

**WELL COMPLETION OR RECOMPLETION REPORT AND LOG**

1a. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Dry <input type="checkbox"/> Other		5. Lease Serial No.	
b. Type of Completion <input type="checkbox"/> New Well <input type="checkbox"/> Work Over <input type="checkbox"/> Deepen <input type="checkbox"/> Plug Back <input type="checkbox"/> Diff. Zones <input type="checkbox"/> Hydraulic Fracturing Other: _____		6. If Indian, Allottee or Tribe Name	
2. Name of Operator		7. Unit or CA Agreement Name and No.	
3. Address		8. Well Name and Well No.	
3a. Phone No. (Include area code)		9. API Well No.	
4. Location of Well (Report location clearly and in accordance with Federal requirements)* At surface  At top prod. interval reported below  At total depth		10. Field and Pool or Exploratory	
		11. Sec., T., R., M., on Block and Survey or Area	
		12. County or Parish	13. State
14. Date Spudded	15. Date T.D. Reached	16. Date Completed <input type="checkbox"/> D & A <input type="checkbox"/> Ready to Prod.	17. Elevations (DF, RKB, RT, GL)*
18. Total Depth: MD TVD	19. Plug Back T.D.: MD TVD	20. Depth Bridge Plug Set: MD TVD	
21. Type Electric & Other Mechanical Logs Run (Submit copy of each)		22. Was well cored? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit analysis) Was DST run? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit report) Directional Survey? <input type="checkbox"/> No <input type="checkbox"/> Yes (Submit copy)	

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled

24. Tubing Record

Size	Dept Set (MD)	Packer Dept (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)

25. Producing Intervals			26. Perforation Record			
Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A)						
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, Post hydraulic fracturing chemical disclosures on FracFocus.org when required by state or federal regulation

Depth Interval	Amount, Type of Material and Date of Chemical Disclosure upload on FracFocus.org as applicable

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➔						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔						

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			➔						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			➔						

\*(See instructions and spaces for additional data on page 2)

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API.	Gas Gravity	Production Method
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth

32. Additional remarks (include plugging procedure).

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- Electrical/Mechanical Logs (1 full set req'd.)     
  Geologic Report     
  DST Report     
  Directional Survey  
 Sundry Notice for plugging and cement verification     
  Core Analysis     
  Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)\*

Name (please print) \_\_\_\_\_ Title \_\_\_\_\_  
 Signature \_\_\_\_\_ Date \_\_\_\_\_

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

## INSTRUCTIONS

**GENERAL:** This form is designed for submitting a complete and correct well completion/recompletion report and log on all types of wells on Federal and Indian leases to a Federal agency, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal office. If not filed prior to the time this summary record is submitted, copies of all currently available logs (drillers, geologists, sample and core analysis, and all types electric), formation and pressure tests, and directional surveys, should be attached hereto, to the extent required by applicable Federal laws and regulations. All attachments should be listed on this form, see item 33.

**ITEM 4:** Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal office for specific instructions.

**ITEM 17:** Indicate which reported elevation is used as reference (where not otherwise shown) for depth measurements given in other spaces on this form and in any attachments.

**ITEM 23:** Show how reported top(s) of cement were determined, i.e. circulated (CIR), or calculated (CAL), or cement bond log (CBL), or temperature survey (TS).

## NOTICES

The Privacy Act of 1974 and the regulation in 43 CFR 2.48 (d) provide that you be furnished the following information in connection with information required by this application.

**AUTHORITY:** 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. et seq.; 43 CFR 3160.

**PRINCIPAL PURPOSE:** The information is to be used to evaluate the actual operations performed in the drilling, completing and testing of a well on a Federal or Indian lease.

**ROUTINE USES:** (1) Evaluate the equipment and procedures used during the drilling and completing/recompleting of a well. (2) The review of geologic zones and formation encountered during drilling. (3) Analyze future applications to drill in light of data obtained and methods used. (4)(5) Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions.

**EFFECT OF NOT PROVIDING INFORMATION:** Filing of this report and disclosure of the information is mandatory once a well drilled on a Federal or Indian lease is completed/recompleted.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to allow evaluation of the technical, safety, and environmental factors involved with drilling and completing/recompleting wells on Federal and Indian oil and gas leases.

This information will be used to analyze operations and to compare equipment and procedures actually used with those proposed and approved.

Response to this request is mandatory only if the operator elects to initiate drilling and completing/recompleting operations on an oil and gas lease.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Information

Location information: 00S1

SHL: NENE / LOT: 1 / 630 FNL / 1057 FEL / TWSP: 22S / RNG: 32E / SEC: 2 / LAT: 32.426333 / LONG: -103.640269

KOP: NENE / LOT: 1 / 289 FNL / 378 FEL / TWSP: 22S / RNG: 32E / SEC: 2 / LAT: 32.427278 / LONG: -103.638066

PPP: SESE / 0 FSL / 348 FEL / TWSP: 21S / RNG: 32E / SEC: 26 / LAT: 32.4426092 / LONG: -103.6379494

PPP: SESE / LOT: 1 / 0 FSL / 336 FEL / TWSP: 21S / RNG: 32E / SEC: 35 / LAT: 32.4280942 / LONG: -103.6379351

PPP: SENE / 2640 FNL / 375 FEL / TWSP: 21S / RNG: 32E / SEC: 35 / LAT: 32.4353594 / LONG: -103.6379179

EXIT: SESE / 1220 FSL / 343 FEL / TWSP: 21S / RNG: 32E / SEC: 26 / LAT: 32.445941 / LONG: -103.637941

BHL: SESE / 1230 FSL / 343 FEL / TWSP: 21S / RNG: 32E / SEC: 26 / LAT: 32.445968 / LONG: -103.637941

Summary of Porous Zones Information:

Formation: AVALON SAND, Descriptions, Contents, etc: null, Bottom: 8952

Formation: BONE SPRING 1ST, Descriptions, Contents, etc: null, Bottom: 9936

Attachments: 00S1

Log Attachments:

- 1) Anderson\_Fed\_Com\_508H\_\_As\_Drilled\_WBS\_20221124135801.pdf
- 2) C\_102\_ANDERSON\_FED\_COM\_508H\_AS DRILLED\_20221124135830.pdf
- 3) 16104MD\_Anderson\_Fed\_Com\_508H\_1\_Inch\_20221124135734.pdf
- 4) Anderson\_Fed\_Com\_508H\_1\_Inch\_TVD\_Gamma\_Res\_FNL\_20221124135514.pdf
- 5) Anderson\_Fed\_Com\_508H\_FINAL\_SVY\_RPT\_20221124135556.pdf
- 6) Advance\_Energy\_\_Anderson\_Fed\_Com\_\_508H\_End\_of\_Well\_Report\_20221124135647.pdf

API: 30-025-49429

REGULATORY: NM Federal

OGRID # 372417

RIG: Nabors X47

KB: 3690.5'

GL: 3658'



AFE: NM0181

WELLHEAD

13-3/8" x 9-5/8" x 5-1/2"

MNDS

# Anderson Fed Com #508H

## BONE SPRING

### AS-DRILLED

Sec. 2; T- 22S; R- 32E, 630' FNL; 1057' FEL

SHL:

Lat: 32.426333

Long: -103.640269

NAD83

HOLE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
	120'	20" Conductor	120'		13-3/8" 54.5 J-55 BTC		
17 1/2"	1,219	Rustler	1,218	SPUD MW 8.4 ppg  FRESH  TD MW 10 ppg	0' - 1255'	Top of Lead: Surface 12.8 ppg 50% Excess 505 sks Top of Tail: 1,004 14.8 ppg 20% Excess 215sks	MUD: Fresh water only  CTS: 80bbls (235 sx)
	1,255	SURF CSG PT	1,255				
12 1/4"	3,080	DV Tool	3,079	DRLOUT MW 10 ppg  BRINE  Minimum Chlorides - 180k  TD MW <10.5 ppg	COMPLETE STRING 9-5/8" 40# J-55 BTC 0' - 3456'  9-5/8" 40# HCL-80 BTC 3456' - 4760'	2 STAGE CEMENT  1st STAGE LEAD: 12.8 ppg 960 sks 107% Excess TAIL: 14.8 ppg Top of Tail 3,808 275 sks 20% Excess  2nd STAGE LEAD: ppg Top of Lead 0 Not Pumped 96% Excess TAIL: ppg Top of Tail 2580 Not Pumped 0% Excess	DV & PKR & FLOAT EQUIPMENT  CTS: 78 bbls (238 sx)
	4,760	INTRM CSG PT	4,758				
8-3/4"	4,835	Base of Limestone	4,834	DRLOUT MW 9 ppg  CUT BRINE  KOP MW 9.2 ppg  CUT BRINE EOC MW 9.5 ppg	5-1/2" 23# HCP-110 CDC HTQ 0' - 16885'	Top of Lead: Surface 10.7 ppg 50% Excess 895 sks Top of Tail: 10,111 14.5 ppg 20% Excess 1600 sks	CTS: 108 bbls (178 sx)
	8,459 8,952	Lower Bushy Avalon	8,390 8,874				
8-3/4"	9,706 9,936 0	KOP 1st BS Sand	9,627 9,854 0			OBM TD MW 9.4-9.5 ppg	16,905 ' MD 6,399 ' VS 10,085 ' TVD
	10,486	EOC	10,216			WET SHOE	
8-3/4"	LATERAL			Marker Jts @: 9691'13619'		EOC VS = 820' Lat. Azi = VS Azi. = 359.82 deg Est BHST = 211 F Est BHCT = 176 F	
					5-1/2" 23# HCP-110 CDC HTQ NO FLOTATION SUB ALL PREMIUM CONNECTIONS 5.5" Wet Shoe (1) Guide Shoe	BHL: 1230' FNL 343' FEL LTP: LAT 32.445968 LON -103.637941	

DIRECTIONS TO LOCATON:



**DISTRICT I**  
1825 N. French Dr., Hobbs, NM 88240  
Phone (575) 393-8161 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) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 4, 2011

Submit one copy to appropriate  
District Office

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT  
As Drilled

API Number 30-025-49429	Pool Code 51683	Pool Name RED TANK;BONE SPRING
Property Code 326484	Property Name ANDERSON FEDERAL COM	Well Number 508H
OGRID No. 372417	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3658'

Surface Location

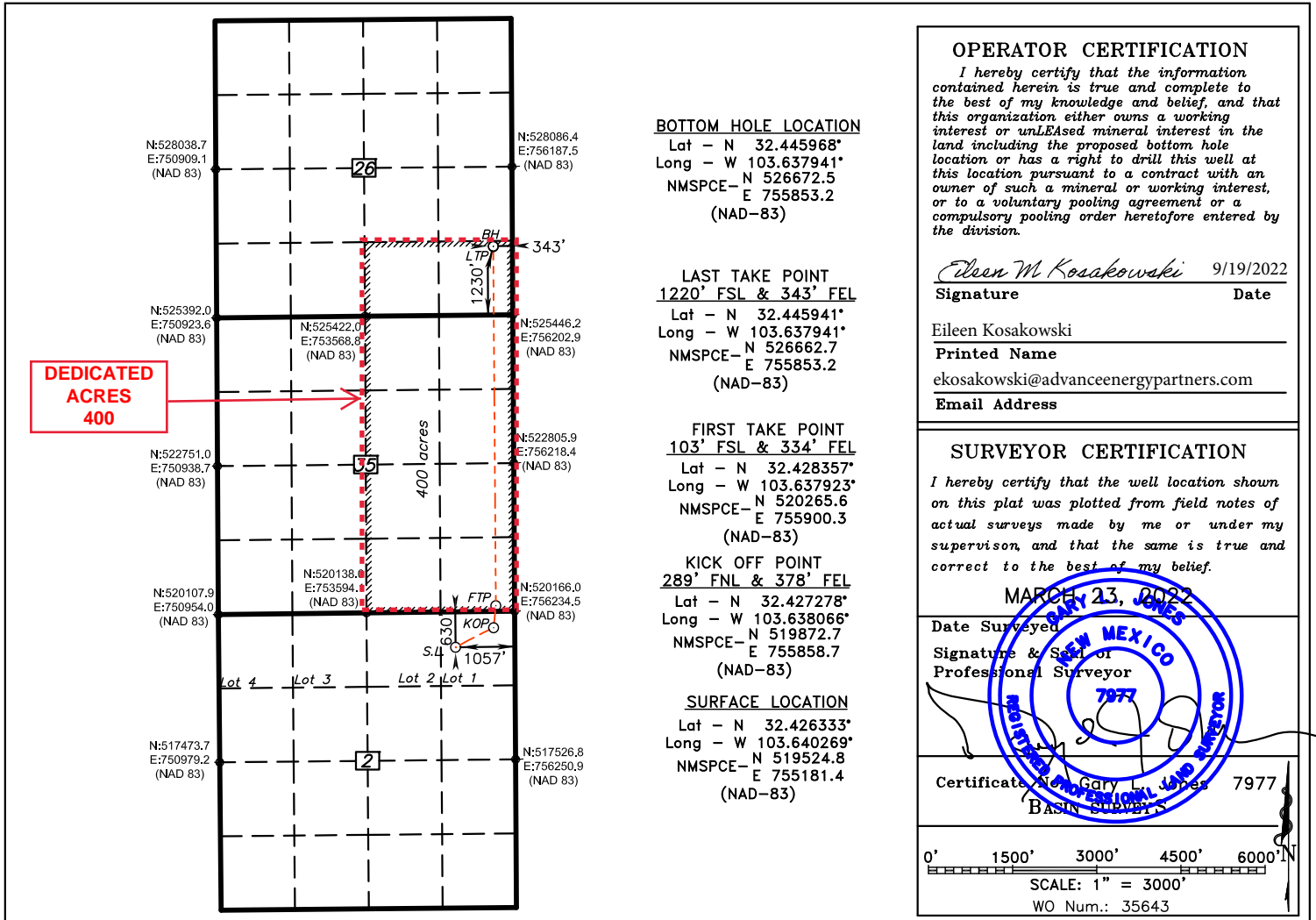
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	1057	EAST	LEA

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
P	26	21 S	32 E		1230	SOUTH	343	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
400		C	

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





**MEASURED DEPTH  
FORMATION EVALUATION  
& GAS ANALYSIS  
LOG  
5" - 100'**

Lea County  
 FIELD Red Tank/Bone Spring  
 LOCATION 2620 FSL 740 FWL SEC 30  
 WELL Anderson Fed Com 508H  
 COMPANY Advance Energy Partners, LLC

**COMPANY** Advance Energy Partners, LLC  
**GEOLOGIST** Sarah Regen  
**WELL** Anderson Fed Com 508H  
**FIELD** Red Tank/Bone Spring  
**COUNTY** Lea County  
**STATE** New Mexico

**LOCATION**  
 X: 755148.4, Y: 519524.4  
 Lat: 32.426333  
 Long: -103.640376

**OTHER SERVICES**  
 5" MD Log

API SERIAL NO 30-025-49429  
 SEC 2  
 TWP 22S  
 RANGE 32E

**SPUD DATE** \_\_\_\_\_ **TOTAL DEPTH** 18717 **ELEV:** \_\_\_\_\_  
**LOGGING STARTED** 12/10/2021 **@** 9690' **K.B.** 3683'  
**LOGGING FINISHED** \_\_\_\_\_ **@** \_\_\_\_\_ **D.F.** 3683'  
 \_\_\_\_\_ **@** \_\_\_\_\_ **G.L.** 3658'

BORE HOLE RECORD		CASING RECORD				
HOLE SIZE	FROM	TO	SIZE	WGT.	FROM	TO
7.5"	Surface	1275'	13.375"	54.5#	Surface	1275'
2.5"	1275'	4575'	10.75"	40.5#	Surface	4575'
7.5"	4575'					

**DRILLING CONTRACTOR** Nabors  
**REMARKS** X47  
**PERSONNEL** Marino Pareja / Lesley Land

**Disclaimer: STRATAGRAPH, INC. will make every effort to render our services efficiently and accurately, but will not be liable for failure to report or interpret its analysis correctly.**

**LEGEND**

<p><b>Abbreviations</b></p> <table border="0"> <tr><td>BG</td><td>Background Gas</td><td>LAST</td><td>Log After Short Trip</td></tr> <tr><td>CB</td><td>Corebit</td><td>MW</td><td>Mud Weight in lbs/gal</td></tr> <tr><td>CG</td><td>Connection Gas</td><td>NCB</td><td>New Corebit</td></tr> <tr><td>CK</td><td>Filter Cake</td><td>NB</td><td>New Bit</td></tr> <tr><td>CKF</td><td>Check For Flow</td><td>NR</td><td>No Returns</td></tr> <tr><td>CL</td><td>Salinity ppm</td><td>PDCB</td><td>Polycrystalline Diamond Compact Bit</td></tr> <tr><td>CO</td><td>Circulate Out</td><td>PERF</td><td>Perforated</td></tr> <tr><td>CR</td><td>Circulate Returns</td><td>PPM</td><td>Parts Per Million</td></tr> <tr><td>CT</td><td>Carbide Test</td><td>PR</td><td>Poor</td></tr> <tr><td>DB</td><td>Diamond Bit</td><td>PRT</td><td>Poor Returns</td></tr> <tr><td>DBG</td><td>Drilling Background Gas</td><td>PV</td><td>Plastic Viscosity</td></tr> <tr><td>DC</td><td>Depth correction</td><td>RM</td><td>Mud Resistivity OHM-METER</td></tr> <tr><td>DCB</td><td>Diamond Corebit</td><td>RMC</td><td>Mud-Cake Resistivity OHM-METER</td></tr> <tr><td>DF</td><td>Derrick Floor</td><td>RMF</td><td>Mud Filtrate Resistivity</td></tr> <tr><td>DG</td><td>Drilling Gas</td><td>RPM</td><td>Revolutions Per Minute</td></tr> <tr><td>DS</td><td>Directional Survey</td><td>RRB</td><td>Return Bit</td></tr> <tr><td>DST</td><td>Drill Stem Test</td><td>RT</td><td>Rotary Table</td></tr> <tr><td>EL</td><td>Electric Log</td><td>SF</td><td>Sea Floor</td></tr> <tr><td>E.M.A.</td><td>Equivalent Methane Gas</td><td>SO</td><td>Show Of Oil</td></tr> <tr><td>F</td><td>Filtrates API cc's</td><td>SOL</td><td>Solids %</td></tr> <tr><td>F/T</td><td>Flowline Temperature</td><td>SPP</td><td>Stand Pipe Pressure</td></tr> <tr><td>FR</td><td>Fair</td><td>STG</td><td>Short Trip Gas</td></tr> <tr><td>FV</td><td>Funnel Viscosity API sec</td><td>SWG</td><td>Swab Gas</td></tr> <tr><td>GCM</td><td>Gas Cut Mud</td><td>SVG</td><td>Survey Gas</td></tr> <tr><td>GCW</td><td>Gas Cut Water</td><td>S/T</td><td>Suction Temperature</td></tr> <tr><td>GD</td><td>Good</td><td>TB</td><td>Turbo Drill</td></tr> <tr><td>G&amp;OCM</td><td>Gas &amp; Oil Cut Mud</td><td>TD</td><td>Total Depth</td></tr> <tr><td>GL</td><td>Ground Level</td><td>TCL</td><td>Trip Chlorides</td></tr> <tr><td>GTT</td><td>Gas Trip Test</td><td>TG</td><td>Trip Gas</td></tr> <tr><td>KB</td><td>Kelley bushing</td><td>TVD</td><td>Total Vertical Depth</td></tr> <tr><td>LAT</td><td>Log After Trip</td><td>WOB</td><td>Weight On Bit</td></tr> </table>		BG	Background Gas	LAST	Log After Short Trip	CB	Corebit	MW	Mud Weight in lbs/gal	CG	Connection Gas	NCB	New Corebit	CK	Filter Cake	NB	New Bit	CKF	Check For Flow	NR	No Returns	CL	Salinity ppm	PDCB	Polycrystalline Diamond Compact Bit	CO	Circulate Out	PERF	Perforated	CR	Circulate Returns	PPM	Parts Per Million	CT	Carbide Test	PR	Poor	DB	Diamond Bit	PRT	Poor Returns	DBG	Drilling Background Gas	PV	Plastic Viscosity	DC	Depth correction	RM	Mud Resistivity OHM-METER	DCB	Diamond Corebit	RMC	Mud-Cake Resistivity OHM-METER	DF	Derrick Floor	RMF	Mud Filtrate Resistivity	DG	Drilling Gas	RPM	Revolutions Per Minute	DS	Directional Survey	RRB	Return Bit	DST	Drill Stem Test	RT	Rotary Table	EL	Electric Log	SF	Sea Floor	E.M.A.	Equivalent Methane Gas	SO	Show Of Oil	F	Filtrates API cc's	SOL	Solids %	F/T	Flowline Temperature	SPP	Stand Pipe Pressure	FR	Fair	STG	Short Trip Gas	FV	Funnel Viscosity API sec	SWG	Swab Gas	GCM	Gas Cut Mud	SVG	Survey Gas	GCW	Gas Cut Water	S/T	Suction Temperature	GD	Good	TB	Turbo Drill	G&OCM	Gas & Oil Cut Mud	TD	Total Depth	GL	Ground Level	TCL	Trip Chlorides	GTT	Gas Trip Test	TG	Trip Gas	KB	Kelley bushing	TVD	Total Vertical Depth	LAT	Log After Trip	WOB	Weight On Bit	<p><b>Lithology Symbols</b></p> <table border="0"> <tr><td></td><td>CLAY</td></tr> <tr><td></td><td>MARL</td></tr> <tr><td></td><td>SILT</td></tr> <tr><td></td><td>LIMESTONE</td></tr> <tr><td></td><td>LIMONITE</td></tr> <tr><td></td><td>GYPSUM</td></tr> <tr><td></td><td>DOLOMITE</td></tr> <tr><td></td><td>ANHYDRITE</td></tr> <tr><td></td><td>CHERT</td></tr> <tr><td></td><td>SALT</td></tr> <tr><td></td><td>COAL</td></tr> <tr><td></td><td>SHALE</td></tr> <tr><td></td><td>SAND</td></tr> <tr><td></td><td>CHALK</td></tr> <tr><td></td><td>ASH</td></tr> <tr><td></td><td>NO SAMPLE</td></tr> </table>		CLAY		MARL		SILT		LIMESTONE		LIMONITE		GYPSUM		DOLOMITE		ANHYDRITE		CHERT		SALT		COAL		SHALE		SAND		CHALK		ASH		NO SAMPLE	<p><b>Other Symbols</b></p> <table border="0"> <tr><td></td><td>CASING SEAT</td></tr> <tr><td></td><td>CORED INTERVAL</td></tr> <tr><td></td><td>NO RECOVERY</td></tr> <tr><td></td><td>SIDEWALL CORE</td></tr> <tr><td></td><td>TEST INTERVAL</td></tr> <tr><td></td><td>WIRELINE TEST</td></tr> <tr><td></td><td>Bright FLUORESCENCE</td></tr> <tr><td></td><td>Dull FLUORESCENCE</td></tr> <tr><td></td><td>Mineral FLUORESCENCE</td></tr> </table>		CASING SEAT		CORED INTERVAL		NO RECOVERY		SIDEWALL CORE		TEST INTERVAL		WIRELINE TEST		Bright FLUORESCENCE		Dull FLUORESCENCE		Mineral FLUORESCENCE
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E.M.A.	Equivalent Methane Gas	SO	Show Of Oil																																																																																																																																																																														
F	Filtrates API cc's	SOL	Solids %																																																																																																																																																																														
F/T	Flowline Temperature	SPP	Stand Pipe Pressure																																																																																																																																																																														
FR	Fair	STG	Short Trip Gas																																																																																																																																																																														
FV	Funnel Viscosity API sec	SWG	Swab Gas																																																																																																																																																																														
GCM	Gas Cut Mud	SVG	Survey Gas																																																																																																																																																																														
GCW	Gas Cut Water	S/T	Suction Temperature																																																																																																																																																																														
GD	Good	TB	Turbo Drill																																																																																																																																																																														
G&OCM	Gas & Oil Cut Mud	TD	Total Depth																																																																																																																																																																														
GL	Ground Level	TCL	Trip Chlorides																																																																																																																																																																														
GTT	Gas Trip Test	TG	Trip Gas																																																																																																																																																																														
KB	Kelley bushing	TVD	Total Vertical Depth																																																																																																																																																																														
LAT	Log After Trip	WOB	Weight On Bit																																																																																																																																																																														
	CLAY																																																																																																																																																																																
	MARL																																																																																																																																																																																
	SILT																																																																																																																																																																																
	LIMESTONE																																																																																																																																																																																
	LIMONITE																																																																																																																																																																																
	GYPSUM																																																																																																																																																																																
	DOLOMITE																																																																																																																																																																																
	ANHYDRITE																																																																																																																																																																																
	CHERT																																																																																																																																																																																
	SALT																																																																																																																																																																																
	COAL																																																																																																																																																																																
	SHALE																																																																																																																																																																																
	SAND																																																																																																																																																																																
	CHALK																																																																																																																																																																																
	ASH																																																																																																																																																																																
	NO SAMPLE																																																																																																																																																																																
	CASING SEAT																																																																																																																																																																																
	CORED INTERVAL																																																																																																																																																																																
	NO RECOVERY																																																																																																																																																																																
	SIDEWALL CORE																																																																																																																																																																																
	TEST INTERVAL																																																																																																																																																																																
	WIRELINE TEST																																																																																																																																																																																
	Bright FLUORESCENCE																																																																																																																																																																																
	Dull FLUORESCENCE																																																																																																																																																																																
	Mineral FLUORESCENCE																																																																																																																																																																																

NOTE: All Lithological Symbols are as per the Shell Oil Exploration Training Manual, Acknowledged by the American Association of Petroleum Geologists.

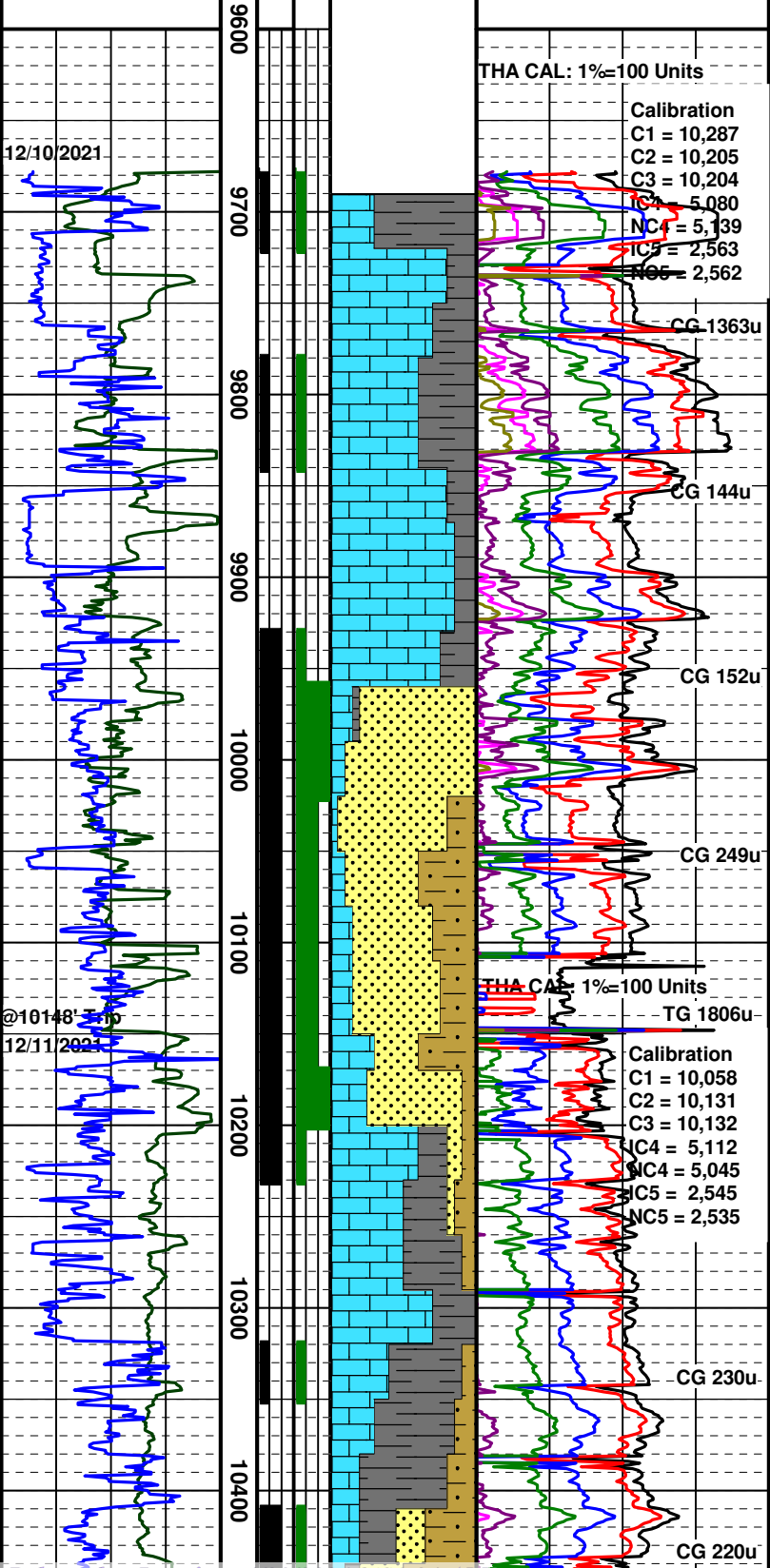
Slide	ROP		Cut	Fluor	% Lith	Total Gas/Chromo		Drilling Parameters & Surveys	Descriptions	Images
	Average ROP	Depth				Total Gas	Unit			
250	FPH	0			1	10000				
250	FPH	0			100	10.06				

Received by GCB 5/2/2024 4:36:44 PM

Released to Imaging: 4/30/2026 8:01:34 AM

0 API 180

100	PPM	1e+06
Ethane		
100	PPM	1e+06
Propane		
100	PPM	1e+06
Iso-Butane		
100	PPM	1e+06
Normal Butane		
100	PPM	1e+06
Iso-Pentane		
100	PPM	1e+06



Stratagraph began logging at 07:00 on 12/10/2021 @ 9690'

MWI 9.1  
MWO 9.1

MD: 9706' Inc:2.3°  
Azm:146.5° TVD: 9727.5'  
VS: 410.98'

WOB: 18  
RPM: --  
SPM:1800  
SPP: 205

SH: dk gry - gry, frm - v frm, i.p. hd, abd blkly, i.p. amor, occ rddd, calc cmt/mtrx, mod slty, brit, occ intbd, Calc incl, mic incl, tr-5% fluor dll yell, slw - stmg cut.

LS: wkst - pkst, gry - crm, mott gry-brn, frm - vfrm, i.p. hd, microxln - f xln, dl - gran, dns, Calc incl, tr min fluor.

MD: 9802' Inc:6.3°  
Azm:23.7° TVD: 9723.3'  
VS: 414.5'

MWI 9.1  
MWO 9.1

SH: dk gry - gry, frm - v frm, i.p. hd, abd blkly, i.p. amor, occ rddd, calc cmt/mtrx, mod slty, brit, occ intbd, Calc incl, mic incl, tr fluor dll yell, slw - stmg cut.

MD: 9898' Inc:13.1°  
Azm:11.5° TVD: 9817.9'  
VS: 430.4'

WOB: 35  
RPM: --  
SPM:1950  
SPP: 205

LS: wkst - pkst, gry - crm, mott gry-brn, frm - vfrm, i.p. hd, microxln - f xln, occ mxln, dl - gran, dns, calc incl, pel incl, tr min fluor

MD: 9993' Inc:21.01°  
Azm:8.35° TVD: 9908.6'  
VS: 458.2'

MWI 9.1  
MWO 9.1

SST: gry - clr - bu - brn, consol - mod consol, fri, abd v f gr, abd f gr, i.p. m gr, sbrddd - sbang, sm - fros, mod - w srtg, calc cmt/mtrx, Calc incl. 40-60% fluor brwnsh yll, v slw cut, tr-20% brgth yll, strmg cut

SLTST: gry - dk gry, frm - v frm, blkly - rddd, calc cmt/mtrx, slty, i.p. vf gr - f gr, occ m gr, brit - fri, Calc incl, tr mic incl, tr carb incl

MD:10089' Inc:26.1°  
Azm:6.94° TVD: 9996.6'  
VS: 432.2'

WOB: 50  
RPM: --  
SPM:1800  
SPP: 168

LS:mdst - wkst, occ pkst, crm - gry, i.p. crm mott gry-brn, frm - vfrm, i.p. hd, mxln, occ fxl, dl - gran, dns, calc incl tr min fluor, pl yll, n cut.

MD:10185' Inc:36.6°  
Azm:4.83° TVD:10078.4'  
VS: 546.4'

MWI 9.2  
MWO 9.2

SST: clr - grysh - bu - brnsh, mnr gry - dk gry, fris, consol - mod consol, v f gr - f gr, i.p. m gr, sbrddd - sbang, sm - fros, mod - w srtg, calc cmt/mtrx, Calc incl. 30-50% fluor - brwnsh yll, slw - strmg cut

MD:10280' Inc:51.4°  
Azm:6.3° TVD:10146.6'  
VS: 612.3'

WOB: 21  
RPM: --  
SPM:1600  
SPP: 171

SH: dk gry - gry, frm - v frm, i.p. hd, abd blkly, i.p. amor, occ rddd, occ vf gr, calc cmt/mtrx, mod slty, brit, occ intbd, Calc incl, mic incl, tr fluor dll yell, slw - stmg cut.

MD:10376' Inc:68.04°  
Azm:5.7° TVD:10194.8'  
VS: 694.9'

MWI 9.1  
MWO 9.1

LS: wkst - pkst, gry - crm, mott gry-brn, frm - vfrm, i.p. hd, microxln - f xln, occ mxln, dl - gran, dns, calc incl, pel incl, tr min fluor, pl yll, n cut.

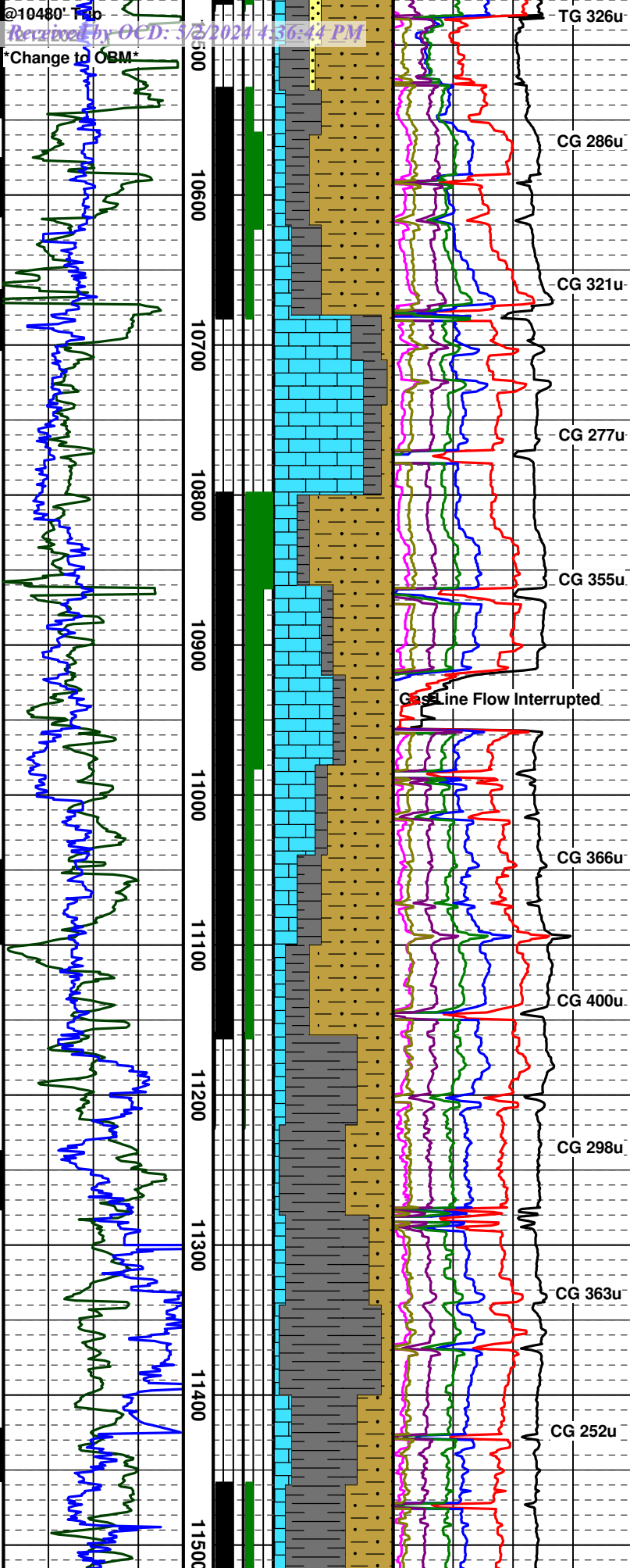
MD:10422' Inc:77.85°  
Azm:2.2° TVD:10208.25'  
VS: 738.8'

WOB: 21

SH: gry - dk gry, i.p. v dk gry, occ brn - dk brn, frm - v frm, i.p. hd, blkly, i.p. amor, i.p. rddd, calc cmt/mtrx, slty, occ vf - f gr, brit, tr Calc incl, tr mic incl, tr carb incl

\*Change to OBM\*

1500  
10600  
10700  
10800  
10900  
11000  
11100  
11200  
11300  
11400  
11500



TG 326u  
MD:10503' Inc:91°  
Az:359.6° TVD:10216.1'  
VS: 818.97'  
MWI 9.4  
MWO 9.4

CG 286u  
MD:10599' Inc:90.2°  
Az:0.35° TVD:10215.1'  
VS: 914.53'  
WOB: 38  
RPM: 40  
SPM:3600  
SPP: 209

CG 321u  
MD:10694' Inc:88.4°  
Az:359.4° TVD:10216.25'  
VS: 1009.1'  
MWI 9.2  
MWO 9.2

CG 277u  
MD:10789' Inc:88.8°  
Az:359.03° TVD:10218.5'  
VS: 1103.5'  
WOB: 40  
RPM: 40  
SPM:3800  
SPP: 222

CG 355u  
MD:10885' Inc:89.9°  
Az:359.3° TVD:10219.6'  
VS: 1198.9'  
MWI 9.2  
MWO 9.2

Gas Line Flow Interrupted

CG 366u  
MD:10980' Inc:91.7°  
Az:358.1° TVD:10218.2'  
VS: 1293.2'  
WOB: 30  
RPM: 50  
SPM:3800  
SPP: 222

CG 400u  
MD:11076' Inc:89.45°  
Az:1.2° TVD:10217.2' VS:  
1388.7'  
MWI 9.2  
MWO 9.2

CG 298u  
MD:11172' Inc:89.7°  
Az:0.96° TVD:10217.9'  
VS: 1484.4'  
WOB: 30  
RPM: 50  
SPM:3400  
SPP: 222

CG 363u  
MD:11267' Inc:88.3°  
Az:1.7° TVD:10219.6' VS:  
1579.1'  
MWI 9.2  
MWO 9.2

CG 252u  
MD:11363' Inc:89.5°  
Az:1.6° TVD:10221.3' VS:  
1674.9'  
WOB: 38  
RPM: 40  
SPM:3700  
SPP: 222

CG 274u  
MD 11459' Inc 89.2° Azm  
1° TVD 10222.5' VS  
1770.61'

mic incl, tr carb incl, tr fluor,  
dll yll, slw - strmg cut

SH: dk brn, brn - brnsh gry,  
frm - mod frm, sbrnd - blk, i.p.  
amor, calc cmt/mtrx, slty, occ  
vf - f gr, brit, tr calc incl, tr mic  
incl, tr carb incl

SLTST: brn - dk brn, brnsh  
gry, mod frm, mnr p consol,  
sbrndd - blk, calc cmt/mtrx,  
slty, i.p. vf gr - f gr, occ m gr,  
brit - fria, calc incl, tr mic incl,  
tr carb incl, 10-30% fluor, dll  
yll, slw - strmg cut

LS: wkst - mdst, occ pkst, gry -  
crm, crm mott gry-brn, frm -  
mod frm, occ sft, microxln - f  
xln, dl, occ gran, dns, calc incl,  
pel incl. Tr min fluor

SH: dk brn, brn - brnsh gry,  
frm - mod frm, sbrnd - blk, i.p.  
amor, calc cmt/mtrx, slty, occ  
vf - f gr, brit, tr calc incl, tr mic  
incl, tr carb incl

SLTST: brnsh gry - brn - dk  
brn,, mod frm - frm, i.p. p  
consol, sbrndd - blk, calc  
cmt/mtrx, slty, i.p. vf gr - f gr,  
brit, occ fria, calc incl, tr mic  
incl, tr carb incl, 40-60% fluor,  
dll yll, slw - strmg cut, blsh rsd  
rng cut.

LS: wkst - mdst, occ pkst, gry -  
crm, crm mott gry-brn, frm -  
mod frm, occ sft, microxln - f  
xln, dl, occ gran, dns, calc incl,  
pel incl. Tr min fluor

SH: dk brn, brn - brnsh gry,  
frm - mod frm, sbrnd - blk, i.p.  
amor, calc cmt/mtrx, slty, occ  
vf - f gr, brit, tr calc incl, tr mic  
incl, tr carb incl

LS: wkst - mdst, occ pkst, gry -  
crm, crm mott gry-brn, frm -  
mod frm, occ sft, microxln - f  
xln, dl, occ gran, dns, calc incl,  
pel incl. Tr min fluor

SLTST: gry - brn - dk brn,,  
mod frm, i.p. sft - frm, sbrndd  
- blk, calc cmt/mtrx, slty, i.p. vf  
gr - f gr, brit, occ fria, calc incl,  
tr mic incl, tr carb incl, 30%  
fluor, dll yll, slw - strmg cut

SH: dk gry - gry, dk brn - brn,  
frm, i.p. hrd, blk - sbrnd, i.p.  
amor, calc cmt/mtrx, slty, occ  
vf gr, brit, tr calc incl, tr mic  
incl, tr carb incl

SLTST: dk gry - dk brn, gry-  
brn,, frm - mod frm, i.p. hrd,  
sbrndd - blk, calc cmt/mtrx,  
slty, i.p. vf gr - f gr, brit, fria,  
calc incl, tr mic incl, tr carb  
incl,

SH: dk gry - dk brn , mnr gry -  
brn, frm, i.p. hrd, blk, i.p.  
amor - sbrnd, sl - calc  
cmt/mtrx, slty, tr vf gr, brit, tr  
calc / mic / carb incl

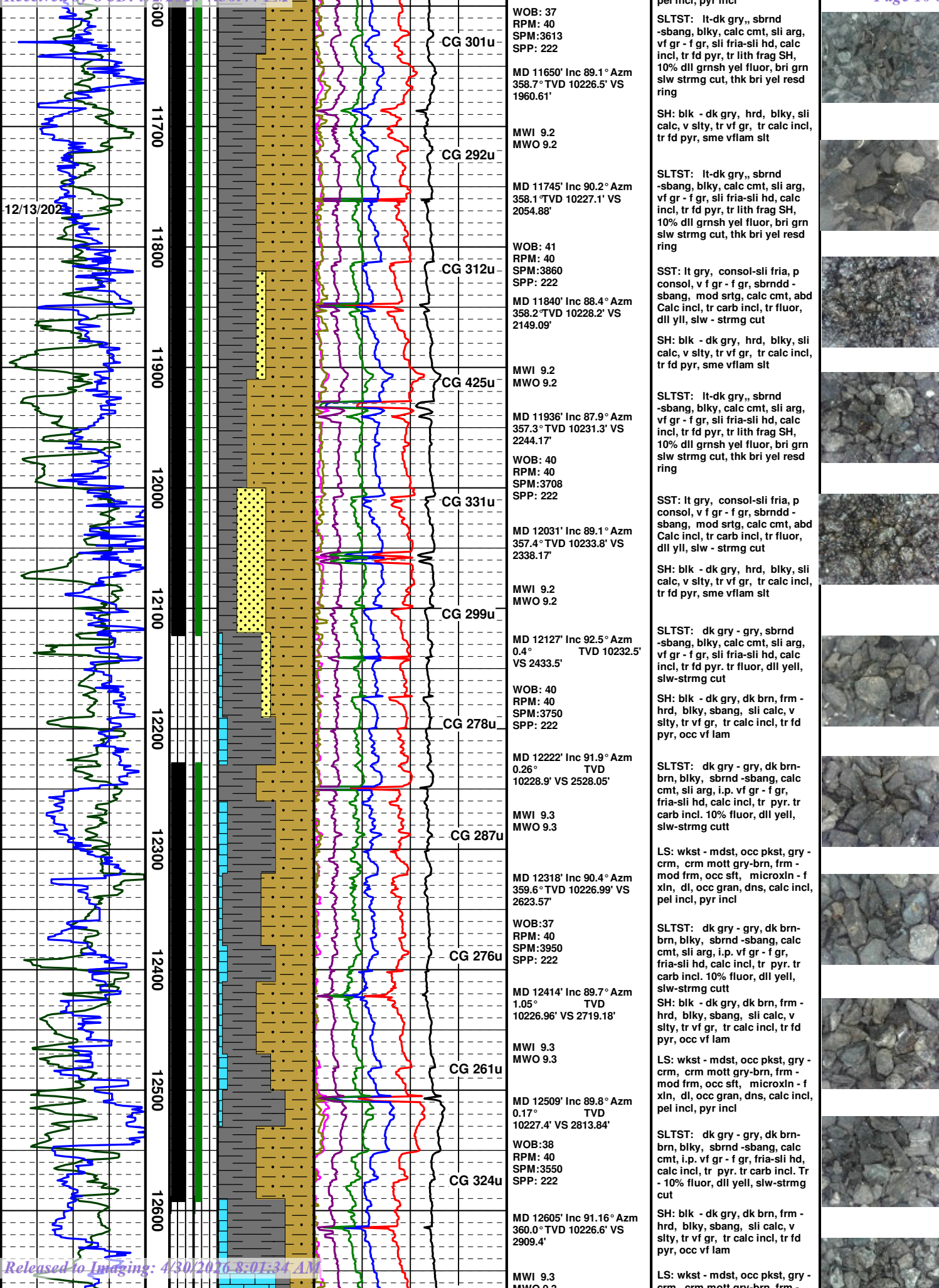
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mnr gry - brn, frm, i.p. hrd,  
blk, i.p. amor - sbrnd, sl - calc  
cmt/mtrx, slty, tr vf gr, brit, tr  
calc / mic / carb incl

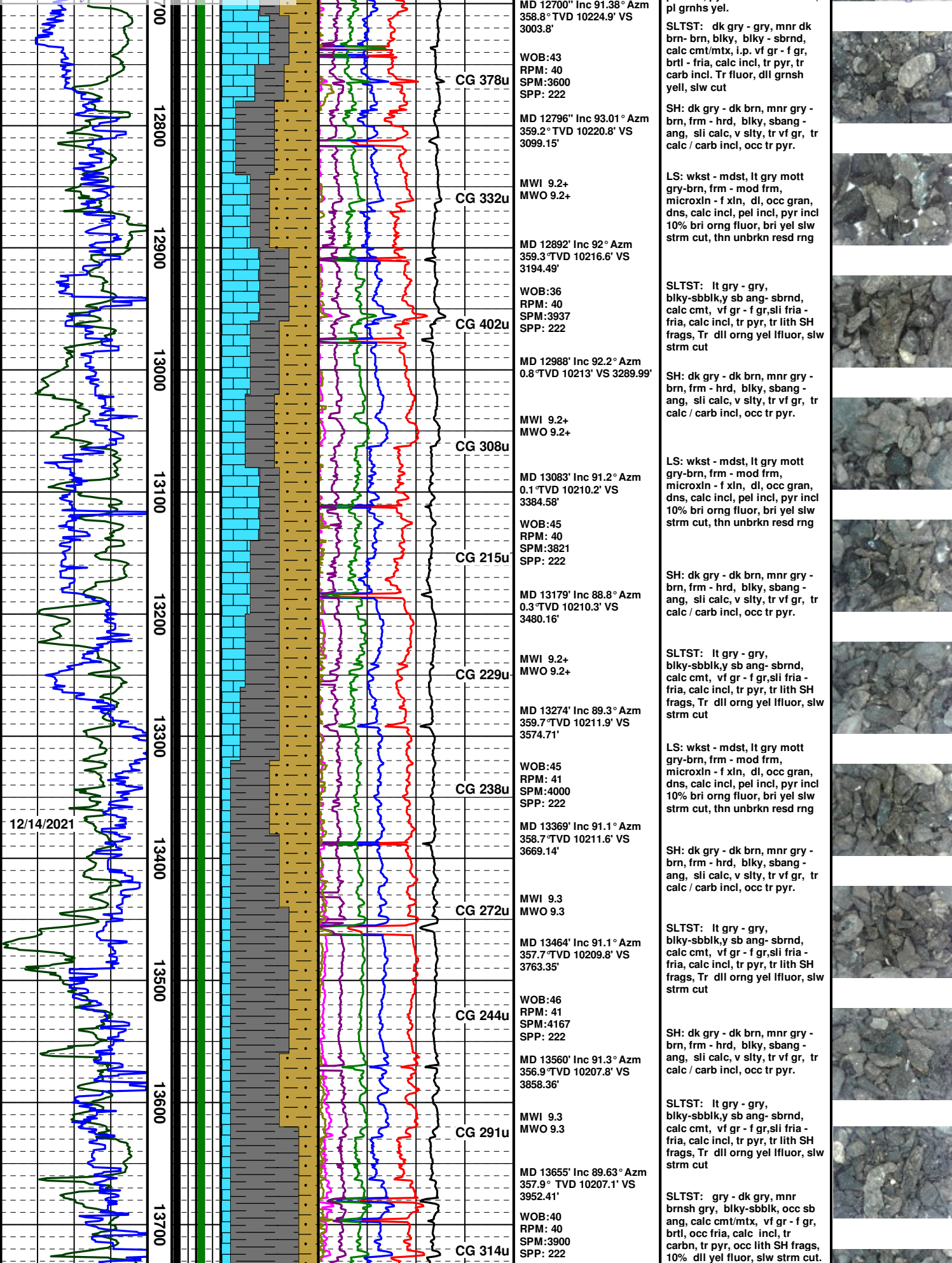
SLTST: lt-dk gry,, frm - mod  
frm, i.p. hrd, sbrnd - sbang,  
blk, calc cmt, slty, vf gr - f gr,  
sli fria, calc incl, tr mic incl, tr  
lith frag SH, 10% dll grnsh yel  
fluor, bri grn slw strmg cut, thk  
bri yel resd ring

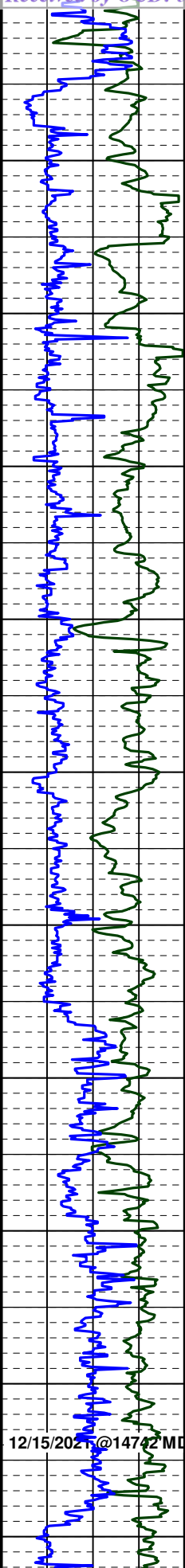
SH: blk - dk gry - dk brn ,  
mnr gry - brn, frm, i.p. hrd,  
blk, i.p. amor - sbrnd, sl - calc  
cmt/mtrx, slty, tr vf gr, brit, tr  
calc / mic / carb incl

LS: wkst - mdst, occ pkst, gry -  
crm, crm mott gry-brn, frm -

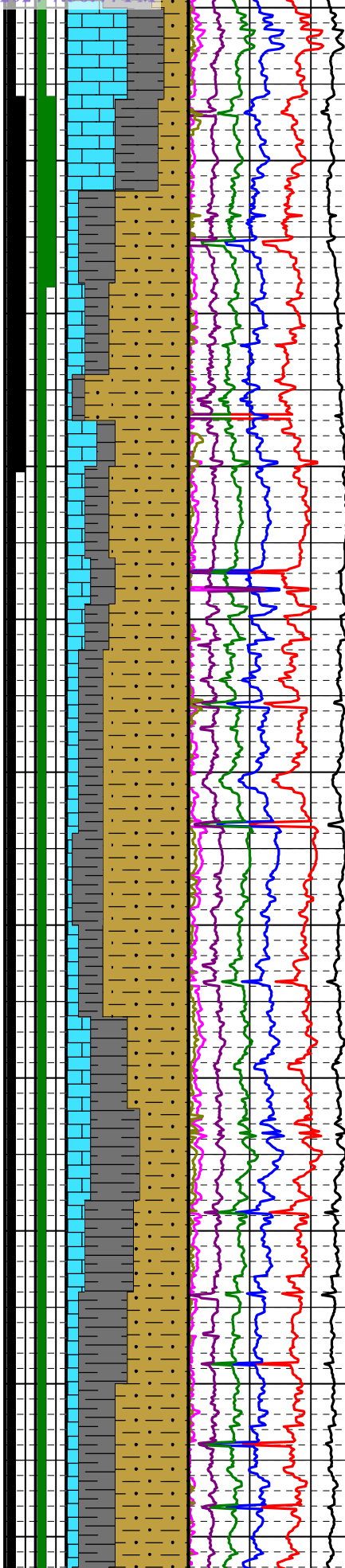








13800  
13900  
14000  
14100  
14200  
14300  
14400  
14500  
14600  
14700  
14800



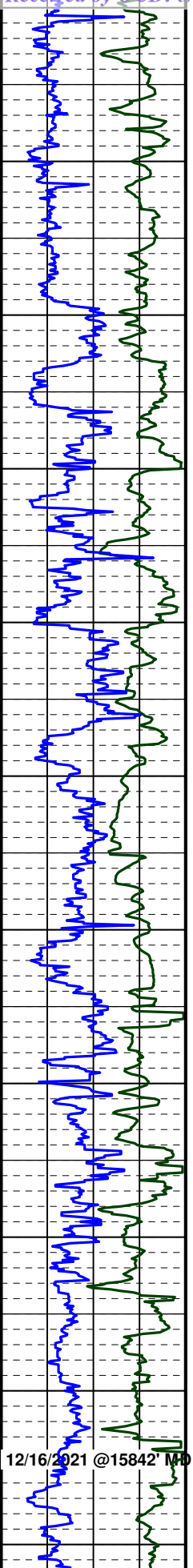
CG 340u  
CG 217u  
CG 319u  
CG 439u  
CG 419u  
CG 339u  
CG 339u  
CG 320u  
CG 306u  
CG 243u  
CG 275u

MWI 9.2  
MWO 9.2  
MD 13846' Inc 89.19° Azm  
357.1° TVD 10209.7' VS  
4141.79'  
WOB:46  
RPM: 40  
SPM:3900  
SPP: 222  
MD 13941' Inc 90.37° Azm  
359.5° TVD 10210.1' VS  
4190.04'  
MWI 9.2  
MWO 9.2  
MD 14037' Inc 92.13° Azm  
1.75° TVD 10208.0' VS  
4331.66'  
WOB:35  
RPM: 40  
SPM:4200  
SPP: 240  
MD 14132' Inc 91.25° Azm  
3.25° TVD 10205.0' VS  
4426.48'  
MWI 9.2  
MWO 9.2  
MD 14228' Inc 90.37° Azm  
1.49° TVD 10203.84' VS  
4522.33'  
WOB:40  
RPM: 40  
SPM:4100  
SPP: 240  
MD 14324' Inc 90.8° Azm  
0.3° TVD 10202.9' VS  
4618.02'  
MWI 9.2  
MWO 9.2  
MD 14419' Inc 92.3° Azm  
0.6° TVD 10200.4' VS  
4712.62'  
WOB:40  
RPM: 40  
SPM:4100  
SPP: 240  
MD 14515' Inc 90.3° Azm  
2.8° TVD 10198.2' VS  
4808.28'  
MWI 9.25  
MWO 9.25  
MD 14565' Inc 91.4° Azm  
3.3° TVD 10197.5' VS  
4858.33'  
WOB:40  
RPM: 50  
SPM:240  
SPP: 4333  
MD 14663' Inc 89.5° Azm  
1.5° TVD 10196.7' VS  
4956.18'  
MWI 9.25  
MWO 9.25  
MD 14752' Inc 89.1° Azm  
0.7° TVD 10197.7' VS  
5044.91'  
WOB:37  
RPM: 9-41  
SPM:240  
SPP: 4310  
MD 14802' Inc 89° Azm 1°  
TVD 10198.6' VS 5094.74'  
MWI 9.25

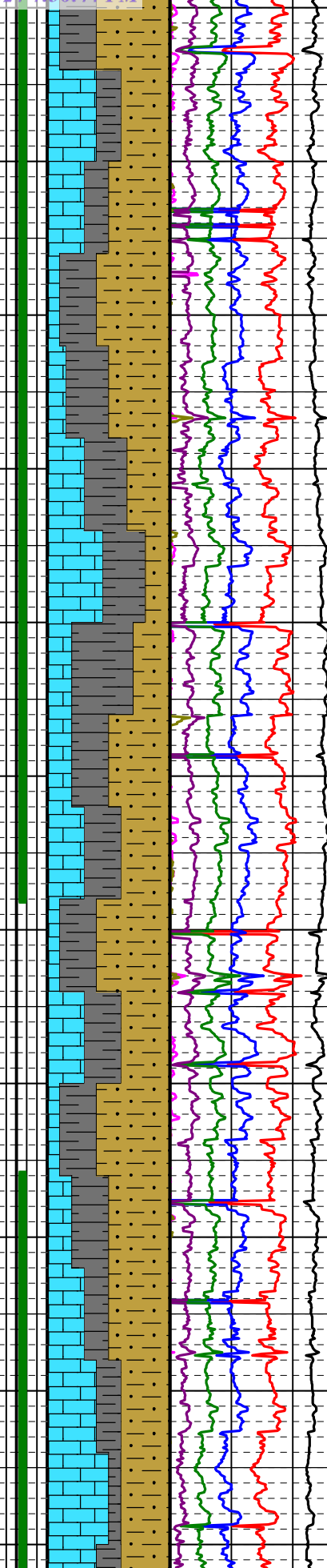
- mod frm, microxin - f xln, dl  
occ gran, dns, calc incl, pel  
incl, pyr incl. tr orng yll fluor,  
slw cut,  
SLTST: gry - dk gry, mnr  
brnsh gry, blkly-sbbk, occ sb  
ang, calc cmt/mtx, vf gr - f gr,  
brtl, occ fria, calc incl, tr  
carbn, tr pyr, occ lith SH frags,  
SH: v dk gry-dk brn, mnr gry -  
brn, frm - v frm, i.p. hrd,  
sbang - blkly, sli calc, slty, tr  
calc / carbn / mic incl, occ tr  
pyr.r.  
SLTST: gry - dk gry, mnr  
brnsh gry, frm - mod frm,  
i.p.hrd, blkly, sbbkly - sbrnd,  
calc cmt/mtx, vf gr - f gr, brtl,  
occ fria, calc incl, tr carbn incl,  
10-30% dll grnsh yel - fluor,  
slw strm cut.  
SH: v dk gry-dk brn, mnr gry -  
brn, frm - v frm, i.p. hrd,  
sbang - blkly, sli calc, slty, tr  
calc / carbn / mic incl, occ tr  
pyr.r.  
LS: wkst - mdst, occ pkst,  
grysh - crm, mott gry-brn, frm  
- mod frm, microxin - f xln, dl,  
occ gran, dns, calc incl, pel  
incl, pyr incl. tr-5% orng yll  
fluor, slw cut,  
SLTST: gry - dk gry, mnr  
brnsh gry, frm - mod frm,  
i.p.hrd, blkly, sbbkly - sbrnd,  
calc cmt/mtx, vf gr - f gr, brtl,  
occ fria, calc incl, tr carbn,  
Tr-10% dll grnsh yel - fluor,  
slw strm cut.  
SH: drk gry gry blk, frm-mod  
hd, plty blkly, aren ip, calc, no  
fluor, no cut  
LS: pred wacke stn, sme mud  
stn, wh tn lt gry drk gry, mic- vf  
xln, mas-succ, arg ip, aren ip,  
abd embd cal, no fluor, no cut  
SLTST: wh lt-dk gy, slit- vf grn,  
w srt, sb rnd-rnd, sl hd, arg  
mtx, lmy incl, 10% dull yel- grn  
fluor, med strmg cut, thk br  
yel resd rng  
SH: drk gry gry blk, frm-mod  
hd, plty blkly, aren ip, calc, no  
fluor, no cut  
SLTST: wh lt-dk gy, slit- vf grn,  
w srt, sb rnd-rnd, sl hd, arg  
mtx, lmy incl, 10% dull yel- grn  
fluor, med strmg cut, thk br yel  
resd rng  
SH: drk gry gry blk, frm-mod  
hd, plty blkly, aren ip, calc, no  
fluor, no cut  
SLTST: wh lt-dk gy, slit- vf grn,  
w srt, sb rnd-rnd, sl hd, arg  
mtx, lmy incl, 10% dull yel- grn  
fluor, med strmg cut, thk br yel  
resd rng  
LS: wacke stn, wh tn lt gry drk  
gry, vf xln, succ, arg ip, aren ip,  
no fluor, no cut  
SLTST: wh lt-dk gy, slit- vf grn,  
w srt, sb rnd-rnd, sl hd, arg  
mtx, lmy incl, 10% dull yel- grn  
fluor, med strmg cut, thk br yel  
resd rng



12/15/2025 @14742 MD



14900  
15000  
15100  
15200  
15300  
15400  
15500  
15600  
15700  
15800  
15900



**CG 307u**  
MWO 9.25  
MD 14898' Inc 90.8° Azm 359.3° TVD 10198.7' VS 5190.3'  
WOB:40  
RPM: 50  
SPM:240  
SPP: 4143

**CG 267u**  
MD 14993' Inc 91.1° Azm 358.41° TVD 10197.1' VS 5284.7'

**CG 236u**  
MWI 9.3  
MWO 9.3  
MD 15088' Inc 93.2° Azm 358.4° TVD 10193.6' VS 5378.9'  
WOB:40  
RPM: 50  
SPM:240  
SPP: 4100

**CG 239u**  
MD 15184' Inc 93.5° Azm 0.08° TVD 10187.97' VS 5474.13'

**CG 260u**  
MWI 9.25  
MWO 9.25  
MD 15280' Inc 90.02° Azm 358.8° TVD 10184.98' VS 5569.53'  
WOB:45  
RPM: 60  
SPM:240  
SPP: 4250

**CG 390u**  
MD 15376' Inc 91.96° Azm 357.97° TVD 10183.33' VS 5564.78'

**CG 385u**  
MWI 9.2  
MWO 9.2  
MD 15471' Inc 92.62° Azm 357.27° TVD 10179.53' VS 5758.81'  
WOB:45  
RPM: 40  
SPM:240  
SPP: 4300

**CG 386u**  
MD 15566' Inc 92.26° Azm 355.86° TVD 10175.48' VS 5852.57'

**CG 258u**  
MWI 9.2  
MWO 9.2  
MD 15661' Inc 92.2° Azm 354.5° TVD 10171.8' VS 5945.96'  
WOB:37  
RPM: 0  
SPM:240  
SPP: 4319

**CG 245u**  
MD 15757' Inc 94.2° Azm 356.6° TVD 10166.5' VS 6040.36'

**CG 232u**  
MWI 9.2  
MWO 9.2  
MD 15853' Inc 95.4° Azm 358.1° TVD 10158.5' VS 6135.05'  
WOB:45  
RPM: 60  
SPM:240  
SPP: 4400

**CG 201u**  
MD 15948' Inc 96.22° Azm 359.4° TVD 10148.9' VS

LS: mud-wacke stn, wh lt gry drk gry, crypt-vf xln, dns-succ, arg ip, sme aren, no fluor, no cut

LS: md-wckst, i.p. pckst, gry - crm, crm w mott tnsh & grysh, mod frm -frm, i.p. sft, crypt-vf xln, gran, vf-f gr, dns, i.p. arg, calc incl, pel incl, occ lth incl. Tr min fluor, orgn yll, n cut.

