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

Sundry Print Report

07/17/2024

Well Name: SANDRA JEAN 23 FED COM

Well Location: T20S / R33E / SEC 23 / SESW / 32.5519293 / -103.6367082

County or Parish/State: LEA / NM

Well Number: 505H

Type of Well: OIL WELL

Allottee or Tribe Name:

Lease Number: NMNM29704

Unit or CA Name:

Unit or CA Number:

US Well Number: 3002552674

Operator: AVANT OPERATING LLC

Notice of Intent

Sundry ID: 2800765

Type of Submission: Notice of Intent

Type of Action: APD Change

Date Sundry Submitted: 07/15/2024

Time Sundry Submitted: 11:34

Date proposed operation will begin: 07/19/2024

Procedure Description: Avant Operating, LLC would like to request an update on the TVD depth of the Sandra Jean 505H well. The updated TVD will be 10,128'. Please see the attached updated documentation for this request. Thank you!

NOI Attachments

Procedure Description

5.5_in_20__P110HC_INT_SP_20240716114505.pdf

Avant_Natural_Resources_Sandra_Jean_23_Fed_Com_505H_No_Pricing_20240715113417.pdf

Plan_3.0_Sandra_Jean_23_Fed_Com_505H_20240715113405.pdf

Sandra_Jean_23_Fed_Com_505H_WBS_v2_Prelim_20240715113352.pdf

Well Name: SANDRA JEAN 23 FED COM | **Well Location:** T20S / R33E / SEC 23 / SESW / 32.5519293 / -103.6367082 | **County or Parish/State:** LEA / NM

Well Number: 505H | **Type of Well:** OIL WELL | **Allottee or Tribe Name:**

Lease Number: NMNM29704 | **Unit or CA Name:** | **Unit or CA Number:**

US Well Number: 3002552674 | **Operator:** AVANT OPERATING LLC

Conditions of Approval

Additional

23_20_33_N_Sundry_ID_2800765_Sandra_Jean_23_Fed_Com_505H_Lea_NM29704_AVANT_OPERATING_LLC_13_22fa_8_9_2023_LV_20240716133728.pdf

Sandra_Jean_23_Fed_Com_505H_Dr_COA_20240716133728.pdf

Operator

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: SARAH FERREYROS **Signed on:** JUL 16, 2024 11:45 AM

Name: AVANT OPERATING LLC

Title: Director of Regulatory

Street Address: 1515 WYNKOOP

City: DENVER **State:** CO

Phone: (720) 854-9020

Email address: SARAH@AVANTNR.COM

Field

Representative Name:

Street Address:

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

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS **BLM POC Title:** Petroleum Engineer

BLM POC Phone: 5752342234 **BLM POC Email Address:** cwalls@blm.gov

Disposition: Approved **Disposition Date:** 07/16/2024

Signature: Chris Walls

Form 3160-5
(June 2019)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2021

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE *- Other instructions on page 2*

5. Lease Serial No. NMNM29704

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No. SANDRA JEAN 23 FED COM/505H

2. Name of Operator AVANT OPERATING LLC

9. API Well No. 3002552674

3a. Address 1515 WYNKOOP STREET, SUITE 700, DENVEF

3b. Phone No. *(include area code)* (720) 746-5045

10. Field and Pool or Exploratory Area TEAS/BONE SPRING

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)* SEC 23/T20S/R33E/NMP

11. Country or Parish, State LEA/NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
☐ Final Abandonment Notice	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be perfonned or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has detennined that the site is ready for final inspection.)

Avant Operating, LLC would like to request an update on the TVD depth of the Sandra Jean 505H well. The updated TVD will be 10,128'.

Please see the attached updated documentation for this request. Thank you!

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)* SARAH FERREYROS / Ph: (720) 854-9020

Title Director of Regulatory

Signature (Electronic Submission)

Date 07/16/2024

THE SPACE FOR FEDERAL OR STATE OFICE USE

Approved by CHRISTOPHER WALLS / Ph: (575) 234-2234 / Approved

Title Petroleum Engineer

Date 07/16/2024

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

Office CARLSBAD

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 on page 2)

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

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. 396; 43 CFR 3160.
PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.
ROUTINE USES: 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 in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.
EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.
Response to this request is mandatory.
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 ofthis form to U.S. Department ofthe Interior, Bureau ofLand Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

Additional Information

Location of Well

0. SHL: SESW / 200 FSL / 1788 FWL / TWSP: 20S / RANGE: 33E / SECTION: 23 / LAT: 32.5519293 / LONG: -103.6367082 (TVD: 0 feet, MD: 0 feet)

PPP: SWNW / 2639 FSL / 1254 FWL / TWSP: 20S / RANGE: 33E / SECTION: 23 / LAT: 32.5586333 / LONG: -103.6384439 (TVD: 10400 feet, MD: 12806 feet)

PPP: SWSW / 100 FSL / 1254 FWL / TWSP: 20S / RANGE: 33E / SECTION: 23 / LAT: 32.5516559 / LONG: -103.6384411 (TVD: 10400 feet, MD: 10705 feet)

BHL: NWNW / 100 FNL / 1254 FWL / TWSP: 20S / RANGE: 33E / SECTION: 23 / LAT: 32.5656345 / LONG: -103.6384464 (TVD: 10400 feet, MD: 15362 feet)

23-20-33-N Sundry ID 2800765 Sandra Jean 23 Fed Com 505H Lea NM29704 AVANT OPERATING LLC 13-22fa 8-9-2023 LV

Sandra Jean 23 Fed Com 505H

20	surface csg in a	24	inch hole.		Design Factors				Surface			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	j 55	ltc	5.81	0.6	1.13	1,660	3	1.90	1.05	156,040
"B"			ltc				0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 753		Tail Cmt	does not	circ to sfc.	Totals:	1,660				156,040

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
24	0.9599	1265	2221	1593	39	10.00	1112	2M	1.50

Site plat (pipe racks S or E) as per O.O.1 III.D.4.i not found.

