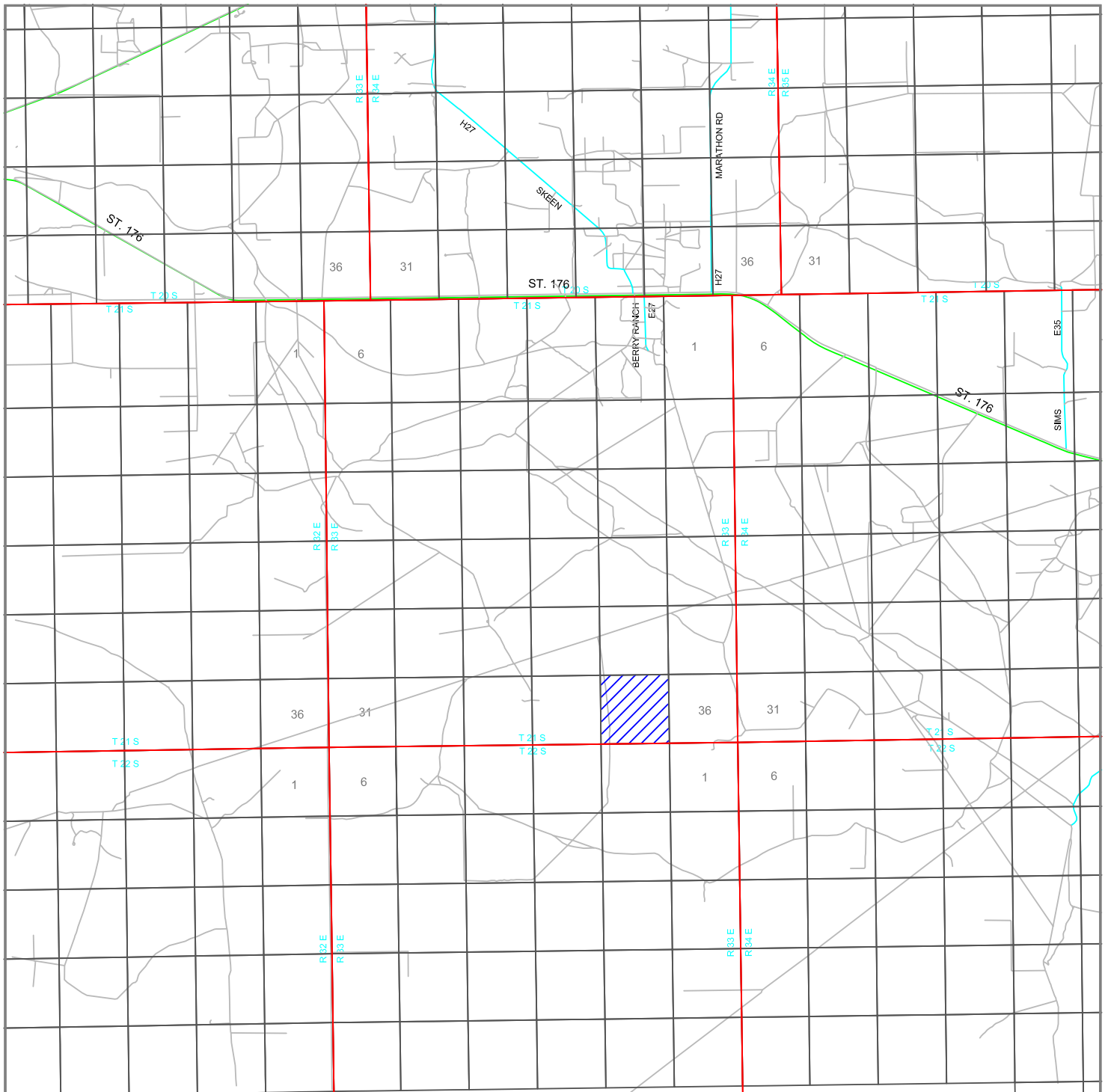
W.O. Number: JG 34995

Survey Date: 12-11-2019

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



ADVANCE
ENERGY
PARTNERS
HAT MESA



MERCHANT STATE UNIT 552H

Located 200' FNL and 1687' FWL
 Section 35, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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

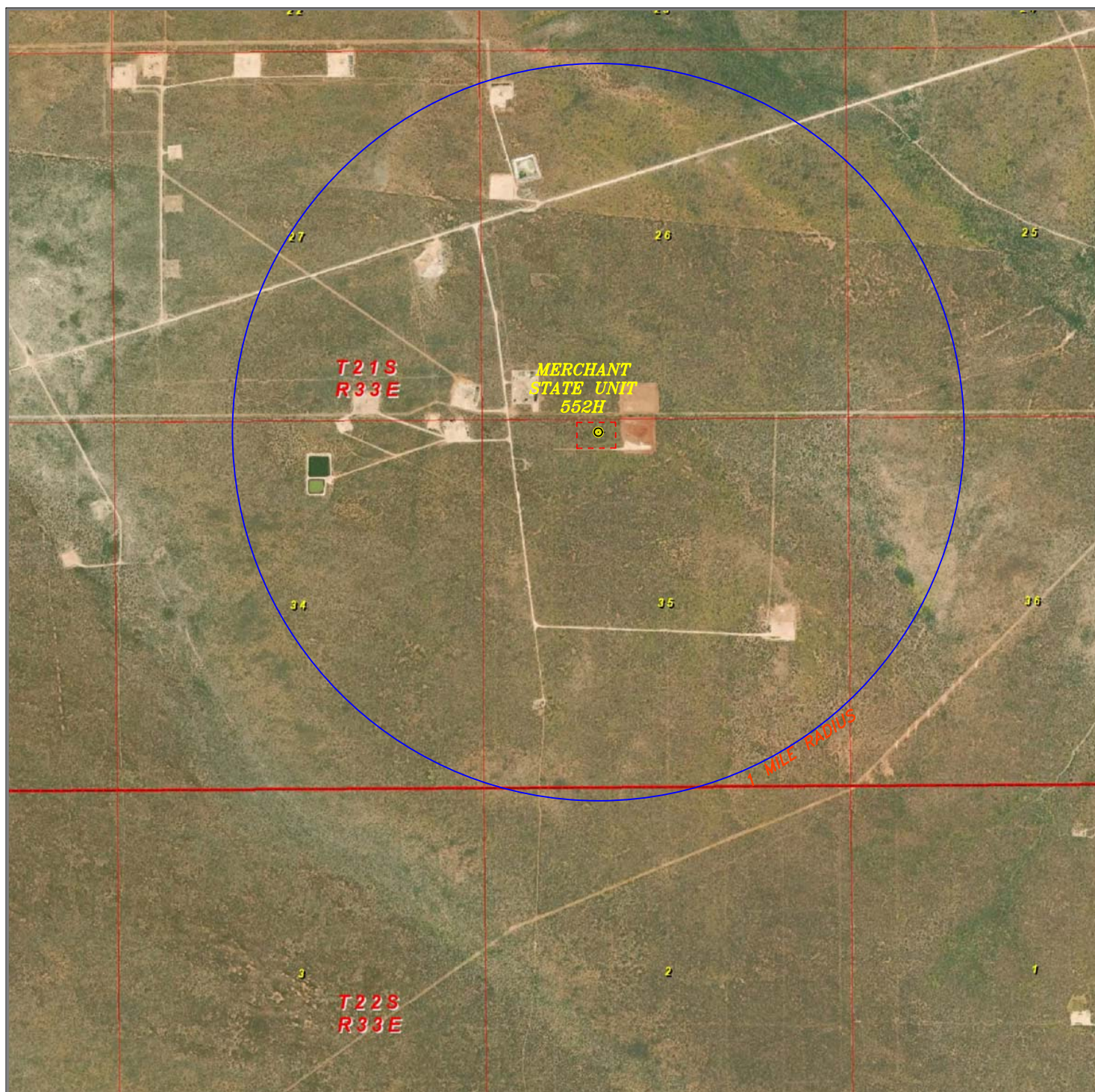
W.O. Number: JG 34995

Survey Date: 12-11-2019

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



**ADVANCE
 ENERGY
 PARTNERS
 HAT MESA**



MERCHANT STATE UNIT 552H

Located 200' FNL and 1687' FWL
 Section 35, Township 21 South, Range 33 East,
 N.M.P.M., Lea County, New Mexico.



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

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**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

GAS CAPTURE PLAN

Date: 1/10/2020

☒ Original

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

☐ Amended - Reason for
Amendment: _____

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

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

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
MERCHANT STATE UNIT #552H	30-025-46703	C-35-21S-33E	0200N 1687W	1500	Flared	FLARED DURING INITIAL TESTING AND CLEANUP

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to TARGA MIDSTREAM SERVICES LLC and will be connected to TARGA MIDSTREAM SERVICES LLC Low Pressure gathering system located in Lea County, New Mexico. It will require 200' of pipeline to connect the facility to Low Pressure gathering system. ADVANCE ENERGY PARTNERS HAT MESA, LLC provides (periodically) to TARGA MIDSTREAM SERVICES LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, ADVANCE ENERGY PARTNERS HAT MESA, LLC and TARGA MIDSTREAM SERVICES LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at TARGA MIDSTREAM SERVICES LLC Processing Plant located in Sec. 36, Twn. 19S, Rng. 36E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on TARGA MIDSTREAM SERVICES LLC system at that time. Based on current information, it is ADVANCE ENERGY PARTNERS HAT MESA, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
 - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

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

Form APD Comments

Permit 276482

PERMIT COMMENTS

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-46703
	Well: MERCHANT STATE UNIT #552H

Created By	Comment	Comment Date
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Energy, Minerals and Natural Resources
Oil Conservation Division
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Santa Fe, NM 87505

Form APD Conditions

Permit 276482

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: ADVANCE ENERGY PARTNERS HAT MESA, LLC [372417] 11490 Westheimer Rd., Ste 950 Houston, TX 77077	API Number: 30-025-46703
	Well: MERCHANT STATE UNIT #552H

OCD Reviewer	Condition
pkautz	Will require a directional survey with the C-104
pkautz	Potash Area - Three String Casing Program - In accordance with R-111-P all strings shall be cemented to surface. Salt Protection String - If the cement fails to reach the surface or the bottom of the cellar, where required, the top of the cement shall be located by a temperature or other survey and additional cementing shall be done until the cement is brought to the surface.
pkautz	If cement does not circulate to surface, must run temperature survey or other log to determine top of cement
pkautz	Surface casing must be set 25' below top of Rustler Anhydrite in order to seal off protectable water
pkautz	1)- The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud 2)- Drilling Sundries Form C-103 (Casing and Cement test are to be submitted within 10 days 3)- Completion Reports & Logs are to be submitted within 45 days 4)- Deviation / Directional Drill Survey are to be filed with or prior to C-104
pkautz	It is the operator's responsibility to monitor cancellation dates of approved APDs. APD's are good for 2 years and may be extended for one year. Only one 1 year extension will be granted if submitted by C-103 before expiration date. After expiration date or after a 1 year extension must submit new APD. If an APD expires and if site construction has occurred, site remediation is required.
pkautz	Stage Tool 1) Must notify OCD Hobbs Office prior to running Stage Tool at 5753703186 2) If using Stage Tool on Surface casing, Stage Tool must be set greater than 350' from surface and a minimum of 200 feet above surface shoe. 3) When using a Stage Tool on Intermediate or Production Casing Stage must be a minimum of 50 feet below previous casing shoe.



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

January 2, 2020

Oil Conservation Division
Energy Minerals and Natural Resources Department
1625 N. French Dr.
Hobbs, New Mexico 88240

Attn: Mr. Paul Kautz

**Re: Application for Merchant State Unit 552H
Unit C, Section 35-T21S-R33E
Lea County, New Mexico**

Dear Mr. Kautz,

I am providing answers to you questions and requests for additional information about any potash leases within 1 mile of the referenced Section 35.

This letter is to confirm there are no potash leases within 1 mile of Section 35, Township 21 South, Range 33 East, Lea County, NM.

Sincerely,

A handwritten signature in black ink that reads "Paul J. Burdick".

Paul J. Burdick
Land Advisor
Advance Energy Partners Hat Mesa, LLC
Email: PBurdick@Advanceenergypartners.com
Office Telephone: 832-672-4623
Cell Telephone: 713-228-7320



Advance Energy Partners

**Lea County, NM (NAD 83 NME)
(Merchant State)Sec35_T-21-S_R-33-E
Merchant State Unit #552H**

**OWB
Plan 0.1**

Anticollision Report

03 January, 2020





Microsoft
Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Reference	Plan 0.1
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria
Interpolation Method:	MD Interval 100.0usft
Depth Range:	Unlimited
Results Limited by:	Maximum center-center distance of 2,000.0 usft
Warning Levels Evaluated at:	2.00 Sigma
Error Model:	ISCWSA
Scan Method:	Closest Approach 3D
Error Surface:	Pedal Curve
Casing Method:	Not applied

Survey Tool Program		Date	01/03/2020		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.0	21,516.8	Plan 0.1 (OWB)	MWD	OWSG MWD - Standard	

Summary							
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning	
Offset Well - Wellbore - Design							
(Merchant State)Sec35_T-21-S_R-33-E							
Merchant State Unit #302H - OWB - Plan 0.1	5,885.0	5,888.2	54.7	13.1	1.314	Level 3, CC	
Merchant State Unit #302H - OWB - Plan 0.1	5,900.0	5,903.1	54.7	13.0	1.311	Level 3, ES, SF	
Merchant State Unit #510H - OWB - Plan 0.1	6,525.3	6,525.9	23.1	-23.2	0.499	Level 1, CC, SF	
Merchant State Unit #510H - OWB - Plan 0.1	6,600.0	6,600.4	23.6	-23.2	0.504	Level 1, ES	
Merchant State Unit #603H - OWB - Plan 0.1	5,100.0	5,100.0	33.0	-3.1	0.914	Level 1, CC	
Merchant State Unit #603H - OWB - Plan 0.1	5,300.0	5,300.0	33.5	-4.0	0.892	Level 1, ES, SF	