SLTST: gry - dk gry, slty- vf grn, frm-mod frm, occ hrd, w srt, blkly, sb rnd-rnd, arg / sl calc mtx, calc incl, carb incl, 10% dull yel- grn fluor, slw-strmg cut, yel resd rng

SH: drk gry gry blk, frm-mod hd, plty blkly, i.p. slty, occ vf gr, sl calc mtx, calc/carb incl, no fluor, no cut

SLTST: gry - dk gry, slty- vf grn, frm-mod frm, occ hrd, w srt, blkly, sb rnd-rnd, arg / sl calc mtx, calc incl, carb incl, 10% dull yel- grn fluor, slw-strmg cut, yel resd rng

LS: md-wckst, i.p. pckst, gry - crm, crm w mott tnsh & grysh, mod frm -frm, i.p. sft, crypt-vf xln, gran, vf-f gr, dns, i.p. arg, calc incl, pel incl, occ lth incl. Tr min fluor, orgn yll, n cut.

SH: drk gry - blk, i.p. gry, frm-mod hd, i.p. hrd, blkly - sbang, i.p. slty, occ vf gr, sl calc mtx, calc/carb incl, no fluor, no cut

SLTST: gry - dk gry, brnsh gry, frm-mod frm, occ hrd, slty- vf grn, occ f gr, w srt, blkly, sb rnd-rnd, arg / sl calc mtx, calc incl, carb incl, tr dull yel - grn fluor, slw- strmg cut

SH: drk gry - blk, i.p. gry, frm-mod hd, i.p. hrd, blkly - sbang, i.p. slty, occ vf gr, sl calc mtx, calc/carb incl, no fluor, no cut

SLTST: gry - dk gry, brnsh gry, frm-mod frm, occ hrd, slty- vf grn, occ f gr, w srt, blkly, sb rnd-rnd, arg / sl calc mtx, calc incl, carb incl, tr dull yel - grn fluor, slw- strmg cut

LS: md-wckstt, gry - crm, crm w mott grysh, mod frm -frm, i.p. sft, crypt-vf xln, gran, vf-f gr, dns, i.p. arg, calc incl, pel incl, occ lth incl.

SLTST: gry - dk gry, slty- vf grn, frm-mod frm, occ hrd, w srt, blkly, sb rnd-sbang, arg, sl calc cmt, calc incl, 5-10% dull yel- grn fluor, slw yel strmg cut, yel resd rng


LS: md-wcke stn, gry - tn, crm w mott grysh, mod frm -frm, crypt-vf xln, dns-succ, sli arg, calc incl, pel incl, occ lth incl.

SLTST: gry - dk gry, slty- vf grn, frm-mod frm, occ hrd, w srt, blkly, sb rnd-sbang, arg, sl calc cmt, calc incl, 5-10% dull yel- grn fluor, slw yel strmg cut, yel resd rng

SH: drk gry - blk, dk grysh brn, frm-mod hd, i.p. hrd, blkly, sbnd - sbang, i.p. slty, occ vf gr, sl calc mtx, calc/carb incl, no fluor, no cut



12/16/2021 @15842' MD

Slide	Gamma Ray (MWD) 0 API 180 Average ROP 250 FPH 0 Average ROP 250 FPH 0 ROP	Depth 16100 Cut Fluor	CG 219u @16104' Trip	6228.9' MWI 9.3 MWO 9.3 WOB:40 RPM: 60 SPM:240 SPP: 4200	SLTST: gry - dk gry, slty- vf grn, frm-mod frm, occ hrd, w srt, blkky, sb rnd-sbang, arg, sl calc cmt, calc incl, carb incl, occ tr pyr incl. 5-10% dull yel- grn fluor, slw yel strmg cut, yel resd rng LS: md-wcke stn, gry - tn, crm w mott grysh, mod frm -frm, crypt- vf xln, dns-succ, sli arg, calc incl, pel incl, occ lth incl.	
	ROP	Depth				



# Anderson Fed Com 508H

TVD  
1":100'

**Company:** Advance Energy Partners, LLC  
**Well Name:** Anderson Fed Com 508H  
**API:** 30-025-49429  
**County/Parish:** Lea  
**State:** New Mexico  
**Country:** US  
**Job number:** WT-21-179  
**Field:** Bone Spring  
**Rig Id:** Nabors X47  
**Survey Company:** Aim Directional Services, LLC

**MWD 1:** Kyle Kusak  
**MWD 2:** Ruben Flores

**Log measurements:** Gamma, Temp, ROP, Resistivity  
**Depth measured from:** 140 - 16905'  
**Maximum temperature:** 177.8°F

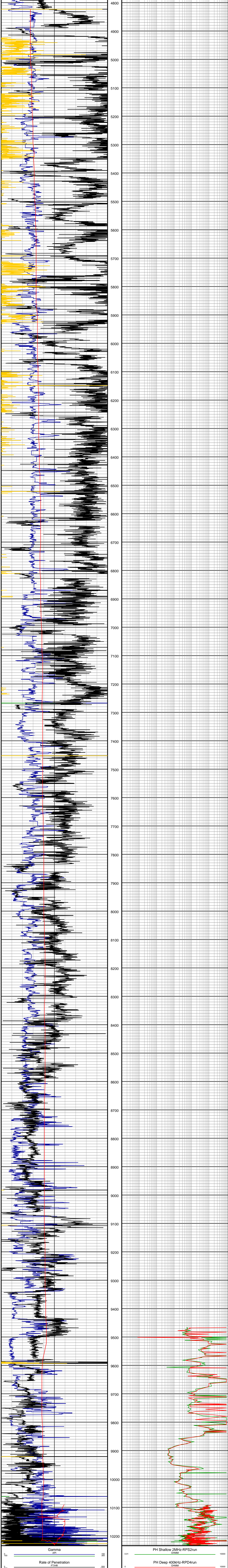
Depth	Date
Start: 155 ft	11/18/2021
End: 16905 ft	12/17/2021

Casing	Depth	Casing Size	Hole Size
Surface:	1275 ft	13 3/8"	17 1/2"
Intermediate:	4775 ft	9 5/8"	12 1/4"

Mud Type:	Elevations
OBM	KB:
Density: 9.4(ppg)	DF: 3690.5'
Viscosity: 63 (sec/qt) @ 105°F	GL: 3657.5'
Rm:	
Rmf:	
Rmc:	

Run	Tool S/N	Gamma Cal	Bit Size	Offsets			Mud Data Type	Mud Weight	Depths		Dates	
				Survey	Gamma	Resis			Start	End	Start	End
1	EN-006	N/A	12 1/4"	71.00 ft			WBM	9.3	155 ft	1275 ft	11/18/2021 11:35	11/18/2021 20:00
2	EN-006	N/A	12 1/4"	69.00 ft			WBM	10.5	1275 ft	4775 ft	11/20/2021 17:00	11/21/2021 22:45
3	G-029	4.396	8 3/4"	64.00 ft	49.00 ft		WBM	9.3	4775 ft	9664 ft	12/08/2021 02:45	12/09/2021 21:05
4	BT-G-928	4.567	8 3/4"	59.00 ft	35.00 ft	46 ft	OBM	9.3	9664 ft	10148 ft	12/09/2021 23:20	12/10/2021 22:45
5	BT-G-928	4.567	8 3/4"	59.00 ft	35.00 ft	46 ft	OBM	9.3	10148 ft	10480 ft	12/11/2021 00:40	12/11/2021 21:50
6	BT-G-928	4.567	8 3/4"	63.00 ft	39.00 ft	49 ft	OBM	9.3	10480 ft	16104 ft	12/11/2021 23:40	12/16/2021 14:05
7	BT-G-928	4.567	8 3/4"	63.00 ft	39.00 ft	49 ft	OBM	9.3	16104 ft	16905 ft	12/16/2021 15:50	12/17/2021 13:15
8												
9												
10												

Aim Directional Services, LLC uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.





## **Advance Energy Partners, LLC**

**Hat Mesa  
Anderson Fed Com - Pad A  
Anderson Fed Com 508H**

**Anderson Fed Com 508H**

**Plan: FINAL AD**

## **Survey Report - Geographic**

**01 November, 2022**



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A Anderson	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Fed Com 508H Anderson Fed Com	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	508H FINAL AD	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>		<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

<b>Project</b>	Hat Mesa, Lea County, NM		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Anderson Fed Com - Pad A				
<b>Site Position:</b>		<b>Northing:</b>	519,525.43 usft	<b>Latitude:</b>	32.4263340
<b>From:</b>	Lat/Long	<b>Easting:</b>	755,247.69 usft	<b>Longitude:</b>	-103.6400540
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson Fed Com 508H					
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	519,524.63 usft	<b>Latitude:</b>	32.4263330
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	755,181.35 usft	<b>Longitude:</b>	-103.6402690
<b>Position Uncertainty</b>		0.0 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,658.0 usft

<b>Wellbore</b>	Anderson Fed Com 508H				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	5/10/2021	6.58	60.18	47,647.67785295

<b>Design</b>	FINAL AD			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	5.37

<b>Survey Tool Program</b>	<b>Date</b>	11/1/2022		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.0	16,905.0	FINAL AD (Anderson Fed Com 508H)	MWD	OWSG MWD - Standard

<b>Planned Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Map Northing (usft)</b>	<b>Map Easting (usft)</b>	<b>Latitude</b>	<b>Longitude</b>
0.0	0.00	0.00	0.0	0.0	0.0	519,524.63	755,181.35	32.4263330	-103.6402690
100.0	0.67	283.44	100.0	0.1	-0.6	519,524.77	755,180.78	32.4263334	-103.6402708
197.0	1.32	283.44	197.0	0.5	-2.2	519,525.16	755,179.14	32.4263345	-103.6402761
200.0	1.32	283.37	200.0	0.5	-2.3	519,525.17	755,179.08	32.4263346	-103.6402763
300.0	1.43	281.15	300.0	1.1	-4.6	519,525.68	755,176.73	32.4263360	-103.6402839
317.0	1.45	280.81	316.9	1.1	-5.0	519,525.76	755,176.31	32.4263362	-103.6402853
400.0	0.48	282.10	399.9	1.4	-6.4	519,526.03	755,174.94	32.4263370	-103.6402897
497.0	0.66	98.78	496.9	1.4	-6.3	519,526.03	755,175.10	32.4263370	-103.6402892
500.0	0.66	98.99	499.9	1.4	-6.2	519,526.03	755,175.13	32.4263370	-103.6402891
588.0	0.66	105.02	587.9	1.2	-5.2	519,525.82	755,176.12	32.4263364	-103.6402859
600.0	0.64	106.47	599.9	1.1	-5.1	519,525.78	755,176.25	32.4263363	-103.6402855
700.0	0.53	121.74	699.9	0.7	-4.2	519,525.38	755,177.18	32.4263351	-103.6402825



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
770.0	0.48	136.05	769.9	0.4	-3.7	519,525.00	755,177.66	32.4263341	-103.6402809	
800.0	0.43	148.70	799.9	0.2	-3.5	519,524.81	755,177.81	32.4263336	-103.6402805	
900.0	0.45	199.61	899.9	-0.5	-3.5	519,524.12	755,177.87	32.4263317	-103.6402803	
951.0	0.57	216.82	950.9	-0.9	-3.7	519,523.73	755,177.65	32.4263306	-103.6402810	
1,000.0	0.70	221.81	999.9	-1.3	-4.0	519,523.31	755,177.30	32.4263295	-103.6402821	
1,100.0	0.96	227.85	1,099.9	-2.3	-5.1	519,522.30	755,176.27	32.4263267	-103.6402855	
1,132.0	1.05	229.13	1,131.9	-2.7	-5.5	519,521.92	755,175.85	32.4263257	-103.6402869	
1,203.0	1.05	223.41	1,202.9	-3.6	-6.4	519,521.03	755,174.91	32.4263232	-103.6402899	
1,300.0	1.37	220.58	1,299.9	-5.1	-7.8	519,519.50	755,173.55	32.4263191	-103.6402944	
1,352.0	1.54	219.55	1,351.8	-6.1	-8.6	519,518.49	755,172.70	32.4263163	-103.6402971	
1,400.0	0.87	221.54	1,399.8	-6.9	-9.3	519,517.72	755,172.05	32.4263142	-103.6402993	
1,500.0	0.53	29.50	1,499.8	-7.1	-9.6	519,517.56	755,171.77	32.4263137	-103.6403002	
1,512.0	0.70	31.28	1,511.8	-7.0	-9.5	519,517.67	755,171.84	32.4263141	-103.6403000	
1,607.0	2.68	36.12	1,606.8	-4.7	-7.9	519,519.96	755,173.45	32.4263203	-103.6402947	
1,702.0	2.68	40.43	1,701.7	-1.2	-5.2	519,523.44	755,176.20	32.4263298	-103.6402857	
1,798.0	1.76	77.60	1,797.6	0.8	-2.3	519,525.47	755,179.10	32.4263354	-103.6402763	
1,800.0	1.75	78.45	1,799.6	0.8	-2.2	519,525.48	755,179.16	32.4263354	-103.6402761	
1,894.0	1.93	118.21	1,893.6	0.4	0.6	519,525.02	755,181.96	32.4263341	-103.6402670	
1,900.0	1.95	118.48	1,899.6	0.3	0.8	519,524.92	755,182.14	32.4263338	-103.6402664	
1,990.0	2.24	121.99	1,989.5	-1.4	3.6	519,523.26	755,184.98	32.4263292	-103.6402573	
2,000.0	2.04	120.47	1,999.5	-1.6	3.9	519,523.07	755,185.30	32.4263287	-103.6402562	
2,085.0	0.62	65.83	2,084.5	-2.1	5.7	519,522.49	755,187.02	32.4263270	-103.6402507	
2,100.0	0.64	61.71	2,099.5	-2.1	5.8	519,522.56	755,187.17	32.4263272	-103.6402502	
2,180.0	0.79	44.20	2,179.5	-1.5	6.6	519,523.17	755,187.95	32.4263289	-103.6402476	
2,200.0	0.84	51.63	2,199.5	-1.3	6.8	519,523.36	755,188.16	32.4263294	-103.6402470	
2,276.0	1.14	71.54	2,275.5	-0.7	8.0	519,523.95	755,189.31	32.4263310	-103.6402432	
2,300.0	1.00	72.38	2,299.4	-0.5	8.4	519,524.09	755,189.74	32.4263314	-103.6402418	
2,372.0	0.57	77.43	2,371.4	-0.3	9.3	519,524.35	755,190.68	32.4263321	-103.6402387	
2,400.0	0.13	119.46	2,399.4	-0.3	9.5	519,524.37	755,190.85	32.4263321	-103.6402382	
2,468.0	1.10	242.05	2,467.4	-0.6	9.0	519,524.02	755,190.34	32.4263312	-103.6402399	
2,500.0	1.08	238.64	2,499.4	-0.9	8.5	519,523.72	755,189.81	32.4263304	-103.6402416	
2,600.0	1.05	227.40	2,599.4	-2.0	7.0	519,522.61	755,188.33	32.4263273	-103.6402464	
2,659.0	1.05	220.60	2,658.4	-2.8	6.2	519,521.84	755,187.58	32.4263252	-103.6402489	
2,700.0	0.89	209.01	2,699.4	-3.4	5.8	519,521.27	755,187.18	32.4263237	-103.6402502	
2,755.0	0.75	186.85	2,754.4	-4.1	5.6	519,520.55	755,186.93	32.4263217	-103.6402510	
2,800.0	0.66	157.42	2,799.4	-4.6	5.6	519,520.01	755,187.00	32.4263202	-103.6402508	
2,851.0	0.79	125.50	2,850.4	-5.1	6.0	519,519.54	755,187.39	32.4263189	-103.6402495	
2,900.0	1.04	109.20	2,899.4	-5.4	6.7	519,519.20	755,188.09	32.4263180	-103.6402473	
2,947.0	1.32	99.93	2,946.4	-5.7	7.7	519,518.96	755,189.02	32.4263173	-103.6402442	
3,000.0	1.75	89.04	2,999.3	-5.8	9.1	519,518.87	755,190.43	32.4263170	-103.6402397	
3,042.0	2.11	83.67	3,041.3	-5.7	10.5	519,518.97	755,191.84	32.4263173	-103.6402351	
3,100.0	1.97	79.10	3,099.3	-5.4	12.5	519,519.27	755,193.88	32.4263181	-103.6402285	
3,138.0	1.89	75.76	3,137.3	-5.1	13.8	519,519.55	755,195.13	32.4263188	-103.6402244	
3,200.0	0.90	87.49	3,199.2	-4.8	15.3	519,519.82	755,196.61	32.4263195	-103.6402196	
3,234.0	0.44	116.10	3,233.2	-4.9	15.6	519,519.78	755,197.00	32.4263194	-103.6402184	
3,300.0	1.56	169.81	3,299.2	-5.8	16.0	519,518.78	755,197.38	32.4263167	-103.6402172	
3,330.0	2.15	174.11	3,329.2	-6.8	16.2	519,517.82	755,197.51	32.4263140	-103.6402168	
3,400.0	2.05	192.71	3,399.2	-9.3	16.0	519,515.30	755,197.37	32.4263071	-103.6402173	
3,425.0	2.07	199.51	3,424.2	-10.2	15.8	519,514.43	755,197.12	32.4263047	-103.6402181	
3,500.0	1.91	253.30	3,499.1	-11.8	14.1	519,512.80	755,195.47	32.4263002	-103.6402235	
3,521.0	2.15	265.86	3,520.1	-12.0	13.4	519,512.67	755,194.75	32.4262999	-103.6402258	
3,600.0	2.53	284.83	3,599.0	-11.6	10.2	519,513.01	755,191.58	32.4263009	-103.6402361	
3,617.0	2.64	288.10	3,616.0	-11.4	9.5	519,513.23	755,190.85	32.4263015	-103.6402384	
3,700.0	1.50	328.61	3,699.0	-9.9	7.1	519,514.75	755,188.46	32.4263057	-103.6402461	
3,712.0	1.45	338.46	3,711.0	-9.6	7.0	519,515.02	755,188.33	32.4263065	-103.6402466	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
3,808.0	1.93	26.01	3,806.9	-7.0	7.2	519,517.61	755,188.59	32.4263136	-103.6402457	
3,904.0	0.40	35.77	3,902.9	-5.3	8.1	519,519.33	755,189.49	32.4263183	-103.6402427	
4,000.0	2.02	202.06	3,998.9	-6.6	7.7	519,518.04	755,189.05	32.4263148	-103.6402442	
4,095.0	2.15	207.68	4,093.8	-9.7	6.2	519,514.91	755,187.60	32.4263062	-103.6402489	
4,100.0	2.15	208.26	4,098.8	-9.9	6.2	519,514.74	755,187.51	32.4263057	-103.6402492	
4,191.0	2.20	218.58	4,189.8	-12.8	4.3	519,511.87	755,185.61	32.4262979	-103.6402554	
4,200.0	2.21	219.34	4,198.8	-13.0	4.0	519,511.60	755,185.40	32.4262971	-103.6402562	
4,287.0	2.29	226.40	4,285.7	-15.5	1.7	519,509.11	755,183.07	32.4262903	-103.6402637	
4,300.0	2.29	226.83	4,298.7	-15.9	1.3	519,508.75	755,182.70	32.4262893	-103.6402650	
4,383.0	2.29	229.57	4,381.6	-18.1	-1.1	519,506.54	755,180.23	32.4262833	-103.6402730	
4,400.0	2.08	234.18	4,398.6	-18.5	-1.6	519,506.14	755,179.72	32.4262822	-103.6402747	
4,478.0	1.41	270.96	4,476.6	-19.3	-3.7	519,505.33	755,177.61	32.4262800	-103.6402815	
4,500.0	1.45	278.20	4,498.6	-19.3	-4.3	519,505.37	755,177.07	32.4262802	-103.6402833	
4,574.0	1.71	298.65	4,572.5	-18.6	-6.2	519,506.04	755,175.17	32.4262820	-103.6402894	
4,600.0	1.69	297.83	4,598.5	-18.2	-6.9	519,506.40	755,174.49	32.4262830	-103.6402916	
4,706.0	1.63	294.34	4,704.5	-16.9	-9.6	519,507.75	755,171.74	32.4262868	-103.6403005	
4,800.0	1.49	291.93	4,798.4	-15.9	-12.0	519,508.76	755,169.38	32.4262896	-103.6403081	
4,826.0	1.45	291.18	4,824.4	-15.6	-12.6	519,509.01	755,168.76	32.4262903	-103.6403101	
4,855.0	1.67	294.52	4,853.4	-15.3	-13.3	519,509.31	755,168.04	32.4262912	-103.6403125	
4,900.0	1.04	10.66	4,898.4	-14.6	-13.8	519,509.99	755,167.52	32.4262930	-103.6403141	
4,951.0	2.55	56.77	4,949.4	-13.6	-12.8	519,511.07	755,168.55	32.4262960	-103.6403108	
5,000.0	2.82	54.80	4,998.3	-12.3	-10.9	519,512.36	755,170.45	32.4262995	-103.6403046	
5,046.0	3.08	53.26	5,044.3	-10.9	-9.0	519,513.75	755,172.36	32.4263033	-103.6402983	
5,100.0	3.99	53.84	5,098.2	-8.9	-6.3	519,515.73	755,175.04	32.4263087	-103.6402896	
5,142.0	4.70	54.14	5,140.0	-7.0	-3.7	519,517.60	755,177.62	32.4263138	-103.6402812	
5,200.0	4.75	55.53	5,197.8	-4.3	0.2	519,520.35	755,181.53	32.4263212	-103.6402685	
5,238.0	4.79	56.42	5,235.7	-2.5	2.8	519,522.12	755,184.15	32.4263261	-103.6402600	
5,300.0	4.73	55.63	5,297.5	0.4	7.1	519,524.99	755,188.41	32.4263339	-103.6402461	
5,334.0	4.70	55.19	5,331.4	1.9	9.4	519,526.58	755,190.71	32.4263382	-103.6402386	
5,400.0	5.37	58.47	5,397.1	5.1	14.2	519,529.74	755,195.57	32.4263468	-103.6402228	
5,429.0	5.67	59.67	5,426.0	6.5	16.6	519,531.17	755,197.96	32.4263507	-103.6402150	
5,500.0	6.64	64.25	5,496.6	10.1	23.3	519,534.73	755,204.69	32.4263604	-103.6401931	
5,525.0	6.99	65.56	5,521.4	11.4	26.0	519,535.98	755,207.37	32.4263638	-103.6401844	
5,600.0	8.13	61.38	5,595.8	15.8	34.8	519,540.41	755,216.18	32.4263758	-103.6401558	
5,620.0	8.44	60.46	5,615.5	17.2	37.4	519,541.81	755,218.70	32.4263796	-103.6401476	
5,700.0	8.81	60.32	5,694.6	23.1	47.8	519,547.74	755,229.13	32.4263957	-103.6401137	
5,716.0	8.88	60.29	5,710.5	24.3	49.9	519,548.96	755,231.27	32.4263990	-103.6401067	
5,800.0	10.33	68.45	5,793.3	30.3	62.6	519,554.94	755,243.90	32.4264152	-103.6400656	
5,812.0	10.55	69.43	5,805.1	31.1	64.6	519,555.72	755,245.93	32.4264173	-103.6400590	
5,908.0	10.77	60.20	5,899.4	38.6	80.6	519,563.27	755,261.95	32.4264378	-103.6400070	
6,003.0	12.09	56.51	5,992.5	48.5	96.6	519,573.17	755,277.95	32.4264647	-103.6399549	
6,099.0	13.67	56.69	6,086.1	60.3	114.5	519,584.95	755,295.81	32.4264968	-103.6398968	
6,100.0	13.67	56.68	6,087.1	60.4	114.7	519,585.08	755,296.01	32.4264971	-103.6398961	
6,194.0	13.76	55.72	6,178.4	72.8	133.2	519,597.47	755,314.53	32.4265309	-103.6398359	
6,200.0	13.72	56.05	6,184.2	73.6	134.4	519,598.27	755,315.71	32.4265330	-103.6398320	
6,289.0	13.19	61.17	6,270.8	84.4	152.0	519,609.06	755,333.36	32.4265624	-103.6397746	
6,300.0	13.15	61.37	6,281.5	85.6	154.2	519,610.27	755,335.56	32.4265657	-103.6397674	
6,385.0	12.88	62.93	6,364.3	94.6	171.1	519,619.22	755,352.48	32.4265899	-103.6397124	
6,400.0	12.78	63.04	6,379.0	96.1	174.1	519,620.73	755,355.45	32.4265940	-103.6397027	
6,480.0	12.22	63.63	6,457.1	103.9	189.6	519,628.50	755,370.92	32.4266151	-103.6396525	
6,500.0	12.03	63.72	6,476.6	105.7	193.3	519,630.36	755,374.68	32.4266202	-103.6396402	
6,576.0	11.30	64.07	6,551.0	112.5	207.1	519,637.13	755,388.48	32.4266385	-103.6395954	
6,600.0	11.34	63.49	6,574.6	114.6	211.4	519,639.21	755,392.71	32.4266442	-103.6395816	
6,671.0	11.47	61.78	6,644.2	121.0	223.8	519,645.66	755,405.17	32.4266617	-103.6395411	
6,700.0	11.41	63.11	6,672.6	123.7	228.9	519,648.32	755,410.27	32.4266689	-103.6395245	



Survey Report - Geographic

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<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,766.0	11.30	66.18	6,737.3	129.3	240.7	519,653.89	755,422.01	32.4266840	-103.6394863	
6,800.0	11.81	64.86	6,770.6	132.1	246.9	519,656.71	755,428.21	32.4266917	-103.6394662	
6,861.0	12.75	62.75	6,830.2	137.8	258.5	519,662.45	755,439.85	32.4267072	-103.6394284	
6,900.0	12.53	62.29	6,868.3	141.8	266.1	519,666.38	755,447.42	32.4267179	-103.6394037	
6,956.0	12.22	61.61	6,923.0	147.4	276.7	519,672.03	755,458.01	32.4267332	-103.6393693	
7,000.0	12.81	62.21	6,965.9	151.9	285.1	519,676.52	755,466.42	32.4267454	-103.6393419	
7,051.0	13.49	62.84	7,015.6	157.2	295.4	519,681.87	755,476.72	32.4267599	-103.6393085	
7,100.0	13.13	63.10	7,063.3	162.4	305.4	519,686.99	755,486.77	32.4267738	-103.6392758	
7,147.0	12.79	63.36	7,109.1	167.1	314.8	519,691.74	755,496.18	32.4267867	-103.6392452	
7,200.0	12.09	64.01	7,160.8	172.2	325.1	519,696.80	755,506.41	32.4268005	-103.6392119	
7,243.0	11.52	64.60	7,202.9	176.0	333.0	519,700.62	755,514.34	32.4268108	-103.6391861	
7,300.0	12.30	63.40	7,258.7	181.1	343.6	519,705.78	755,524.91	32.4268248	-103.6391518	
7,339.0	12.84	62.66	7,296.8	185.0	351.1	519,709.63	755,532.47	32.4268352	-103.6391272	
7,400.0	12.81	63.22	7,356.2	191.2	363.2	519,715.79	755,544.53	32.4268520	-103.6390880	
7,434.0	12.79	63.54	7,389.4	194.5	369.9	519,719.16	755,551.26	32.4268611	-103.6390661	
7,500.0	12.12	64.36	7,453.8	200.8	382.7	519,725.42	755,564.05	32.4268781	-103.6390245	
7,530.0	11.82	64.77	7,483.2	203.5	388.3	519,728.09	755,569.67	32.4268853	-103.6390062	
7,600.0	12.63	62.92	7,551.6	210.0	401.6	519,734.63	755,582.97	32.4269031	-103.6389630	
7,625.0	12.92	62.31	7,576.0	212.5	406.5	519,737.17	755,587.88	32.4269100	-103.6389470	
7,700.0	12.75	62.51	7,649.1	220.3	421.3	519,744.89	755,602.64	32.4269309	-103.6388990	
7,721.0	12.70	62.57	7,669.6	222.4	425.4	519,747.02	755,606.75	32.4269367	-103.6388857	
7,800.0	11.76	63.92	7,746.8	229.9	440.3	519,754.56	755,621.69	32.4269572	-103.6388371	
7,817.0	11.56	64.24	7,763.5	231.4	443.4	519,756.06	755,624.78	32.4269612	-103.6388271	
7,900.0	11.91	61.85	7,844.7	239.1	458.5	519,763.72	755,639.82	32.4269820	-103.6387782	
7,912.0	11.96	61.52	7,856.5	240.3	460.7	519,764.89	755,642.00	32.4269852	-103.6387711	
8,008.0	13.85	61.61	7,950.0	250.5	479.5	519,775.10	755,660.86	32.4270129	-103.6387097	
8,104.0	14.11	63.01	8,043.2	261.2	500.0	519,785.88	755,681.39	32.4270422	-103.6386430	
8,199.0	12.97	64.42	8,135.5	271.1	520.0	519,795.73	755,701.33	32.4270689	-103.6385781	
8,200.0	12.96	64.44	8,136.5	271.2	520.2	519,795.83	755,701.53	32.4270692	-103.6385775	
8,295.0	12.26	66.00	8,229.2	279.9	539.0	519,804.53	755,720.36	32.4270927	-103.6385163	
8,300.0	12.29	65.72	8,234.1	280.3	540.0	519,804.97	755,721.33	32.4270939	-103.6385131	
8,391.0	12.92	60.82	8,322.9	289.3	557.7	519,813.91	755,739.04	32.4271182	-103.6384556	
8,400.0	12.87	60.76	8,331.7	290.3	559.4	519,814.89	755,740.79	32.4271208	-103.6384498	
8,486.0	12.35	60.11	8,415.6	299.5	575.8	519,824.15	755,757.12	32.4271460	-103.6383967	
8,500.0	12.28	60.20	8,429.3	301.0	578.4	519,825.64	755,759.71	32.4271500	-103.6383883	
8,582.0	11.87	60.73	8,509.5	309.5	593.3	519,834.09	755,774.63	32.4271730	-103.6383398	
8,600.0	11.80	60.91	8,527.1	311.3	596.5	519,835.89	755,777.86	32.4271779	-103.6383293	
8,678.0	11.52	61.69	8,603.5	318.8	610.3	519,843.47	755,791.68	32.4271985	-103.6382843	
8,700.0	10.81	61.90	8,625.1	320.8	614.1	519,845.48	755,795.44	32.4272039	-103.6382721	
8,773.0	8.44	62.84	8,697.0	326.5	624.9	519,851.15	755,806.24	32.4272193	-103.6382370	
8,800.0	7.88	61.80	8,723.8	328.3	628.3	519,852.93	755,809.64	32.4272242	-103.6382259	
8,869.0	6.46	58.35	8,792.2	332.6	635.8	519,857.20	755,817.11	32.4272358	-103.6382016	
8,900.0	6.06	56.58	8,823.0	334.4	638.6	519,859.02	755,819.96	32.4272407	-103.6381923	
8,964.0	5.27	52.11	8,886.7	338.1	643.8	519,862.69	755,825.10	32.4272507	-103.6381756	
9,000.0	4.96	54.57	8,922.6	340.0	646.3	519,864.60	755,827.68	32.4272559	-103.6381672	
9,059.0	4.48	59.32	8,981.4	342.6	650.4	519,867.26	755,831.74	32.4272632	-103.6381540	
9,100.0	4.48	60.90	9,022.3	344.2	653.2	519,868.85	755,834.51	32.4272675	-103.6381450	
9,155.0	4.48	63.01	9,077.1	346.2	657.0	519,870.87	755,838.30	32.4272730	-103.6381327	
9,200.0	4.29	61.86	9,122.0	347.8	660.0	519,872.46	755,841.35	32.4272773	-103.6381227	
9,250.0	4.09	60.46	9,171.8	349.6	663.2	519,874.23	755,844.56	32.4272821	-103.6381123	
9,300.0	3.18	65.25	9,221.7	351.1	666.0	519,875.69	755,847.37	32.4272860	-103.6381032	
9,346.0	2.37	72.86	9,267.7	351.9	668.1	519,876.50	755,849.43	32.4272882	-103.6380965	
9,400.0	1.84	77.84	9,321.6	352.4	670.0	519,877.01	755,851.34	32.4272896	-103.6380903	
9,441.0	1.45	84.02	9,362.6	352.6	671.2	519,877.20	755,852.50	32.4272901	-103.6380865	
9,500.0	1.45	109.16	9,421.6	352.4	672.6	519,877.04	755,853.95	32.4272896	-103.6380818	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey

	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
KOP	9,537.0	1.58	123.31	9,458.6	352.0	673.5	519,876.60	755,854.82	32.4272884	-103.6380790	
	9,600.0	1.80	133.94	9,521.6	350.8	674.9	519,875.44	755,856.26	32.4272852	-103.6380744	
	9,706.0	2.29	146.51	9,627.5	347.9	677.3	519,872.52	755,858.62	32.4272771	-103.6380668	
	9,750.0	2.45	49.02	9,671.5	347.8	678.5	519,872.40	755,859.82	32.4272768	-103.6380629	
	9,802.0	6.29	23.73	9,723.3	351.1	680.5	519,875.74	755,861.80	32.4272859	-103.6380564	
	9,850.0	9.69	15.47	9,770.8	357.4	682.6	519,882.04	755,863.94	32.4273032	-103.6380493	
	9,898.0	13.19	11.51	9,817.9	366.7	684.8	519,891.31	755,866.11	32.4273286	-103.6380421	
	9,900.0	13.35	11.41	9,819.8	367.1	684.9	519,891.76	755,866.20	32.4273299	-103.6380418	
	9,950.0	17.46	9.44	9,868.0	380.2	687.2	519,904.82	755,868.58	32.4273657	-103.6380338	
	9,993.0	21.01	8.35	9,908.6	394.2	689.4	519,918.82	755,870.75	32.4274042	-103.6380265	
	10,000.0	21.38	8.23	9,915.1	396.7	689.8	519,921.32	755,871.12	32.4274111	-103.6380252	
	10,089.0	26.11	6.94	9,996.6	432.2	694.5	519,956.84	755,875.81	32.4275086	-103.6380093	
	10,100.0	27.31	6.62	10,006.4	437.1	695.0	519,961.75	755,876.39	32.4275221	-103.6380073	
	10,150.0	32.78	5.46	10,049.7	462.0	697.7	519,986.64	755,879.01	32.4275904	-103.6379983	
	10,185.0	36.62	4.83	10,078.4	481.9	699.4	520,006.48	755,880.79	32.4276450	-103.6379921	
	10,200.0	38.96	5.13	10,090.3	491.0	700.2	520,015.64	755,881.58	32.4276701	-103.6379893	
	10,225.0	42.85	5.56	10,109.2	507.3	701.8	520,031.93	755,883.11	32.4277149	-103.6379840	
	10,250.0	46.75	5.93	10,126.9	524.8	703.5	520,049.46	755,884.88	32.4277630	-103.6379780	
	10,275.0	50.65	6.26	10,143.4	543.5	705.5	520,068.13	755,886.87	32.4278143	-103.6379711	
	10,280.0	51.43	6.32	10,146.6	547.4	705.9	520,071.99	755,887.30	32.4278249	-103.6379696	
10,300.0	54.89	6.17	10,158.6	563.3	707.7	520,087.90	755,889.04	32.4278686	-103.6379637		
10,325.0	59.22	6.01	10,172.1	584.1	709.9	520,108.76	755,891.26	32.4279259	-103.6379560		
10,350.0	63.54	5.86	10,184.1	606.0	712.2	520,130.58	755,893.53	32.4279858	-103.6379482		
10,376.0	68.04	5.71	10,194.8	629.5	714.6	520,154.17	755,895.92	32.4280506	-103.6379400		
10,393.0	71.65	4.37	10,200.6	645.4	716.0	520,170.04	755,897.31	32.4280942	-103.6379351		
<b>NMNM 106696 Exit at 10393.0 MD</b>											
FTP @ 10,486	10,400.0	73.15	3.83	10,202.7	652.1	716.4	520,176.72	755,897.79	32.4281126	-103.6379334	
	10,422.0	77.85	2.19	10,208.3	673.4	717.6	520,197.98	755,898.91	32.4281710	-103.6379293	
	10,425.0	78.34	2.09	10,208.9	676.3	717.7	520,200.92	755,899.02	32.4281790	-103.6379289	
	10,450.0	82.39	1.29	10,213.1	700.9	718.4	520,225.55	755,899.74	32.4282467	-103.6379261	
	10,475.0	86.45	0.51	10,215.5	725.8	718.8	520,250.42	755,900.13	32.4283151	-103.6379243	
	10,500.0	90.50	359.73	10,216.2	750.8	718.8	520,275.41	755,900.19	32.4283838	-103.6379236	
	10,503.0	90.99	359.64	10,216.1	753.8	718.8	520,278.41	755,900.17	32.4283920	-103.6379236	
	10,594.4	90.24	0.32	10,215.1	845.2	718.8	520,369.79	755,900.14	32.4286432	-103.6379217	
	<b>Anderson Fed Com 508H LP</b>										
	10,599.0	90.20	0.35	10,215.1	849.8	718.8	520,374.40	755,900.16	32.4286559	-103.6379216	
10,600.0	90.18	0.34	10,215.1	850.8	718.8	520,375.40	755,900.17	32.4286586	-103.6379215		
10,694.0	88.44	359.38	10,216.2	944.8	718.6	520,469.39	755,899.94	32.4289170	-103.6379203		
10,700.0	88.46	359.36	10,216.4	950.8	718.5	520,475.38	755,899.87	32.4289334	-103.6379204		
10,789.0	88.79	359.03	10,218.5	1,039.7	717.3	520,564.35	755,898.62	32.4291780	-103.6379225		
10,800.0	88.92	359.06	10,218.8	1,050.7	717.1	520,575.35	755,898.44	32.4292082	-103.6379229		
10,885.0	89.93	359.29	10,219.6	1,135.7	715.9	520,660.33	755,897.21	32.4294418	-103.6379251		
10,900.0	90.22	359.10	10,219.6	1,150.7	715.7	520,675.33	755,897.00	32.4294831	-103.6379254		
10,980.0	91.74	358.06	10,218.2	1,230.7	713.7	520,755.29	755,895.02	32.4297029	-103.6379302		
11,000.0	91.26	358.72	10,217.7	1,250.6	713.1	520,775.28	755,894.46	32.4297578	-103.6379316		
11,076.0	89.45	1.23	10,217.2	1,326.6	713.1	520,851.26	755,894.42	32.4299667	-103.6379301		
11,100.0	89.52	1.16	10,217.4	1,350.6	713.6	520,875.26	755,894.93	32.4300326	-103.6379280		
11,172.0	89.71	0.96	10,217.9	1,422.6	714.9	520,947.24	755,896.26	32.4302305	-103.6379221		
11,200.0	89.30	1.17	10,218.2	1,450.6	715.4	520,975.24	755,896.78	32.4303074	-103.6379198		
11,267.0	88.31	1.67	10,219.6	1,517.6	717.1	521,042.20	755,898.44	32.4304914	-103.6379131		
11,300.0	88.72	1.64	10,220.4	1,550.5	718.0	521,075.18	755,899.39	32.4305821	-103.6379093		
11,363.0	89.49	1.58	10,221.4	1,613.5	719.8	521,138.14	755,901.16	32.4307551	-103.6379022		
11,400.0	89.37	1.34	10,221.8	1,650.5	720.8	521,175.13	755,902.10	32.4308567	-103.6378984		
11,459.0	89.19	0.96	10,222.5	1,709.5	721.9	521,234.11	755,903.29	32.4310188	-103.6378933		
11,500.0	88.87	0.43	10,223.2	1,750.5	722.4	521,275.10	755,903.78	32.4311315	-103.6378908		



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,554.0	88.44	359.73	10,224.5	1,804.5	722.5	521,329.09	755,903.86	32.4312799	-103.6378894
11,600.0	88.78	359.23	10,225.6	1,850.4	722.1	521,375.07	755,903.44	32.4314063	-103.6378898
11,650.0	89.14	358.68	10,226.5	1,900.4	721.2	521,425.06	755,902.53	32.4315437	-103.6378917
11,700.0	89.70	358.35	10,227.0	1,950.4	719.9	521,475.04	755,901.23	32.4316811	-103.6378949
11,745.0	90.20	358.06	10,227.1	1,995.4	718.5	521,520.01	755,899.83	32.4318047	-103.6378985
11,800.0	89.16	358.16	10,227.4	2,050.4	716.7	521,574.98	755,898.01	32.4319558	-103.6379032
11,840.0	88.40	358.24	10,228.2	2,090.3	715.4	521,614.95	755,896.76	32.4320657	-103.6379064
11,900.0	88.09	357.63	10,230.1	2,150.3	713.2	521,674.89	755,894.60	32.4322305	-103.6379121
11,936.0	87.91	357.27	10,231.3	2,186.2	711.7	521,710.83	755,893.00	32.4323293	-103.6379166
12,000.0	88.68	357.33	10,233.2	2,250.1	708.6	521,774.73	755,889.99	32.4325050	-103.6379250
12,031.0	89.05	357.36	10,233.8	2,281.1	707.2	521,805.69	755,888.55	32.4325901	-103.6379290
12,100.0	91.55	359.57	10,233.5	2,350.0	705.4	521,874.65	755,886.70	32.4327797	-103.6379335
12,127.0	92.53	0.43	10,232.5	2,377.0	705.4	521,901.64	755,886.70	32.4328539	-103.6379330
12,200.0	92.02	0.30	10,229.6	2,449.9	705.8	521,974.58	755,887.16	32.4330544	-103.6379299
12,222.0	91.87	0.26	10,228.9	2,471.9	705.9	521,996.56	755,887.27	32.4331148	-103.6379291
12,300.0	90.65	359.69	10,227.1	2,549.9	705.9	522,074.54	755,887.24	32.4333291	-103.6379276
12,318.0	90.37	359.56	10,227.0	2,567.9	705.8	522,092.54	755,887.12	32.4333786	-103.6379276
12,400.0	89.77	0.83	10,226.9	2,649.9	706.1	522,174.54	755,887.40	32.4336040	-103.6379249
12,414.0	89.67	1.05	10,227.0	2,663.9	706.3	522,188.54	755,887.63	32.4336425	-103.6379239
12,509.0	89.80	0.17	10,227.4	2,758.9	707.3	522,283.53	755,888.64	32.4339035	-103.6379186
12,605.0	91.16	0.00	10,226.6	2,854.9	707.4	522,379.53	755,888.79	32.4341674	-103.6379161
12,700.0	91.38	358.77	10,224.5	2,949.9	706.4	522,474.49	755,887.77	32.4344284	-103.6379174
12,796.0	93.01	359.20	10,220.8	3,045.8	704.7	522,570.41	755,886.07	32.4346921	-103.6379209
12,800.0	92.97	359.20	10,220.6	3,049.8	704.7	522,574.40	755,886.01	32.4347031	-103.6379210
12,892.0	92.04	359.29	10,216.6	3,141.7	703.5	522,666.30	755,884.80	32.4349557	-103.6379230
12,900.0	92.06	359.41	10,216.3	3,149.7	703.4	522,674.30	755,884.71	32.4349777	-103.6379231
12,988.0	92.22	0.79	10,213.0	3,237.6	703.5	522,762.23	755,884.87	32.4352194	-103.6379207
13,000.0	92.09	0.70	10,212.6	3,249.6	703.7	522,774.22	755,885.03	32.4352523	-103.6379200
13,039.0	91.65	0.41	10,211.3	3,288.5	704.1	522,813.18	755,885.40	32.4353594	-103.6379179
<b>NMM 120905 Entry at 13039.0 MD</b>									
13,083.0	91.16	0.08	10,210.2	3,332.6	704.2	522,857.19	755,885.59	32.4354804	-103.6379164
13,100.0	90.73	0.11	10,209.9	3,349.6	704.3	522,874.19	755,885.62	32.4355271	-103.6379159
13,179.0	88.75	0.26	10,210.3	3,428.5	704.5	522,953.18	755,885.88	32.4357442	-103.6379135
13,200.0	88.86	0.14	10,210.7	3,449.5	704.6	522,974.18	755,885.95	32.4358019	-103.6379128
13,274.0	89.27	359.73	10,211.9	3,523.5	704.5	523,048.17	755,885.87	32.4360053	-103.6379115
13,300.0	89.77	359.44	10,212.1	3,549.5	704.3	523,074.16	755,885.68	32.4360767	-103.6379115
13,369.0	91.08	358.68	10,211.6	3,618.5	703.2	523,143.15	755,884.55	32.4362664	-103.6379137
13,400.0	91.09	358.36	10,211.0	3,649.5	702.4	523,174.13	755,883.75	32.4363515	-103.6379157
13,464.0	91.12	357.71	10,209.8	3,713.5	700.2	523,238.08	755,881.56	32.4365274	-103.6379214
13,500.0	91.17	357.41	10,209.1	3,749.4	698.7	523,274.04	755,880.03	32.4366262	-103.6379256
13,560.0	91.25	356.92	10,207.8	3,809.3	695.7	523,333.96	755,877.06	32.4367910	-103.6379340
13,600.0	90.57	357.33	10,207.2	3,849.3	693.7	523,373.90	755,875.06	32.4369008	-103.6379396
13,655.0	89.63	357.89	10,207.1	3,904.2	691.4	523,428.85	755,872.76	32.4370519	-103.6379459
13,700.0	89.34	358.26	10,207.5	3,949.2	689.9	523,473.83	755,871.25	32.4371755	-103.6379499
13,750.0	89.01	358.68	10,208.2	3,999.2	688.6	523,523.80	755,869.92	32.4373129	-103.6379531
13,800.0	89.10	357.86	10,209.0	4,049.1	687.1	523,573.77	755,868.41	32.4374503	-103.6379570
13,846.0	89.19	357.10	10,209.7	4,095.1	685.0	523,619.72	755,866.38	32.4375766	-103.6379626
13,900.0	89.86	358.45	10,210.2	4,149.0	682.9	523,673.68	755,864.29	32.4377250	-103.6379682
13,941.0	90.37	359.47	10,210.1	4,190.0	682.2	523,714.67	755,863.54	32.4378376	-103.6379698
14,000.0	91.45	0.87	10,209.2	4,249.0	682.4	523,773.66	755,863.72	32.4379998	-103.6379680
14,037.0	92.13	1.75	10,208.0	4,286.0	683.2	523,810.63	755,864.56	32.4381014	-103.6379644
14,100.0	91.55	2.74	10,206.0	4,348.9	685.7	523,873.55	755,867.03	32.4382743	-103.6379551
14,132.0	91.25	3.25	10,205.2	4,380.9	687.4	523,905.50	755,868.70	32.4383621	-103.6379490
14,200.0	90.63	2.00	10,204.1	4,448.8	690.5	523,973.42	755,871.82	32.4385487	-103.6379375
14,228.0	90.37	1.49	10,203.8	4,476.8	691.3	524,001.40	755,872.67	32.4386256	-103.6379341