13 3/8	casing inside the	20			Design Factors				Int 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	54.50	j 55	ltc	2.76	0.61	1.18	3,417	1	2.32	1.02	186,227
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 427					Totals:	3,417				186,227
	The cement volume(s) are intended to achieve a top of			0	ft from surface or a		1660				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	1925	3417	2912	17	10.50	1179	2M	2.06
r D V Tool(s):							sum of sx	Σ CuFt	Σ%excess
t by stage % :		#VALUE!	#VALUE!				1925	3417	17

Class 'C' tail cmt yld > 1.35

9 5/8	casing inside the	13 3/8			Design Factors				Int 2			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.00	j 55	ltc	2.50	1.44	0.77	4,000	2	1.36	2.83	160,000
"B"	40.00	hcl 80	ltc	17.44	1.82	1.13	1,204	2	1.99	3.59	48,160
"C"							0				0
"D"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 1,020					Totals:	5,204				208,160
	The cement volume(s) are intended to achieve a top of			0	ft from surface or a		3417				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	1185	2125	1799	18	8.60	2897	3M	0.81
	Setting Depths for D V Tool(s):		3618				sum of sx	Σ CuFt	Σ%excess
	% excess cmt by stage:	328	47				2210	4043	125

Class 'C' tail cmt yld > 1.35

Burst Frac Gradient(s) for Segment(s): A, B, C, D = 0.99, B, C, d All > 0.70, OK

5 1/2	casing inside the	9 5/8			Design Factors				Prod 1			
Segment	#/ft	Grade	Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00	p 110	intrepid-sp	3.20	2.39	2.48	15,095	2	4.36	4.21	301,900
"B"							0				0
	w/8.4#/g mud, 30min Sfc Csg Test psig: 2,204					Totals:	15,095				301,900
	The cement volume(s) are intended to achieve a top of			3543	ft from surface or a		1661				overlap.

Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	2270	4711	2932	61	9.80			1.23

Class 'H' tail cmt yld > 1.20 Capitan Reef est top XXXX.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Avant Operating LLC**
LEASE NO.:	**NMNM29704**
LOCATION:	Section 23, T.20 S., R.33 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**Sandra Jean 23 Fed Com 505H**
BOTTOM HOLE FOOTAGE	100'/N & 1254'/W
ATS/API ID:	**3002552674**
APD ID:	**10400093471**
Sundry ID:	**N/a**
Date APD Submitted:	**N/a**

COA

H2S	Yes		
Potash	R-111-P		
Cave/Karst Potential	Low		
Cave/Karst Potential	☐ Critical		
Variance	☐ None	☑ Flex Hose	☐ Other
Wellhead	Diverter		
Other	☑ 4 String	Capitan Reef Int 2	☐ WIPP
Other	Pilot Hole None	☐ Open Annulus	
Cementing	Contingency Squeeze None	Echo-Meter None	Primary Cement Squeeze None
Special Requirements	☐ Water Disposal/Injection	☑ COM	☐ Unit
Special Requirements	☐ Batch Sundry		
Special Requirements Variance	☐ Break Testing	☑ Offline Cementing	☐ Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** formation. As a result, the Hydrogen Sulfide area must meet **43 CFR part 3170 Subpart 3176** requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Surface casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1660 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt when present, and below usable fresh water) and cemented to the surface. The surface hole shall be **24** inch in diameter.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The minimum required fill of cement behind the **13-3/8** inch intermediate casing shall be set at approximately **3417 feet** is:

    - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.**

- ❖ In R111 Potash Areas if cement does not circulate to surface on the first two salt protection casing strings, the cement on the 3rd casing salt string must come to surface.

- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. Operator shall provide method of verification.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef. Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

Option 2:

Operator has proposed a DV tool(s), the depth may be adjusted as long as the cement is changed proportionally. The DV tool(s) may be cancelled if cement circulates to surface on the first stage.

DV tool(s) shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall contact the BLM if DV tool(s) depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

In Capitan Reef a DV tool shall be set a maximum of 200' above the top of Capitan Reef.

a. First stage to DV tool(s): Cement to circulate. If cement does not circulate off the DV tool(s), contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool(s):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. Operator shall provide method of verification.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

Cement excess is less than 25%, more cement is required if washout occurs. Adjust cement volume and excess based on a fluid caliper or similar method that reflects the as-drilled size of the wellbore.

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

   - Cement should tie-back at least **50 feet** on top of Capitan Reef top **or 500 feet** into the previous casing, whichever is greater. Operator shall provide method of verification.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be tested to **1500** psi. A Diverter system is approved as a variance to drill the **13-3/8** inch intermediate casing section in a **17-1/2** inch hole.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** inch intermediate casing shoe shall be **3000 (3M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** inch intermediate casing shoe shall be **5000 (5M)** psi.

Option 2:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be tested to **1500** psi. A Diverter system is approved as a variance to drill the **13-3/8** inch intermediate casing section in a **17-1/2** inch hole.

b. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch intermediate casing. Minimum working pressure of the blowout preventer (BOP) and related

equipment (BOPE) required for drilling below the intermediate casing shoe shall be **5000 (5M)** psi.

a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
c. Manufacturer representative shall install the test plug for the initial BOP test.
d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- The operator will submit an as-drilled survey well plat of the well completion, but are not limited to, those specified in **43 CFR part 3170 Subpart 3171**
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

Offline Cementing

Operator has been **(Approved)** to pump the proposed cement program offline in the **Intermediate(s) interval**.

Offline cementing should commence within 24 hours of landing the casing for the interval.

Notify the BLM 4hrs prior to cementing offline at **Lea County: 575-689-5981**.

GENERAL REQUIREMENTS

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

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

☑ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,
(575) 689-5981

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.

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

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

A. CASING

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

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

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

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

8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in **43 CFR part 3170 Subpart 3172** and **API STD 53 Sec. 5.3**.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-

off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

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

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

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

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

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per **43 CFR part 3170 Subpart 3172**.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

Long Vo (LVO) 7/16/2024

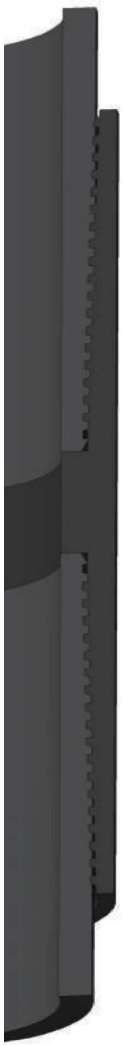
Performance Data Sheet

Issued on: 01.09.2023

INTERPIPE

OD Label	LM Label	Grade	Connection
5 1/2	20.00	P110HC	INTREPID-SP®

PIPE BODY PROPERTIES



Nominal OD	Nominal ID	Nominal WT	Nominal LM
5.500 inch	4.778 inch	0.361 inch	20.00 ppf
139,70 mm	121,36 mm	9,17 mm	29,76 kg/m

