

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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised July 18, 2013

Energy Minerals and Natural Resources

Oil Conservation Division

☐ AMENDED REPORT

1220 South St. Francis Dr.

Santa Fe, NM 87505

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

¹ Operator Name and Address Cto utqpi "Gpgti { 'Eqtr qtcvkqp RQ"Dqz "3; 95."Tquy gm'P O " : 424		² OGRID Number 32; 4
		³ API Number 52/247/664; 7
⁴ Property Code	⁵ Property Name Uqf i gj co o gt Ucvg	⁶ Well No. 3

⁷ Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	45	3: U	57G	L	4532	Uqwj	4532	Gcuv	Ngc

⁸ Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
L	45	3: U	57G	L	4532	Uqwj	4532	Gcuv	Ngc

⁹ Pool Information

¹⁰ Pool Name REEVES;BONE SPRING	¹¹ Pool Code 51870
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Additional Well Information

¹² Work Type Tgeqo r ngvg	¹³ Well Type Qkn	¹⁴ Cable/Rotary	¹⁵ Lease Type Ucvg	¹⁶ Ground Level Elevation 5: 98
¹⁷ Multiple P	¹⁸ Proposed Depth 9094	¹⁹ Formation Dqpgur tkpi u	²⁰ Contractor	²¹ Spud Date 1/29/18
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits²² Proposed Casing and Cement Program


Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1938	1645	Surf
Int	12.25	9.625	40	4636	1280	Surf
Prod	7.875	5.5	17/20	11381	1220	4416

Casing/Cement Program: Additional Comments

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²³ Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	3750	Shaffer

²⁴ I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC <input type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input type="checkbox"/> , if applicable. Signature:		OIL CONSERVATION DIVISION	
Printed name: Jeffery Tew		Approved By: 	
Title: Operations Engineer		Title:	
E-mail Address: jtew@aecnm.com		Approved Date: 11/23/2021	
Date: 11/2/21		Expiration Date: 11/23/2023	
Phone: 575-625-2222		Conditions of Approval Attached	

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-025-44295	Pool Code 51870	Pool Name REEVES;BONE SPRING
Property Code 320513	Property Name SLEDGEHAMMER STATE	Well Number 1
OGRID No. 1092	Operator Name ARMSTRONG ENERGY CORPORATION	Elevation 3875.5'

Surface Location



UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	23	18-S	35-E		2310	SOUTH	2310	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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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

<div><p>NAD 83 NME SURFACE LOCATION Y=631275.3 N X=820071.3 E LAT.=32.732137° N LONG.=103.426897° W</p><p>S.L.</p><p>2310'</p><p>2310'</p></div>	<div><h3>OPERATOR CERTIFICATION</h3><p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p><div><div> Signature</div><div>12/19/17 Date</div></div><div><div>Kyle Alpers Printed Name</div><div>kalpers@aecnm.com E-mail Address</div></div></div>
	<div><h3>SURVEYOR CERTIFICATION</h3><p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p><p>NOVEMBER 14, 2017 Date of Survey</p><p>Signature & Seal of Professional Surveyor</p><div> Chad L. Harcrow 11/27/16</div><div>Certificate No. CHAD HARCROW 17777</div><div>W.O. # DRAWN BY: SA</div></div>

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

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

Section 1 – Plan Description

Effective May 25, 2021

I. Operator: Armstrong Energy Corporation **OGRID:** 1092 **Date:** 11 / 18 / 21

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

If Other, please describe: _____

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

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Sledgehammer State 1	3002544295	UL J Sec 23 T18S R35E	2310' FSL 2310' FEL	65	10	0

IV. Central Delivery Point Name: Versado SE/4 SEction 24 connection point [See 19.15.27.9(D)(1) NMAC]

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

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Sledgehammer State 1	3002544295	1/29/2018		12/15/2021	12/15/2021	

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

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

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

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

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

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

IX. Anticipated Natural Gas Production:

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

X. Natural Gas Gathering System (NGGS):

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

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

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

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

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

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

Section 3 - Certifications

Effective May 25, 2021

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

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

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

If Operator checks this box, Operator will select one of the following:

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

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

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

Section 4 - Notices

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

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

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

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

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

Signature:
Printed Name: Jeffery Tew
Title: Operations Engineer
E-mail Address: jtew@aecnm.com
Date: 11/18/2021
Phone: 575-625-2222
OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

**NATURAL GAS MANAGEMENT PLAN ATTACHMENTS:**

VI: Description of how Armstrong Energy Corporation will size separation equipment to optimize gas capture.