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #302H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre			Rule Assigned:				Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	1.0	1.0	0.0	0.0	-90.26	-0.3	-66.0	66.0					
100.0	100.0	101.0	101.0	0.1	0.1	-90.26	-0.3	-66.0	66.0	65.7	0.27	243.863		
200.0	200.0	201.0	201.0	0.5	0.5	-90.26	-0.3	-66.0	66.0	65.0	0.99	66.830		
300.0	300.0	301.0	301.0	0.9	0.9	-90.26	-0.3	-66.0	66.0	64.3	1.70	38.721		
400.0	400.0	401.0	401.0	1.2	1.2	-90.26	-0.3	-66.0	66.0	63.6	2.42	27.256		
500.0	500.0	501.0	501.0	1.6	1.6	-90.26	-0.3	-66.0	66.0	62.9	3.14	21.030		
600.0	600.0	601.0	601.0	1.9	1.9	-90.26	-0.3	-66.0	66.0	62.1	3.86	17.119		
700.0	700.0	701.0	701.0	2.3	2.3	-90.26	-0.3	-66.0	66.0	61.4	4.57	14.435		
800.0	800.0	801.0	801.0	2.6	2.6	-90.26	-0.3	-66.0	66.0	60.7	5.29	12.478		
900.0	900.0	901.0	901.0	3.0	3.0	-90.26	-0.3	-66.0	66.0	60.0	6.01	10.989		
1,000.0	1,000.0	1,001.0	1,001.0	3.4	3.4	-90.26	-0.3	-66.0	66.0	59.3	6.72	9.817		
1,100.0	1,100.0	1,101.0	1,101.0	3.7	3.7	-90.26	-0.3	-66.0	66.0	58.6	7.44	8.871		
1,200.0	1,200.0	1,201.0	1,201.0	4.1	4.1	-90.26	-0.3	-66.0	66.0	57.8	8.16	8.091		
1,300.0	1,300.0	1,301.0	1,301.0	4.4	4.4	-90.26	-0.3	-66.0	66.0	57.1	8.87	7.438		
1,400.0	1,400.0	1,401.0	1,401.0	4.8	4.8	-90.26	-0.3	-66.0	66.0	56.4	9.59	6.882		
1,500.0	1,500.0	1,501.0	1,501.0	5.2	5.2	-90.26	-0.3	-66.0	66.0	55.7	10.31	6.403		
1,600.0	1,600.0	1,601.0	1,601.0	5.5	5.5	-90.26	-0.3	-66.0	66.0	55.0	11.02	5.987		
1,700.0	1,700.0	1,701.0	1,701.0	5.9	5.9	-90.26	-0.3	-66.0	66.0	54.3	11.74	5.621		
1,800.0	1,800.0	1,801.0	1,801.0	6.2	6.2	-90.26	-0.3	-66.0	66.0	53.5	12.46	5.298		
1,900.0	1,900.0	1,901.0	1,901.0	6.6	6.6	-90.26	-0.3	-66.0	66.0	52.8	13.18	5.009		
2,000.0	2,000.0	2,001.0	2,001.0	6.9	6.9	-90.26	-0.3	-66.0	66.0	52.1	13.89	4.751		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #302H - OWB - Plan 0.1														Offset Site Error:	0.0 usft	
Survey Program: Reference		0-MWD		Offset		Semi Major Axis		Offset Wellbore Centre		Rule Assigned:				Offset Well Error:		0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
2,100.0	2,100.0	2,101.0	2,101.0	7.3	7.3	-90.26	-0.3	-66.0	66.0	51.4	14.61	4.518				
2,200.0	2,200.0	2,201.0	2,201.0	7.7	7.7	-90.26	-0.3	-66.0	66.0	50.7	15.33	4.306				
2,300.0	2,300.0	2,301.0	2,301.0	8.0	8.0	-90.26	-0.3	-66.0	66.0	50.0	16.04	4.114				
2,400.0	2,400.0	2,401.0	2,401.0	8.4	8.4	-90.26	-0.3	-66.0	66.0	49.2	16.76	3.938				
2,500.0	2,500.0	2,501.0	2,501.0	8.7	8.7	-90.26	-0.3	-66.0	66.0	48.5	17.48	3.776				
2,600.0	2,600.0	2,601.0	2,601.0	9.1	9.1	-90.26	-0.3	-66.0	66.0	47.8	18.19	3.628				
2,700.0	2,700.0	2,701.0	2,701.0	9.5	9.5	-90.26	-0.3	-66.0	66.0	47.1	18.91	3.490				
2,800.0	2,800.0	2,801.0	2,801.0	9.8	9.8	-90.26	-0.3	-66.0	66.0	46.4	19.63	3.363				
2,900.0	2,900.0	2,901.0	2,901.0	10.2	10.2	-90.26	-0.3	-66.0	66.0	45.7	20.35	3.244				
3,000.0	3,000.0	3,001.0	3,001.0	10.5	10.5	-90.26	-0.3	-66.0	66.0	44.9	21.06	3.134				
3,100.0	3,100.0	3,101.0	3,101.0	10.9	10.9	-90.26	-0.3	-66.0	66.0	44.2	21.78	3.030				
3,200.0	3,200.0	3,201.0	3,201.0	11.2	11.2	-90.26	-0.3	-66.0	66.0	43.5	22.50	2.934				
3,300.0	3,300.0	3,301.0	3,301.0	11.6	11.6	-90.26	-0.3	-66.0	66.0	42.8	23.21	2.843				
3,400.0	3,400.0	3,401.0	3,401.0	12.0	12.0	-90.26	-0.3	-66.0	66.0	42.1	23.93	2.758				
3,500.0	3,500.0	3,501.0	3,501.0	12.3	12.3	-90.26	-0.3	-66.0	66.0	41.4	24.65	2.678				
3,600.0	3,600.0	3,601.0	3,601.0	12.7	12.7	-90.26	-0.3	-66.0	66.0	40.6	25.36	2.602				
3,700.0	3,700.0	3,701.0	3,701.0	13.0	13.0	-90.26	-0.3	-66.0	66.0	39.9	26.08	2.531				
3,800.0	3,800.0	3,801.0	3,801.0	13.4	13.4	-90.26	-0.3	-66.0	66.0	39.2	26.80	2.463				
3,900.0	3,900.0	3,901.0	3,901.0	13.8	13.8	-90.26	-0.3	-66.0	66.0	38.5	27.51	2.399				
4,000.0	4,000.0	4,001.0	4,001.0	14.1	14.1	-90.26	-0.3	-66.0	66.0	37.8	28.23	2.338				
4,100.0	4,100.0	4,101.0	4,101.0	14.5	14.5	-90.26	-0.3	-66.0	66.0	37.1	28.95	2.280				
4,200.0	4,200.0	4,201.0	4,201.0	14.8	14.8	-90.26	-0.3	-66.0	66.0	36.3	29.67	2.225				
4,300.0	4,300.0	4,301.0	4,301.0	15.2	15.2	-90.26	-0.3	-66.0	66.0	35.6	30.38	2.172				
4,400.0	4,400.0	4,401.0	4,401.0	15.5	15.6	-90.26	-0.3	-66.0	66.0	34.9	31.10	2.122				
4,500.0	4,500.0	4,501.0	4,501.0	15.9	15.9	-90.26	-0.3	-66.0	66.0	34.2	31.82	2.074				
4,600.0	4,600.0	4,601.0	4,601.0	16.3	16.3	-90.26	-0.3	-66.0	66.0	33.5	32.53	2.029				
4,700.0	4,700.0	4,701.0	4,701.0	16.6	16.6	-90.26	-0.3	-66.0	66.0	32.8	33.25	1.985				
4,800.0	4,800.0	4,801.0	4,801.0	17.0	17.0	-90.26	-0.3	-66.0	66.0	32.0	33.97	1.943				
4,900.0	4,900.0	4,901.0	4,901.0	17.3	17.3	-90.26	-0.3	-66.0	66.0	31.3	34.68	1.903				
5,000.0	5,000.0	5,001.0	5,001.0	17.7	17.7	-90.26	-0.3	-66.0	66.0	30.6	35.40	1.864				
5,100.0	5,100.0	5,101.0	5,101.0	18.1	18.1	-90.26	-0.3	-66.0	66.0	29.9	36.12	1.827				
5,200.0	5,200.0	5,201.0	5,201.0	18.4	18.4	-77.20	-0.3	-66.0	66.0	29.1	36.83	1.790				
5,300.0	5,300.0	5,301.0	5,301.0	18.8	18.8	-78.69	-0.3	-66.0	65.6	28.0	37.55	1.747				
5,400.0	5,399.9	5,400.9	5,400.9	19.1	19.1	-81.71	-0.3	-66.0	65.0	26.7	38.27	1.698				
5,500.0	5,499.8	5,501.9	5,501.9	19.5	19.5	-86.42	-0.2	-65.1	63.6	24.6	38.97	1.631				
5,600.0	5,599.5	5,602.7	5,602.7	19.8	19.8	-93.19	0.1	-62.4	60.9	21.2	39.66	1.535				
5,700.0	5,699.2	5,703.2	5,703.0	20.2	20.2	-102.65	0.7	-58.0	57.8	17.4	40.34	1.432 Level 3				
5,800.0	5,798.6	5,803.3	5,803.0	20.6	20.5	-115.07	1.4	-51.9	55.4	14.4	41.03	1.351 Level 3				
5,885.0	5,883.2	5,888.2	5,887.6	20.9	20.8	-127.04	2.2	-45.4	54.7	13.1	41.62	1.314 Level 3, CC				
5,900.0	5,898.1	5,903.1	5,902.5	20.9	20.9	-129.25	2.4	-44.1	54.7	13.0	41.73	1.311 Level 3, ES, SF				
6,000.0	5,997.6	6,002.6	6,001.5	21.3	21.2	-144.40	3.5	-34.6	56.5	14.0	42.46	1.330 Level 3				
6,100.0	6,097.0	6,101.7	6,099.9	21.6	21.6	-159.28	4.9	-23.4	61.4	18.2	43.19	1.421 Level 3				
6,200.0	6,196.5	6,200.3	6,197.7	22.0	21.9	-172.66	6.4	-10.6	69.7	25.8	43.90	1.587				
6,300.0	6,296.0	6,298.4	6,294.7	22.4	22.3	176.05	8.2	3.8	81.2	36.7	44.58	1.822				
6,400.0	6,395.4	6,395.9	6,390.9	22.7	22.6	166.86	10.1	19.7	95.7	50.5	45.23	2.116				
6,500.0	6,494.9	6,492.8	6,486.2	23.1	23.0	159.43	12.2	37.1	112.7	66.9	45.85	2.459				
6,600.0	6,594.4	6,589.0	6,580.5	23.5	23.3	153.41	14.5	56.0	132.1	85.6	46.44	2.843				
6,700.0	6,693.8	6,685.9	6,675.3	23.8	23.7	148.59	16.9	76.1	153.1	106.0	47.07	3.252				
6,800.0	6,793.3	6,783.0	6,770.3	24.2	24.1	144.95	19.3	96.1	174.6	126.9	47.72	3.659				
6,900.0	6,893.0	6,880.3	6,865.4	24.6	24.4	141.89	21.8	116.2	195.5	147.2	48.38	4.041				
7,000.0	6,992.8	6,977.7	6,960.7	24.9	24.8	139.15	24.2	136.4	215.6	166.6	49.05	4.396				
7,100.0	7,092.6	7,075.3	7,056.1	25.3	25.2	136.61	26.7	156.5	234.9	185.2	49.72	4.724				

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #302H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
7,200.0	7,192.6	7,173.0	7,151.7	25.6	25.6	134.19	29.1	176.7	253.4	203.0	50.39	5.029			
7,300.0	7,292.6	7,270.8	7,247.3	26.0	26.0	131.84	31.6	196.9	271.1	220.1	51.06	5.311			
7,400.0	7,392.6	7,368.6	7,343.0	26.4	26.4	116.26	34.0	217.1	288.5	236.8	51.73	5.577			
7,500.0	7,492.6	7,466.4	7,438.6	26.7	26.8	114.14	36.5	237.3	306.3	253.9	52.40	5.844			
7,600.0	7,592.6	7,564.2	7,534.3	27.1	27.2	112.26	38.9	257.5	324.4	271.3	53.08	6.110			
7,700.0	7,692.6	7,662.0	7,630.0	27.4	27.6	110.57	41.4	277.8	342.8	289.0	53.77	6.375			
7,800.0	7,792.6	7,759.8	7,725.6	27.8	28.0	109.05	43.8	298.0	361.5	307.0	54.46	6.638			
7,900.0	7,892.6	7,857.6	7,821.3	28.1	28.4	107.69	46.3	318.2	380.4	325.2	55.14	6.897			
8,000.0	7,992.6	7,955.4	7,917.0	28.5	28.8	106.45	48.7	338.4	399.4	343.6	55.84	7.154			
8,100.0	8,092.6	8,053.2	8,012.6	28.9	29.2	105.32	51.2	358.6	418.7	362.2	56.53	7.407			
8,200.0	8,192.6	8,151.0	8,108.3	29.2	29.6	104.29	53.6	378.8	438.1	380.9	57.23	7.655			
8,300.0	8,292.6	8,248.8	8,204.0	29.6	30.0	103.35	56.1	399.0	457.6	399.7	57.92	7.900			
8,400.0	8,392.6	8,346.7	8,299.6	29.9	30.4	102.49	58.5	419.2	477.2	418.6	58.62	8.141			
8,500.0	8,492.6	8,444.5	8,395.3	30.3	30.8	101.69	61.0	439.5	497.0	437.7	59.32	8.377			
8,600.0	8,592.6	8,542.3	8,491.0	30.6	31.3	100.96	63.4	459.7	516.8	456.8	60.03	8.609			
8,700.0	8,692.6	8,640.1	8,586.6	31.0	31.7	100.28	65.9	479.9	536.7	475.9	60.73	8.837			
8,800.0	8,792.6	8,738.7	8,683.1	31.4	32.1	99.64	68.3	500.3	556.6	495.2	61.45	9.058			
8,900.0	8,892.6	8,847.1	8,789.3	31.7	32.6	99.03	70.9	521.5	575.6	513.3	62.34	9.234			
9,000.0	8,992.6	8,956.2	8,896.7	32.1	33.0	98.50	73.2	540.8	592.8	529.6	63.21	9.379			
9,100.0	9,092.6	9,066.0	9,005.1	32.4	33.5	98.06	75.4	558.3	608.3	544.2	64.08	9.493			
9,200.0	9,192.6	9,176.5	9,114.5	32.8	33.9	97.68	77.2	573.7	621.9	557.0	64.93	9.578			
9,300.0	9,292.6	9,287.5	9,224.7	33.1	34.4	97.37	78.9	587.1	633.7	567.9	65.77	9.636			
9,400.0	9,392.6	9,399.1	9,335.6	33.5	34.8	97.12	80.2	598.5	643.6	577.1	66.59	9.666			
9,500.0	9,492.6	9,511.0	9,447.2	33.9	35.2	96.92	81.3	607.7	651.7	584.3	67.39	9.670			
9,600.0	9,592.6	9,623.3	9,559.2	34.2	35.6	96.77	82.2	614.8	657.9	589.7	68.18	9.649			
9,700.0	9,692.6	9,735.8	9,671.6	34.6	36.0	96.67	82.8	619.7	662.1	593.2	68.95	9.604			
9,800.0	9,792.6	9,848.4	9,784.2	34.9	36.4	96.62	83.1	622.4	664.5	594.8	69.69	9.534			
9,900.0	9,892.6	9,957.8	9,893.6	35.3	36.8	96.61	83.2	623.0	665.0	594.6	70.42	9.444			
9,904.7	9,897.2	9,962.4	9,898.2	35.3	36.8	96.61	83.2	623.0	665.0	594.6	70.45	9.439			
10,000.0	9,992.6	10,054.4	9,990.2	35.6	37.1	96.65	82.7	623.0	665.1	594.0	71.12	9.352			
10,100.0	10,092.6	10,140.6	10,075.8	36.0	37.4	97.49	72.8	623.1	666.6	594.8	71.77	9.289			
10,200.0	10,192.6	10,222.1	10,154.4	36.4	37.6	99.28	51.7	623.2	670.8	598.4	72.36	9.270			
10,300.0	10,292.6	10,300.0	10,226.1	36.7	37.8	101.82	21.3	623.5	678.8	605.9	72.84	9.319			
10,400.0	10,392.6	10,362.1	10,279.8	37.1	38.0	104.37	-9.7	623.7	692.1	619.1	73.02	9.477			
10,500.0	10,492.6	10,419.4	10,326.2	37.4	38.1	107.06	-43.3	624.0	712.0	639.1	72.89	9.768			
10,600.0	10,592.6	10,468.7	10,363.2	37.8	38.2	109.59	-75.9	624.2	739.3	666.9	72.36	10.217			
10,700.0	10,692.6	10,511.1	10,392.7	38.1	38.3	111.89	-106.3	624.5	774.3	702.9	71.45	10.838			
10,800.0	10,792.6	10,550.0	10,417.8	38.5	38.4	-64.36	-136.1	624.7	816.7	746.4	70.27	11.621			
10,900.0	10,891.6	10,584.2	10,438.1	38.8	38.4	-58.40	-163.6	624.9	860.9	792.1	68.81	12.511			
11,000.0	10,986.8	10,622.3	10,458.7	39.1	38.5	-53.11	-195.6	625.1	903.2	835.8	67.34	13.413			
11,100.0	11,075.3	10,650.0	10,472.3	39.3	38.6	-49.03	-219.7	625.3	941.9	876.2	65.66	14.346			
11,200.0	11,154.5	10,700.0	10,493.9	39.6	38.6	-45.32	-264.8	625.7	975.1	910.6	64.52	15.114			
11,300.0	11,221.9	10,750.0	10,511.5	39.8	38.7	-42.60	-311.6	626.0	1,002.5	939.0	63.51	15.784			
11,400.0	11,275.5	10,783.3	10,521.0	40.0	38.8	-40.88	-343.5	626.3	1,022.8	960.3	62.49	16.367			
11,500.0	11,313.6	10,824.7	10,530.1	40.3	38.9	-39.78	-383.9	626.6	1,035.8	973.8	61.92	16.727			
11,600.0	11,335.1	10,866.3	10,536.3	40.6	39.0	-39.35	-425.0	626.9	1,041.0	979.2	61.74	16.861			
11,700.0	11,340.0	10,900.0	10,539.1	40.8	39.1	-39.46	-458.6	627.2	1,038.8	976.9	61.95	16.770			
11,800.0	11,340.0	10,975.2	10,540.0	41.2	39.4	-39.49	-533.7	627.7	1,037.9	975.4	62.46	16.616			
11,900.0	11,340.0	11,075.2	10,540.0	41.6	39.8	-39.49	-633.7	628.5	1,037.9	974.8	63.10	16.448			
12,000.0	11,340.0	11,175.2	10,540.0	42.0	40.2	-39.49	-733.7	629.3	1,037.9	974.1	63.82	16.262			
12,100.0	11,340.0	11,275.2	10,540.0	42.6	40.7	-39.49	-833.7	630.0	1,037.9	973.3	64.63	16.059			
12,200.0	11,340.0	11,375.2	10,540.0	43.1	41.3	-39.49	-933.7	630.8	1,037.9	972.4	65.51	15.842			