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
14,300.0	90.67	0.64	10,203.2	4,548.8	692.7	524,073.38	755,874.01	32.4388234	-103.6379283	
14,324.0	90.77	0.35	10,202.9	4,572.8	692.9	524,097.38	755,874.21	32.4388894	-103.6379271	
14,400.0	91.96	0.56	10,201.1	4,648.7	693.5	524,173.36	755,874.82	32.4390982	-103.6379235	
14,419.0	92.26	0.61	10,200.4	4,667.7	693.7	524,192.34	755,875.01	32.4391504	-103.6379225	
14,500.0	90.63	2.47	10,198.3	4,748.7	695.8	524,273.28	755,877.18	32.4393728	-103.6379138	
14,515.0	90.33	2.81	10,198.2	4,763.6	696.5	524,288.27	755,877.87	32.4394140	-103.6379112	
14,565.0	91.38	3.34	10,197.5	4,813.6	699.2	524,338.19	755,880.56	32.4395511	-103.6379015	
14,600.0	90.72	2.68	10,196.8	4,848.5	701.0	524,373.13	755,882.39	32.4396472	-103.6378948	
14,663.0	89.54	1.49	10,196.7	4,911.5	703.3	524,436.09	755,884.69	32.4398202	-103.6378860	
14,700.0	89.36	1.16	10,197.0	4,948.4	704.2	524,473.08	755,885.54	32.4399218	-103.6378825	
14,752.0	89.10	0.70	10,197.7	5,000.4	705.0	524,525.06	755,886.39	32.4400647	-103.6378786	
14,802.0	89.01	0.96	10,198.6	5,050.4	705.8	524,575.05	755,887.11	32.4402021	-103.6378752	
14,833.6	89.60	0.41	10,198.9	5,082.0	706.1	524,606.60	755,887.49	32.4402888	-103.6378733	
<b>Anderson Fed Com 508H WP1</b>										
14,898.0	90.81	359.29	10,198.7	5,146.4	706.0	524,671.04	755,887.32	32.4404659	-103.6378725	
14,900.0	90.82	359.27	10,198.7	5,148.4	705.9	524,673.04	755,887.29	32.4404714	-103.6378726	
14,993.0	91.08	358.41	10,197.1	5,241.4	704.1	524,766.01	755,885.41	32.4407270	-103.6378767	
15,000.0	91.24	358.41	10,197.0	5,248.4	703.9	524,773.01	755,885.22	32.4407462	-103.6378772	
15,088.0	93.19	358.41	10,193.6	5,336.3	701.4	524,860.90	755,882.78	32.4409878	-103.6378832	
15,100.0	93.23	358.62	10,192.9	5,348.2	701.1	524,872.88	755,882.47	32.4410208	-103.6378840	
15,184.0	93.54	0.08	10,188.0	5,432.1	700.2	524,956.73	755,881.52	32.4412512	-103.6378853	
15,200.0	92.95	359.86	10,187.1	5,448.1	700.2	524,972.70	755,881.51	32.4412951	-103.6378850	
15,280.0	90.02	358.77	10,185.0	5,528.0	699.2	525,052.66	755,880.55	32.4415149	-103.6378864	
15,300.0	90.42	358.60	10,184.9	5,548.0	698.7	525,072.65	755,880.09	32.4415699	-103.6378875	
15,376.0	91.96	357.97	10,183.3	5,624.0	696.5	525,148.60	755,877.82	32.4417787	-103.6378932	
15,400.0	92.13	357.79	10,182.5	5,647.9	695.6	525,172.57	755,876.94	32.4418446	-103.6378956	
15,471.0	92.62	357.27	10,179.5	5,718.8	692.5	525,243.44	755,873.88	32.4420394	-103.6379040	
15,500.0	92.51	356.84	10,178.2	5,747.7	691.0	525,272.37	755,872.39	32.4421190	-103.6379082	
15,566.0	92.26	355.86	10,175.5	5,813.5	686.8	525,338.18	755,868.19	32.4422999	-103.6379204	
15,600.0	92.23	355.36	10,174.2	5,847.4	684.2	525,372.06	755,865.59	32.4423931	-103.6379281	
15,661.0	92.18	354.46	10,171.8	5,908.1	678.8	525,432.77	755,860.18	32.4425601	-103.6379444	
15,679.0	92.55	354.85	10,171.1	5,926.0	677.2	525,450.64	755,858.51	32.4426092	-103.6379494	
<b>NMM 120905 Exit at 15679.0 MD</b>										
15,700.0	92.98	355.32	10,170.0	5,946.9	675.4	525,471.57	755,856.71	32.4426668	-103.6379548	
15,757.0	94.15	356.57	10,166.5	6,003.7	671.3	525,528.32	755,852.69	32.4428228	-103.6379667	
15,800.0	94.70	357.24	10,163.2	6,046.5	669.0	525,571.13	755,850.37	32.4429405	-103.6379733	
15,853.0	95.38	358.06	10,158.5	6,099.2	666.9	525,623.88	755,848.21	32.4430856	-103.6379792	
15,900.0	95.80	358.71	10,154.0	6,146.0	665.5	525,670.64	755,846.89	32.4432141	-103.6379825	
15,948.0	96.22	359.38	10,148.9	6,193.7	664.7	525,718.36	755,846.09	32.4433453	-103.6379840	
16,000.0	96.08	359.86	10,143.4	6,245.4	664.4	525,770.06	755,845.75	32.4434874	-103.6379841	
16,043.0	95.96	0.26	10,138.8	6,288.2	664.4	525,812.83	755,845.80	32.4436050	-103.6379830	
16,100.0	94.42	0.88	10,133.7	6,345.0	665.0	525,869.59	755,846.36	32.4437610	-103.6379800	
16,139.0	93.36	1.31	10,131.1	6,383.9	665.8	525,908.49	755,847.11	32.4438679	-103.6379767	
16,200.0	94.55	1.26	10,126.8	6,444.7	667.1	525,969.33	755,848.47	32.4440351	-103.6379710	
16,234.0	95.21	1.23	10,124.0	6,478.6	667.9	526,003.20	755,849.21	32.4441282	-103.6379679	
16,300.0	93.73	1.29	10,118.8	6,544.3	669.3	526,068.98	755,850.65	32.4443089	-103.6379619	
16,330.0	93.05	1.31	10,117.0	6,574.3	670.0	526,098.92	755,851.33	32.4443912	-103.6379590	
16,400.0	90.88	0.80	10,114.6	6,644.2	671.3	526,168.86	755,852.62	32.4445834	-103.6379534	
16,426.0	90.07	0.61	10,114.4	6,670.2	671.6	526,194.86	755,852.94	32.4446549	-103.6379518	
16,500.0	89.56	359.38	10,114.7	6,744.2	671.6	526,268.86	755,852.93	32.4448583	-103.6379503	
16,521.0	89.41	359.03	10,114.9	6,765.2	671.3	526,289.85	755,852.64	32.4449160	-103.6379508	
16,600.0	91.85	359.54	10,114.0	6,844.2	670.3	526,368.84	755,851.65	32.4451331	-103.6379523	
16,616.0	92.35	359.64	10,113.4	6,860.2	670.2	526,384.83	755,851.54	32.4451771	-103.6379523	
16,700.0	94.74	0.95	10,108.2	6,944.0	670.6	526,468.66	755,851.97	32.4454075	-103.6379492	
16,712.0	95.08	1.14	10,107.2	6,956.0	670.8	526,480.61	755,852.19	32.4454403	-103.6379482	



Survey Report - Geographic

<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson Fed Com 508H
<b>Project:</b>	Hat Mesa	<b>TVD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Site:</b>	Anderson Fed Com - Pad A	<b>MD Reference:</b>	WELL @ 3690.5usft (Original Well Elev)
<b>Well:</b>	Anderson Fed Com 508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Anderson Fed Com 508H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	FINAL AD	<b>Database:</b>	AUS-COMPASS - EDM_15 - 32bit

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
16,800.0	96.45	0.25	10,098.3	7,043.5	671.9	526,568.16	755,853.25	32.4456809	-103.6379429	
16,842.0	97.10	359.82	10,093.4	7,085.2	671.9	526,609.86	755,853.27	32.4457956	-103.6379420	
LTP 16,895.1	97.10	359.82	10,086.8	7,137.9	671.8	526,662.54	755,853.11	32.4459404	-103.6379414	
<b>Anderson Fed Com 508H BHL</b>										
16,905.0	97.10	359.82	10,085.6	7,147.7	671.7	526,672.38	755,853.08	32.4459674	-103.6379413	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			Comment
		+N/-S (usft)	+E/-W (usft)		
10,393	10,201	645	716		NMNM 106696 Exit at 10393.0 MD
13,039	10,211	3289	704		NMNM 120905 Entry at 13039.0 MD
15,679	10,171	5926	677		NMNM 120905 Exit at 15679.0 MD

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			Comment
		+N/-S (usft)	+E/-W (usft)		
197.00	196.98	0.53	-2.21		First Aim Svy
10,486.90	10,216.03	737.68	718.85		Actual FTP
16,842.00	10,093.39	7,085.23	671.92		Last Aim Svy
16,895.50	10,086.77	7,138.32	671.76		Actual LTP
16,905.00	10,085.60	7,147.75	671.73		Proj to BHL

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_



**End of Well Report**

**Advance Energy Partners, LLC  
Anderson Fed Com, Well No. 508H  
Lea County, New Mexico**

**Rig: Nabors X47  
Job No.: WT-21-179**

Start Date: 11/15/2021  
End Date: 12/20/2021

Directional Drillers:  
**Eddie Sheppard, Advance Nabors X47**

Office Support:  
**Javier Alvarez**  
Directional Coordinator  
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**Keith Noack**  
Well Planner  
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**Allison Reinert**  
Executive VP  
E-mail: [Allison.Reinert@aimdir.com](mailto:Allison.Reinert@aimdir.com)

**Thomas Rinald**  
President  
E-mail: [Thomas.Rinald@aimdir.com](mailto:Thomas.Rinald@aimdir.com)

P.O. Box 181015 • Corpus Christi, Texas 78480  
Phone: 361-653-6500 • Fax: 361-653-6599  
[www.aimdir.com](http://www.aimdir.com)





# Performance Overview

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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# BHA Performance

## BHA 1

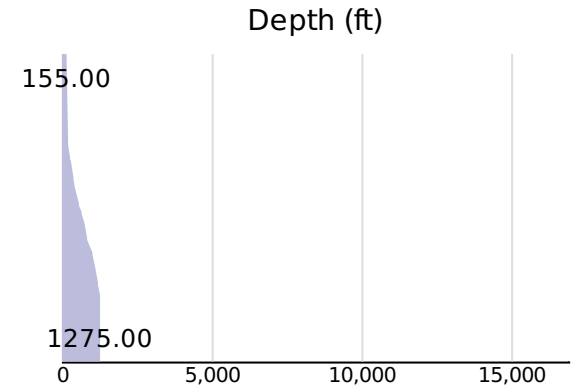
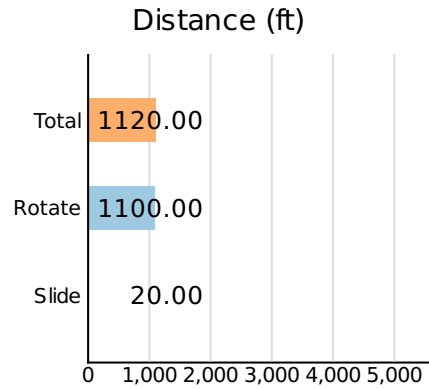
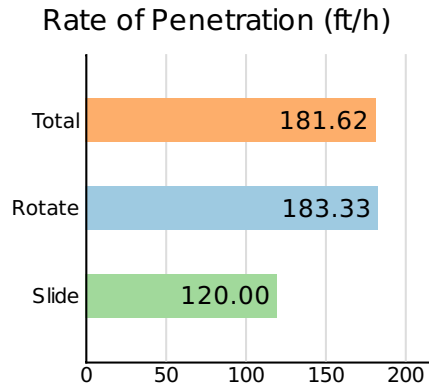
17.50" SURFACE

In: 11/18/2021

09:30

Out: 11/18/2021

21:30



## BHA 2

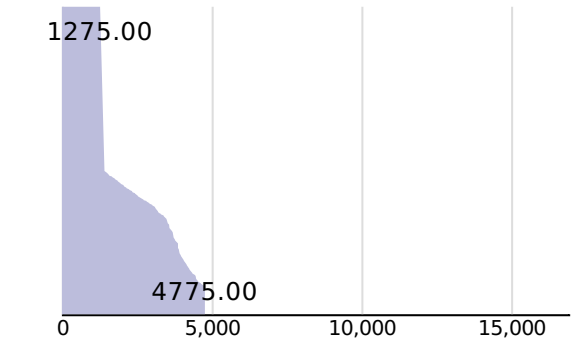
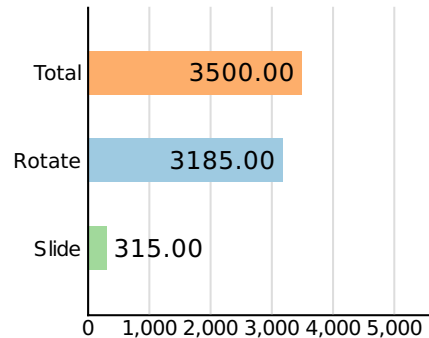
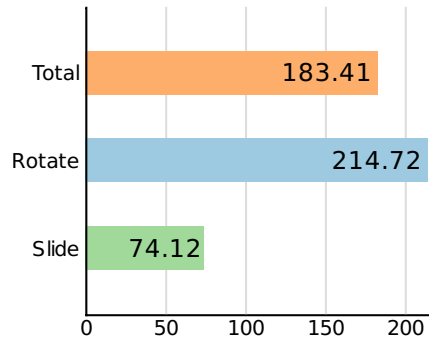
12.25" INTERMEDIATE

In: 11/19/2021

11:45

Out: 11/21/2021

23:30



## BHA 3

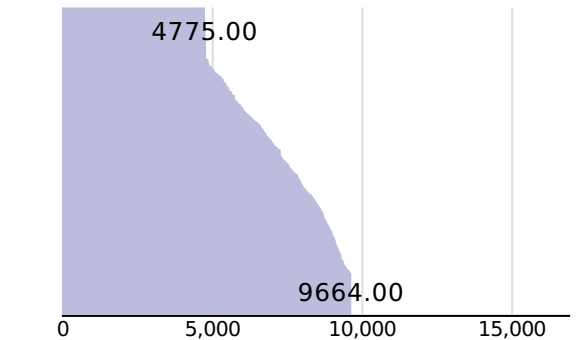
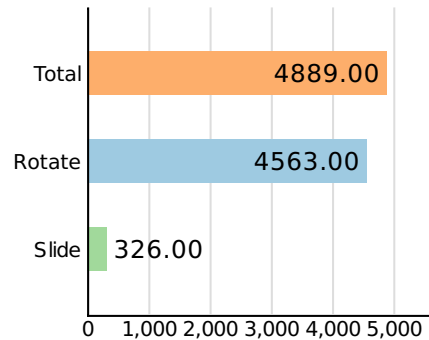
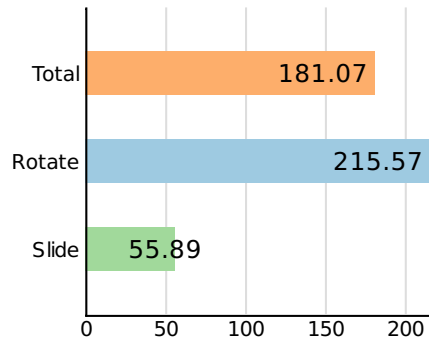
8.75" INTERMEDIATE

In: 12/08/2021

01:30

Out: 12/09/2021

21:45



# BHA 4

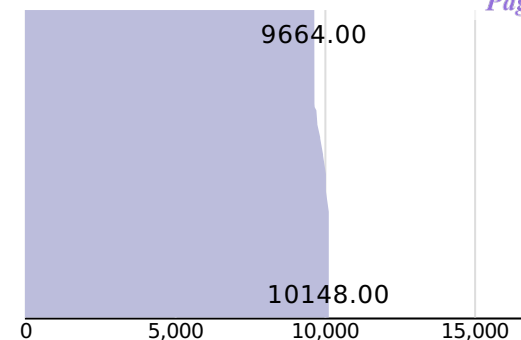
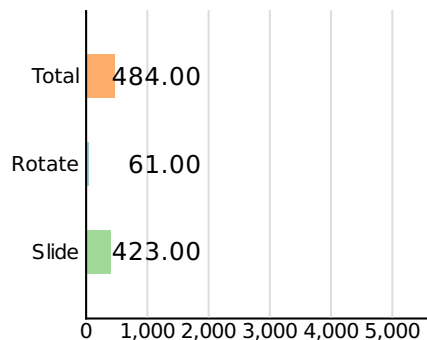
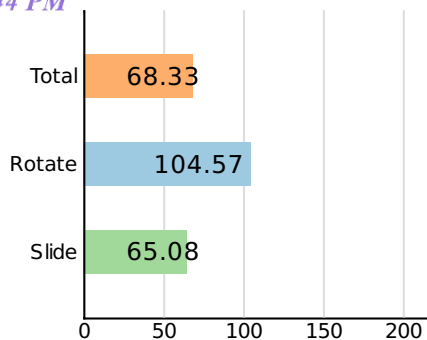
8.75" CURVE

In: 12/09/2021

23:30

Out: 12/10/2021

23:15



# BHA 5

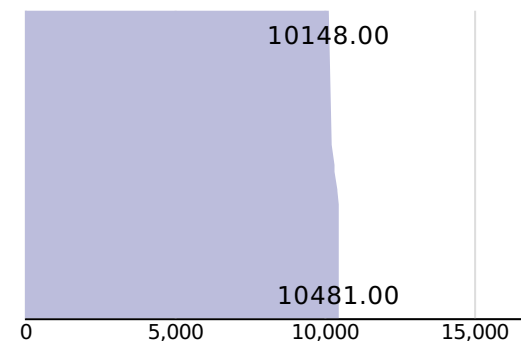
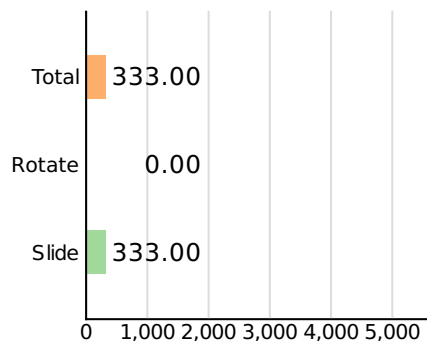
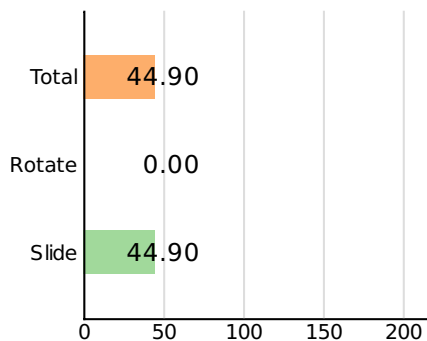
8.75" CURVE

In: 12/10/2021

23:45

Out: 12/11/2021

22:30



# BHA 6

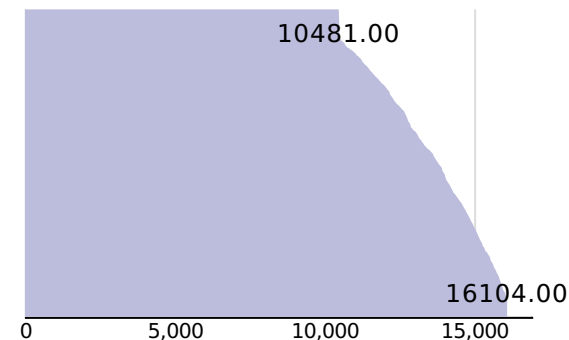
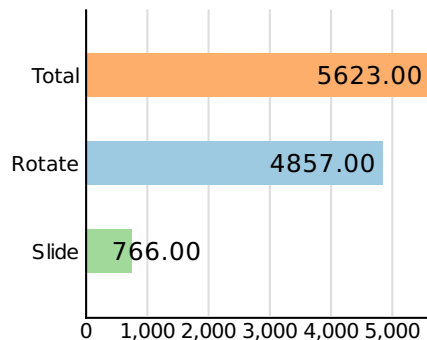
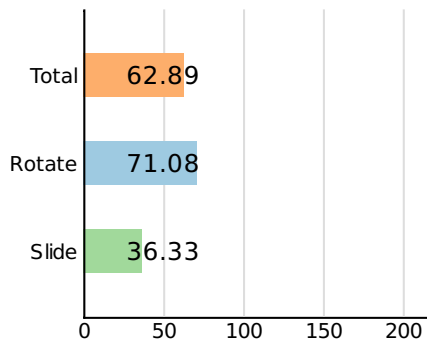
8.75" LATERAL ASSEMBLY

In: 12/11/2021

22:30

Out: 12/16/2021

14:00



# BHA 7

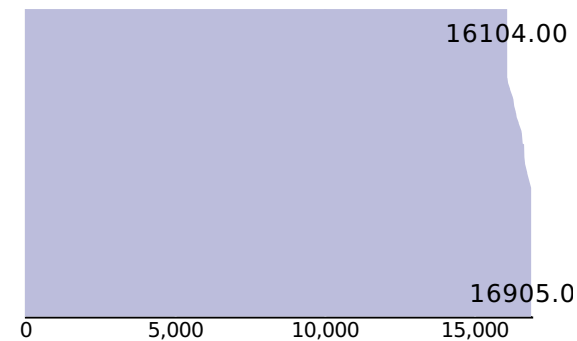
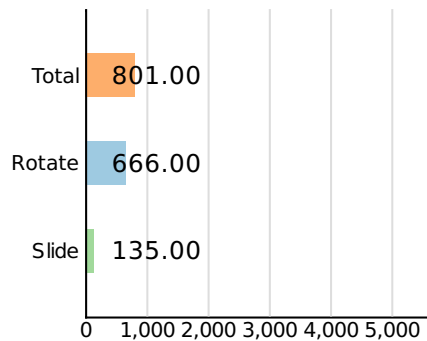
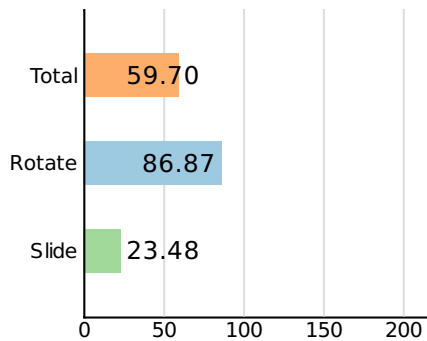
8.75" LATERAL ASSEMBLY

In: 12/16/2021

14:40

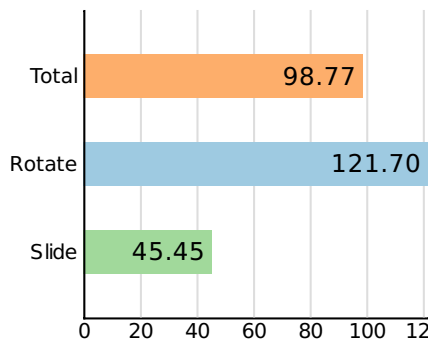
Out: 12/18/2021

05:30

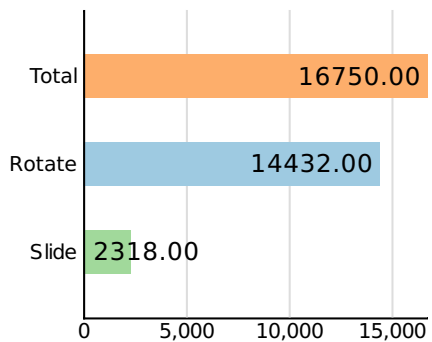


# Total

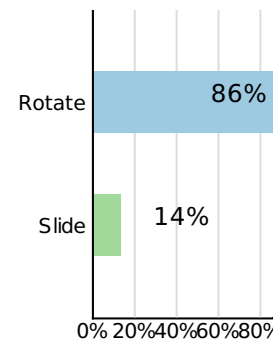
Rate of Penetration (ft/h)



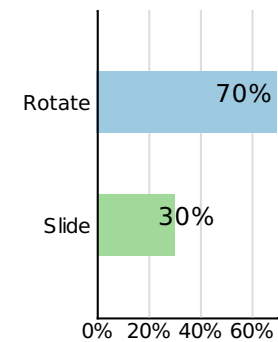
Distance (ft)



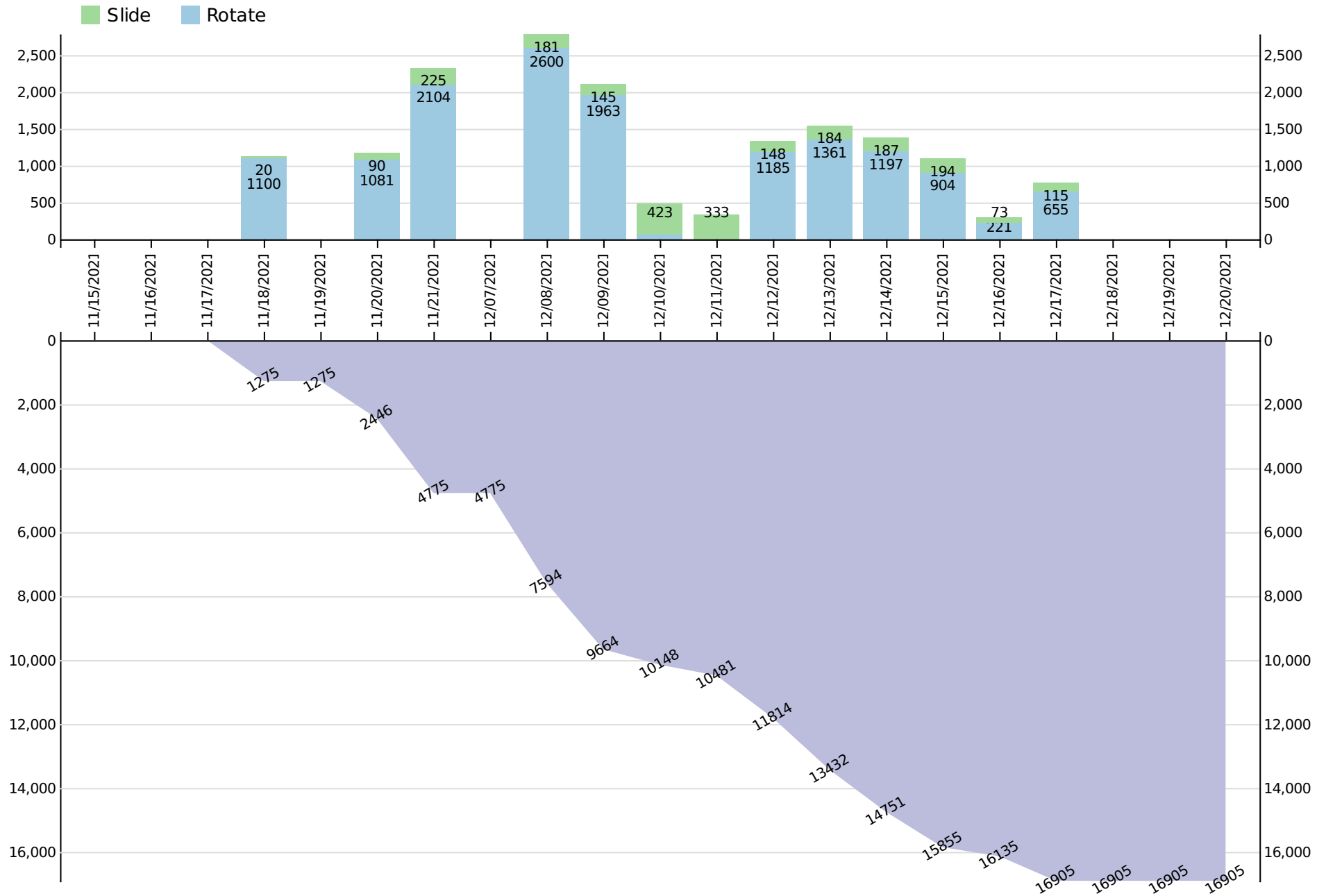
Distance Percentage



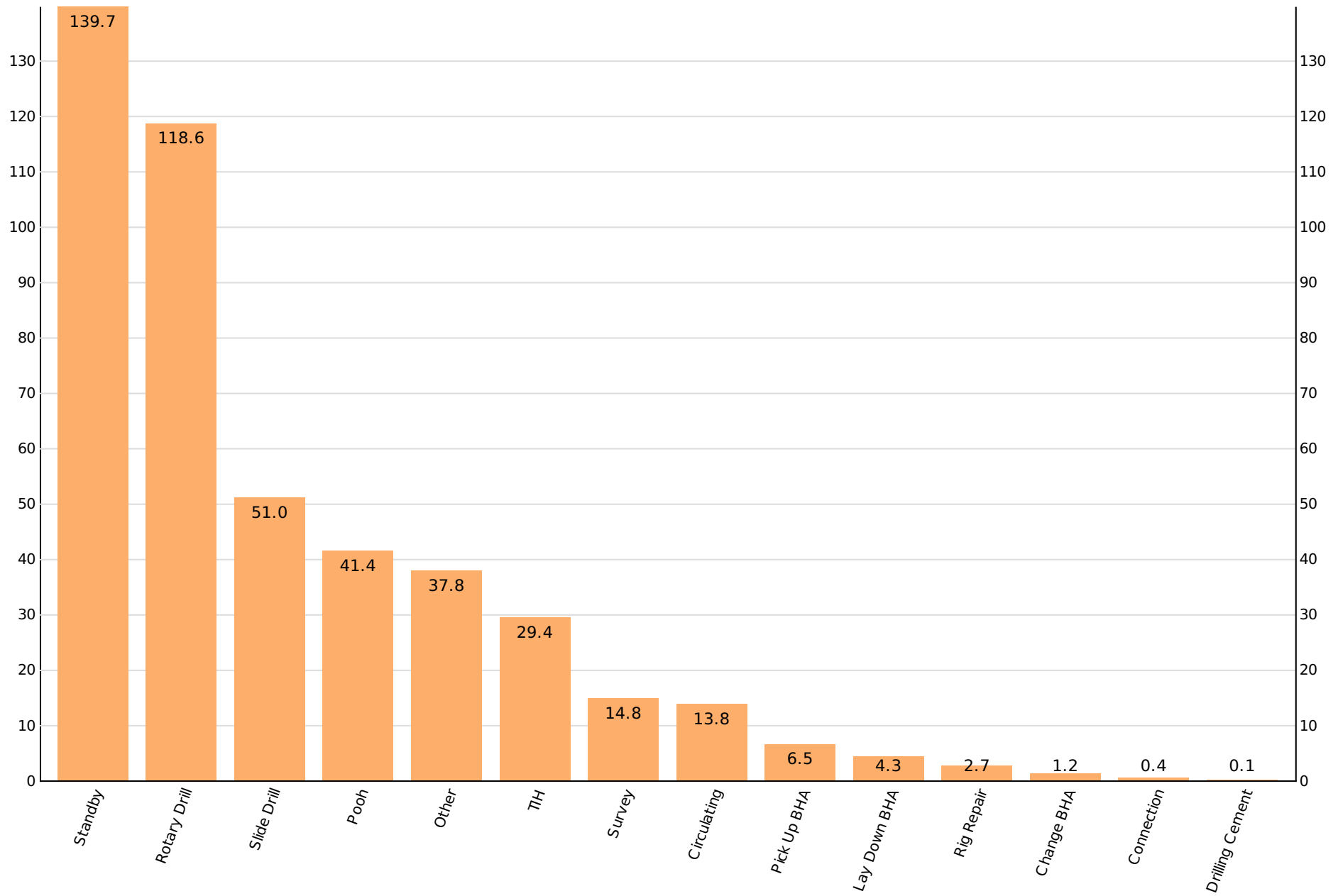
Time Percentage



# Days vs. Depth



# Directional Activity Hours





# Proposed vs. As Drilled

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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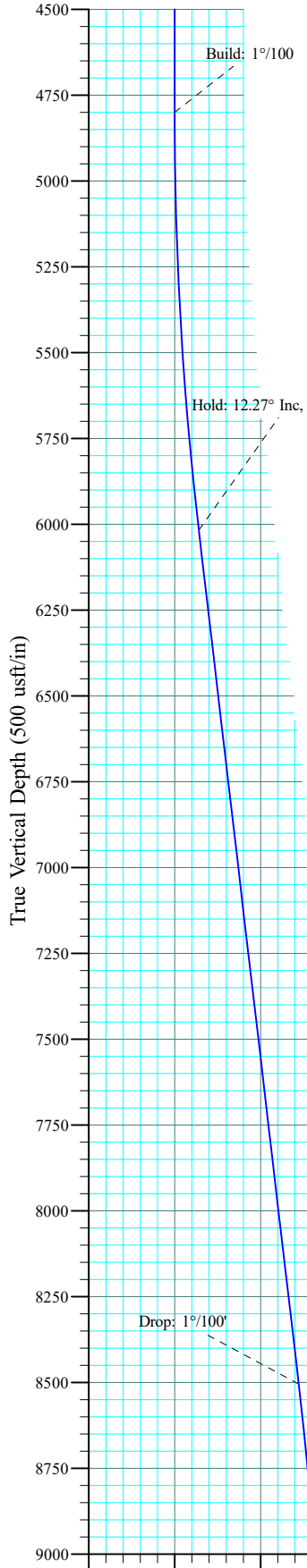


Anderson Fed Com 508H  
Lea County, New Mexico  
Job No. WT-21-179  
Plan 1.0



SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.00	0.00	
2	4800.00	0.00	0.00	4800.00	0.00	0.00	0.000	0.00	0.00	Build: 1°/100
3	6027.17	12.27	62.96	6017.81	59.52	116.60	1.000	62.96	70.39	Hold: 12.27° Inc, 62.96° Azm
4	8572.21	12.27	62.96	8504.69	305.48	598.40	0.000	0.00	361.23	Drop: 1°/100'
5	9799.37	0.00	0.00	9722.50	365.00	715.00	1.000	180.00	431.61	KOP: 12°/100' @ 9799.37' MD
6	10549.37	90.00	0.28	10199.96	842.46	717.33	12.000	0.28	907.11	LP: 10549.37' MD, 90.00° Inc, 0.28° Azm
7	10551.87	90.00	0.28	10199.96	844.96	717.35	0.000	0.00	909.60	Build: 2°/100
8	10581.07	90.05	359.70	10199.95	874.16	717.34	2.000	-84.72	938.67	Hold: 90.05° Inc, 359.70° Azm
9	14788.98	90.05	359.70	10196.00	5082.00	695.20	0.000	0.00	5125.16	Build: 2°/100
10	14936.30	93.00	359.70	10192.07	5229.26	694.42	2.000	0.04	5271.67	Hold: 93.00° Inc, 359.70° Azm
11	16848.26	93.00	359.70	10092.00	7138.57	684.45	0.000	0.00	7171.31	PBHL @ 16848.26' MD/10092.00' TVD

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #508H PBHL	10092.00	7138.57	684.45	526663.20	755865.80	32° 26' 45.391 N	103° 38' 16.441 W
Anderson #508H WP1	10196.00	5082.00	695.20	524606.63	755876.55	32° 26' 25.041 N	103° 38' 16.472 W
Anderson #508H FTP	10200.00	737.87	722.55	520262.50	755903.90	32° 25' 42.054 N	103° 38' 16.483 W



**PROJECT DETAILS:** Lea County, New Mexico

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

System Datum: Mean Sea Level

**T G M**

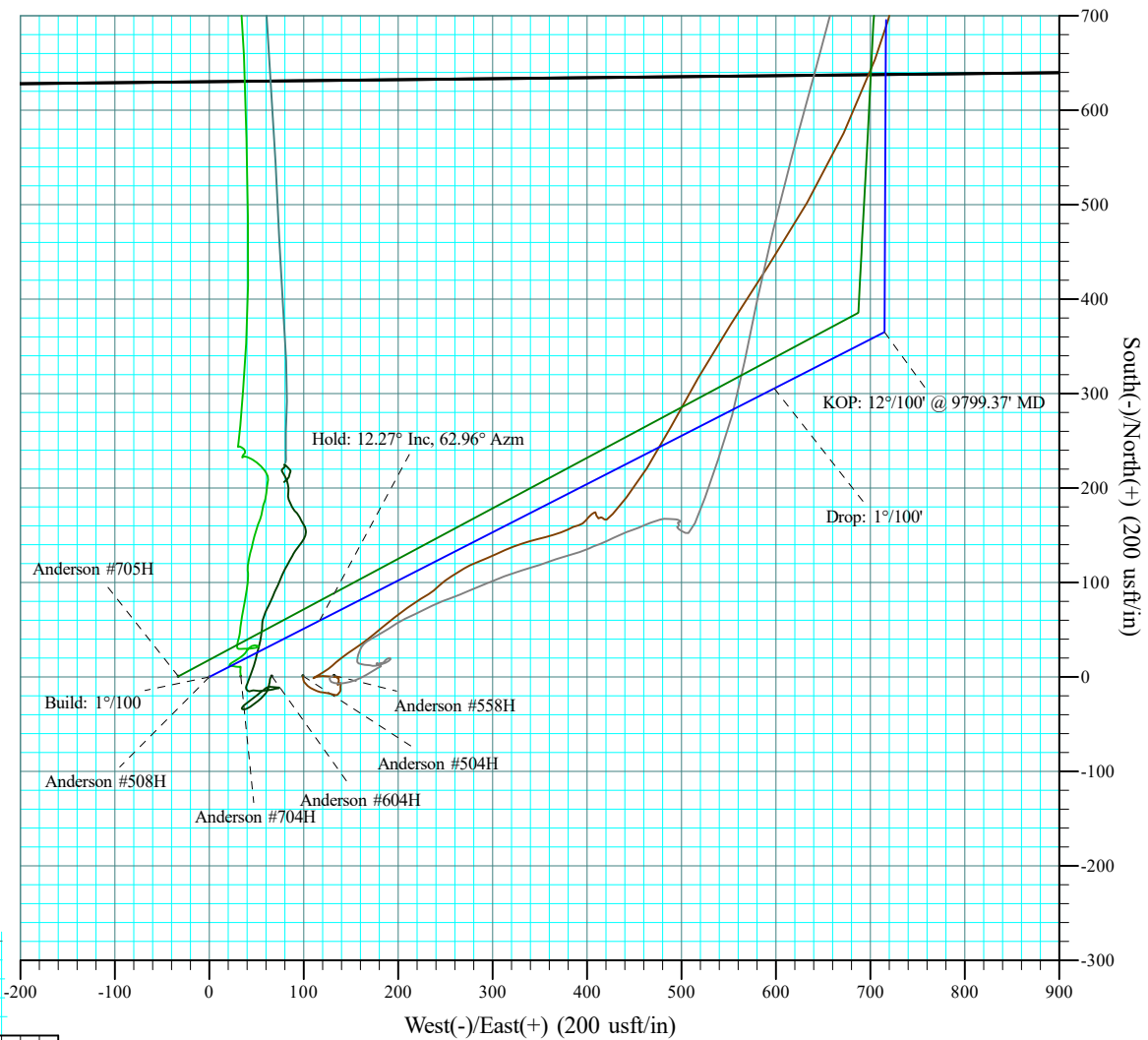
Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 6.06°

Magnetic Field  
Strength: 47845.5nT  
Dip Angle: 60.12°  
Date: 11/16/2021  
Model: MVHDD

**SITE DETAILS:** Anderson Fed Com 508H

Site Centre Northing: 519524.63  
Easting: 755181.35

Positional Uncertainty: 0.00  
Convergence: 0.37  
Local North: Grid



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00		Build: 1°/100
3	6027.17	12.27	62.96	6017.81	59.52	116.60	1.000	62.96	70.39		Hold: 12.27° Inc, 62.96° Azm
4	8572.21	12.27	62.96	8504.69	305.48	598.40	0.000	0.00	361.23		Drop: 1°/100'
5	9799.37	0.00	0.00	9722.50	365.00	715.00	1.000	180.00	431.61		KOP: 12°/100' @ 9799.37' MD
6	10549.37	90.00	0.28	10199.96	842.46	717.33	12.000	0.28	907.11		LP: 10549.37' MD, 90.00° Inc, 0.28° Azm
7	10551.87	90.00	0.28	10199.96	844.96	717.35	0.000	0.00	909.60		Build: 2°/100
8	10581.07	90.05	359.70	10199.95	874.16	717.34	2.000	-84.72	938.67		Hold: 90.05° Inc, 359.70° Azm
9	14788.98	90.05	359.70	10196.00	5082.00	695.20	0.000	0.00	5125.16	Anderson #508H WP1	Build: 2°/100
10	14936.30	93.00	359.70	10192.07	5229.26	694.42	2.000	0.04	5271.67		Hold: 93.00° Inc, 359.70° Azm
11	16848.26	93.00	359.70	10092.00	7138.57	684.45	0.000	0.00	7171.31	Anderson #508H PBHL	PBHL @ 16848.26' MD/10092.00' TVD

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #508H PBHL	10092.00	7138.57	684.45	526663.20	755865.80	32° 26' 45.391 N 103° 38' 16.441 W	
Anderson #508H WP1	10196.00	5082.00	695.20	524606.63	755876.55	32° 26' 25.041 N 103° 38' 16.472 W	
Anderson #508H FTP	10200.00	737.87	722.55	520262.50	755903.90	32° 25' 42.054 N 103° 38' 16.483 W	

SITE DETAILS: Anderson Fed Com 508H

Site Centre Northing: 519524.63  
Easting: 755181.35

Positional Uncertainty: 0.00  
Convergence: 0.37  
Local North: Grid

PROJECT DETAILS: Lea County, New Mexico

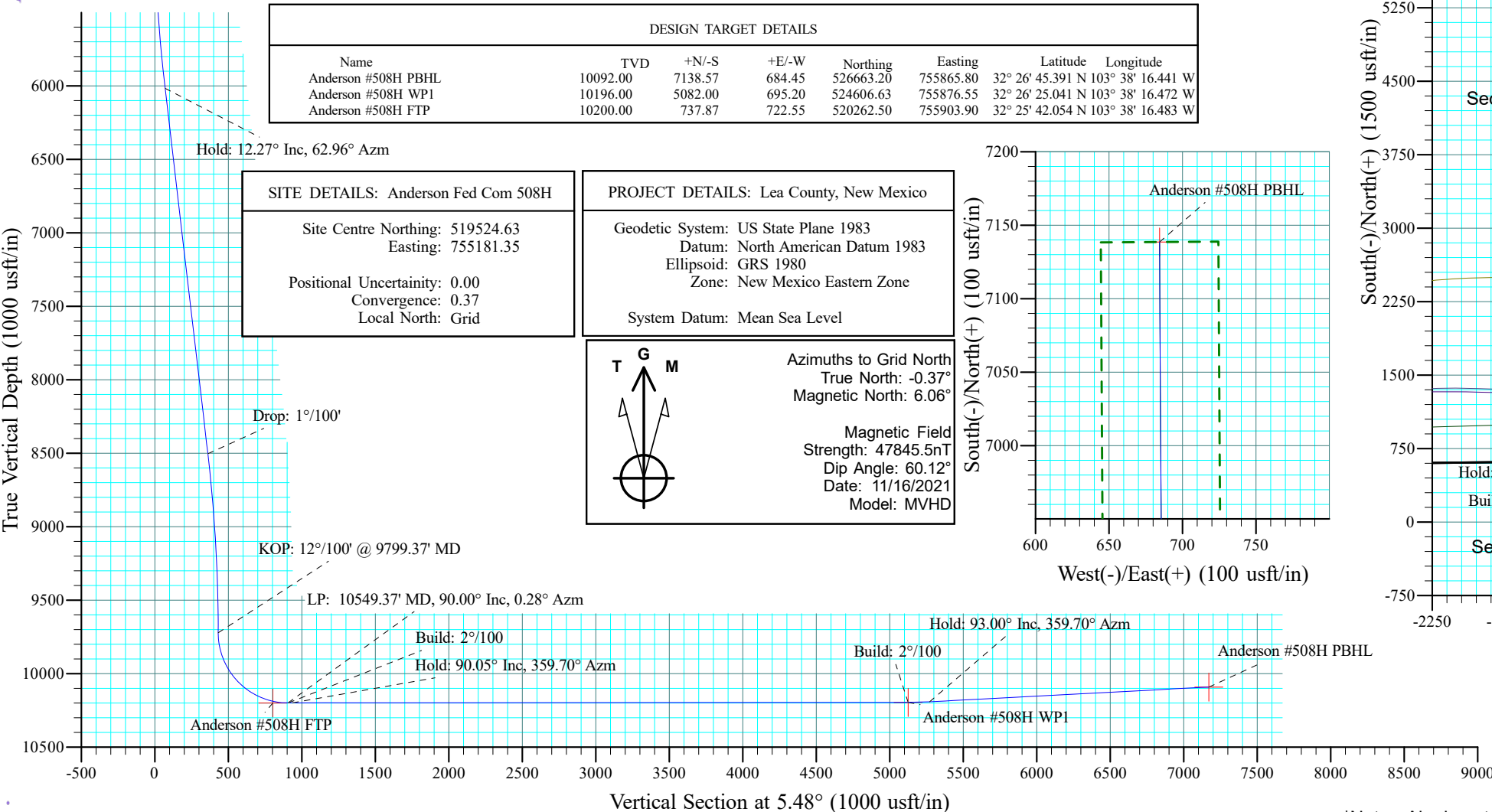
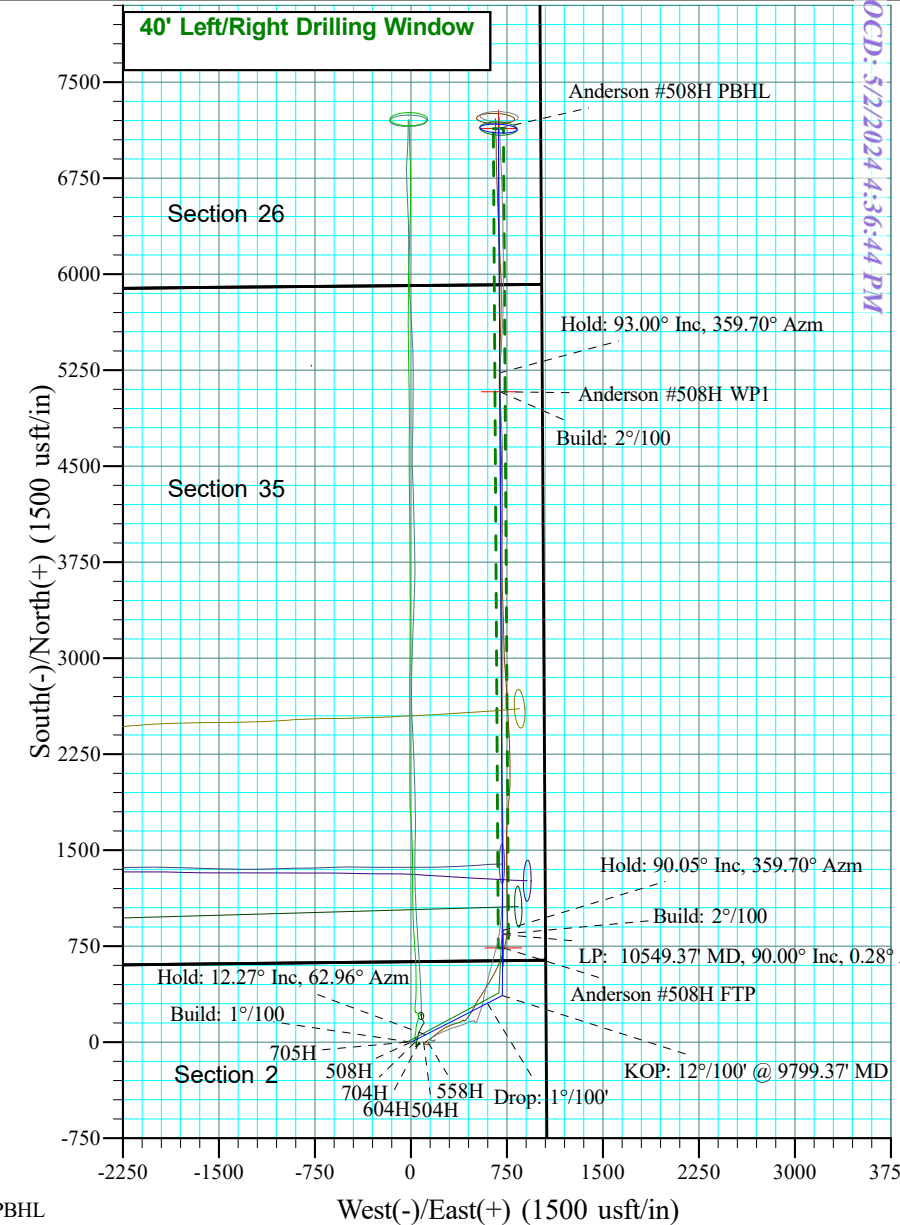
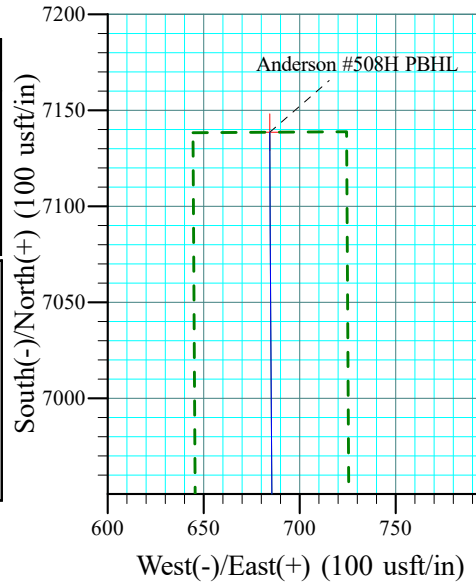
Geodetic System: US State Plane 1983  
Datum: North American Datum 1983  
Ellipsoid: GRS 1980  
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level



Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 6.06°

Magnetic Field  
Strength: 47845.5nT  
Dip Angle: 60.12°  
Date: 11/16/2021  
Model: MVHD



Revised to Imaging: 4/30/2026 8:01:34 AM

Revised by: OCD: 5/2/2024 4:36:44 PM

Page 4 of 20



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

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

<b>Site</b>	Anderson Fed Com 508H				
<b>Site Position:</b>		<b>Northing:</b>	519,524.63 usft	<b>Latitude:</b>	32° 25' 34.799 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	755,181.35 usft	<b>Longitude:</b>	103° 38' 24.968 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson #508H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,524.63 usft	<b>Latitude:</b>	32° 25' 34.799 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	755,181.35 usft	<b>Longitude:</b>	103° 38' 24.968 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,658.00 usft

<b>Wellbore</b>	Planning				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	11/16/2021	6.43	60.12	47,845.515

<b>Design</b>	Plan 1.0			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	5.48

<b>Survey Tool Program</b>	<b>Date</b>	11/17/2021		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
0.00	16,848.26	Plan 1.0 (Planning)	MWD+HRGM Advance	OWSG MWD + HRGM

<b>Planned Survey</b>									
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.000	0.000	0.000
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.000	0.000	0.000
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.000	0.000	0.000
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.000	0.000	0.000
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.000	0.000	0.000
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.000	0.000	0.000
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.000	0.000	0.000
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.000	0.000	0.000
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.000	0.000	0.000



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.000	0.000	0.000	
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.000	0.000	0.000	
<b>Build: 1°/100</b>										
4,900.00	1.00	62.96	4,900.00	0.40	0.78	0.47	1.000	1.000	0.000	
5,000.00	2.00	62.96	4,999.96	1.59	3.11	1.88	1.000	1.000	0.000	
5,100.00	3.00	62.96	5,099.86	3.57	6.99	4.22	1.000	1.000	0.000	
5,200.00	4.00	62.96	5,199.68	6.35	12.43	7.50	1.000	1.000	0.000	



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	5.00	62.96	5,299.37	9.91	19.42	11.72	1.000	1.000	0.000
5,400.00	6.00	62.96	5,398.90	14.27	27.96	16.88	1.000	1.000	0.000
5,500.00	7.00	62.96	5,498.26	19.42	38.04	22.96	1.000	1.000	0.000
5,600.00	8.00	62.96	5,597.40	25.35	49.66	29.98	1.000	1.000	0.000
5,700.00	9.00	62.96	5,696.30	32.07	62.83	37.93	1.000	1.000	0.000
5,800.00	10.00	62.96	5,794.93	39.58	77.53	46.80	1.000	1.000	0.000
5,900.00	11.00	62.96	5,893.26	47.86	93.76	56.60	1.000	1.000	0.000
6,000.00	12.00	62.96	5,991.25	56.93	111.52	67.32	1.000	1.000	0.000
6,027.17	12.27	62.96	6,017.81	59.52	116.60	70.39	1.000	1.000	0.000
<b>Hold: 12.27° Inc, 62.96° Azm</b>									
6,100.00	12.27	62.96	6,088.97	66.56	130.39	78.71	0.000	0.000	0.000
6,200.00	12.27	62.96	6,186.69	76.23	149.32	90.14	0.000	0.000	0.000
6,300.00	12.27	62.96	6,284.41	85.89	168.25	101.57	0.000	0.000	0.000
6,400.00	12.27	62.96	6,382.12	95.55	187.18	112.99	0.000	0.000	0.000
6,500.00	12.27	62.96	6,479.84	105.22	206.11	124.42	0.000	0.000	0.000
6,600.00	12.27	62.96	6,577.55	114.88	225.04	135.85	0.000	0.000	0.000
6,700.00	12.27	62.96	6,675.27	124.55	243.97	147.28	0.000	0.000	0.000
6,800.00	12.27	62.96	6,772.98	134.21	262.91	158.70	0.000	0.000	0.000
6,900.00	12.27	62.96	6,870.70	143.87	281.84	170.13	0.000	0.000	0.000
7,000.00	12.27	62.96	6,968.41	153.54	300.77	181.56	0.000	0.000	0.000
7,100.00	12.27	62.96	7,066.13	163.20	319.70	192.99	0.000	0.000	0.000
7,200.00	12.27	62.96	7,163.84	172.87	338.63	204.41	0.000	0.000	0.000
7,300.00	12.27	62.96	7,261.56	182.53	357.56	215.84	0.000	0.000	0.000
7,400.00	12.27	62.96	7,359.27	192.19	376.49	227.27	0.000	0.000	0.000
7,500.00	12.27	62.96	7,456.99	201.86	395.42	238.70	0.000	0.000	0.000
7,600.00	12.27	62.96	7,554.70	211.52	414.35	250.13	0.000	0.000	0.000
7,700.00	12.27	62.96	7,652.42	221.19	433.28	261.55	0.000	0.000	0.000
7,800.00	12.27	62.96	7,750.13	230.85	452.21	272.98	0.000	0.000	0.000
7,900.00	12.27	62.96	7,847.85	240.51	471.14	284.41	0.000	0.000	0.000
8,000.00	12.27	62.96	7,945.56	250.18	490.07	295.84	0.000	0.000	0.000
8,100.00	12.27	62.96	8,043.28	259.84	509.01	307.26	0.000	0.000	0.000
8,200.00	12.27	62.96	8,140.99	269.51	527.94	318.69	0.000	0.000	0.000
8,300.00	12.27	62.96	8,238.71	279.17	546.87	330.12	0.000	0.000	0.000
8,400.00	12.27	62.96	8,336.42	288.83	565.80	341.55	0.000	0.000	0.000
8,500.00	12.27	62.96	8,434.14	298.50	584.73	352.97	0.000	0.000	0.000
8,572.21	12.27	62.96	8,504.69	305.48	598.40	361.23	0.000	0.000	0.000
<b>Drop: 1°/100'</b>									
8,600.00	11.99	62.96	8,531.87	308.13	603.60	364.37	1.000	-1.000	0.000
8,700.00	10.99	62.96	8,629.86	317.19	621.35	375.08	1.000	-1.000	0.000
8,800.00	9.99	62.96	8,728.19	325.47	637.57	384.87	1.000	-1.000	0.000
8,900.00	8.99	62.96	8,826.81	332.97	652.26	393.74	1.000	-1.000	0.000
9,000.00	7.99	62.96	8,925.72	339.69	665.41	401.68	1.000	-1.000	0.000
9,100.00	6.99	62.96	9,024.86	345.62	677.03	408.69	1.000	-1.000	0.000
9,200.00	5.99	62.96	9,124.22	350.76	687.10	414.77	1.000	-1.000	0.000