Standard Drift	Minimal YS	Maximal YS	Minimal UTS
4.653 inch	110 ksi	140 ksi	125 ksi
118,19 mm	758 MPa	965 MPa	862 MPa

CONNECTION PROPERTIES & PERFORMANCES

Name	Type	Coupling OD	Connection ID
INTREPID-SP®	Semi-Premium T&C	6.300 inch 160,02 mm	4.778 inch 121,36 mm

Coupling length	Tension efficiency	Compression Efficiency	Make-up loss
9.449 inch	641 klb	641 klb	4.126 inch
240,00 mm	2 850 kN	2 850 kN	104,80 mm
	100 % PB	100 % PB	

Burst	Collapse	Max. Bending	Max. Load on Coupling Face
12 640 Psi	12 200 Psi	46 °/100 ft	583 klb
87,1 MPa	84,1 MPa	46 °/30 m	2 591 kN
100 % PB	100 % PB		

FIELD TORQE VALUES

	[ft-lb]	[N·m]
Min. Make-Up Torque	12 400	16 800
Opt. Make-Up Torque	13 800	18 700
Max. Make-Up Torque	15 200	20 600

	[ft-lb]	[N·m]
Operational Torque	21 500	29 150
Yield Torque	23 900	32 400

PROPOSAL#: 230714093709-I

CEMENT PROCEDURE & PROPOSAL

PREPARED FOR:

Mr. Braden Harris
EMAIL: braden@avantnr.com
PHONE NUMBER: 406-600-3310

Avant Natural Resources

Sandra Jean 23 Fed Com #505H

Lea County, NM
Rig: H&P 255
API Number: 30-025-52674

Service Point

Odessa
1400 S JBS Parkway Odessa, TX 79766
432-701-8955

Technical Writer
Jonathan Smith
jonathan@wtcementers.com
432-701-3719

WTC Representative
Jon Reynolds
jon@wtcementers.com
432-257-1234

PRINTED 7/2/2024 8:30 VERSION: v0.29

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

Surface

PROPOSAL#: 230714093709-I

WELL INFORMATION	
MUD	8.4# Spud Mud
PREVIOUS PIPE	30" 98.89# CSG to 120
OPEN HOLE	24" OH to 1453
CASING/INJECTION	20" 94# J-55/BTC to 1453
MD	1453
TVD	1453
EST BHST/BHCT	92-F / 85-F (0.8-F/100-FT)
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	120	29.376	20		0.4497	54.0
Lead	1033	24	20	50%	0.2564	264.9
Tail	300	24	20	20%	0.2052	61.5
SHOE JOINT	40	20	19.124		0.3553	14.2

FLUIDS

SPACER	
	Fresh Water
VOLUME	20-bbl

Lead		
	35% B_Poz+65% Class C+6% Gel+5% SALT+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A	
VOLUME	945-SX	*319.8-bbls*
DENSITY	12.8-ppg	
YIELD	1.9-cf/sx	
MIX WATER	10.17-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

Surface

PROPOSAL#: 230714093709-I

Tail		
	100% Class C+1% CaCl2+0.005GPS NoFoam V1A	
VOLUME	320-SX	*75.8-bbls*
DENSITY	14.8-ppg	
YIELD	1.33-cf/sx	
MIX WATER	6.34-gps	
TOP OF CEMENT	1153-ft	
EXCESS	20%	
DISPLACEMENT		
	Displacement	
VOLUME	502-bbl	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

1st Intermediate

PROPOSAL#: 230714093709-I

WELL INFORMATION	
MUD	10.5# Brine
PREVIOUS PIPE	20'' 94# CSG to 1453
OPEN HOLE	17.5'' OH to 3403
CASING/INJECTION	13.375'' 54.5# J-55/BTC to 3403
MD	3403
TVD	3403
EST BHST/BHCT	108-F / 96-F (0.8-F/100-FT)
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	1453	19.124	13.375		0.1815	263.7
Lead	1267	17.5	13.375	50%	0.1856	235.1
Tail	683	17.5	13.375	20%	0.1485	101.4
SHOE JOINT	40	13.375	12.615		0.1546	6.2

FLUIDS

SPACER

Fresh Water

VOLUME	25-bbl

Lead

35% B_Poz+65% Class C+6% Gel+5% SALT+0.2% R-1300+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A

VOLUME	1480-SX	*500.8-bbls*
DENSITY	12.8-ppg	
YIELD	1.9-cf/sx	
MIX WATER	10.18-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

1st Intermediate

PROPOSAL#: 230714093709-I

Tail		
100% Class C+5% SALT+0.3% CRT-201+0.005GPS NoFoam V1A		
VOLUME	445-SX	*107.8-bbls*
DENSITY	14.8-ppg	
YIELD	1.36-cf/sx	
MIX WATER	6.49-gps	
TOP OF CEMENT	2720-ft	
EXCESS	20%	
DISPLACEMENT		
Displacement		
VOLUME	519.9-bbl	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

2nd Multi-Stage Intermediate

PROPOSAL#: 230714093709-I

WELL INFORMATION	
MUD	8.4# Fresh Water
PREVIOUS PIPE	13.375'' 54.5# CSG to 3403
OPEN HOLE	12.25'' OH to 5204
CASING/INJECTION	9.625'' 40# J-55/L-80/HC/BTC to 5204
MD	5204
TVD	5200
EST BHST/BHCT	122-F / 106-F (0.8-F/100-FT)
DV TOOL	3618
EST BHST/BHCT STG2	109-F / 97-F (0.8-F/100-FT)
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Stage 1 Lead	3403	12.615	9.625	16%	0.0749	255.0
Stage 1 Lead	757	12.25	9.625	16%	0.0647	49.0
Stage 1 Tail	1044	12.25	9.625	20%	0.0669	69.9
Stage 2 Lead	3368	12.615	9.625	46%	0.0943	317.6
Stage 2 Tail	35	12.615	9.625	60%	0.1033	3.6
Stage 2 Tail	215	12.25	9.625	60%	0.0892	19.2
SHOE JOINT	40	9.625	8.835		0.0758	3.0

FLUIDS

SPACER

Fresh Water

VOLUME 25-bbl

Stage 1 Lead

35% Ch_Poz+65% Class C+6% Gel+5% SALT+0.35% R-1300+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A

VOLUME	885-SX	*305.8-bbls*
DENSITY	12.8-ppg	
YIELD	1.94-cf/sx	
MIX WATER	10.58-gps	
TOP OF CEMENT	Surface	
EXCESS	16%	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