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Microsoft Anticollision Report



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Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #302H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Reference (usft)	Major Offset (usft)	Axis Highside Toolface (°)	Offset +N/-S (usft)	Wellbore +E/-W (usft)	Centre Between Centres (usft)	Distance Between Ellipses (usft)	Rule Assigned:	Minimum Separation (usft)	Separation Factor	Warning	
12,300.0	11,340.0	11,475.2	10,540.0	43.8	42.0	-39.49	-1,033.7	631.6	1,037.9	971.4		66.48	15.613		
12,400.0	11,340.0	11,575.2	10,540.0	44.4	42.7	-39.49	-1,133.7	632.3	1,037.9	970.4		67.51	15.373		
12,500.0	11,340.0	11,675.2	10,540.0	45.2	43.4	-39.49	-1,233.7	633.1	1,037.9	969.3		68.62	15.126		
12,600.0	11,340.0	11,775.2	10,540.0	46.0	44.2	-39.49	-1,333.7	633.9	1,037.9	968.1		69.79	14.871		
12,700.0	11,340.0	11,875.2	10,540.0	46.8	45.1	-39.49	-1,433.7	634.6	1,037.9	966.9		71.03	14.612		
12,800.0	11,340.0	11,975.2	10,540.0	47.7	46.0	-39.49	-1,533.7	635.4	1,037.9	965.6		72.33	14.350		
12,900.0	11,340.0	12,075.2	10,540.0	48.6	46.9	-39.49	-1,633.7	636.2	1,037.9	964.2		73.68	14.086		
13,000.0	11,340.0	12,175.2	10,540.0	49.5	47.9	-39.49	-1,733.7	636.9	1,037.9	962.8		75.09	13.822		
13,100.0	11,340.0	12,275.2	10,540.0	50.5	48.9	-39.49	-1,833.7	637.7	1,037.9	961.3		76.55	13.558		
13,200.0	11,340.0	12,375.2	10,540.0	51.5	50.0	-39.49	-1,933.7	638.5	1,037.9	959.8		78.06	13.296		
13,300.0	11,340.0	12,475.2	10,540.0	52.6	51.0	-39.49	-2,033.7	639.2	1,037.9	958.3		79.62	13.036		
13,400.0	11,340.0	12,575.2	10,540.0	53.7	52.1	-39.49	-2,133.7	640.0	1,037.9	956.7		81.21	12.780		
13,500.0	11,340.0	12,675.2	10,540.0	54.8	53.3	-39.49	-2,233.7	640.8	1,037.9	955.0		82.85	12.527		
13,600.0	11,340.0	12,775.2	10,540.0	55.9	54.5	-39.49	-2,333.7	641.5	1,037.9	953.4		84.53	12.279		
13,700.0	11,340.0	12,875.2	10,540.0	57.1	55.6	-39.49	-2,433.7	642.3	1,037.9	951.6		86.24	12.035		
13,800.0	11,340.0	12,975.2	10,540.0	58.3	56.9	-39.49	-2,533.7	643.1	1,037.9	949.9		87.99	11.796		
13,900.0	11,340.0	13,075.2	10,540.0	59.5	58.1	-39.49	-2,633.7	643.8	1,037.9	948.1		89.76	11.562		
14,000.0	11,340.0	13,175.2	10,540.0	60.7	59.3	-39.49	-2,733.7	644.6	1,037.9	946.3		91.57	11.334		
14,100.0	11,340.0	13,275.2	10,540.0	62.0	60.6	-39.49	-2,833.7	645.4	1,037.9	944.5		93.41	11.111		
14,200.0	11,340.0	13,375.2	10,540.0	63.2	61.9	-39.49	-2,933.7	646.1	1,037.9	942.6		95.27	10.894		
14,300.0	11,340.0	13,475.2	10,540.0	64.5	63.2	-39.49	-3,033.7	646.9	1,037.9	940.7		97.16	10.682		
14,400.0	11,340.0	13,575.2	10,540.0	65.8	64.5	-39.49	-3,133.7	647.7	1,037.9	938.8		99.07	10.476		
14,500.0	11,340.0	13,675.2	10,540.0	67.1	65.9	-39.49	-3,233.7	648.4	1,037.9	936.9		101.00	10.276		
14,600.0	11,340.0	13,775.2	10,540.0	68.5	67.2	-39.49	-3,333.7	649.2	1,037.9	934.9		102.96	10.081		
14,700.0	11,340.0	13,875.2	10,540.0	69.8	68.6	-39.49	-3,433.7	650.0	1,037.9	932.9		104.93	9.891		
14,800.0	11,340.0	13,975.2	10,540.0	71.2	70.0	-39.49	-3,533.7	650.7	1,037.9	931.0		106.93	9.706		
14,900.0	11,340.0	14,075.2	10,540.0	72.6	71.4	-39.49	-3,633.7	651.5	1,037.9	928.9		108.94	9.527		
15,000.0	11,340.0	14,175.2	10,540.0	73.9	72.8	-39.49	-3,733.7	652.3	1,037.9	926.9		110.97	9.353		
15,100.0	11,340.0	14,275.2	10,540.0	75.3	74.2	-39.49	-3,833.7	653.0	1,037.9	924.9		113.01	9.184		
15,200.0	11,340.0	14,375.2	10,540.0	76.8	75.6	-39.49	-3,933.6	653.8	1,037.9	922.8		115.07	9.019		
15,300.0	11,340.0	14,475.2	10,540.0	78.2	77.1	-39.49	-4,033.6	654.6	1,037.9	920.7		117.14	8.860		
15,400.0	11,340.0	14,575.2	10,540.0	79.6	78.5	-39.49	-4,133.6	655.3	1,037.9	918.6		119.23	8.705		
15,500.0	11,340.0	14,675.2	10,540.0	81.0	79.9	-39.49	-4,233.6	656.1	1,037.9	916.5		121.33	8.554		
15,600.0	11,340.0	14,775.2	10,540.0	82.5	81.4	-39.49	-4,333.6	656.9	1,037.9	914.4		123.44	8.408		
15,700.0	11,340.0	14,875.2	10,540.0	83.9	82.9	-39.49	-4,433.6	657.7	1,037.9	912.3		125.57	8.266		
15,800.0	11,340.0	14,975.2	10,540.0	85.4	84.3	-39.49	-4,533.6	658.4	1,037.9	910.2		127.70	8.127		
15,900.0	11,340.0	15,075.2	10,540.0	86.8	85.8	-39.49	-4,633.6	659.2	1,037.9	908.0		129.85	7.993		
16,000.0	11,340.0	15,175.2	10,540.0	88.3	87.3	-39.49	-4,733.6	660.0	1,037.9	905.9		132.00	7.863		
16,100.0	11,340.0	15,275.2	10,540.0	89.8	88.8	-39.49	-4,833.6	660.7	1,037.9	903.7		134.17	7.736		
16,200.0	11,340.0	15,375.2	10,540.0	91.3	90.3	-39.49	-4,933.6	661.5	1,037.9	901.5		136.34	7.612		
16,300.0	11,340.0	15,475.2	10,540.0	92.8	91.8	-39.49	-5,033.6	662.3	1,037.9	899.4		138.52	7.493		
16,400.0	11,340.0	15,575.2	10,540.0	94.3	93.3	-39.49	-5,133.6	663.0	1,037.9	897.2		140.71	7.376		
16,500.0	11,340.0	15,675.2	10,540.0	95.8	94.8	-39.49	-5,233.6	663.8	1,037.9	895.0		142.91	7.262		
16,600.0	11,340.0	15,775.2	10,540.0	97.3	96.3	-39.49	-5,333.6	664.6	1,037.9	892.8		145.11	7.152		
16,700.0	11,340.0	15,875.2	10,540.0	98.8	97.9	-39.49	-5,433.6	665.3	1,037.9	890.6		147.33	7.045		
16,800.0	11,340.0	15,975.2	10,540.0	100.3	99.4	-39.49	-5,533.6	666.1	1,037.9	888.3		149.55	6.940		
16,900.0	11,340.0	16,075.2	10,540.0	101.8	100.9	-39.49	-5,633.6	666.9	1,037.9	886.1		151.77	6.838		
17,000.0	11,340.0	16,175.2	10,540.0	103.3	102.5	-39.49	-5,733.6	667.6	1,037.9	883.9		154.00	6.739		
17,100.0	11,340.0	16,275.2	10,540.0	104.9	104.0	-39.49	-5,833.6	668.4	1,037.9	881.6		156.24	6.643		
17,200.0	11,340.0	16,375.2	10,540.0	106.4	105.5	-39.49	-5,933.6	669.2	1,037.9	879.4		158.49	6.549		
17,300.0	11,340.0	16,475.2	10,540.0	107.9	107.1	-39.49	-6,033.6	669.9	1,037.9	877.1		160.73	6.457		
17,400.0	11,340.0	16,575.2	10,540.0	109.5	108.6	-39.49	-6,133.6	670.7	1,037.9	874.9		162.99	6.368		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #302H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
17,500.0	11,340.0	16,675.2	10,540.0	111.0	110.2	-39.49	-6,233.6	671.5	1,037.9	872.6	165.25	6.281			
17,600.0	11,340.0	16,775.2	10,540.0	112.6	111.7	-39.49	-6,333.6	672.2	1,037.9	870.4	167.51	6.196			
17,700.0	11,340.0	16,875.2	10,540.0	114.1	113.3	-39.49	-6,433.6	673.0	1,037.9	868.1	169.78	6.113			
17,800.0	11,340.0	16,975.2	10,540.0	115.7	114.8	-39.49	-6,533.6	673.8	1,037.9	865.8	172.05	6.032			
17,900.0	11,340.0	17,075.2	10,540.0	117.2	116.4	-39.49	-6,633.6	674.5	1,037.9	863.5	174.33	5.953			
18,000.0	11,340.0	17,175.2	10,540.0	118.8	118.0	-39.49	-6,733.6	675.3	1,037.9	861.3	176.61	5.877			
18,100.0	11,340.0	17,275.2	10,540.0	120.3	119.5	-39.49	-6,833.6	676.1	1,037.9	859.0	178.90	5.801			
18,200.0	11,340.0	17,375.2	10,540.0	121.9	121.1	-39.49	-6,933.6	676.8	1,037.9	856.7	181.19	5.728			
18,300.0	11,340.0	17,475.2	10,540.0	123.5	122.7	-39.49	-7,033.6	677.6	1,037.9	854.4	183.48	5.657			
18,400.0	11,340.0	17,575.2	10,540.0	125.0	124.3	-39.49	-7,133.6	678.4	1,037.9	852.1	185.78	5.587			
18,500.0	11,340.0	17,675.2	10,540.0	126.6	125.8	-39.49	-7,233.6	679.1	1,037.9	849.8	188.08	5.518			
18,600.0	11,340.0	17,775.2	10,540.0	128.2	127.4	-39.49	-7,333.5	679.9	1,037.9	847.5	190.38	5.452			
18,700.0	11,340.0	17,875.2	10,540.0	129.7	129.0	-39.49	-7,433.5	680.7	1,037.9	845.2	192.69	5.386			
18,800.0	11,340.0	17,975.2	10,540.0	131.3	130.6	-39.49	-7,533.5	681.4	1,037.9	842.9	195.00	5.323			
18,900.0	11,340.0	18,075.2	10,540.0	132.9	132.2	-39.49	-7,633.5	682.2	1,037.9	840.6	197.31	5.260			
19,000.0	11,340.0	18,175.2	10,540.0	134.5	133.8	-39.49	-7,733.5	683.0	1,037.9	838.3	199.62	5.199			
19,100.0	11,340.0	18,275.2	10,540.0	136.1	135.3	-39.49	-7,833.5	683.7	1,037.9	835.9	201.94	5.139			
19,200.0	11,340.0	18,375.2	10,540.0	137.6	136.9	-39.49	-7,933.5	684.5	1,037.9	833.6	204.26	5.081			
19,300.0	11,340.0	18,475.2	10,540.0	139.2	138.5	-39.49	-8,033.5	685.3	1,037.9	831.3	206.59	5.024			
19,400.0	11,340.0	18,575.2	10,540.0	140.8	140.1	-39.49	-8,133.5	686.0	1,037.9	829.0	208.91	4.968			
19,500.0	11,340.0	18,675.2	10,540.0	142.4	141.7	-39.49	-8,233.5	686.8	1,037.9	826.6	211.24	4.913			
19,600.0	11,340.0	18,775.2	10,540.0	144.0	143.3	-39.49	-8,333.5	687.6	1,037.9	824.3	213.57	4.860			
19,700.0	11,340.0	18,875.2	10,540.0	145.6	144.9	-39.49	-8,433.5	688.3	1,037.9	822.0	215.90	4.807			
19,800.0	11,340.0	18,975.2	10,540.0	147.2	146.5	-39.49	-8,533.5	689.1	1,037.9	819.6	218.24	4.756			
19,900.0	11,340.0	19,075.2	10,540.0	148.8	148.1	-39.49	-8,633.5	689.9	1,037.9	817.3	220.57	4.705			
20,000.0	11,340.0	19,175.2	10,540.0	150.4	149.7	-39.49	-8,733.5	690.6	1,037.9	815.0	222.91	4.656			
20,100.0	11,340.0	19,275.2	10,540.0	152.0	151.3	-39.49	-8,833.5	691.4	1,037.9	812.6	225.25	4.608			
20,200.0	11,340.0	19,375.2	10,540.0	153.6	152.9	-39.49	-8,933.5	692.2	1,037.9	810.3	227.59	4.560			
20,300.0	11,340.0	19,475.2	10,540.0	155.2	154.5	-39.49	-9,033.5	692.9	1,037.9	807.9	229.94	4.514			
20,400.0	11,340.0	19,575.2	10,540.0	156.8	156.1	-39.49	-9,133.5	693.7	1,037.9	805.6	232.28	4.468			
20,500.0	11,340.0	19,675.2	10,540.0	158.4	157.7	-39.49	-9,233.5	694.5	1,037.9	803.2	234.63	4.423			
20,600.0	11,340.0	19,775.2	10,540.0	160.0	159.3	-39.49	-9,333.5	695.2	1,037.9	800.9	236.98	4.380			
20,700.0	11,340.0	19,875.2	10,540.0	161.6	160.9	-39.49	-9,433.5	696.0	1,037.9	798.5	239.33	4.337			
20,800.0	11,340.0	19,975.2	10,540.0	163.2	162.5	-39.49	-9,533.5	696.8	1,037.9	796.2	241.69	4.294			
20,900.0	11,340.0	20,075.2	10,540.0	164.8	164.2	-39.49	-9,633.5	697.5	1,037.9	793.8	244.04	4.253			
21,000.0	11,340.0	20,175.2	10,540.0	166.4	165.8	-39.49	-9,733.5	698.3	1,037.9	791.5	246.40	4.212			
21,100.0	11,340.0	20,275.2	10,540.0	168.0	167.4	-39.49	-9,833.5	699.1	1,037.9	789.1	248.75	4.172			
21,200.0	11,340.0	20,375.2	10,540.0	169.6	169.0	-39.49	-9,933.5	699.8	1,037.9	786.8	251.11	4.133			
21,300.0	11,340.0	20,475.2	10,540.0	171.2	170.6	-39.49	-10,033.5	700.6	1,037.9	784.4	253.47	4.095			
21,400.0	11,340.0	20,575.2	10,540.0	172.8	172.2	-39.49	-10,133.5	701.4	1,037.9	782.0	255.83	4.057			
21,500.0	11,340.0	20,675.2	10,540.0	174.4	173.8	-39.49	-10,233.5	702.1	1,037.9	779.7	258.20	4.020			
21,517.2	11,340.0	20,692.4	10,540.0	174.7	174.1	-39.49	-10,250.6	702.3	1,037.9	779.3	258.56	4.014			



