Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMLC062269A

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

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

8. Lease Name and Well No.: GHOST RIDER 22 15 FEDERAL COM 601H

2. Name of Operator: APACHE CORPORATION

9. API Well No.: 30-025-53043

3a. Address: 303 VETERANS AIRPARK LANE SUITE 3000, MIDLAND

3b. Phone No. *(include area code)*: (432) 818-1000

10. Field and Pool, or Exploratory: WC-025 G-09 S253204N/LOWER WOLF

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: SWSE / 355 FSL / 2464 FEL / LAT 32.196712 / LONG -103.6619408

At proposed prod. zone: NESW / 2587 FSL / 1980 FWL / LAT 32.217423 / LONG -103.6646492

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 22/T24S/R32E/NMP

14. Distance in miles and direction from nearest town or post office*: 30 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 50 feet

16. No of acres in lease:

17. Spacing Unit dedicated to this well: 240.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 30 feet

19. Proposed Depth: 13007 feet / 20701 feet

20. BLM/BIA Bond No. in file: FED: BLM-CO-1463; NMB-000736

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3596 feet

22. Approximate date work will start*: 04/14/2024

23. Estimated duration: 25 days

24. Attachments

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

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

25. Signature	Name *(Printed/Typed)*	Date
(Electronic Submission)	SORINA FLORES / Ph: (432) 818-1000	11/07/2023

Title: Supv of Drilling Services

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
(Electronic Submission)	CODY LAYTON / Ph: (575) 234-5959	05/10/2024

Title	Office
Assistant Field Manager Lands & Minerals	Carlsbad Field Office

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

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

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 05/10/2024

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 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
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-025-53043	98383	WC-025 G-09 S253204N; LOWER WOLFMCAMP

4 Property Code	5 Property Name	6 Well Number
325016	GHOST RIDER 22 15 FED COM	601H

7 OGRID NO.	8 Operator Name	9 Elevation
873	APACHE CORPORATION	3596'

10 Surface Location

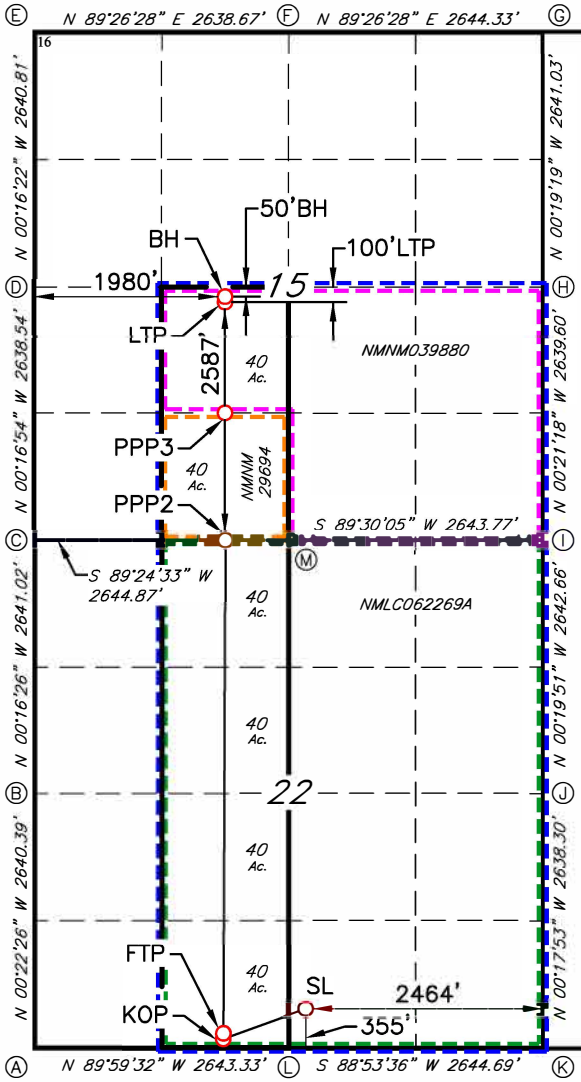
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
0	22	24S	32E		355	SOUTH	2464	EAST	LEA

11 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
K	15	24S	32E		2587	SOUTH	1980	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
240			

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



GEODETIC DATA
NAD 83 GRID – NM EAST

SURFACE LOCATION (SL)
N: 435946.6 – E: 749017.7

LAT: 32.1967120° N
LONG: 103.6619408° W

KICK OFF POINT (KOP)
50' FSL & 1955' FWL – SEC.22
N: 435638.2 – E: 748150.3

LAT: 32.1958793° N
LONG: 103.6647509° W
MD: 12536.6 – TVD: 12434.0

FIRST TAKE POINT (FTP)
100' FSL & 1957' FWL – SEC.22
N: 435688.3 – E: 748152.0

LAT: 32.1960169° N
LONG: 103.6647445° W
MD: 12776.7 – TVD: 12666.9

PROPOSED PENETRATION POINT 2 (PPP2)
0' FSL & 1980' FWL – SEC.15
N: 440889.2 – E: 748146.8

LAT: 32.2103129° N
LONG: 103.6646566° W
MD: 18115.0 – TVD: 13007.0

PROPOSED PENETRATION POINT 3 (PPP3)
1319' FSL & 1980' FWL – SEC.15
N: 442207.6 – E: 748139.7

LAT: 32.2139368° N
LONG: 103.6646531° W
MD: 19433.4 – TVD: 13007.0

LAST TAKE POINT (LTP)
2537' FSL & 1980' FWL – SEC.15
N: 443425.9 – E: 748133.2

LAT: 32.2172859° N
LONG: 103.6646496° W
MD: 20651.8 – TVD: 13007.0

BOTTOM HOLE (BH)
N: 443475.8 – E: 748133.0

LAT: 32.2174230° N
LONG: 103.6646492° W
MD: 20701.6 – TVD: 13007.0

17 OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Sorina L Flores 11/6/23
Signature Date

Sorina L Flores
Printed Name

sorina.flores@apachecorp.com
E-mail Address

18 SURVEYOR CERTIFICATION

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.

10/10/2023
Date of Survey

Signature and Seal of Professional Surveyor:

DALE E. BELL
NEW MEXICO
14400
PROFESSIONAL SURVEYOR

14400
Certificate Number

11/06/2023

Job No.: LS23100906

District I
1625 N. French Dr., Hobbs, NM 88240
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Form C-102
Revised August 1, 2011
Submit one copy to appropriate
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name

4 Property Code	5 Property Name	6 Well Number
	GHOST RIDER 22 15 FED COM	601H

7 OGRID NO.	8 Operator Name	9 Elevation
	APACHE CORPORATION	3596'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/West line	County
O	22	24S	32E		355	SOUTH	2464	EAST	LEA

11 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
K	15	24S	32E		2587	SOUTH	1980	WEST	LEA

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

16

CORNER DATA
NAD 83 GRID – NM EAST

A: FOUND BRASS CAP "1916"
N: 435588.5 – E: 746196.1

B: FOUND BRASS CAP "1916"
N: 438228.3 – E: 746178.8

C: FOUND BRASS CAP "1916"
N: 440868.8 – E: 746166.2

D: FOUND BRASS CAP "1916"
N: 443506.7 – E: 746153.3

E: FOUND BRASS CAP "1916"
N: 446146.9 – E: 746140.7

F: FOUND BRASS CAP "1916"
N: 446172.7 – E: 748778.7

G: CALCULATED CORNER
N: 446198.5 – E: 751422.3

H: FOUND BRASS CAP "1916"
N: 443558.0 – E: 751437.2

I: FOUND BRASS CAP "1916"
N: 440919.0 – E: 751453.5

J: FOUND BRASS CAP "1916"
N: 438277.0 – E: 751468.8

K: FOUND BRASS CAP "1916"
N: 435639.2 – E: 751482.5

L: FOUND BRASS CAP "1916"
N: 435588.2 – E: 748838.8

M: FOUND BRASS CAP "1916"
N: 440896.0 – E: 748810.4

17 OPERATOR CERTIFICATION

I hereby certify that the information contained 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

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.

10/10/2023
Date of Survey

Signature and Seal of Professional Surveyor

DALE E. BELL
NEW MEXICO
14400
PROFESSIONAL SURVEYOR

14400
Certificate Number

11/06/2023

Job No.: LS23100906

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: APACHE CORPORATION **OGRID:** 873 **Date:** 10 / 15 / 2023

II. Type: XX 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
Ghost Rider Fed Com 601H		Sec 14 T19S R32E	' FSL ' FWL	775	4700	4100
Ghost Rider Fed Com 602H		Sec 14 T19S R32E	' FSL ' FWL	775	4700	4100
Ghost Rider Fed Com 603H		Sec 14 T19S R32E	' FSL ' FWL	775	4700	4100

IV. Central Delivery Point Name: Ghost Rider 22 15 Fed CTB [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
Ghost Rider Fed Com 601H		6/1/24	6/28/24	Not yet scheduled	Not yet scheduled	Not yet scheduled
Ghost Rider Fed Com 602H		7/1/24	7/28/24	Not yet scheduled	Not yet scheduled	Not yet scheduled
Ghost Rider Fed Com 603H		8/1/24	8/28/24	Not yet scheduled	Not yet scheduled	Not yet scheduled

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:

XX 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:	Sorina L Flores
Printed Name:	Sorina L Flores
Title:	Sr Regulatory Analyst
E-mail Address:	sorina.flores@apachecorp.com
Date:	
Phone:	432-818-1167

OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

VI. SEPARATION EQUIPMENT

(Complete description of how Apache will size separation equipment to optimize gas capture)

Apache Corporation production tank batteries will include separation equipment designed to efficiently separate gas from liquid phases to optimize gas capture based on projected and estimated volumes from the targeted pool in conjunction with the total number of wells planned to/or existing within the facility. If determined to be undersized or needed, separation equipment will be upgraded prior to well(s) being drilled or completed. The separation equipment will be designed and built according to relevant industry specifications, ie API specifications 12J and ASME Sec VIII Div 1. Other recognized industry publications such as Gas Processors Suppliers Association will be referenced when designing separation equipment to optimize gas capture.