2nd Multi-Stage Intermediate

PROPOSAL#: 230714093709-I

Stage 1 Tail		
100% Class C+5% SALT+0.3% CRT-201+0.005GPS NoFoam V1A		
VOLUME	300-SX	*72.7-bbls*
DENSITY	14.8-ppg	
YIELD	1.36-cf/sx	
MIX WATER	6.49-gps	
TOP OF CEMENT	4160-ft	
EXCESS	20%	
DISPLACEMENT		
Displacement		
VOLUME	391.5-bbl	
SPACER		
Fresh Water		
VOLUME	20-bbl	
Stage 2 Lead		
35% Ch_Poz+65% Class C+6% Gel+5% SALT+0.05% R-1300+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A		
VOLUME	925-SX	*318-bbls*
DENSITY	12.8-ppg	
YIELD	1.93-cf/sx	
MIX WATER	10.57-gps	
TOP OF CEMENT	Surface	
EXCESS	46%	
Stage 2 Tail		
100% Class C+0.1% CRT-201+0.005GPS NoFoam V1A		
VOLUME	100-SX	*23.7-bbls*
DENSITY	14.8-ppg	
YIELD	1.33-cf/sx	
MIX WATER	6.32-gps	
TOP OF CEMENT	3368-ft	
EXCESS	60%	
DISPLACEMENT		
Displacement		
VOLUME	274.3-bbl	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

Production

PROPOSAL#: 230714093709-I

WELL INFORMATION	
MUD	9.8# OBM
PREVIOUS PIPE	9.625'' 40# CSG to 5204
OPEN HOLE	8.75'' OH to 15095
CASING/INJECTION	5.5'' 20# P-110 HC Intrepid SP to 15095
MD	15095
TVD	10020
EST BHST/BHCT	215-F / 198-F (1.34-F/100-FT)
KOP	9685
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	5204	8.835	5.5		0.0464	241.7
Lead	4481	8.75	5.5	50%	0.0675	302.4
Tail	5410	8.75	5.5	20%	0.0540	292.0
SHOE JOINT	80	5.5	4.778		0.0222	1.8

FLUIDS

SPACER

Wt. Spacer 37.16GPB Water+8PPB PolyScrub 4320+105.54PPB Barite+1GPB HoleScrub 4311+1PPB R-1300

VOLUME	40-bbl
DENSITY	10.3-ppg

Lead

100% ProLite+5PPS Plexcrete STE+2% SMS+0.65% R-1300+0.2% FL-24+3PPS Gilsonite+0.005GPS NoFoam V1A

VOLUME	905-SX	*544.8-bbls*
DENSITY	10.7-ppg	
YIELD	3.38-cf/sx	
MIX WATER	21.06-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

Avant Natural Resources
Sandra Jean 23 Fed Com #505H
Lea County, NM
Rig: H&P 255

Production

PROPOSAL#: 230714093709-I

Tail		
50% B_Poz+50% Class H+5% SALT+0.05% RCKCAS-100+0.75% FR-5+0.5% FL-24+0.005GPS NoFoam V1A		
VOLUME	1365-SX	*294.2-bbls*
DENSITY	14.5-ppg	
YIELD	1.21-cf/sx	
MIX WATER	5.28-gps	
TOP OF CEMENT	9685-ft	
EXCESS	20%	
DISPLACEMENT		
Fresh Water+ 0.25GPT Plexcide 24L+1GPT Corplex		
VOLUME	333-bbl	
DENSITY	8.34-ppg	

CHEMICAL DESCRIPTIONS		
CHEMICAL NAME	**CODE**	**DESCRIPTION**
B_Poz	WTC228	Poz - Fly Ash, Extender
Class H	WTC101	API Cement
Class C	WTC100	API Cement
Ch_Poz	WTC237	Poz - Fly Ash, Extender
ProLite		Blended Based Cement
Plexcrete SFA	WTC129	Cement Strength Enhancer
Gel	WTC102	Extender
Micro Crystal	WTC212	Cement Strength Enhancer
Micro Shell	WTC209	Cement Strength Enhancer
WTC1	WTC250	Extender
Plexcrete STE	WTC127	Cement Strength Enhancer
FAR-2	WTC260	Cement Strength Enhancer
Gypsum	WTC111	Free Water Control, Extender
CaCl2	WTC112	Accelerator
SMS	WTC115	Free Water Control, Extender
RCKCAS-100	WTC276	Free Water Control, Anti-Settling Agent
SA-1	WTC264	Free Water Control, Extender
R-33	WTC243	Lignosulfonate Retarder
R-1300	WTC201	Low Temperature Retarder
FR-5	WTC258	Lignosulfonate Retarder
CRT-201	WTC278	Lignosulfonate Retarder
C-37	WTC224	Dispersant, Friction Reducer
FL-24	WTC277	Fluid Loss (polymers/copolymers - 300-F max)
EC-10	WTC120	Expanding Agent
Gas Bond	WTC126	Gas Migration Control (Hydrogen Generating)
Gilsonite	WTC003	Premium Lost Circulation Material, Free Water Control
Pol-E-Flake	WTC106	Lost Circulation Material
Web Seal	WTC133	Premium Fiber Lost Circulation Material
Zone Seal	WTC207	Premium Lost Circulation Material
NoFoam V1A	WTC105	Liquid Defoamer
Water		Fresh Water
PolyScrub 4320	WTC232	Spacer Gelling Agent
Barite	WTC116	Weighting Agent
HoleScrub 4311	WTC281	Surfactant
HoleScrub 4305	WTC213	Surfactant
HoleScrub 4308	WTC215	Surfactant
Soda Ash	WTC164	pH Control
R-1300	WTC201	Low Temperature Retarder
SuspendaCem 6302	WTC005	Free Water Control, Anti-Settling Agent
Sugar	WTC119	Retarder
AI-1, Acid Inhibitor	WTC015	Corrosion Inhibitor
Plexcide 24L	WTC166	Biocide
Corplex	WTC134	Corrosion Inhibitor
Clay Max	WTC096	KCL Substitute
Zone Seal	WTC207	Premium Lost Circulation Material

Avant Operating, LLC

Lea County, NM (N83 - NME)
Sandra Jean 23 Fed Com Pad 3
(01) Sandra Jean 23 Fed Com 505H