Microsoft
Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #510H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
0.0	0.0	0.0	0.0	0.0	0.0	-90.35	-0.2	-33.0	33.0					
100.0	100.0	100.0	100.0	0.1	0.1	-90.35	-0.2	-33.0	33.0	32.7	0.27	123.569		
200.0	200.0	200.0	200.0	0.5	0.5	-90.35	-0.2	-33.0	33.0	32.0	0.98	33.537		
300.0	300.0	300.0	300.0	0.9	0.9	-90.35	-0.2	-33.0	33.0	31.3	1.70	19.401		
400.0	400.0	400.0	400.0	1.2	1.2	-90.35	-0.2	-33.0	33.0	30.6	2.42	13.649		
500.0	500.0	500.0	500.0	1.6	1.6	-90.35	-0.2	-33.0	33.0	29.9	3.13	10.527		
600.0	600.0	600.0	600.0	1.9	1.9	-90.35	-0.2	-33.0	33.0	29.1	3.85	8.568		
700.0	700.0	700.0	700.0	2.3	2.3	-90.35	-0.2	-33.0	33.0	28.4	4.57	7.223		
800.0	800.0	800.0	800.0	2.6	2.6	-90.35	-0.2	-33.0	33.0	27.7	5.29	6.243		
900.0	900.0	900.0	900.0	3.0	3.0	-90.35	-0.2	-33.0	33.0	27.0	6.00	5.498		
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	-90.35	-0.2	-33.0	33.0	26.3	6.72	4.911		
1,100.0	1,100.0	1,100.0	1,100.0	3.7	3.7	-90.35	-0.2	-33.0	33.0	25.6	7.44	4.438		
1,200.0	1,200.0	1,200.0	1,200.0	4.1	4.1	-90.35	-0.2	-33.0	33.0	24.8	8.15	4.047		
1,300.0	1,300.0	1,300.0	1,300.0	4.4	4.4	-90.35	-0.2	-33.0	33.0	24.1	8.87	3.720		
1,400.0	1,400.0	1,400.0	1,400.0	4.8	4.8	-90.35	-0.2	-33.0	33.0	23.4	9.59	3.442		
1,500.0	1,500.0	1,500.0	1,500.0	5.2	5.2	-90.35	-0.2	-33.0	33.0	22.7	10.30	3.203		
1,600.0	1,600.0	1,600.0	1,600.0	5.5	5.5	-90.35	-0.2	-33.0	33.0	22.0	11.02	2.994		
1,700.0	1,700.0	1,700.0	1,700.0	5.9	5.9	-90.35	-0.2	-33.0	33.0	21.3	11.74	2.811		
1,800.0	1,800.0	1,800.0	1,800.0	6.2	6.2	-90.35	-0.2	-33.0	33.0	20.5	12.46	2.650		
1,900.0	1,900.0	1,900.0	1,900.0	6.6	6.6	-90.35	-0.2	-33.0	33.0	19.8	13.17	2.505		
2,000.0	2,000.0	2,000.0	2,000.0	6.9	6.9	-90.35	-0.2	-33.0	33.0	19.1	13.89	2.376		
2,100.0	2,100.0	2,100.0	2,100.0	7.3	7.3	-90.35	-0.2	-33.0	33.0	18.4	14.61	2.259		
2,200.0	2,200.0	2,200.0	2,200.0	7.7	7.7	-90.35	-0.2	-33.0	33.0	17.7	15.32	2.154		
2,300.0	2,300.0	2,300.0	2,300.0	8.0	8.0	-90.35	-0.2	-33.0	33.0	17.0	16.04	2.057		
2,400.0	2,400.0	2,400.0	2,400.0	8.4	8.4	-90.35	-0.2	-33.0	33.0	16.2	16.76	1.969		
2,500.0	2,500.0	2,500.0	2,500.0	8.7	8.7	-90.35	-0.2	-33.0	33.0	15.5	17.47	1.889		
2,600.0	2,600.0	2,600.0	2,600.0	9.1	9.1	-90.35	-0.2	-33.0	33.0	14.8	18.19	1.814		
2,700.0	2,700.0	2,700.0	2,700.0	9.5	9.5	-90.35	-0.2	-33.0	33.0	14.1	18.91	1.745		
2,800.0	2,800.0	2,800.0	2,800.0	9.8	9.8	-90.35	-0.2	-33.0	33.0	13.4	19.62	1.682		
2,900.0	2,900.0	2,900.0	2,900.0	10.2	10.2	-90.35	-0.2	-33.0	33.0	12.7	20.34	1.622		
3,000.0	3,000.0	3,000.0	3,000.0	10.5	10.5	-90.35	-0.2	-33.0	33.0	11.9	21.06	1.567		
3,100.0	3,100.0	3,100.0	3,100.0	10.9	10.9	-90.35	-0.2	-33.0	33.0	11.2	21.78	1.516		
3,200.0	3,200.0	3,200.0	3,200.0	11.2	11.2	-90.35	-0.2	-33.0	33.0	10.5	22.49	1.467 Level 3		
3,300.0	3,300.0	3,300.0	3,300.0	11.6	11.6	-90.35	-0.2	-33.0	33.0	9.8	23.21	1.422 Level 3		
3,400.0	3,400.0	3,400.0	3,400.0	12.0	12.0	-90.35	-0.2	-33.0	33.0	9.1	23.93	1.379 Level 3		
3,500.0	3,500.0	3,500.0	3,500.0	12.3	12.3	-90.35	-0.2	-33.0	33.0	8.4	24.64	1.339 Level 3		
3,600.0	3,600.0	3,600.0	3,600.0	12.7	12.7	-90.35	-0.2	-33.0	33.0	7.6	25.36	1.301 Level 3		
3,700.0	3,700.0	3,700.0	3,700.0	13.0	13.0	-90.35	-0.2	-33.0	33.0	6.9	26.08	1.266 Level 3		
3,800.0	3,800.0	3,800.0	3,800.0	13.4	13.4	-90.35	-0.2	-33.0	33.0	6.2	26.79	1.232 Level 2		
3,900.0	3,900.0	3,900.0	3,900.0	13.8	13.8	-90.35	-0.2	-33.0	33.0	5.5	27.51	1.200 Level 2		
4,000.0	4,000.0	4,000.0	4,000.0	14.1	14.1	-90.35	-0.2	-33.0	33.0	4.8	28.23	1.169 Level 2		
4,100.0	4,100.0	4,100.0	4,100.0	14.5	14.5	-90.35	-0.2	-33.0	33.0	4.1	28.94	1.140 Level 2		
4,200.0	4,200.0	4,200.0	4,200.0	14.8	14.8	-90.35	-0.2	-33.0	33.0	3.3	29.66	1.113 Level 2		
4,300.0	4,300.0	4,300.0	4,300.0	15.2	15.2	-90.35	-0.2	-33.0	33.0	2.6	30.38	1.086 Level 2		
4,400.0	4,400.0	4,400.0	4,400.0	15.5	15.5	-90.35	-0.2	-33.0	33.0	1.9	31.10	1.061 Level 2		
4,500.0	4,500.0	4,500.0	4,500.0	15.9	15.9	-90.35	-0.2	-33.0	33.0	1.2	31.81	1.037 Level 2		
4,600.0	4,600.0	4,600.0	4,600.0	16.3	16.3	-90.35	-0.2	-33.0	33.0	0.5	32.53	1.014 Level 2		
4,700.0	4,700.0	4,700.0	4,700.0	16.6	16.6	-90.35	-0.2	-33.0	33.0	-0.2	33.25	0.993 Level 1		
4,800.0	4,800.0	4,800.0	4,800.0	17.0	17.0	-90.35	-0.2	-33.0	33.0	-1.0	33.96	0.972 Level 1		
4,900.0	4,900.0	4,900.0	4,900.0	17.3	17.3	-90.35	-0.2	-33.0	33.0	-1.7	34.68	0.952 Level 1		
5,000.0	5,000.0	5,000.0	5,000.0	17.7	17.7	-90.35	-0.2	-33.0	33.0	-2.4	35.40	0.932 Level 1		
5,100.0	5,100.0	5,100.0	5,100.0	18.1	18.1	-90.35	-0.2	-33.0	33.0	-3.1	36.11	0.914 Level 1		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #510H - OWB - Plan 0.1														Offset Site Error:	0.0 usft	
Survey Program: Reference		0-MWD		Offset			Semi Major Axis			Offset Wellbore Centre			Rule Assigned: Distance		Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning			
5,200.0	5,200.0	5,200.0	5,200.0	18.4	18.4	-77.47	-0.2	-33.0	33.0	-3.9	36.83	0.895	Level 1			
5,300.0	5,300.0	5,300.0	5,300.0	18.8	18.8	-80.47	-0.2	-33.0	32.6	-4.9	37.55	0.869	Level 1			
5,400.0	5,399.9	5,399.9	5,399.9	19.1	19.1	-86.60	-0.2	-33.0	32.2	-6.0	38.26	0.842	Level 1			
5,500.0	5,499.8	5,499.9	5,499.9	19.5	19.5	-94.30	0.7	-33.0	32.1	-6.9	38.98	0.823	Level 1			
5,514.5	5,514.3	5,514.5	5,514.5	19.5	19.5	-95.41	1.0	-33.1	32.1	-7.0	39.08	0.821	Level 1			
5,600.0	5,599.5	5,600.0	5,600.0	19.8	19.8	-101.91	3.5	-33.2	32.2	-7.5	39.69	0.810	Level 1			
5,700.0	5,699.2	5,700.2	5,700.1	20.2	20.2	-109.40	8.2	-33.4	32.4	-8.0	40.40	0.803	Level 1			
5,800.0	5,798.6	5,800.5	5,800.1	20.6	20.6	-116.32	14.8	-33.6	32.7	-8.4	41.09	0.797	Level 1			
5,900.0	5,898.1	5,900.8	5,900.1	20.9	20.9	-120.84	23.2	-34.0	32.3	-9.5	41.78	0.774	Level 1			
6,000.0	5,997.6	6,001.1	5,999.8	21.3	21.3	-123.16	33.4	-34.4	30.9	-11.6	42.47	0.727	Level 1			
6,100.0	6,097.0	6,101.1	6,099.3	21.6	21.6	-125.14	44.0	-34.9	29.2	-14.0	43.19	0.675	Level 1			
6,200.0	6,196.5	6,201.1	6,198.7	22.0	22.0	-127.36	54.6	-35.3	27.5	-16.4	43.90	0.626	Level 1			
6,300.0	6,296.0	6,301.0	6,298.1	22.4	22.4	-129.87	65.2	-35.7	25.9	-18.8	44.61	0.580	Level 1			
6,400.0	6,395.4	6,401.0	6,397.5	22.7	22.7	-132.71	75.8	-36.2	24.3	-21.0	45.32	0.536	Level 1			
6,500.0	6,494.9	6,500.8	6,496.7	23.1	23.1	-136.43	86.0	-36.6	23.1	-22.9	46.06	0.502	Level 1			
6,525.3	6,520.0	6,525.9	6,521.8	23.2	23.2	-137.77	88.3	-36.7	23.1	-23.2	46.25	0.499 Level 1, CC, SF				
6,600.0	6,594.4	6,600.4	6,596.0	23.5	23.4	-142.55	94.4	-37.0	23.6	-23.2	46.80	0.504 Level 1, ES				
6,700.0	6,693.8	6,700.0	6,695.4	23.8	23.8	-149.82	101.0	-37.2	26.1	-21.5	47.53	0.548	Level 1			
6,800.0	6,793.3	6,799.2	6,794.5	24.2	24.2	-156.31	105.8	-37.4	30.4	-17.9	48.27	0.630	Level 1			
6,900.0	6,893.0	6,898.4	6,893.7	24.6	24.5	-160.73	108.6	-37.6	35.4	-13.6	48.99	0.722	Level 1			
7,000.0	6,992.8	6,997.6	6,992.8	24.9	24.9	-163.61	109.7	-37.6	40.7	-9.0	49.70	0.819	Level 1			
7,100.0	7,092.6	7,097.4	7,092.6	25.3	25.2	-165.38	109.7	-37.6	45.4	-5.0	50.41	0.901	Level 1			
7,200.0	7,192.6	7,197.4	7,192.6	25.6	25.6	-166.33	109.7	-37.6	48.5	-2.6	51.13	0.949	Level 1			
7,300.0	7,292.6	7,297.4	7,292.6	26.0	25.9	-166.73	109.7	-37.6	49.9	-1.9	51.84	0.963	Level 1			
7,400.0	7,392.6	7,397.3	7,392.6	26.4	26.3	180.00	109.7	-37.6	50.0	-2.6	52.56	0.951	Level 1			
7,500.0	7,492.6	7,497.3	7,492.6	26.7	26.7	180.00	109.7	-37.6	50.0	-3.3	53.28	0.939	Level 1			
7,600.0	7,592.6	7,597.3	7,592.6	27.1	27.0	180.00	109.7	-37.6	50.0	-4.0	53.99	0.926	Level 1			
7,700.0	7,692.6	7,697.3	7,692.6	27.4	27.4	180.00	109.7	-37.6	50.0	-4.7	54.71	0.914	Level 1			
7,800.0	7,792.6	7,797.3	7,792.6	27.8	27.7	180.00	109.7	-37.6	50.0	-5.4	55.42	0.902	Level 1			
7,900.0	7,892.6	7,897.3	7,892.6	28.1	28.1	180.00	109.7	-37.6	50.0	-6.1	56.14	0.891	Level 1			
8,000.0	7,992.6	7,997.3	7,992.6	28.5	28.4	180.00	109.7	-37.6	50.0	-6.9	56.86	0.879	Level 1			
8,100.0	8,092.6	8,097.3	8,092.6	28.9	28.8	180.00	109.7	-37.6	50.0	-7.6	57.57	0.868	Level 1			
8,200.0	8,192.6	8,197.3	8,192.6	29.2	29.2	180.00	109.7	-37.6	50.0	-8.3	58.29	0.858	Level 1			
8,300.0	8,292.6	8,297.3	8,292.6	29.6	29.5	180.00	109.7	-37.6	50.0	-9.0	59.01	0.847	Level 1			
8,400.0	8,392.6	8,397.3	8,392.6	29.9	29.9	180.00	109.7	-37.6	50.0	-9.7	59.72	0.837	Level 1			
8,500.0	8,492.6	8,497.3	8,492.6	30.3	30.2	180.00	109.7	-37.6	50.0	-10.4	60.44	0.827	Level 1			
8,600.0	8,592.6	8,597.3	8,592.6	30.6	30.6	180.00	109.7	-37.6	50.0	-11.2	61.16	0.818	Level 1			
8,700.0	8,692.6	8,697.3	8,692.6	31.0	31.0	180.00	109.7	-37.6	50.0	-11.9	61.87	0.808	Level 1			
8,800.0	8,792.6	8,797.3	8,792.6	31.4	31.3	180.00	109.7	-37.6	50.0	-12.6	62.59	0.799	Level 1			
8,900.0	8,892.6	8,897.3	8,892.6	31.7	31.7	180.00	109.7	-37.6	50.0	-13.3	63.30	0.790	Level 1			
9,000.0	8,992.6	8,997.3	8,992.6	32.1	32.0	180.00	109.7	-37.6	50.0	-14.0	64.02	0.781	Level 1			
9,100.0	9,092.6	9,097.3	9,092.6	32.4	32.4	180.00	109.7	-37.6	50.0	-14.7	64.74	0.772	Level 1			
9,200.0	9,192.6	9,197.3	9,192.6	32.8	32.7	180.00	109.7	-37.6	50.0	-15.5	65.45	0.764	Level 1			
9,300.0	9,292.6	9,297.3	9,292.6	33.1	33.1	180.00	109.7	-37.6	50.0	-16.2	66.17	0.756	Level 1			
9,400.0	9,392.6	9,397.3	9,392.6	33.5	33.5	180.00	109.7	-37.6	50.0	-16.9	66.89	0.748	Level 1			
9,500.0	9,492.6	9,497.3	9,492.6	33.9	33.8	180.00	109.7	-37.6	50.0	-17.6	67.60	0.740	Level 1			
9,600.0	9,592.6	9,597.3	9,592.6	34.2	34.2	180.00	109.7	-37.6	50.0	-18.3	68.32	0.732	Level 1			
9,700.0	9,692.6	9,697.3	9,692.6	34.6	34.5	180.00	109.7	-37.6	50.0	-19.0	69.04	0.724	Level 1			
9,800.0	9,792.6	9,797.3	9,792.6	34.9	34.9	180.00	109.7	-37.6	50.0	-19.8	69.75	0.717	Level 1			
9,900.0	9,892.6	9,897.3	9,892.6	35.3	35.2	180.00	109.7	-37.6	50.0	-20.5	70.47	0.710	Level 1			
10,000.0	9,992.6	9,997.3	9,992.6	35.6	35.6	180.00	109.7	-37.6	50.0	-21.2	71.19	0.702	Level 1			
10,005.2	9,997.8	10,002.6	9,997.8	35.7	35.6	180.00	109.7	-37.6	50.0	-21.2	71.22	0.702	Level 1			