VII. OPERATIONAL PRACTICES

(Complete description of actions Apache will take to comply with the requirements of Subsection A-F of 19.15.27.8 NMAC)

(A) Venting & flaring of natural gas

- Apache acknowledges venting or flaring of natural gas during drilling, completion, or production operations constitutes was as defined in 19.15.2 NMAC is prohibited. Apache will maximize recovery of natural gas by minimizing waste of natural gas through venting and flaring. During drilling, completion and production operations, Apache will vent, or flare natural gas only as authorized in subsections B, C and D of 19.15.27.8 NMAC. Apache shall flare rather than vent natural gas except when flaring technically infeasible or would pose a risk to safe operations or personnel safety, and venting is a safer alternative than flaring.

(B) Venting & flaring during drilling operations

- Apache shall capture or combust natural gas, if technically feasible, using best industry practices and control technologies
- A properly sized flare stack will be located at a minimum of 100 feet from the nearest surface hole location unless otherwise approved by the division.
- In the event of an emergency or malfunction, Apache may vent natural gas to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment. Apache shall report natural gas vented or flared during an emergency or malfunction to the NMOCD division pursuant Paragraph (1) of Subsection G of 19.15.27.8 NMAC.

(C) Venting & flaring during completions and recompletion

- During initial flowback, Apache shall route flowback fluids into a completion or storage tank and, if technically feasible under the applicable well conditions, flare rather than vent and commence operations of a separator as soon as it is technically feasible for a separator to function.
- During separation flowback, Apache shall capture and route natural gas from separation equipment:
  - To a gas flowline or collection system, reinject into the well, or use on-site as a fuel source or other purpose that a purchased fuel or raw material would serve; or
  - To flare if routing natural gas to a gas flowline or collecting system, reinjecting it into the well, or using it on-site as fuel source or other purpose that a purchased fuel or raw material would serve would pose a risk to safe operation or personnel safety.
- If natural gas does not meet gathering pipeline quality specifications, Apache may flare natural gas for 60 days or until the natural gas meets pipeline quality specifications, whichever is sooner, provided:
  - A properly sized flare stack is equipped with an automatic igniter or continuous pilot
  - Apache analyzes natural gas samples twice per week
  - Apache routs natural gas into a gathering pipeline as soon as pipeline specifications are met
  - Apache provides pipeline specifications and natural gas analyses to NMOCD division upon request

(D) Venting & flaring during production operations

- Apache shall not vent or flare natural gas except:
  - During an emergency or malfunction
  - To unload or clean up liquid holdup in a well to atmospheric pressure, provided:
    - Apache does not vent after well achieves stabilized rate and pressure
    - For liquids unloading by manual purging, Apache remains present on-site until the end of unloading or posts at the well site, contact information of personnel conducting liquids unloading operations in close proximity (<30 minutes' drive time) of well being unloaded until end of unloading, takes all

reasonable actions to achieve stabilized rate and pressure at earliest practical time and takes reasonable actions to minimize venting to maximum extent practicable
- Apache will optimize system to minimize venting of natural gas for any well equipped with a plunger lift system or automated control system
- During downhole maintenance, best management practices will be used to the extent that it does not pose a risk to safe operations and personnel safety.

♦ During first 12 months of production from an exploratory well, or as extended by the division for good cause shown, provided:
- Apache proposes and the division approves well as exploratory
- Apache is in compliance with its' statewide gas capture requirements
- Apache submits an updated C-129 form to the division, including a NGMP and timeline for connecting well to a natural gas gathering system or otherwise approved by the division

♦ During the following activities unless prohibited
- Gauging or sampling a storage tank or other low pressure production vessel
- Loading out liquids from a storage tank or other low pressure production vessel to a transport vehicle
- Repair and maintenance, including blowing down and depressurizing production equipment to perform repair and maintenance
- Normal operation of gas activated pneumatic controller or pump
- Normal operation of storage tank or other low pressure production vessel, but not including venting from a thief hatch that is not properly closed or maintained on an established schedule
- Normal operations of dehydration units and amine treatment units
- Normal operations of compressors, compressor engines, and turbines
- Normal operations of valves, flanges and connectors that is not the result of inadequate equipment design or maintenance
- Bradenhead, packer leakage test or production test lasting less than 24 hours unless the division requires or approves a longer test period
- When natural gas does not meet gathering pipeline specifications
- Commissioning of pipelines, equipment, or facilities only for as long as necessary to purge introduced impurities from pipeline or equipment

(E) Performance standards

➢ All tanks and separation equipment are designed for maximum thoughput and pressure to minimize waste
➢ Permanent storage tanks associated with production operations that is routed to a flare or control device installed after May 25, 2021, shall equip storage tank with an automatic gauging system that reduces venting of natural gas
➢ Apache will install a flare properly sized and designed to ensure proper combustion efficiency
  ♦ Flare stack installed or replaced after May 25, 2021, shall be equipped with an automatic ignitor or continuous pilot
  ♦ Flare stack installed before May 25, 2021, shall be retrofitted with an automatic ignitor, continuous pilot or technology that alerts operator that flare may have malfunctioned no later than 18 months after May 25, 2021
  ♦ Flare stack located at well or facility, with an average daily production of equal to or less than 60 mcf of natural gas shall be equipped with an automatic ignitor or continuous pilot if flare stack is replaced after May 25, 2021
➢ Flare stack constructed after May 25, 2021, shall be securely anchored, and located at least 100 feet from well and storage tanks unless otherwise approved by the division
➢ At any point in the life of the well (drilling, completion, production, inactive) an audio, visual and olfactory (AVO) inspection will be performed weekly, during first year of production and on well or facility with average daily production greater than 60,000 cubic feet of natural gas, to confirm all production components are operating properly and there are no leaks or releases except as allowed in Subsection D of 19.15.27.8 NMAC.
➢ Apache will make and keep records of AVO inspections available to NMOCD for at least 5 years
➢ Apache may use a remote or automated monitoring technology to detect leaks and release in lieu of AVO inspections with prior NMOCD approval
➢ Facilities will be designed to minimize waste
➢ Apache will minimize waste and shall resolve emergencies as quickly and safely as feasible

(F) Measurement or estimation of vented and flared natural gas

- Apache shall measure or estimate volume of natural gas it vents, flares, or beneficially uses during drilling, completion, and production operations regardless of the reason or authorization for such venting or flaring
- Measurement equipment will be installed to measure volume of natural gas flared from existing process piping or flowline piped from equipment associated with a well or facility associated with approved application for permit to drill that has an average daily production greater than 60 mcf of natural gas
- Measuring equipment shall conform to an industry standard
- Measuring equipment shall not be designed or equipped with a manifold that allows diversion of natural gas around the metering element except for the sole purpose of inspecting and servicing the measurement equipment
- Apache may estimate volume of vented or flared natural gas using methodology that can be independently verified if metering is not practicable due to low flow rate or pressure
- Apache will estimate volume of vented and flared natural gas based on result of an annual GOR test for that well reported on form C-116 to allow division to independently verify volume and rate of flared natural gas for a well that does not require measuring equipment
- Apache shall install measuring equipment whenever the division determines metering is practicable or the existing measuring equipment or GOR test is not sufficient to measure volume of vented and flared natural gas

VIII. BEST MANAGEMENT PRACTICES

(Complete description of Apache's best management practices to minimize venting during active and planned maintenance)

- Apache has a flare stack designed to handle sufficient volume to ensure proper combustion efficiency. Flare stacks are securely anchored at lease 100 feed from wells and storage tanks and are equipped with continuous pilots.
- Apache will not produce oil or gas but will maintain adequate well control through completion operations
- Apache will not flow well during initial production until all flowlines, tank batteries, and oil/gas takeaway are installed, tested, and determined operational
- Apache will equip storage tanks with automatic gauging system to reduce venting of natural gas
- When feasible, Apache will combust natural gas that would otherwise be vented or flared
- When feasible, Apache will minimize venting through pump downs of vessels and reducing time required to purge equipment before returning to service
- When feasible, Apache will shut in wells in the event of a takeaway disruption, emergency situations, or other operations where venting or flaring may occur due to equipment failures
- Reduce number of blowdowns by looking for opportunities to coordinate repair and maintenance activities

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	APACHE CORPORATION
WELL NAME & NO.:	GHOST RIDER 22 15 FED COM 601H
SURFACE HOLE FOOTAGE:	355'/S & 2464'/E
BOTTOM HOLE FOOTAGE	2587'/S & 1980'/W
LOCATION:	Section 22, T.24 S., R.32 E., NMP
COUNTY:	Lea County, New Mexico

COA

H2S	(•) Yes	( ) No	
Potash	(•) None	( ) Secretary	( ) R-111-P
Cave/Karst Potential	(•) Low	( ) Medium	( ) High
Cave/Karst Potential	( ) Critical		
Variance	( ) None	(•) Flex Hose	( ) Other
Wellhead	( ) Conventional	(•) Multibowl	( ) Both
Wellhead Variance	( ) Diverter		
Other	[ ] 4 String	[ ] Capitan Reef	[ ] WIPP
Other	[ ] Fluid Filled	[ ] Pilot Hole	[ ] Open Annulus
Cementing	[ ] Contingency Cement Squeeze	[x] EchoMeter	[x] Primary Cement Squeeze
Special Requirements	[ ] Water Disposal	[x] COM	[ ] Unit
Special Requirements	[ ] Batch Sundry		
Special Requirements Variance	[x] Break Testing	[ ] Offline Cementing	[ ] Casing Clearance

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 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

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1089 feet** (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be **17 1/2** inch in diameter.

 Approval Date: 05/10/2024

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 **8 hours** 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.