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,300.00	4.99	62.96	9,223.76	355.11	695.63	419.92	1.000	-1.000	0.000
9,400.00	3.99	62.96	9,323.45	358.67	702.61	424.13	1.000	-1.000	0.000
9,500.00	2.99	62.96	9,423.26	361.44	708.04	427.41	1.000	-1.000	0.000
9,600.00	1.99	62.96	9,523.17	363.42	711.91	429.75	1.000	-1.000	0.000
9,700.00	0.99	62.96	9,623.13	364.61	714.23	431.15	1.000	-1.000	0.000
9,799.37	0.00	0.00	9,722.50	365.00	715.00	431.61	1.000	-1.000	0.000
<b>KOP: 12°/100' @ 9799.37' MD</b>									
9,825.00	3.08	0.28	9,748.11	365.69	715.00	432.30	12.000	12.000	0.000
9,850.00	6.08	0.28	9,773.03	367.68	715.01	434.28	12.000	12.000	0.000
9,875.00	9.08	0.28	9,797.81	370.98	715.03	437.57	12.000	12.000	0.000
9,900.00	12.08	0.28	9,822.38	375.56	715.05	442.13	12.000	12.000	0.000
9,925.00	15.08	0.28	9,846.68	381.43	715.08	447.98	12.000	12.000	0.000
9,950.00	18.08	0.28	9,870.64	388.56	715.12	455.08	12.000	12.000	0.000
9,975.00	21.08	0.28	9,894.19	396.94	715.16	463.42	12.000	12.000	0.000
10,000.00	24.08	0.28	9,917.27	406.53	715.20	472.98	12.000	12.000	0.000
10,025.00	27.08	0.28	9,939.82	417.32	715.26	483.72	12.000	12.000	0.000
10,050.00	30.08	0.28	9,961.77	429.28	715.31	495.63	12.000	12.000	0.000
10,075.00	33.08	0.28	9,983.07	442.37	715.38	508.66	12.000	12.000	0.000
10,100.00	36.08	0.28	10,003.65	456.55	715.45	522.79	12.000	12.000	0.000
10,125.00	39.08	0.28	10,023.46	471.80	715.52	537.97	12.000	12.000	0.000
10,150.00	42.08	0.28	10,042.45	488.06	715.60	554.16	12.000	12.000	0.000
10,175.00	45.08	0.28	10,060.56	505.29	715.69	571.32	12.000	12.000	0.000
10,200.00	48.08	0.28	10,077.74	523.44	715.77	589.40	12.000	12.000	0.000
10,225.00	51.08	0.28	10,093.95	542.47	715.87	608.36	12.000	12.000	0.000
10,250.00	54.08	0.28	10,109.14	562.32	715.96	628.13	12.000	12.000	0.000
10,275.00	57.08	0.28	10,123.28	582.94	716.07	648.66	12.000	12.000	0.000
10,300.00	60.08	0.28	10,136.31	604.27	716.17	669.90	12.000	12.000	0.000
10,325.00	63.08	0.28	10,148.21	626.26	716.28	691.80	12.000	12.000	0.000
10,350.00	66.08	0.28	10,158.94	648.83	716.39	714.28	12.000	12.000	0.000
10,375.00	69.08	0.28	10,168.48	671.94	716.50	737.29	12.000	12.000	0.000
10,400.00	72.08	0.28	10,176.79	695.51	716.62	760.77	12.000	12.000	0.000
10,425.00	75.08	0.28	10,183.86	719.49	716.73	784.65	12.000	12.000	0.000
10,450.00	78.08	0.28	10,189.66	743.80	716.85	808.86	12.000	12.000	0.000
10,475.00	81.08	0.28	10,194.18	768.39	716.97	833.34	12.000	12.000	0.000
10,500.00	84.08	0.28	10,197.41	793.17	717.09	858.03	12.000	12.000	0.000
10,525.00	87.08	0.28	10,199.34	818.10	717.21	882.85	12.000	12.000	0.000
10,549.37	90.00	0.28	10,199.96	842.46	717.33	907.11	12.000	12.000	0.000
<b>LP: 10549.37' MD, 90.00° Inc, 0.28° Azm</b>									
10,551.87	90.00	0.28	10,199.96	844.96	717.35	909.60	0.000	0.000	0.000
<b>Build: 2°/100</b>									
10,581.07	90.05	359.70	10,199.95	874.16	717.34	938.67	2.000	0.184	-1.991
<b>Hold: 90.05° Inc, 359.70° Azm</b>									
10,600.00	90.05	359.70	10,199.93	893.08	717.24	957.50	0.000	0.000	0.000
10,700.00	90.05	359.70	10,199.84	993.08	716.71	1,056.99	0.000	0.000	0.000



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,800.00	90.05	359.70	10,199.74	1,093.08	716.19	1,156.48	0.000	0.000	0.000
10,900.00	90.05	359.70	10,199.65	1,193.08	715.66	1,255.97	0.000	0.000	0.000
11,000.00	90.05	359.70	10,199.56	1,293.08	715.14	1,355.46	0.000	0.000	0.000
11,100.00	90.05	359.70	10,199.46	1,393.08	714.61	1,454.95	0.000	0.000	0.000
11,200.00	90.05	359.70	10,199.37	1,493.08	714.08	1,554.45	0.000	0.000	0.000
11,300.00	90.05	359.70	10,199.28	1,593.07	713.56	1,653.94	0.000	0.000	0.000
11,400.00	90.05	359.70	10,199.18	1,693.07	713.03	1,753.43	0.000	0.000	0.000
11,500.00	90.05	359.70	10,199.09	1,793.07	712.50	1,852.92	0.000	0.000	0.000
11,600.00	90.05	359.70	10,198.99	1,893.07	711.98	1,952.41	0.000	0.000	0.000
11,700.00	90.05	359.70	10,198.90	1,993.07	711.45	2,051.90	0.000	0.000	0.000
11,800.00	90.05	359.70	10,198.81	2,093.07	710.93	2,151.39	0.000	0.000	0.000
11,900.00	90.05	359.70	10,198.71	2,193.07	710.40	2,250.88	0.000	0.000	0.000
12,000.00	90.05	359.70	10,198.62	2,293.06	709.87	2,350.38	0.000	0.000	0.000
12,100.00	90.05	359.70	10,198.52	2,393.06	709.35	2,449.87	0.000	0.000	0.000
12,200.00	90.05	359.70	10,198.43	2,493.06	708.82	2,549.36	0.000	0.000	0.000
12,300.00	90.05	359.70	10,198.34	2,593.06	708.29	2,648.85	0.000	0.000	0.000
12,400.00	90.05	359.70	10,198.24	2,693.06	707.77	2,748.34	0.000	0.000	0.000
12,500.00	90.05	359.70	10,198.15	2,793.06	707.24	2,847.83	0.000	0.000	0.000
12,600.00	90.05	359.70	10,198.06	2,893.06	706.72	2,947.32	0.000	0.000	0.000
12,700.00	90.05	359.70	10,197.96	2,993.05	706.19	3,046.82	0.000	0.000	0.000
12,800.00	90.05	359.70	10,197.87	3,093.05	705.66	3,146.31	0.000	0.000	0.000
12,900.00	90.05	359.70	10,197.77	3,193.05	705.14	3,245.80	0.000	0.000	0.000
13,000.00	90.05	359.70	10,197.68	3,293.05	704.61	3,345.29	0.000	0.000	0.000
13,100.00	90.05	359.70	10,197.59	3,393.05	704.08	3,444.78	0.000	0.000	0.000
13,200.00	90.05	359.70	10,197.49	3,493.05	703.56	3,544.27	0.000	0.000	0.000
13,300.00	90.05	359.70	10,197.40	3,593.05	703.03	3,643.76	0.000	0.000	0.000
13,400.00	90.05	359.70	10,197.30	3,693.04	702.51	3,743.25	0.000	0.000	0.000
13,500.00	90.05	359.70	10,197.21	3,793.04	701.98	3,842.75	0.000	0.000	0.000
13,600.00	90.05	359.70	10,197.12	3,893.04	701.45	3,942.24	0.000	0.000	0.000
13,700.00	90.05	359.70	10,197.02	3,993.04	700.93	4,041.73	0.000	0.000	0.000
13,800.00	90.05	359.70	10,196.93	4,093.04	700.40	4,141.22	0.000	0.000	0.000
13,900.00	90.05	359.70	10,196.83	4,193.04	699.87	4,240.71	0.000	0.000	0.000
14,000.00	90.05	359.70	10,196.74	4,293.04	699.35	4,340.20	0.000	0.000	0.000
14,100.00	90.05	359.70	10,196.65	4,393.03	698.82	4,439.69	0.000	0.000	0.000
14,200.00	90.05	359.70	10,196.55	4,493.03	698.30	4,539.18	0.000	0.000	0.000
14,300.00	90.05	359.70	10,196.46	4,593.03	697.77	4,638.68	0.000	0.000	0.000
14,400.00	90.05	359.70	10,196.37	4,693.03	697.24	4,738.17	0.000	0.000	0.000
14,500.00	90.05	359.70	10,196.27	4,793.03	696.72	4,837.66	0.000	0.000	0.000
14,600.00	90.05	359.70	10,196.18	4,893.03	696.19	4,937.15	0.000	0.000	0.000
14,700.00	90.05	359.70	10,196.08	4,993.03	695.66	5,036.64	0.000	0.000	0.000
14,788.98	90.05	359.70	10,196.00	5,082.00	695.20	5,125.16	0.000	0.000	0.000
<b>Build: 2°/100</b>									
14,800.00	90.27	359.70	10,195.97	5,093.02	695.14	5,136.13	2.000	2.000	0.001



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Planned Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
14,900.00	92.27	359.70	10,193.74	5,192.99	694.61	5,235.59	2.000	2.000	0.001	
14,936.30	93.00	359.70	10,192.07	5,229.26	694.42	5,271.67	2.000	2.000	0.001	
<b>Hold: 93.00° Inc, 359.70° Azm</b>										
15,000.00	93.00	359.70	10,188.74	5,292.87	694.09	5,334.96	0.000	0.000	0.000	
15,100.00	93.00	359.70	10,183.51	5,392.73	693.57	5,434.32	0.000	0.000	0.000	
15,200.00	93.00	359.70	10,178.27	5,492.59	693.05	5,533.67	0.000	0.000	0.000	
15,300.00	93.00	359.70	10,173.04	5,592.45	692.53	5,633.03	0.000	0.000	0.000	
15,400.00	93.00	359.70	10,167.80	5,692.31	692.00	5,732.38	0.000	0.000	0.000	
15,500.00	93.00	359.70	10,162.57	5,792.17	691.48	5,831.74	0.000	0.000	0.000	
15,600.00	93.00	359.70	10,157.34	5,892.04	690.96	5,931.09	0.000	0.000	0.000	
15,700.00	93.00	359.70	10,152.10	5,991.90	690.44	6,030.45	0.000	0.000	0.000	
15,800.00	93.00	359.70	10,146.87	6,091.76	689.92	6,129.80	0.000	0.000	0.000	
15,900.00	93.00	359.70	10,141.63	6,191.62	689.40	6,229.16	0.000	0.000	0.000	
16,000.00	93.00	359.70	10,136.40	6,291.48	688.87	6,328.51	0.000	0.000	0.000	
16,100.00	93.00	359.70	10,131.17	6,391.34	688.35	6,427.87	0.000	0.000	0.000	
16,200.00	93.00	359.70	10,125.93	6,491.20	687.83	6,527.22	0.000	0.000	0.000	
16,300.00	93.00	359.70	10,120.70	6,591.07	687.31	6,626.58	0.000	0.000	0.000	
16,400.00	93.00	359.70	10,115.46	6,690.93	686.79	6,725.93	0.000	0.000	0.000	
16,500.00	93.00	359.70	10,110.23	6,790.79	686.26	6,825.29	0.000	0.000	0.000	
16,600.00	93.00	359.70	10,104.99	6,890.65	685.74	6,924.65	0.000	0.000	0.000	
16,700.00	93.00	359.70	10,099.76	6,990.51	685.22	7,024.00	0.000	0.000	0.000	
16,800.00	93.00	359.70	10,094.53	7,090.37	684.70	7,123.36	0.000	0.000	0.000	
16,848.26	93.00	359.70	10,092.00	7,138.57	684.45	7,171.31	0.000	0.000	0.000	
<b>PBHL @ 16848.26' MD/10092.00' TVD</b>										

**Design Targets**

Target Name	- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Anderson #508H PBH	- plan hits target center	0.00	0.00	10,092.00	7,138.57	684.45	526,663.20	755,865.80	32° 26' 45.391 N	103° 38' 16.441 W
	- Point									
Anderson #508H WP'	- plan hits target center	0.00	0.00	10,196.00	5,082.00	695.20	524,606.63	755,876.55	32° 26' 25.041 N	103° 38' 16.472 W
	- Point									
Anderson #508H FTP	- plan misses target center by 12.71usft at 10446.66usft MD (10188.96 TVD, 740.53 N, 716.84 E)	0.00	0.00	10,200.00	737.87	722.55	520,262.50	755,903.90	32° 25' 42.054 N	103° 38' 16.483 W
	- Point									



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Planning	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Plan 1.0	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Plan Annotations**

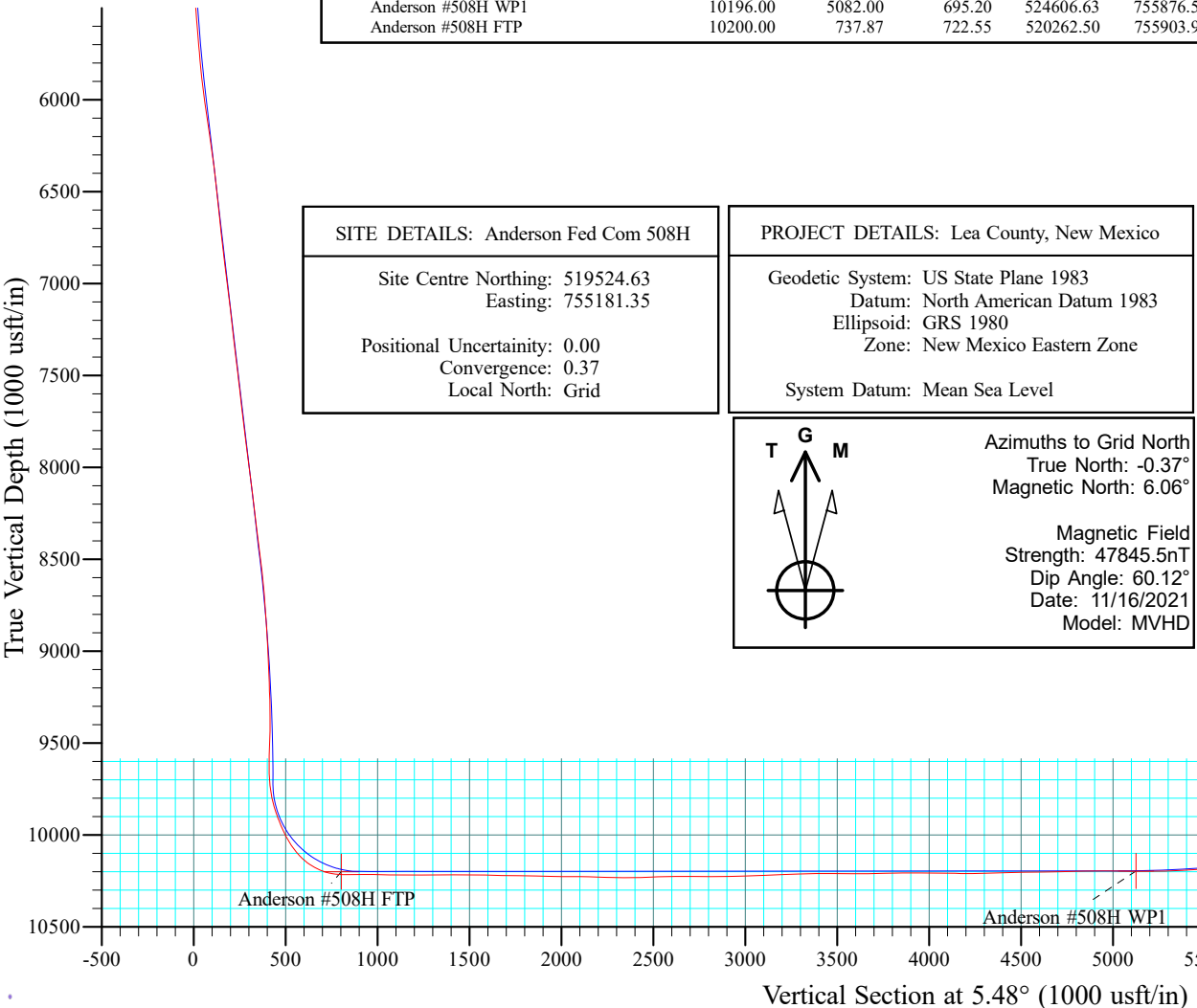
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4800	4800	0	0	Build: 1°/100
6027	6018	60	117	Hold: 12.27° Inc, 62.96° Azm
8572	8505	305	598	Drop: 1°/100'
9799	9723	365	715	KOP: 12°/100' @ 9799.37' MD
10,549	10,200	842	717	LP: 10549.37' MD, 90.00° Inc, 0.28° Azm
10,552	10,200	845	717	Build: 2°/100
10,581	10,200	874	717	Hold: 90.05° Inc, 359.70° Azm
14,789	10,196	5082	695	Build: 2°/100
14,936	10,192	5229	694	Hold: 93.00° Inc, 359.70° Azm
16,848	10,092	7139	684	PBHL @ 16848.26' MD/10092.00' TVD

Retrieved to Imaging: 4/30/2025 8:01:34 AM

Retrieved by OCD: 5/2/2024 4:36:44 PM

SECTION DETAILS												
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	Target	Annotation	
1	16842.00	97.10	359.82	10093.39	7085.23	671.92	0.000	0.00	7117.02		Last Aim Svy	
2	16905.00	97.10	359.82	10085.60	7147.75	671.73	0.000	0.00	7179.23		Proj to BHL	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Anderson #508H PBHL	10092.00	7138.57	684.45	526663.20	755865.80	32° 26' 45.391 N 103° 38' 16.441 W	
Anderson #508H WP1	10196.00	5082.00	695.20	524606.63	755876.55	32° 26' 25.041 N 103° 38' 16.472 W	
Anderson #508H FTP	10200.00	737.87	722.55	520262.50	755903.90	32° 25' 42.054 N 103° 38' 16.483 W	



**SITE DETAILS: Anderson Fed Com 508H**

Site Centre Northing: 519524.63  
Easting: 755181.35

Positional Uncertainty: 0.00  
Convergence: 0.37  
Local North: Grid

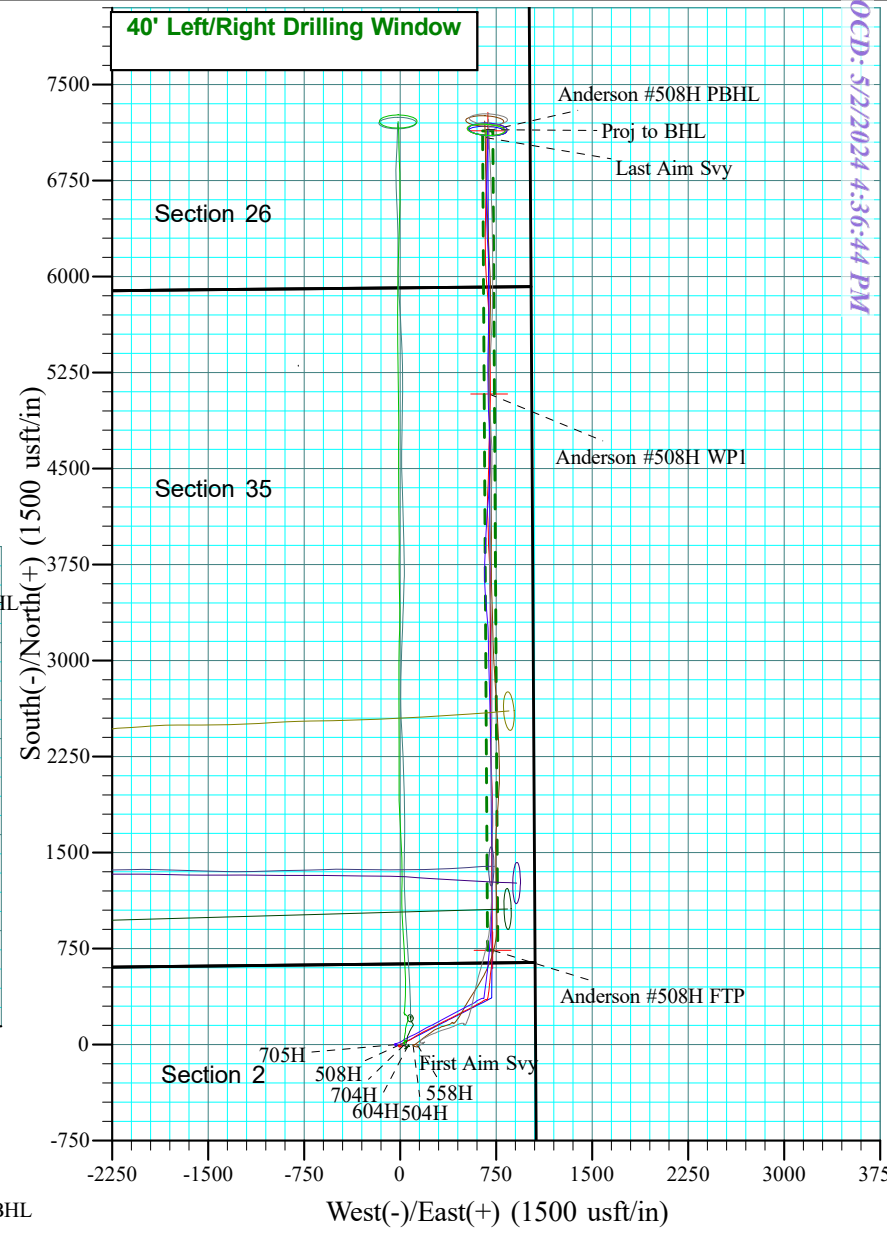
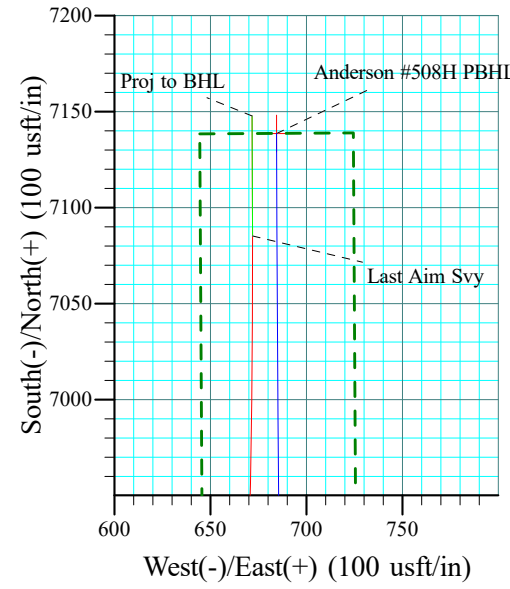
**PROJECT DETAILS: Lea County, New Mexico**

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

System Datum: Mean Sea Level

Azimuths to Grid North  
True North: -0.37°  
Magnetic North: 6.06°

Magnetic Field  
Strength: 47845.5nT  
Dip Angle: 60.12°  
Date: 11/16/2021  
Model: MVHD



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# Survey Reports

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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# Aim Directional Services, LLC

## Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

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

<b>Site</b>	Anderson Fed Com 508H				
<b>Site Position:</b>		<b>Northing:</b>	519,524.63 usft	<b>Latitude:</b>	32° 25' 34.799 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	755,181.35 usft	<b>Longitude:</b>	103° 38' 24.968 W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.37 °

<b>Well</b>	Anderson #508H					
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	519,524.63 usft	<b>Latitude:</b>	32° 25' 34.799 N
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	755,181.35 usft	<b>Longitude:</b>	103° 38' 24.968 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b>	3,658.00 usft

<b>Wellbore</b>	Drilling				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	11/16/2021	6.43	60.12	47,845.515

<b>Design</b>	Surveys				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	5.48	

<b>Survey Program</b>	<b>Date</b>	12/18/2021			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
197.00	16,905.00	MWD Surveys (Drilling)	MWD+HRGM Advance	OWSG MWD + HRGM	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.000	
197.00	1.32	283.44	196.98	0.53	-2.21	0.31	0.670	0.670	0.000	
<b>First Aim Svy</b>										
317.00	1.45	280.81	316.95	1.13	-5.04	0.65	0.121	0.108	-2.192	
497.00	0.66	98.78	496.93	1.40	-6.26	0.80	1.172	-0.439	98.872	
588.00	0.66	105.02	587.93	1.19	-5.23	0.68	0.079	0.000	6.857	
770.00	0.48	136.05	769.92	0.37	-3.69	0.01	0.193	-0.099	17.049	
951.00	0.57	216.82	950.91	-0.90	-3.70	-1.25	0.378	0.050	44.624	
1,132.00	1.05	229.13	1,131.89	-2.71	-5.50	-3.22	0.281	0.265	6.801	
1,203.00	1.05	223.41	1,202.88	-3.60	-6.44	-4.20	0.148	0.000	-8.056	
1,352.00	1.54	219.55	1,351.84	-6.14	-8.65	-6.94	0.334	0.329	-2.591	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,512.00	0.70	31.28	1,511.83	-6.96	-9.51	-7.84	1.397	-0.525	107.331
1,607.00	2.68	36.12	1,606.78	-4.67	-7.90	-5.41	2.088	2.084	5.095
1,702.00	2.68	40.43	1,701.68	-1.19	-5.15	-1.67	0.212	0.000	4.537
1,798.00	1.76	77.60	1,797.61	0.84	-2.25	0.62	1.731	-0.958	38.719
1,894.00	1.93	118.21	1,893.57	0.39	0.61	0.45	1.344	0.177	42.302
1,990.00	2.24	121.99	1,989.50	-1.37	3.63	-1.02	0.353	0.323	3.937
2,085.00	0.62	65.83	2,084.47	-2.14	5.67	-1.59	2.067	-1.705	-59.116
2,180.00	0.79	44.20	2,179.46	-1.46	6.60	-0.83	0.329	0.179	-22.768
2,276.00	1.14	71.54	2,275.45	-0.68	7.96	0.08	0.593	0.365	28.479
2,372.00	0.57	77.43	2,371.44	-0.28	9.33	0.61	0.600	-0.594	6.135
2,468.00	1.10	242.05	2,467.44	-0.61	8.99	0.25	1.726	0.552	171.479
2,659.00	1.05	220.60	2,658.40	-2.79	6.23	-2.19	0.211	-0.026	-11.230
2,755.00	0.75	186.85	2,754.39	-4.09	5.58	-3.53	0.621	-0.312	-35.156
2,851.00	0.79	125.50	2,850.38	-5.09	6.04	-4.49	0.819	0.042	-63.906
2,947.00	1.32	99.93	2,946.37	-5.67	7.67	-4.91	0.726	0.552	-26.635
3,042.00	2.11	83.67	3,041.33	-5.67	10.49	-4.64	0.969	0.832	-17.116
3,138.00	1.89	75.76	3,137.27	-5.08	13.78	-3.74	0.367	-0.229	-8.240
3,234.00	0.44	116.10	3,233.25	-4.85	15.64	-3.34	1.646	-1.510	42.021
3,330.00	2.15	174.11	3,329.22	-6.81	16.16	-5.23	2.034	1.781	60.427
3,425.00	2.07	199.51	3,424.16	-10.20	15.77	-8.64	0.980	-0.084	26.737
3,521.00	2.15	265.86	3,520.11	-11.96	13.40	-10.63	2.406	0.083	69.114
3,617.00	2.64	288.10	3,616.02	-11.40	9.50	-10.45	1.085	0.510	23.167
3,712.00	1.45	338.46	3,710.97	-9.61	6.98	-8.90	2.154	-1.253	53.010
3,808.00	1.93	26.01	3,806.93	-7.02	7.24	-6.30	1.491	0.500	49.531
3,904.00	0.40	35.77	3,902.91	-5.30	8.14	-4.50	1.601	-1.594	10.167
4,000.00	2.02	202.06	3,998.89	-6.60	7.70	-5.83	2.511	1.687	173.218
4,095.00	2.15	207.68	4,093.83	-9.73	6.25	-9.08	0.255	0.137	5.916
4,191.00	2.20	218.58	4,189.76	-12.76	4.26	-12.30	0.433	0.052	11.354
4,287.00	2.29	226.40	4,285.69	-15.52	1.72	-15.29	0.332	0.094	8.146
4,383.00	2.29	229.57	4,381.61	-18.09	-1.12	-18.11	0.132	0.000	3.302
4,478.00	1.41	270.96	4,476.56	-19.30	-3.74	-19.57	1.626	-0.926	43.568
4,574.00	1.71	298.65	4,572.53	-18.59	-6.18	-19.10	0.835	0.312	28.844
4,706.00	1.63	294.34	4,704.47	-16.88	-9.61	-17.72	0.113	-0.061	-3.265
4,826.00	1.45	291.18	4,824.43	-15.62	-12.59	-16.76	0.166	-0.150	-2.633
4,855.00	1.67	294.52	4,853.42	-15.32	-13.31	-16.52	0.821	0.759	11.517
4,951.00	2.55	56.77	4,949.38	-13.57	-12.80	-14.73	3.874	0.917	127.343
5,046.00	3.08	53.26	5,044.27	-10.88	-8.99	-11.69	0.586	0.558	-3.695
5,142.00	4.70	54.14	5,140.04	-7.03	-3.73	-7.36	1.689	1.687	0.917
5,238.00	4.79	56.42	5,235.72	-2.51	2.80	-2.23	0.218	0.094	2.375
5,334.00	4.70	55.19	5,331.39	1.95	9.36	2.83	0.141	-0.094	-1.281
5,429.00	5.67	59.67	5,426.00	6.54	16.61	8.10	1.106	1.021	4.716
5,525.00	6.99	65.56	5,521.41	11.35	26.02	13.79	1.531	1.375	6.135
5,620.00	8.44	60.46	5,615.55	17.18	37.35	20.67	1.686	1.526	-5.368



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,716.00	8.88	60.29	5,710.45	24.33	49.92	28.98	0.459	0.458	-0.177	
5,812.00	10.55	69.43	5,805.08	31.09	64.58	37.11	2.363	1.740	9.521	
5,908.00	10.77	60.20	5,899.43	38.64	80.60	46.16	1.791	0.229	-9.615	
6,003.00	12.09	56.51	5,992.55	48.54	96.60	57.54	1.588	1.389	-3.884	
6,099.00	13.67	56.69	6,086.13	60.31	114.46	70.97	1.646	1.646	0.187	
6,194.00	13.76	55.72	6,178.42	72.84	133.18	85.23	0.260	0.095	-1.021	
6,289.00	13.19	61.17	6,270.81	84.43	152.01	98.56	1.465	-0.600	5.737	
6,385.00	12.88	62.93	6,364.33	94.58	171.13	110.49	0.525	-0.323	1.833	
6,480.00	12.22	63.63	6,457.06	103.87	189.57	121.50	0.713	-0.695	0.737	
6,576.00	11.30	64.07	6,551.05	112.49	207.13	131.76	0.963	-0.958	0.458	
6,671.00	11.47	61.78	6,644.18	121.03	223.82	141.85	0.508	0.179	-2.411	
6,766.00	11.30	66.18	6,737.31	129.26	240.66	151.65	0.931	-0.179	4.632	
6,861.00	12.75	62.75	6,830.22	137.82	258.50	161.87	1.701	1.526	-3.611	
6,956.00	12.22	61.61	6,922.98	147.40	276.66	173.14	0.615	-0.558	-1.200	
7,051.00	13.49	62.84	7,015.60	157.23	295.37	184.72	1.367	1.337	1.295	
7,147.00	12.79	63.36	7,109.08	167.11	314.83	196.41	0.739	-0.729	0.542	
7,243.00	11.52	64.60	7,202.93	175.99	332.99	206.98	1.351	-1.323	1.292	
7,339.00	12.84	62.66	7,296.76	185.00	351.12	217.68	1.439	1.375	-2.021	
7,434.00	12.79	63.54	7,389.40	194.53	369.91	228.97	0.212	-0.053	0.926	
7,530.00	11.82	64.77	7,483.19	203.46	388.32	239.61	1.047	-1.010	1.281	
7,625.00	12.92	62.31	7,575.99	212.54	406.53	250.39	1.284	1.158	-2.589	
7,721.00	12.70	62.57	7,669.60	222.39	425.40	262.00	0.237	-0.229	0.271	
7,817.00	11.56	64.24	7,763.45	231.43	443.43	272.72	1.242	-1.187	1.740	
7,912.00	11.96	61.52	7,856.46	240.26	460.65	283.16	0.719	0.421	-2.863	
8,008.00	13.85	61.61	7,950.03	250.47	479.50	295.12	1.969	1.969	0.094	
8,104.00	14.11	63.01	8,043.19	261.24	500.04	307.80	0.444	0.271	1.458	
8,199.00	12.97	64.42	8,135.54	271.10	519.98	319.52	1.249	-1.200	1.484	
8,295.00	12.26	66.00	8,229.23	279.90	539.00	330.09	0.822	-0.740	1.646	
8,391.00	12.92	60.82	8,322.92	289.28	557.69	341.21	1.362	0.687	-5.396	
8,486.00	12.35	60.11	8,415.62	299.52	575.77	353.14	0.622	-0.600	-0.747	
8,582.00	11.87	60.73	8,509.48	309.46	593.28	364.71	0.518	-0.500	0.646	
8,678.00	11.52	61.69	8,603.49	318.84	610.33	375.67	0.417	-0.365	1.000	
8,773.00	8.44	62.84	8,697.04	326.52	624.89	384.70	3.249	-3.242	1.211	
8,869.00	6.46	58.35	8,792.23	332.57	635.76	391.76	2.148	-2.062	-4.677	
8,964.00	5.27	52.11	8,886.73	338.05	643.75	397.99	1.419	-1.253	-6.568	
9,059.00	4.48	59.32	8,981.39	342.63	650.39	403.17	1.051	-0.832	7.589	
9,155.00	4.48	63.01	9,077.09	346.24	656.95	407.40	0.300	0.000	3.844	
9,250.00	4.09	60.46	9,171.83	349.60	663.21	411.33	0.457	-0.411	-2.684	
9,346.00	2.37	72.86	9,267.67	351.87	668.08	414.06	1.924	-1.792	12.917	
9,441.00	1.45	84.02	9,362.62	352.57	671.15	415.06	1.040	-0.968	11.747	
9,537.00	1.58	123.31	9,458.59	351.97	673.47	414.68	1.069	0.135	40.927	
9,600.00	1.80	133.94	9,521.56	350.81	674.91	413.66	0.606	0.349	16.873	
9,706.00	2.29	146.51	9,627.49	347.89	677.27	410.98	0.624	0.462	11.858	



### Aim Directional Services, LLC

#### Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,802.00	6.29	23.73	9,723.31	351.11	680.45	414.48	8.095	4.167	-127.896	
9,898.00	13.19	11.51	9,817.88	366.67	684.76	430.39	7.464	7.187	-12.729	
9,993.00	21.01	8.35	9,908.61	394.19	689.40	458.22	8.287	8.232	-3.326	
10,089.00	26.11	6.94	9,996.58	432.21	694.46	496.55	5.344	5.312	-1.469	
10,185.00	36.62	4.83	10,078.44	481.85	699.44	546.44	11.006	10.948	-2.198	
10,280.00	51.43	6.32	10,146.56	547.36	705.95	612.28	15.627	15.589	1.568	
10,376.00	68.04	5.71	10,194.78	629.54	714.57	694.90	17.311	17.302	-0.635	
10,422.00	77.85	2.19	10,208.25	673.35	717.56	738.80	22.542	21.326	-7.652	
10,485.63	88.17	0.18	10,215.99	736.40	718.85	801.68	16.521	16.221	-3.160	
<b>Anderson #508H FTP</b>										
10,503.00	90.99	359.64	10,216.11	753.77	718.82	818.97	16.521	16.226	-3.105	
10,599.00	90.20	0.35	10,215.12	849.77	718.81	914.53	1.106	-0.823	0.740	
10,694.00	88.44	359.38	10,216.25	944.76	718.59	1,009.06	2.115	-1.853	-1.021	
10,789.00	88.79	359.03	10,218.54	1,039.72	717.27	1,103.46	0.521	0.368	-0.368	
10,885.00	89.93	359.29	10,219.61	1,135.70	715.86	1,198.87	1.218	1.187	0.271	
10,980.00	91.74	358.06	10,218.23	1,230.66	713.67	1,293.19	2.303	1.905	-1.295	
11,076.00	89.45	1.23	10,217.23	1,326.63	713.07	1,388.67	4.073	-2.385	3.302	
11,172.00	89.71	0.96	10,217.94	1,422.61	714.91	1,484.38	0.390	0.271	-0.281	
11,267.00	88.31	1.67	10,219.58	1,517.57	717.09	1,579.12	1.652	-1.474	0.747	
11,363.00	89.49	1.58	10,221.42	1,613.51	719.81	1,674.88	1.233	1.229	-0.094	
11,459.00	89.19	0.96	10,222.53	1,709.48	721.94	1,770.61	0.717	-0.312	-0.646	
11,554.00	88.44	359.73	10,224.49	1,804.46	722.51	1,865.21	1.516	-0.789	-1.295	
11,650.00	89.14	358.68	10,226.52	1,900.43	721.18	1,960.61	1.314	0.729	-1.094	
11,745.00	90.20	358.06	10,227.07	1,995.38	718.48	2,054.88	1.293	1.116	-0.653	
11,840.00	88.40	358.24	10,228.23	2,090.32	715.41	2,149.09	1.904	-1.895	0.189	
11,936.00	87.91	357.27	10,231.32	2,186.20	711.65	2,244.17	1.132	-0.510	-1.010	
12,031.00	89.05	357.36	10,233.84	2,281.06	707.20	2,338.17	1.204	1.200	0.095	
12,127.00	92.53	0.43	10,232.51	2,377.01	705.35	2,433.50	4.833	3.625	3.198	
12,222.00	91.87	0.26	10,228.87	2,471.93	705.92	2,528.05	0.717	-0.695	-0.179	
12,318.00	90.37	359.56	10,226.99	2,567.91	705.77	2,623.57	1.724	-1.562	-0.729	
12,414.00	89.67	1.05	10,226.96	2,663.91	706.28	2,719.18	1.715	-0.729	1.552	
12,509.00	89.80	0.17	10,227.40	2,758.90	707.29	2,813.84	0.936	0.137	-0.926	
12,605.00	91.16	0.00	10,226.59	2,854.89	707.44	2,909.40	1.428	1.417	-0.177	
12,700.00	91.38	358.77	10,224.49	2,949.86	706.42	3,003.84	1.315	0.232	-1.295	
12,796.00	93.01	359.20	10,220.81	3,045.77	704.72	3,099.15	1.756	1.698	0.448	
12,892.00	92.04	359.29	10,216.58	3,141.67	703.45	3,194.49	1.015	-1.010	0.094	
12,988.00	92.22	0.79	10,213.01	3,237.60	703.52	3,289.99	1.573	0.187	1.562	
13,083.00	91.16	0.08	10,210.21	3,332.56	704.24	3,384.58	1.343	-1.116	-0.747	
13,179.00	88.75	0.26	10,210.29	3,428.55	704.53	3,480.16	2.517	-2.510	0.187	
13,274.00	89.27	359.73	10,211.93	3,523.53	704.52	3,574.71	0.782	0.547	-0.558	
13,369.00	91.08	358.68	10,211.64	3,618.52	703.20	3,669.14	2.203	1.905	-1.105	
13,464.00	91.12	357.71	10,209.81	3,713.45	700.21	3,763.35	1.022	0.042	-1.021	
13,560.00	91.25	356.92	10,207.83	3,809.33	695.71	3,858.36	0.834	0.135	-0.823	
13,655.00	89.63	357.89	10,207.10	3,904.22	691.41	3,952.41	1.988	-1.705	1.021	



**Aim Directional Services, LLC**

Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

**Survey**

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,750.00	89.01	358.68	10,208.23	3,999.17	688.57	4,046.65	1.057	-0.653	0.832	
13,846.00	89.19	357.10	10,209.73	4,095.09	685.03	4,141.79	1.656	0.187	-1.646	
13,941.00	90.37	359.47	10,210.10	4,190.04	682.19	4,236.04	2.787	1.242	2.495	
14,037.00	92.13	1.75	10,208.00	4,286.00	683.21	4,331.66	3.000	1.833	2.375	
14,132.00	91.25	3.25	10,205.20	4,380.87	687.35	4,426.48	1.830	-0.926	1.579	
14,228.00	90.37	1.49	10,203.84	4,476.77	691.32	4,522.33	2.050	-0.917	-1.833	
14,324.00	90.77	0.35	10,202.89	4,572.75	692.86	4,618.02	1.258	0.417	-1.187	
14,419.00	92.26	0.61	10,200.38	4,667.71	693.66	4,712.62	1.592	1.568	0.274	
14,515.00	90.33	2.81	10,198.21	4,763.63	696.52	4,808.38	3.048	-2.010	2.292	
14,565.00	91.38	3.34	10,197.46	4,813.56	699.21	4,858.33	2.352	2.100	1.060	
14,663.00	89.54	1.49	10,196.68	4,911.46	703.33	4,956.18	2.662	-1.878	-1.888	
14,752.00	89.10	0.70	10,197.73	5,000.43	705.04	5,044.91	1.016	-0.494	-0.888	
14,802.00	89.01	0.96	10,198.56	5,050.42	705.76	5,094.74	0.550	-0.180	0.520	
14,833.55	89.60	0.41	10,198.94	5,081.97	706.14	5,126.18	2.558	1.875	-1.740	
<b>Anderson #508H WP1</b>										
14,898.00	90.81	359.29	10,198.71	5,146.41	705.97	5,190.31	2.558	1.875	-1.740	
14,993.00	91.08	358.41	10,197.14	5,241.38	704.06	5,284.66	0.969	0.284	-0.926	
15,088.00	93.19	358.41	10,193.60	5,336.27	701.43	5,378.87	2.221	2.221	0.000	
15,184.00	93.54	0.08	10,187.97	5,432.10	700.17	5,474.13	1.774	0.365	1.740	
15,280.00	90.02	358.77	10,184.98	5,528.03	699.20	5,569.53	3.912	-3.667	-1.365	
15,376.00	91.96	357.97	10,183.33	5,623.97	696.47	5,664.78	2.186	2.021	-0.833	
15,471.00	92.62	357.27	10,179.53	5,718.81	692.53	5,758.81	1.012	0.695	-0.737	
15,566.00	92.26	355.86	10,175.49	5,813.55	686.84	5,852.57	1.531	-0.379	-1.484	
15,661.00	92.18	354.46	10,171.80	5,908.14	678.83	5,945.96	1.475	-0.084	-1.474	
15,757.00	94.15	356.57	10,166.50	6,003.69	671.34	6,040.36	3.004	2.052	2.198	
15,853.00	95.38	358.06	10,158.53	6,099.25	666.86	6,135.05	2.008	1.281	1.552	
15,948.00	96.22	359.38	10,148.93	6,193.73	664.74	6,228.91	1.641	0.884	1.389	
16,043.00	95.96	0.26	10,138.85	6,288.20	664.45	6,322.91	0.961	-0.274	0.926	
16,139.00	93.36	1.31	10,131.05	6,383.86	665.76	6,418.26	2.919	-2.708	1.094	
16,234.00	95.21	1.23	10,123.95	6,478.57	667.86	6,512.74	1.949	1.947	-0.084	
16,330.00	93.05	1.31	10,117.04	6,574.29	669.98	6,608.22	2.252	-2.250	0.083	
16,426.00	90.07	0.61	10,114.43	6,670.23	671.59	6,703.88	3.189	-3.104	-0.729	
16,521.00	89.41	359.03	10,114.86	6,765.22	671.29	6,798.41	1.802	-0.695	-1.663	
16,616.00	92.35	359.64	10,113.40	6,860.19	670.19	6,892.84	3.161	3.095	0.642	
16,712.00	95.08	1.14	10,107.18	6,955.98	670.84	6,988.25	3.243	2.844	1.562	
16,842.00	97.10	359.82	10,093.39	7,085.23	671.92	7,117.02	1.853	1.554	-1.015	
<b>Last Aim Svy</b>										
16,895.06	97.10	359.82	10,086.83	7,137.89	671.76	7,169.41	0.000	0.000	0.000	
<b>Anderson #508H PBHL</b>										
16,905.00	97.10	359.82	10,085.60	7,147.75	671.73	7,179.23	0.000	0.000	0.000	
<b>Proj to BHL</b>										



**Aim Directional Services, LLC**  
Survey Report



<b>Company:</b>	Advance Energy Partners, LLC	<b>Local Co-ordinate Reference:</b>	Well Anderson #508H
<b>Project:</b>	Lea County, New Mexico	<b>TVD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Site:</b>	Anderson Fed Com 508H	<b>MD Reference:</b>	Well @ 3690.50usft (Nabors X47)
<b>Well:</b>	Anderson #508H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	Drilling	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Surveys	<b>Database:</b>	RTOC- EDM 5000.1 Single User Db

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
197.00	196.98	0.53	-2.21	First Aim Svy
16,842.00	10,093.39	7,085.23	671.92	Last Aim Svy
16,905.00	10,085.60	7,147.75	671.73	Proj to BHL



# BHA Reports

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #1 - 17.50" SURFACE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
Size (in)	8.00	Date In	2021-11-18 09:30	Downhole Hours	12.00
Lobe/Stage	7/8, 5.9	Depth In (ft)	155.00	Drilling/Circulating Hours	6.67
Bend Angle	1.75	Date Out	2021-11-18 21:30	Drilling Hours	6.17
Speed (rev/gal)	0.16	Depth Out (ft)	1275.00	Circulating Hours	0.50
Wear Pad OD (in)	8.250	Distance Slid (ft)	20.00	Sliding Hours	0.17
Incident	No	Distance Rotated (ft)	1100.00	Rotating Hours	6.00
<b>Motor Post Run/Notes</b>		% Distance Sliding	1.79%	% Hours Sliding	2.70%
Average Total ROP (ft/h)	181.62	% Distance Rotating	98.21%	% Hours Rotating	97.30%
Average Slide ROP (ft/h)	120.00	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	183.33	Drill 17.5 Surface			

Notes: NO VISIBLE DAMAGE

**Bit Details**

OD (in)	17.500	<b>POOH Reason/Notes</b>
Vendor	ULTERRA	Total Depth/Casing Point: POOH Surface TD
Nozzles	9x12's	
Total Flow Area (in <sup>2</sup> )	0.994	

**Bit Distances**

Bit To Survey (Bit To Survey): 72.00 ft, Bend (Bit To Bend): 6.19 ft	<b>Incident Notes</b>
	Directional: N/A
	MWD:

**Bit Post Run/Notes**

Dull Grading	1/1	<b>Comments</b>
Notes: 1-1		Directional: Directional: 8" Motor: 1.75° FXD 7/8 5.9 Stg w/ 17" STAB, Flow Range: 400-900 GPM, Max Diff: 1330 psi, Max Torque: 22,020 ft/lbs, RFG: 0.16 Bit Runs: 4

**MWD**

Max Downhole Temp (°F)	N/A
------------------------	-----

**Mud Properties**

Type	Water Based	<b>Parameters</b>			
WT	9.30	Flow Rate (gpm)	550.00 - 854.00	Motor RPM	100.00 - 136.00
VIS	32.00	On Bottom Pressure (psi)	650.00 - 2900.00	Surface RPM	50.00 - 60.00
PV	10.00	Off Bottom Pressure (psi)	600.00 - 1600.00	Rotating WOB (klbs)	5.00 - 20.00
YP	8.00	Stall Pressure (psi)	0.00	Sliding WOB (klbs)	15.00 - 15.00
		Stalls	0	Temp (°F)	91.00 - -0.00
		NPT	0.0		

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 17.50	ULTERRA	56546	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 7/8 5.9 1.75 FXD w/ 17"NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-008	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.57	42.07
<b>Stabilizer</b> Description: 17" STABILIZER	JAO	JAO 7623	6 5/8" Reg Box	6 5/8" Reg Pin	3.063	8.250		7.53	49.60
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800226	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.97	53.57
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	83.98
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	114.65
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	118.02





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #2 - 12.25" INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	8.75	<b>Date In</b>	2021-11-19 11:45	<b>Downhole Hours</b>	59.75
<b>Lobe/Stage</b>	6/7, 6.6	<b>Depth In (ft)</b>	1275.00	<b>Drilling/Circulating Hours</b>	20.50
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-11-21 23:30	<b>Drilling Hours</b>	19.08
<b>Speed (rev/gal)</b>	0.16	<b>Depth Out (ft)</b>	4775.00	<b>Circulating Hours</b>	1.42
<b>Wear Pad OD (in)</b>	8.250	<b>Distance Slid (ft)</b>	315.00	<b>Sliding Hours</b>	4.25
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	3185.00	<b>Rotating Hours</b>	14.83
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	9.00%	<b>% Hours Sliding</b>	22.27%
<b>Average Total ROP (ft/h)</b>	183.41	<b>% Distance Rotating</b>	91.00%	<b>% Hours Rotating</b>	77.73%
<b>Average Slide ROP (ft/h)</b>	74.12	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	214.72	12 1/4" Intermediate			

**Notes:** NO VISIBLE DAMAGE

Bit Details	
<b>OD (in)</b>	12.250
<b>Vendor</b>	ULTERRA

**POOH Reason/Notes**  
**Total Depth/Casing Point:** POOH To L/D Intermediate Assembly. Intermediate Section TD

Bit Distances		Incident Notes	
<b>Bit To Survey (Bit To Survey ):</b>	69.00 ft,	<b>Directional:</b>	N/A
<b>Bend (Bit To Bend ):</b>	6.55 ft	<b>MWD:</b>	

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	1/1	<b>Directional:</b>	Directional: 8 3/4" Motor: 1.75° FXD 6.7 6.6 Stg w/ 12" STAB, Flow Range: 600-1300 GPM, Max Diff: 1650 psi, Max Torque: 31,480 ft/lbs, RPG: 0.155 Bit Runs: 1
<b>Notes:</b>	0		

MWD	
<b>Max Downhole Temp (°F)</b>	N/A

Mud Properties		Parameters			
<b>Type</b>	Water Based	<b>Flow Rate (gpm)</b>	800.00 - 850.00	<b>Motor RPM</b>	136.00 - 40.00
<b>WT</b>	10.55	<b>On Bottom Pressure (psi)</b>	1700.00 - 3150.00	<b>Surface RPM</b>	40.00 - 50.00
<b>VIS</b>	30.00	<b>Off Bottom Pressure (psi)</b>	1300.00 - 14550.01	<b>Rotating WOB (klbs)</b>	10.00 - 54.00
<b>PV</b>	1.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	21.00 - 30.00
<b>YP</b>	1.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	77.00 - 118.40
		<b>NPT</b>	0.0		

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: RPS616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 12.25	ULTERRA	56281	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 6/7 6.6 1.75 FXD w/ 12"NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-003	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.95	40.45
<b>Stabilizer</b> Description: 12" STABILIZER	JAO	JAO 12584	6 5/8" Reg Box	6 5/8" Reg Pin	2.600	8.250		6.76	47.21
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800228	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		4.12	51.33
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	81.74
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	112.41
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	115.78





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**BHA #3 - 8.75" INTERMEDIATE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	8.75	<b>Date In</b>	2021-12-08 01:30	<b>Downhole Hours</b>	44.25
<b>Lobe/Stage</b>	7/8, 8.5	<b>Depth In (ft)</b>	4775.00	<b>Drilling/Circulating Hours</b>	29.17
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-12-09 21:45	<b>Drilling Hours</b>	27.00
<b>Speed (rev/gal)</b>	0.26	<b>Depth Out (ft)</b>	9664.00	<b>Circulating Hours</b>	2.17
<b>Wear Pad OD (in)</b>	5.350	<b>Distance Slid (ft)</b>	326.00	<b>Sliding Hours</b>	5.83
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	4563.00	<b>Rotating Hours</b>	21.17
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	6.67%	<b>% Hours Sliding</b>	21.60%
<b>Average Total ROP (ft/h)</b>	181.07	<b>% Distance Rotating</b>	93.33%	<b>% Hours Rotating</b>	78.40%
<b>Average Slide ROP (ft/h)</b>	55.89	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	215.57	8.75" INTERMEDIATE			

**Notes:** NO VISIBLE DAMAGE

Bit Details		POOH Reason/Notes	
<b>OD (in)</b>	8.750		
<b>Vendor</b>	REED	<b>Change Bottom Hole Assembly:</b> POOH For curve assembly	
<b>Nozzles</b>	6x15's		
<b>Total Flow Area (in²)</b>	1.035		

Bit Distances		Incident Notes	
<b>Bit To Survey (Bit To Survey ):</b>	64.00 ft,	<b>Directional:</b>	N/A
<b>Bend (Bit To Bend ):</b>	5.35 ft,	<b>MWD:</b>	
<b>Gamma (Bit to Gamma):</b>	49.00 ft		

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	1/1	<b>Directional:</b> Contender 40s 7" 7/8 8.5, 1.75° Fxd w/ 8.50" NBS, Flow Range: 500-750 GPM, Max Diff: 1910 psi, Max Torque: 18,710 ft/lbs, R/P/G: 0.26 Bit Runs: 0	
<b>Notes:</b>	0		

MWD		Parameters	
<b>Max Downhole Temp (°F)</b>	N/A	<b>Flow Rate (gpm)</b>	600.00 - 749.00
<b>Mud Properties</b>		<b>Motor RPM</b>	188.00 - 228.00

<b>Type</b>	Oil Based	<b>On Bottom Pressure (psi)</b>	2050.00 - 3050.00	<b>Surface RPM</b>	30.00 - 50.00
<b>WT</b>	9.20	<b>Off Bottom Pressure (psi)</b>	1550.00 - 2400.00	<b>Rotating WOB (klbs)</b>	40.00 - 48.00
<b>VIS</b>	28.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	26.00 - 30.00
<b>PV</b>	1.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	121.00 - 135.00
<b>YP</b>	1.00	<b>NPT</b>	0.0		

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC66-AZZ</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A283082	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" Motor 7/8 8.5 1.75 FXD w/ 8.50" NBS</i> , Size (in): <i>8.75</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>8.5</i>	Aim	700-40-021	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.85	35.85
<b>Stabilizer</b> Description: <i>8.50" STABILIZER</i>	JAO	JAO 86989	4 1/2" IF Box	4 1/2" IF Pin	2.310	6.460		3.98	39.83
<b>UBHO Sub</b> Description: <i>NM UBHO</i> , Material: <i>Non-Magnetic</i>	AIM	675300	4 1/2" IF Box	4 1/2" IF Box	2.875	6.880		2.91	42.74
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	71.68
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6732371	4 1/2" IF Box	4 1/2" IF Pin	3.100	6.960		29.50	101.18
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	104.62
<b>HWDP</b> Description: <i>13 Stands 5.5 HWDP</i> , Type: <i>Slick</i>	rig		CET54 Box	CET54 Pin	3.250	5.500		1177.85	1282.47





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #4 - 8.75" CURVE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
Size (in)	8.75	Date In	2021-12-09 23:30	Downhole Hours	23.75
Lobe/Stage	7/8, 5.0	Depth In (ft)	9664.00	Drilling/Circulating Hours	10.33
Bend Angle	2.12	Date Out	2021-12-10 23:15	Drilling Hours	7.08
Speed (rev/gal)	0.28	Depth Out (ft)	10148.00	Circulating Hours	3.25
Wear Pad OD (in)	6.920	Distance Slid (ft)	423.00	Sliding Hours	6.50
Incident	No	Distance Rotated (ft)	61.00	Rotating Hours	0.58
<b>Motor Post Run/Notes</b>		% Distance Sliding	87.40%	% Hours Sliding	91.76%
Average Total ROP (ft/h)	68.33	% Distance Rotating	12.60%	% Hours Rotating	8.24%
Average Slide ROP (ft/h)	65.08	<b>BHA Objective</b>			
Average Rotating ROP (ft/h)	104.57	8.75" CURVE			

Notes: NO VISIBLE DAMAGE

Bit Details		POOH Reason/Notes	
OD (in)	8.750	Build Rate: POOH For Build Rates	
Vendor	ULTERRA		
Nozzles	6x15's		
Total Flow Area (in <sup>2</sup> )	1.035		

Bit Distances		Incident Notes	
Bit To Survey (Bit To Survey):	59.00 ft,	Directional: N/A	
Bend (Bit To Bend):	4.05 ft, Gamma (Bit to Gamma):	MWD:	
	35.00 ft		

Bit Post Run/Notes		Comments	
Dull Grading	0/1	Directional: Contender 6 3/4" 7/8 5.0, 2.12° Fxd w/ SLK, Flow Range: 300-600 GPM, Max Diff: 1130 psi, Max Torque: 15,690 ft/lbs, RPG: 0.28 Bit Runs: 0	
Notes:	0		

MWD		Parameters	
Max Downhole Temp (°F)	N/A	Flow Rate (gpm)	496.00 - 500.00
		On Bottom Pressure (psi)	1750.00 - 1900.00
		Off Bottom Pressure (psi)	1100.00 - 1050.00
		Stall Pressure (psi)	0.00
		Stalls	0
		NPT	0.0

Mud Properties		Motor RPM		Surface RPM		Rotating WOB (klbs)		Sliding WOB (klbs)		Temp (°F)	
Type	Water Based	Motor RPM	128.00 - 128.00	Surface RPM	0.00 - 0.00	Rotating WOB (klbs)	0.00 - 0.00	Sliding WOB (klbs)	35.00 - 40.00	Temp (°F)	118.00 - 125.00
WT	9.10	On Bottom Pressure (psi)	1750.00 - 1900.00	Off Bottom Pressure (psi)	1100.00 - 1050.00	Stall Pressure (psi)	0.00	Stalls	0	NPT	0.0
VIS	32.00										
PV	1.00										
YP	1.00										

**Items (Directional)**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57264	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6 3/4" Motor 7/8 5.0 2.12 FXD / SLK, Size (in): 8.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5	Aim	700-40-002	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.02	27.02
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.29
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.50
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.44
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	107.88