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #510H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,100.0	10,092.6	10,095.3	10,090.5	36.0	36.0	180.00	109.2	-37.6	50.5	-21.3	71.82	0.703	Level 1	
10,200.0	10,192.6	10,185.7	10,180.2	36.4	36.2	179.92	98.4	-37.5	62.5	-8.9	71.40	0.876	Level 1	
10,300.0	10,292.6	10,270.8	10,262.1	36.7	36.5	179.82	75.5	-37.3	89.6	19.7	69.89	1.282	Level 3	
10,400.0	10,392.6	10,350.0	10,334.4	37.1	36.7	179.75	43.5	-37.1	130.0	61.9	68.10	1.909		
10,500.0	10,492.6	10,415.2	10,390.2	37.4	36.9	179.71	9.8	-36.8	181.5	116.3	65.18	2.784		
10,600.0	10,592.6	10,473.3	10,436.5	37.8	37.0	179.68	-25.3	-36.6	242.1	179.4	62.70	3.861		
10,700.0	10,692.6	10,523.0	10,473.0	38.1	37.1	179.66	-59.0	-36.3	309.9	249.5	60.41	5.130		
10,800.0	10,792.6	10,565.5	10,501.9	38.5	37.3	0.08	-90.2	-36.1	383.0	324.6	58.39	6.559		
10,900.0	10,891.6	10,600.0	10,523.5	38.8	37.3	0.06	-117.0	-35.9	452.4	396.6	55.80	8.107		
11,000.0	10,986.8	10,650.0	10,552.0	39.1	37.5	0.05	-158.1	-35.5	514.0	459.7	54.26	9.472		
11,100.0	11,075.3	10,700.0	10,576.7	39.3	37.6	0.04	-201.5	-35.2	567.6	515.1	52.55	10.802		
11,200.0	11,154.5	10,750.0	10,597.6	39.6	37.8	0.04	-247.0	-34.9	612.9	562.1	50.79	12.067		
11,300.0	11,221.9	10,781.5	10,608.6	39.8	37.8	0.03	-276.4	-34.6	648.7	600.4	48.32	13.424		
11,400.0	11,275.5	10,826.1	10,621.5	40.0	38.0	0.03	-319.1	-34.3	675.7	628.9	46.76	14.449		
11,500.0	11,313.6	10,870.9	10,631.1	40.3	38.1	0.03	-362.9	-34.0	693.2	647.7	45.57	15.213		
11,600.0	11,335.1	10,915.8	10,637.2	40.6	38.3	0.03	-407.4	-33.6	701.2	656.4	44.84	15.640		
11,700.0	11,340.0	10,960.8	10,639.9	40.8	38.4	0.03	-452.2	-33.3	700.2	655.6	44.64	15.687		
11,744.1	11,340.0	10,991.5	10,640.0	41.0	38.5	0.03	-482.9	-33.0	700.0	655.3	44.74	15.647		
11,800.0	11,340.0	11,047.4	10,640.0	41.2	38.7	0.03	-538.8	-32.6	700.0	655.1	44.90	15.590		
11,900.0	11,340.0	11,147.4	10,640.0	41.6	39.1	0.03	-638.8	-31.8	700.0	654.8	45.24	15.474		
12,000.0	11,340.0	11,247.4	10,640.0	42.0	39.6	0.03	-738.8	-31.1	700.0	654.4	45.62	15.343		
12,100.0	11,340.0	11,347.4	10,640.0	42.6	40.1	0.03	-838.8	-30.3	700.0	653.9	46.06	15.198		
12,200.0	11,340.0	11,447.4	10,640.0	43.1	40.7	0.03	-938.8	-29.5	700.0	653.5	46.55	15.039		
12,300.0	11,340.0	11,547.4	10,640.0	43.8	41.4	0.03	-1,038.8	-28.7	700.0	652.9	47.08	14.868		
12,400.0	11,340.0	11,647.4	10,640.0	44.4	42.1	0.03	-1,138.8	-28.0	700.0	652.3	47.66	14.688		
12,500.0	11,340.0	11,747.4	10,640.0	45.2	42.9	0.03	-1,238.8	-27.2	700.0	651.7	48.28	14.498		
12,600.0	11,340.0	11,847.4	10,640.0	46.0	43.7	0.03	-1,338.8	-26.4	700.0	651.1	48.95	14.301		
12,700.0	11,340.0	11,947.4	10,640.0	46.8	44.6	0.03	-1,438.8	-25.7	700.0	650.3	49.66	14.097		
12,800.0	11,340.0	12,047.4	10,640.0	47.7	45.5	0.03	-1,538.8	-24.9	700.0	649.6	50.40	13.889		
12,900.0	11,340.0	12,147.4	10,640.0	48.6	46.4	0.03	-1,638.8	-24.1	700.0	648.8	51.18	13.676		
13,000.0	11,340.0	12,247.4	10,640.0	49.5	47.4	0.03	-1,738.8	-23.4	700.0	648.0	52.00	13.461		
13,100.0	11,340.0	12,347.4	10,640.0	50.5	48.4	0.03	-1,838.8	-22.6	700.0	647.1	52.86	13.244		
13,200.0	11,340.0	12,447.4	10,640.0	51.5	49.5	0.03	-1,938.8	-21.8	700.0	646.3	53.74	13.025		
13,300.0	11,340.0	12,547.4	10,640.0	52.6	50.6	0.02	-2,038.8	-21.0	700.0	645.3	54.66	12.807		
13,400.0	11,340.0	12,647.4	10,640.0	53.7	51.7	0.02	-2,138.8	-20.3	700.0	644.4	55.60	12.590		
13,500.0	11,340.0	12,747.4	10,640.0	54.8	52.8	0.02	-2,238.8	-19.5	700.0	643.4	56.57	12.373		
13,600.0	11,340.0	12,847.4	10,640.0	55.9	54.0	0.02	-2,338.8	-18.7	700.0	642.4	57.57	12.158		
13,700.0	11,340.0	12,947.4	10,640.0	57.1	55.2	0.02	-2,438.8	-18.0	700.0	641.4	58.60	11.946		
13,800.0	11,340.0	13,047.4	10,640.0	58.3	56.4	0.02	-2,538.8	-17.2	700.0	640.4	59.65	11.736		
13,900.0	11,340.0	13,147.4	10,640.0	59.5	57.7	0.02	-2,638.8	-16.4	700.0	639.3	60.72	11.529		
14,000.0	11,340.0	13,247.4	10,640.0	60.7	58.9	0.02	-2,738.7	-15.6	700.0	638.2	61.81	11.325		
14,100.0	11,340.0	13,347.4	10,640.0	62.0	60.2	0.02	-2,838.7	-14.9	700.0	637.1	62.92	11.125		
14,200.0	11,340.0	13,447.4	10,640.0	63.2	61.5	0.02	-2,938.7	-14.1	700.0	635.9	64.05	10.929		
14,300.0	11,340.0	13,547.4	10,640.0	64.5	62.8	0.02	-3,038.7	-13.3	700.0	634.8	65.20	10.736		
14,400.0	11,340.0	13,647.4	10,640.0	65.8	64.2	0.02	-3,138.7	-12.6	700.0	633.6	66.37	10.548		
14,500.0	11,340.0	13,747.4	10,640.0	67.1	65.5	0.02	-3,238.7	-11.8	700.0	632.5	67.55	10.363		
14,600.0	11,340.0	13,847.4	10,640.0	68.5	66.9	0.02	-3,338.7	-11.0	700.0	631.3	68.75	10.182		
14,700.0	11,340.0	13,947.4	10,640.0	69.8	68.3	0.02	-3,438.7	-10.2	700.0	630.0	69.96	10.006		
14,800.0	11,340.0	14,047.4	10,640.0	71.2	69.6	0.02	-3,538.7	-9.5	700.0	628.8	71.19	9.833		
14,900.0	11,340.0	14,147.4	10,640.0	72.6	71.0	0.02	-3,638.7	-8.7	700.0	627.6	72.43	9.665		
15,000.0	11,340.0	14,247.4	10,640.0	73.9	72.4	0.02	-3,738.7	-7.9	700.0	626.3	73.68	9.501		
15,100.0	11,340.0	14,347.4	10,640.0	75.3	73.9	0.02	-3,838.7	-7.2	700.0	625.1	74.94	9.340		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #510H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
15,200.0	11,340.0	14,447.4	10,640.0	76.8	75.3	0.02	-3,938.7	-6.4	700.0	623.8	76.22	9.184		
15,300.0	11,340.0	14,547.4	10,640.0	78.2	76.7	0.02	-4,038.7	-5.6	700.0	622.5	77.51	9.032		
15,400.0	11,340.0	14,647.4	10,640.0	79.6	78.2	0.02	-4,138.7	-4.9	700.0	621.2	78.80	8.883		
15,500.0	11,340.0	14,747.4	10,640.0	81.0	79.6	0.02	-4,238.7	-4.1	700.0	619.9	80.11	8.738		
15,600.0	11,340.0	14,847.4	10,640.0	82.5	81.1	0.02	-4,338.7	-3.3	700.0	618.6	81.43	8.597		
15,700.0	11,340.0	14,947.4	10,640.0	83.9	82.6	0.02	-4,438.7	-2.5	700.0	617.3	82.75	8.459		
15,800.0	11,340.0	15,047.4	10,640.0	85.4	84.1	0.02	-4,538.7	-1.8	700.0	615.9	84.08	8.325		
15,900.0	11,340.0	15,147.4	10,640.0	86.8	85.5	0.02	-4,638.7	-1.0	700.0	614.6	85.42	8.194		
16,000.0	11,340.0	15,247.4	10,640.0	88.3	87.0	0.02	-4,738.7	-0.2	700.0	613.2	86.77	8.067		
16,100.0	11,340.0	15,347.4	10,640.0	89.8	88.5	0.02	-4,838.7	0.5	700.0	611.9	88.13	7.943		
16,200.0	11,340.0	15,447.4	10,640.0	91.3	90.0	0.02	-4,938.7	1.3	700.0	610.5	89.49	7.822		
16,300.0	11,340.0	15,547.4	10,640.0	92.8	91.5	0.02	-5,038.7	2.1	700.0	609.1	90.86	7.704		
16,400.0	11,340.0	15,647.4	10,640.0	94.3	93.0	0.02	-5,138.7	2.9	700.0	607.8	92.24	7.589		
16,500.0	11,340.0	15,747.4	10,640.0	95.8	94.6	0.02	-5,238.7	3.6	700.0	606.4	93.62	7.477		
16,600.0	11,340.0	15,847.4	10,640.0	97.3	96.1	0.01	-5,338.7	4.4	700.0	605.0	95.01	7.368		
16,700.0	11,340.0	15,947.4	10,640.0	98.8	97.6	0.01	-5,438.7	5.2	700.0	603.6	96.40	7.261		
16,800.0	11,340.0	16,047.4	10,640.0	100.3	99.1	0.01	-5,538.7	5.9	700.0	602.2	97.80	7.157		
16,900.0	11,340.0	16,147.4	10,640.0	101.8	100.7	0.01	-5,638.7	6.7	700.0	600.8	99.20	7.056		
17,000.0	11,340.0	16,247.4	10,640.0	103.3	102.2	0.01	-5,738.7	7.5	700.0	599.4	100.61	6.957		
17,100.0	11,340.0	16,347.4	10,640.0	104.9	103.8	0.01	-5,838.7	8.3	700.0	598.0	102.03	6.861		
17,200.0	11,340.0	16,447.4	10,640.0	106.4	105.3	0.01	-5,938.7	9.0	700.0	596.6	103.44	6.767		
17,300.0	11,340.0	16,547.4	10,640.0	107.9	106.8	0.01	-6,038.7	9.8	700.0	595.1	104.87	6.675		
17,400.0	11,340.0	16,647.4	10,640.0	109.5	108.4	0.01	-6,138.6	10.6	700.0	593.7	106.29	6.586		
17,500.0	11,340.0	16,747.4	10,640.0	111.0	110.0	0.01	-6,238.6	11.3	700.0	592.3	107.72	6.498		
17,600.0	11,340.0	16,847.4	10,640.0	112.6	111.5	0.01	-6,338.6	12.1	700.0	590.8	109.16	6.413		
17,700.0	11,340.0	16,947.4	10,640.0	114.1	113.1	0.01	-6,438.6	12.9	700.0	589.4	110.60	6.329		
17,800.0	11,340.0	17,047.4	10,640.0	115.7	114.6	0.01	-6,538.6	13.6	700.0	588.0	112.04	6.248		
17,900.0	11,340.0	17,147.4	10,640.0	117.2	116.2	0.01	-6,638.6	14.4	700.0	586.5	113.48	6.168		
18,000.0	11,340.0	17,247.4	10,640.0	118.8	117.8	0.01	-6,738.6	15.2	700.0	585.1	114.93	6.091		
18,100.0	11,340.0	17,347.4	10,640.0	120.3	119.3	0.01	-6,838.6	16.0	700.0	583.6	116.38	6.015		
18,200.0	11,340.0	17,447.4	10,640.0	121.9	120.9	0.01	-6,938.6	16.7	700.0	582.2	117.84	5.940		
18,300.0	11,340.0	17,547.4	10,640.0	123.5	122.5	0.01	-7,038.6	17.5	700.0	580.7	119.29	5.868		
18,400.0	11,340.0	17,647.4	10,640.0	125.0	124.1	0.01	-7,138.6	18.3	700.0	579.2	120.75	5.797		
18,500.0	11,340.0	17,747.4	10,640.0	126.6	125.6	0.01	-7,238.6	19.0	700.0	577.8	122.22	5.728		
18,600.0	11,340.0	17,847.4	10,640.0	128.2	127.2	0.01	-7,338.6	19.8	700.0	576.3	123.68	5.660		
18,700.0	11,340.0	17,947.4	10,640.0	129.7	128.8	0.01	-7,438.6	20.6	700.0	574.9	125.15	5.593		
18,800.0	11,340.0	18,047.4	10,640.0	131.3	130.4	0.01	-7,538.6	21.4	700.0	573.4	126.62	5.528		
18,900.0	11,340.0	18,147.4	10,640.0	132.9	132.0	0.01	-7,638.6	22.1	700.0	571.9	128.09	5.465		
19,000.0	11,340.0	18,247.4	10,640.0	134.5	133.6	0.01	-7,738.6	22.9	700.0	570.4	129.57	5.403		
19,100.0	11,340.0	18,347.4	10,640.0	136.1	135.2	0.01	-7,838.6	23.7	700.0	569.0	131.04	5.342		
19,200.0	11,340.0	18,447.4	10,640.0	137.6	136.7	0.01	-7,938.6	24.4	700.0	567.5	132.52	5.282		
19,300.0	11,340.0	18,547.4	10,640.0	139.2	138.3	0.01	-8,038.6	25.2	700.0	566.0	134.01	5.224		
19,400.0	11,340.0	18,647.4	10,640.0	140.8	139.9	0.01	-8,138.6	26.0	700.0	564.5	135.49	5.166		
19,500.0	11,340.0	18,747.4	10,640.0	142.4	141.5	0.01	-8,238.6	26.8	700.0	563.0	136.97	5.110		
19,600.0	11,340.0	18,847.4	10,640.0	144.0	143.1	0.01	-8,338.6	27.5	700.0	561.5	138.46	5.056		
19,700.0	11,340.0	18,947.4	10,640.0	145.6	144.7	0.01	-8,438.6	28.3	700.0	560.1	139.95	5.002		
19,800.0	11,340.0	19,047.4	10,640.0	147.2	146.3	0.01	-8,538.6	29.1	700.0	558.6	141.44	4.949		
19,900.0	11,340.0	19,147.4	10,640.0	148.8	147.9	0.00	-8,638.6	29.8	700.0	557.1	142.93	4.897		
20,000.0	11,340.0	19,247.4	10,640.0	150.4	149.5	0.00	-8,738.6	30.6	700.0	555.6	144.43	4.847		
20,100.0	11,340.0	19,347.4	10,640.0	152.0	151.1	0.00	-8,838.6	31.4	700.0	554.1	145.92	4.797		
20,200.0	11,340.0	19,447.4	10,640.0	153.6	152.7	0.00	-8,938.6	32.1	700.0	552.6	147.42	4.748		
20,300.0	11,340.0	19,547.4	10,640.0	155.2	154.3	0.00	-9,038.6	32.9	700.0	551.1	148.92	4.701		