505H

Plan: Plan 3.0

Standard Planning Report

02 July, 2024

AVANT NATURAL RESOURCES

Dixon
Planning Report

DIXON

Database:	EDM 5000.1 Dixon Directional	**Local Co-ordinate Reference:**	Well (01) Sandra Jean 23 Fed Com 505H
Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Project Lea County, NM (N83 - NME)

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

Site Sandra Jean 23 Fed Com Pad 3

Site Position:		**Northing:**	565,224.58 usft	**Latitude:**	32.55192974
From:	Map	**Easting:**	755,941.69 usft	**Longitude:**	-103.63683782
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well (01) Sandra Jean 23 Fed Com 505H

Well Position	**+N/-S**	0.00 usft	**Northing:**	565,224.69 usft	**Latitude:**	32.55192933
	+E/-W	0.00 usft	**Easting:**	755,981.62 usft	**Longitude:**	-103.63670824
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,624.00 usft
Grid Convergence:		0.375 °				

Wellbore 505H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/1/2024	6.253	60.088	47,370.54301925

Design Plan 3.0

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	353.50

Plan Survey Tool Program **Date** 7/2/2024

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	15,094.72	Plan 3.0 (505H)	MWD	
				OWSG MWD - Standard	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	
5,250.00	0.00	0.00	5,250.00	0.00	0.00	0.00	0.00	0.00	0.000	
5,633.66	7.67	252.95	5,632.51	-7.52	-24.52	2.00	2.00	0.00	252.947	
9,150.12	7.67	252.95	9,117.49	-145.22	-473.41	0.00	0.00	0.00	0.000	
9,533.78	0.00	0.00	9,500.00	-152.74	-497.93	2.00	-2.00	0.00	180.000	
9,685.15	0.00	0.00	9,651.37	-152.74	-497.93	0.00	0.00	0.00	0.000	
10,446.32	91.34	359.61	10,128.70	335.88	-501.28	12.00	12.00	0.00	359.607	
15,094.72	91.34	359.61	10,020.00	4,982.90	-533.13	0.00	0.00	0.00	0.000	LTP/BHL - v3 - (01) S

AVANT NATURAL RESOURCES

Dixon
Planning Report

DIXON

Database:	EDM 5000.1 Dixon Directional	**Local Co-ordinate Reference:**	Well (01) Sandra Jean 23 Fed Com 505H
Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,250.00	0.00	0.00	5,250.00	0.00	0.00	0.00	0.00	0.00	0.00

AVANT NATURAL RESOURCES

Dixon
Planning Report

DIXON

Database:	EDM 5000.1 Dixon Directional	**Local Co-ordinate Reference:**	Well (01) Sandra Jean 23 Fed Com 505H
Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
Start Build 2.00									
5,300.00	1.00	252.95	5,300.00	-0.13	-0.42	-0.08	2.00	2.00	0.00
5,400.00	3.00	252.95	5,399.93	-1.15	-3.75	-0.72	2.00	2.00	0.00
5,500.00	5.00	252.95	5,499.68	-3.20	-10.42	-2.00	2.00	2.00	0.00
5,600.00	7.00	252.95	5,599.13	-6.26	-20.41	-3.91	2.00	2.00	0.00
5,633.66	7.67	252.95	5,632.51	-7.52	-24.52	-4.70	2.00	2.00	0.00
Start 3516.46 hold at 5633.66 MD									
5,700.00	7.67	252.95	5,698.26	-10.12	-32.99	-6.32	0.00	0.00	0.00
5,800.00	7.67	252.95	5,797.36	-14.04	-45.76	-8.76	0.00	0.00	0.00
5,900.00	7.67	252.95	5,896.47	-17.95	-58.52	-11.21	0.00	0.00	0.00
6,000.00	7.67	252.95	5,995.57	-21.87	-71.29	-13.65	0.00	0.00	0.00
6,100.00	7.67	252.95	6,094.68	-25.78	-84.05	-16.10	0.00	0.00	0.00
6,200.00	7.67	252.95	6,193.78	-29.70	-96.82	-18.54	0.00	0.00	0.00
6,300.00	7.67	252.95	6,292.89	-33.61	-109.58	-20.98	0.00	0.00	0.00
6,400.00	7.67	252.95	6,391.99	-37.53	-122.35	-23.43	0.00	0.00	0.00
6,500.00	7.67	252.95	6,491.10	-41.45	-135.11	-25.87	0.00	0.00	0.00
6,600.00	7.67	252.95	6,590.20	-45.36	-147.88	-28.32	0.00	0.00	0.00
6,700.00	7.67	252.95	6,689.31	-49.28	-160.64	-30.76	0.00	0.00	0.00
6,800.00	7.67	252.95	6,788.41	-53.19	-173.41	-33.21	0.00	0.00	0.00
6,900.00	7.67	252.95	6,887.52	-57.11	-186.17	-35.65	0.00	0.00	0.00
7,000.00	7.67	252.95	6,986.62	-61.02	-198.94	-38.09	0.00	0.00	0.00
7,100.00	7.67	252.95	7,085.72	-64.94	-211.70	-40.54	0.00	0.00	0.00
7,200.00	7.67	252.95	7,184.83	-68.86	-224.47	-42.98	0.00	0.00	0.00
7,300.00	7.67	252.95	7,283.93	-72.77	-237.24	-45.43	0.00	0.00	0.00
7,400.00	7.67	252.95	7,383.04	-76.69	-250.00	-47.87	0.00	0.00	0.00
7,500.00	7.67	252.95	7,482.14	-80.60	-262.77	-50.32	0.00	0.00	0.00
7,600.00	7.67	252.95	7,581.25	-84.52	-275.53	-52.76	0.00	0.00	0.00
7,700.00	7.67	252.95	7,680.35	-88.43	-288.30	-55.20	0.00	0.00	0.00
7,800.00	7.67	252.95	7,779.46	-92.35	-301.06	-57.65	0.00	0.00	0.00
7,900.00	7.67	252.95	7,878.56	-96.27	-313.83	-60.09	0.00	0.00	0.00
8,000.00	7.67	252.95	7,977.67	-100.18	-326.59	-62.54	0.00	0.00	0.00
8,100.00	7.67	252.95	8,076.77	-104.10	-339.36	-64.98	0.00	0.00	0.00
8,200.00	7.67	252.95	8,175.87	-108.01	-352.12	-67.43	0.00	0.00	0.00
8,300.00	7.67	252.95	8,274.98	-111.93	-364.89	-69.87	0.00	0.00	0.00
8,400.00	7.67	252.95	8,374.08	-115.84	-377.65	-72.32	0.00	0.00	0.00
8,500.00	7.67	252.95	8,473.19	-119.76	-390.42	-74.76	0.00	0.00	0.00
8,600.00	7.67	252.95	8,572.29	-123.68	-403.18	-77.20	0.00	0.00	0.00
8,700.00	7.67	252.95	8,671.40	-127.59	-415.95	-79.65	0.00	0.00	0.00
8,800.00	7.67	252.95	8,770.50	-131.51	-428.71	-82.09	0.00	0.00	0.00
8,900.00	7.67	252.95	8,869.61	-135.42	-441.48	-84.54	0.00	0.00	0.00
9,000.00	7.67	252.95	8,968.71	-139.34	-454.24	-86.98	0.00	0.00	0.00
9,100.00	7.67	252.95	9,067.82	-143.25	-467.01	-89.43	0.00	0.00	0.00
9,150.12	7.67	252.95	9,117.49	-145.22	-473.41	-90.65	0.00	0.00	0.00
Start Drop -2.00									
9,200.00	6.68	252.95	9,166.98	-147.04	-479.36	-91.79	2.00	-2.00	0.00
9,300.00	4.68	252.95	9,266.48	-149.94	-488.82	-93.60	2.00	-2.00	0.00
9,400.00	2.68	252.95	9,366.27	-151.82	-494.94	-94.78	2.00	-2.00	0.00
9,500.00	0.68	252.95	9,466.22	-152.68	-497.74	-95.31	2.00	-2.00	0.00
9,533.78	0.00	0.00	9,500.00	-152.74	-497.93	-95.35	2.00	-2.00	0.00
Start 151.37 hold at 9533.78 MD									
9,600.00	0.00	0.00	9,566.22	-152.74	-497.93	-95.35	0.00	0.00	0.00
9,685.15	0.00	0.00	9,651.37	-152.74	-497.93	-95.35	0.00	0.00	0.00
KOP: 9685.15' MD, 9651.37' TVD, 12°DLS									