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #5 - 8.75" CURVE (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	8.75	<b>Date In</b>	2021-12-10 23:45	<b>Downhole Hours</b>	22.75
<b>Lobe/Stage</b>	7/8, 5.7	<b>Depth In (ft)</b>	10148.00	<b>Drilling/Circulating Hours</b>	8.50
<b>Bend Angle</b>	2.89	<b>Date Out</b>	2021-12-11 22:30	<b>Drilling Hours</b>	7.42
<b>Speed (rev/gal)</b>	0.24	<b>Depth Out (ft)</b>	10481.00	<b>Circulating Hours</b>	1.08
<b>Wear Pad OD (in)</b>	7.520	<b>Distance Slid (ft)</b>	333.00	<b>Sliding Hours</b>	7.42
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	0.00	<b>Rotating Hours</b>	0.00
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	100.00%	<b>% Hours Sliding</b>	100.00%
<b>Average Total ROP (ft/h)</b>	44.90	<b>% Distance Rotating</b>	0.00%	<b>% Hours Rotating</b>	0.00%
<b>Average Slide ROP (ft/h)</b>	44.90	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	0.00	8.75" CURVE			

**Notes:** NO VISIBLE DAMAGE

Bit Details		POOH Reason/Notes	
<b>OD (in)</b>	8.750		
<b>Vendor</b>	ULTERRA	<b>Change Bottom Hole Assembly:</b> P/U Lateral Assembly	
<b>Nozzles</b>	6x15's		
<b>Total Flow Area (in²)</b>	1.035		

Bit Distances		Incident Notes	
<b>Bit To Survey (Bit To Survey ):</b>	59.00 ft,	<b>Directional:</b>	
<b>Bend (Bit To Bend ):</b>	4.05 ft,	<b>MWD:</b>	
<b>Gamma (Bit to Gamma):</b>	35.00 ft		

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	0/1	<b>Directional:</b> Contender 7" 7/8 5.7, 2.89° Adj w/ SLK, Flow Range: 300-650 GPM, Max Diff: 1,280 psi, Max Torque: 20,580 ft/lbs, RPG: 0.24 Bit Runs: 2	
<b>Notes:</b>	0		

MWD		Parameters	
<b>Max Downhole Temp (°F)</b>	N/A	<b>Flow Rate (gpm)</b>	300.00 - 450.00
<b>Mud Properties</b>		<b>Motor RPM</b>	72.00 - 132.00
<b>Type</b>	Water Based	<b>On Bottom Pressure (psi)</b>	750.00 - 1200.00
<b>WT</b>	9.10	<b>Off Bottom Pressure (psi)</b>	700.00 - 1200.00
<b>VIS</b>	32.00	<b>Stall Pressure (psi)</b>	0.00
<b>PV</b>	1.00	<b>Stalls</b>	0
<b>YP</b>	1.00	<b>NPT</b>	0.0
		<b>Temp (°F)</b>	118.00 - 124.00

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57218	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" Motor 7/8 5.7 2.89 Adj/SLK, Size (in): 8.75, Bend Angle (°): 2.89, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	Aim	700-40-008	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.38	27.38
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.65
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.86
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.80
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	108.24





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #6 - 8.75" LATERAL ASSEMBLY (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2021-12-11 22:30	<b>Downhole Hours</b>	111.50
<b>Lobe/Stage</b>	7/8, 6.1	<b>Depth In (ft)</b>	10481.00	<b>Drilling/Circulating Hours</b>	93.42
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-12-16 14:00	<b>Drilling Hours</b>	89.42
<b>Speed (rev/gal)</b>	0.25	<b>Depth Out (ft)</b>	16104.00	<b>Circulating Hours</b>	4.00
<b>Wear Pad OD (in)</b>	7.250	<b>Distance Slid (ft)</b>	766.00	<b>Sliding Hours</b>	21.08
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	4857.00	<b>Rotating Hours</b>	68.33
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	13.62%	<b>% Hours Sliding</b>	23.58%
<b>Average Total ROP (ft/h)</b>	62.89	<b>% Distance Rotating</b>	86.38%	<b>% Hours Rotating</b>	76.42%
<b>Average Slide ROP (ft/h)</b>	36.33	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	71.08	8.75" LATERAL ASSEMBLY			

**Notes:** NO VISIBLE DAMAGE

Bit Details		POOH Reason/Notes	
<b>OD (in)</b>	8.750	<b>Other:</b> POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage	
<b>Vendor</b>	REED		
<b>Nozzles</b>	7X14's		
<b>Total Flow Area (in²)</b>	1.520		

Bit Distances		Incident Notes	
<b>Bit To Survey (Bit To Survey ):</b>	63.00 ft,	<b>Directional:</b>	
<b>Bend (Bit To Bend ):</b>	5.23 ft, <b>Gamma (Bit to Gamma):</b>	<b>MWD:</b>	
	39.00 ft		

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	DBR	<b>Directional:</b> (BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
<b>Notes:</b>	0		

MWD		Parameters	
<b>Max Downhole Temp (°F)</b>	N/A	<b>Flow Rate (gpm)</b>	222.00 - 700.00
<b>Mud Properties</b>		<b>Motor RPM</b>	0.00 - 0.00

<b>Type</b>	Water Based	<b>On Bottom Pressure (psi)</b>	3600.00 - 4260.00	<b>Surface RPM</b>	30.00 - 40.00
<b>WT</b>	9.30	<b>Off Bottom Pressure (psi)</b>	3000.00 - 3960.00	<b>Rotating WOB (klbs)</b>	32.00 - 42.00
<b>VIS</b>	64.00	<b>Stall Pressure (psi)</b>	18000.05	<b>Sliding WOB (klbs)</b>	28.00 - 45.00
<b>PV</b>	18.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	170.00 - 210.00
<b>YP</b>	12.00	<b>NPT</b>	0.0		

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 P/I</i> Size, Size (in): <i>7.00</i>	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**BHA #7 - 8.75" LATERAL ASSEMBLY (Directional)**

Motor Details		Date/Depth/Distances		Hours	
<b>Size (in)</b>	7.00	<b>Date In</b>	2021-12-16 14:40	<b>Downhole Hours</b>	38.83
<b>Lobe/Stage</b>	7/8, 6.1	<b>Depth In (ft)</b>	16104.00	<b>Drilling/Circulating Hours</b>	15.67
<b>Bend Angle</b>	1.75	<b>Date Out</b>	2021-12-18 05:30	<b>Drilling Hours</b>	13.42
<b>Speed (rev/gal)</b>	0.25	<b>Depth Out (ft)</b>	16905.00	<b>Circulating Hours</b>	2.25
<b>Wear Pad OD (in)</b>	7.250	<b>Distance Slid (ft)</b>	135.00	<b>Sliding Hours</b>	5.75
<b>Incident</b>	No	<b>Distance Rotated (ft)</b>	666.00	<b>Rotating Hours</b>	7.67
<b>Motor Post Run/Notes</b>		<b>% Distance Sliding</b>	16.85%	<b>% Hours Sliding</b>	42.86%
<b>Average Total ROP (ft/h)</b>	59.70	<b>% Distance Rotating</b>	83.15%	<b>% Hours Rotating</b>	57.14%
<b>Average Slide ROP (ft/h)</b>	23.48	<b>BHA Objective</b>			
<b>Average Rotating ROP (ft/h)</b>	86.87	8.75" LATERAL ASSEMBLY			

**Notes:** NO VISIBLE DAMAGE

Bit Details		POOH Reason/Notes	
<b>OD (in)</b>	8.750	<b>Total Depth/Casing Point:</b> N/A	
<b>Vendor</b>	REED		

Bit Distances		Incident Notes	
<b>Bit To Survey (Bit To Survey ):</b>	63.00 ft,	<b>Directional:</b> N/A	
<b>Bend (Bit To Bend ):</b>	5.23 ft,	<b>MWD:</b>	
<b>Gamma (Bit to Gamma):</b>	39.00 ft		

Bit Post Run/Notes		Comments	
<b>Dull Grading</b>	1/1	<b>Directional:</b> (BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 0	
<b>Notes:</b>	0		

MWD		Parameters	
<b>Max Downhole Temp (°F)</b>	N/A	<b>Flow Rate (gpm)</b>	650.00 - 700.00
<b>Mud Properties</b>		<b>Motor RPM</b>	175.00 - 175.00

<b>Type</b>	Oil Based	<b>On Bottom Pressure (psi)</b>	3950.00 - 4700.00	<b>Surface RPM</b>	30.00 - 50.00
<b>WT</b>	9.30	<b>Off Bottom Pressure (psi)</b>	3400.00 - 4200.00	<b>Rotating WOB (klbs)</b>	42.00 - 42.00
<b>VIS</b>	32.00	<b>Stall Pressure (psi)</b>	0.00	<b>Sliding WOB (klbs)</b>	30.00 - 35.00
<b>PV</b>	1.00	<b>Stalls</b>	0	<b>Temp (°F)</b>	134.00 - 145.00
<b>YP</b>	1.00	<b>NPT</b>	0.0		

Items (Directional)									
Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A281863	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0016	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.21	31.21
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.48
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.69
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.63
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.07
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.79
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.29
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 P/l</i> Size, Size (in): <i>7.00</i>	NOV	AGHF0675-0183	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.42	2053.71
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.15





# Mud Motor Reports

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

### Mud Motor Report - BHA 1 (17.50" SURFACE)

Motor Details		Date/Depth/Distances		Hours	
S/N	800-40-008	Date In	2021-11-18 09:30	Downhole Hours	12.00
Size (in)	8.0	Depth In (ft)	155.00	Drilling/Circulating Hours	6.67
Lobe/Stage	7/8, 5.90	Date Out	2021-11-18 21:30		
Bend Angle	1.75	Depth Out (ft)	1275.00	Circulating Hours	0.50
Speed (rev/gal)	0.16	Total Drilled (ft)	1120.00	Drilling Hours	6.17
Wear Pad OD (in)	8.250	Distance Slid (ft)	20.00	Sliding Hours	0.17
Manufacturer	Contender	Distance Rotated (ft)	1100.00	Rotating Hours	6.00
<b>Motor Results</b>		% Distance Sliding	1.79%	% Hours Rotating	97.30%
Motor Incident	No	% Distance Rotating	98.21%	% Hours Sliding	2.70%
Average Total ROP (ft/h)	181.62	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	120.00	Flow Rate (gpm)	550.00 - 854.00	Motor RPM	100.00 - 136.00
Average Rotating ROP (ft/h)	183.33	Stalls	0	Surface RPM	50.00 - 60.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	5.00 - 20.00
OD (in)	17.500	On Bottom Pressure (psi)	650.00 - 2900.00	Sliding WOB (klbs)	15.00 - 15.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	600.00 - 1600.00	Temp (°F)	91.00 - -0.00
S/N	56546	NPT	0.0		
Nozzles	9x12's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	0.994	Drill 17.5 Surface			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey (Bit To Survey ): 72.00 ft, Bend (Bit To Bend ): 6.19 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.30				
VIS	32.00				
PV	10.00				
YP	8.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: POOH Surface TD					
<b>Incident Notes</b>					
Directional: N/A					
MWD:					
<b>Comments</b>					
Directional: Directional: 8" Motor: 1.75° FXD 7/8 5.9 Stg w/ 17" STAB, Flow Range: 400-900 GPM, Max Diff: 1330 psi, Max Torque: 22,020 ft/lbs, RPG: 0.16 Bit Runs: 4					
MWD:					



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

### Mud Motor Report - BHA 2 (12.25" INTERMEDIATE)

Motor Details		Date/Depth/Distances		Hours	
S/N	CDM875-003	Date In	2021-11-19 11:45	Downhole Hours	59.75
Size (in)	8.75	Depth In (ft)	1275.00	Drilling/Circulating Hours	20.50
Lobe/Stage	6/7, 6.60	Date Out	2021-11-21 23:30		
Bend Angle	1.75	Depth Out (ft)	4775.00	Circulating Hours	1.42
Speed (rev/gal)	0.16	Total Drilled (ft)	3500.00	Drilling Hours	19.08
Wear Pad OD (in)	8.250	Distance Slid (ft)	315.00	Sliding Hours	4.25
Manufacturer	Contender	Distance Rotated (ft)	3185.00	Rotating Hours	14.83
<b>Motor Results</b>		% Distance Sliding	9.00%	% Hours Rotating	77.73%
Motor Incident	No	% Distance Rotating	91.00%	% Hours Sliding	22.27%
Average Total ROP (ft/h)	183.41	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	74.12	Flow Rate (gpm)	800.00 - 850.00	Motor RPM	136.00 - 40.00
Average Rotating ROP (ft/h)	214.72	Stalls	0	Surface RPM	40.00 - 50.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	10.00 - 54.00
OD (in)	12.250	On Bottom Pressure (psi)	1700.00 - 3150.00	Sliding WOB (klbs)	21.00 - 30.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	1300.00 - 14550.01	Temp (°F)	77.00 - 118.40
S/N	56281	NPT	0.0		
Nozzles	9x12's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	0.994	12 1/4" Intermediate			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey (Bit To Survey ): 69.00 ft, Bend (Bit To Bend ): 6.55 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	10.55				
VIS	30.00				
PV	1.00				
YP	1.00				
<b>POOH Reason/Notes</b>					
Total Depth/Casing Point: POOH To L/D Intermediate Assembly. Intermediate Section TD					
<b>Incident Notes</b>					
Directional: N/A					
MWD:					
<b>Comments</b>					
Directional: Directional: 8 3/4" Motor: 1.75° FXD 6.7 6.6 Stg w/ 12" STAB, Flow Range: 600-1300 GPM, Max Diff: 1650 psi, Max Torque: 31,480 ft/lbs, RPG: 0.155 Bit Runs: 1					
MWD:					



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Mud Motor Report - BHA 3 (8.75" INTERMEDIATE )**

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-021	Date In	2021-12-08 01:30	Downhole Hours	44.25
Size (in)	8.75	Depth In (ft)	4775.00	Drilling/Circulating Hours	29.17
Lobe/Stage	7/8, 8.50	Date Out	2021-12-09 21:45		
Bend Angle	1.75	Depth Out (ft)	9664.00	Circulating Hours	2.17
Speed (rev/gal)	0.26	Total Drilled (ft)	4889.00	Drilling Hours	27.00
Wear Pad OD (in)	5.350	Distance Slid (ft)	326.00	Sliding Hours	5.83
Manufacturer	Contender	Distance Rotated (ft)	4563.00	Rotating Hours	21.17
<b>Motor Results</b>		% Distance Sliding	6.67%	% Hours Rotating	78.40%
Motor Incident	No	% Distance Rotating	93.33%	% Hours Sliding	21.60%
Average Total ROP (ft/h)	181.07	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	55.89	Flow Rate (gpm)	600.00 - 749.00	Motor RPM	188.00 - 228.00
Average Rotating ROP (ft/h)	215.57	Stalls	0	Surface RPM	30.00 - 50.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	40.00 - 48.00
OD (in)	8.750	On Bottom Pressure (psi)	2050.00 - 3050.00	Sliding WOB (klbs)	26.00 - 30.00
Vendor	REED	Off Bottom Pressure (psi)	1550.00 - 2400.00	Temp (°F)	121.00 - 135.00
S/N	A283082	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	8.75" INTERMEDIATE			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey (Bit To Survey ): 64.00 ft, Bend (Bit To Bend ): 5.35 ft, Gamma (Bit to Gamma): 49.00 ft					
<b>Mud Properties</b>					
Type	Oil Based				
WT	9.20				
VIS	28.00				
PV	1.00				
YP	1.00				
<b>POOH Reason/Notes</b>					
Change Bottom Hole Assembly: POOH For curve assembly					
<b>Incident Notes</b>					
Directional: N/A					
MWD:					
<b>Comments</b>					
Directional: Contender 40s 7" 7/8 8.5, 1.75° Fxd w/ 8.50" NBS, Flow Range: 500-750 GPM, Max Diff: 1910 psi, Max Torque: 18,710 ft/lbs, RPG: 0.26 Bit Runs: 0					
MWD:					



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

### Mud Motor Report - BHA 4 (8.75" CURVE)

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-002	Date In	2021-12-09 23:30	Downhole Hours	23.75
Size (in)	8.75	Depth In (ft)	9664.00	Drilling/Circulating Hours	10.33
Lobe/Stage	7/8, 5.00	Date Out	2021-12-10 23:15		
Bend Angle	2.12	Depth Out (ft)	10148.00	Circulating Hours	3.25
Speed (rev/gal)	0.28	Total Drilled (ft)	484.00	Drilling Hours	7.08
Wear Pad OD (in)	6.920	Distance Slid (ft)	423.00	Sliding Hours	6.50
Manufacturer	Contender	Distance Rotated (ft)	61.00	Rotating Hours	0.58
<b>Motor Results</b>		% Distance Sliding	87.40%	% Hours Rotating	8.24%
Motor Incident	No	% Distance Rotating	12.60%	% Hours Sliding	91.76%
Average Total ROP (ft/h)	68.33	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	65.08	Flow Rate (gpm)	496.00 - 500.00	Motor RPM	128.00 - 128.00
Average Rotating ROP (ft/h)	104.57	Stalls	0	Surface RPM	0.00 - 0.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	0.00 - 0.00
OD (in)	8.750	On Bottom Pressure (psi)	1750.00 - 1900.00	Sliding WOB (klbs)	35.00 - 40.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	1100.00 - 1050.00	Temp (°F)	118.00 - 125.00
S/N	57264	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	8.75" CURVE			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey (Bit To Survey ): 59.00 ft, Bend (Bit To Bend ): 4.05 ft, Gamma (Bit to Gamma): 35.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.10				
VIS	32.00				
PV	1.00				
YP	1.00				
<b>POOH Reason/Notes</b>					
Build Rate: POOH For Build Rates					
<b>Incident Notes</b>					
Directional: N/A					
MWD:					
<b>Comments</b>					
Directional: Contender 6 3/4" 7/8 5.0, 2.12° Fxd w/ SLK, Flow Range: 300-600 GPM, Max Diff: 1130 psi, Max Torque: 15,690 ft/lbs, RPG: 0.28 Bit Runs: 0					
MWD:					



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Mud Motor Report - BHA 5 (8.75" CURVE)**

Motor Details		Date/Depth/Distances		Hours	
S/N	700-40-008	Date In	2021-12-10 23:45	Downhole Hours	22.75
Size (in)	8.75	Depth In (ft)	10148.00	Drilling/Circulating Hours	8.50
Lobe/Stage	7/8, 5.70	Date Out	2021-12-11 22:30		
Bend Angle	2.89	Depth Out (ft)	10481.00	Circulating Hours	1.08
Speed (rev/gal)	0.24	Total Drilled (ft)	333.00	Drilling Hours	7.42
Wear Pad OD (in)	7.520	Distance Slid (ft)	333.00	Sliding Hours	7.42
Manufacturer	Contender	Distance Rotated (ft)	0.00	Rotating Hours	0.00
<b>Motor Results</b>		% Distance Sliding	100.00%	% Hours Rotating	0.00%
Motor Incident	No	% Distance Rotating	0.00%	% Hours Sliding	100.00%
Average Total ROP (ft/h)	44.90	<b>BHA Parameters</b>			
Average Slide ROP (ft/h)	44.90	Flow Rate (gpm)	300.00 - 450.00	Motor RPM	72.00 - 132.00
Average Rotating ROP (ft/h)	0.00	Stalls	0	Surface RPM	72.00 - 132.00
<b>Bit Details</b>		Stall Pressure (psi)	0.00	Rotating WOB (klbs)	0.00 - 0.00
OD (in)	8.750	On Bottom Pressure (psi)	750.00 - 1200.00	Sliding WOB (klbs)	30.00 - 40.00
Vendor	ULTERRA	Off Bottom Pressure (psi)	700.00 - 1200.00	Temp (°F)	118.00 - 124.00
S/N	57218	NPT	0.0		
Nozzles	6x15's	<b>BHA Objective</b>			
Total Flow Area (in <sup>2</sup> )	1.035	8.75" CURVE			
Bit Type	PDC (Polycrystalline Diamond Compacts)				
<b>Bit Distances</b>					
Survey (Bit To Survey ): 59.00 ft, Bend (Bit To Bend ): 4.05 ft, Gamma (Bit to Gamma): 35.00 ft					
<b>Mud Properties</b>					
Type	Water Based				
WT	9.10				
VIS	32.00				
PV	1.00				
YP	1.00				
<b>POOH Reason/Notes</b>					
Change Bottom Hole Assembly: P/U Lateral Assembly					
<b>Incident Notes</b>					
Directional:					
MWD:					
<b>Comments</b>					
Directional: Contender 7" 7/8 5.7, 2.89° Adj w/ SLK, Flow Range: 300-650 GPM, Max Diff: 1,280 psi, Max Torque: 20,580 ft/lbs, RPG: 0.24 Bit Runs: 2					
MWD:					



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Mud Motor Report - BHA 6 (8.75" LATERAL ASSEMBLY )**

Motor Details		Date/Depth/Distances		Hours	
S/N	BPB5700-0069	Date In	2021-12-11 22:30	Downhole Hours	111.50
Size (in)	7.0	Depth In (ft)	10481.00	Drilling/Circulating Hours	93.42
Lobe/Stage	7/8, 6.10	Date Out	2021-12-16 14:00		
Bend Angle	1.75	Depth Out (ft)	16104.00	Circulating Hours	4.00
Speed (rev/gal)	0.25	Total Drilled (ft)	5623.00	Drilling Hours	89.42
Wear Pad OD (in)	7.250	Distance Slid (ft)	766.00	Sliding Hours	21.08
Manufacturer	SSS100	Distance Rotated (ft)	4857.00	Rotating Hours	68.33
<b>Motor Results</b>		% Distance Sliding	13.62%	% Hours Rotating	76.42%
Motor Incident	No	% Distance Rotating	86.38%	% Hours Sliding	23.58%

Motor Results		BHA Parameters	
Average Total ROP (ft/h)	62.89	Flow Rate (gpm)	222.00 - 700.00
Average Slide ROP (ft/h)	36.33	Motor RPM	0.00 - 0.00
Average Rotating ROP (ft/h)	71.08	Stalls	0
<b>Bit Details</b>		Stall Pressure (psi)	18000.05
OD (in)	8.750	On Bottom Pressure (psi)	3600.00 - 4260.00
Vendor	REED	Off Bottom Pressure (psi)	3000.00 - 3960.00
S/N	A281412	NPT	0.0
Nozzles	7X14's		
Total Flow Area (in <sup>2</sup> )	1.520		
Bit Type	PDC (Polycrystalline Diamond Compacts)		

**BHA Objective**  
8.75" LATERAL ASSEMBLY

**Bit Distances**  
Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft

Mud Properties	
Type	Water Based
WT	9.30
VIS	64.00
PV	18.00
YP	12.00

**POOH Reason/Notes**  
Other: POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage

**Incident Notes**  
Directional:  
MWD:

**Comments**  
Directional: (BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2  
MWD:



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Mud Motor Report - BHA 7 (8.75" LATERAL ASSEMBLY )**

Motor Details		Date/Depth/Distances		Hours	
S/N	BPB5700-0016	Date In	2021-12-16 14:40	Downhole Hours	38.83
Size (in)	7.0	Depth In (ft)	16104.00	Drilling/Circulating Hours	15.67
Lobe/Stage	7/8, 6.10	Date Out	2021-12-18 05:30		
Bend Angle	1.75	Depth Out (ft)	16905.00	Circulating Hours	2.25
Speed (rev/gal)	0.25	Total Drilled (ft)	801.00	Drilling Hours	13.42
Wear Pad OD (in)	7.250	Distance Slid (ft)	135.00	Sliding Hours	5.75
Manufacturer	SSS100	Distance Rotated (ft)	666.00	Rotating Hours	7.67
<b>Motor Results</b>		% Distance Sliding	16.85%	% Hours Rotating	57.14%
Motor Incident	No	% Distance Rotating	83.15%	% Hours Sliding	42.86%

Motor Parameters	
Average Total ROP (ft/h)	59.70
Average Slide ROP (ft/h)	23.48
Average Rotating ROP (ft/h)	86.87
<b>Bit Details</b>	
OD (in)	8.750
Vendor	REED
S/N	A281863
Nozzles	7X15's
Total Flow Area (in <sup>2</sup> )	1.208
Bit Type	PDC (Polycrystalline Diamond Compacts)
<b>Bit Distances</b>	
Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft	
<b>Mud Properties</b>	
Type	Oil Based
WT	9.30
VIS	32.00
PV	1.00
YP	1.00

BHA Objective	
Flow Rate (gpm)	650.00 - 700.00
Motor RPM	175.00 - 175.00
Stalls	0
Surface RPM	30.00 - 50.00
Stall Pressure (psi)	0.00
Rotating WOB (klbs)	42.00 - 42.00
On Bottom Pressure (psi)	3950.00 - 4700.00
Sliding WOB (klbs)	30.00 - 35.00
Off Bottom Pressure (psi)	3400.00 - 4200.00
Temp (°F)	134.00 - 145.00
NPT	0.0

8.75" LATERAL ASSEMBLY

**POOH Reason/Notes**

Total Depth/Casing Point: N/A

**Incident Notes**

Directional: N/A

MWD:

**Comments**

Directional: (BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 0

MWD:



# Slide/Rotate Reports

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #1 (17.50" SURFACE)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	11-18	11:45	13:05	11-18	1.33	155.00	209.00	54.00	40.50	N/A	550.00	50.0	5.00	650.00	600.00	Surface
Rotate	11-18	13:10	13:30	11-18	0.33	209.00	269.00	60.00	180.00	N/A	654.00	60.0	10.00	1300.00	900.00	Surface
Rotate	11-18	13:35	13:40	11-18	0.08	269.00	299.00	30.00	360.00	N/A	654.00	60.0	10.00	1300.00	900.00	Surface
Rotate	11-18	13:45	14:20	11-18	0.58	299.00	389.00	90.00	154.29	N/A	654.00	60.0	10.00	1300.00	900.00	Surface
Rotate	11-18	14:25	14:30	11-18	0.08	389.00	404.00	15.00	180.00	N/A	654.00	60.0	10.00	1300.00	900.00	Surface
Slide	11-18	14:30	14:40	11-18	0.17	404.00	424.00	20.00	120.00	100.0	654.00	N/A	15.00	1500.00	900.00	Surface
Rotate	11-18	14:40	14:55	11-18	0.25	424.00	479.00	55.00	220.00	N/A	654.00	60.0	10.00	1300.00	900.00	Surface
Rotate	11-18	15:00	15:20	11-18	0.33	479.00	569.00	90.00	270.00	N/A	854.00	60.0	20.00	2150.00	1550.00	Surface
Rotate	11-18	15:25	15:40	11-18	0.25	569.00	660.00	91.00	364.00	N/A	854.00	60.0	20.00	2150.00	1550.00	Surface
Rotate	11-18	15:45	16:05	11-18	0.33	660.00	751.00	91.00	273.00	N/A	854.00	60.0	20.00	2150.00	1550.00	Surface
Rotate	11-18	16:10	16:40	11-18	0.5	751.00	842.00	91.00	182.00	N/A	854.00	60.0	20.00	2150.00	1550.00	Surface
Rotate	11-18	16:45	17:00	11-18	0.25	842.00	932.00	90.00	360.00	N/A	854.00	60.0	20.00	2900.00	1600.00	Surface
Rotate	11-18	17:05	17:15	11-18	0.17	932.00	1023.00	91.00	546.00	N/A	854.00	60.0	20.00	2900.00	1600.00	Surface
Rotate	11-18	17:20	17:50	11-18	0.5	1023.00	1113.00	90.00	180.00	N/A	854.00	60.0	20.00	2900.00	1600.00	Surface
Rotate	11-18	17:50	18:25	11-18	0.58	1113.00	1204.00	91.00	156.00	N/A	854.00	60.0	20.00	2900.00	1600.00	Surface
Rotate	11-18	18:30	18:55	11-18	0.42	1204.00	1275.00	71.00	170.40	N/A	854.00	60.0	20.00	2900.00	1600.00	Surface, Intermediate



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X47	
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H		<b>Legal Well Name   AFE</b> Anderson Fed Com 508H	
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>	

**Slide/Rotate Report - BHA #2 (12.25" INTERMEDIATE)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	11-20	19:00	19:35	11-20	0.58	1275.00	1421.00	146.00	250.29	N/A	800.00	40.0	10.00	1700.00	1300.00	Intermediate
Rotate	11-20	19:40	20:00	11-20	0.33	1421.00	1499.00	78.00	234.00	N/A	800.00	40.0	10.00	1700.00	1300.00	Intermediate
Slide	11-20	20:00	20:10	11-20	0.17	1499.00	1529.00	30.00	180.00	30.0	800.00	N/A	21.00	1900.00	14550.01	Intermediate
Rotate	11-20	20:10	20:30	11-20	0.33	1529.00	1581.00	52.00	156.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	20:35	20:45	11-20	0.17	1581.00	1676.00	95.00	570.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	20:50	21:10	11-20	0.33	1676.00	1771.00	95.00	285.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	21:15	21:20	11-20	0.08	1771.00	1798.00	27.00	324.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Slide	11-20	21:20	21:25	11-20	0.08	1798.00	1818.00	20.00	240.00	200.0	800.00	N/A	26.00	2100.00	1400.00	Intermediate
Rotate	11-20	21:25	21:35	11-20	0.17	1818.00	1867.00	49.00	294.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	21:40	22:05	11-20	0.42	1867.00	1963.00	96.00	230.40	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	22:10	22:25	11-20	0.25	1963.00	2059.00	96.00	384.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Slide	11-20	22:30	22:40	11-20	0.17	2059.00	2079.00	20.00	120.00	300.0	800.00	N/A	26.00	2100.00	1400.00	Intermediate
Rotate	11-20	22:40	22:55	11-20	0.25	2079.00	2154.00	75.00	300.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	23:00	23:15	11-20	0.25	2154.00	2249.00	95.00	380.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	23:20	23:35	11-20	0.25	2249.00	2345.00	96.00	384.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-20	23:40	23:45	11-20	0.08	2345.00	2350.00	5.00	60.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Slide	11-20	23:45	23:50	11-20	0.08	2350.00	2370.00	20.00	240.00	270.0	800.00	N/A	26.00	2100.00	1400.00	Intermediate
Rotate	11-20	23:50	00:00	11-21	0.17	2370.00	2446.00	76.00	456.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Slide	11-21	00:05	00:10	11-21	0.08	2446.00	2466.00	20.00	240.00	270.0	800.00	N/A	26.00	2100.00	1400.00	Intermediate
Rotate	11-21	00:10	00:30	11-21	0.33	2466.00	2537.00	71.00	213.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	00:35	01:15	11-21	0.67	2537.00	2728.00	191.00	286.50	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	01:20	01:30	11-21	0.17	2728.00	2824.00	96.00	576.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	01:35	01:55	11-21	0.33	2824.00	2920.00	96.00	288.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	02:00	02:15	11-21	0.25	2920.00	3016.00	96.00	384.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	02:20	02:40	11-21	0.33	3016.00	3111.00	95.00	285.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Rotate	11-21	02:45	02:50	11-21	0.08	3111.00	3117.00	6.00	72.00	N/A	800.00	40.0	35.00	1700.00	1300.00	Intermediate
Slide	11-21	02:50	03:05	11-21	0.25	3117.00	3147.00	30.00	120.00	270.0	800.00	N/A	29.00	2340.00	1550.00	Intermediate
Rotate	11-21	03:05	03:30	11-21	0.42	3147.00	3207.00	60.00	144.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	03:35	03:40	11-21	0.08	3207.00	3216.00	9.00	108.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Slide	11-21	03:40	03:50	11-21	0.17	3216.00	3246.00	30.00	180.00	260.0	800.00	N/A	29.00	2340.00	1550.00	Intermediate
Rotate	11-21	03:50	04:00	11-21	0.17	3246.00	3303.00	57.00	342.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	04:05	04:20	11-21	0.25	3303.00	3399.00	96.00	384.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	04:25	04:30	11-21	0.08	3399.00	3407.00	8.00	96.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Slide	11-21	04:30	04:40	11-21	0.17	3407.00	3437.00	30.00	180.00	350.0	800.00	N/A	29.00	2340.00	1550.00	Intermediate
Rotate	11-21	04:40	05:00	11-21	0.33	3437.00	3494.00	57.00	171.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	05:05	05:10	11-21	0.08	3494.00	3501.00	7.00	84.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate

Slide	11-21	05:10	05:50	11-21	0.67	3501.00	3536.00	35.00	52.50	0.0	800.00	N/A	29.00	2340.00	1550.00	intermediate
Rotate	11-21	05:50	06:05	11-21	0.25	3536.00	3578.00	42.00	168.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	06:30	06:40	11-21	0.17	3578.00	3590.00	12.00	72.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	06:45	07:25	11-21	0.67	3590.00	3686.00	96.00	144.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	07:30	07:35	11-21	0.08	3686.00	3700.00	14.00	168.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Slide	11-21	07:35	08:35	11-21	1.0	3700.00	3730.00	30.00	30.00	100.0	800.00	N/A	29.00	2340.00	1550.00	Intermediate
Rotate	11-21	08:35	09:05	11-21	0.5	3730.00	3781.00	51.00	102.00	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	09:10	09:45	11-21	0.58	3781.00	3877.00	96.00	164.57	N/A	800.00	40.0	48.00	2400.00	1600.00	Intermediate
Rotate	11-21	10:40	10:50	11-21	0.17	3877.00	3900.00	23.00	138.00	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Slide	11-21	10:50	11:40	11-21	0.83	3900.00	3930.00	30.00	36.00	200.0	850.00	N/A	30.00	2475.00	1900.00	Intermediate
Rotate	11-21	11:40	12:05	11-21	0.42	3930.00	3973.00	43.00	103.20	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	12:10	13:00	11-21	0.83	3973.00	4069.00	96.00	115.20	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	13:05	13:50	11-21	0.75	4069.00	4164.00	95.00	126.67	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	13:55	14:45	11-21	0.83	4164.00	4260.00	96.00	115.20	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	14:50	15:30	11-21	0.67	4260.00	4356.00	96.00	144.00	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	15:35	15:55	11-21	0.33	4356.00	4452.00	96.00	288.00	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Rotate	11-21	16:00	16:05	11-21	0.08	4452.00	4465.00	13.00	156.00	N/A	850.00	50.0	50.00	2800.00	1900.00	Intermediate
Slide	11-21	16:05	16:40	11-21	0.58	4465.00	4485.00	20.00	34.29	50.0	850.00	N/A	30.00	2475.00	1900.00	Intermediate
Rotate	11-21	16:40	17:05	11-21	0.42	4485.00	4547.00	62.00	148.80	N/A	850.00	50.0	54.00	3150.00	2150.00	Intermediate
Rotate	11-21	17:10	17:30	11-21	0.33	4547.00	4643.00	96.00	288.00	N/A	850.00	50.0	54.00	3150.00	2150.00	Intermediate
Rotate	11-21	17:35	18:05	11-21	0.5	4643.00	4775.00	132.00	264.00	N/A	850.00	50.0	54.00	3150.00	2150.00	Intermediate



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H		<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>

**Slide/Rotate Report - BHA #3 (8.75" INTERMEDIATE )**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-08	07:40	08:50	12-08	1.17	4775.00	4824.00	49.00	42.00	N/A						Intermediate
Rotate	12-08	08:50	09:00	12-08	0.17	4824.00	4890.00	66.00	396.00	N/A						Intermediate
Slide	12-08	09:05	09:35	12-08	0.5	4890.00	4915.00	25.00	50.00	60.0		N/A				Intermediate
Rotate	12-08	09:35	09:40	12-08	0.08	4915.00	4919.00	4.00	48.00	N/A						Intermediate
Rotate	12-08	09:45	10:05	12-08	0.33	4919.00	5015.00	96.00	288.00	N/A						Intermediate
Rotate	12-08	10:10	10:35	12-08	0.42	5015.00	5110.00	95.00	228.00	N/A	650.00	50.0	40.00	2550.00	1550.00	Intermediate
Slide	12-08	10:40	10:50	12-08	0.17	5110.00	5118.00	8.00	48.00	30.0		N/A				Intermediate
Rotate	12-08	10:50	11:00	12-08	0.17	5118.00	5206.00	88.00	528.00	N/A						Intermediate
Rotate	12-08	11:05	11:20	12-08	0.25	5206.00	5302.00	96.00	384.00	N/A						Intermediate
Rotate	12-08	11:25	11:50	12-08	0.42	5302.00	5398.00	96.00	230.40	N/A	650.00	50.0	40.00	2700.00	1700.00	Intermediate
Slide	12-08	11:55	12:10	12-08	0.25	5398.00	5408.00	10.00	40.00	40.0		N/A				Intermediate
Rotate	12-08	12:10	12:25	12-08	0.25	5408.00	5493.00	85.00	340.00	N/A						Intermediate
Slide	12-08	12:30	12:45	12-08	0.25	5493.00	5503.00	10.00	40.00	0.0		N/A				Intermediate
Rotate	12-08	12:45	13:05	12-08	0.33	5503.00	5589.00	86.00	258.00	N/A						Intermediate
Slide	12-08	13:10	13:25	12-08	0.25	5589.00	5599.00	10.00	40.00	340.0		N/A				Intermediate
Rotate	12-08	13:25	13:40	12-08	0.25	5599.00	5684.00	85.00	340.00	N/A						Intermediate
Slide	12-08	13:45	14:00	12-08	0.25	5684.00	5694.00	10.00	40.00	0.0		N/A				Intermediate
Rotate	12-08	14:00	14:10	12-08	0.17	5694.00	5780.00	86.00	516.00	N/A						Intermediate
Slide	12-08	14:35	14:50	12-08	0.25	5780.00	5792.00	12.00	48.00	30.0		N/A				Intermediate
Rotate	12-08	14:50	15:00	12-08	0.17	5792.00	5876.00	84.00	504.00	N/A						Intermediate
Slide	12-08	15:05	15:15	12-08	0.17	5876.00	5884.00	8.00	48.00	290.0		N/A				Intermediate
Rotate	12-08	15:15	15:25	12-08	0.17	5884.00	5972.00	88.00	528.00	N/A						Intermediate
Slide	12-08	15:30	15:40	12-08	0.17	5972.00	5984.00	12.00	72.00	340.0		N/A				Intermediate
Rotate	12-08	15:40	16:00	12-08	0.33	5984.00	6067.00	83.00	249.00	N/A						Intermediate
Slide	12-08	16:05	16:15	12-08	0.17	6067.00	6079.00	12.00	72.00	20.0		N/A				Intermediate
Rotate	12-08	16:15	16:35	12-08	0.33	6079.00	6162.00	83.00	249.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	16:40	16:55	12-08	0.25	6162.00	6258.00	96.00	384.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	17:00	17:20	12-08	0.33	6258.00	6353.00	95.00	285.00	N/A						Intermediate
Rotate	12-08	17:25	17:45	12-08	0.33	6353.00	6449.00	96.00	288.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	17:50	18:00	12-08	0.17	6449.00	6544.00	95.00	570.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	18:05	18:25	12-08	0.33	6544.00	6640.00	96.00	288.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	18:30	18:35	12-08	0.08	6640.00	6650.00	10.00	120.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Slide	12-08	18:35	18:45	12-08	0.17	6650.00	6662.00	12.00	72.00	345.0	653.00	N/A	30.00	2050.00	1700.00	Intermediate
Rotate	12-08	18:45	19:05	12-08	0.33	6662.00	6735.00	73.00	219.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	19:10	19:15	12-08	0.08	6735.00	6746.00	11.00	132.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Slide	12-08	19:15	19:20	12-08	0.08	6746.00	6756.00	10.00	120.00	0.0	653.00	N/A	30.00	2050.00	1700.00	Intermediate

Rotate	12-08	19:20	19:40	12-08	0.33	6756.00	6830.00	74.00	222.00	N/A	650.00	40.0	40.00	2600.00	1750.00	intermediate
Rotate	12-08	19:45	19:50	12-08	0.08	6830.00	6842.00	12.00	144.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Slide	12-08	19:50	20:00	12-08	0.17	6842.00	6857.00	15.00	90.00	340.0	653.00	N/A	30.00	2050.00	1700.00	Intermediate
Rotate	12-08	20:00	20:15	12-08	0.25	6857.00	6925.00	68.00	272.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	20:20	20:40	12-08	0.33	6925.00	7020.00	95.00	285.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Rotate	12-08	20:45	20:50	12-08	0.08	7020.00	7028.00	8.00	96.00	N/A	650.00	40.0	40.00	2600.00	1750.00	Intermediate
Slide	12-08	20:50	20:55	12-08	0.08	7028.00	7040.00	12.00	144.00	15.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-08	20:55	21:20	12-08	0.42	7040.00	7115.00	75.00	180.00	N/A	749.00	40.0	47.00	3050.00	2400.00	Intermediate
Rotate	12-08	21:25	21:40	12-08	0.25	7115.00	7211.00	96.00	384.00	N/A	749.00	40.0	47.00	3050.00	2400.00	Intermediate
Rotate	12-08	21:45	22:00	12-08	0.25	7211.00	7307.00	96.00	384.00	N/A	749.00	40.0	47.00	3050.00	2400.00	Intermediate
Rotate	12-08	22:40	22:45	12-08	0.08	7307.00	7315.00	8.00	96.00	N/A	652.00	40.0	47.00	2600.00	1900.00	Intermediate
Slide	12-08	22:45	22:55	12-08	0.17	7315.00	7330.00	15.00	90.00	345.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-08	22:55	23:20	12-08	0.42	7330.00	7403.00	73.00	175.20	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-08	23:25	23:40	12-08	0.25	7403.00	7498.00	95.00	380.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-08	23:45	00:10	12-09	0.42	7498.00	7594.00	96.00	230.40	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	00:15	00:20	12-09	0.08	7594.00	7600.00	6.00	72.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Slide	12-09	00:20	00:30	12-09	0.17	7600.00	7620.00	20.00	120.00	345.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-09	00:30	00:50	12-09	0.33	7620.00	7689.00	69.00	207.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	00:55	01:15	12-09	0.33	7689.00	7785.00	96.00	288.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	01:20	01:35	12-09	0.25	7785.00	7881.00	96.00	384.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	01:40	01:45	12-09	0.08	7881.00	7889.00	8.00	96.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Slide	12-09	01:45	02:00	12-09	0.25	7889.00	7909.00	20.00	80.00	340.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-09	02:00	02:25	12-09	0.42	7909.00	7976.00	67.00	160.80	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	02:30	02:35	12-09	0.08	7976.00	7981.00	5.00	60.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Slide	12-09	02:35	02:45	12-09	0.17	7981.00	8001.00	20.00	120.00	0.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-09	02:45	03:15	12-09	0.5	8001.00	8072.00	71.00	142.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	03:20	03:45	12-09	0.42	8072.00	8168.00	96.00	230.40	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	03:50	04:10	12-09	0.33	8168.00	8263.00	95.00	285.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	04:15	04:30	12-09	0.25	8263.00	8359.00	96.00	384.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	04:35	04:40	12-09	0.08	8359.00	8373.00	14.00	168.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Slide	12-09	04:40	04:50	12-09	0.17	8373.00	8388.00	15.00	90.00	330.0	748.00	N/A	26.00	2550.00	2300.00	Intermediate
Rotate	12-09	04:50	05:10	12-09	0.33	8388.00	8455.00	67.00	201.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	05:15	05:45	12-09	0.5	8455.00	8550.00	95.00	190.00	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	05:50	06:25	12-09	0.58	8550.00	8646.00	96.00	164.57	N/A	748.00	40.0	48.00	2650.00	2100.00	Intermediate
Rotate	12-09	06:30	07:10	12-09	0.67	8646.00	8742.00	96.00	144.00	N/A						Intermediate
Rotate	12-09	07:15	07:20	12-09	0.08	8742.00	8752.00	10.00	120.00	N/A	600.00	30.0	42.00	2100.00	1600.00	Intermediate
Slide	12-09	07:20	07:45	12-09	0.42	8752.00	8767.00	15.00	36.00	180.0		N/A				Intermediate
Rotate	12-09	07:45	08:15	12-09	0.5	8767.00	8837.00	70.00	140.00	N/A	600.00	30.0	42.00	2100.00	1600.00	Intermediate
Rotate	12-09	08:20	09:00	12-09	0.67	8837.00	8933.00	96.00	144.00	N/A	600.00	30.0	42.00	2100.00	1600.00	Intermediate
Rotate	12-09	09:05	09:45	12-09	0.67	8933.00	9028.00	95.00	142.50	N/A						Intermediate
Rotate	12-09	09:50	10:05	12-09	0.25	9028.00	9048.00	20.00	80.00	N/A	700.00	40.0	44.00	2450.00	2000.00	Intermediate
Slide	12-09	10:05	10:20	12-09	0.25	9048.00	9058.00	10.00	40.00	60.0		N/A				Intermediate

Rotate	12-09	10:20	10:45	12-09	0.42	9058.00	9123.00	65.00	156.00	N/A	700.00	40.0	44.00	2450.00	2000.00	intermediate
Rotate	12-09	10:50	11:00	12-09	0.17	9123.00	9138.00	15.00	90.00	N/A						Intermediate
Slide	12-09	11:00	11:25	12-09	0.42	9138.00	9153.00	15.00	36.00	60.0		N/A				Intermediate
Rotate	12-09	11:25	12:00	12-09	0.58	9153.00	9219.00	66.00	113.14	N/A						Intermediate
Rotate	12-09	12:05	12:10	12-09	0.08	9219.00	9234.00	15.00	180.00	N/A						Intermediate
Slide	12-09	12:10	12:25	12-09	0.25	9234.00	9244.00	10.00	40.00	60.0		N/A				Intermediate
Rotate	12-09	12:25	12:55	12-09	0.5	9244.00	9314.00	70.00	140.00	N/A						Intermediate
Rotate	12-09	13:00	13:10	12-09	0.17	9314.00	9334.00	20.00	120.00	N/A	700.00	40.0	44.00	2450.00	2000.00	Intermediate
Slide	12-09	13:10	13:40	12-09	0.5	9334.00	9346.00	12.00	24.00	70.0		N/A				Intermediate
Rotate	12-09	13:40	14:00	12-09	0.33	9346.00	9410.00	64.00	192.00	N/A						Intermediate
Rotate	12-09	14:05	14:15	12-09	0.17	9410.00	9420.00	10.00	60.00	N/A						Intermediate
Slide	12-09	14:15	14:25	12-09	0.17	9420.00	9428.00	8.00	48.00	70.0		N/A				Intermediate
Rotate	12-09	14:25	14:55	12-09	0.5	9428.00	9505.00	77.00	154.00	N/A						Intermediate
Rotate	12-09	15:00	15:20	12-09	0.33	9505.00	9601.00	96.00	288.00	N/A						Intermediate
Rotate	12-09	15:25	15:50	12-09	0.42	9601.00	9664.00	63.00	151.20	N/A						Intermediate, Curve



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #4 (8.75" CURVE)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-10	06:25	06:45	12-10	0.33	9664.00	9669.00	5.00	15.00	N/A						Curve
Slide	12-10	06:45	07:00	12-10	0.25	9669.00	9677.00	8.00	32.00	320.0		N/A				Curve
Rotate	12-10	07:00	07:15	12-10	0.25	9677.00	9733.00	56.00	224.00	N/A						Curve
Slide	12-10	07:15	08:15	12-10	1.0	9733.00	9765.00	32.00	32.00	2.0		N/A				Curve
Slide	12-10	08:20	09:20	12-10	1.0	9765.00	9861.00	96.00	96.00	2.0		N/A				Curve
Slide	12-10	09:25	10:40	12-10	1.25	9861.00	9957.00	96.00	76.80	340.0		N/A				Curve
Slide	12-10	10:45	12:10	12-10	1.42	9957.00	10052.00	95.00	67.06	0.0		N/A				Curve
Slide	12-10	13:30	15:05	12-10	1.58	10052.00	10148.00	96.00	60.63	0.0		N/A				Curve



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #5 (8.75" CURVE)**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	12-11	06:00	09:35	12-11	3.58	10148.00	10244.00	96.00	26.79	0.0		N/A				Curve
Slide	12-11	09:40	11:10	12-11	1.5	10244.00	10339.00	95.00	63.33	0.0		N/A				Curve
Slide	12-11	11:40	13:00	12-11	1.33	10339.00	10435.00	96.00	72.00	0.0		N/A				Curve
Slide	12-11	13:05	14:05	12-11	1.0	10435.00	10481.00	46.00	46.00	330.0		N/A				Curve, Lateral



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners		<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H		<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea	<b>Company Man</b>

**Slide/Rotate Report - BHA #6 (8.75" LATERAL ASSEMBLY )**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Slide	12-12	08:30	08:50	12-12	0.33	10481.00	10510.00	29.00	87.00	0.0		N/A				Lateral
Rotate	12-12	08:50	09:25	12-12	0.58	10510.00	10540.00	30.00	51.43	N/A						Lateral
Rotate	12-12	09:25	09:40	12-12	0.25	10540.00	10566.00	26.00	104.00	N/A						Lateral
Rotate	12-12	09:45	09:55	12-12	0.17	10566.00	10585.00	19.00	114.00	N/A	600.00	40.0	32.00	3600.00	3000.00	Lateral
Slide	12-12	09:55	10:15	12-12	0.33	10585.00	10605.00	20.00	60.00	180.0		N/A				Lateral
Rotate	12-12	10:15	10:35	12-12	0.33	10605.00	10662.00	57.00	171.00	N/A	600.00	40.0	32.00	3600.00	3000.00	Lateral
Rotate	12-12	10:40	10:50	12-12	0.17	10662.00	10672.00	10.00	60.00	N/A						Lateral
Slide	12-12	10:50	11:25	12-12	0.58	10672.00	10694.00	22.00	37.71	210.0		N/A				Lateral
Rotate	12-12	11:25	12:10	12-12	0.75	10694.00	10757.00	63.00	84.00	N/A						Lateral
Rotate	12-12	12:15	12:50	12-12	0.58	10757.00	10852.00	95.00	162.86	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	12:55	13:30	12-12	0.58	10852.00	10948.00	96.00	164.57	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	13:35	14:30	12-12	0.92	10948.00	11043.00	95.00	103.64	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	14:35	14:40	12-12	0.08	11043.00	11053.00	10.00	120.00	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Slide	12-12	14:40	15:15	12-12	0.58	11053.00	11088.00	35.00	60.00	160.0		N/A				Lateral
Rotate	12-12	15:15	15:30	12-12	0.25	11088.00	11139.00	51.00	204.00	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	15:35	16:40	12-12	1.08	11139.00	11235.00	96.00	88.62	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	16:45	17:00	12-12	0.25	11235.00	11250.00	15.00	60.00	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Slide	12-12	17:00	17:25	12-12	0.42	11250.00	11265.00	15.00	36.00	160.0		N/A				Lateral
Rotate	12-12	17:25	18:10	12-12	0.75	11265.00	11330.00	65.00	86.67	N/A	222.00	40.0	40.00	3600.00	3000.00	Lateral
Rotate	12-12	18:15	19:10	12-12	0.92	11330.00	11426.00	96.00	104.73	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-12	19:15	19:20	12-12	0.08	11426.00	11434.00	8.00	96.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-12	19:20	19:25	12-12	0.08	11434.00	11446.00	12.00	144.00	200.0	650.00	N/A	31.00	3600.00	3250.00	Lateral
Rotate	12-12	19:25	20:30	12-12	1.08	11446.00	11522.00	76.00	70.15	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-12	20:35	20:40	12-12	0.08	11522.00	11527.00	5.00	60.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-12	20:40	20:50	12-12	0.17	11527.00	11542.00	15.00	90.00	210.0	650.00	N/A	31.00	3600.00	3250.00	Lateral
Rotate	12-12	20:50	21:40	12-12	0.83	11542.00	11617.00	75.00	90.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-12	21:45	22:50	12-12	1.08	11617.00	11713.00	96.00	88.62	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-12	22:55	23:50	12-12	0.92	11713.00	11808.00	95.00	103.64	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-12	23:55	00:00	12-13	0.08	11808.00	11814.00	6.00	72.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-13	00:00	00:15	12-13	0.25	11814.00	11829.00	15.00	60.00	150.0	650.00	N/A	31.00	3600.00	3250.00	Lateral
Rotate	12-13	00:15	01:05	12-13	0.83	11829.00	11903.00	74.00	88.80	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-13	01:10	02:00	12-13	0.83	11903.00	11999.00	96.00	115.20	N/A						Lateral
Rotate	12-13	02:05	02:10	12-13	0.08	11999.00	12005.00	6.00	72.00	N/A	650.00	40.0	41.00	3750.00	3220.00	Lateral
Slide	12-13	02:10	02:20	12-13	0.17	12005.00	12020.00	15.00	90.00	50.0	650.00	N/A	31.00	3650.00	3250.00	Lateral
Rotate	12-13	02:20	03:20	12-13	1.0	12020.00	12094.00	74.00	74.00	N/A	650.00	40.0	41.00	3750.00	3220.00	Lateral
Rotate	12-13	03:25	03:30	12-13	0.08	12094.00	12100.00	6.00	72.00	N/A	650.00	40.0	41.00	3750.00	3220.00	Lateral
Slide	12-13	03:30	03:45	12-13	0.25	12100.00	12125.00	25.00	100.00	60.0	650.00	N/A	31.00	3650.00	3250.00	Lateral
Rotate	12-13	03:45	04:25	12-13	0.67	12125.00	12172.00	47.00	70.50	N/A	650.00	40.0	41.00	3750.00	3220.00	Lateral
Rotate	12-13	05:00	05:15	12-13	0.25	12172.00	12190.00	18.00	72.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-13	05:20	05:25	12-13	0.08	12190.00	12199.00	9.00	108.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-13	05:25	05:40	12-13	0.25	12199.00	12214.00	15.00	60.00	180.0	650.00	N/A	31.00	3650.00	3250.00	Lateral
Rotate	12-13	05:40	06:40	12-13	1.0	12214.00	12285.00	71.00	71.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-13	06:45	06:55	12-13	0.17	12285.00	12300.00	15.00	90.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-13	06:55	07:35	12-13	0.67	12300.00	12330.00	30.00	45.00	160.0		N/A				Lateral
Rotate	12-13	07:35	08:15	12-13	0.67	12330.00	12381.00	51.00	76.50	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Rotate	12-13	08:20	08:25	12-13	0.08	12381.00	12400.00	19.00	228.00	N/A	650.00	40.0	40.00	3700.00	3220.00	Lateral
Slide	12-13	08:25	08:45	12-13	0.33	12400.00	12412.00	12.00	36.00	160.0		N/A				Lateral
Rotate	12-13	08:45	09:15	12-13	0.5	12412.00	12477.00	65.00	130.00	N/A						Lateral
Rotate	12-13	09:20	10:25	12-13	1.08	12477.00	12572.00	95.00	87.69	N/A	650.00	30.0	42.00	3700.00	3200.00	Lateral
Rotate	12-13	10:30	11:30	12-13	1.0	12572.00	12668.00	96.00	96.00	N/A	650.00	30.0	42.00	3700.00	3200.00	Lateral
Rotate	12-13	11:35	13:50	12-13	2.25	12668.00	12763.00	95.00	42.22	N/A						Lateral
Rotate	12-13	13:55	14:30	12-13	0.58	12763.00	12785.00	22.00	37.71	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-13	14:30	14:55	12-13	0.42	12785.00	12790.00	5.00	12.00	30.0		N/A				Lateral
Rotate	12-13	14:55	15:55	12-13	1.0	12790.00	12859.00	69.00	69.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	16:00	16:05	12-13	0.08	12859.00	12869.00	10.00	120.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-13	16:05	17:05	12-13	1.0	12869.00	12884.00	15.00	15.00	16.0		N/A				Lateral
Rotate	12-13	17:05	18:00	12-13	0.92	12884.00	12955.00	71.00	77.45	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	18:05	18:10	12-13	0.08	12955.00	12961.00	6.00	72.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-13	18:10	18:20	12-13	0.17	12961.00	12976.00	15.00	90.00	130.0	650.00	N/A	45.00	3750.00	3300.00	Lateral
Rotate	12-13	18:20	18:55	12-13	0.58	12976.00	13051.00	75.00	128.57	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	19:00	19:05	12-13	0.08	13051.00	13060.00	9.00	108.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-13	19:05	19:30	12-13	0.42	13060.00	13085.00	25.00	60.00	180.0	650.00	N/A	45.00	3750.00	3300.00	Lateral
Rotate	12-13	19:30	20:40	12-13	1.17	13085.00	13146.00	61.00	52.29	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	20:45	20:50	12-13	0.08	13146.00	13151.00	5.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral