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



Microsoft
Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #510H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
20,400.0	11,340.0	19,647.4	10,640.0	156.8	156.0	0.00	-9,138.6	33.7	700.0	549.6	150.42	4.654			
20,500.0	11,340.0	19,747.4	10,640.0	158.4	157.6	0.00	-9,238.6	34.5	700.0	548.1	151.92	4.608			
20,600.0	11,340.0	19,847.4	10,640.0	160.0	159.2	0.00	-9,338.6	35.2	700.0	546.6	153.42	4.563			
20,700.0	11,340.0	19,947.4	10,640.0	161.6	160.8	0.00	-9,438.6	36.0	700.0	545.1	154.93	4.518			
20,800.0	11,340.0	20,047.4	10,640.0	163.2	162.4	0.00	-9,538.5	36.8	700.0	543.6	156.43	4.475			
20,900.0	11,340.0	20,147.4	10,640.0	164.8	164.0	0.00	-9,638.5	37.5	700.0	542.1	157.94	4.432			
21,000.0	11,340.0	20,247.4	10,640.0	166.4	165.6	0.00	-9,738.5	38.3	700.0	540.6	159.45	4.390			
21,100.0	11,340.0	20,347.4	10,640.0	168.0	167.2	0.00	-9,838.5	39.1	700.0	539.0	160.96	4.349			
21,200.0	11,340.0	20,447.4	10,640.0	169.6	168.8	0.00	-9,938.5	39.9	700.0	537.5	162.47	4.309			
21,300.0	11,340.0	20,547.4	10,640.0	171.2	170.5	0.00	-10,038.5	40.6	700.0	536.0	163.98	4.269			
21,400.0	11,340.0	20,647.4	10,640.0	172.8	172.1	0.00	-10,138.5	41.4	700.0	534.5	165.49	4.230			
21,500.0	11,340.0	20,747.4	10,640.0	174.4	173.7	0.00	-10,238.5	42.2	700.0	533.0	167.00	4.192			
21,517.2	11,340.0	20,764.5	10,640.0	174.7	174.0	0.00	-10,255.7	42.3	700.0	532.8	167.20	4.187			



Microsoft
Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #603H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	0.0	0.0	89.83	0.1	89.83	0.1	33.0	33.0	32.7	0.27	123.568	
100.0	100.0	100.0	100.0	0.1	0.1	89.83	0.1	89.83	0.1	33.0	33.0	32.0	0.98	33.537	
200.0	200.0	200.0	200.0	0.5	0.5	89.83	0.1	89.83	0.1	33.0	33.0	31.3	1.70	19.401	
300.0	300.0	300.0	300.0	0.9	0.9	89.83	0.1	89.83	0.1	33.0	33.0	30.6	2.42	13.648	
400.0	400.0	400.0	400.0	1.2	1.2	89.83	0.1	89.83	0.1	33.0	33.0	29.9	3.13	10.527	
500.0	500.0	500.0	500.0	1.6	1.6	89.83	0.1	89.83	0.1	33.0	33.0	29.1	3.85	8.568	
600.0	600.0	600.0	600.0	1.9	1.9	89.83	0.1	89.83	0.1	33.0	33.0	28.4	4.57	7.223	
700.0	700.0	700.0	700.0	2.3	2.3	89.83	0.1	89.83	0.1	33.0	33.0	27.7	5.29	6.243	
800.0	800.0	800.0	800.0	2.6	2.6	89.83	0.1	89.83	0.1	33.0	33.0	27.0	6.00	5.498	
900.0	900.0	900.0	900.0	3.0	3.0	89.83	0.1	89.83	0.1	33.0	33.0	26.3	6.72	4.911	
1,000.0	1,000.0	1,000.0	1,000.0	3.4	3.4	89.83	0.1	89.83	0.1	33.0	33.0	25.6	7.44	4.438	
1,100.0	1,100.0	1,100.0	1,100.0	4.1	4.1	89.83	0.1	89.83	0.1	33.0	33.0	24.8	8.15	4.047	
1,200.0	1,200.0	1,200.0	1,200.0	4.4	4.4	89.83	0.1	89.83	0.1	33.0	33.0	24.1	8.87	3.720	
1,300.0	1,300.0	1,300.0	1,300.0	4.8	4.8	89.83	0.1	89.83	0.1	33.0	33.0	23.4	9.59	3.442	
1,400.0	1,400.0	1,400.0	1,400.0	5.2	5.2	89.83	0.1	89.83	0.1	33.0	33.0	22.7	10.30	3.203	
1,500.0	1,500.0	1,500.0	1,500.0	5.5	5.5	89.83	0.1	89.83	0.1	33.0	33.0	22.0	11.02	2.994	
1,600.0	1,600.0	1,600.0	1,600.0	5.9	5.9	89.83	0.1	89.83	0.1	33.0	33.0	21.3	11.74	2.811	
1,700.0	1,700.0	1,700.0	1,700.0	6.2	6.2	89.83	0.1	89.83	0.1	33.0	33.0	20.5	12.46	2.650	
1,800.0	1,800.0	1,800.0	1,800.0	6.6	6.6	89.83	0.1	89.83	0.1	33.0	33.0	19.8	13.17	2.505	
1,900.0	1,900.0	1,900.0	1,900.0	6.9	6.9	89.83	0.1	89.83	0.1	33.0	33.0	19.1	13.89	2.376	
2,000.0	2,000.0	2,000.0	2,000.0	7.3	7.3	89.83	0.1	89.83	0.1	33.0	33.0	18.4	14.61	2.259	
2,100.0	2,100.0	2,100.0	2,100.0	7.7	7.7	89.83	0.1	89.83	0.1	33.0	33.0	17.7	15.32	2.154	
2,200.0	2,200.0	2,200.0	2,200.0	8.0	8.0	89.83	0.1	89.83	0.1	33.0	33.0	17.0	16.04	2.057	
2,300.0	2,300.0	2,300.0	2,300.0	8.4	8.4	89.83	0.1	89.83	0.1	33.0	33.0	16.2	16.76	1.969	
2,400.0	2,400.0	2,400.0	2,400.0	8.7	8.7	89.83	0.1	89.83	0.1	33.0	33.0	15.5	17.47	1.889	
2,500.0	2,500.0	2,500.0	2,500.0	9.1	9.1	89.83	0.1	89.83	0.1	33.0	33.0	14.8	18.19	1.814	
2,600.0	2,600.0	2,600.0	2,600.0	9.5	9.5	89.83	0.1	89.83	0.1	33.0	33.0	14.1	18.91	1.745	
2,700.0	2,700.0	2,700.0	2,700.0	9.8	9.8	89.83	0.1	89.83	0.1	33.0	33.0	13.4	19.62	1.682	
2,800.0	2,800.0	2,800.0	2,800.0	10.2	10.2	89.83	0.1	89.83	0.1	33.0	33.0	12.7	20.34	1.622	
2,900.0	2,900.0	2,900.0	2,900.0	10.5	10.5	89.83	0.1	89.83	0.1	33.0	33.0	11.9	21.06	1.567	
3,000.0	3,000.0	3,000.0	3,000.0	10.9	10.9	89.83	0.1	89.83	0.1	33.0	33.0	11.2	21.78	1.515	
3,100.0	3,100.0	3,100.0	3,100.0	11.2	11.2	89.83	0.1	89.83	0.1	33.0	33.0	10.5	22.49	1.467 Level 3	
3,200.0	3,200.0	3,200.0	3,200.0	11.6	11.6	89.83	0.1	89.83	0.1	33.0	33.0	9.8	23.21	1.422 Level 3	
3,300.0	3,300.0	3,300.0	3,300.0	12.0	12.0	89.83	0.1	89.83	0.1	33.0	33.0	9.1	23.93	1.379 Level 3	
3,400.0	3,400.0	3,400.0	3,400.0	12.3	12.3	89.83	0.1	89.83	0.1	33.0	33.0	8.4	24.64	1.339 Level 3	
3,500.0	3,500.0	3,500.0	3,500.0	12.7	12.7	89.83	0.1	89.83	0.1	33.0	33.0	7.6	25.36	1.301 Level 3	
3,600.0	3,600.0	3,600.0	3,600.0	13.0	13.0	89.83	0.1	89.83	0.1	33.0	33.0	6.9	26.08	1.265 Level 3	
3,700.0	3,700.0	3,700.0	3,700.0	13.4	13.4	89.83	0.1	89.83	0.1	33.0	33.0	6.2	26.79	1.232 Level 2	
3,800.0	3,800.0	3,800.0	3,800.0	13.8	13.8	89.83	0.1	89.83	0.1	33.0	33.0	5.5	27.51	1.200 Level 2	
3,900.0	3,900.0	3,900.0	3,900.0	14.1	14.1	89.83	0.1	89.83	0.1	33.0	33.0	4.8	28.23	1.169 Level 2	
4,000.0	4,000.0	4,000.0	4,000.0	14.5	14.5	89.83	0.1	89.83	0.1	33.0	33.0	4.1	28.94	1.140 Level 2	
4,100.0	4,100.0	4,100.0	4,100.0	14.8	14.8	89.83	0.1	89.83	0.1	33.0	33.0	3.3	29.66	1.113 Level 2	
4,200.0	4,200.0	4,200.0	4,200.0	15.2	15.2	89.83	0.1	89.83	0.1	33.0	33.0	2.6	30.38	1.086 Level 2	
4,300.0	4,300.0	4,300.0	4,300.0	15.5	15.5	89.83	0.1	89.83	0.1	33.0	33.0	1.9	31.10	1.061 Level 2	
4,400.0	4,400.0	4,400.0	4,400.0	15.9	15.9	89.83	0.1	89.83	0.1	33.0	33.0	1.2	31.81	1.037 Level 2	
4,500.0	4,500.0	4,500.0	4,500.0	16.3	16.3	89.83	0.1	89.83	0.1	33.0	33.0	0.5	32.53	1.014 Level 2	
4,600.0	4,600.0	4,600.0	4,600.0	16.6	16.6	89.83	0.1	89.83	0.1	33.0	33.0	-0.2	33.25	0.993 Level 1	
4,700.0	4,700.0	4,700.0	4,700.0	17.0	17.0	89.83	0.1	89.83	0.1	33.0	33.0	-1.0	33.96	0.972 Level 1	
4,800.0	4,800.0	4,800.0	4,800.0	17.3	17.3	89.83	0.1	89.83	0.1	33.0	33.0	-1.7	34.68	0.952 Level 1	
4,900.0	4,900.0	4,900.0	4,900.0	17.7	17.7	89.83	0.1	89.83	0.1	33.0	33.0	-2.4	35.40	0.932 Level 1	
5,000.0	5,000.0	5,000.0	5,000.0	18.1	18.1	89.83	0.1	89.83	0.1	33.0	33.0	-3.1	36.11	0.914 Level 1, CC	