AVANT NATURAL RESOURCES

Dixon

Planning Report

DIXON

Database:	EDM 5000.1 Dixon Directional	**Local Co-ordinate Reference:**	Well (01) Sandra Jean 23 Fed Com 505H
Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.00	1.78	359.61	9,666.22	-152.51	-497.93	-95.12	12.00	12.00	0.00
9,725.00	4.78	359.61	9,691.18	-151.08	-497.94	-93.69	12.00	12.00	0.00
9,750.00	7.78	359.61	9,716.02	-148.34	-497.96	-90.97	12.00	12.00	0.00
9,775.00	10.78	359.61	9,740.69	-144.31	-497.99	-86.97	12.00	12.00	0.00
9,800.00	13.78	359.61	9,765.12	-138.99	-498.02	-81.68	12.00	12.00	0.00
9,825.00	16.78	359.61	9,789.23	-132.40	-498.07	-75.13	12.00	12.00	0.00
9,850.00	19.78	359.61	9,812.97	-124.56	-498.12	-67.33	12.00	12.00	0.00
9,875.00	22.78	359.61	9,836.26	-115.49	-498.19	-58.31	12.00	12.00	0.00
9,900.00	25.78	359.61	9,859.04	-105.21	-498.26	-48.09	12.00	12.00	0.00
9,925.00	28.78	359.61	9,881.26	-93.75	-498.33	-36.69	12.00	12.00	0.00
9,950.00	31.78	359.61	9,902.85	-81.15	-498.42	-24.16	12.00	12.00	0.00
9,975.00	34.78	359.61	9,923.74	-67.43	-498.51	-10.52	12.00	12.00	0.00
10,000.00	37.78	359.61	9,943.89	-52.64	-498.62	4.19	12.00	12.00	0.00
10,025.00	40.78	359.61	9,963.24	-36.81	-498.72	19.92	12.00	12.00	0.00
10,050.00	43.78	359.61	9,981.74	-20.00	-498.84	36.65	12.00	12.00	0.00
10,075.00	46.78	359.61	9,999.33	-2.23	-498.96	54.31	12.00	12.00	0.00
10,100.00	49.78	359.61	10,015.96	16.42	-499.09	72.86	12.00	12.00	0.00
10,125.00	52.78	359.61	10,031.60	35.93	-499.22	92.25	12.00	12.00	0.00
10,150.00	55.78	359.61	10,046.19	56.22	-499.36	112.43	12.00	12.00	0.00
10,175.00	58.78	359.61	10,059.70	77.25	-499.51	133.34	12.00	12.00	0.00
10,200.00	61.78	359.61	10,072.09	98.96	-499.66	154.93	12.00	12.00	0.00
10,225.00	64.78	359.61	10,083.33	121.29	-499.81	177.13	12.00	12.00	0.00
10,250.00	67.78	359.61	10,093.38	144.17	-499.97	199.89	12.00	12.00	0.00
10,275.00	70.78	359.61	10,102.23	167.55	-500.13	223.13	12.00	12.00	0.00
10,300.00	73.78	359.61	10,109.84	191.37	-500.29	246.81	12.00	12.00	0.00
10,325.00	76.78	359.61	10,116.19	215.54	-500.45	270.85	12.00	12.00	0.00
10,350.00	79.78	359.61	10,121.26	240.02	-500.62	295.19	12.00	12.00	0.00
10,375.00	82.78	359.61	10,125.05	264.73	-500.79	319.76	12.00	12.00	0.00
10,400.00	85.78	359.61	10,127.54	289.60	-500.96	344.49	12.00	12.00	0.00
10,425.00	88.78	359.61	10,128.73	314.57	-501.13	369.31	12.00	12.00	0.00
10,446.32	91.34	359.61	10,128.70	335.88	-501.28	390.51	12.00	12.00	0.00
EOC: 10446.32' MD, 10128.70' TVD, 390.51' VS									
10,500.00	91.34	359.61	10,127.45	389.55	-501.65	443.87	0.00	0.00	0.00
10,600.00	91.34	359.61	10,125.11	489.52	-502.33	543.28	0.00	0.00	0.00
10,700.00	91.34	359.61	10,122.77	589.49	-503.02	642.68	0.00	0.00	0.00
10,800.00	91.34	359.61	10,120.43	689.46	-503.70	742.08	0.00	0.00	0.00
10,900.00	91.34	359.61	10,118.09	789.43	-504.39	841.49	0.00	0.00	0.00
11,000.00	91.34	359.61	10,115.76	889.40	-505.07	940.89	0.00	0.00	0.00
11,100.00	91.34	359.61	10,113.42	989.37	-505.76	1,040.30	0.00	0.00	0.00
11,200.00	91.34	359.61	10,111.08	1,089.34	-506.44	1,139.70	0.00	0.00	0.00
11,300.00	91.34	359.61	10,108.74	1,189.31	-507.13	1,239.11	0.00	0.00	0.00
11,400.00	91.34	359.61	10,106.40	1,289.28	-507.81	1,338.51	0.00	0.00	0.00
11,500.00	91.34	359.61	10,104.06	1,389.25	-508.50	1,437.91	0.00	0.00	0.00
11,600.00	91.34	359.61	10,101.73	1,489.22	-509.18	1,537.32	0.00	0.00	0.00
11,700.00	91.34	359.61	10,099.39	1,589.19	-509.87	1,636.72	0.00	0.00	0.00
11,800.00	91.34	359.61	10,097.05	1,689.16	-510.55	1,736.13	0.00	0.00	0.00
11,900.00	91.34	359.61	10,094.71	1,789.13	-511.24	1,835.53	0.00	0.00	0.00
12,000.00	91.34	359.61	10,092.37	1,889.10	-511.92	1,934.94	0.00	0.00	0.00
12,100.00	91.34	359.61	10,090.03	1,989.07	-512.61	2,034.34	0.00	0.00	0.00
12,200.00	91.34	359.61	10,087.69	2,089.04	-513.30	2,133.74	0.00	0.00	0.00
12,300.00	91.34	359.61	10,085.36	2,189.01	-513.98	2,233.15	0.00	0.00	0.00
12,400.00	91.34	359.61	10,083.02	2,288.98	-514.67	2,332.55	0.00	0.00	0.00
12,500.00	91.34	359.61	10,080.68	2,388.95	-515.35	2,431.96	0.00	0.00	0.00
12,600.00	91.34	359.61	10,078.34	2,488.92	-516.04	2,531.36	0.00	0.00	0.00