Slide	12-13	20:50	21:10	12-13	0.33	13151.00	13163.00	12.00	36.00	180.0	650.00	N/A	45.00	3750.00	3300.00	Lateral
Rotate	12-13	21:10	22:10	12-13	1.0	13163.00	13242.00	79.00	79.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	22:15	23:40	12-13	1.42	13242.00	13337.00	95.00	67.06	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-13	23:45	00:50	12-14	1.08	13337.00	13432.00	95.00	87.69	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	00:55	01:40	12-14	0.75	13432.00	13527.00	95.00	126.67	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	01:45	02:50	12-14	1.08	13527.00	13623.00	96.00	88.62	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	02:55	03:00	12-14	0.08	13623.00	13628.00	5.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	03:00	03:45	12-14	0.75	13628.00	13653.00	25.00	33.33	120.0	650.00	N/A	45.00	3750.00	3300.00	Lateral
Rotate	12-14	03:45	04:50	12-14	1.08	13653.00	13718.00	65.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	04:55	05:00	12-14	0.08	13718.00	13725.00	7.00	84.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	05:00	05:15	12-14	0.25	13725.00	13740.00	15.00	60.00	90.0	650.00	N/A	45.00	3750.00	3300.00	Lateral
Rotate	12-14	05:15	06:25	12-14	1.17	13740.00	13813.00	73.00	62.57	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	06:30	07:45	12-14	1.25	13813.00	13909.00	96.00	76.80	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	07:50	07:55	12-14	0.08	13909.00	13919.00	10.00	120.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	07:55	09:15	12-14	1.33	13919.00	13949.00	30.00	22.50	90.0		N/A				Lateral
Rotate	12-14	09:15	10:00	12-14	0.75	13949.00	14004.00	55.00	73.33	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	10:05	10:25	12-14	0.33	14004.00	14019.00	15.00	45.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	10:25	11:15	12-14	0.83	14019.00	14039.00	20.00	24.00	90.0		N/A				Lateral
Rotate	12-14	11:15	11:35	12-14	0.33	14039.00	14049.00	10.00	30.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	11:35	12:20	12-14	0.75	14049.00	14069.00	20.00	26.67	110.0		N/A				Lateral
Rotate	12-14	12:20	12:45	12-14	0.42	14069.00	14100.00	31.00	74.40	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	12:50	14:20	12-14	1.5	14100.00	14195.00	95.00	63.33	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	14:25	16:25	12-14	2.0	14195.00	14291.00	96.00	48.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	16:40	17:50	12-14	1.17	14291.00	14387.00	96.00	82.29	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	17:55	19:20	12-14	1.42	14387.00	14482.00	95.00	67.06	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	19:25	19:30	12-14	0.08	14482.00	14489.00	7.00	84.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	19:30	19:55	12-14	0.42	14489.00	14514.00	25.00	60.00	180.0	700.00	N/A	28.00	4200.00	3800.00	Lateral
Rotate	12-14	19:55	20:45	12-14	0.83	14514.00	14578.00	64.00	76.80	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-14	20:50	21:40	12-14	0.83	14578.00	14628.00	50.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	21:45	22:25	12-14	0.67	14628.00	14663.00	35.00	52.50	210.0	700.00	N/A	28.00	4200.00	3800.00	Lateral
Rotate	12-14	22:25	23:35	12-14	1.17	14663.00	14726.00	63.00	54.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-14	23:40	00:10	12-15	0.5	14726.00	14751.00	25.00	50.00	220.0	700.00	N/A	28.00	4200.00	3800.00	Lateral
Rotate	12-15	00:10	01:25	12-15	1.25	14751.00	14815.00	64.00	51.20	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	01:30	02:25	12-15	0.92	14815.00	14865.00	50.00	54.55	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	02:30	02:35	12-15	0.08	14865.00	14871.00	6.00	72.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	02:35	03:05	12-15	0.5	14871.00	14886.00	15.00	30.00	315.0	700.00	N/A	28.00	4200.00	3800.00	Lateral
Rotate	12-15	03:05	04:25	12-15	1.33	14886.00	14961.00	75.00	56.25	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	04:30	04:35	12-15	0.08	14961.00	14967.00	6.00	72.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	04:35	05:05	12-15	0.5	14967.00	14982.00	15.00	30.00	320.0	700.00	N/A	28.00	4200.00	3800.00	Lateral
Rotate	12-15	05:05	06:30	12-15	1.42	14982.00	15056.00	74.00	52.24	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	06:35	08:50	12-15	2.25	15056.00	15151.00	95.00	42.22	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	08:55	09:15	12-15	0.33	15151.00	15166.00	15.00	45.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	09:15	10:00	12-15	0.75	15166.00	15196.00	30.00	40.00	160.0		N/A				Lateral
Rotate	12-15	10:00	11:00	12-15	1.0	15196.00	15247.00	51.00	51.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	11:05	11:15	12-15	0.17	15247.00	15262.00	15.00	90.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	11:15	12:20	12-15	1.08	15262.00	15292.00	30.00	27.69	180.0		N/A				Lateral
Rotate	12-15	12:20	13:00	12-15	0.67	15292.00	15343.00	51.00	76.50	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	13:05	13:30	12-15	0.42	15343.00	15358.00	15.00	36.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	13:30	14:05	12-15	0.58	15358.00	15373.00	15.00	25.71	30.0		N/A				Lateral
Rotate	12-15	14:05	14:45	12-15	0.67	15373.00	15439.00	66.00	99.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	14:50	16:30	12-15	1.67	15439.00	15534.00	95.00	57.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	16:55	17:05	12-15	0.17	15534.00	15544.00	10.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	17:05	17:35	12-15	0.5	15544.00	15554.00	10.00	20.00	30.0		N/A				Lateral
Rotate	12-15	17:35	18:50	12-15	1.25	15554.00	15629.00	75.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	18:55	19:00	12-15	0.08	15629.00	15635.00	6.00	72.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	19:00	20:00	12-15	1.0	15635.00	15660.00	25.00	25.00	50.0	700.00	N/A	30.00	4260.00	3960.00	Lateral
Rotate	12-15	20:00	21:05	12-15	1.08	15660.00	15724.00	64.00	59.08	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	21:10	21:15	12-15	0.08	15724.00	15730.00	6.00	72.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	21:15	22:05	12-15	0.83	15730.00	15760.00	30.00	36.00	70.0	700.00	N/A	30.00	4260.00	3960.00	Lateral
Rotate	12-15	22:05	23:15	12-15	1.17	15760.00	15820.00	60.00	51.43	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-15	23:20	23:25	12-15	0.08	15820.00	15825.00	5.00	60.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-15	23:25	00:30	12-16	1.08	15825.00	15855.00	30.00	27.69	90.0	700.00	N/A	30.00	4260.00	3960.00	Lateral
Rotate	12-16	00:30	02:10	12-16	1.67	15855.00	15916.00	61.00	36.60	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-16	02:15	02:20	12-16	0.08	15916.00	15924.00	8.00	96.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Slide	12-16	02:20	03:05	12-16	0.75	15924.00	15943.00	19.00	25.33	130.0	700.00	N/A	30.00	4260.00	3960.00	Lateral
Rotate	12-16	03:05	03:35</													



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Slide/Rotate Report - BHA #7 (8.75" LATERAL ASSEMBLY )**

Activity	Start Date	Start Time	End Time	End Date	Hours	Start Depth (ft)	End Depth (ft)	Distance (ft)	RoP (ft/h)	Toolface	Flow Rate (gpm)	Surface RPM	WOB (klbs)	Press On (psi)	Press Off (psi)	Hole Section Type
Rotate	12-16	23:10	23:15	12-16	0.08	16104.00	16106.00	2.00	24.00	N/A	650.00	30.0	42.00	3950.00	3400.00	Lateral
Rotate	12-16	23:20	23:25	12-16	0.08	16106.00	16115.00	9.00	108.00	N/A	650.00	40.0	42.00	4300.00	3800.00	Lateral
Slide	12-16	23:25	00:00	12-17	0.58	16115.00	16135.00	20.00	34.29	150.0	650.00	N/A	30.00	4150.00	3800.00	Lateral
Rotate	12-17	00:00	00:45	12-17	0.75	16135.00	16202.00	67.00	89.33	N/A	650.00	40.0	42.00	4300.00	3800.00	Lateral
Rotate	12-17	00:50	01:50	12-17	1.0	16202.00	16297.00	95.00	95.00	N/A	650.00	40.0	42.00	4300.00	3800.00	Lateral
Rotate	12-17	01:55	02:00	12-17	0.08	16297.00	16310.00	13.00	156.00	N/A	650.00	40.0	42.00	4300.00	3800.00	Lateral
Slide	12-17	02:00	02:55	12-17	0.92	16310.00	16340.00	30.00	32.73	180.0	650.00	N/A	30.00	4150.00	3800.00	Lateral
Rotate	12-17	02:55	03:40	12-17	0.75	16340.00	16393.00	53.00	70.67	N/A	650.00	40.0	42.00	4300.00	3800.00	Lateral
Rotate	12-17	03:45	03:50	12-17	0.08	16393.00	16403.00	10.00	120.00	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Slide	12-17	03:50	04:20	12-17	0.5	16403.00	16423.00	20.00	40.00	180.0	700.00	N/A	35.00	4500.00	4200.00	Lateral
Rotate	12-17	04:20	05:00	12-17	0.67	16423.00	16489.00	66.00	99.00	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Rotate	12-17	05:05	06:05	12-17	1.0	16489.00	16584.00	95.00	95.00	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Rotate	12-17	06:10	06:20	12-17	0.17	16584.00	16594.00	10.00	60.00	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Slide	12-17	06:20	07:40	12-17	1.33	16594.00	16624.00	30.00	22.50	30.0		N/A				Lateral
Rotate	12-17	07:40	07:45	12-17	0.08	16624.00	16669.00	45.00	540.00	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Slide	12-17	07:45	09:15	12-17	1.5	16669.00	16679.00	10.00	6.67	60.0		N/A				Lateral
Slide	12-17	09:20	10:15	12-17	0.92	16679.00	16704.00	25.00	27.27	30.0		N/A				Lateral
Rotate	12-17	10:15	11:20	12-17	1.08	16704.00	16775.00	71.00	65.54	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral
Rotate	12-17	11:25	13:15	12-17	1.83	16775.00	16905.00	130.00	70.91	N/A	700.00	50.0	42.00	4700.00	4200.00	Lateral



# Daily Reports

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Monday, Nov 15 00:00 - 23:59 (Day 1 of 21)**

**Billing:** \$500.00 (\$153,503.78 total)

Drilling Summary			Drilling Parameters		
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-15	00:00	23:55	11-15			Rig Move

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Tuesday, Nov 16 00:00 - 23:59 (Day 2 of 21)**

**Billing:** \$500.00 (\$153,503.78 total)

Drilling Summary			Drilling Parameters		
Start Depth (ft)	Downhole Hours	0.00	Rotating WOB (klbs)		
Bit Depth (ft)	Drilling Hours		Sliding WOB (klbs)		
Bottom Hole Depth (ft)	Hours Circulating		Rotating SPM		
Total Distance (ft)	Hours Sliding		Sliding SPM		
Distance Rotated (ft)	Hours Rotating		Motor RPM		-
Distance Slid (ft)			Surface RPM		
Inclination In			Flow Rate (gpm)		
Inclination Out			On Bottom Pressure (psi)		
Azimuth In	% Hours Rotating		Off Bottom Pressure (psi)		
Azimuth Out	% Hours Sliding				
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-16	00:00	09:00	11-18			Standby while move rig & rig up on new location

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Wednesday, Nov 17 00:00 - 23:59 (Day 3 of 21)**

**Billing: \$8,900.00 (\$153,503.78 total)**

Drilling Summary			Drilling Parameters		
Start Depth (ft)	Downhole Hours	0.00	Rotating WOB (klbs)		
Bit Depth (ft)	Drilling Hours		Sliding WOB (klbs)		
Bottom Hole Depth (ft)	Hours Circulating		Rotating SPM		
Total Distance (ft)	Hours Sliding		Sliding SPM		
Distance Rotated (ft)	Hours Rotating		Motor RPM		-
Distance Slid (ft)			Surface RPM		
Inclination In			Flow Rate (gpm)		
Inclination Out			On Bottom Pressure (psi)		
Azimuth In	% Hours Rotating		Off Bottom Pressure (psi)		
Azimuth Out	% Hours Sliding				
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-16	00:00	09:00	11-18			Standby while move rig & rig up on new location

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Thursday, Nov 18 00:00 - 23:59 (Day 4 of 21)

Billing: \$9,500.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	155.00	Downhole Hours	12.00	Rotating WOB (klbs)	5.00 - 20.00		
Bit Depth (ft)	1275.00	Drilling Hours	6.17	Sliding WOB (klbs)	15.00 - 15.00		
Bottom Hole Depth (ft)	1275.00	Hours Circulating	0.50	Rotating SPM	189.00 - 294.00		
Total Distance (ft)	1120.00	Hours Sliding	0.17	Sliding SPM	225.00 - 225.00		
Distance Rotated (ft)	1100.00	Hours Rotating	6.00	Motor RPM	100.00 - 136.00		
Distance Slid (ft)	20.00			Surface RPM	50.00 - 60.00		
Inclination In	1.32			Flow Rate (gpm)	550.00 - 854.00		
Inclination Out	1.05			On Bottom Pressure (psi)	650.00 - 2900.00		
Azimuth In	283.44	% Hours Rotating	97%	Off Bottom Pressure (psi)	600.00 - 1600.00		
Azimuth Out	223.41	% Hours Sliding	3%				
AVG Total ROP (ft/h)	181.62	% Distance Sliding	2%				
AVG Rotating ROP (ft/h)	183.33	% Distance Rotating	98%				
AVG Sliding ROP (ft/h)	120.00						

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #1 - 17.50" SURFACE**

Date In: Nov 18, 2021, 9:30 Date Out: Nov 18, 2021, 21:30

Bit Details		Motor Details		Directional Comments	
OD (in)	17.500	Size (in)	8.0	Directional: 8" Motor: 1.75° FXD 7/8 5.9 Stg w/ 17" STAB, Flow Range: 400-900 GPM, Max Diff: 1330 psi, Max Torque: 22,020 ft/lbs, RPG: 0.16 Bit Runs: 4	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.9		
S/N	56546	Bend Angle	1.75		
Nozzles	9x12's	Speed (rev/gal)	0.16		
Total Flow Area (in²)	0.994	Wear Pad OD (in)	8.250		
Drilling Hours for Day	6.17	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1120.00	Survey (Bit To Survey ): 72.00 ft, Bend (Bit To Bend ): 6.19 ft			
Drilling Hours for BHA	6.17			<b>POOH Reason</b>	
Total Drilled for BHA (ft)	1120.00			Total Depth/Casing Point: POOH Surface TD	

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 17.50	ULTERRA	56546	6 5/8" Reg Pin			17.500		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 7/8 5.9 1.75 FXD w/ 17" NBS, Size (in): 8.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.9	Aim	800-40-008	6 5/8" Reg Box	6 5/8" Reg Box		8.000		40.57	42.07
<b>Stabilizer</b> Description: 17" STABILIZER	JAO	JAO 7623	6 5/8" Reg Box	6 5/8" Reg Pin	3.063	8.250		7.53	49.60
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800226	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		3.97	53.57
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	83.98
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	114.65
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	118.02

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-16	00:00	09:00	11-18			Standby while move rig & rig up on new location
Pick Up BHA	64	11-18	09:00	09:30	11-18			P/U BHA#1
Rig Repair	14	11-18	09:30	10:30	11-18			Rig Repair
Pick Up BHA	64	11-18	10:30	11:45	11-18			Continue P/U BHA#1

Rotary Drill	1	11-18	11:45	13:05	11-18	155.00	209.00	Pressure On (psi): 650.00, Pressure Off (psi): 600.00, Weight On Bit (klbs): 5.00, Surface RPM: 50, Surface Torque (ft lbf): 2000.00, Flow Rate (gpm): 550.00, Strokes Per Minute: 189.00
Connection	33	11-18	13:05	13:10	11-18			Connection
Rotary Drill	1	11-18	13:10	13:30	11-18	209.00	269.00	Pressure On (psi): 1300.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 10.00, Surface RPM: 60, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225.00
Survey	46	11-18	13:30	13:35	11-18	269.00	269.00	Inclination (°): 1.320, Azimuth (°): 283.440, TVD (ft): 196.98, Dogleg (°/100 ft): 0.67, Sensor Depth (ft): 197.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	13:35	13:40	11-18	269.00	299.00	Pressure On (psi): 1300.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 10.00, Surface RPM: 60, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225.00
Connection	33	11-18	13:40	13:45	11-18			Connection
Rotary Drill	1	11-18	13:45	14:20	11-18	299.00	389.00	Pressure On (psi): 1300.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 10.00, Surface RPM: 60, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225.00
Survey	46	11-18	14:20	14:25	11-18	389.00	389.00	Inclination (°): 1.450, Azimuth (°): 280.810, TVD (ft): 316.95, Dogleg (°/100 ft): 0.12, Sensor Depth (ft): 317.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	14:25	14:30	11-18	389.00	404.00	Pressure On (psi): 1300.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 10.00, Surface RPM: 60, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225.00
Slide Drill	2	11-18	14:30	14:40	11-18	404.00	424.00	Pressure On (psi): 1500.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 15.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225, Toolface: 100, Toolface Type: magnetic
Rotary Drill	1	11-18	14:40	14:55	11-18	424.00	479.00	Pressure On (psi): 1300.00, Pressure Off (psi): 900.00, Weight On Bit (klbs): 10.00, Surface RPM: 60, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 654.00, Strokes Per Minute: 225.00
Connection	33	11-18	14:55	15:00	11-18			Connection
Rotary Drill	1	11-18	15:00	15:20	11-18	479.00	569.00	Pressure On (psi): 2150.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	15:20	15:25	11-18	569.00	569.00	Inclination (°): 0.660, Azimuth (°): 98.780, TVD (ft): 496.93, Dogleg (°/100 ft): 1.17, Sensor Depth (ft): 497.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	15:25	15:40	11-18	569.00	660.00	Pressure On (psi): 2150.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	15:40	15:45	11-18	660.00	660.00	Inclination (°): 0.660, Azimuth (°): 105.020, TVD (ft): 587.93, Dogleg (°/100 ft): 0.08, Sensor Depth (ft): 588.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	15:45	16:05	11-18	660.00	751.00	Pressure On (psi): 2150.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Connection	33	11-18	16:05	16:10	11-18			Connection
Rotary Drill	1	11-18	16:10	16:40	11-18	751.00	842.00	Pressure On (psi): 2150.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 14000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	16:40	16:45	11-18	842.00	842.00	Inclination (°): 0.480, Azimuth (°): 136.050, TVD (ft): 769.92, Dogleg (°/100 ft): 0.19, Sensor Depth (ft): 770.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	16:45	17:00	11-18	842.00	932.00	Pressure On (psi): 2900.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Connection	33	11-18	17:00	17:05	11-18			Connection
Rotary Drill	1	11-18	17:05	17:15	11-18	932.00	1023.00	Pressure On (psi): 2900.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	17:15	17:20	11-18	1023.00	1023.00	Inclination (°): 0.570, Azimuth (°): 216.820, TVD (ft): 950.91, Dogleg (°/100 ft): 0.38, Sensor Depth (ft): 951.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	17:20	17:50	11-18	1023.00	1113.00	Pressure On (psi): 2900.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Rotary Drill	1	11-18	17:50	18:25	11-18	1113.00	1204.00	Pressure On (psi): 2900.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	18:25	18:30	11-18	1204.00	1204.00	Inclination (°): 1.050, Azimuth (°): 229.130, TVD (ft): 1131.89, Dogleg (°/100 ft): 0.28, Sensor Depth (ft): 1132.00, Bit To Sensor (ft): 72.00
Rotary Drill	1	11-18	18:30	18:55	11-18	1204.00	1275.00	Pressure On (psi): 2900.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 20.00, Surface RPM: 60, Surface Torque (ft lbf): 25000.00, Flow Rate (gpm): 854.00, Strokes Per Minute: 294.00
Survey	46	11-18	18:55	19:00	11-18	1275.00	1275.00	Inclination (°): 1.050, Azimuth (°): 223.410, TVD (ft): 1202.88, Dogleg (°/100 ft): 0.15, Sensor Depth (ft): 1203.00, Bit To Sensor (ft): 72.00
Circulating	3	11-18	19:00	19:30	11-18			Circulate And Condition Hole Clean Surface TD
Pooh	7	11-18	19:30	20:30	11-18			POOH To Surface BHA

Lay Down BHA	65	11-18	20:30	21:30	11-18			L/D MWD, Stab, Bit, Rack Back Surface BHA In Derrick
Other	16	11-18	21:30	00:00	11-19			R/U And Run Surface Casing

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Nov 19 00:00 - 23:59 (Day 5 of 21)

Billing: N/A (\$153,503.78 total)

Drilling Summary			Drilling Parameters		
Start Depth (ft)	Downhole Hours	12.25	Rotating WOB (klbs)		
Bit Depth (ft)	Drilling Hours	0.00	Sliding WOB (klbs)		
Bottom Hole Depth (ft)	Hours Circulating	0.08	Rotating SPM		
Total Distance (ft)	Hours Sliding	0.00	Sliding SPM		
Distance Rotated (ft)	Hours Rotating	0.00	Motor RPM	136.00 - 40.00	
Distance Slid (ft)			Surface RPM		
Inclination In			Flow Rate (gpm)		
Inclination Out			On Bottom Pressure (psi)		
Azimuth In	% Hours Rotating		Off Bottom Pressure (psi)		
Azimuth Out	% Hours Sliding				
AVG Total ROP (ft/h)	% Distance Sliding				
AVG Rotating ROP (ft/h)	% Distance Rotating				
AVG Sliding ROP (ft/h)					

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #2 - 12.25" INTERMEDIATE**

Date In: Nov 19, 2021, 11:45 Date Out: Nov 21, 2021, 23:30

Bit Details		Motor Details		Directional Comments
OD (in)	12.250	Size (in)	8.75	Directional: 8 3/4" Motor: 1.75° FXD 6.7 6.6 Stg w/ 12" STAB, Flow Range: 600-1300 GPM, Max Diff: 1650 psi, Max Torque: 31,480 ft/lbs, RPG: 0.155 Bit Runs: 1
Vendor	ULTERRA	Lobe/Stage	6/7, 6.6	
S/N	56281	Bend Angle	1.75	
Nozzles	9x12's	Speed (rev/gal)	0.16	
Total Flow Area (in²)	0.994	Wear Pad OD (in)	8.250	<b>MWD Comments</b>
Drilling Hours for Day		<b>Bit Distances</b>		<b>POOH Reason</b> Total Depth/Casing Point: POOH To L/D Intermediate Assembly. Intermediate Section TD
Total Drilled for Day (ft)		Survey (Bit To Survey):		
Drilling Hours for BHA	19.08	Bend (Bit To Bend): 6.55 ft		
Total Drilled for BHA (ft)	3500.00			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: RPS616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 12.25	ULTERRA	56281	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 6/7 6.6 1.75 FXD w/ 12" NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-003	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.95	40.45
<b>Stabilizer</b> Description: 12" STABILIZER	JAO	JAO 12584	6 5/8" Reg Box	6 5/8" Reg Pin	2.600	8.250		6.76	47.21
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800228	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		4.12	51.33
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	81.74
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	112.41
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	115.78

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	11-18	21:30	00:00	11-19			R/U And Run Surface Casing
Drilling Cement	17	11-19	00:00	00:05	11-19	1275.00	1275.00	

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

**Saturday, Nov 20 00:00 - 23:59 (Day 6 of 21)**

**Billing: \$5,600.00 (\$153,503.78 total)**

Drilling Summary				Drilling Parameters			
Start Depth (ft)	1275.00	Downhole Hours	24.00	Rotating WOB (klbs)	10.00 - 35.00		
Bit Depth (ft)	2446.00	Drilling Hours	4.17	Sliding WOB (klbs)	21.00 - 26.00		
Bottom Hole Depth (ft)	2446.00	Hours Circulating	0.50	Rotating SPM	276.00 - 276.00		
Total Distance (ft)	1171.00	Hours Sliding	0.50	Sliding SPM	276.00 - 276.00		
Distance Rotated (ft)	1081.00	Hours Rotating	3.67	Motor RPM	136.00 - 40.00		
Distance Slid (ft)	90.00			Surface RPM	40.00 - 40.00		
Inclination In	1.54			Flow Rate (gpm)	800.00 - 800.00		
Inclination Out	1.14			On Bottom Pressure (psi)	1700.00 - 2100.00		
Azimuth In	219.55	% Hours Rotating	88%	Off Bottom Pressure (psi)	1300.00 - 14550.01		
Azimuth Out	71.54	% Hours Sliding	12%				
AVG Total ROP (ft/h)	281.04	% Distance Sliding	8%				
AVG Rotating ROP (ft/h)	294.82	% Distance Rotating	92%				
AVG Sliding ROP (ft/h)	180.00						

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #2 - 12.25" INTERMEDIATE**

**Date In: Nov 19, 2021, 11:45 Date Out: Nov 21, 2021, 23:30**

Bit Details		Motor Details		Directional Comments	
OD (in)	12.250	Size (in)	8.75	Directional: 8 3/4" Motor: 1.75° FXD 6.7 6.6 Stg w/ 12" STAB, Flow Range: 600-1300 GPM, Max Diff: 1650 psi, Max Torque: 31,480 ft/lbs, RPG: 0.155	
Vendor	ULTERRA	Lobe/Stage	6/7, 6.6	Bit Runs: 1	
S/N	56281	Bend Angle	1.75		
Nozzles	9x12's	Speed (rev/gal)	0.16	<b>MWD Comments</b>	
Total Flow Area (in²)	0.994	Wear Pad OD (in)	8.250		
Drilling Hours for Day	4.17	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1171.00	Survey (Bit To Survey):		<b>POOH Reason</b>	
Drilling Hours for BHA	19.08	69.00 ft, Bend (Bit To Bend): 6.55 ft		Total Depth/Casing Point: POOH To L/D Intermediate Assembly. Intermediate Section TD	
Total Drilled for BHA (ft)	3500.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: RPS616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 12.25	ULTERRA	56281	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 6/7 6.6 1.75 FXD w/ 12" NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-003	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.95	40.45
<b>Stabilizer</b> Description: 12" STABILIZER	JAO	JAO 12584	6 5/8" Reg Box	6 5/8" Reg Pin	2.600	8.250		6.76	47.21
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800228	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		4.12	51.33
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	81.74
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	112.41
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	115.78

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	11-20	00:00	15:45	11-20			Standby Skid Rig, Rig Up BOPE
Pick Up BHA	64	11-20	15:45	17:00	11-20			P/U Intermediate Assembly
TIH	8	11-20	17:00	18:30	11-20			TIH to Float Collar
Circulating	3	11-20	18:30	19:00	11-20			Drill Out Float And Shoe

Rotary Drill	1	11-20	19:00	19:35	11-20	1275.00	1421.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 10.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	19:35	19:40	11-20	1421.00	1421.00	Inclination (°): 1.540, Azimuth (°): 219.550, TVD (ft): 1351.84, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 1352.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	19:40	20:00	11-20	1421.00	1499.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 10.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-20	20:00	20:10	11-20	1499.00	1529.00	Pressure On (psi): 1900.00, Pressure Off (psi): 14550.01, Weight On Bit (klbs): 21.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 30, Toolface Type: magnetic
Rotary Drill	1	11-20	20:10	20:30	11-20	1529.00	1581.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	20:30	20:35	11-20	1581.00	1581.00	Inclination (°): 0.700, Azimuth (°): 31.280, TVD (ft): 1511.83, Dogleg (°/100 ft): 1.40, Sensor Depth (ft): 1512.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	20:35	20:45	11-20	1581.00	1676.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	20:45	20:50	11-20	1676.00	1676.00	Inclination (°): 2.680, Azimuth (°): 36.120, TVD (ft): 1606.78, Dogleg (°/100 ft): 2.09, Sensor Depth (ft): 1607.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	20:50	21:10	11-20	1676.00	1771.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	21:10	21:15	11-20	1771.00	1771.00	Inclination (°): 2.680, Azimuth (°): 40.430, TVD (ft): 1701.68, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 1702.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	21:15	21:20	11-20	1771.00	1798.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-20	21:20	21:25	11-20	1798.00	1818.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 200, Toolface Type: magnetic
Rotary Drill	1	11-20	21:25	21:35	11-20	1818.00	1867.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	21:35	21:40	11-20	1867.00	1867.00	Inclination (°): 1.760, Azimuth (°): 77.600, TVD (ft): 1797.61, Dogleg (°/100 ft): 1.73, Sensor Depth (ft): 1798.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	21:40	22:05	11-20	1867.00	1963.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	22:05	22:10	11-20	1963.00	1963.00	Inclination (°): 1.930, Azimuth (°): 118.210, TVD (ft): 1893.57, Dogleg (°/100 ft): 1.34, Sensor Depth (ft): 1894.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	22:10	22:25	11-20	1963.00	2059.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	22:25	22:30	11-20	2059.00	2059.00	Inclination (°): 2.240, Azimuth (°): 121.990, TVD (ft): 1989.50, Dogleg (°/100 ft): 0.35, Sensor Depth (ft): 1990.00, Bit To Sensor (ft): 69.00
Slide Drill	2	11-20	22:30	22:40	11-20	2059.00	2079.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 300, Toolface Type: magnetic
Rotary Drill	1	11-20	22:40	22:55	11-20	2079.00	2154.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	22:55	23:00	11-20	2154.00	2154.00	Inclination (°): 0.620, Azimuth (°): 65.830, TVD (ft): 2084.47, Dogleg (°/100 ft): 2.07, Sensor Depth (ft): 2085.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	23:00	23:15	11-20	2154.00	2249.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	23:15	23:20	11-20	2249.00	2249.00	Inclination (°): 0.790, Azimuth (°): 44.200, TVD (ft): 2179.46, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 2180.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	23:20	23:35	11-20	2249.00	2345.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-20	23:35	23:40	11-20	2345.00	2345.00	Inclination (°): 1.140, Azimuth (°): 71.540, TVD (ft): 2275.45, Dogleg (°/100 ft): 0.59, Sensor Depth (ft): 2276.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-20	23:40	23:45	11-20	2345.00	2350.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-20	23:45	23:50	11-20	2350.00	2370.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	11-20	23:50	00:00	11-21	2370.00	2446.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Sunday, Nov 21 00:00 - 23:59 (Day 7 of 21)**

**Billing: \$5,600.00 (\$153,503.78 total)**

Drilling Summary				Drilling Parameters	
<b>Start Depth (ft)</b>	2441.00	<b>Downhole Hours</b>	23.50	<b>Rotating WOB (klbs)</b>	35.00 - 54.00
<b>Bit Depth (ft)</b>	4775.00	<b>Drilling Hours</b>	14.92	<b>Sliding WOB (klbs)</b>	26.00 - 30.00
<b>Bottom Hole Depth (ft)</b>	4775.00	<b>Hours Circulating</b>	0.92	<b>Rotating SPM</b>	276.00 - 294.00
<b>Total Distance (ft)</b>	2329.00	<b>Hours Sliding</b>	3.75	<b>Sliding SPM</b>	276.00 - 294.00
<b>Distance Rotated (ft)</b>	2104.00	<b>Hours Rotating</b>	11.17	<b>Motor RPM</b>	136.00 - 40.00
<b>Distance Slid (ft)</b>	225.00			<b>Surface RPM</b>	40.00 - 50.00
<b>Inclination In</b>	0.57			<b>Flow Rate (gpm)</b>	800.00 - 850.00
<b>Inclination Out</b>	1.63			<b>On Bottom Pressure (psi)</b>	1700.00 - 3150.00
<b>Azimuth In</b>	77.43	<b>% Hours Rotating</b>	75%	<b>Off Bottom Pressure (psi)</b>	1300.00 - 2150.00
<b>Azimuth Out</b>	294.34	<b>% Hours Sliding</b>	25%		
<b>AVG Total ROP (ft/h)</b>	159.45	<b>% Distance Sliding</b>	10%		
<b>AVG Rotating ROP (ft/h)</b>	192.35	<b>% Distance Rotating</b>	90%		
<b>AVG Sliding ROP (ft/h)</b>	60.00				

**Personnel**

Name	Position
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #2 - 12.25" INTERMEDIATE**

**Date In: Nov 19, 2021, 11:45 Date Out: Nov 21, 2021, 23:30**

Bit Details		Motor Details		Directional Comments
<b>OD (in)</b>	12.250	<b>Size (in)</b>	8.75	Directional: 8 3/4" Motor: 1.75° FXD 6.7 6.6 Stg w/ 12" STAB, Flow Range: 600-1300 GPM, Max Diff: 1650 psi, Max Torque: 31,480 ft/lbs, RPG: 0.155 Bit Runs: 1
<b>Vendor</b>	ULTERRA	<b>Lobe/Stage</b>	6/7, 6.6	
<b>S/N</b>	56281	<b>Bend Angle</b>	1.75	
<b>Nozzles</b>	9x12's	<b>Speed (rev/gal)</b>	0.16	
<b>Total Flow Area (in²)</b>	0.994	<b>Wear Pad OD (in)</b>	8.250	<b>MWD Comments</b>
<b>Drilling Hours for Day</b>	14.92	<b>Bit Distances</b>		<b>POOH Reason</b> Total Depth/Casing Point: POOH To L/D Intermediate Assembly. Intermediate Section TD
<b>Total Drilled for Day (ft)</b>	2334.00	<b>Survey (Bit To Survey) :</b>		
<b>Drilling Hours for BHA</b>	19.08	<b>Bend (Bit To Bend) :</b> 6.55 ft		
<b>Total Drilled for BHA (ft)</b>	3500.00			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: RPS616, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 12.25	ULTERRA	56281	6 5/8" Reg Pin			12.250		1.50	1.50
<b>Mud Motor</b> Description: 8" Motor 6/7 6.6 1.75 FXD w/ 12" NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 6, Stator Lobe: 7, Stator Stage: 6.6	Aim	CDM875-003	6 5/8" Reg Box	6 5/8" Reg Box		8.000		38.95	40.45
<b>Stabilizer</b> Description: 12" STABILIZER	JAO	JAO 12584	6 5/8" Reg Box	6 5/8" Reg Pin	2.600	8.250		6.76	47.21
<b>UBHO Sub</b> Description: NM UBHO, Material: Steel	AIM	800228	6 5/8" Reg Box	6 5/8" Reg Pin	2.875	8.000		4.12	51.33
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030287	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.000		30.41	81.74
<b>Drill Collar</b> Description: 8" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	GT8030601	6 5/8" Reg Box	6 5/8" Reg Pin	3.250	8.063		30.67	112.41
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6258	CET54 Box	6 5/8" Reg Pin	3.000	6.750		3.37	115.78

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	11-20	23:50	00:00	11-21	2370.00	2446.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	00:00	00:05	11-21	2441.00	2441.00	Inclination (°): 0.570, Azimuth (°): 77.430, TVD (ft): 2371.44, Dogleg (°/100 ft): 0.60, Sensor Depth (ft): 2372.00, Bit To Sensor (ft): 69.00

Slide Drill	2	11-21	00:05	00:10	11-21	2446.00	2466.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1400.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	11-21	00:10	00:30	11-21	2466.00	2537.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	00:30	00:35	11-21	2537.00	2537.00	Inclination (°): 1.100, Azimuth (°): 242.050, TVD (ft): 2467.44, Dogleg (°/100 ft): 1.73, Sensor Depth (ft): 2468.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	00:35	01:15	11-21	2537.00	2728.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	01:15	01:20	11-21	2728.00	2728.00	Inclination (°): 1.050, Azimuth (°): 220.600, TVD (ft): 2658.40, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 2659.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	01:20	01:30	11-21	2728.00	2824.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	01:30	01:35	11-21	2824.00	2824.00	Inclination (°): 0.750, Azimuth (°): 186.850, TVD (ft): 2754.39, Dogleg (°/100 ft): 0.62, Sensor Depth (ft): 2755.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	01:35	01:55	11-21	2824.00	2920.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	01:55	02:00	11-21	2920.00	2920.00	Inclination (°): 0.790, Azimuth (°): 125.500, TVD (ft): 2850.38, Dogleg (°/100 ft): 0.82, Sensor Depth (ft): 2851.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	02:00	02:15	11-21	2920.00	3016.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	02:15	02:20	11-21	3016.00	3016.00	Inclination (°): 1.320, Azimuth (°): 99.930, TVD (ft): 2946.37, Dogleg (°/100 ft): 0.73, Sensor Depth (ft): 2947.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	02:20	02:40	11-21	3016.00	3111.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	02:40	02:45	11-21	3111.00	3111.00	Inclination (°): 2.110, Azimuth (°): 83.670, TVD (ft): 3041.33, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 3042.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	02:45	02:50	11-21	3111.00	3117.00	Pressure On (psi): 1700.00, Pressure Off (psi): 1300.00, Weight On Bit (klbs): 35.00, Surface RPM: 40, Surface Torque (ft lbf): 5000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-21	02:50	03:05	11-21	3117.00	3147.00	Pressure On (psi): 2340.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 29.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 270, Toolface Type: magnetic
Rotary Drill	1	11-21	03:05	03:30	11-21	3147.00	3207.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	03:30	03:35	11-21	3207.00	3207.00	Inclination (°): 1.890, Azimuth (°): 75.760, TVD (ft): 3137.27, Dogleg (°/100 ft): 0.37, Sensor Depth (ft): 3138.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	03:35	03:40	11-21	3207.00	3216.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-21	03:40	03:50	11-21	3216.00	3246.00	Pressure On (psi): 2340.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 29.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 260, Toolface Type: magnetic
Rotary Drill	1	11-21	03:50	04:00	11-21	3246.00	3303.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	04:00	04:05	11-21	3303.00	3303.00	Inclination (°): 0.440, Azimuth (°): 116.100, TVD (ft): 3233.25, Dogleg (°/100 ft): 1.65, Sensor Depth (ft): 3234.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	04:05	04:20	11-21	3303.00	3399.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	04:20	04:25	11-21	3399.00	3399.00	Inclination (°): 2.150, Azimuth (°): 174.110, TVD (ft): 3329.22, Dogleg (°/100 ft): 2.03, Sensor Depth (ft): 3330.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	04:25	04:30	11-21	3399.00	3407.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-21	04:30	04:40	11-21	3407.00	3437.00	Pressure On (psi): 2340.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 29.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 350, Toolface Type: magnetic
Rotary Drill	1	11-21	04:40	05:00	11-21	3437.00	3494.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	05:00	05:05	11-21	3494.00	3494.00	Inclination (°): 2.070, Azimuth (°): 199.510, TVD (ft): 3424.16, Dogleg (°/100 ft): 0.98, Sensor Depth (ft): 3425.00, Bit To Sensor (ft): 69.00

Rotary Drill	1	11-21	05:05	05:10	11-21	3494.00	3501.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-21	05:10	05:50	11-21	3501.00	3536.00	Pressure On (psi): 2340.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 29.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 0, Toolface Type: magnetic
Rotary Drill	1	11-21	05:50	06:05	11-21	3536.00	3578.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Rig Repair	14	11-21	06:05	06:30	11-21			Rig Repair
Rotary Drill	1	11-21	06:30	06:40	11-21	3578.00	3590.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	06:40	06:45	11-21	3590.00	3590.00	Inclination (°): 2.150, Azimuth (°): 265.860, TVD (ft): 3520.11, Dogleg (°/100 ft): 2.41, Sensor Depth (ft): 3521.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	06:45	07:25	11-21	3590.00	3686.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	07:25	07:30	11-21	3686.00	3686.00	Inclination (°): 2.640, Azimuth (°): 288.100, TVD (ft): 3616.02, Dogleg (°/100 ft): 1.08, Sensor Depth (ft): 3617.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	07:30	07:35	11-21	3686.00	3700.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Slide Drill	2	11-21	07:35	08:35	11-21	3700.00	3730.00	Pressure On (psi): 2340.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 29.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276, Toolface: 100, Toolface Type: magnetic
Rotary Drill	1	11-21	08:35	09:05	11-21	3730.00	3781.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Survey	46	11-21	09:05	09:10	11-21	3781.00	3781.00	Inclination (°): 1.450, Azimuth (°): 338.460, TVD (ft): 3710.97, Dogleg (°/100 ft): 2.15, Sensor Depth (ft): 3712.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	09:10	09:45	11-21	3781.00	3877.00	Pressure On (psi): 2400.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 13000.00, Flow Rate (gpm): 800.00, Strokes Per Minute: 276.00
Rig Repair	14	11-21	09:45	10:35	11-21			Work on top drive
Survey	46	11-21	10:35	10:40	11-21	3877.00	3877.00	Inclination (°): 1.930, Azimuth (°): 26.010, TVD (ft): 3806.93, Dogleg (°/100 ft): 1.49, Sensor Depth (ft): 3808.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	10:40	10:50	11-21	3877.00	3900.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Slide Drill	2	11-21	10:50	11:40	11-21	3900.00	3930.00	Pressure On (psi): 2475.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294, Toolface: 200, Toolface Type: magnetic
Rotary Drill	1	11-21	11:40	12:05	11-21	3930.00	3973.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	12:05	12:10	11-21	3973.00	3973.00	Inclination (°): 0.400, Azimuth (°): 35.770, TVD (ft): 3902.91, Dogleg (°/100 ft): 1.60, Sensor Depth (ft): 3904.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	12:10	13:00	11-21	3973.00	4069.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	13:00	13:05	11-21	4069.00	4069.00	Inclination (°): 2.020, Azimuth (°): 202.060, TVD (ft): 3998.89, Dogleg (°/100 ft): 2.51, Sensor Depth (ft): 4000.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	13:05	13:50	11-21	4069.00	4164.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	13:50	13:55	11-21	4164.00	4164.00	Inclination (°): 2.150, Azimuth (°): 207.680, TVD (ft): 4093.83, Dogleg (°/100 ft): 0.25, Sensor Depth (ft): 4095.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	13:55	14:45	11-21	4164.00	4260.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	14:45	14:50	11-21	4260.00	4260.00	Inclination (°): 2.200, Azimuth (°): 218.580, TVD (ft): 4189.76, Dogleg (°/100 ft): 0.43, Sensor Depth (ft): 4191.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	14:50	15:30	11-21	4260.00	4356.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	15:30	15:35	11-21	4356.00	4356.00	Inclination (°): 2.290, Azimuth (°): 226.400, TVD (ft): 4285.69, Dogleg (°/100 ft): 0.33, Sensor Depth (ft): 4287.00, Bit To Sensor (ft): 69.00

Rotary Drill	1	11-21	15:35	15:55	11-21	4356.00	4452.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	15:55	16:00	11-21	4452.00	4452.00	Inclination (°): 2.290, Azimuth (°): 229.570, TVD (ft): 4381.61, Dogleg (°/100 ft): 0.13, Sensor Depth (ft): 4383.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	16:00	16:05	11-21	4452.00	4465.00	Pressure On (psi): 2800.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 50.00, Surface RPM: 50, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Slide Drill	2	11-21	16:05	16:40	11-21	4465.00	4485.00	Pressure On (psi): 2475.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294, Toolface: 50, Toolface Type: magnetic
Rotary Drill	1	11-21	16:40	17:05	11-21	4485.00	4547.00	Pressure On (psi): 3150.00, Pressure Off (psi): 2150.00, Weight On Bit (klbs): 54.00, Surface RPM: 50, Surface Torque (ft lbf): 28000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	17:05	17:10	11-21	4547.00	4547.00	Inclination (°): 1.410, Azimuth (°): 270.960, TVD (ft): 4476.56, Dogleg (°/100 ft): 1.63, Sensor Depth (ft): 4478.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	17:10	17:30	11-21	4547.00	4643.00	Pressure On (psi): 3150.00, Pressure Off (psi): 2150.00, Weight On Bit (klbs): 54.00, Surface RPM: 50, Surface Torque (ft lbf): 28000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	17:30	17:35	11-21	4643.00	4643.00	Inclination (°): 1.710, Azimuth (°): 298.650, TVD (ft): 4572.53, Dogleg (°/100 ft): 0.83, Sensor Depth (ft): 4574.00, Bit To Sensor (ft): 69.00
Rotary Drill	1	11-21	17:35	18:05	11-21	4643.00	4775.00	Pressure On (psi): 3150.00, Pressure Off (psi): 2150.00, Weight On Bit (klbs): 54.00, Surface RPM: 50, Surface Torque (ft lbf): 28000.00, Flow Rate (gpm): 850.00, Strokes Per Minute: 294.00
Survey	46	11-21	18:05	18:10	11-21	4775.00	4775.00	Inclination (°): 1.630, Azimuth (°): 294.340, TVD (ft): 4704.47, Dogleg (°/100 ft): 0.11, Sensor Depth (ft): 4706.00, Bit To Sensor (ft): 69.00
Circulating	3	11-21	18:10	19:05	11-21			Circulate And Condition Hole Clean Intermediate TD
Pooh	7	11-21	19:05	22:45	11-21			POOH To BHA
Lay Down BHA	65	11-21	22:45	23:30	11-21			L/D MWD, Bit, Motor, P/U Motor, Rack BHA Back In Derrick

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Tuesday, Dec 07 00:00 - 23:59 (Day 8 of 21)**

**Billing:** N/A (\$153,503.78 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	Downhole Hours	0.00	Rotating WOB (klbs)
Bit Depth (ft)	Drilling Hours		Sliding WOB (klbs)
Bottom Hole Depth (ft)	Hours Circulating		Rotating SPM
Total Distance (ft)	Hours Sliding		Sliding SPM
Distance Rotated (ft)	Hours Rotating		Motor RPM
Distance Slid (ft)			Surface RPM
Inclination In			Flow Rate (gpm)
Inclination Out			On Bottom Pressure (psi)
Azimuth In	% Hours Rotating		Off Bottom Pressure (psi)
Azimuth Out	% Hours Sliding		
AVG Total ROP (ft/h)	0.00	% Distance Sliding	
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating	
AVG Sliding ROP (ft/h)	0.00		

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-07	00:00	01:30	12-08			Standby while rig skids to 508H, rig up and nipple up

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Wednesday, Dec 08 00:00 - 23:59 (Day 9 of 21)

Billing: \$9,400.00 (\$153,503.78 total)

Drilling Summary		Drilling Parameters	
Start Depth (ft)	4775.00	Downhole Hours	22.50
Bit Depth (ft)	7498.00	Drilling Hours	12.75
Bottom Hole Depth (ft)	7498.00	Hours Circulating	1.25
Total Distance (ft)	2723.00	Hours Sliding	3.08
Distance Rotated (ft)	2542.00	Hours Rotating	9.67
Distance Slid (ft)	181.00	Rotating WOB (klbs)	40.00 - 48.00
Inclination In	1.45	Sliding WOB (klbs)	26.00 - 30.00
Inclination Out	12.79	Rotating SPM	224.00 - 258.00
Azimuth In	291.18	Sliding SPM	225.00 - 258.00
Azimuth Out	63.54	Motor RPM	188.00 - 228.00
AVG Total ROP (ft/h)	214.10	Surface RPM	40.00 - 50.00
AVG Rotating ROP (ft/h)	261.62	Flow Rate (gpm)	650.00 - 749.00
AVG Sliding ROP (ft/h)	58.70	On Bottom Pressure (psi)	2050.00 - 3050.00
		Off Bottom Pressure (psi)	1550.00 - 2400.00

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #3 - 8.75" INTERMEDIATE**

Date In: Dec 8, 2021, 1:30 Date Out: Dec 9, 2021, 21:45

Bit Details	Motor Details	Directional Comments
OD (in)	8.750	Size (in)
Vendor	REED	Lobe/Stage
S/N	A283082	Bend Angle
Nozzles	6x15's	Speed (rev/gal)
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)
Drilling Hours for Day	12.75	Bit Distances
Total Drilled for Day (ft)	2723.00	Survey (Bit To Survey ): 64.00 ft, Bend (Bit To Bend ): 5.35 ft, Gamma (Bit to Gamma): 49.00 ft
Drilling Hours for BHA	27.00	
Total Drilled for BHA (ft)	4889.00	

**MWD Comments**

**POOH Reason**

Change Bottom Hole Assembly: POOH For curve assembly

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	REED	A283082	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" Motor 7/8 8.5 1.75 FXD w/ 8.50"NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	Aim	700-40-021	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.85	35.85
<b>Stabilizer</b> Description: 8.50" STABILIZER	JAO	JAO 86989	4 1/2" IF Box	4 1/2" IF Pin	2.310	6.460		3.98	39.83
<b>UBHO Sub</b> Description: NM UBHO, Material: Non-Magnetic	AIM	675300	4 1/2" IF Box	4 1/2" IF Box	2.875	6.880		2.91	42.74
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	71.68
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6732371	4 1/2" IF Box	4 1/2" IF Pin	3.100	6.960		29.50	101.18
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	104.62
<b>HWDP</b> Description: 13 Stands 5.5 HWDP, Type: Slick	rig		CET54 Box	CET54 Pin	3.250	5.500		1177.85	1282.47

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Standby	15	12-07	00:00	01:30	12-08			Standby while rig skids to 508H, rig up and nipple up
Pick Up BHA	64	12-08	01:30	02:45	12-08			M/up Bit, SHT MWD

TIH	8	12-08	02:45	06:20	12-08			TIH W/ BHA #3
Other	16	12-08	06:20	07:15	12-08			Drilling cement
Other	16	12-08	07:15	07:40	12-08			Fit test
Rotary Drill	1	12-08	07:40	08:50	12-08	4775.00	4824.00	
Rotary Drill	1	12-08	08:50	09:00	12-08	4824.00	4890.00	
Survey	46	12-08	09:00	09:05	12-08	4890.00	4890.00	Inclination (°): 1.450, Azimuth (°): 291.180, TVD (ft): 4824.43, Dogleg (°/100 ft): 0.17, Sensor Depth (ft): 4826.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	09:05	09:35	12-08	4890.00	4915.00	Tooface: 60, Tooface Type: magnetic
Rotary Drill	1	12-08	09:35	09:40	12-08	4915.00	4919.00	
Survey	46	12-08	09:40	09:45	12-08	4919.00	4919.00	Inclination (°): 1.670, Azimuth (°): 294.520, TVD (ft): 4853.42, Dogleg (°/100 ft): 0.82, Sensor Depth (ft): 4855.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	09:45	10:05	12-08	4919.00	5015.00	
Survey	46	12-08	10:05	10:10	12-08	5015.00	5015.00	Inclination (°): 2.550, Azimuth (°): 56.770, TVD (ft): 4949.38, Dogleg (°/100 ft): 3.87, Sensor Depth (ft): 4951.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	10:10	10:35	12-08	5015.00	5110.00	Pressure On (psi): 2550.00, Pressure Off (psi): 1550.00, Weight On Bit (klbs): 40.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 258.00
Survey	46	12-08	10:35	10:40	12-08	5110.00	5110.00	Inclination (°): 3.080, Azimuth (°): 53.260, TVD (ft): 5044.27, Dogleg (°/100 ft): 0.59, Sensor Depth (ft): 5046.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	10:40	10:50	12-08	5110.00	5118.00	Tooface: 30, Tooface Type: gravity
Rotary Drill	1	12-08	10:50	11:00	12-08	5118.00	5206.00	
Survey	46	12-08	11:00	11:05	12-08	5206.00	5206.00	Inclination (°): 4.700, Azimuth (°): 54.140, TVD (ft): 5140.04, Dogleg (°/100 ft): 1.69, Sensor Depth (ft): 5142.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	11:05	11:20	12-08	5206.00	5302.00	
Survey	46	12-08	11:20	11:25	12-08	5302.00	5302.00	Inclination (°): 4.790, Azimuth (°): 56.420, TVD (ft): 5235.72, Dogleg (°/100 ft): 0.22, Sensor Depth (ft): 5238.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	11:25	11:50	12-08	5302.00	5398.00	Pressure On (psi): 2700.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 40.00, Surface RPM: 50, Surface Torque (ft lbf): 16000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 224.00
Survey	46	12-08	11:50	11:55	12-08	5398.00	5398.00	Inclination (°): 4.700, Azimuth (°): 55.190, TVD (ft): 5331.39, Dogleg (°/100 ft): 0.14, Sensor Depth (ft): 5334.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	11:55	12:10	12-08	5398.00	5408.00	Tooface: 40, Tooface Type: gravity
Rotary Drill	1	12-08	12:10	12:25	12-08	5408.00	5493.00	
Survey	46	12-08	12:25	12:30	12-08	5493.00	5493.00	Inclination (°): 5.670, Azimuth (°): 59.670, TVD (ft): 5426.00, Dogleg (°/100 ft): 1.11, Sensor Depth (ft): 5429.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	12:30	12:45	12-08	5493.00	5503.00	Tooface: 0, Tooface Type: gravity
Rotary Drill	1	12-08	12:45	13:05	12-08	5503.00	5589.00	
Survey	46	12-08	13:05	13:10	12-08	5589.00	5589.00	Inclination (°): 6.990, Azimuth (°): 65.560, TVD (ft): 5521.41, Dogleg (°/100 ft): 1.53, Sensor Depth (ft): 5525.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	13:10	13:25	12-08	5589.00	5599.00	Tooface: 340, Tooface Type: gravity
Rotary Drill	1	12-08	13:25	13:40	12-08	5599.00	5684.00	
Survey	46	12-08	13:40	13:45	12-08	5684.00	5684.00	Inclination (°): 8.440, Azimuth (°): 60.460, TVD (ft): 5615.55, Dogleg (°/100 ft): 1.69, Sensor Depth (ft): 5620.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	13:45	14:00	12-08	5684.00	5694.00	Tooface: 0, Tooface Type: gravity
Rotary Drill	1	12-08	14:00	14:10	12-08	5694.00	5780.00	
Circulating	3	12-08	14:10	14:30	12-08			RIG SERVICE
Survey	46	12-08	14:30	14:35	12-08	5780.00	5780.00	Inclination (°): 8.880, Azimuth (°): 60.290, TVD (ft): 5710.45, Dogleg (°/100 ft): 0.46, Sensor Depth (ft): 5716.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	14:35	14:50	12-08	5780.00	5792.00	Tooface: 30, Tooface Type: gravity
Rotary Drill	1	12-08	14:50	15:00	12-08	5792.00	5876.00	
Survey	46	12-08	15:00	15:05	12-08	5876.00	5876.00	Inclination (°): 10.550, Azimuth (°): 69.430, TVD (ft): 5805.08, Dogleg (°/100 ft): 2.36, Sensor Depth (ft): 5812.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	15:05	15:15	12-08	5876.00	5884.00	Tooface: 290, Tooface Type: gravity
Rotary Drill	1	12-08	15:15	15:25	12-08	5884.00	5972.00	
Survey	46	12-08	15:25	15:30	12-08	5972.00	5972.00	Inclination (°): 10.770, Azimuth (°): 60.200, TVD (ft): 5899.43, Dogleg (°/100 ft): 1.79, Sensor Depth (ft): 5908.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	15:30	15:40	12-08	5972.00	5984.00	Tooface: 340, Tooface Type: gravity
Rotary Drill	1	12-08	15:40	16:00	12-08	5984.00	6067.00	
Survey	46	12-08	16:00	16:05	12-08	6067.00	6067.00	Inclination (°): 12.090, Azimuth (°): 56.510, TVD (ft): 5992.55, Dogleg (°/100 ft): 1.59, Sensor Depth (ft): 6003.00, Bit To Sensor (ft): 64.00
Slide Drill	2	12-08	16:05	16:15	12-08	6067.00	6079.00	Tooface: 20, Tooface Type: gravity
Rotary Drill	1	12-08	16:15	16:35	12-08	6079.00	6162.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	16:35	16:40	12-08	6163.00	6163.00	Inclination (°): 13.670, Azimuth (°): 56.690, TVD (ft): 6086.13, Dogleg (°/100 ft): 1.65, Sensor Depth (ft): 6099.00, Bit To Sensor (ft): 64.00