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #603H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference Offset (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	+N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
5,100.0	5,100.0	5,100.0	5,100.0	18.1	18.1	89.83	0.1	33.0	33.0	-3.1	36.11	0.914	Level 1	
5,200.0	5,200.0	5,200.0	5,200.0	18.4	18.4	103.44	0.1	33.0	33.1	-3.8	36.83	0.897	Level 1	
5,300.0	5,300.0	5,300.0	5,300.0	18.8	18.8	106.34	0.1	33.0	33.5	-4.0	37.55	0.892	Level 1, ES, SF	
5,400.0	5,399.9	5,399.9	5,399.9	19.1	19.1	111.88	0.1	33.0	34.6	-3.6	38.26	0.905	Level 1	
5,500.0	5,499.8	5,499.3	5,499.3	19.5	19.5	118.39	0.6	33.7	37.5	-1.5	38.97	0.962	Level 1	
5,600.0	5,599.5	5,598.7	5,598.6	19.8	19.8	124.00	1.9	35.9	42.8	3.1	39.67	1.079	Level 2	
5,700.0	5,699.2	5,697.9	5,697.7	20.2	20.2	128.22	4.2	39.6	50.4	10.1	40.36	1.250	Level 2	
5,800.0	5,798.6	5,796.9	5,796.5	20.6	20.5	130.95	7.4	44.7	60.1	19.1	41.06	1.464	Level 3	
5,900.0	5,898.1	5,895.7	5,895.1	20.9	20.9	131.80	11.4	51.2	70.8	29.1	41.75	1.696		
6,000.0	5,997.6	5,995.1	5,994.1	21.3	21.2	131.93	15.9	58.5	81.9	39.4	42.46	1.929		
6,100.0	6,097.0	6,094.5	6,093.2	21.6	21.6	132.03	20.5	65.7	93.0	49.8	43.16	2.155		
6,200.0	6,196.5	6,193.9	6,192.2	22.0	21.9	132.11	25.0	73.0	104.1	60.2	43.87	2.373		
6,300.0	6,296.0	6,293.3	6,291.2	22.4	22.3	132.18	29.5	80.2	115.2	70.6	44.58	2.584		
6,400.0	6,395.4	6,392.7	6,390.2	22.7	22.6	132.23	34.0	87.5	126.3	81.0	45.29	2.789		
6,500.0	6,494.9	6,492.0	6,489.2	23.1	23.0	132.27	38.5	94.7	137.4	91.4	46.01	2.987		
6,600.0	6,594.4	6,591.4	6,588.2	23.5	23.4	132.31	43.0	102.0	148.5	101.8	46.72	3.179		
6,700.0	6,693.8	6,690.8	6,687.2	23.8	23.7	132.34	47.5	109.3	159.6	112.2	47.44	3.365		
6,800.0	6,793.3	6,790.2	6,786.3	24.2	24.1	132.34	52.1	116.5	170.5	122.4	48.15	3.541		
6,900.0	6,893.0	6,889.7	6,885.4	24.6	24.4	131.99	56.6	123.8	180.3	131.5	48.87	3.690		
7,000.0	6,992.8	6,989.3	6,984.6	24.9	24.8	131.28	61.1	131.0	189.0	139.4	49.58	3.812		
7,100.0	7,092.6	7,088.9	7,083.9	25.3	25.1	130.25	65.6	138.3	196.6	146.3	50.30	3.909		
7,200.0	7,192.6	7,188.6	7,183.2	25.6	25.5	128.91	70.2	145.6	203.2	152.2	51.01	3.983		
7,300.0	7,292.6	7,288.3	7,282.5	26.0	25.9	127.27	74.7	152.9	208.8	157.1	51.72	4.036		
7,400.0	7,392.6	7,387.9	7,381.7	26.4	26.2	112.15	79.2	160.2	213.8	161.3	52.43	4.077		
7,500.0	7,492.6	7,487.5	7,481.0	26.7	26.6	110.33	83.7	167.4	219.0	165.8	53.14	4.120		
7,600.0	7,592.6	7,587.2	7,580.3	27.1	27.0	108.60	88.3	174.7	224.3	170.5	53.85	4.166		
7,700.0	7,692.6	7,686.8	7,679.5	27.4	27.3	106.95	92.8	182.0	229.9	175.4	54.56	4.214		
7,800.0	7,792.6	7,786.4	7,778.8	27.8	27.7	105.37	97.3	189.3	235.7	180.4	55.27	4.264		
7,900.0	7,892.6	7,886.0	7,878.1	28.1	28.1	103.88	101.8	196.5	241.6	185.6	55.99	4.316		
8,000.0	7,992.6	7,985.7	7,977.3	28.5	28.4	102.46	106.4	203.8	247.7	191.0	56.70	4.369		
8,100.0	8,092.6	8,085.3	8,076.6	28.9	28.8	101.10	110.9	211.1	253.9	196.5	57.41	4.423		
8,200.0	8,192.6	8,184.9	8,175.8	29.2	29.1	99.81	115.4	218.4	260.3	202.2	58.12	4.479		
8,300.0	8,292.6	8,284.6	8,275.1	29.6	29.5	98.59	120.0	225.6	266.8	208.0	58.83	4.535		
8,400.0	8,392.6	8,384.2	8,374.4	29.9	29.9	97.42	124.5	232.9	273.4	213.9	59.54	4.592		
8,500.0	8,492.6	8,483.8	8,473.6	30.3	30.2	96.31	129.0	240.2	280.1	219.9	60.25	4.649		
8,600.0	8,592.6	8,583.4	8,572.9	30.6	30.6	95.25	133.5	247.5	286.9	226.0	60.96	4.707		
8,700.0	8,692.6	8,683.1	8,672.1	31.0	31.0	94.23	138.1	254.7	293.8	232.2	61.67	4.765		
8,800.0	8,792.6	8,782.7	8,771.4	31.4	31.4	93.27	142.6	262.0	300.8	238.5	62.38	4.822		
8,900.0	8,892.6	8,882.3	8,870.7	31.7	31.7	92.35	147.1	269.3	307.9	244.8	63.10	4.880		
9,000.0	8,992.6	8,983.4	8,971.4	32.1	32.1	91.47	151.7	276.6	315.0	251.2	63.83	4.935		
9,100.0	9,092.6	9,088.0	9,075.7	32.4	32.5	90.73	155.6	282.9	321.0	256.4	64.59	4.970		
9,200.0	9,192.6	9,192.9	9,180.4	32.8	32.9	90.20	158.6	287.7	325.5	260.2	65.35	4.981		
9,300.0	9,292.6	9,297.9	9,285.4	33.1	33.2	89.86	160.5	290.8	328.5	262.4	66.09	4.970		
9,400.0	9,392.6	9,403.0	9,390.5	33.5	33.6	89.70	161.4	292.3	329.9	263.0	66.83	4.936		
9,500.0	9,492.6	9,505.1	9,492.6	33.9	34.0	89.69	161.5	292.4	330.0	262.5	67.55	4.886		
9,600.0	9,592.6	9,605.1	9,592.6	34.2	34.3	89.69	161.5	292.4	330.0	261.7	68.26	4.835		
9,700.0	9,692.6	9,705.1	9,692.6	34.6	34.7	89.69	161.5	292.4	330.0	261.0	68.97	4.785		
9,800.0	9,792.6	9,805.1	9,792.6	34.9	35.0	89.69	161.5	292.4	330.0	260.3	69.68	4.736		
9,900.0	9,892.6	9,905.1	9,892.6	35.3	35.4	89.69	161.5	292.4	330.0	259.6	70.40	4.688		
10,000.0	9,992.6	10,005.1	9,992.6	35.6	35.7	89.69	161.5	292.4	330.0	258.9	71.11	4.641		
10,100.0	10,092.6	10,105.1	10,092.6	36.0	36.1	89.69	161.5	292.4	330.0	258.2	71.82	4.595		
10,200.0	10,192.6	10,205.1	10,192.6	36.4	36.4	89.69	161.5	292.4	330.0	257.5	72.54	4.550		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #603H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
10,300.0	10,292.6	10,305.1	10,292.6	36.7	36.8	89.69	161.5	292.4	330.0	256.8	73.25	4.505		
10,400.0	10,392.6	10,405.1	10,392.6	37.1	37.2	89.69	161.5	292.4	330.0	256.0	73.96	4.462		
10,500.0	10,492.6	10,505.1	10,492.6	37.4	37.5	89.69	161.5	292.4	330.0	255.3	74.68	4.419		
10,600.0	10,592.6	10,605.1	10,592.6	37.8	37.9	89.69	161.5	292.4	330.0	254.6	75.39	4.377		
10,700.0	10,692.6	10,705.1	10,692.6	38.1	38.2	89.69	161.5	292.4	330.0	253.9	76.10	4.336		
10,800.0	10,792.6	10,805.1	10,792.6	38.5	38.6	-89.97	161.5	292.4	330.0	253.2	76.81	4.296		
10,803.4	10,795.9	10,808.5	10,795.9	38.5	38.6	-90.00	161.5	292.4	330.0	253.2	76.83	4.295		
10,900.0	10,891.6	10,904.1	10,891.6	38.8	38.9	-92.20	161.5	292.4	330.3	252.8	77.46	4.264		
11,000.0	10,986.8	10,999.3	10,986.8	39.1	39.3	-96.88	161.5	292.4	332.8	254.7	78.07	4.263		
11,100.0	11,075.3	11,087.9	11,075.3	39.3	39.6	-102.85	161.5	292.4	341.9	263.2	78.63	4.348		
11,200.0	11,154.5	11,167.1	11,154.5	39.6	39.9	-108.53	161.5	292.4	362.6	283.4	79.14	4.581		
11,300.0	11,221.9	11,234.5	11,221.9	39.8	40.1	-112.41	161.5	292.4	398.8	319.2	79.60	5.010		
11,400.0	11,275.5	11,288.0	11,275.5	40.0	40.3	-113.29	161.5	292.4	451.5	371.6	79.97	5.646		
11,500.0	11,313.6	11,326.2	11,313.6	40.3	40.4	-109.99	161.5	292.4	518.9	438.7	80.24	6.467		
11,600.0	11,335.1	11,347.7	11,335.1	40.6	40.5	-101.06	161.5	292.4	597.4	517.0	80.39	7.431		
11,700.0	11,340.0	11,352.5	11,340.0	40.8	40.5	-90.00	161.5	292.4	682.8	602.4	80.45	8.487		
11,800.0	11,340.0	12,414.4	11,950.0	41.2	43.2	-151.59	-536.3	297.8	693.5	634.7	58.82	11.791		
11,900.0	11,340.0	12,514.4	11,950.0	41.6	43.6	-151.59	-636.3	298.5	693.5	634.3	59.26	11.703		
12,000.0	11,340.0	12,614.4	11,950.0	42.0	44.1	-151.59	-736.3	299.3	693.5	633.8	59.77	11.603		
12,100.0	11,340.0	12,714.4	11,950.0	42.6	44.6	-151.59	-836.3	300.1	693.5	633.2	60.35	11.492		
12,200.0	11,340.0	12,814.4	11,950.0	43.1	45.1	-151.59	-936.3	300.8	693.5	632.5	61.00	11.370		
12,300.0	11,340.0	12,914.4	11,950.0	43.8	45.7	-151.59	-1,036.3	301.6	693.5	631.8	61.71	11.239		
12,400.0	11,340.0	13,014.4	11,950.0	44.4	46.4	-151.59	-1,136.3	302.4	693.5	631.1	62.48	11.100		
12,500.0	11,340.0	13,114.4	11,950.0	45.2	47.1	-151.59	-1,236.3	303.1	693.5	630.2	63.31	10.954		
12,600.0	11,340.0	13,214.4	11,950.0	46.0	47.8	-151.59	-1,336.3	303.9	693.5	629.3	64.20	10.803		
12,700.0	11,340.0	13,314.4	11,950.0	46.8	48.6	-151.59	-1,436.2	304.7	693.5	628.4	65.15	10.646		
12,800.0	11,340.0	13,414.4	11,950.0	47.7	49.5	-151.59	-1,536.2	305.4	693.5	627.4	66.14	10.485		
12,900.0	11,340.0	13,514.4	11,950.0	48.6	50.3	-151.59	-1,636.2	306.2	693.5	626.4	67.19	10.322		
13,000.0	11,340.0	13,614.4	11,950.0	49.5	51.3	-151.59	-1,736.2	307.0	693.5	625.3	68.29	10.156		
13,100.0	11,340.0	13,714.4	11,950.0	50.5	52.2	-151.59	-1,836.2	307.7	693.5	624.1	69.43	9.989		
13,200.0	11,340.0	13,814.4	11,950.0	51.5	53.2	-151.59	-1,936.2	308.5	693.5	622.9	70.62	9.821		
13,300.0	11,340.0	13,914.4	11,950.0	52.6	54.2	-151.59	-2,036.2	309.3	693.5	621.7	71.84	9.654		
13,400.0	11,340.0	14,014.4	11,950.0	53.7	55.3	-151.59	-2,136.2	310.0	693.5	620.4	73.11	9.486		
13,500.0	11,340.0	14,114.4	11,950.0	54.8	56.4	-151.59	-2,236.2	310.8	693.5	619.1	74.41	9.320		
13,600.0	11,340.0	14,214.4	11,950.0	55.9	57.5	-151.59	-2,336.2	311.6	693.5	617.8	75.75	9.155		
13,700.0	11,340.0	14,314.4	11,950.0	57.1	58.6	-151.59	-2,436.2	312.3	693.5	616.4	77.12	8.993		
13,800.0	11,340.0	14,414.4	11,950.0	58.3	59.8	-151.59	-2,536.2	313.1	693.5	615.0	78.53	8.832		
13,900.0	11,340.0	14,514.4	11,950.0	59.5	60.9	-151.59	-2,636.2	313.9	693.5	613.6	79.96	8.673		
14,000.0	11,340.0	14,614.4	11,950.0	60.7	62.1	-151.59	-2,736.2	314.6	693.5	612.1	81.43	8.517		
14,100.0	11,340.0	14,714.4	11,950.0	62.0	63.4	-151.59	-2,836.2	315.4	693.5	610.6	82.92	8.364		
14,200.0	11,340.0	14,814.4	11,950.0	63.2	64.6	-151.59	-2,936.2	316.2	693.5	609.1	84.43	8.214		
14,300.0	11,340.0	14,914.4	11,950.0	64.5	65.9	-151.59	-3,036.2	316.9	693.5	607.6	85.97	8.067		
14,400.0	11,340.0	15,014.4	11,950.0	65.8	67.1	-151.59	-3,136.2	317.7	693.5	606.0	87.54	7.923		
14,500.0	11,340.0	15,114.4	11,950.0	67.1	68.4	-151.59	-3,236.2	318.5	693.5	604.4	89.12	7.782		
14,600.0	11,340.0	15,214.4	11,950.0	68.5	69.7	-151.59	-3,336.2	319.2	693.5	602.8	90.73	7.644		
14,700.0	11,340.0	15,314.4	11,950.0	69.8	71.1	-151.59	-3,436.2	320.0	693.5	601.2	92.35	7.510		
14,800.0	11,340.0	15,414.4	11,950.0	71.2	72.4	-151.59	-3,536.2	320.8	693.5	599.5	94.00	7.378		
14,900.0	11,340.0	15,514.4	11,950.0	72.6	73.8	-151.59	-3,636.2	321.5	693.5	597.9	95.66	7.250		
15,000.0	11,340.0	15,614.4	11,950.0	73.9	75.1	-151.59	-3,736.2	322.3	693.5	596.2	97.34	7.125		
15,100.0	11,340.0	15,714.4	11,950.0	75.3	76.5	-151.59	-3,836.2	323.1	693.5	594.5	99.03	7.003		
15,200.0	11,340.0	15,814.4	11,950.0	76.8	77.9	-151.59	-3,936.2	323.8	693.5	592.8	100.74	6.884		
15,300.0	11,340.0	15,914.4	11,950.0	78.2	79.3	-151.59	-4,036.2	324.6	693.5	591.1	102.46	6.769		