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

Operator has proposed to cement in two stages by conventionally cementing the first stage and performing a bradenhead squeeze on the second stage, contingent upon no returns to surface.

a. First stage: Operator will cement with intent to reach the top of the **Brushy Canyon at 7085'**.

b. Second stage:

- Operator will perform bradenhead squeeze and top-out. Cement to surface. If cement does not reach surface, the appropriate BLM office shall be notified.

Operator has proposed to pump down 13-3/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC.

Submit results to the BLM. No displacement fluid/wash out shall be utilized at the top of the cement slurry between second stage BH and top out. Operator must run one CBL per Well Pad.

If cement does not reach surface, the next casing string must come to surface.

Operator must use a limited flush fluid volume of 1 bbl following backside cementing procedures.

Casing test must be conducted in accordance with 43 CFR 3170. Surface pressure

applied will vary based on fluid in the casing and burst conditions.

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

    - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.
      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.

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. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the **13-3/8** inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 OOGO2.III.A.2.i 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 Onshore Order 1 and 2.
- 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.

(Note: For a minimum 5M BOPE or less (Utilizing a 10M BOPE system)
BOPE Break Testing Variance

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. **(Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)**
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer **(575-706-2779)** prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

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)

☒ Eddy County
EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
BLM_NM_CFO_DrillingNotifications@BLM.GOV
(575) 361-2822

☒ 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.

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 intergrity 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 intergrity 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 OOGO2.III.A.2.i 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.

JS 5/8/2024

 Approval Date: 05/10/2024

AFMSS

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

Operator Certification Data Report

05/13/2024

Operator

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

NAME: SORINA FLORES **Signed on:** 10/12/2023

Title: Supv of Drilling Services

Street Address: 303 Veterans Airpark Ln #1000

City: Midland **State:** TX **Zip:** 79705

Phone: (432)818-1167

Email address: sorina.flores@apachecorp.com

Field

Representative Name:

Street Address:

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

Phone:

Email address:

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

Application Data
05/13/2024

APD ID: 10400095242
Submission Date: 11/07/2023
Operator Name: APACHE CORPORATION
Well Name: GHOST RIDER 22 15 FEDERAL COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
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Section 1 - General

APD ID: 10400095242
Tie to previous NOS? N
Submission Date: 11/07/2023
BLM Office: Carlsbad
User: SORINA FLORES
Title: Supv of Drilling Services
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMLC062269A
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? Y
Permitting Agent? NO
APD Operator: APACHE CORPORATION
Operator letter of

Operator Info

Operator Organization Name: APACHE CORPORATION
Operator Address: 303 VETERANS AIRPARK LANE SUITE 3000
Zip: 79705
Operator PO Box:
Operator City: MIDLAND
State: TX
Operator Phone: (432)818-1000
Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: GHOST RIDER 22 15 FEDERAL COM
Well Number: 601H
Well API Number:
Field/Pool or Exploratory? Field and Pool
Field Name: WC-025 G-09 S253204N
Pool Name: LOWER WOLFCAMP

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

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

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** Y **New surface disturbance?** N

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** GHOST RIDER 22 15 FEDERAL COM **Number:** 2 SOUTH

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: OTHER

Describe sub-type: Development

Distance to town: 30 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 50 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat: Plat_GhostRider22_15FedCom601H_NAD83_signed_20240213090746.pdf

Well work start Date: 04/14/2024 **Duration:** 25 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
SHL Leg #1	355	FSL	2464	FEL	24S	32E	22	Aliquot SWSE	32.196712	-103.6619408	LEA	NEW MEXICO	NEW MEXICO	F	NMLC062269A	3596	0	0	Y
KOP Leg #1	50	FSL	1955	FWL	24S	32E	22	Aliquot SESW	32.1958793	-103.6647509	LEA	NEW MEXICO	NEW MEXICO	F	NMLC062269A	-8838	12536	12434	Y

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this
PPP Leg #1-1	100	FSL	1957	FWL	24S	32E	22	Aliquot SESW	32.1960169	-103.6647445	LEA	NEW MEXICO	NEW MEXICO	F	NMLC062269A	-9070	12776	12666	Y
PPP Leg #1-2	0	FSL	1980	FWL	24S	32E	15	Aliquot SESW	32.2103129	-103.6646566	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 29694	-9411	18115	13007	Y
PPP Leg #1-3	1319	FSL	1980	FWL	24S	32E	15	Aliquot NESW	32.2139368	-103.6646531	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 039880	-9411	19433	13007	Y
EXIT Leg #1	2537	FSL	1980	FWL	24S	32E	15	Aliquot NWSW	32.2172859	-103.6646496	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 039880	-9411	20651	13007	Y
BHL Leg #1	2587	FSL	1980	FWL	24S	32E	15	Aliquot NESW	32.217423	-103.6646492	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 039880	-9411	20701	13007	Y

AFMSS

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

Drilling Plan Data Report
05/13/2024

APD ID: 10400095242
Submission Date: 11/07/2023

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM
Well Number: 601H

Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

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Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical	Measured Depth	Lithologies	Mineral Resources	Producing Formatio
13409188	QUATERNARY	3646	0	0	ALLUVIUM	USEABLE WATER	N
13409189	RUSTLER	2609	1037	1037	ANHYDRITE	POTASH	N
13409190	SALADO	2283	1363	1363	ANHYDRITE	POTASH	N
13409191	CASTILE	-475	4121	4182	LIMESTONE, MUDSTONE, SANDSTONE	NATURAL GAS, OIL	N
13409195	CHERRY CANYON	-2000	5646	5749	LIMESTONE, MUDSTONE, SANDSTONE	NATURAL GAS, OIL	N
13409196	BRUSHY CANYON	-3888	7534	7638	LIMESTONE, MUDSTONE, SANDSTONE	NATURAL GAS, OIL	N
13409197	BONE SPRING	-5121	8767	8872	LIMESTONE, MUDSTONE, SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
13409200	BONE SPRING 1ST	-6266	9912	10017	LIMESTONE, MUDSTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N
13409185	BONE SPRING 2ND	-6920	10566	10670	LIMESTONE, MUDSTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N
13409186	BONE SPRING 3RD	-8127	11773	11877	LIMESTONE, MUDSTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	N
13409187	WOLFCAMP	-9038	12684	12797	LIMESTONE, MUDSTONE, SANDSTONE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M
Rating Depth: 13007

Equipment: Equipment will consist of rotating head, mud gas separator, blowdown pit (panic line) and flare line

Requesting Variance? YES

Variance request: 1. A variance is requested to allow use of flex hose as choke line f/BOP to choke manifold. If this hose is used, a copy of manufacturer's certification and pressure test chart will be kept on rig. Manufacture does not require anchors. 2. In any instance where 10M BOP is required by BLM, Apache

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

requests a variance to utilize 5M annular with 10M ram preventers(a common BOP configuration, which allows use of 10M rams in unlikely event that pressure exceed 5M). A variance is requested to test 5M annular to 70% of working pressure at 3500psi. 3. Per mtg on 4/7/22, Apache requests variance to be able to batch drill well if necessary. In doing so, Apache will set ea. csg string and ensure well is cmt'd properly and well is static. W/floats holding, no pressure on csg annulus, and installation of TA cap per wellhead recommendations, Apache will contact BLM on ea. rig skid on pad, once surf and interm strings are all completed. 4. Per mtg on 4/7/22, a variance is requested to ONLY test broken pressure seals on BOP equip when moving f/wellhead to wellhead which is in compliance w/API standard 53. API standard 53 states that for pad drilling operation, moving from one wellhead to another within 30 days, pressure testing is required for pressure-containing and pressure-controlling connections when integrity of pressure seal is broken. Apache will function test BOP equip after each nipple up. Full BOP test will be required prior to drlg 1st prod hole and every 30 days after.

Testing Procedure: Once permanent WH is installed on 13.375 csg, BOP equip will consist of 13-5/8" min 3M Hydril and 13-5/8" min 10M 3-Ram BOP. MASP should not exceed 2713 psi. All BOP testing will be done by independent service company. Annular pressure tests will be limited to 70% of WP. When nippling up on 13.375, 10M Bradenhead and flange, BOP test will be limited to 10000 psi. All BOP tests will be include a low pressure test as per BLM regulations. 10M BOP diagrams attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested at a minimum every 7 days.

Choke Diagram Attachment:

10MChokeManifold_20230927141148.pdf

BOP Diagram Attachment:

GhostRider22_15FedCom_5M_Annular_10M_BOP_20231012140113.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1088	0	1088	3596	2508	1088	J-55	54.5	BUTT	2	1.01	BUOY	14.38	BUOY	14.38
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	11675	0	11675	0	-8079	11675	HCL-80	29.7	BUTT	2.59	1.16	BUOY	1.97	BUOY	1.97
3	PRODUCTION	6.75	5.5	NEW	NON API	N	0	20687	0	13007	0	-9411	20687	OTHER	20	OTHER - Semi-premium	1.26	1.26	BUOY	1.73	BUOY	1.73

Casing Attachments

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Casing Attachments

Casing ID: 1 **String** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dustbowl11_14FedCom_SurfCsgAssumpt_20231005092558.pdf

Casing ID: 2 **String** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GhostRider22_15FedCom_IntermCsgAssumpt_20231012140747.pdf

Casing ID: 3 **String** PRODUCTION

Inspection Document:

Spec Document:

GhostRider22_15FedCom_Prod5.5_20lb_P110HC_SpecSheet_20231024094612.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

GhostRider22_15FedCom_ProdCsgAssumpt_20231012141008.pdf

Section 4 - Cement

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	788	620	1.72	13.5	1.39	100	Cl C	5% Sodium chloride, 0.35% metasilicate
SURFACE	Tail		788	1088	205	1.34	14.8	0.8	15	Cl C	0.003 gal/sk Foam preventer, 0.25% sodium metasilicate
INTERMEDIATE	Lead		7534	11375	598	2.76	11.3	0.43	100	Cl C	0.2% Anti-foam, 0.55% retarder
INTERMEDIATE	Tail		11375	11675	63	1.34	14.8	0.25	15	Cl C	0.1% fluid loss, 0.2% retarder, 0.2% anti-foam
PRODUCTION	Lead	7534	11475	12538	39	2.59	11.5	0.19	15	Cl C	0.2% Anti-foam, 0.45% retarder, 0.4% fluid loss
PRODUCTION	Tail		12538	20687	515	1.53	13.2	0.1	15	Cl H	0.2% anti-foam, 0.4% fluid loss

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

Describe what will be on location to control well or mitigate other conditions: Spud with FW/Native mud, set 13.375 surf csg, isolating FW aquifer. Drill out from under 13.375 surf csg with brine/oil direct emulsion mud system. Use fibrous materials as needed to control seepage and lost circ. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on daily drlg report after mudding up.
Describe the mud monitoring system utilized: Pason or Totco will be used to detect changes in loss or gain of mud volume. Mud test will be performed every 24hrs to determine: density, viscosity, strength, filtration, pH as necessary. Use available solids controls equip to help keep mud weight down after mud up. Rig up solids control equip to operate as closed loop system.