Separation equipment will be sized by Armstrong Energy Corporation's engineering staff based on anticipated volumes to allow adequate retention time of the produced fluids within the vessel.

VII: Descriptions of the actions Armstrong Energy Corporation will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC

- A. Armstrong Energy Corporation will maximize the recovery of natural gas by minimizing waste of natural gas through venting and flaring. AEC will ensure that our wells will be connected to a natural gas gathering system with sufficient capacity to transport 100% of the produced natural gas. Should a natural gas gathering system be unfeasible, an alternative beneficial use will be found for the gas.
- B. All drilling operations will be equipped with a properly sized flare stack located at least 100 feet from the surface hole location. The flare will be utilized to combust any natural gas that is brought to surface during normal drilling operations. In the case of emergency or malfunction, any flared volumes will be reported appropriately.
- C. During completion operations any natural gas produced by the well will be flared. Following completion and flowback operations, the production stream will flow to portable separation equipment until well facility is completed, at which point fluids will be directed to permanent separation equipment. The separated natural gas will be sent to a gas gathering line. If the natural gas does not meet gathering pipeline specifications, gas will be flared for 60 days or until the gas meets pipeline specifications. The flare stack will be properly sized and equipped with an automatic igniter or continuous pilot. Gas samples will be taken twice per week and natural gas will be routed into a gathering system as soon as the pipeline specifications are met.
- D. During production operations natural gas will not be flared unless an exception as listed in 19.15.27.8(D)(1-4) is met. If there is no adequate takeaway for the produced natural gas, the well will be shut-in until a gas gathering system or alternative beneficial use is available, with exception of emergency or malfunction situations.
- E. Armstrong Energy Corporation will comply with performance standards as listed in 19.15.27.8(E)(1-8). All equipment will be designed and sized to handle maximum pressure in order to minimize waste. Storage tanks that are routed to a flare or other control device will be equipped with automatic gauging systems to reduce venting of natural gas. Flare stacks will be equipped with an automatic ignitor or continuous pilot. AEC conducts AVO inspections as



described in 19.15.27.8(E)(5)(a) at frequencies specified in 19.15.27.8(E)(5)(b) and (c). All emergencies or malfunctions will be resolved as quickly and safely as possible to minimize waste.

- F. The volume of natural gas that is vented, flared or beneficially used during drilling, completion, or production operations, will be measured or estimated and reported accordingly. AEC will install equipment to measure the volume of natural gas flared from a facility associated with a well authorized by an APD after May 25, 2021 that has an average daily production greater than 60,000 cubic feet of natural gas. If metering is not practicable due to circumstances such as low flow rate or low pressure venting or flaring, AEC will estimate the volume of flared or vented natural gas. Measuring equipment will conform to industry standards and will not be equipped with a bypass around the metering element except for the sole purpose of inspecting and servicing the metering equipment.

VIII: Description of Armstrong Energy Corporation's best management practices to minimize venting during active and planned maintenance.

For active and planned maintenance activities, venting will be limited to the depressurization of the subject equipment to ensure safe working conditions. For maintenance of production equipment, the producing well associated with the equipment will be shut-in to prevent venting.