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design:(Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #603H - OWB - Plan 0.1														Offset Site Error:	0.0 usft
Survey Program: 0-MWD														Offset Well Error:	0.0 usft
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Semi Major Axis Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Distance Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning		
15,400.0	11,340.0	16,014.4	11,950.0	79.6	80.7	-151.59	-4,136.2	325.4	693.5	589.3	104.20	6.656			
15,500.0	11,340.0	16,114.4	11,950.0	81.0	82.1	-151.59	-4,236.2	326.1	693.5	587.6	105.95	6.546			
15,600.0	11,340.0	16,214.4	11,950.0	82.5	83.5	-151.59	-4,336.2	326.9	693.5	585.8	107.71	6.439			
15,700.0	11,340.0	16,314.4	11,950.0	83.9	85.0	-151.59	-4,436.2	327.7	693.5	584.1	109.49	6.335			
15,800.0	11,340.0	16,414.4	11,950.0	85.4	86.4	-151.59	-4,536.2	328.4	693.5	582.3	111.27	6.233			
15,900.0	11,340.0	16,514.4	11,950.0	86.8	87.8	-151.59	-4,636.2	329.2	693.5	580.5	113.07	6.134			
16,000.0	11,340.0	16,614.4	11,950.0	88.3	89.3	-151.59	-4,736.2	330.0	693.5	578.7	114.87	6.037			
16,100.0	11,340.0	16,714.4	11,950.0	89.8	90.8	-151.59	-4,836.1	330.7	693.5	576.9	116.69	5.944			
16,200.0	11,340.0	16,814.4	11,950.0	91.3	92.2	-151.59	-4,936.1	331.5	693.5	575.0	118.51	5.852			
16,300.0	11,340.0	16,914.4	11,950.0	92.8	93.7	-151.59	-5,036.1	332.3	693.5	573.2	120.35	5.763			
16,400.0	11,340.0	17,014.4	11,950.0	94.3	95.2	-151.59	-5,136.1	333.0	693.5	571.4	122.19	5.676			
16,500.0	11,340.0	17,114.4	11,950.0	95.8	96.7	-151.59	-5,236.1	333.8	693.5	569.5	124.04	5.591			
16,600.0	11,340.0	17,214.4	11,950.0	97.3	98.2	-151.59	-5,336.1	334.6	693.5	567.6	125.89	5.509			
16,700.0	11,340.0	17,314.4	11,950.0	98.8	99.7	-151.59	-5,436.1	335.3	693.5	565.8	127.76	5.429			
16,800.0	11,340.0	17,414.4	11,950.0	100.3	101.2	-151.59	-5,536.1	336.1	693.5	563.9	129.63	5.350			
16,900.0	11,340.0	17,514.4	11,950.0	101.8	102.7	-151.59	-5,636.1	336.9	693.5	562.0	131.51	5.274			
17,000.0	11,340.0	17,614.4	11,950.0	103.3	104.2	-151.59	-5,736.1	337.6	693.5	560.1	133.39	5.199			
17,100.0	11,340.0	17,714.4	11,950.0	104.9	105.7	-151.59	-5,836.1	338.4	693.5	558.3	135.29	5.127			
17,200.0	11,340.0	17,814.4	11,950.0	106.4	107.2	-151.59	-5,936.1	339.2	693.5	556.4	137.18	5.056			
17,300.0	11,340.0	17,914.4	11,950.0	107.9	108.7	-151.59	-6,036.1	339.9	693.5	554.5	139.08	4.986			
17,400.0	11,340.0	18,014.4	11,950.0	109.5	110.3	-151.59	-6,136.1	340.7	693.5	552.5	140.99	4.919			
17,500.0	11,340.0	18,114.4	11,950.0	111.0	111.8	-151.59	-6,236.1	341.5	693.5	550.6	142.91	4.853			
17,600.0	11,340.0	18,214.4	11,950.0	112.6	113.3	-151.59	-6,336.1	342.2	693.5	548.7	144.82	4.789			
17,700.0	11,340.0	18,314.4	11,950.0	114.1	114.9	-151.59	-6,436.1	343.0	693.5	546.8	146.75	4.726			
17,800.0	11,340.0	18,414.4	11,950.0	115.7	116.4	-151.59	-6,536.1	343.8	693.5	544.9	148.67	4.665			
17,900.0	11,340.0	18,514.4	11,950.0	117.2	118.0	-151.59	-6,636.1	344.5	693.5	542.9	150.61	4.605			
18,000.0	11,340.0	18,614.4	11,950.0	118.8	119.5	-151.59	-6,736.1	345.3	693.5	541.0	152.54	4.547			
18,100.0	11,340.0	18,714.4	11,950.0	120.3	121.1	-151.59	-6,836.1	346.1	693.5	539.1	154.48	4.489			
18,200.0	11,340.0	18,814.4	11,950.0	121.9	122.6	-151.59	-6,936.1	346.8	693.5	537.1	156.43	4.434			
18,300.0	11,340.0	18,914.4	11,950.0	123.5	124.2	-151.59	-7,036.1	347.6	693.5	535.2	158.38	4.379			
18,400.0	11,340.0	19,014.4	11,950.0	125.0	125.7	-151.59	-7,136.1	348.4	693.5	533.2	160.33	4.326			
18,500.0	11,340.0	19,114.4	11,950.0	126.6	127.3	-151.59	-7,236.1	349.1	693.5	531.3	162.28	4.274			
18,600.0	11,340.0	19,214.4	11,950.0	128.2	128.8	-151.59	-7,336.1	349.9	693.5	529.3	164.24	4.223			
18,700.0	11,340.0	19,314.4	11,950.0	129.7	130.4	-151.59	-7,436.1	350.7	693.5	527.3	166.21	4.173			
18,800.0	11,340.0	19,414.4	11,950.0	131.3	132.0	-151.59	-7,536.1	351.4	693.5	525.4	168.17	4.124			
18,900.0	11,340.0	19,514.4	11,950.0	132.9	133.5	-151.59	-7,636.1	352.2	693.5	523.4	170.14	4.076			
19,000.0	11,340.0	19,614.4	11,950.0	134.5	135.1	-151.59	-7,736.1	353.0	693.5	521.4	172.11	4.030			
19,100.0	11,340.0	19,714.4	11,950.0	136.1	136.7	-151.59	-7,836.1	353.7	693.5	519.5	174.09	3.984			
19,200.0	11,340.0	19,814.4	11,950.0	137.6	138.3	-151.59	-7,936.1	354.5	693.5	517.5	176.06	3.939			
19,300.0	11,340.0	19,914.4	11,950.0	139.2	139.8	-151.59	-8,036.1	355.3	693.5	515.5	178.04	3.895			
19,400.0	11,340.0	20,014.4	11,950.0	140.8	141.4	-151.59	-8,136.1	356.0	693.5	513.5	180.02	3.852			
19,500.0	11,340.0	20,114.4	11,950.0	142.4	143.0	-151.59	-8,236.0	356.8	693.5	511.5	182.01	3.810			
19,600.0	11,340.0	20,214.4	11,950.0	144.0	144.6	-151.59	-8,336.0	357.6	693.5	509.5	184.00	3.769			
19,700.0	11,340.0	20,314.4	11,950.0	145.6	146.2	-151.59	-8,436.0	358.3	693.5	507.6	185.99	3.729			
19,800.0	11,340.0	20,414.4	11,950.0	147.2	147.8	-151.59	-8,536.0	359.1	693.5	505.6	187.98	3.689			
19,900.0	11,340.0	20,514.4	11,950.0	148.8	149.4	-151.59	-8,636.0	359.9	693.5	503.6	189.97	3.651			
20,000.0	11,340.0	20,614.4	11,950.0	150.4	150.9	-151.59	-8,736.0	360.7	693.5	501.6	191.97	3.613			
20,100.0	11,340.0	20,714.4	11,950.0	152.0	152.5	-151.59	-8,836.0	361.4	693.5	499.6	193.97	3.576			
20,200.0	11,340.0	20,814.4	11,950.0	153.6	154.1	-151.59	-8,936.0	362.2	693.5	497.6	195.97	3.539			
20,300.0	11,340.0	20,914.4	11,950.0	155.2	155.7	-151.59	-9,036.0	363.0	693.5	495.6	197.97	3.503			
20,400.0	11,340.0	21,014.4	11,950.0	156.8	157.3	-151.59	-9,136.0	363.7	693.5	493.6	199.97	3.468			
20,500.0	11,340.0	21,114.4	11,950.0	158.4	158.9	-151.59	-9,236.0	364.5	693.5	491.6	201.98	3.434			

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



Microsoft Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Offset Design: (Merchant State)Sec35_T-21-S_R-33-E - Merchant State Unit #603H - OWB - Plan 0.1													Offset Site Error:	0.0 usft
Survey Program: 0-MWD													Offset Well Error:	0.0 usft
Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning	
20,600.0	11,340.0	21,214.4	11,950.0	160.0	160.5	-151.59	-9,336.0	365.3	693.5	489.6	203.99	3.400		
20,700.0	11,340.0	21,314.4	11,950.0	161.6	162.1	-151.59	-9,436.0	366.0	693.5	487.5	206.00	3.367		
20,800.0	11,340.0	21,414.4	11,950.0	163.2	163.7	-151.59	-9,536.0	366.8	693.5	485.5	208.01	3.334		
20,900.0	11,340.0	21,514.4	11,950.0	164.8	165.3	-151.59	-9,636.0	367.6	693.5	483.5	210.02	3.302		
21,000.0	11,340.0	21,614.4	11,950.0	166.4	166.9	-151.59	-9,736.0	368.3	693.5	481.5	212.04	3.271		
21,100.0	11,340.0	21,714.4	11,950.0	168.0	168.5	-151.59	-9,836.0	369.1	693.5	479.5	214.05	3.240		
21,200.0	11,340.0	21,814.4	11,950.0	169.6	170.1	-151.59	-9,936.0	369.9	693.5	477.5	216.07	3.210		
21,300.0	11,340.0	21,914.4	11,950.0	171.2	171.7	-151.59	-10,036.0	370.6	693.5	475.5	218.09	3.180		
21,400.0	11,340.0	22,014.4	11,950.0	172.8	173.3	-151.59	-10,136.0	371.4	693.5	473.4	220.11	3.151		
21,500.0	11,340.0	22,114.4	11,950.0	174.4	174.9	-151.59	-10,236.0	372.2	693.5	471.4	222.13	3.122		
21,517.2	11,340.0	22,131.6	11,950.0	174.7	175.2	-151.59	-10,253.2	372.3	693.5	471.1	222.43	3.118		



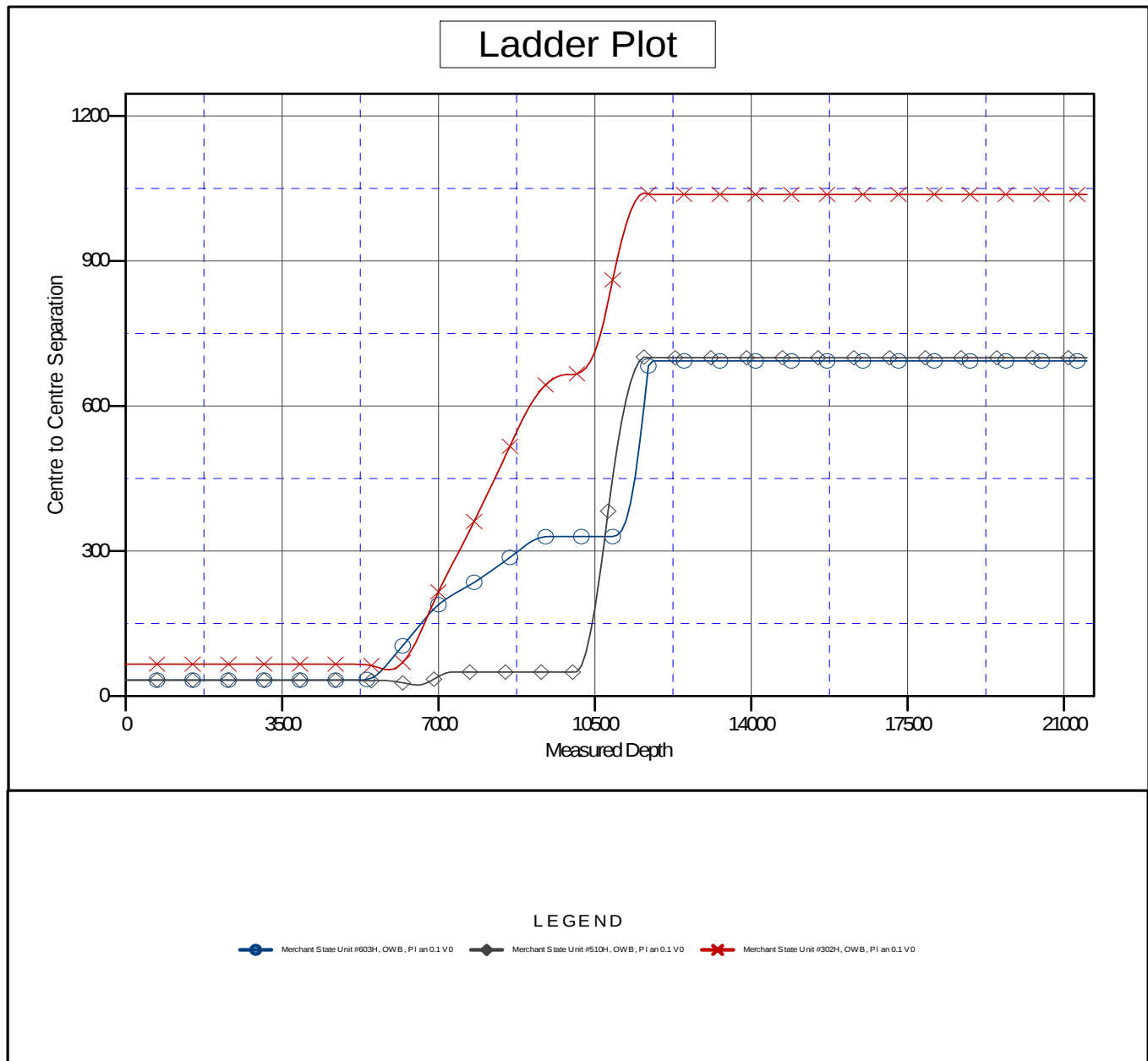
Microsoft
Anticollision Report



Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
Project:	Lea County, NM (NAD 83 NME)	TVD Reference:	KB @ 3710.5usft (H&P 466)
Reference Site:	(Merchant State)Sec35_T-21-S_R-33-E	MD Reference:	KB @ 3710.5usft (H&P 466)
Site Error:	0.0 usft	North Reference:	Grid
Reference Well:	Merchant State Unit #552H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.0 usft	Output errors are at	2.00 sigma
Reference Wellbore	OWB	Database:	EDM 10_13
Reference Design:	Plan 0.1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB @ 3710.5usft (H&P 466)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: Merchant State Unit #552H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.42°



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



Microsoft Anticollision Report

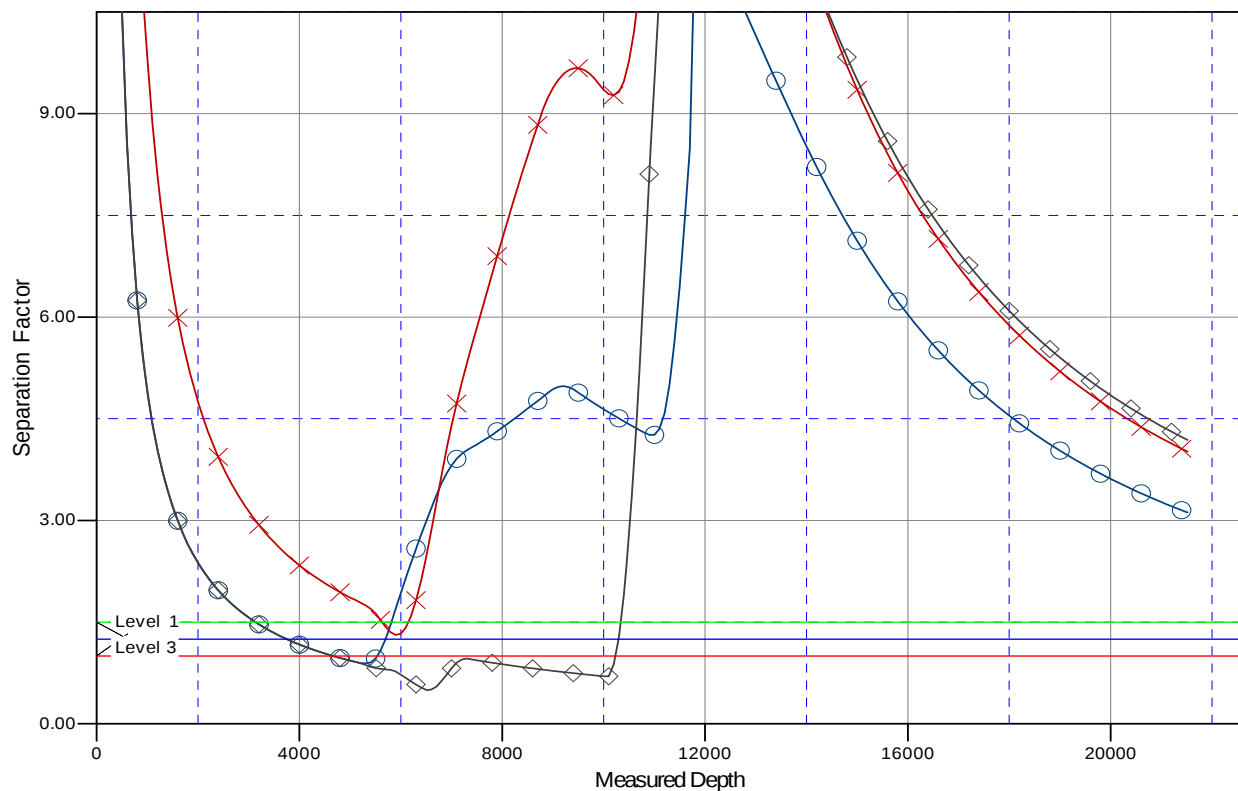


Company:	Advance Energy Partners	Local Co-ordinate Reference:	Well Merchant State Unit #552H
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Separation Factor Plot



LEGEND

● Merchant State Unit #603H, OWB, PI an 0.1 V0
 ◆ Merchant State Unit #510H, OWB, PI an 0.1 V0
 ✕ Merchant State Unit #302H, OWB, PI an 0.1 V0