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1088	OTHER : FW/Native (spud mud)	9.3	10.5							

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1088	11675	OTHER : Brine/Cut Brine/Direct emulsion	8	9.2							
11675	20687	OTHER : Cut Brine/WBM/OBM	12.3	13.5							

Section 6 - Test, Logging, Coring

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

Will run GR/CNL from TD to surf (horizontal well-vertical portion of hole). Stated logs run will be in completion report and submitted to BLM.

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

GAMMA RAY LOG,DIRECTIONAL SURVEY,MEASUREMENT WHILE DRILLING,MUD LOG/GEOLOGICAL LITHOLOGY LOG,

Coring operation description for the well:

No coring planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8793 **Anticipated Surface Pressure:** 5931

Anticipated Bottom Hole Temperature(F): 150

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations

GhostRider22_15FedCom_H2SOpsContPlan_20231012142529.pdf

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

GhostRider22_15FedCom601H_DirectionalPlan_20231024092652.pdf

Other proposed operations facets description:

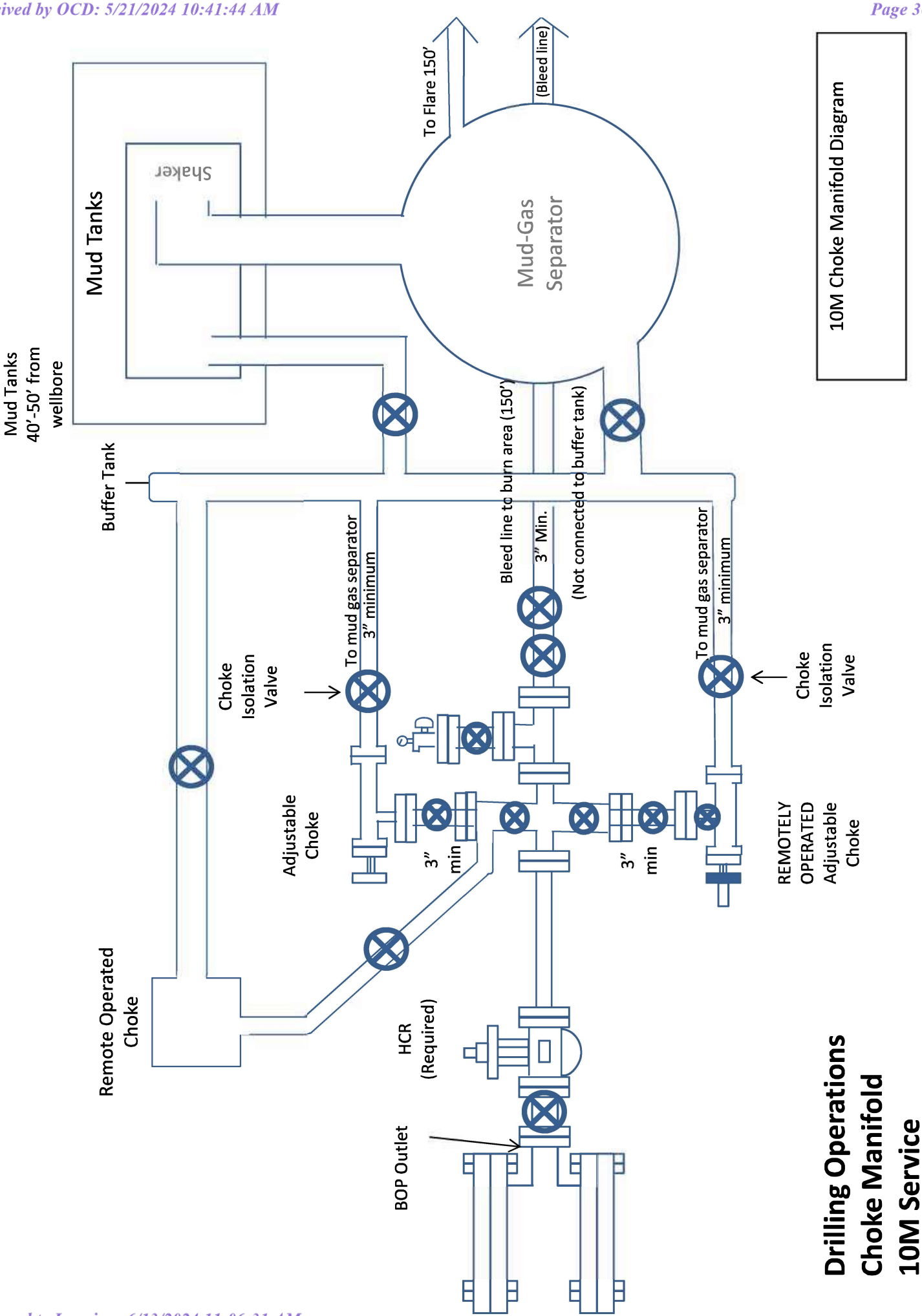
1. No H2S is expected but monitors will be in place to detect H2S occurrences. Should circumstances be encountered, operator and drlg contractor are prepared to take all necessary steps to ensure safety of all personnel and environment. H2S plan attached. 2. Apache respectfully request approval to utilize spudder rig to pre-set surf csg. Please see attachment for procedure. 3. Due to system constraints, unable to clearly depict Intermediate 2nd stage/sqz. Please see attached Drilling Program for full detail.

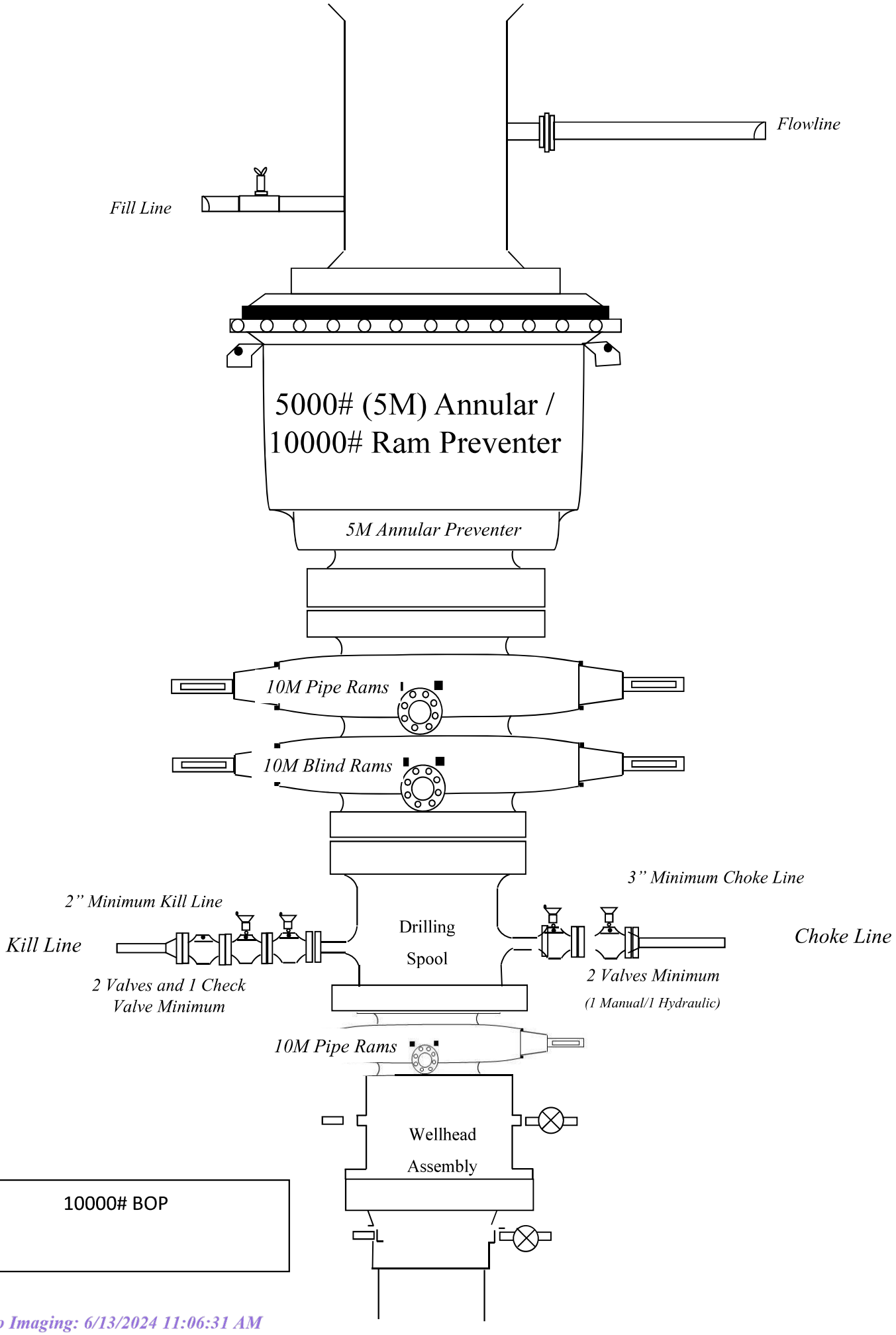
Other proposed operations facets attachment:

Spudder_Rig_Procedure_20230927150016.pdf

GhostRider22_15FedCom601H_DrlgPlan_20231012142606.pdf

Other Variance attachment:


10M Choke Manifold Diagram
Mud Tanks
Shaker
Mud-Gas Separator
To Flare 150'
(Bleed line)
Mud Tanks 40'-50' from wellbore
Buffer Tank
Bleed line to burn area (150')
3" Min.
(Not connected to buffer tank)
To mud gas separator 3" minimum
To mud gas separator 3" minimum
Choke Isolation Valve
Choke Isolation Valve
Adjustable Choke
3" min
3" min
REMOTELY OPERATED Adjustable Choke
Remote Operated Choke
HCR (Required)
BOP Outlet
Drilling Operations
Choke Manifold
10M Service


Flowline
Fill Line
5000# (5M) Annular /
10000# Ram Preventer
5M Annular Preventer
10M Pipe Rams
10M Blind Rams
3" Minimum Choke Line
2" Minimum Kill Line
Kill Line
Drilling
Spool
Choke Line
2 Valves and 1 Check
Valve Minimum
2 Valves Minimum
(1 Manual/1 Hydraulic)
10M Pipe Rams
Wellhead
Assembly

10000# BOP

U. S. Steel Tubular Products

10/5/2021 10:24:00 AM

5.500" 20.00lb/ft (0.361" Wall) P110 HC USS-CDC HTQ®

MECHANICAL PROPERTIES	Pipe	USS-CDC HTQ®		--
Minimum Yield Strength	110,000	--	psi	--
Maximum Yield Strength	140,000	--	psi	--
Minimum Tensile Strength	125,000	--	psi	--
DIMENSIONS	**Pipe**	**USS-CDC HTQ®**		**--**
Outside Diameter	5.500	6.300	in.	--
Wall Thickness	0.361	--	in.	--
Inside Diameter	4.778	4.778	in.	--
Standard Drift	4.653	4.653	in.	--
Alternate Drift	--	--	in.	--
Nominal Linear Weight, T&C	20.00	--	lb/ft	--
Plain End Weight	19.83	--	lb/ft	--
SECTION AREA	**Pipe**	**USS-CDC HTQ®**		**--**
Critical Area	5.828	5.828	sq. in.	--
Joint Efficiency	--	100.0	%	--
PERFORMANCE	**Pipe**	**USS-CDC HTQ®**		**--**
Minimum Collapse Pressure	12,200	12,200	psi	--
External Pressure Leak Resistance	--	9,760	psi	--
Minimum Internal Yield Pressure	12,640	12,640	psi	--
Minimum Pipe Body Yield Strength	641,000	--	lb	--
Joint Strength	--	667,000	lb	--
Compression Rating	--	400,000	lb	--
Reference Length	--	22,233	ft	--
Maximum Uniaxial Bend Rating	--	57.2	deg/100 ft	--
MAKE-UP DATA	**Pipe**	**USS-CDC HTQ®**		**--**
Make-Up Loss	--	4.63	in.	--
Minimum Make-Up Torque	--	13,000	ft-lb	--
Maximum Make-Up Torque	--	18,500	ft-lb	--
Connection Yield Torque	--	22,900	ft-lb	--

Notes

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
2. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
3. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
4. Reference length is calculated by joint strength divided by nominal threaded and coupled weight with 1.5 safety factor.
5. Connection external pressure leak resistance has been verified to 80% API pipe body collapse pressure following the guidelines of API 5C5 Cal II.

U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

Casing Design Assumptions and Load Cases

Surface

All casing design assumptions were ran in StressCheck to determine safety factors which meet or exceed both Apache Corp and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the casing.

Surface Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Mud and Cement Mix Water	Test psi with Mud Weight of displacement fluid
Fracture @ shoe w/ Gas Gradient Above	Mud and Cement Mix Water	Fracture psi at shoe and 0.7 gas gravity above shoe
Green Cement Pressure Test	Mud and Cement Mix Water	Max pressure used to bump the plug during cement job
Lost Returns with Water	Mud and Cement Mix Water	Pressure to fracture shoe with water hydrostatic

Surface Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full/Partial Evacuation	Mud weight string was set in	50% casing evacuation with surface mud inside casing
Lost Returns with Mud Drop	Mud weight string was set in	Lost returns at intermediate casing point with brine
Cementing	Wet cement weight	Water (8.33 ppg)

Surface Casing Axial Design	
Load Case	**Assumptions**
Overpull	100 kips
Running in hole	2 ft/s
Green Cement Pressure Test	Max pressure when bumping plug
Service Loads	N/A

Casing Design Assumptions and Load Cases

Intermediate

All casing design assumptions were ran in StressCheck to determine safety factors which meet or exceed both Apache Corp and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the casing.

Intermediate Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Mud and Cement Mix Water	Test psi with Mud Weight of displacement fluid
Fracture @ shoe w/ Gas Gradient Above	Mud and Cement Mix Water	Fracture psi at shoe and 0.7 gas gravity above shoe
Green Cement Pressure Test	Mud and Cement Mix Water	Max pressure used to bump the plug during cement job
Lost Returns with Water	Mud and Cement Mix Water	Pressure to fracture shoe with water hydrostatic

Intermediate Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full/Partial Evacuation	Mud weight string was set in	50% casing evacuation with intermediate mud inside casing
Lost Returns with Mud Drop	Mud weight string was set in	Lost returns at TD casing shoe with 9.2 ppg mud
Cementing	Wet cement weight	Water (8.33 ppg)

Intermediate Casing Axial Design	
Load Case	**Assumptions**
Overpull	100 kips
Running in hole	2 ft/s
Green Cement Pressure Test	Max pressure when bumping plug
Service Loads	N/A

Casing Design Assumptions and Load Cases

Production

All casing design assumptions were ran in StressCheck to determine safety factors which meet or exceed both Apache Corp and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the casing.

Production Casing Burst Design		
Load Case	**External Pressure**	**Internal Pressure**
Pressure Test	Mud base fluid density to TOC, cement mix-water gradient to outer shoe and pore pressure to TD	Fluid in hole (water or produced water) + test psi
Tubing Leak	Mud base fluid density to TOC, cement mix-water gradient to outer shoe and pore pressure to TD	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Mud base fluid density to TOC, cement mix-water gradient to outer shoe and pore pressure to TD	Max frac pressure with heaviest frac fluid
Green Cement Pressure Test	Mud base fluid density to TOC, cement mix-water gradient to outer shoe and pore pressure to TD	Max pressure used to bump the plug during cement job

Production Casing Collapse Design		
Load Case	**External Pressure**	**Internal Pressure**
Full Evacuation	Mud weight string was set in	None
Cementing	Wet cement weight	Water (8.33 ppg)

Production Casing Axial Design	
Load Case	**Assumptions**
Overpull	100 kips
Running in hole	2 ft/s
Green Cement Pressure Test	Max pressure when bumping plug
Service Loads	N/A

HYDROGEN SULFIDE (H_2S) DRILLING OPERATIONS PLAN

Hydrogen Sulfide Training:

All regularly assigned personnel, contracted or employed by Apache Corporation will receive training from qualified instructor(s) in the following areas prior to commencing drilling possible hydrogen sulfide bearing formations in this well:

- The hazards and characteristics of hydrogen sulfide (H_2S)
- The proper use and maintenance of personal protective equipment and life support systems.
- The proper use of H_2S detectors, alarms, warning systems, briefing area, evacuation procedures & prevailing winds.
- The proper techniques for first aid and rescue procedures.

Supervisory personnel will be trained in the following areas:

- The effects of H_2S on metal components. If high tensile tubulars are to be utilized, personnel will be trained in their special maintenance requirements.
- Corrective action & shut-in procedures when drilling or reworking a well & blowout prevention / well control procedures.
- The contents and requirements of the H_2S Drilling Operations Plan

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500') and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received proper training.

H_2S SAFETY EQUIPMENT AND SYSTEMS:

Well Control Equipment that will be available & installed if H_2S is encountered:

- Flare Line with electronic igniter or continuous pilot.
- Choke manifold with a minimum of one remote choke.
- Blind rams & pipe rams to accommodate all pipe sizes with properly sized closing unit.
- Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head & flare gun with flares

Protective Equipment for Essential Personnel:

- Mark II Survive-air 30 minute units located in dog house & at briefing areas, as indicated on wellsite diagram.

H2S Dection and Monitoring Equipment:

- Two portable H_2S monitors positioned on location for best coverage & response. These units have warning lights & audible sirens when H_2S levels of 20 ppm are reached.
- One portable H_2S monitor positioned near flare line.

H2S Visual Warning Systems:

- Wind direction indicators are shown on wellsite diagram.
- Caution / Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud Program:

- The Mud Program has been designed to minimize the volume of H_2S circulated to the surface. Proper mud weights, safe drilling practices & the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.
- A mud-gas separator and H_2S gas buster will be utilized as needed.

Metallurgy:

- All drill strings, casing, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold & lines, & valves will be suitable for H_2S service.
- All elastomers used for packing & seals shall be H_2S trim.

Communication:

- Cellular telephone and 2-way radio communications in company vehicles, rig floor and mud logging trailer.