Rotary Drill	1	12-08	16:40	16:55	12-08	6162.00	6258.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	16:55	17:00	12-08	6258.00	6258.00	Inclination (°): 13.760, Azimuth (°): 55.720, TVD (ft): 6178.42, Dogleg (°/100 ft): 0.26, Sensor Depth (ft): 6194.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	17:00	17:20	12-08	6258.00	6353.00	
Survey	46	12-08	17:20	17:25	12-08	6353.00	6353.00	Inclination (°): 13.190, Azimuth (°): 61.170, TVD (ft): 6270.81, Dogleg (°/100 ft): 1.46, Sensor Depth (ft): 6289.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	17:25	17:45	12-08	6353.00	6449.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	17:45	17:50	12-08	6449.00	6449.00	Inclination (°): 12.880, Azimuth (°): 62.930, TVD (ft): 6364.33, Dogleg (°/100 ft): 0.52, Sensor Depth (ft): 6385.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	17:50	18:00	12-08	6449.00	6544.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	18:00	18:05	12-08	6544.00	6544.00	Inclination (°): 12.220, Azimuth (°): 63.630, TVD (ft): 6457.06, Dogleg (°/100 ft): 0.71, Sensor Depth (ft): 6480.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	18:05	18:25	12-08	6544.00	6640.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	18:25	18:30	12-08	6640.00	6640.00	Inclination (°): 11.300, Azimuth (°): 64.070, TVD (ft): 6551.05, Dogleg (°/100 ft): 0.96, Sensor Depth (ft): 6576.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	18:30	18:35	12-08	6640.00	6650.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-08	18:35	18:45	12-08	6650.00	6662.00	Pressure On (psi): 2050.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 653.00, Strokes Per Minute: 225, Toolface: 345, Toolface Type: gravity
Rotary Drill	1	12-08	18:45	19:05	12-08	6662.00	6735.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	19:05	19:10	12-08	6735.00	6735.00	Inclination (°): 11.470, Azimuth (°): 61.780, TVD (ft): 6644.18, Dogleg (°/100 ft): 0.51, Sensor Depth (ft): 6671.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	19:10	19:15	12-08	6735.00	6746.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-08	19:15	19:20	12-08	6746.00	6756.00	Pressure On (psi): 2050.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 653.00, Strokes Per Minute: 225, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	12-08	19:20	19:40	12-08	6756.00	6830.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	19:40	19:45	12-08	6830.00	6830.00	Inclination (°): 11.300, Azimuth (°): 66.180, TVD (ft): 6737.31, Dogleg (°/100 ft): 0.93, Sensor Depth (ft): 6766.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	19:45	19:50	12-08	6830.00	6842.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-08	19:50	20:00	12-08	6842.00	6857.00	Pressure On (psi): 2050.00, Pressure Off (psi): 1700.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 653.00, Strokes Per Minute: 225, Toolface: 340, Toolface Type: gravity
Rotary Drill	1	12-08	20:00	20:15	12-08	6857.00	6925.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	20:15	20:20	12-08	6925.00	6925.00	Inclination (°): 12.750, Azimuth (°): 62.750, TVD (ft): 6830.22, Dogleg (°/100 ft): 1.70, Sensor Depth (ft): 6861.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	20:20	20:40	12-08	6925.00	7020.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-08	20:40	20:45	12-08	7020.00	7020.00	Inclination (°): 12.220, Azimuth (°): 61.610, TVD (ft): 6922.98, Dogleg (°/100 ft): 0.62, Sensor Depth (ft): 6956.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	20:45	20:50	12-08	7020.00	7028.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1750.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 18000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-08	20:50	20:55	12-08	7028.00	7040.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 15, Toolface Type: gravity

Rotary Drill	1	12-08	20:55	21:20	12-08	7040.00	7115.00	Pressure On (psi): 3050.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 47.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 749.00, Strokes Per Minute: 258.00
Survey	46	12-08	21:20	21:25	12-08	7115.00	7115.00	Inclination (°): 13.490, Azimuth (°): 62.840, TVD (ft): 7015.60, Dogleg (°/100 ft): 1.37, Sensor Depth (ft): 7051.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	21:25	21:40	12-08	7115.00	7211.00	Pressure On (psi): 3050.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 47.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 749.00, Strokes Per Minute: 258.00
Survey	46	12-08	21:40	21:45	12-08	7211.00	7211.00	Inclination (°): 12.790, Azimuth (°): 63.360, TVD (ft): 7109.08, Dogleg (°/100 ft): 0.74, Sensor Depth (ft): 7147.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	21:45	22:00	12-08	7211.00	7307.00	Pressure On (psi): 3050.00, Pressure Off (psi): 2400.00, Weight On Bit (klbs): 47.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 749.00, Strokes Per Minute: 258.00
Survey	46	12-08	22:00	22:05	12-08	7307.00	7307.00	Inclination (°): 11.520, Azimuth (°): 64.600, TVD (ft): 7202.93, Dogleg (°/100 ft): 1.35, Sensor Depth (ft): 7243.00, Bit To Sensor (ft): 64.00
Other	16	12-08	22:05	22:40	12-08			Work On Mud Pumps
Rotary Drill	1	12-08	22:40	22:45	12-08	7307.00	7315.00	Pressure On (psi): 2600.00, Pressure Off (psi): 1900.00, Weight On Bit (klbs): 47.00, Surface RPM: 40, Surface Torque (ft lbf): 21000.00, Flow Rate (gpm): 652.00, Strokes Per Minute: 224.00
Slide Drill	2	12-08	22:45	22:55	12-08	7315.00	7330.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 345, Toolface Type: gravity
Rotary Drill	1	12-08	22:55	23:20	12-08	7330.00	7403.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-08	23:20	23:25	12-08	7403.00	7403.00	Inclination (°): 12.840, Azimuth (°): 62.660, TVD (ft): 7296.76, Dogleg (°/100 ft): 1.44, Sensor Depth (ft): 7339.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	23:25	23:40	12-08	7403.00	7498.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-08	23:40	23:45	12-08	7498.00	7498.00	Inclination (°): 12.790, Azimuth (°): 63.540, TVD (ft): 7389.40, Dogleg (°/100 ft): 0.21, Sensor Depth (ft): 7434.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-08	23:45	00:10	12-09	7498.00	7594.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Thursday, Dec 09 00:00 - 23:59 (Day 10 of 21)

Billing: \$11,055.25 (\$153,503.78 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	7498.00	Downhole Hours	22.25	Rotating WOB (klbs)	42.00 - 48.00
Bit Depth (ft)	9664.00	Drilling Hours	14.25	Sliding WOB (klbs)	26.00 - 26.00
Bottom Hole Depth (ft)	9664.00	Hours Circulating	1.42	Rotating SPM	207.00 - 258.00
Total Distance (ft)	2166.00	Hours Sliding	2.75	Sliding SPM	258.00 - 258.00
Distance Rotated (ft)	2021.00	Hours Rotating	11.50	Motor RPM	128.00 - 228.00
Distance Slid (ft)	145.00			Surface RPM	30.00 - 40.00
Inclination In	11.82			Flow Rate (gpm)	600.00 - 748.00
Inclination Out	1.80			On Bottom Pressure (psi)	2100.00 - 2650.00
Azimuth In	64.77	% Hours Rotating	81%	Off Bottom Pressure (psi)	1600.00 - 2300.00
Azimuth Out	133.94	% Hours Sliding	19%		
AVG Total ROP (ft/h)	152.00	% Distance Sliding	7%		
AVG Rotating ROP (ft/h)	175.74	% Distance Rotating	93%		
AVG Sliding ROP (ft/h)	52.73				

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #3 - 8.75" INTERMEDIATE**

Date In: Dec 8, 2021, 1:30 Date Out: Dec 9, 2021, 21:45

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	8.75	Contender 40s 7" 7/8 8.5, 1.75° Fxd w/ 8.50" NBS, Flow Range: 500-750 GPM, Max Diff: 1910 psi, Max Torque: 18,710 ft/lbs, RPG: 0.26 Bit Runs: 0	
Vendor	REED	Lobe/Stage	7/8, 8.5		
S/N	A283082	Bend Angle	1.75		
Nozzles	6x15's	Speed (rev/gal)	0.26	MWD Comments	
Total Flow Area (in²)	1.035	Wear Pad OD (in)	5.350	<b>POOH Reason</b> Change Bottom Hole Assembly: POOH For curve assembly	
Drilling Hours for Day	14.25	Bit Distances			
Total Drilled for Day (ft)	2166.00	Survey (Bit To Survey ): 64.00 ft, Bend (Bit To Bend ): 5.35 ft, Gamma (Bit to Gamma): 49.00 ft			
Drilling Hours for BHA	27.00				
Total Drilled for BHA (ft)	4889.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: TKC66-AZZ, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	REED	A283082	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" Motor 7/8 8.5 1.75 FXD w/ 8.50"NBS, Size (in): 8.75, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 8.5	Aim	700-40-021	4 1/2" IF Box	4 1/2" Reg Box		7.000		34.85	35.85
<b>Stabilizer</b> Description: 8.50" STABILIZER	JAO	JAO 86989	4 1/2" IF Box	4 1/2" IF Pin	2.310	6.460		3.98	39.83
<b>UBHO Sub</b> Description: NM UBHO, Material: Non-Magnetic	AIM	675300	4 1/2" IF Box	4 1/2" IF Box	2.875	6.880		2.91	42.74
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	71.68
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6732371	4 1/2" IF Box	4 1/2" IF Pin	3.100	6.960		29.50	101.18
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	104.62
<b>HWDP</b> Description: 13 Stands 5.5 HWDP, Type: Slick	rig		CET54 Box	CET54 Pin	3.250	5.500		1177.85	1282.47

**MWD Items**

No Items

**BHA #4 - 8.75" CURVE**

Date In: Dec 9, 2021, 23:30 Date Out: Dec 10, 2021, 23:15

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	8.75	Contender 6 3/4" 7/8 5.0, 2.12° Fxd w/ SLK, Flow Range: 300-600 GPM, Max Diff: 1130 psi, Max Torque: 15,690 ft/lbs, RPG: 0.28 Bit Runs: 0	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.0		
S/N	57264	Bend Angle	2.12		
Nozzles	6x15's	Speed (rev/gal)	0.28	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	6.920		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey (Bit To Survey): 59.00 ft, Bend (Bit To Bend): 4.05 ft, Gamma (Bit to Gamma): 35.00 ft		<b>POOH Reason</b>	
Drilling Hours for BHA	7.08			Build Rate: POOH For Build Rates	
Total Drilled for BHA (ft)	484.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57264	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6 3/4" Motor 7/8 5.0 2.12 FXD / SLK, Size (in): 8.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5	Aim	700-40-002	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.02	27.02
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.29
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.50
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.44
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	107.88

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-08	23:45	00:10	12-09	7498.00	7594.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	00:10	00:15	12-09	7594.00	7594.00	Inclination (°): 11.820, Azimuth (°): 64.770, TVD (ft): 7483.19, Dogleg (°/100 ft): 1.05, Sensor Depth (ft): 7530.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	00:15	00:20	12-09	7594.00	7600.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Slide Drill	2	12-09	00:20	00:30	12-09	7600.00	7620.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 345, Toolface Type: gravity
Rotary Drill	1	12-09	00:30	00:50	12-09	7620.00	7689.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	00:50	00:55	12-09	7689.00	7689.00	Inclination (°): 12.920, Azimuth (°): 62.310, TVD (ft): 7575.99, Dogleg (°/100 ft): 1.28, Sensor Depth (ft): 7625.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	00:55	01:15	12-09	7689.00	7785.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	01:15	01:20	12-09	7785.00	7785.00	Inclination (°): 12.700, Azimuth (°): 62.570, TVD (ft): 7669.60, Dogleg (°/100 ft): 0.24, Sensor Depth (ft): 7721.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	01:20	01:35	12-09	7785.00	7881.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	01:35	01:40	12-09	7881.00	7881.00	Inclination (°): 11.560, Azimuth (°): 64.240, TVD (ft): 7763.45, Dogleg (°/100 ft): 1.24, Sensor Depth (ft): 7817.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	01:40	01:45	12-09	7881.00	7889.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Slide Drill	2	12-09	01:45	02:00	12-09	7889.00	7909.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 340, Toolface Type: gravity

Rotary Drill	1	12-09	02:00	02:25	12-09	7909.00	7976.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	02:25	02:30	12-09	7976.00	7976.00	Inclination (°): 11.960, Azimuth (°): 61.520, TVD (ft): 7856.46, Dogleg (°/100 ft): 0.72, Sensor Depth (ft): 7912.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	02:30	02:35	12-09	7976.00	7981.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Slide Drill	2	12-09	02:35	02:45	12-09	7981.00	8001.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 0, Toolface Type: gravity
Rotary Drill	1	12-09	02:45	03:15	12-09	8001.00	8072.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	03:15	03:20	12-09	8072.00	8072.00	Inclination (°): 13.850, Azimuth (°): 61.610, TVD (ft): 7950.03, Dogleg (°/100 ft): 1.97, Sensor Depth (ft): 8008.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	03:20	03:45	12-09	8072.00	8168.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	03:45	03:50	12-09	8168.00	8168.00	Inclination (°): 14.110, Azimuth (°): 63.010, TVD (ft): 8043.19, Dogleg (°/100 ft): 0.44, Sensor Depth (ft): 8104.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	03:50	04:10	12-09	8168.00	8263.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	04:10	04:15	12-09	8263.00	8263.00	Inclination (°): 12.970, Azimuth (°): 64.420, TVD (ft): 8135.54, Dogleg (°/100 ft): 1.25, Sensor Depth (ft): 8199.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	04:15	04:30	12-09	8263.00	8359.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	04:30	04:35	12-09	8359.00	8359.00	Inclination (°): 12.260, Azimuth (°): 66.000, TVD (ft): 8229.23, Dogleg (°/100 ft): 0.82, Sensor Depth (ft): 8295.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	04:35	04:40	12-09	8359.00	8373.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Slide Drill	2	12-09	04:40	04:50	12-09	8373.00	8388.00	Pressure On (psi): 2550.00, Pressure Off (psi): 2300.00, Weight On Bit (klbs): 26.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258, Toolface: 330, Toolface Type: gravity
Rotary Drill	1	12-09	04:50	05:10	12-09	8388.00	8455.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	05:10	05:15	12-09	8455.00	8455.00	Inclination (°): 12.920, Azimuth (°): 60.820, TVD (ft): 8322.92, Dogleg (°/100 ft): 1.36, Sensor Depth (ft): 8391.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	05:15	05:45	12-09	8455.00	8550.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	05:45	05:50	12-09	8550.00	8550.00	Inclination (°): 12.350, Azimuth (°): 60.110, TVD (ft): 8415.62, Dogleg (°/100 ft): 0.62, Sensor Depth (ft): 8486.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	05:50	06:25	12-09	8550.00	8646.00	Pressure On (psi): 2650.00, Pressure Off (psi): 2100.00, Weight On Bit (klbs): 48.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 748.00, Strokes Per Minute: 258.00
Survey	46	12-09	06:25	06:30	12-09	8646.00	8646.00	Inclination (°): 11.870, Azimuth (°): 60.730, TVD (ft): 8509.48, Dogleg (°/100 ft): 0.52, Sensor Depth (ft): 8582.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	06:30	07:10	12-09	8646.00	8742.00	
Survey	46	12-09	07:10	07:15	12-09	8742.00	8742.00	Inclination (°): 11.520, Azimuth (°): 61.690, TVD (ft): 8603.49, Dogleg (°/100 ft): 0.42, Sensor Depth (ft): 8678.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	07:15	07:20	12-09	8742.00	8752.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 23000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 207.00
Slide Drill	2	12-09	07:20	07:45	12-09	8752.00	8767.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-09	07:45	08:15	12-09	8767.00	8837.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 23000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 207.00
Survey	46	12-09	08:15	08:20	12-09	8837.00	8837.00	Inclination (°): 8.440, Azimuth (°): 62.840, TVD (ft): 8697.04, Dogleg (°/100 ft): 3.25, Sensor Depth (ft): 8773.00, Bit To Sensor (ft): 64.00

Rotary Drill	1	12-09	08:20	09:00	12-09	8837.00	8933.00	Pressure On (psi): 2100.00, Pressure Off (psi): 1600.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 23000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 207.00
Survey	46	12-09	09:00	09:05	12-09	8933.00	8933.00	Inclination (°): 6.460, Azimuth (°): 58.350, TVD (ft): 8792.23, Dogleg (°/100 ft): 2.15, Sensor Depth (ft): 8869.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	09:05	09:45	12-09	8933.00	9028.00	
Survey	46	12-09	09:45	09:50	12-09	9028.00	9028.00	Inclination (°): 5.270, Azimuth (°): 52.110, TVD (ft): 8886.73, Dogleg (°/100 ft): 1.42, Sensor Depth (ft): 8964.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	09:50	10:05	12-09	9028.00	9048.00	Pressure On (psi): 2450.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 44.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	12-09	10:05	10:20	12-09	9048.00	9058.00	Toolface: 60, Toolface Type: gravity
Rotary Drill	1	12-09	10:20	10:45	12-09	9058.00	9123.00	Pressure On (psi): 2450.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 44.00, Surface RPM: 40, Surface Torque (ft lbf): 20000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	12-09	10:45	10:50	12-09	9123.00	9123.00	Inclination (°): 4.480, Azimuth (°): 59.320, TVD (ft): 8981.39, Dogleg (°/100 ft): 1.05, Sensor Depth (ft): 9059.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	10:50	11:00	12-09	9123.00	9138.00	
Slide Drill	2	12-09	11:00	11:25	12-09	9138.00	9153.00	Toolface: 60, Toolface Type: gravity
Rotary Drill	1	12-09	11:25	12:00	12-09	9153.00	9219.00	
Survey	46	12-09	12:00	12:05	12-09	9219.00	9219.00	Inclination (°): 4.480, Azimuth (°): 63.010, TVD (ft): 9077.09, Dogleg (°/100 ft): 0.30, Sensor Depth (ft): 9155.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	12:05	12:10	12-09	9219.00	9234.00	
Slide Drill	2	12-09	12:10	12:25	12-09	9234.00	9244.00	Toolface: 60, Toolface Type: gravity
Rotary Drill	1	12-09	12:25	12:55	12-09	9244.00	9314.00	
Survey	46	12-09	12:55	13:00	12-09	9314.00	9314.00	Inclination (°): 4.090, Azimuth (°): 60.460, TVD (ft): 9171.83, Dogleg (°/100 ft): 0.46, Sensor Depth (ft): 9250.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	13:00	13:10	12-09	9314.00	9334.00	Pressure On (psi): 2450.00, Pressure Off (psi): 2000.00, Weight On Bit (klbs): 44.00, Surface RPM: 40, Surface Torque (ft lbf): 23000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	12-09	13:10	13:40	12-09	9334.00	9346.00	Toolface: 70, Toolface Type: gravity
Rotary Drill	1	12-09	13:40	14:00	12-09	9346.00	9410.00	
Survey	46	12-09	14:00	14:05	12-09	9410.00	9410.00	Inclination (°): 2.370, Azimuth (°): 72.860, TVD (ft): 9267.67, Dogleg (°/100 ft): 1.92, Sensor Depth (ft): 9346.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	14:05	14:15	12-09	9410.00	9420.00	
Slide Drill	2	12-09	14:15	14:25	12-09	9420.00	9428.00	Toolface: 70, Toolface Type: magnetic
Rotary Drill	1	12-09	14:25	14:55	12-09	9428.00	9505.00	
Survey	46	12-09	14:55	15:00	12-09	9505.00	9505.00	Inclination (°): 1.450, Azimuth (°): 84.020, TVD (ft): 9362.62, Dogleg (°/100 ft): 1.04, Sensor Depth (ft): 9441.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	15:00	15:20	12-09	9505.00	9601.00	
Survey	46	12-09	15:20	15:25	12-09	9601.00	9601.00	Inclination (°): 1.580, Azimuth (°): 123.310, TVD (ft): 9458.59, Dogleg (°/100 ft): 1.07, Sensor Depth (ft): 9537.00, Bit To Sensor (ft): 64.00
Rotary Drill	1	12-09	15:25	15:50	12-09	9601.00	9664.00	
Survey	46	12-09	15:50	16:05	12-09	9664.00	9664.00	Inclination (°): 1.800, Azimuth (°): 133.940, TVD (ft): 9521.56, Dogleg (°/100 ft): 0.61, Sensor Depth (ft): 9600.00, Bit To Sensor (ft): 64.00
Circulating	3	12-09	16:05	17:00	12-09			Circulate And Condition Hole Clean
Pooh	7	12-09	17:00	21:15	12-09			POOH for Curve Assembly
Lay Down BHA	65	12-09	21:15	21:45	12-09			L/D BHA #3
Pick Up BHA	64	12-09	21:45	23:30	12-09			P/U Curve Assembly And Program MWD Tool
Circulating	3	12-09	23:30	00:00	12-10			Test Motor And MWD Tool ( Good Test )

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Dec 10 00:00 - 23:59 (Day 11 of 21)

Billing: \$18,465.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	9664.00	Downhole Hours	23.50	Rotating WOB (klbs)			
Bit Depth (ft)	10148.00	Drilling Hours	7.08	Sliding WOB (klbs)			
Bottom Hole Depth (ft)	10148.00	Hours Circulating	3.00	Rotating SPM			
Total Distance (ft)	484.00	Hours Sliding	6.50	Sliding SPM			
Distance Rotated (ft)	61.00	Hours Rotating	0.58	Motor RPM		72.00 - 132.00	
Distance Slid (ft)	423.00			Surface RPM			
Inclination In	2.29			Flow Rate (gpm)			
Inclination Out	26.11			On Bottom Pressure (psi)			
Azimuth In	146.51	% Hours Rotating	8%	Off Bottom Pressure (psi)			
Azimuth Out	6.94	% Hours Sliding	92%				
AVG Total ROP (ft/h)	68.33	% Distance Sliding	87%				
AVG Rotating ROP (ft/h)	104.57	% Distance Rotating	13%				
AVG Sliding ROP (ft/h)	65.08						

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #4 - 8.75" CURVE

Date In: Dec 9, 2021, 23:30 Date Out: Dec 10, 2021, 23:15

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	8.75	Contender 6 3/4" 7/8 5.0, 2.12° Fxd w/ SLK, Flow Range: 300-600 GPM, Max Diff: 1130 psi, Max Torque: 15,690 ft/lbs, RPG: 0.28 Bit Runs: 0	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.0		
S/N	57264	Bend Angle	2.12		
Nozzles	6x15's	Speed (rev/gal)	0.28	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	6.920		
Drilling Hours for Day	7.08	Bit Distances			
Total Drilled for Day (ft)	484.00	Survey (Bit To Survey ): 59.00 ft, Bend (Bit To Bend ): 4.05 ft, Gamma (Bit to Gamma): 35.00 ft			
Drilling Hours for BHA	7.08	POOH Reason			
Total Drilled for BHA (ft)	484.00	Build Rate: POOH For Build Rates			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57264	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 6 3/4" Motor 7/8 5.0 2.12 FXD / SLK, Size (in): 8.75, Bend Angle (°): 2.12, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5	Aim	700-40-002	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.02	27.02
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.29
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.50
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.44
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	107.88

## MWD Items

No Items

**BHA #5 - 8.75" CURVE**

Date In: Dec 10, 2021, 23:45 Date Out: Dec 11, 2021, 22:30

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	8.75	Contender 7" 7/8 5.7, 2.89° Adj w/ SLK, Flow Range: 300-650 GPM, Max Diff: 1,280 psi, Max Torque: 20,580 ft/lbs, RPG: 0.24 Bit Runs: 2	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.7		
S/N	57218	Bend Angle	2.89		
Nozzles	6x15's	Speed (rev/gal)	0.24	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.520		
Drilling Hours for Day	0.00	Bit Distances			
Total Drilled for Day (ft)		Survey (Bit To Survey) : 59.00 ft, Bend (Bit To Bend) : 4.05 ft, Gamma (Bit to Gamma): 35.00 ft			
Drilling Hours for BHA	7.42	POOH Reason			
Total Drilled for BHA (ft)	333.00	Change Bottom Hole Assembly: P/U Lateral Assembly			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57218	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" Motor 7/8 5.7 2.89 Adj/SLK, Size (in): 8.75, Bend Angle (°): 2.89, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	Aim	700-40-008	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.38	27.38
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.65
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.86
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.80
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	108.24

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Circulating	3	12-09	23:30	00:00	12-10			Test Motor And MWD Tool ( Good Test )
TIH	8	12-10	00:00	05:00	12-10			TIH W/ BHA #4
Circulating	3	12-10	05:00	06:25	12-10			Relog Gamma F/ 9,591 T/ 9,664
Rotary Drill	1	12-10	06:25	06:45	12-10	9664.00	9669.00	
Slide Drill	2	12-10	06:45	07:00	12-10	9669.00	9677.00	Toolface: 320, Toolface Type: magnetic
Rotary Drill	1	12-10	07:00	07:15	12-10	9677.00	9733.00	
Slide Drill	2	12-10	07:15	08:15	12-10	9733.00	9765.00	Toolface: 2, Toolface Type: magnetic
Survey	46	12-10	08:15	08:20	12-10	9765.00	9765.00	Inclination (°): 2.290, Azimuth (°): 146.510, TVD (ft): 9627.49, Dogleg (°/100 ft): 0.62, Sensor Depth (ft): 9706.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-10	08:20	09:20	12-10	9765.00	9861.00	Toolface: 2, Toolface Type: magnetic
Survey	46	12-10	09:20	09:25	12-10	9861.00	9861.00	Inclination (°): 6.290, Azimuth (°): 23.730, TVD (ft): 9723.31, Dogleg (°/100 ft): 8.09, Sensor Depth (ft): 9802.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-10	09:25	10:40	12-10	9861.00	9957.00	Toolface: 340, Toolface Type: gravity
Survey	46	12-10	10:40	10:45	12-10	9957.00	9957.00	Inclination (°): 13.190, Azimuth (°): 11.510, TVD (ft): 9817.88, Dogleg (°/100 ft): 7.46, Sensor Depth (ft): 9898.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-10	10:45	12:10	12-10	9957.00	10052.00	Toolface: 0, Toolface Type: gravity
Circulating	3	12-10	12:10	13:25	12-10			Change saver sub
Survey	46	12-10	13:25	13:30	12-10	10052.00	10052.00	Inclination (°): 21.010, Azimuth (°): 8.350, TVD (ft): 9908.61, Dogleg (°/100 ft): 8.29, Sensor Depth (ft): 9993.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-10	13:30	15:05	12-10	10052.00	10148.00	Toolface: 0, Toolface Type: gravity
Survey	46	12-10	15:05	15:10	12-10	10148.00	10148.00	Inclination (°): 26.110, Azimuth (°): 6.940, TVD (ft): 9996.58, Dogleg (°/100 ft): 5.34, Sensor Depth (ft): 10089.00, Bit To Sensor (ft): 59.00
Circulating	3	12-10	15:10	15:15	12-10			Circulate And Condition Hole Clean
Pooh	7	12-10	15:15	22:45	12-10			POOH To Dial Up Mud Motor
Lay Down BHA	65	12-10	22:45	23:15	12-10			L/D BHA #4
Pick Up BHA	64	12-10	23:15	23:45	12-10			P/U BHA #5 Dial Up Motor
Circulating	3	12-10	23:45	00:00	12-11			Down Loading MWD Data

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Saturday, Dec 11 00:00 - 23:59 (Day 12 of 21)**

**Billing: \$9,000.00 (\$153,503.78 total)**

Drilling Summary				Drilling Parameters	
Start Depth (ft)	10148.00	Downhole Hours	24.00	Rotating WOB (klbs)	
Bit Depth (ft)	10481.00	Drilling Hours	7.42	Sliding WOB (klbs)	
Bottom Hole Depth (ft)	10481.00	Hours Circulating	0.83	Rotating SPM	
Total Distance (ft)	333.00	Hours Sliding	7.42	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	0.00 - 132.00
Distance Slid (ft)	333.00			Surface RPM	
Inclination In	36.62			Flow Rate (gpm)	
Inclination Out	77.85			On Bottom Pressure (psi)	
Azimuth In	4.83	% Hours Rotating	0%	Off Bottom Pressure (psi)	
Azimuth Out	2.19	% Hours Sliding	100%		
AVG Total ROP (ft/h)	44.90	% Distance Sliding	100%		
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating	0%		
AVG Sliding ROP (ft/h)	44.90				

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #5 - 8.75" CURVE**

**Date In: Dec 10, 2021, 23:45 Date Out: Dec 11, 2021, 22:30**

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	8.75	Contender 7" 7/8 5.7, 2.89° Adj w/ SLK, Flow Range: 300-650 GPM, Max Diff: 1,280 psi, Max Torque: 20,580 ft/lbs, R/G: 0.24 Bit Runs: 2	
Vendor	ULTERRA	Lobe/Stage	7/8, 5.7	<b>MWD Comments</b>	
S/N	57218	Bend Angle	2.89		
Nozzles	6x15's	Speed (rev/gal)	0.24	<b>POOH Reason</b> Change Bottom Hole Assembly: P/U Lateral Assembly	
Total Flow Area (in <sup>2</sup> )	1.035	Wear Pad OD (in)	7.520		
Drilling Hours for Day	7.42	<b>Bit Distances</b>			
Total Drilled for Day (ft)	333.00	Survey (Bit To Survey ): 59.00 ft, Bend (Bit To Bend ): 4.05 ft, Gamma (Bit to Gamma): 35.00 ft			
Drilling Hours for BHA	7.42				
Total Drilled for BHA (ft)	333.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: CF611, Type: PDC (Polycrystalline Diamond Compacts), Gauge Length (in): 1.00, Size (in): 8.75	ULTERRA	57218	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: 7" Motor 7/8 5.7 2.89 Adj / SLK, Size (in): 8.75, Bend Angle (°): 2.89, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 5.7	Aim	700-40-008	4 1/2" IF Box	4 1/2" Reg Box		6.750		26.38	27.38
<b>Other</b> Description: Resistivity Tool NM	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	58.65
<b>Other</b> Description: Battery Sub NM	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	75.86
<b>Drill Collar</b> Description: 6.75" NMDC, Material: Non-Magnetic, Type: Slick Drill	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	104.80
<b>Crossover Sub</b> Description: Crossover, Material: Steel	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	108.24

**MWD Items**

No Items

**BHA #6 - 8.75" LATERAL ASSEMBLY**

Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A281412	Bend Angle	1.75		
Nozzles	7X14's	Speed (rev/gal)	0.25	<b>MWD Comments</b>	
Total Flow Area (in <sup>2</sup> )	1.520	Wear Pad OD (in)	7.250		
Drilling Hours for Day	0.00	<b>Bit Distances</b>			
Total Drilled for Day (ft)		Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	89.42	<b>POOH Reason</b>			
Total Drilled for BHA (ft)	5623.00	Other: POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 P/t</i> Size, Size (in): 7.00	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Circulating	3	12-10	23:45	00:00	12-11			Down Loading MWD Data
Circulating	3	12-11	00:00	00:15	12-11			Test Motor And MWD
TIH	8	12-11	00:15	06:00	12-11			TIH W/ BHA #5
Slide Drill	2	12-11	06:00	09:35	12-11	10148.00	10244.00	Toolface: 0, Toolface Type: <i>gravity</i>
Survey	46	12-11	09:35	09:40	12-11	10244.00	10244.00	Inclination (°): 36.620, Azimuth (°): 4.830, TVD (ft): 10078.44, Dogleg (°/100 ft): 11.01, Sensor Depth (ft): 10185.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-11	09:40	11:10	12-11	10244.00	10339.00	Toolface: 0, Toolface Type: <i>gravity</i>
Rig Repair	14	12-11	11:10	11:35	12-11			
Survey	46	12-11	11:35	11:40	12-11	10339.00	10339.00	Inclination (°): 51.430, Azimuth (°): 6.320, TVD (ft): 10146.56, Dogleg (°/100 ft): 15.63, Sensor Depth (ft): 10280.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-11	11:40	13:00	12-11	10339.00	10435.00	Toolface: 0, Toolface Type: <i>gravity</i>
Survey	46	12-11	13:00	13:05	12-11	10435.00	10435.00	Inclination (°): 68.040, Azimuth (°): 5.710, TVD (ft): 10194.78, Dogleg (°/100 ft): 17.31, Sensor Depth (ft): 10376.00, Bit To Sensor (ft): 59.00
Slide Drill	2	12-11	13:05	14:05	12-11	10435.00	10481.00	Toolface: 330, Toolface Type: <i>gravity</i>
Survey	46	12-11	14:05	14:10	12-11	10481.00	10481.00	Inclination (°): 77.850, Azimuth (°): 2.190, TVD (ft): 10208.25, Dogleg (°/100 ft): 22.54, Sensor Depth (ft): 10422.00, Bit To Sensor (ft): 59.00
Circulating	3	12-11	14:10	14:45	12-11			Circulate And Condition Hole Clean
Pooh	7	12-11	14:45	22:00	12-11			POOH for Lateral Assembly
Lay Down BHA	65	12-11	22:00	22:30	12-11			L/D BHA # 5
Change BHA	6	12-11	22:30	23:00	12-11			P/U BHA # 6
Other	16	12-11	23:00	00:00	12-12			Down Load MWD,

**MWD Activities**





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Sunday, Dec 12 00:00 - 23:59 (Day 13 of 21)

Billing: \$9,000.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	10481.00	Downhole Hours	24.00	Rotating WOB (klbs)	32.00 - 40.00		
Bit Depth (ft)	11814.00	Drilling Hours	14.33	Sliding WOB (klbs)	31.00 - 31.00		
Bottom Hole Depth (ft)	11814.00	Hours Circulating	2.00	Rotating SPM	210.00 - 650.00		
Total Distance (ft)	1333.00	Hours Sliding	2.50	Sliding SPM	225.00 - 225.00		
Distance Rotated (ft)	1185.00	Hours Rotating	11.83	Motor RPM	0.00 - 0.00		
Distance Slid (ft)	148.00			Surface RPM	40.00 - 40.00		
Inclination In	90.99			Flow Rate (gpm)	222.00 - 650.00		
Inclination Out	90.20			On Bottom Pressure (psi)	3600.00 - 3700.00		
Azimuth In	359.64	% Hours Rotating	83%	Off Bottom Pressure (psi)	3000.00 - 3250.00		
Azimuth Out	358.06	% Hours Sliding	17%				
AVG Total ROP (ft/h)	93.00	% Distance Sliding	11%				
AVG Rotating ROP (ft/h)	100.14	% Distance Rotating	89%				
AVG Sliding ROP (ft/h)	59.20						

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #6 - 8.75" LATERAL ASSEMBLY

Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A281412	Bend Angle	1.75		
Nozzles	7X14's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.520	Wear Pad OD (in)	7.250		
Drilling Hours for Day	14.33	Bit Distances			
Total Drilled for Day (ft)	1333.00	Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	89.42	POOH Reason			
Total Drilled for BHA (ft)	5623.00	Other: POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): <i>7.00</i>	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

## MWD Items

No items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	12-11	23:00	00:00	12-12			Down Load MWD,
Other	16	12-12	00:00	00:15	12-12			Down Load MWD, M/U Bit
Circulating	3	12-12	00:15	00:45	12-12			Test Motor And MWD
TIH	8	12-12	00:45	03:00	12-12			TIH W/ BHA #6
Other	16	12-12	03:00	04:00	12-12			Slip And Cut DL
TIH	8	12-12	04:00	07:00	12-12			TIH W/ BHA #6
Circulating	3	12-12	07:00	08:30	12-12			Displace with OBM
Slide Drill	2	12-12	08:30	08:50	12-12	10481.00	10510.00	Toolface: 0, Toolface Type: gravity
Rotary Drill	1	12-12	08:50	09:25	12-12	10510.00	10540.00	Waggle
Rotary Drill	1	12-12	09:25	09:40	12-12	10540.00	10566.00	
Survey	46	12-12	09:40	09:45	12-12	10566.00	10566.00	Inclination (°): 90.990, Azimuth (°): 359.640, TVD (ft): 10216.11, Dogleg (°/100 ft): 16.52, Sensor Depth (ft): 10503.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	09:45	09:55	12-12	10566.00	10585.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 32.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 210.00
Slide Drill	2	12-12	09:55	10:15	12-12	10585.00	10605.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-12	10:15	10:35	12-12	10605.00	10662.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 32.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 600.00, Strokes Per Minute: 210.00
Survey	46	12-12	10:35	10:40	12-12	10662.00	10662.00	Inclination (°): 90.200, Azimuth (°): 0.350, TVD (ft): 10215.12, Dogleg (°/100 ft): 1.11, Sensor Depth (ft): 10599.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	10:40	10:50	12-12	10662.00	10672.00	
Slide Drill	2	12-12	10:50	11:25	12-12	10672.00	10694.00	Toolface: 210, Toolface Type: gravity
Rotary Drill	1	12-12	11:25	12:10	12-12	10694.00	10757.00	
Survey	46	12-12	12:10	12:15	12-12	10757.00	10757.00	Inclination (°): 88.440, Azimuth (°): 359.380, TVD (ft): 10216.25, Dogleg (°/100 ft): 2.12, Sensor Depth (ft): 10694.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	12:15	12:50	12-12	10757.00	10852.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Survey	46	12-12	12:50	12:55	12-12	10852.00	10852.00	Inclination (°): 88.790, Azimuth (°): 359.030, TVD (ft): 10218.54, Dogleg (°/100 ft): 0.52, Sensor Depth (ft): 10789.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	12:55	13:30	12-12	10852.00	10948.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Survey	46	12-12	13:30	13:35	12-12	10948.00	10948.00	Inclination (°): 89.930, Azimuth (°): 359.290, TVD (ft): 10219.61, Dogleg (°/100 ft): 1.22, Sensor Depth (ft): 10885.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	13:35	14:30	12-12	10948.00	11043.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Survey	46	12-12	14:30	14:35	12-12	11043.00	11043.00	Inclination (°): 91.740, Azimuth (°): 358.060, TVD (ft): 10218.23, Dogleg (°/100 ft): 2.30, Sensor Depth (ft): 10980.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	14:35	14:40	12-12	11043.00	11053.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Slide Drill	2	12-12	14:40	15:15	12-12	11053.00	11088.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	12-12	15:15	15:30	12-12	11088.00	11139.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Survey	46	12-12	15:30	15:35	12-12	11139.00	11139.00	Inclination (°): 89.450, Azimuth (°): 1.230, TVD (ft): 10217.23, Dogleg (°/100 ft): 4.07, Sensor Depth (ft): 11076.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	15:35	16:40	12-12	11139.00	11235.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Survey	46	12-12	16:40	16:45	12-12	11235.00	11235.00	Inclination (°): 89.710, Azimuth (°): 0.960, TVD (ft): 10217.94, Dogleg (°/100 ft): 0.39, Sensor Depth (ft): 11172.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	16:45	17:00	12-12	11235.00	11250.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00
Slide Drill	2	12-12	17:00	17:25	12-12	11250.00	11265.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	12-12	17:25	18:10	12-12	11265.00	11330.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3000.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 222.00, Strokes Per Minute: 650.00

Survey	46	12-12	18:10	18:15	12-12	11330.00	11330.00	Inclination (°): 88.310, Azimuth (°): 1.670, TVD (ft): 10219.58, Dogleg (°/100 ft): 1.65, Sensor Depth (ft): 11267.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	18:15	19:10	12-12	11330.00	11426.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-12	19:10	19:15	12-12	11426.00	11426.00	Inclination (°): 89.490, Azimuth (°): 1.580, TVD (ft): 10221.42, Dogleg (°/100 ft): 1.23, Sensor Depth (ft): 11363.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	19:15	19:20	12-12	11426.00	11434.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-12	19:20	19:25	12-12	11434.00	11446.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 200, Toolface Type: gravity
Rotary Drill	1	12-12	19:25	20:30	12-12	11446.00	11522.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-12	20:30	20:35	12-12	11522.00	11522.00	Inclination (°): 89.190, Azimuth (°): 0.960, TVD (ft): 10222.53, Dogleg (°/100 ft): 0.72, Sensor Depth (ft): 11459.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	20:35	20:40	12-12	11522.00	11527.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-12	20:40	20:50	12-12	11527.00	11542.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 210, Toolface Type: gravity
Rotary Drill	1	12-12	20:50	21:40	12-12	11542.00	11617.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-12	21:40	21:45	12-12	11617.00	11617.00	Inclination (°): 88.440, Azimuth (°): 359.730, TVD (ft): 10224.49, Dogleg (°/100 ft): 1.52, Sensor Depth (ft): 11554.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	21:45	22:50	12-12	11617.00	11713.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-12	22:50	22:55	12-12	11713.00	11713.00	Inclination (°): 89.140, Azimuth (°): 358.680, TVD (ft): 10226.52, Dogleg (°/100 ft): 1.31, Sensor Depth (ft): 11650.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	22:55	23:50	12-12	11713.00	11808.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-12	23:50	23:55	12-12	11808.00	11808.00	Inclination (°): 90.200, Azimuth (°): 358.060, TVD (ft): 10227.07, Dogleg (°/100 ft): 1.29, Sensor Depth (ft): 11745.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-12	23:55	00:00	12-13	11808.00	11814.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Monday, Dec 13 00:00 - 23:59 (Day 14 of 21)

Billing: \$9,000.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	11814.00	Downhole Hours	24.00	Rotating WOB (klbs)	40.00 - 42.00		
Bit Depth (ft)	13337.00	Drilling Hours	21.83	Sliding WOB (klbs)	31.00 - 45.00		
Bottom Hole Depth (ft)	13337.00	Hours Circulating	0.58	Rotating SPM	225.00 - 225.00		
Total Distance (ft)	1523.00	Hours Sliding	4.25	Sliding SPM	225.00 - 225.00		
Distance Rotated (ft)	1339.00	Hours Rotating	17.58	Motor RPM	0.00 - 0.00		
Distance Slid (ft)	184.00			Surface RPM	30.00 - 40.00		
Inclination In	88.40			Flow Rate (gpm)	650.00 - 650.00		
Inclination Out	89.27			On Bottom Pressure (psi)	3600.00 - 3950.00		
Azimuth In	358.24	% Hours Rotating	81%	Off Bottom Pressure (psi)	3200.00 - 3400.00		
Azimuth Out	359.73	% Hours Sliding	19%				
AVG Total ROP (ft/h)	70.61	% Distance Sliding	12%				
AVG Rotating ROP (ft/h)	76.80	% Distance Rotating	88%				
AVG Sliding ROP (ft/h)	43.29						

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #6 - 8.75" LATERAL ASSEMBLY

Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
Vendor	REED	Lobe/Stage	7/8, 6.1	<b>MWD Comments</b>	
S/N	A281412	Bend Angle	1.75		
Nozzles	7X14's	Speed (rev/gal)	0.25	<b>POOH Reason</b> Other: POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage	
Total Flow Area (in <sup>2</sup> )	1.520	Wear Pad OD (in)	7.250		
Drilling Hours for Day	21.83	<b>Bit Distances</b>			
Total Drilled for Day (ft)	1523.00	Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	89.42				
Total Drilled for BHA (ft)	5623.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): 7.00	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

## MWD Items

No items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-12	23:55	00:00	12-13	11808.00	11814.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	00:00	00:15	12-13	11814.00	11829.00	Pressure On (psi): 3600.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	12-13	00:15	01:05	12-13	11829.00	11903.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	01:05	01:10	12-13	11903.00	11903.00	Inclination (°): 88.400, Azimuth (°): 358.240, TVD (ft): 10228.23, Dogleg (°/100 ft): 1.90, Sensor Depth (ft): 11840.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	01:10	02:00	12-13	11903.00	11999.00	
Survey	46	12-13	02:00	02:05	12-13	11999.00	11999.00	Inclination (°): 87.910, Azimuth (°): 357.270, TVD (ft): 10231.32, Dogleg (°/100 ft): 1.13, Sensor Depth (ft): 11936.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	02:05	02:10	12-13	11999.00	12005.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 41.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	02:10	02:20	12-13	12005.00	12020.00	Pressure On (psi): 3650.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 50, Toolface Type: gravity
Rotary Drill	1	12-13	02:20	03:20	12-13	12020.00	12094.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 41.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	03:20	03:25	12-13	12094.00	12094.00	Inclination (°): 89.050, Azimuth (°): 357.360, TVD (ft): 10233.84, Dogleg (°/100 ft): 1.20, Sensor Depth (ft): 12031.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	03:25	03:30	12-13	12094.00	12100.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 41.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	03:30	03:45	12-13	12100.00	12125.00	Pressure On (psi): 3650.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 60, Toolface Type: gravity
Rotary Drill	1	12-13	03:45	04:25	12-13	12125.00	12172.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 41.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Circulating	3	12-13	04:25	05:00	12-13			Down Link MWD Tool
Rotary Drill	1	12-13	05:00	05:15	12-13	12172.00	12190.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	05:15	05:20	12-13	12190.00	12190.00	Inclination (°): 92.530, Azimuth (°): 0.430, TVD (ft): 10232.51, Dogleg (°/100 ft): 4.83, Sensor Depth (ft): 12127.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	05:20	05:25	12-13	12190.00	12199.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	05:25	05:40	12-13	12199.00	12214.00	Pressure On (psi): 3650.00, Pressure Off (psi): 3250.00, Weight On Bit (klbs): 31.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-13	05:40	06:40	12-13	12214.00	12285.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	06:40	06:45	12-13	12285.00	12285.00	Inclination (°): 91.870, Azimuth (°): 0.260, TVD (ft): 10228.87, Dogleg (°/100 ft): 0.72, Sensor Depth (ft): 12222.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	06:45	06:55	12-13	12285.00	12300.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	06:55	07:35	12-13	12300.00	12330.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	12-13	07:35	08:15	12-13	12330.00	12381.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	08:15	08:20	12-13	12381.00	12381.00	Inclination (°): 90.370, Azimuth (°): 359.560, TVD (ft): 10226.99, Dogleg (°/100 ft): 1.72, Sensor Depth (ft): 12318.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	08:20	08:25	12-13	12381.00	12400.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3220.00, Weight On Bit (klbs): 40.00, Surface RPM: 40, Surface Torque (ft lbf): 24000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	08:25	08:45	12-13	12400.00	12412.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	12-13	08:45	09:15	12-13	12412.00	12477.00	

Survey	46	12-13	09:15	09:20	12-13	12477.00	12477.00	Inclination (°): 89.670, Azimuth (°): 1.050, TVD (ft): 10226.96, Dogleg (°/100 ft): 1.71, Sensor Depth (ft): 12414.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	09:20	10:25	12-13	12477.00	12572.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	10:25	10:30	12-13	12572.00	12572.00	Inclination (°): 89.800, Azimuth (°): 0.170, TVD (ft): 10227.40, Dogleg (°/100 ft): 0.94, Sensor Depth (ft): 12509.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	10:30	11:30	12-13	12572.00	12668.00	Pressure On (psi): 3700.00, Pressure Off (psi): 3200.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 22000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	11:30	11:35	12-13	12668.00	12668.00	Inclination (°): 91.160, Azimuth (°): 0.000, TVD (ft): 10226.59, Dogleg (°/100 ft): 1.43, Sensor Depth (ft): 12605.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	11:35	13:50	12-13	12668.00	12763.00	
Survey	46	12-13	13:50	13:55	12-13	12763.00	12763.00	Inclination (°): 91.380, Azimuth (°): 358.770, TVD (ft): 10224.49, Dogleg (°/100 ft): 1.31, Sensor Depth (ft): 12700.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	13:55	14:30	12-13	12763.00	12785.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	14:30	14:55	12-13	12785.00	12790.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	12-13	14:55	15:55	12-13	12790.00	12859.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	15:55	16:00	12-13	12859.00	12859.00	Inclination (°): 93.010, Azimuth (°): 359.200, TVD (ft): 10220.81, Dogleg (°/100 ft): 1.76, Sensor Depth (ft): 12796.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	16:00	16:05	12-13	12859.00	12869.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	16:05	17:05	12-13	12869.00	12884.00	Toolface: 16, Toolface Type: gravity
Rotary Drill	1	12-13	17:05	18:00	12-13	12884.00	12955.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	18:00	18:05	12-13	12955.00	12955.00	Inclination (°): 92.040, Azimuth (°): 359.290, TVD (ft): 10216.58, Dogleg (°/100 ft): 1.01, Sensor Depth (ft): 12892.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	18:05	18:10	12-13	12955.00	12961.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	18:10	18:20	12-13	12961.00	12976.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 130, Toolface Type: gravity
Rotary Drill	1	12-13	18:20	18:55	12-13	12976.00	13051.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	18:55	19:00	12-13	13051.00	13051.00	Inclination (°): 92.220, Azimuth (°): 0.790, TVD (ft): 10213.01, Dogleg (°/100 ft): 1.57, Sensor Depth (ft): 12988.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	19:00	19:05	12-13	13051.00	13060.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	19:05	19:30	12-13	13060.00	13085.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-13	19:30	20:40	12-13	13085.00	13146.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	20:40	20:45	12-13	13146.00	13146.00	Inclination (°): 91.160, Azimuth (°): 0.080, TVD (ft): 10210.21, Dogleg (°/100 ft): 1.34, Sensor Depth (ft): 13083.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	20:45	20:50	12-13	13146.00	13151.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-13	20:50	21:10	12-13	13151.00	13163.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-13	21:10	22:10	12-13	13163.00	13242.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	22:10	22:15	12-13	13242.00	13242.00	Inclination (°): 88.750, Azimuth (°): 0.260, TVD (ft): 10210.28, Dogleg (°/100 ft): 2.52, Sensor Depth (ft): 13179.00, Bit To Sensor (ft): 63.00

Rotary Drill	1	12-13	22:15	23:40	12-13	13242.00	13337.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-13	23:40	23:45	12-13	13337.00	13337.00	Inclination (°): 89.270, Azimuth (°): 359.730, TVD (ft): 10211.93, Dogleg (°/100 ft): 0.78, Sensor Depth (ft): 13274.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-13	23:45	00:50	12-14	13337.00	13432.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Tuesday, Dec 14 00:00 - 23:59 (Day 15 of 21)

Billing: \$9,500.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
<b>Start Depth (ft)</b>	13337.00	<b>Downhole Hours</b>	24.00	<b>Rotating WOB (klbs)</b>	42.00 - 42.00		
<b>Bit Depth (ft)</b>	14726.00	<b>Drilling Hours</b>	22.50	<b>Sliding WOB (klbs)</b>	28.00 - 45.00		
<b>Bottom Hole Depth (ft)</b>	14726.00	<b>Hours Circulating</b>	0.00	<b>Rotating SPM</b>	225.00 - 225.00		
<b>Total Distance (ft)</b>	1389.00	<b>Hours Sliding</b>	5.00	<b>Sliding SPM</b>	225.00 - 243.00		
<b>Distance Rotated (ft)</b>	1219.00	<b>Hours Rotating</b>	17.50	<b>Motor RPM</b>	0.00 - 0.00		
<b>Distance Slid (ft)</b>	170.00			<b>Surface RPM</b>	30.00 - 30.00		
<b>Inclination In</b>	91.08			<b>Flow Rate (gpm)</b>	650.00 - 700.00		
<b>Inclination Out</b>	89.54			<b>On Bottom Pressure (psi)</b>	3750.00 - 4200.00		
<b>Azimuth In</b>	358.68	<b>% Hours Rotating</b>	78%	<b>Off Bottom Pressure (psi)</b>	3300.00 - 3800.00		
<b>Azimuth Out</b>	1.49	<b>% Hours Sliding</b>	22%				
<b>AVG Total ROP (ft/h)</b>	61.48	<b>% Distance Sliding</b>	12%				
<b>AVG Rotating ROP (ft/h)</b>	69.66	<b>% Distance Rotating</b>	88%				
<b>AVG Sliding ROP (ft/h)</b>	35.45						

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #6 - 8.75" LATERAL ASSEMBLY

Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00

Bit Details		Motor Details		Directional Comments	
<b>OD (in)</b>	8.750	<b>Size (in)</b>	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
<b>Vendor</b>	REED	<b>Lobe/Stage</b>	7/8, 6.1	<b>MWD Comments</b>	
<b>S/N</b>	A281412	<b>Bend Angle</b>	1.75		
<b>Nozzles</b>	7X14's	<b>Speed (rev/gal)</b>	0.25	<b>POOH Reason</b> <b>Other:</b> POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage	
<b>Total Flow Area (in<sup>2</sup>)</b>	1.520	<b>Wear Pad OD (in)</b>	7.250		
<b>Drilling Hours for Day</b>	22.50	<b>Bit Distances</b>			
<b>Total Drilled for Day (ft)</b>	1389.00	<b>Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft</b>			
<b>Drilling Hours for BHA</b>	89.42				
<b>Total Drilled for BHA (ft)</b>	5623.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): 7.00	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

## MWD Items

No items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Rotary Drill	1	12-13	23:45	00:50	12-14	13337.00	13432.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	00:50	00:55	12-14	13432.00	13432.00	Inclination (°): 91.080, Azimuth (°): 358.680, TVD (ft): 10211.64, Dogleg (°/100 ft): 2.20, Sensor Depth (ft): 13369.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	00:55	01:40	12-14	13432.00	13527.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	01:40	01:45	12-14	13527.00	13527.00	Inclination (°): 91.120, Azimuth (°): 357.710, TVD (ft): 10209.81, Dogleg (°/100 ft): 1.02, Sensor Depth (ft): 13464.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	01:45	02:50	12-14	13527.00	13623.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	02:50	02:55	12-14	13623.00	13623.00	Inclination (°): 91.250, Azimuth (°): 356.920, TVD (ft): 10207.83, Dogleg (°/100 ft): 0.83, Sensor Depth (ft): 13560.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	02:55	03:00	12-14	13623.00	13628.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	03:00	03:45	12-14	13628.00	13653.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 120, Toolface Type: gravity
Rotary Drill	1	12-14	03:45	04:50	12-14	13653.00	13718.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	04:50	04:55	12-14	13718.00	13718.00	Inclination (°): 89.630, Azimuth (°): 357.890, TVD (ft): 10207.10, Dogleg (°/100 ft): 1.99, Sensor Depth (ft): 13655.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	04:55	05:00	12-14	13718.00	13725.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	05:00	05:15	12-14	13725.00	13740.00	Pressure On (psi): 3750.00, Pressure Off (psi): 3300.00, Weight On Bit (klbs): 45.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 90, Toolface Type: gravity
Rotary Drill	1	12-14	05:15	06:25	12-14	13740.00	13813.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	06:25	06:30	12-14	13813.00	13813.00	Inclination (°): 89.010, Azimuth (°): 358.680, TVD (ft): 10208.23, Dogleg (°/100 ft): 1.06, Sensor Depth (ft): 13750.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	06:30	07:45	12-14	13813.00	13909.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	07:45	07:50	12-14	13909.00	13909.00	Inclination (°): 89.190, Azimuth (°): 357.100, TVD (ft): 10209.73, Dogleg (°/100 ft): 1.66, Sensor Depth (ft): 13846.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	07:50	07:55	12-14	13909.00	13919.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	07:55	09:15	12-14	13919.00	13949.00	Toolface: 90, Toolface Type: gravity
Rotary Drill	1	12-14	09:15	10:00	12-14	13949.00	14004.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	10:00	10:05	12-14	14004.00	14004.00	Inclination (°): 90.370, Azimuth (°): 359.470, TVD (ft): 10210.10, Dogleg (°/100 ft): 2.79, Sensor Depth (ft): 13941.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	10:05	10:25	12-14	14004.00	14019.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	10:25	11:15	12-14	14019.00	14039.00	Toolface: 90, Toolface Type: gravity
Rotary Drill	1	12-14	11:15	11:35	12-14	14039.00	14049.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	11:35	12:20	12-14	14049.00	14069.00	Toolface: 110, Toolface Type: gravity
Rotary Drill	1	12-14	12:20	12:45	12-14	14069.00	14100.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00