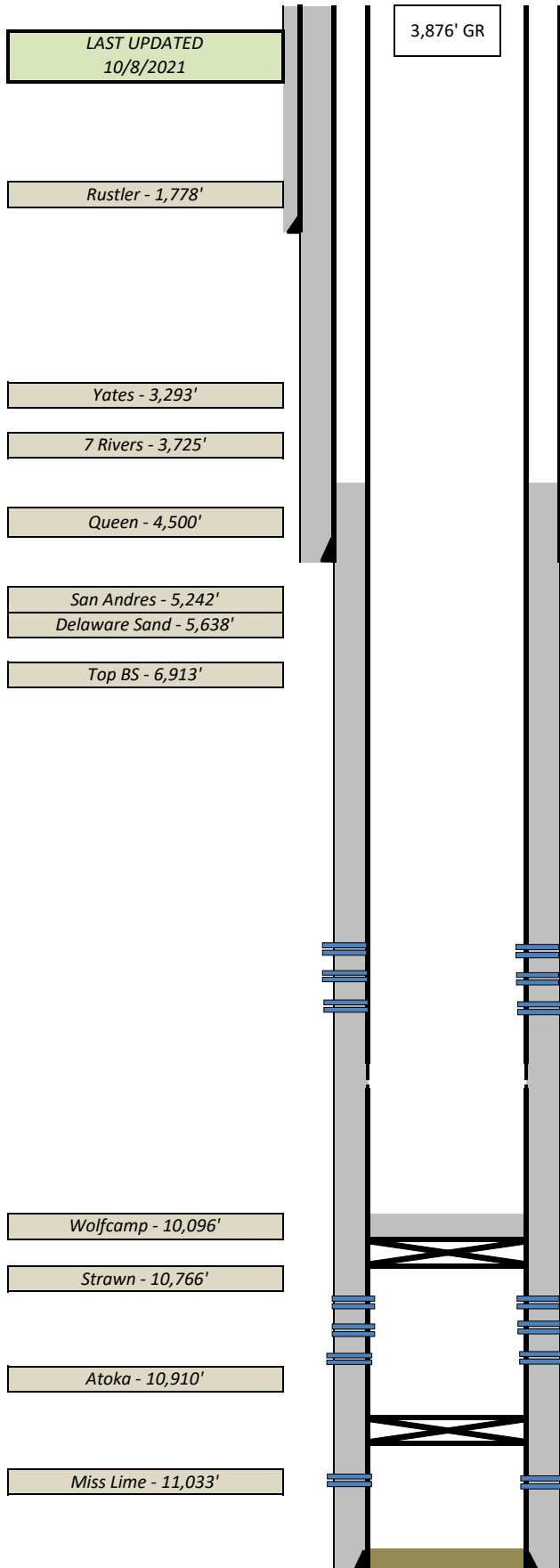


Armstrong Energy Corporation
PO Box 1973
Roswell, NM 88202
Phone: 575-625-2222
Fax: 575-622-2512

Sledgehammer State #1
API 30-025-44295
Section 23 T18S R35E
2310' FSL & 2310' FEL
Lea County, NM

Anticipated Plugback, Completion and Stimulation Procedure, with planned start date of 12/15/21

1. RU PU, ND WH, install BOP
2. TIH w/tbg open ended and tag plug at 10,669', circulate hole clean.
3. TOH standing back until EOT is at 9094', spot 200 gallons 15% NEFE acid, TOO H w/tubing.
4. RU WL and TIH, tie in and perforate 9,038' – 9,094', 2 spf.
5. POOH with guns and RD WL, TIH w/tubing and 5.5" packer.
6. NDBOP, NU hanger flange and set packer @ 8,994'. Flange up and pressure up BS, pump down tubing to put away shot acid. Note any breaks.
7. Rig up swab.
8. Swab test new interval if commercially viable produce, if marginally productive set CIBP and move to next Bone Spring interval at 8,818'-8,828'.
9. Repeat acidization process, test interval, if commercially viable produce, if marginally productive set CIBP and move to final Bone Spring interval at 8,690'-8,708'
10. Repeat acidization process, test interval and evaluate for further stimulation or installation of artificial lift equipment.



17 1/2" hole
13 3/8" 54.5#/ft J-55 ST&C @ 1,938'
Cement w/1645 sx, circ

12 1/4" hole

TOC @ 4,416' CBL

9 5/8" 40#/ft HCL-80 @ 4,636'
1280sx - Circ

Proposed: Perf and Acid 8,690'-8,708'
Proposed: Perf and Acid 8,818'-8,828'
Proposed: Perf and Acid 9,038'-9,094'

DV tool @ 9,504' (17# starts 6 jts above DV tool)
Stage 1 - 300 sx "H", circ 10sx
Stage 2 - 920 sx Versa H, 1.204 yield

CIBP@10,669' w/2 bailer runs cement

Pennsylvanian

STIMULATION

10,769'-10,849' 1 spf 90°phasing
10,858'-10,874' 1 spf 90°phasing
10,850'-10,857' 2 spf 90°phasing
16 shots

Frac w/1 stg (15 step) slickwater, 2,804 bb
150,000lb 40/70 Premium Proppant
2000gal 15% NEFE, 24 BS
Frac w/16 stage slick water, 10,322gal
7,190lb 100 mesh + 28,120lb 40/70 white

CIBP@11,070'

Mississippian

STIMULATION

11,110'-11,115', 12 shots

2000 gal 15% NEFE, 32 BS

5 1/2" 17#/20#/ft P-110 @ 11,381'
TD 11,384'