HYDROGEN SULFIDE (H_2S) CONTINGENCY PLAN

Assumed 100 ppm ROE = 3000'

100 ppm H_2S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H_2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operators and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the :
  - Detection of H_2S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

Ignition of Gas source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever this is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air = I	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = I	2 ppm	N/A	1000 ppm

Contacting Authorities

Apache Corporation personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including directions to site. The following call list of essential and potential responders has been prepared for use during a release. Apache's response must be in coordination with the State of New Mexico's *"Hazardous Materials Emergency Response Plan" (HMER).*

WELL CONTROL EMERGENCY RESPONSE PLAN

I. GENERAL PHILOSOPHY

Our objective is to ensure that during an emergency, a predetermined procedure is followed so that prompt decisions can be made based on accurate information.

The best way to handle and emergency is with an experienced organization set up for the sole purpose of solving the problem. The *Well Control Emergency Response Team* was organized to handle dangerous & expensive well control problems. The *Team* is structured such that each individual can contribute the most from his area of expertise. Key decision-makers are determined prior to an emergency to avoid confusion about who is in charge.

If the well is flowing uncontrolled at the surface or subsurface, *The Emergency Response Team* will be mobilized. The *Team* is customized for the people currently on the Apache staff. Staff changes may require a change in the plan.

II. EMERGENCY PROCEDURE ON DRILLING OR COMPLETION OPERATIONS

A. In the event of an emergency the *Drilling Foreman or Tool-Pusher* will immediately contact only one of the following starting with the first name listed:

Name	Office	Mobile	Home
Danny Laman – Drlg Superintendent	432-818-1022	432-634-0288	
John Vacek – Drilling Engineer	432-818-1882	281-222-1812	
Bobby Smith – Drilling Manager	432-818-1020	432-556-7701	
Bill Jones – EH&S Coordinator		432-967-9576	

***This one phone call will free the Drilling Foreman to devote his full time to securing the safety of personnel & equipment. This call will initiate the process to mobilize the Well Control Emergency Response Team. Apache maintains an Emergency Telephone Conference Room in the Houston office. This room is available for us by the Permian Region. The room has 50 separate telephone lines.*

B. The Apache employee contacted by the Drilling Foreman will begin contacting the rest of the *Team*. If **DANNY LAMAN** is out of contact**, JOHN VACEK** will be notified.

C. If a member of the *Emergency Response Team* is away from the job, he must be available for call back. Telephone numbers should be left with secretaries or a key decision-maker.

D. Apache's reporting procedure for spills or releases of oil or hazardous materials will be implemented when spills or releases have occurred or are probable.

EMERGENCY RESPONSE NUMBERS:

SHERIFF DEPARTMENT	
Eddy County	575-887-7551
Lea County	575-396-3611
FIRE DEPARTMENT	911
Artesia	575-746-5050
Carlsbad	575-885-2111
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
HOSPITALS	911
Artesia Medical Emergency	575-746-5050
Carlsbad Medical Emergency	575-885-2111
Eunice Medical Emergency	575-394-2112
Hobbs Medical Emergency	575-397-9308
Jal Medical Emergency	575-395-2221
Lovington Medical Emergency	575-396-2359
AGENT NOTIFICATIONS	
Bureau of Land Management	575-393-3612
New Mexico Oil Conservation Division	575-393-6161

Lea County NM (NAD 83 NME) Ghost Rider 22-15 Fed Com 601H

MD (ft)	Inc (Deg)	Azim. (Deg)	SSTVD (ft)	TVD (ft)	N/S (ft)	E/W (ft)	Y (ft)	X (ft)	DLS (dega/100f	V.S. (ft)	Comment
0	0	0	-3623	0	0 N	0 E	435946.6 N	749017.7 E	0	0	
100	0	0	-3523	100	0 N	0 E	435946.6 N	749017.7 E	0	0	MWD+IFR1+SAG+FDIR (1)
200	0	0	-3423	200	0 N	0 E	435946.6 N	749017.7 E	0	0	
300	0	0	-3323	300	0 N	0 E	435946.6 N	749017.7 E	0	0	
400	0	0	-3223	400	0 N	0 E	435946.6 N	749017.7 E	0	0	
500	0	0	-3123	500	0 N	0 E	435946.6 N	749017.7 E	0	0	
600	0	0	-3023	600	0 N	0 E	435946.6 N	749017.7 E	0	0	
700	0	0	-2923	700	0 N	0 E	435946.6 N	749017.7 E	0	0	
800	0	0	-2823	800	0 N	0 E	435946.6 N	749017.7 E	0	0	
900	0	0	-2723	900	0 N	0 E	435946.6 N	749017.7 E	0	0	
1000	0	0	-2623	1000	0 N	0 E	435946.6 N	749017.7 E	0	0	
1100	0	0	-2523	1100	0 N	0 E	435946.6 N	749017.7 E	0	0	
1200	0	0	-2423	1200	0 N	0 E	435946.6 N	749017.7 E	0	0	
1300	0	0	-2323	1300	0 N	0 E	435946.6 N	749017.7 E	0	0	
1400	0	0	-2223	1400	0 N	0 E	435946.6 N	749017.7 E	0	0	
1500	0	0	-2123	1500	0 N	0 E	435946.6 N	749017.7 E	0	0	
1600	2.5	250.427	-2023.032	1599.968	0.731 S	2.055 W	435945.9 N	749015.6 E	2.5	-0.486	
1700	5	250.427	-1923.254	1699.746	2.922 S	8.217 W	435943.7 N	749009.5 E	2.5	-1.943	
1800	7.5	250.427	-1823.856	1799.144	6.568 S	18.474 W	435940 N	748999.2 E	2.5	-4.368	
1900	10	250.427	-1725.028	1897.972	11.664 S	32.806 W	435934.9 N	748984.9 E	2.5	-7.756	
2000	12.5	250.427	-1626.957	1996.043	18.199 S	51.187 W	435928.4 N	748966.5 E	2.5	-12.101	
2055.565	13.889	250.427	-1572.861	2050.139	22.448 S	63.137 W	435924.2 N	748954.6 E	2.5	-14.927	
2100	13.889	250.427	-1529.724	2093.276	26.021 S	73.187 W	435920.6 N	748944.5 E	0	-17.303	
2200	13.889	250.427	-1432.648	2190.352	34.063 S	95.804 W	435912.5 N	748921.9 E	0	-22.65	
2300	13.889	250.427	-1335.572	2287.428	42.104 S	118.421 W	435904.5 N	748899.3 E	0	-27.997	
2400	13.889	250.427	-1238.496	2384.504	50.146 S	141.039 W	435896.5 N	748876.7 E	0	-33.344	
2500	13.889	250.427	-1141.42	2481.58	58.187 S	163.656 W	435888.4 N	748854 E	0	-38.691	
2600	13.889	250.427	-1044.343	2578.657	66.229 S	186.274 W	435880.4 N	748831.4 E	0	-44.038	
2700	13.889	250.427	-947.267	2675.733	74.27 S	208.891 W	435872.3 N	748808.8 E	0	-49.385	
2800	13.889	250.427	-850.191	2772.809	82.312 S	231.508 W	435864.3 N	748786.2 E	0	-54.732	
2900	13.889	250.427	-753.115	2869.885	90.353 S	254.126 W	435856.2 N	748763.6 E	0	-60.079	
3000	13.889	250.427	-656.039	2966.961	98.395 S	276.743 W	435848.2 N	748741 E	0	-65.427	
3100	13.889	250.427	-558.962	3064.038	106.436 S	299.36 W	435840.2 N	748718.3 E	0	-70.774	
3200	13.889	250.427	-461.886	3161.114	114.478 S	321.978 W	435832.1 N	748695.7 E	0	-76.121	
3300	13.889	250.427	-364.81	3258.19	122.519 S	344.595 W	435824.1 N	748673.1 E	0	-81.468	
3400	13.889	250.427	-267.734	3355.266	130.561 S	367.213 W	435816 N	748650.5 E	0	-86.815	
3500	13.889	250.427	-170.658	3452.342	138.602 S	389.83 W	435808 N	748627.9 E	0	-92.162	
3600	13.889	250.427	-73.581	3549.419	146.644 S	412.447 W	435800 N	748605.3 E	0	-97.509	
3700	13.889	250.427	23.495	3646.495	154.685 S	435.065 W	435791.9 N	748582.6 E	0	-102.856	
3800	13.889	250.427	120.571	3743.571	162.727 S	457.682 W	435783.9 N	748560 E	0	-108.204	
3900	13.889	250.427	217.647	3840.647	170.768 S	480.3 W	435775.8 N	748537.4 E	0	-113.551	
4000	13.889	250.427	314.723	3937.723	178.81 S	502.917 W	435767.8 N	748514.8 E	0	-118.898	
4100	13.889	250.427	411.8	4034.8	186.851 S	525.534 W	435759.7 N	748492.2 E	0	-124.245	
4200	13.889	250.427	508.876	4131.876	194.893 S	548.152 W	435751.7 N	748469.5 E	0	-129.592	
4300	13.889	250.427	605.952	4228.952	202.934 S	570.769 W	435743.7 N	748446.9 E	0	-134.939	
4400	13.889	250.427	703.028	4326.028	210.976 S	593.386 W	435735.6 N	748424.3 E	0	-140.286	
4500	13.889	250.427	800.104	4423.104	219.017 S	616.004 W	435727.6 N	748401.7 E	0	-145.633	
4600	13.889	250.427	897.181	4520.181	227.059 S	638.621 W	435719.5 N	748379.1 E	0	-150.98	
4700	13.889	250.427	994.257	4617.257	235.1 S	661.239 W	435711.5 N	748356.5 E	0	-156.328	
4800	13.889	250.427	1091.333	4714.333	243.142 S	683.856 W	435703.5 N	748333.8 E	0	-161.675	
4900	13.889	250.427	1188.409	4811.409	251.183 S	706.473 W	435695.4 N	748311.2 E	0	-167.022	
4913.641	13.889	250.427	1201.651	4824.651	252.28 S	709.559 W	435694.3 N	748308.1 E	0	-167.751	
5000	13.026	250.427	1285.638	4908.638	259.013 S	728.495 W	435687.6 N	748289.2 E	1	-172.228	
5100	12.026	250.427	1383.257	5006.257	266.278 S	748.929 W	435680.3 N	748268.8 E	1	-177.059	
5200	11.026	250.427	1481.239	5104.239	272.972 S	767.755 W	435673.6 N	748249.9 E	1	-181.51	
5300	10.026	250.427	1579.556	5202.556	279.091 S	784.966 W	435667.5 N	748232.7 E	1	-185.579	
5400	9.026	250.427	1678.176	5301.176	284.635 S	800.558 W	435662 N	748217.1 E	1	-189.265	
5500	8.026	250.427	1777.069	5400.069	289.601 S	814.527 W	435657 N	748203.2 E	1	-192.567	
5600	7.026	250.427	1876.207	5499.207	293.989 S	826.867 W	435652.6 N	748190.8 E	1	-195.485	
5700	6.026	250.427	1975.558	5598.558	297.796 S	837.574 W	435648.8 N	748180.1 E	1	-198.016	
5800	5.026	250.427	2075.092	5698.092	301.021 S	846.647 W	435645.6 N	748171.1 E	1	-200.161	
5900	4.026	250.427	2174.779	5797.779	303.665 S	854.081 W	435642.9 N	748163.6 E	1	-201.919	
6000	3.026	250.427	2274.588	5897.588	305.725 S	859.875 W	435640.9 N	748157.8 E	1	-203.288	
6100	2.026	250.427	2374.49	5997.49	307.201 S	864.027 W	435639.4 N	748153.7 E	1	-204.27	
6200	1.026	250.427	2474.453	6097.453	308.093 S	866.535 W	435638.5 N	748151.2 E	1	-204.863	
6302.553	0	0	2577	6200	308.4 S	867.4 W	435638.2 N	748150.3 E	1	-205.067	
6400	0	0	2674.447	6297.447	308.4 S	867.4 W	435638.2 N	748150.3 E	0	-205.067	
6500	0	0	2774.447	6397.447	308.4 S	867.4 W	435638.2 N	748150.3 E	0	-205.067	
6600	0	0	2874.447	6497.447	308.4 S	867.4 W	435638.2 N	748150.3 E	0	-205.067	
6700	0	0	2974.447	6597.447	308.4 S	867.4 W	435638.2 N	748150.3 E	0	-205.067	
6800	0	0	3074.447	6697.447	308.4 S	867.4 W	435638.2 N	748150.3 E	0	-205.067	