Survey	46	12-14	12:45	12:50	12-14	14100.00	14100.00	Inclination (°): 92.130, Azimuth (°): 1.750, TVD (ft): 10208.00, Dogleg (%/100 ft): 3.00, Sensor Depth (ft): 14037.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	12:50	14:20	12-14	14100.00	14195.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	14:20	14:25	12-14	14195.00	14195.00	Inclination (°): 91.250, Azimuth (°): 3.250, TVD (ft): 10205.20, Dogleg (%/100 ft): 1.83, Sensor Depth (ft): 14132.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	14:25	16:25	12-14	14195.00	14291.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	16:25	16:40	12-14	14291.00	14291.00	Inclination (°): 90.370, Azimuth (°): 1.490, TVD (ft): 10203.84, Dogleg (%/100 ft): 2.05, Sensor Depth (ft): 14228.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	16:40	17:50	12-14	14291.00	14387.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	17:50	17:55	12-14	14387.00	14387.00	Inclination (°): 90.770, Azimuth (°): 0.350, TVD (ft): 10202.89, Dogleg (%/100 ft): 1.26, Sensor Depth (ft): 14324.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	17:55	19:20	12-14	14387.00	14482.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	19:20	19:25	12-14	14482.00	14482.00	Inclination (°): 92.260, Azimuth (°): 0.610, TVD (ft): 10200.38, Dogleg (%/100 ft): 1.59, Sensor Depth (ft): 14419.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	19:25	19:30	12-14	14482.00	14489.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-14	19:30	19:55	12-14	14489.00	14514.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-14	19:55	20:45	12-14	14514.00	14578.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	20:45	20:50	12-14	14578.00	14578.00	Inclination (°): 90.330, Azimuth (°): 2.810, TVD (ft): 10198.21, Dogleg (%/100 ft): 3.05, Sensor Depth (ft): 14515.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-14	20:50	21:40	12-14	14578.00	14628.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	21:40	21:45	12-14	14628.00	14628.00	Inclination (°): 91.380, Azimuth (°): 3.340, TVD (ft): 10197.46, Dogleg (%/100 ft): 2.35, Sensor Depth (ft): 14565.00, Bit To Sensor (ft): 63.00
Slide Drill	2	12-14	21:45	22:25	12-14	14628.00	14663.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 210, Toolface Type: gravity
Rotary Drill	1	12-14	22:25	23:35	12-14	14663.00	14726.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-14	23:35	23:40	12-14	14726.00	14726.00	Inclination (°): 89.540, Azimuth (°): 1.490, TVD (ft): 10196.67, Dogleg (%/100 ft): 2.66, Sensor Depth (ft): 14663.00, Bit To Sensor (ft): 63.00
Slide Drill	2	12-14	23:40	00:10	12-15	14726.00	14751.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 220, Toolface Type: gravity

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Wednesday, Dec 15 00:00 - 23:59 (Day 16 of 21)**

**Billing: \$9,500.00 (\$153,503.78 total)**

Drilling Summary				Drilling Parameters	
<b>Start Depth (ft)</b>	14726.00	<b>Downhole Hours</b>	24.00	<b>Rotating WOB (klbs)</b>	42.00 - 42.00
<b>Bit Depth (ft)</b>	15825.00	<b>Drilling Hours</b>	22.42	<b>Sliding WOB (klbs)</b>	28.00 - 30.00
<b>Bottom Hole Depth (ft)</b>	15825.00	<b>Hours Circulating</b>	0.33	<b>Rotating SPM</b>	225.00 - 225.00
<b>Total Distance (ft)</b>	1099.00	<b>Hours Sliding</b>	6.25	<b>Sliding SPM</b>	243.00 - 243.00
<b>Distance Rotated (ft)</b>	904.00	<b>Hours Rotating</b>	16.17	<b>Motor RPM</b>	0.00 - 0.00
<b>Distance Slid (ft)</b>	195.00			<b>Surface RPM</b>	30.00 - 30.00
<b>Inclination In</b>	89.10			<b>Flow Rate (gpm)</b>	650.00 - 700.00
<b>Inclination Out</b>	94.15			<b>On Bottom Pressure (psi)</b>	3950.00 - 4260.00
<b>Azimuth In</b>	0.70	<b>% Hours Rotating</b>	72%	<b>Off Bottom Pressure (psi)</b>	3400.00 - 3960.00
<b>Azimuth Out</b>	356.57	<b>% Hours Sliding</b>	28%		
<b>AVG Total ROP (ft/h)</b>	48.04	<b>% Distance Sliding</b>	18%		
<b>AVG Rotating ROP (ft/h)</b>	55.92	<b>% Distance Rotating</b>	82%		
<b>AVG Sliding ROP (ft/h)</b>	30.68				

**Personnel**

Name	Position
<b>Eddie Sheppard</b>	Directional Driller
<b>Advance Nabors X47</b>	Directional Driller
<b>Francisco DeLeon</b>	MWD Engineer
<b>Kyle Kusak</b>	MWD Engineer

**BHA #6 - 8.75" LATERAL ASSEMBLY**

**Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00**

Bit Details		Motor Details		Directional Comments	
<b>OD (in)</b>	8.750	<b>Size (in)</b>	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
<b>Vendor</b>	REED	<b>Lobe/Stage</b>	7/8, 6.1		
<b>S/N</b>	A281412	<b>Bend Angle</b>	1.75	<b>MWD Comments</b>	
<b>Nozzles</b>	7X14's	<b>Speed (rev/gal)</b>	0.25		
<b>Total Flow Area (in²)</b>	1.520	<b>Wear Pad OD (in)</b>	7.250	<b>POOH Reason</b> <b>Other:</b> POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage	
<b>Drilling Hours for Day</b>	22.42	<b>Bit Distances</b>			
<b>Total Drilled for Day (ft)</b>	1099.00	<b>Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft</b>			
<b>Drilling Hours for BHA</b>	89.42				
<b>Total Drilled for BHA (ft)</b>	5623.00				

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): <i>7.00</i>	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

**MWD Items**

No items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	12-14	23:40	00:10	12-15	14726.00	14751.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 220, Toolface Type: gravity
Rotary Drill	1	12-15	00:10	01:25	12-15	14751.00	14815.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	01:25	01:30	12-15	14815.00	14815.00	Inclination (°): 89.100, Azimuth (°): 0.700, TVD (ft): 10197.73, Dogleg (°/100 ft): 1.02, Sensor Depth (ft): 14752.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	01:30	02:25	12-15	14815.00	14865.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	02:25	02:30	12-15	14865.00	14865.00	Inclination (°): 89.010, Azimuth (°): 0.960, TVD (ft): 10198.56, Dogleg (°/100 ft): 0.55, Sensor Depth (ft): 14802.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	02:30	02:35	12-15	14865.00	14871.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	02:35	03:05	12-15	14871.00	14886.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 315, Toolface Type: gravity
Rotary Drill	1	12-15	03:05	04:25	12-15	14886.00	14961.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	04:25	04:30	12-15	14961.00	14961.00	Inclination (°): 90.810, Azimuth (°): 359.290, TVD (ft): 10198.71, Dogleg (°/100 ft): 2.56, Sensor Depth (ft): 14898.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	04:30	04:35	12-15	14961.00	14967.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	04:35	05:05	12-15	14967.00	14982.00	Pressure On (psi): 4200.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 28.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 320, Toolface Type: gravity
Rotary Drill	1	12-15	05:05	06:30	12-15	14982.00	15056.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	06:30	06:35	12-15	15056.00	15056.00	Inclination (°): 91.080, Azimuth (°): 358.410, TVD (ft): 10197.14, Dogleg (°/100 ft): 0.97, Sensor Depth (ft): 14993.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	06:35	08:50	12-15	15056.00	15151.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	08:50	08:55	12-15	15151.00	15151.00	Inclination (°): 93.190, Azimuth (°): 358.410, TVD (ft): 10193.60, Dogleg (°/100 ft): 2.22, Sensor Depth (ft): 15088.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	08:55	09:15	12-15	15151.00	15166.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	09:15	10:00	12-15	15166.00	15196.00	Toolface: 160, Toolface Type: gravity
Rotary Drill	1	12-15	10:00	11:00	12-15	15196.00	15247.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	11:00	11:05	12-15	15247.00	15247.00	Inclination (°): 93.540, Azimuth (°): 0.080, TVD (ft): 10187.97, Dogleg (°/100 ft): 1.77, Sensor Depth (ft): 15184.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	11:05	11:15	12-15	15247.00	15262.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	11:15	12:20	12-15	15262.00	15292.00	Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-15	12:20	13:00	12-15	15292.00	15343.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	13:00	13:05	12-15	15343.00	15343.00	Inclination (°): 90.020, Azimuth (°): 358.770, TVD (ft): 10184.98, Dogleg (°/100 ft): 3.91, Sensor Depth (ft): 15280.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	13:05	13:30	12-15	15343.00	15358.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	13:30	14:05	12-15	15358.00	15373.00	Toolface: 30, Toolface Type: gravity

Rotary Drill	1	12-15	14:05	14:45	12-15	15373.00	15439.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	14:45	14:50	12-15	15439.00	15439.00	Inclination (°): 91.960, Azimuth (°): 357.970, TVD (ft): 10183.33, Dogleg (°/100 ft): 2.19, Sensor Depth (ft): 15376.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	14:50	16:30	12-15	15439.00	15534.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Circulating Survey	3	12-15	16:30	16:50	12-15			Rig Service
Survey	46	12-15	16:50	16:55	12-15	15534.00	15534.00	Inclination (°): 92.620, Azimuth (°): 357.270, TVD (ft): 10179.53, Dogleg (°/100 ft): 1.01, Sensor Depth (ft): 15471.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	16:55	17:05	12-15	15534.00	15544.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	17:05	17:35	12-15	15544.00	15554.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	12-15	17:35	18:50	12-15	15554.00	15629.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	18:50	18:55	12-15	15629.00	15629.00	Inclination (°): 92.260, Azimuth (°): 355.860, TVD (ft): 10175.48, Dogleg (°/100 ft): 1.53, Sensor Depth (ft): 15566.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	18:55	19:00	12-15	15629.00	15635.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	19:00	20:00	12-15	15635.00	15660.00	Pressure On (psi): 4260.00, Pressure Off (psi): 3960.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 50, Toolface Type: gravity
Rotary Drill	1	12-15	20:00	21:05	12-15	15660.00	15724.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	21:05	21:10	12-15	15724.00	15724.00	Inclination (°): 92.180, Azimuth (°): 354.460, TVD (ft): 10171.80, Dogleg (°/100 ft): 1.47, Sensor Depth (ft): 15661.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	21:10	21:15	12-15	15724.00	15730.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	21:15	22:05	12-15	15730.00	15760.00	Pressure On (psi): 4260.00, Pressure Off (psi): 3960.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 70, Toolface Type: gravity
Rotary Drill	1	12-15	22:05	23:15	12-15	15760.00	15820.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-15	23:15	23:20	12-15	15820.00	15820.00	Inclination (°): 94.150, Azimuth (°): 356.570, TVD (ft): 10166.50, Dogleg (°/100 ft): 3.00, Sensor Depth (ft): 15757.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-15	23:20	23:25	12-15	15820.00	15825.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-15	23:25	00:30	12-16	15825.00	15855.00	Pressure On (psi): 4260.00, Pressure Off (psi): 3960.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 90, Toolface Type: gravity

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Thursday, Dec 16 00:00 - 23:59 (Day 17 of 21)

Billing: \$9,500.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters			
Start Depth (ft)	15825.00	Downhole Hours	23.33	Rotating WOB (klbs)	42.00 - 42.00		
Bit Depth (ft)	16135.00	Drilling Hours	9.08	Sliding WOB (klbs)	30.00 - 30.00		
Bottom Hole Depth (ft)	16135.00	Hours Circulating	1.08	Rotating SPM	225.00 - 225.00		
Total Distance (ft)	310.00	Hours Sliding	3.67	Sliding SPM	225.00 - 243.00		
Distance Rotated (ft)	221.00	Hours Rotating	5.42	Motor RPM	0.00 - 175.00		
Distance Slid (ft)	89.00			Surface RPM	30.00 - 40.00		
Inclination In	95.38			Flow Rate (gpm)	650.00 - 700.00		
Inclination Out	95.96			On Bottom Pressure (psi)	3950.00 - 4300.00		
Azimuth In	358.06	% Hours Rotating	60%	Off Bottom Pressure (psi)	3400.00 - 3960.00		
Azimuth Out	0.26	% Hours Sliding	40%				
AVG Total ROP (ft/h)	34.13	% Distance Sliding	29%				
AVG Rotating ROP (ft/h)	40.80	% Distance Rotating	71%				
AVG Sliding ROP (ft/h)	24.27						

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #6 - 8.75" LATERAL ASSEMBLY

Date In: Dec 11, 2021, 22:30 Date Out: Dec 16, 2021, 14:00

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 2	
Vendor	REED	Lobe/Stage	7/8, 6.1	<b>MWD Comments</b>	
S/N	A281412	Bend Angle	1.75		
Nozzles	7X14's	Speed (rev/gal)	0.25	<b>POOH Reason</b> Other: POOH for slow ROP, motor drained well and had minimal slack in between bit and power section, no visible damage	
Total Flow Area (in <sup>2</sup> )	1.520	Wear Pad OD (in)	7.250		
Drilling Hours for Day	8.33	<b>Bit Distances</b>			
Total Drilled for Day (ft)	279.00	Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	89.42				
Total Drilled for BHA (ft)	5623.00				

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281412	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0069	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.23	31.23
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.50
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.71
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.65
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.09
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.81
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.31
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): 7.00	NOV	AGHF0675-0078	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.95	2054.26
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.70

## MWD Items

No items

**BHA #7 - 8.75" LATERAL ASSEMBLY**

Date In: Dec 16, 2021, 14:40 Date Out: Dec 18, 2021, 5:30

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO) 7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 0	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A281863	Bend Angle	1.75		
Nozzles	7X15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.250		
Drilling Hours for Day	0.75	Bit Distances			
Total Drilled for Day (ft)	31.00	Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	13.42			POOH Reason	
Total Drilled for BHA (ft)	801.00			Total Depth/Casing Point: N/A	

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): <i>1.00</i> , Size (in): <i>8.75</i>	REED	A281863	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): <i>7.00</i> , Bend Angle (°): <i>1.75</i> , Rotor Lobe: <i>7</i> , Stator Lobe: <i>8</i> , Stator Stage: <i>6.1</i>	Bico	BPB5700-0016	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.21	31.21
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.48
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.69
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.63
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.07
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.79
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.29
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 P/t Size</i> , Size (in): <i>7.00</i>	NOV	AGHF0675-0183	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.42	2053.71
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.15

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	12-15	23:25	00:30	12-16	15825.00	15855.00	Pressure On (psi): <i>4260.00</i> , Pressure Off (psi): <i>3960.00</i> , Weight On Bit (klbs): <i>30.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243</i> , Toolface: <i>90</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	12-16	00:30	02:10	12-16	15855.00	15916.00	Pressure On (psi): <i>3950.00</i> , Pressure Off (psi): <i>3400.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>26000.00</i> , Flow Rate (gpm): <i>650.00</i> , Strokes Per Minute: <i>225.00</i>
Survey	46	12-16	02:10	02:15	12-16	15916.00	15916.00	Inclination (°): <i>95.380</i> , Azimuth (°): <i>358.060</i> , TVD (ft): <i>10158.53</i> , Dogleg (°/100 ft): <i>2.01</i> , Sensor Depth (ft): <i>15853.00</i> , Bit To Sensor (ft): <i>63.00</i>
Rotary Drill	1	12-16	02:15	02:20	12-16	15916.00	15924.00	Pressure On (psi): <i>3950.00</i> , Pressure Off (psi): <i>3400.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>26000.00</i> , Flow Rate (gpm): <i>650.00</i> , Strokes Per Minute: <i>225.00</i>
Slide Drill	2	12-16	02:20	03:05	12-16	15924.00	15943.00	Pressure On (psi): <i>4260.00</i> , Pressure Off (psi): <i>3960.00</i> , Weight On Bit (klbs): <i>30.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243</i> , Toolface: <i>130</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	12-16	03:05	03:35	12-16	15943.00	15952.00	Pressure On (psi): <i>3950.00</i> , Pressure Off (psi): <i>3400.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>26000.00</i> , Flow Rate (gpm): <i>650.00</i> , Strokes Per Minute: <i>225.00</i>
Slide Drill	2	12-16	03:35	04:05	12-16	15952.00	15962.00	Pressure On (psi): <i>4260.00</i> , Pressure Off (psi): <i>3960.00</i> , Weight On Bit (klbs): <i>30.00</i> , Flow Rate (gpm): <i>700.00</i> , Strokes Per Minute: <i>243</i> , Toolface: <i>90</i> , Toolface Type: <i>gravity</i>
Rotary Drill	1	12-16	04:05	04:55	12-16	15962.00	16011.00	Pressure On (psi): <i>3950.00</i> , Pressure Off (psi): <i>3400.00</i> , Weight On Bit (klbs): <i>42.00</i> , Surface RPM: <i>30</i> , Surface Torque (ft lbf): <i>26000.00</i> , Flow Rate (gpm): <i>650.00</i> , Strokes Per Minute: <i>225.00</i>
Survey	46	12-16	04:55	05:00	12-16	16011.00	16011.00	Inclination (°): <i>96.220</i> , Azimuth (°): <i>359.380</i> , TVD (ft): <i>10148.93</i> , Dogleg (°/100 ft): <i>1.64</i> , Sensor Depth (ft): <i>15948.00</i> , Bit To Sensor (ft): <i>63.00</i>

Rotary Drill	1	12-16	05:00	05:05	12-16	16011.00	16029.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-16	05:05	05:50	12-16	16029.00	16039.00	Pressure On (psi): 4260.00, Pressure Off (psi): 3960.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	12-16	05:50	07:55	12-16	16039.00	16104.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Circulating	3	12-16	07:55	09:00	12-16			Circulating Bottoms Up to POOH to change BHA
Pooh	7	12-16	09:00	14:00	12-16			POOH for [ Change Bit & Motor ]
Change BHA	6	12-16	14:00	14:40	12-16			P/U BHA # 7
TIH	8	12-16	14:40	23:00	12-16			TIH W/ BHA #7
Other	16	12-16	23:00	23:10	12-16			Down Link MWD
Rotary Drill	1	12-16	23:10	23:15	12-16	16104.00	16106.00	Pressure On (psi): 3950.00, Pressure Off (psi): 3400.00, Weight On Bit (klbs): 42.00, Surface RPM: 30, Surface Torque (ft lbf): 26000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-16	23:15	23:20	12-16	16106.00	16106.00	Inclination (°): 95.960, Azimuth (°): 0.260, TVD (ft): 10138.85, Dogleg (°/100 ft): 0.96, Sensor Depth (ft): 16043.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-16	23:20	23:25	12-16	16106.00	16115.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-16	23:25	00:00	12-17	16115.00	16135.00	Pressure On (psi): 4150.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 150, Toolface Type: gravity

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

Friday, Dec 17 00:00 - 23:59 (Day 18 of 21)

Billing: \$9,500.00 (\$153,503.78 total)

Drilling Summary				Drilling Parameters	
Start Depth (ft)	16135.00	Downhole Hours	24.00	Rotating WOB (klbs)	42.00 - 42.00
Bit Depth (ft)	16905.00	Drilling Hours	12.67	Sliding WOB (klbs)	30.00 - 35.00
Bottom Hole Depth (ft)	16905.00	Hours Circulating	2.25	Rotating SPM	225.00 - 243.00
Total Distance (ft)	770.00	Hours Sliding	5.17	Sliding SPM	225.00 - 243.00
Distance Rotated (ft)	655.00	Hours Rotating	7.50	Motor RPM	175.00 - 175.00
Distance Slid (ft)	115.00			Surface RPM	40.00 - 50.00
Inclination In	93.36			Flow Rate (gpm)	650.00 - 700.00
Inclination Out	97.10			On Bottom Pressure (psi)	4150.00 - 4700.00
Azimuth In	1.31	% Hours Rotating	59%	Off Bottom Pressure (psi)	3800.00 - 4200.00
Azimuth Out	359.82	% Hours Sliding	41%		
AVG Total ROP (ft/h)	59.62	% Distance Sliding	15%		
AVG Rotating ROP (ft/h)	87.33	% Distance Rotating	85%		
AVG Sliding ROP (ft/h)	23.48				

## Personnel

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

## BHA #7 - 8.75" LATERAL ASSEMBLY

Date In: Dec 16, 2021, 14:40 Date Out: Dec 18, 2021, 5:30

Bit Details		Motor Details		Directional Comments	
OD (in)	8.750	Size (in)	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 0	
Vendor	REED	Lobe/Stage	7/8, 6.1		
S/N	A281863	Bend Angle	1.75		
Nozzles	7X15's	Speed (rev/gal)	0.25	MWD Comments	
Total Flow Area (in <sup>2</sup> )	1.208	Wear Pad OD (in)	7.250		
Drilling Hours for Day	12.67	Bit Distances			
Total Drilled for Day (ft)	770.00	Survey (Bit To Survey ): 63.00 ft, Bend (Bit To Bend ): 5.23 ft, Gamma (Bit to Gamma): 39.00 ft			
Drilling Hours for BHA	13.42	POOH Reason			
Total Drilled for BHA (ft)	801.00	Total Depth/Casing Point: N/A			

## Directional Items

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281863	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0016	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.21	31.21
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.48
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.69
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.63
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.07
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.79
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.29
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt Size</i> , Size (in): 7.00	NOV	AGHF0675-0183	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.42	2053.71
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.15

## MWD Items

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Slide Drill	2	12-16	23:25	00:00	12-17	16115.00	16135.00	Pressure On (psi): 4150.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 150, Toolface Type: gravity
Rotary Drill	1	12-17	00:00	00:45	12-17	16135.00	16202.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-17	00:45	00:50	12-17	16202.00	16202.00	Inclination (°): 93.360, Azimuth (°): 1.310, TVD (ft): 10131.05, Dogleg (°/100 ft): 2.92, Sensor Depth (ft): 16139.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	00:50	01:50	12-17	16202.00	16297.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-17	01:50	01:55	12-17	16297.00	16297.00	Inclination (°): 95.210, Azimuth (°): 1.230, TVD (ft): 10123.95, Dogleg (°/100 ft): 1.95, Sensor Depth (ft): 16234.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	01:55	02:00	12-17	16297.00	16310.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Slide Drill	2	12-17	02:00	02:55	12-17	16310.00	16340.00	Pressure On (psi): 4150.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 30.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-17	02:55	03:40	12-17	16340.00	16393.00	Pressure On (psi): 4300.00, Pressure Off (psi): 3800.00, Weight On Bit (klbs): 42.00, Surface RPM: 40, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 650.00, Strokes Per Minute: 225.00
Survey	46	12-17	03:40	03:45	12-17	16393.00	16393.00	Inclination (°): 93.050, Azimuth (°): 1.310, TVD (ft): 10117.04, Dogleg (°/100 ft): 2.25, Sensor Depth (ft): 16330.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	03:45	03:50	12-17	16393.00	16403.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	12-17	03:50	04:20	12-17	16403.00	16423.00	Pressure On (psi): 4500.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 35.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243, Toolface: 180, Toolface Type: gravity
Rotary Drill	1	12-17	04:20	05:00	12-17	16423.00	16489.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	12-17	05:00	05:05	12-17	16489.00	16489.00	Inclination (°): 90.070, Azimuth (°): 0.610, TVD (ft): 10114.43, Dogleg (°/100 ft): 3.19, Sensor Depth (ft): 16426.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	05:05	06:05	12-17	16489.00	16584.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	12-17	06:05	06:10	12-17	16584.00	16584.00	Inclination (°): 89.410, Azimuth (°): 359.030, TVD (ft): 10114.86, Dogleg (°/100 ft): 1.80, Sensor Depth (ft): 16521.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	06:10	06:20	12-17	16584.00	16594.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	12-17	06:20	07:40	12-17	16594.00	16624.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	12-17	07:40	07:45	12-17	16624.00	16669.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Slide Drill	2	12-17	07:45	09:15	12-17	16669.00	16679.00	Toolface: 60, Toolface Type: gravity
Survey	46	12-17	09:15	09:20	12-17	16679.00	16679.00	Inclination (°): 92.350, Azimuth (°): 359.640, TVD (ft): 10113.40, Dogleg (°/100 ft): 3.16, Sensor Depth (ft): 16616.00, Bit To Sensor (ft): 63.00
Slide Drill	2	12-17	09:20	10:15	12-17	16679.00	16704.00	Toolface: 30, Toolface Type: gravity
Rotary Drill	1	12-17	10:15	11:20	12-17	16704.00	16775.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	12-17	11:20	11:25	12-17	16775.00	16775.00	Inclination (°): 95.080, Azimuth (°): 1.140, TVD (ft): 10107.18, Dogleg (°/100 ft): 3.24, Sensor Depth (ft): 16712.00, Bit To Sensor (ft): 63.00
Rotary Drill	1	12-17	11:25	13:15	12-17	16775.00	16905.00	Pressure On (psi): 4700.00, Pressure Off (psi): 4200.00, Weight On Bit (klbs): 42.00, Surface RPM: 50, Surface Torque (ft lbf): 31000.00, Flow Rate (gpm): 700.00, Strokes Per Minute: 243.00
Survey	46	12-17	13:15	13:30	12-17	16905.00	16905.00	Inclination (°): 97.100, Azimuth (°): 359.820, TVD (ft): 10093.39, Dogleg (°/100 ft): 1.85, Sensor Depth (ft): 16842.00, Bit To Sensor (ft): 63.00
Circulating	3	12-17	13:30	15:45	12-17			Circulate And Condition Hole Clean
Pooh	7	12-17	15:45	04:30	12-18			POOH Laying Down DP Well TD

**MWD Activities**





<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
<b>Company Man</b>		

Saturday, Dec 18 00:00 - 23:59 (Day 19 of 21)

Billing: \$9,500.00 (\$153,503.78 total)

Drilling Summary		Drilling Parameters	
<b>Start Depth (ft)</b>	<b>Downhole Hours</b>	5.50	<b>Rotating WOB (klbs)</b>
<b>Bit Depth (ft)</b>	<b>Drilling Hours</b>	0.00	<b>Sliding WOB (klbs)</b>
<b>Bottom Hole Depth (ft)</b>	<b>Hours Circulating</b>	0.00	<b>Rotating SPM</b>
<b>Total Distance (ft)</b>	0.00	<b>Hours Sliding</b>	0.00
<b>Distance Rotated (ft)</b>	0.00	<b>Hours Rotating</b>	0.00
<b>Distance Slid (ft)</b>	0.00	<b>Motor RPM</b>	175.00 - 175.00
<b>Inclination In</b>		<b>Surface RPM</b>	
<b>Inclination Out</b>		<b>Flow Rate (gpm)</b>	
<b>Azimuth In</b>	<b>% Hours Rotating</b>	<b>On Bottom Pressure (psi)</b>	
<b>Azimuth Out</b>	<b>% Hours Sliding</b>	<b>Off Bottom Pressure (psi)</b>	
<b>AVG Total ROP (ft/h)</b>	0.00	<b>% Distance Sliding</b>	
<b>AVG Rotating ROP (ft/h)</b>	0.00	<b>% Distance Rotating</b>	
<b>AVG Sliding ROP (ft/h)</b>	0.00		

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**BHA #7 - 8.75" LATERAL ASSEMBLY**

Date In: Dec 16, 2021, 14:40 Date Out: Dec 18, 2021, 5:30

Bit Details		Motor Details		Directional Comments
<b>OD (in)</b>	8.750	<b>Size (in)</b>	7.0	(BICO)7" SSS100 Motor: 1.75° FXD 7/8 6.1 Stg w/ SLICK, Flow Range: 300-700 GPM, Max Diff: 1,800 psi, Max Torque: 17,100 ft/lbs, RPG: 0.25 Bit Runs: 0
<b>Vendor</b>	REED	<b>Lobe/Stage</b>	7/8, 6.1	<b>MWD Comments</b>
<b>S/N</b>	A281863	<b>Bend Angle</b>	1.75	
<b>Nozzles</b>	7X15's	<b>Speed (rev/gal)</b>	0.25	<b>POOH Reason</b> Total Depth/Casing Point: N/A
<b>Total Flow Area (in<sup>2</sup>)</b>	1.208	<b>Wear Pad OD (in)</b>	7.250	
<b>Drilling Hours for Day</b>	0.00	<b>Bit Distances</b>		
<b>Total Drilled for Day (ft)</b>		<b>Survey (Bit To Survey ):</b> 63.00 ft, <b>Bend (Bit To Bend ):</b> 5.23 ft, <b>Gamma (Bit to Gamma):</b> 39.00 ft		
<b>Drilling Hours for BHA</b>	13.42			
<b>Total Drilled for BHA (ft)</b>	801.00			

**Directional Items**

Description	Vendor	SN#	Top Conn	Btm Conn	ID (in)	OD (in)	Fn Len. (ft)	Len (ft)	Aggr. Len (ft)
<b>Bit (Fixed Cutter)</b> Description: <i>TKC 76-U1</i> , Type: <i>PDC (Polycrystalline Diamond Compacts)</i> , Gauge Length (in): 1.00, Size (in): 8.75	REED	A281863	4 1/2" Reg Pin			8.750		1.00	1.00
<b>Mud Motor</b> Description: <i>7" BICO Motor 7/8 6.1 1.75 Fxd / SLK</i> , Size (in): 7.00, Bend Angle (°): 1.75, Rotor Lobe: 7, Stator Lobe: 8, Stator Stage: 6.1	Bico	BPB5700-0016	4 1/2" IF Box	4 1/2" Reg Box		7.000		30.21	31.21
<b>Other</b> Description: <i>Resistivity Tool NM</i>	Benchtree	650-1010	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		31.27	62.48
<b>Other</b> Description: <i>Battery Sub NM</i>	Benchtree	B6003xx	4 1/2" IF Box	4 1/2" IF Pin	3.250	6.500		17.21	79.69
<b>Drill Collar</b> Description: <i>6.75" NMDC</i> , Material: <i>Non-Magnetic</i> , Type: <i>Slick Drill</i>	Gator Tech	6730196	4 1/2" IF Box	4 1/2" IF Pin	3.300	6.750		28.94	108.63
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.44	112.07
<b>Drill Pipe</b> Description: <i>20 Stands of 5.5" DP</i> , Type: <i>Slick</i>	RIG		CET54 Box	CET54 Box	2.520	5.500		1913.72	2025.79
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR7092	CET54 Box	4 1/2" IF Pin	2.500	6.460		3.50	2029.29
<b>Agitator</b> Description: <i>ADJITATOR w/ 1.85 Plt</i> Size (in): 7.00	NOV	AGHF0675-0183	4 1/2" IF Box	4 1/2" IF Pin		7.000		24.42	2053.71
<b>Crossover Sub</b> Description: <i>Crossover</i> , Material: <i>Steel</i>	PLATINUM	PPR6255	4 1/2" IF Box	CET54 Pin	2.500	6.460		3.44	2057.15

**MWD Items**

No Items

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Pooh	7	12-17	15:45	04:30	12-18			POOH Laying Down DP Well TD
Lay Down BHA	65	12-18	04:30	05:30	12-18			L/D BHA #7
Standby	15	12-18	05:30	23:00	12-18			Standby Casing Ops.
Other	16	12-18	23:00	03:00	12-19			Cement Production Casing

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Sunday, Dec 19 00:00 - 23:59 (Day 20 of 21)**

**Billing:** \$1,000.00 (\$153,503.78 total)

Drilling Summary			Drilling Parameters		
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	12-18	23:00	03:00	12-19			Cement Production Casing
Other	16	12-19	03:00	06:00	12-20			Standby Rig Down, Rig Move

**MWD Activities**

No Activities



<b>Job Number</b> WT-21-179	<b>Operator</b> Advance Energy Partners	<b>Rig Name</b> Nabors X47
<b>Start Date</b> 2021-11-15	<b>Well Name</b> Anderson Fed Com 508H	<b>Legal Well Name   AFE</b> Anderson Fed Com 508H
<b>Play</b> Delaware Basin	<b>State/Province and Country</b> New Mexico, US	<b>County</b> Lea
		<b>Company Man</b>

**Monday, Dec 20 00:00 - 23:59 (Day 21 of 21)**

**Billing: \$8,483.53 (\$153,503.78 total)**

Drilling Summary			Drilling Parameters		
Start Depth (ft)		Downhole Hours	0.00	Rotating WOB (klbs)	
Bit Depth (ft)		Drilling Hours	0.00	Sliding WOB (klbs)	
Bottom Hole Depth (ft)		Hours Circulating	0.00	Rotating SPM	
Total Distance (ft)	0.00	Hours Sliding	0.00	Sliding SPM	
Distance Rotated (ft)	0.00	Hours Rotating	0.00	Motor RPM	-
Distance Slid (ft)	0.00			Surface RPM	
Inclination In				Flow Rate (gpm)	
Inclination Out				On Bottom Pressure (psi)	
Azimuth In		% Hours Rotating		Off Bottom Pressure (psi)	
Azimuth Out		% Hours Sliding			
AVG Total ROP (ft/h)	0.00	% Distance Sliding			
AVG Rotating ROP (ft/h)	0.00	% Distance Rotating			
AVG Sliding ROP (ft/h)	0.00				

**Personnel**

Name	Position
Eddie Sheppard	Directional Driller
Advance Nabors X47	Directional Driller
Francisco DeLeon	MWD Engineer
Kyle Kusak	MWD Engineer

**No BHAs**

**Directional Activities**

Activity Type	Code	Start Date	Start Time	End Time	End Date	Start (ft)	End (ft)	Comments/Details
Other	16	12-19	03:00	06:00	12-20			Standby Rig Down, Rig Move

**MWD Activities**

No Activities



# Surface Plat

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## **Anderson Fed Com 508H (WT-21-179)**

2021-11-15 to 2021-12-20

Lea, New Mexico, US (32.43, -103.64)

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**DISTRICT I**  
1825 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) 476-3480 Fax: (505) 476-3482

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised August 4, 2011

Submit one copy to appropriate  
District Office

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

AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

API Number	Pool Code	Pool Name
Property Code	Property Name ANDERSON FED COM	Well Number 508H
OGRID No.	Operator Name ADVANCE ENERGY PARTNERS HAT MESA, LLC	Elevation 3658'

**Surface Location**

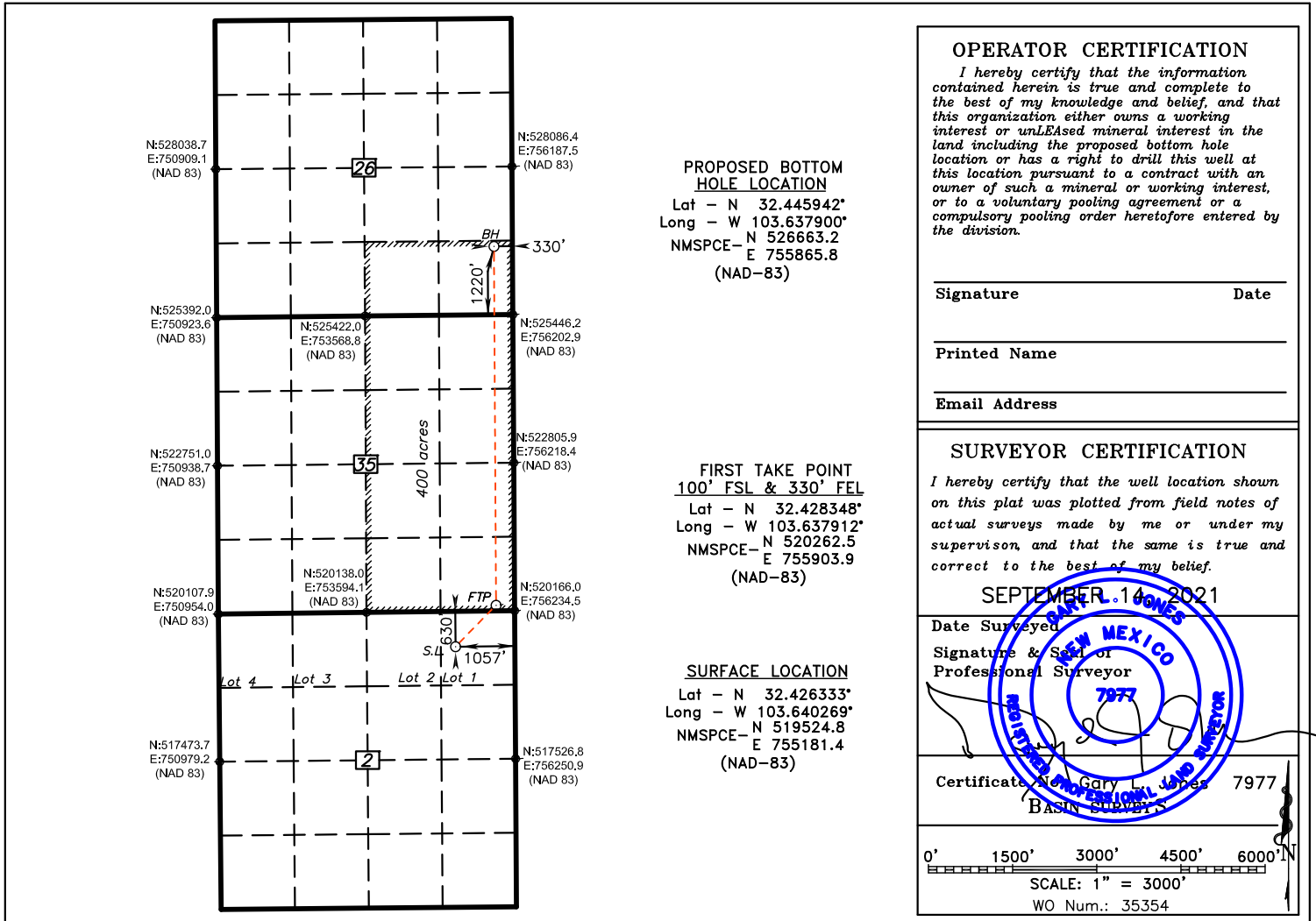
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
LOT 1	2	22 S	32 E		630	NORTH	1057	EAST	LEA

**Bottom Hole Location If Different From Surface**

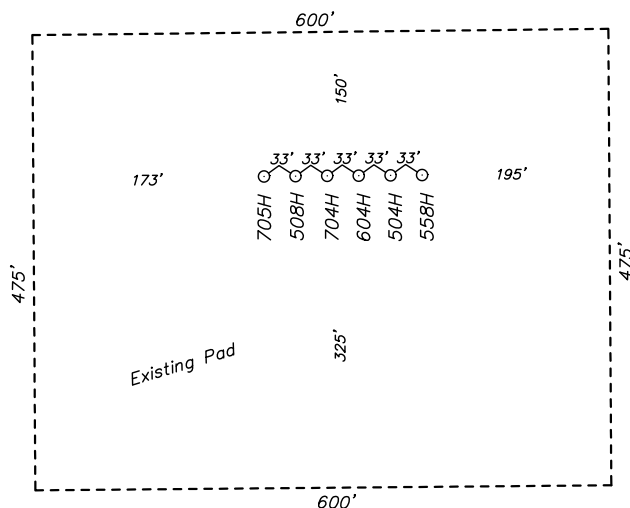
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/West line	County
P	26	21 S	32 E		1220	SOUTH	330	EAST	LEA

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



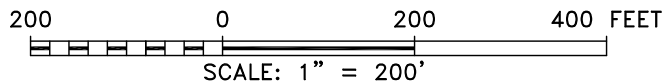
**SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**



**ADVANCE ENERGY PARTNERS HAT MESA, LLC**  
**ANDERSON FED COM 508H**  
**ELEV. - 3658'**

Lat - N 32.426333°  
 Long - W 103.640269°  
 NMSPC-E N 519524.8  
 E 755181.4  
 (NAD-83)

EUNICE, NM IS ±28 MILES TO THE EAST OF LOCATION.

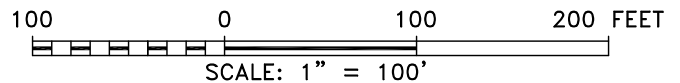
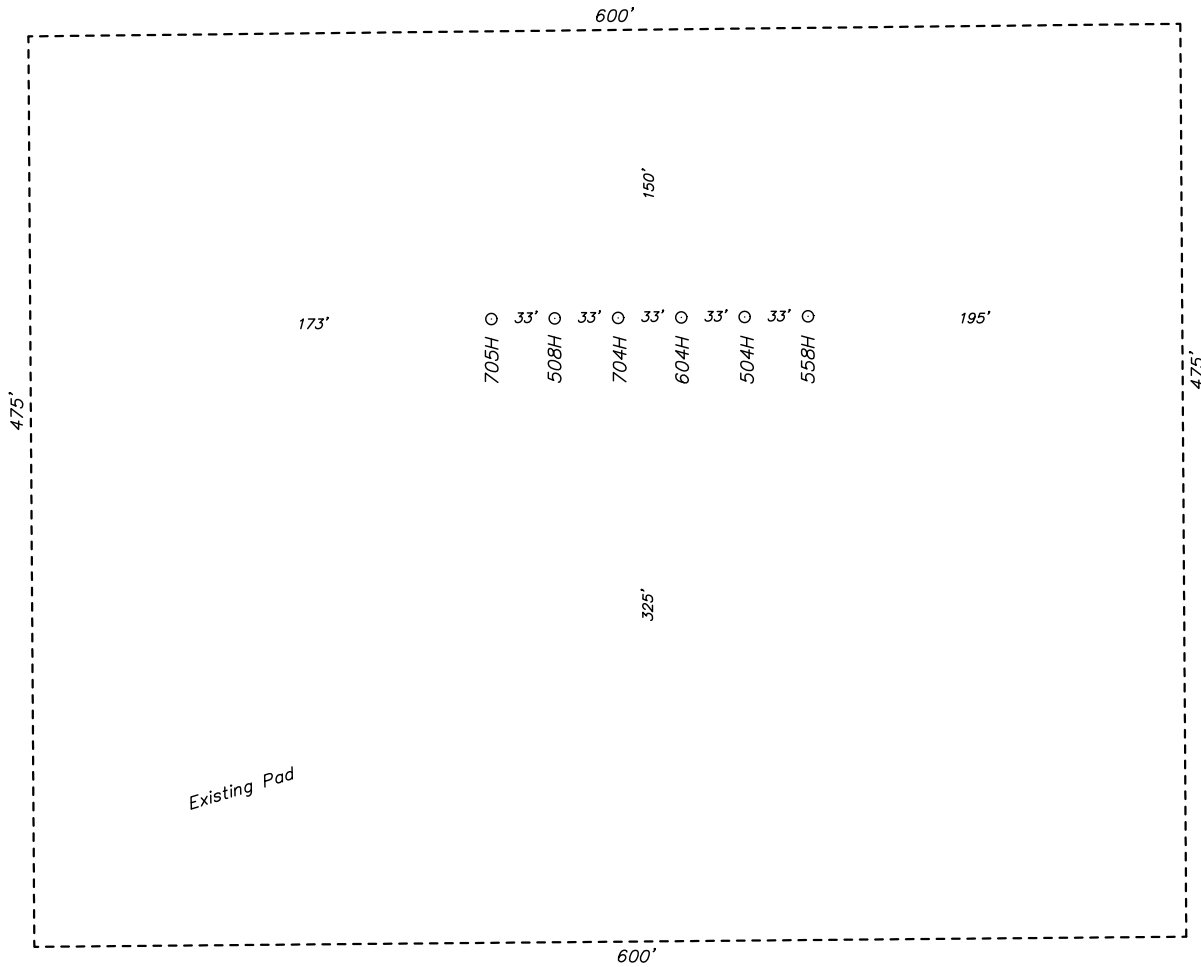


P.O. Box 1786 (575) 393-7316 - Office  
 1120 N. West County Rd. (575) 392-2206 - Fax  
 Hobbs, New Mexico 88241 basin-surveys.com

<b>ADVANCE ENERGY PARTNERS HAT MESA, LLC</b>
REF: ANDERSON FED COM 508H / WELL PAD TOPO
THE ANDERSON FED COM 508H LOCATED 630' FROM THE NORTH LINE AND 1057' FROM THE EAST LINE OF SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M., LEA COUNTY, NEW MEXICO.

W.O. Number: 35354	Drawn By: K. GOAD	Date: 09-14-2021	Survey Date: 09-14-2021	Sheet 1 of 1 Sheets
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**SECTION 2, TOWNSHIP 22 SOUTH, RANGE 32 EAST. N.M.P.M.,  
LEA COUNTY, NEW MEXICO.**



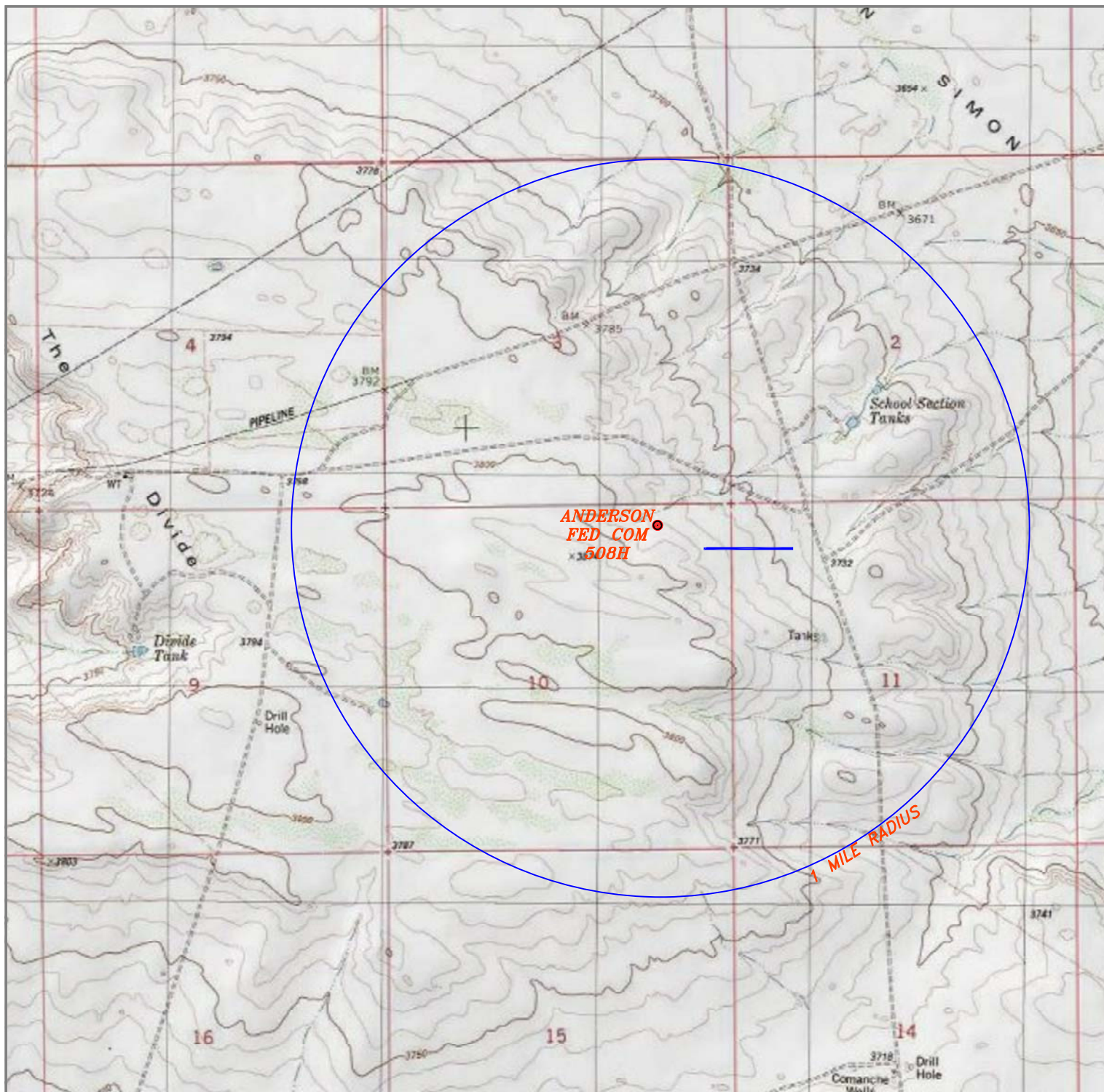
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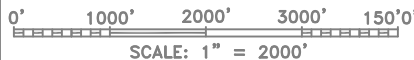


### ANDERSON FED COM 508H

Located 630' FNL and 1057' FEL  
 Section 2, Township 22 South, Range 32 East,  
 N.M.P.M., Lea County, New Mexico.



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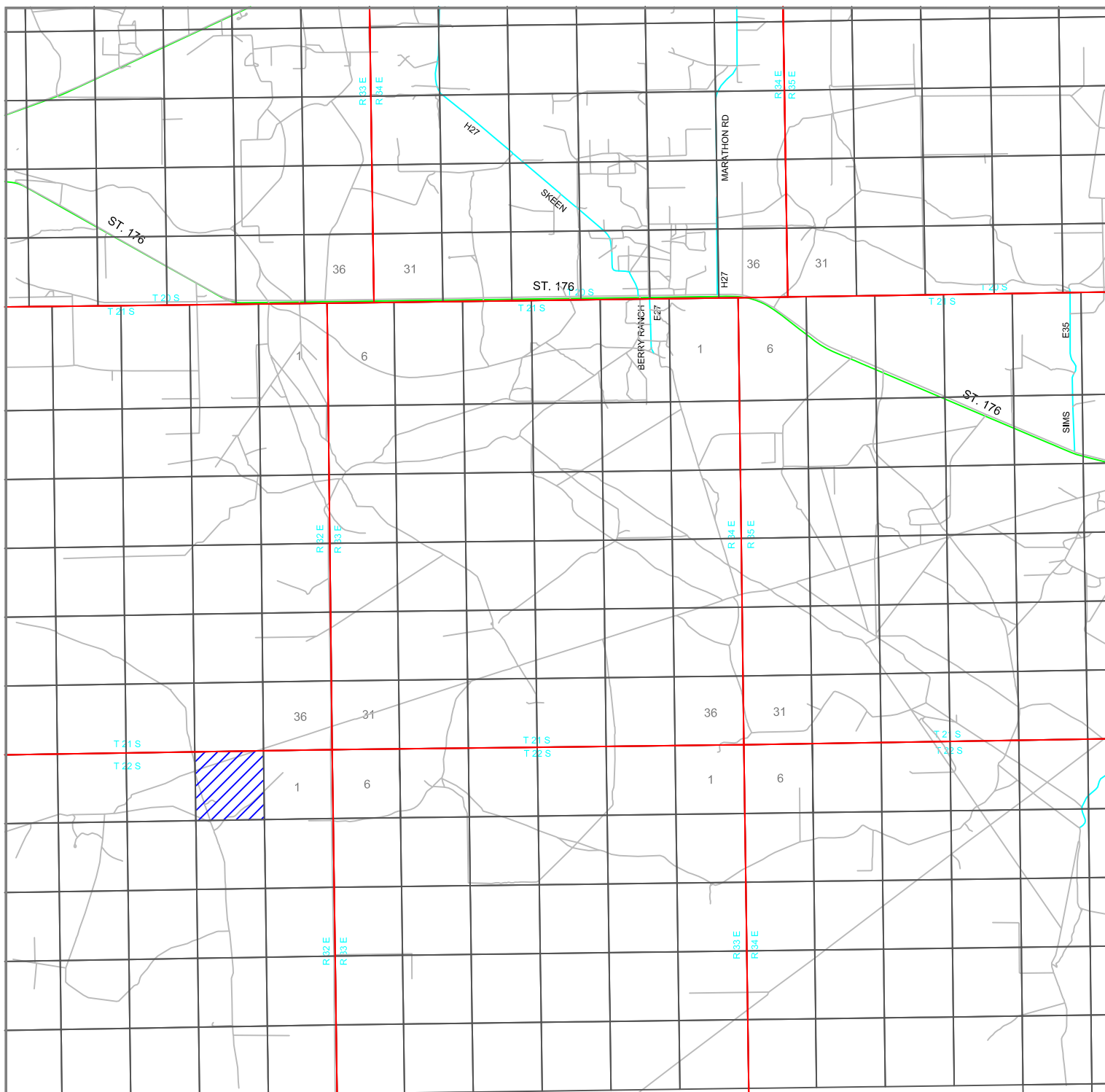


W.O. Number: 35354  
 Survey Date: 09-14-2021

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



**ADVANCE  
 ENERGY  
 PARTNERS HAT  
 MESA, LLC**

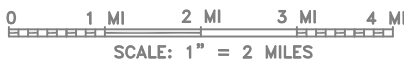


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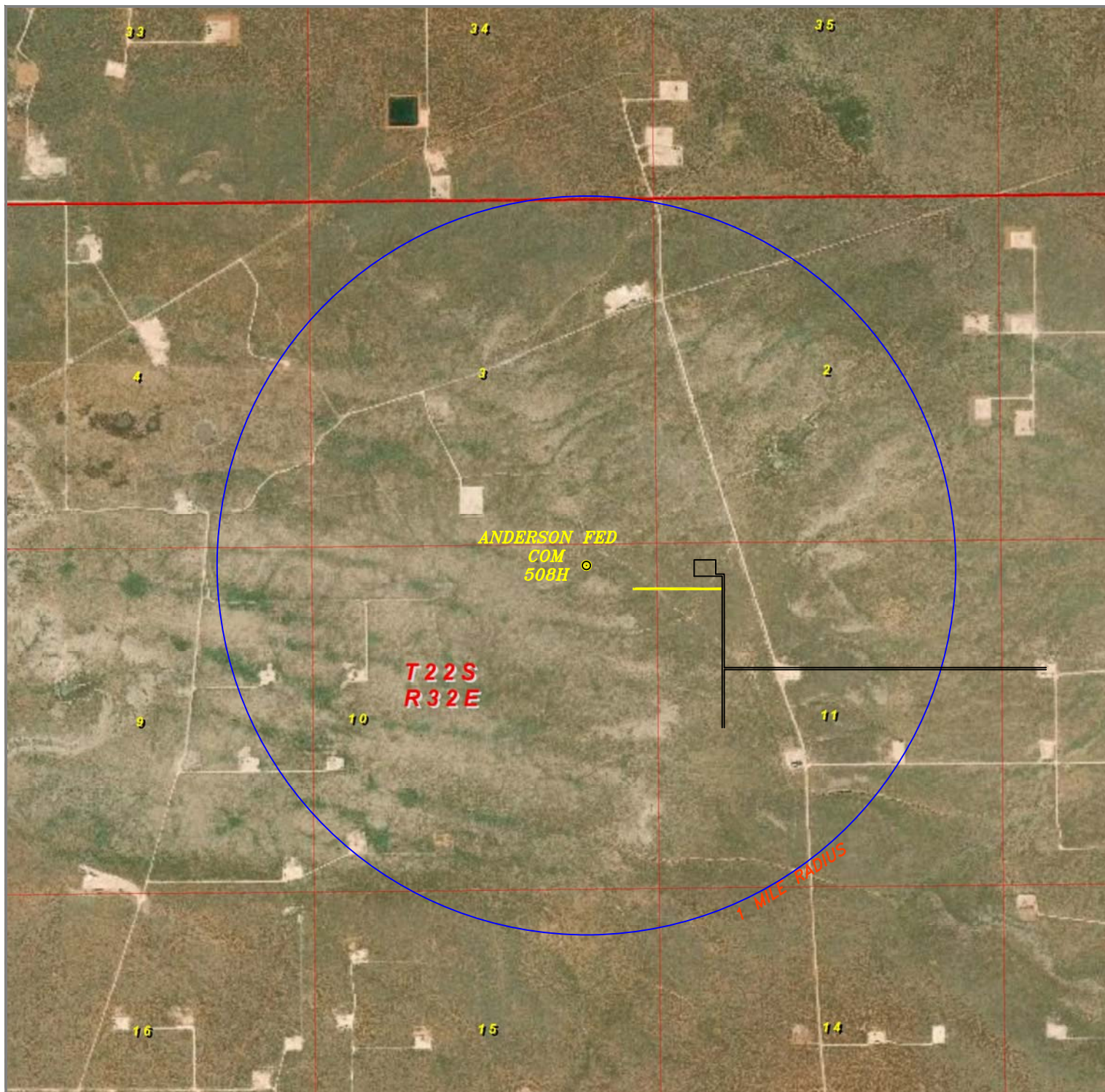
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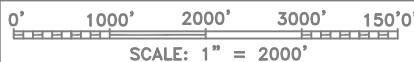


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**ADVANCE  
ENERGY  
PARTNERS HAT  
MESA, LLC**

Sante Fe Main Office  
Phone: (505) 476-3441

General Information  
Phone: (505) 629-6116

Online Phone Directory  
<https://www.emnrd.nm.gov/ocd/contact-us>

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

ACKNOWLEDGMENTS

Action 340455

**ACKNOWLEDGMENTS**

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 340455
	Action Type: [C-105] Well (Re)Completion (C-105)

**ACKNOWLEDGMENTS**

<input checked="" type="checkbox"/>	I hereby certify that the required Water Use Report has been, or will be, submitted for this wells completion.
<input checked="" type="checkbox"/>	I hereby certify that the required FracFocus disclosure has been, or will be, submitted for this wells completion.
<input type="checkbox"/>	I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.
<input type="checkbox"/>	I hereby certify that no additives containing PFAS chemicals were added to the fluid used in the completion or recompletion of this well.

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**State of New Mexico**  
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CONDITIONS

Action 340455

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Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 340455
	Action Type: [C-105] Well (Re)Completion (C-105)

**CONDITIONS**

Created By	Condition	Condition Date
raul.robles	None	4/30/2026