AVANT NATURAL RESOURCES

Dixon
Planning Report

DIXON

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Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,700.00	91.34	359.61	10,076.00	2,588.89	-516.72	2,630.77	0.00	0.00	0.00
12,800.00	91.34	359.61	10,073.66	2,688.86	-517.41	2,730.17	0.00	0.00	0.00
12,900.00	91.34	359.61	10,071.32	2,788.84	-518.09	2,829.57	0.00	0.00	0.00
13,000.00	91.34	359.61	10,068.99	2,888.81	-518.78	2,928.98	0.00	0.00	0.00
13,100.00	91.34	359.61	10,066.65	2,988.78	-519.46	3,028.38	0.00	0.00	0.00
13,200.00	91.34	359.61	10,064.31	3,088.75	-520.15	3,127.79	0.00	0.00	0.00
13,300.00	91.34	359.61	10,061.97	3,188.72	-520.83	3,227.19	0.00	0.00	0.00
13,400.00	91.34	359.61	10,059.63	3,288.69	-521.52	3,326.60	0.00	0.00	0.00
13,500.00	91.34	359.61	10,057.29	3,388.66	-522.20	3,426.00	0.00	0.00	0.00
13,600.00	91.34	359.61	10,054.95	3,488.63	-522.89	3,525.41	0.00	0.00	0.00
13,700.00	91.34	359.61	10,052.62	3,588.60	-523.57	3,624.81	0.00	0.00	0.00
13,800.00	91.34	359.61	10,050.28	3,688.57	-524.26	3,724.21	0.00	0.00	0.00
13,900.00	91.34	359.61	10,047.94	3,788.54	-524.94	3,823.62	0.00	0.00	0.00
14,000.00	91.34	359.61	10,045.60	3,888.51	-525.63	3,923.02	0.00	0.00	0.00
14,100.00	91.34	359.61	10,043.26	3,988.48	-526.31	4,022.43	0.00	0.00	0.00
14,200.00	91.34	359.61	10,040.92	4,088.45	-527.00	4,121.83	0.00	0.00	0.00
14,300.00	91.34	359.61	10,038.58	4,188.42	-527.68	4,221.24	0.00	0.00	0.00
14,400.00	91.34	359.61	10,036.25	4,288.39	-528.37	4,320.64	0.00	0.00	0.00
14,500.00	91.34	359.61	10,033.91	4,388.36	-529.05	4,420.04	0.00	0.00	0.00
14,600.00	91.34	359.61	10,031.57	4,488.33	-529.74	4,519.45	0.00	0.00	0.00
14,700.00	91.34	359.61	10,029.23	4,588.30	-530.43	4,618.85	0.00	0.00	0.00
14,800.00	91.34	359.61	10,026.89	4,688.27	-531.11	4,718.26	0.00	0.00	0.00
14,900.00	91.34	359.61	10,024.55	4,788.24	-531.80	4,817.66	0.00	0.00	0.00
15,000.00	91.34	359.61	10,022.22	4,888.21	-532.48	4,917.07	0.00	0.00	0.00
15,094.72	91.34	359.61	10,020.00	4,982.90	-533.13	5,011.22	0.00	0.00	0.00
TD: 15094.72' MD, 10020.00' TVD, 5011.22' VS									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP - v3 - (01) Sandra J - plan hits target center - Point	0.00	0.00	9,652.36	-152.74	-497.93	565,071.95	755,483.69	32.55151845	-103.63832740
FTP - v3 - (01) Sandra J - plan misses target center by 0.01usft at 9905.52usft MD (9864.00 TVD, -102.78 N, -498.27 E) - Point	0.00	0.00	9,864.00	-102.78	-498.28	565,121.91	755,483.34	32.55165578	-103.63832747
LTP/BHL - v3 - (01) San - plan hits target center - Point	0.00	0.00	10,020.00	4,982.90	-533.13	570,207.59	755,448.49	32.56563469	-103.63833283
PPP-3 - v3 - (01) Sandra - plan misses target center by 0.02usft at 13870.74usft MD (10048.62 TVD, 3759.29 N, -524.74 E) - Point	0.00	0.00	10,048.62	3,759.29	-524.76	568,983.98	755,456.86	32.56227138	-103.63833159
PPP-2 - v3 - (01) Sandra - plan misses target center by 0.04usft at 12546.80usft MD (10079.58 TVD, 2435.74 N, -515.67 E) - Point	0.00	0.00	10,079.58	2,435.74	-515.71	567,660.43	755,465.91	32.55863336	-103.63833026
LP - v3 - (01) Sandra Je - plan misses target center by 0.23usft at 10442.69usft MD (10128.78 TVD, 332.25 N, -501.25 E) - Point	0.00	0.00	10,129.00	332.25	-501.32	565,556.94	755,480.30	32.55285154	-103.63832812