6900	0	0	3174.447	6797.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7000	0	0	3274.447	6897.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7100	0	0	3374.447	6997.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7200	0	0	3474.447	7097.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7300	0	0	3574.447	7197.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7400	0	0	3674.447	7297.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7500	0	0	3774.447	7397.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7600	0	0	3874.447	7497.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7700	0	0	3974.447	7597.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7800	0	0	4074.447	7697.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
7900	0	0	4174.447	7797.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8000	0	0	4274.447	7897.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8100	0	0	4374.447	7997.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8200	0	0	4474.447	8097.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8300	0	0	4574.447	8197.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8400	0	0	4674.447	8297.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8500	0	0	4774.447	8397.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8600	0	0	4874.447	8497.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8700	0	0	4974.447	8597.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8800	0	0	5074.447	8697.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
8900	0	0	5174.447	8797.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9000	0	0	5274.447	8897.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9100	0	0	5374.447	8997.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9200	0	0	5474.447	9097.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9300	0	0	5574.447	9197.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9400	0	0	5674.447	9297.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9500	0	0	5774.447	9397.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9600	0	0	5874.447	9497.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9700	0	0	5974.447	9597.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9800	0	0	6074.447	9697.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
9900	0	0	6174.447	9797.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10000	0	0	6274.447	9897.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10100	0	0	6374.447	9997.447	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10200	0	0	6474.447	10097.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10300	0	0	6574.447	10197.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10400	0	0	6674.447	10297.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10500	0	0	6774.447	10397.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10600	0	0	6874.447	10497.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10700	0	0	6974.447	10597.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10800	0	0	7074.447	10697.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
10900	0	0	7174.447	10797.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11000	0	0	7274.447	10897.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11100	0	0	7374.447	10997.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11200	0	0	7474.447	11097.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11300	0	0	7574.447	11197.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11400	0	0	7674.447	11297.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11500	0	0	7774.447	11397.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11600	0	0	7874.447	11497.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11700	0	0	7974.447	11597.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11800	0	0	8074.447	11697.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
11900	0	0	8174.447	11797.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12000	0	0	8274.447	11897.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12100	0	0	8374.447	11997.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12200	0	0	8474.447	12097.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12300	0	0	8574.447	12197.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12400	0	0	8674.447	12297.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12500	0	0	8774.447	12397.45	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12536.55	0	0	8811	12434	308.4	S	867.4	W	435638.2	N	748150.3	E	0	-205.067	
12550	1.345	1.9	8824.446	12447.45	308.242	S	867.395	W	435638.4	N	748150.3	E	10	-204.911	
12600	6.345	1.9	8874.318	12497.32	304.893	S	867.284	W	435641.7	N	748150.4	E	10	-201.598	
12650	11.345	1.9	8923.708	12546.71	297.211	S	867.029	W	435649.4	N	748150.7	E	10	-193.999	
12700	16.345	1.9	8972.24	12595.24	285.257	S	866.632	W	435661.3	N	748151.1	E	10	-182.172	
12750	21.345	1.9	9019.544	12642.54	269.121	S	866.097	W	435677.5	N	748151.6	E	10	-166.209	
12800	26.345	1.9	9065.262	12688.26	248.925	S	865.427	W	435697.7	N	748152.3	E	10	-146.229	
12850	31.345	1.9	9109.045	12732.05	224.824	S	864.628	W	435721.8	N	748153.1	E	10	-122.386	
12900	36.345	1.9	9150.559	12773.56	197.001	S	863.705	W	435749.6	N	748154	E	10	-94.861	
12950	41.345	1.9	9189.489	12812.49	165.668	S	862.665	W	435780.9	N	748155	E	10	-63.863	
13000	46.345	1.9	9225.538	12848.54	131.062	S	861.517	W	435815.5	N	748156.2	E	10	-29.628	
13008.93	47.238	1.9	9231.654	12854.65	124.555	S	861.301	W	435822	N	748156.4	E	10	-23.191	FTP_GR601H
13050	51.345	1.9	9258.433	12881.43	93.448	S	860.269	W	435853.2	N	748157.4	E	10	7.583	
13100	56.345	1.9	9287.922	12910.92	53.112	S	858.931	W	435893.5	N	748158.8	E	10	47.488	
13150	61.345	1.9	9313.782	12936.78	10.361	S	857.513	W	435936.2	N	748160.2	E	10	89.781	
13200	66.345	1.9	9335.815	12958.82	34.48	N	856.025	W	435981.1	N	748161.7	E	10	134.143	
13250	71.345	1.9	9353.854	12976.85	81.07	N	854.48	W	436027.7	N	748163.2	E	10	180.234	
13300	76.345	1.9	9367.762	12990.76	129.054	N	852.888	W	436075.7	N	748164.8	E	10	227.704	
13350	81.345	1.9	9377.432	13000.43	178.067	N	851.262	W	436124.7	N	748166.4	E	10	276.192	