Armstrong Energy Corporation

Sledgehammer **State #1**

UL J, 2310' FSL & 2310' FEL
Section 23, T18S, R35E
Lea County, New Mexico

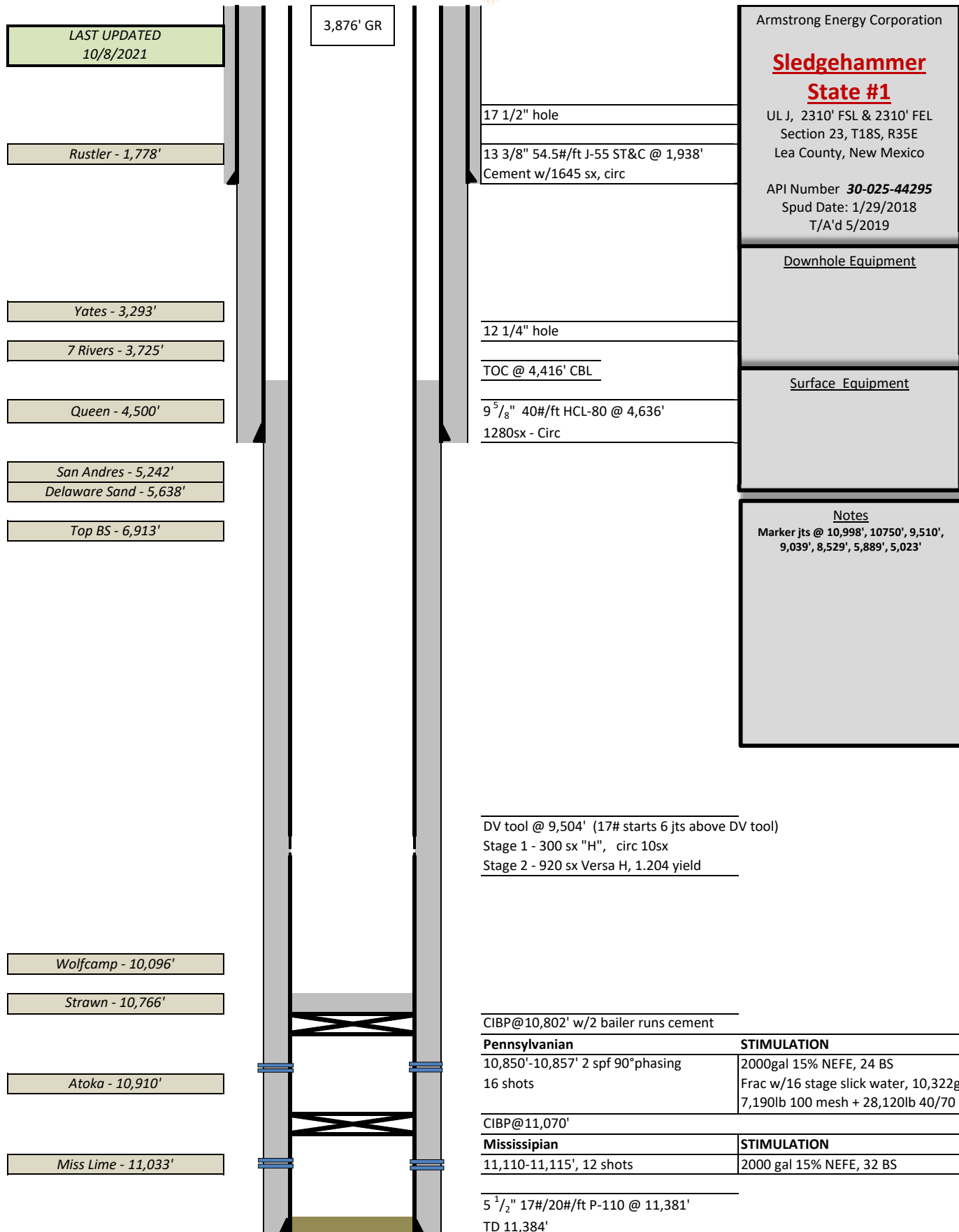
API Number **30-025-44295**
Spud Date: 1/29/2018
T/A'd 5/2019

Downhole Equipment

Surface Equipment

Notes

Marker jts @ 10,998', 10750', 9,510',
9,039', 8,529', 5,889', 5,023'



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

CONDITIONS

Action 62682

CONDITIONS

Operator: ARMSTRONG ENERGY CORP P.O. Box 1973 Roswell, NM 88202	OGRID: 1092
	Action Number: 62682
	Action Type: [C-101] Drilling Non-Federal/Indian (APD)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	11/23/2021