AVANT NATURAL RESOURCES

Dixon
Planning Report

DIXON

Database:	EDM 5000.1 Dixon Directional	**Local Co-ordinate Reference:**	Well (01) Sandra Jean 23 Fed Com 505H
Company:	Avant Operating, LLC	**TVD Reference:**	26.5' RKB @ 3650.50usft
Project:	Lea County, NM (N83 - NME)	**MD Reference:**	26.5' RKB @ 3650.50usft
Site:	Sandra Jean 23 Fed Com Pad 3	**North Reference:**	Grid
Well:	(01) Sandra Jean 23 Fed Com 505H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	505H		
Design:	Plan 3.0		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
5,250.00	5,250.00	0.00	0.00	Start Build 2.00
5,633.66	5,632.51	-7.52	-24.52	Start 3516.46 hold at 5633.66 MD
9,150.12	9,117.49	-145.22	-473.41	Start Drop -2.00
9,533.78	9,500.00	-152.74	-497.93	Start 151.37 hold at 9533.78 MD
9,685.15	9,651.37	-152.74	-497.93	KOP: 9685.15' MD, 9651.37' TVD, 12°DLS
10,446.32	10,128.70	335.88	-501.28	EOC: 10446.32' MD, 10128.70' TVD, 390.51' VS
15,094.72	10,020.00	4,982.90	-533.13	TD: 15094.72' MD, 10020.00' TVD, 5011.22' VS

API: 30-025-52674
REGULATORY: BLM
PERMIT #
RIG: H&P 255
KB: 25.5
GL: 3624

AVANT NATURAL RESOURCES

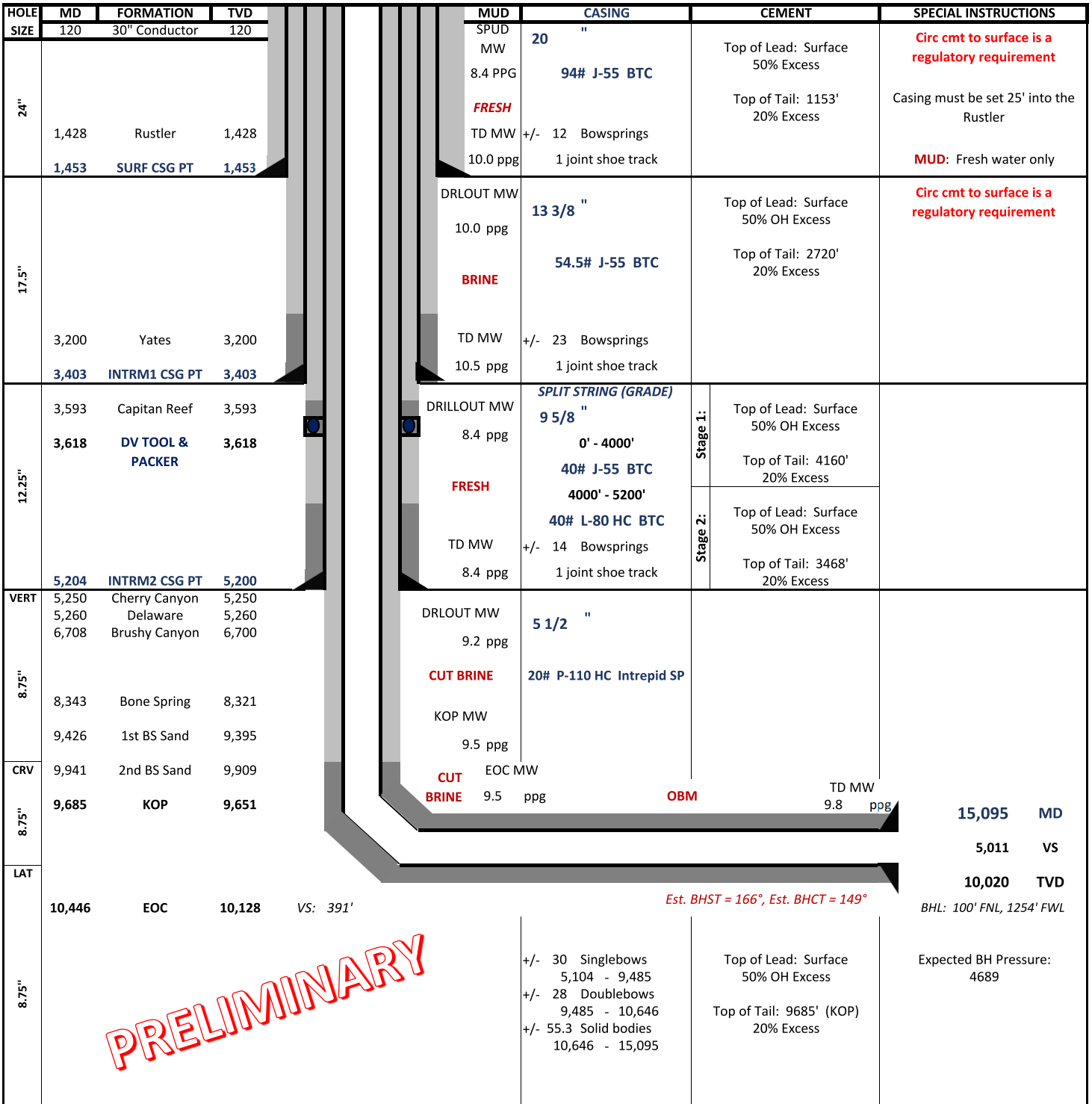
Sandra Jean 23 Fed Com 505H

Bone Springs

Lea County, NM

AFE: NM0064

SHL: Sec. 23, T-20S, R-33E; 200 FSL, 1788 FWL
Lat: 32.5519293, Long: -103.6367082 (NAD83)



DIRECTIONS TO LOCAITON:

Ryan Harris (406)-853-6490 H&P 255 DATE: 7/2/2024

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 365560

CONDITIONS

Operator: Avant Operating, LLC 1515 Wynkoop Street Denver, CO 80202	OGRID: 330396
	Action Number: 365560
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	8/8/2024