13400	86.345	1.9	9382.791	13005.79	227.736 N	849.615 W	436174.3 N	748168.1 E	10	325.329	
13436.55	90	1.9	9383.957	13006.96	264.242 N	848.404 W	436210.8 N	748169.3 E	10	361.445	
13500	90	0.948	9383.957	13006.96	327.671 N	846.827 W	436274.3 N	748170.9 E	1.5	424.256	
13583.88	90	359.69	9383.957	13006.96	411.551 N	846.359 W	436358.2 N	748171.3 E	1.5	507.509	
13600	90	359.69	9383.957	13006.96	427.667 N	846.447 W	436374.3 N	748171.3 E	0	523.525	
13700	90	359.69	9383.957	13006.96	527.666 N	846.988 W	436474.3 N	748170.7 E	0	622.904	
13800	90	359.69	9383.957	13006.96	627.664 N	847.529 W	436574.3 N	748170.2 E	0	722.282	
13900	90	359.69	9383.957	13006.96	727.663 N	848.07 W	436674.3 N	748169.6 E	0	821.66	
14000	90	359.69	9383.957	13006.96	827.661 N	848.611 W	436774.3 N	748169.1 E	0	921.039	
14100	90	359.69	9383.957	13006.96	927.66 N	849.152 W	436874.3 N	748168.5 E	0	1020.417	
14200	90	359.69	9383.957	13006.96	1027.659 N	849.693 W	436974.3 N	748168 E	0	1119.796	
14300	90	359.69	9383.957	13006.96	1127.657 N	850.234 W	437074.3 N	748167.5 E	0	1219.174	
14400	90	359.69	9383.957	13006.96	1227.656 N	850.775 W	437174.3 N	748166.9 E	0	1318.553	
14500	90	359.69	9383.957	13006.96	1327.654 N	851.316 W	437274.3 N	748166.4 E	0	1417.931	
14600	90	359.69	9383.957	13006.96	1427.653 N	851.857 W	437374.3 N	748165.8 E	0	1517.309	
14700	90	359.69	9383.957	13006.96	1527.651 N	852.398 W	437474.3 N	748165.3 E	0	1616.688	
14800	90	359.69	9383.957	13006.96	1627.65 N	852.939 W	437574.3 N	748164.8 E	0	1716.066	
14900	90	359.69	9383.957	13006.96	1727.648 N	853.48 W	437674.2 N	748164.2 E	0	1815.445	
15000	90	359.69	9383.957	13006.96	1827.647 N	854.021 W	437774.2 N	748163.7 E	0	1914.823	
15100	90	359.69	9383.957	13006.96	1927.645 N	854.562 W	437874.2 N	748163.1 E	0	2014.201	
15200	90	359.69	9383.957	13006.96	2027.644 N	855.103 W	437974.2 N	748162.6 E	0	2113.58	
15300	90	359.69	9383.957	13006.96	2127.642 N	855.644 W	438074.2 N	748162.1 E	0	2212.958	
15400	90	359.69	9383.957	13006.96	2227.641 N	856.185 W	438174.2 N	748161.5 E	0	2312.337	
15500	90	359.69	9383.957	13006.96	2327.64 N	856.727 W	438274.2 N	748161 E	0	2411.715	
15600	90	359.69	9383.957	13006.96	2427.638 N	857.268 W	438374.2 N	748160.4 E	0	2511.093	
15700	90	359.69	9383.957	13006.96	2527.637 N	857.809 W	438474.2 N	748159.9 E	0	2610.472	
15800	90	359.69	9383.957	13006.96	2627.635 N	858.35 W	438574.2 N	748159.4 E	0	2709.85	
15900	90	359.69	9383.957	13006.96	2727.634 N	858.891 W	438674.2 N	748158.8 E	0	2809.229	
16000	90	359.69	9383.957	13006.96	2827.632 N	859.432 W	438774.2 N	748158.3 E	0	2908.607	
16100	90	359.69	9383.957	13006.96	2927.631 N	859.973 W	438874.2 N	748157.7 E	0	3007.986	
16200	90	359.69	9383.957	13006.96	3027.629 N	860.514 W	438974.2 N	748157.2 E	0	3107.364	
16300	90	359.69	9383.957	13006.96	3127.628 N	861.055 W	439074.2 N	748156.6 E	0	3206.742	
16400	90	359.69	9383.957	13006.96	3227.626 N	861.596 W	439174.2 N	748156.1 E	0	3306.121	
16500	90	359.69	9383.957	13006.96	3327.625 N	862.137 W	439274.2 N	748155.6 E	0	3405.499	
16600	90	359.69	9383.957	13006.96	3427.623 N	862.678 W	439374.2 N	748155 E	0	3504.878	
16700	90	359.69	9383.957	13006.96	3527.622 N	863.219 W	439474.2 N	748154.5 E	0	3604.256	
16800	90	359.69	9383.957	13006.96	3627.62 N	863.76 W	439574.2 N	748153.9 E	0	3703.634	
16900	90	359.69	9383.957	13006.96	3727.619 N	864.301 W	439674.2 N	748153.4 E	0	3803.013	
17000	90	359.69	9383.957	13006.96	3827.618 N	864.842 W	439774.2 N	748152.9 E	0	3902.391	
17100	90	359.69	9383.957	13006.96	3927.616 N	865.383 W	439874.2 N	748152.3 E	0	4001.77	
17200	90	359.69	9383.957	13006.96	4027.615 N	865.924 W	439974.2 N	748151.8 E	0	4101.148	
17300	90	359.69	9383.957	13006.96	4127.613 N	866.465 W	440074.2 N	748151.2 E	0	4200.526	
17400	90	359.69	9383.957	13006.96	4227.612 N	867.006 W	440174.2 N	748150.7 E	0	4299.905	
17500	90	359.69	9383.957	13006.96	4327.61 N	867.548 W	440274.2 N	748150.2 E	0	4399.283	
17600	90	359.69	9383.957	13006.96	4427.609 N	868.089 W	440374.2 N	748149.6 E	0	4498.662	
17700	90	359.69	9383.957	13006.96	4527.607 N	868.63 W	440474.2 N	748149.1 E	0	4598.04	
17800	90	359.69	9383.957	13006.96	4627.606 N	869.171 W	440574.2 N	748148.5 E	0	4697.419	
17900	90	359.69	9383.957	13006.96	4727.604 N	869.712 W	440674.2 N	748148 E	0	4796.797	
18000	90	359.69	9383.957	13006.96	4827.603 N	870.253 W	440774.2 N	748147.4 E	0	4896.175	
18100	90	359.69	9383.957	13006.96	4927.601 N	870.794 W	440874.2 N	748146.9 E	0	4995.554	
18200	90	359.69	9383.957	13006.96	5027.6 N	871.335 W	440974.2 N	748146.4 E	0	5094.932	
18300	90	359.69	9383.957	13006.96	5127.599 N	871.876 W	441074.2 N	748145.8 E	0	5194.311	
18400	90	359.69	9383.957	13006.96	5227.597 N	872.417 W	441174.2 N	748145.3 E	0	5293.689	
18500	90	359.69	9383.957	13006.96	5327.596 N	872.958 W	441274.2 N	748144.7 E	0	5393.067	
18600	90	359.69	9383.957	13006.96	5427.594 N	873.499 W	441374.2 N	748144.2 E	0	5492.446	
18700	90	359.69	9383.957	13006.96	5527.593 N	874.04 W	441474.2 N	748143.7 E	0	5591.824	
18800	90	359.69	9383.957	13006.96	5627.591 N	874.581 W	441574.2 N	748143.1 E	0	5691.203	
18900	90	359.69	9383.957	13006.96	5727.59 N	875.122 W	441674.2 N	748142.6 E	0	5790.581	
19000	90	359.69	9383.957	13006.96	5827.588 N	875.663 W	441774.2 N	748142 E	0	5889.959	
19100	90	359.69	9383.957	13006.96	5927.587 N	876.204 W	441874.2 N	748141.5 E	0	5989.338	
19200	90	359.69	9383.957	13006.96	6027.585 N	876.745 W	441974.2 N	748141 E	0	6088.716	
19300	90	359.69	9383.957	13006.96	6127.584 N	877.286 W	442074.2 N	748140.4 E	0	6188.095	
19400	90	359.69	9383.957	13006.96	6227.582 N	877.827 W	442174.2 N	748139.9 E	0	6287.473	
19500	90	359.69	9383.957	13006.96	6327.581 N	878.369 W	442274.2 N	748139.3 E	0	6386.852	
19600	90	359.69	9383.957	13006.96	6427.58 N	878.91 W	442374.2 N	748138.8 E	0	6486.23	
19700	90	359.69	9383.957	13006.96	6527.578 N	879.451 W	442474.2 N	748138.2 E	0	6585.608	
19800	90	359.69	9383.957	13006.96	6627.577 N	879.992 W	442574.2 N	748137.7 E	0	6684.987	
19900	90	359.69	9383.957	13006.96	6727.575 N	880.533 W	442674.2 N	748137.2 E	0	6784.365	
20000	90	359.69	9383.957	13006.96	6827.574 N	881.074 W	442774.2 N	748136.6 E	0	6883.744	
20100	90	359.69	9383.957	13006.96	6927.572 N	881.615 W	442874.2 N	748136.1 E	0	6983.122	
20200	90	359.69	9383.957	13006.96	7027.571 N	882.156 W	442974.2 N	748135.5 E	0	7082.5	
20300	90	359.69	9383.957	13006.96	7127.569 N	882.697 W	443074.2 N	748135 E	0	7181.879	
20400	90	359.69	9383.957	13006.96	7227.568 N	883.238 W	443174.2 N	748134.5 E	0	7281.257	
20500	90	359.69	9383.957	13006.96	7327.566 N	883.779 W	443274.2 N	748133.9 E	0	7380.636	
20600	90	359.69	9383.957	13006.96	7427.565 N	884.32 W	443374.2 N	748133.4 E	0	7480.014	
20701.64	90	359.69	9384	13007	7529.2 N	884.7 W	443475.8 N	748133 E	0	7580.999	BHL_GR601H

Apache Corp respectfully requests approval for the following changes and additions to the drilling plan:

1. Utilize a spudder rig to pre-set surface casing.
2. Description of Operations
    1. Spudder rig will move in their rig to drill the surface hole section and pre-set surface casing on the first wells.
        a. After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (Onshore Oil and Gas Order No. 2).
        b. Rig will utilize fresh water based mud to drill 17-1/2” surface hole to TD. Solids control will be handled entirely on a closed loop basis.
3. The wellhead will be installed and tested once the 13-3/8” surface casing is cut off and the WOC time has been reached.
4. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
    a. A means for intervention will be maintained while the drilling rig is not over the well.
5. Spudder rig operations is expected to take 1-2 days on a single well pad.
6. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
7. Drilling operations will be performed with the drilling rig. At that time an approved BOP stack will be nippled up and tested on the wellhead before drilling operations commences on each well.
    a. The BLM will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.
8. Apache Corp will have supervision over the rig to ensure compliance with all BLM regulations and to oversee operations.
9. Once the rig is removed, Apache Corp will secure the wellhead area by placing a guard rail around the cellar area.

DRILLING PLAN: BLM COMPLIANCE

Ghost Rider 22-15 Fed Com 601H
Projected TD: 20687' K11MD / 13007' TVD
SHL: 367' FSL & 2151' FWL , Section 22, T24S, R32E
BHL: 2540' FSL & 2630' FEL , Section 15, T24S, R32E
Lea County, NM

1. Geologic Name of Surface Formation

A. Permian

2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas

Formation	Well Depth (TVD)	Water/Oil/Gas
Rustler	1038'	
Salado	1363'	
Castile	4122'	Oil
Delaware	4646'	Oil
Cherry Canyon	5647'	Oil
Brushy Canyon	7534'	Oil
Bone Spring	8768'	Oil
Avalon	8939'	Oil
1st Bone Spring Sand	9913'	Oil
1st Bone Spring Carb	10100'	Oil
2nd Bone Spring Sand	10566'	Oil
3rd Bone Spring Carb	10975'	Oil
3rd Bone Spring Sand	11774'	Oil
Wolfcamp	12070'	Oil
Wolfcamp A	12254'	Oil
Wolfcamp B	12684'	Oil
Target/Land Curve	13007'	Oil

*** Hydrocarbons @ Brushy Canyon
*** Groundwater depth 40' (per NM State Engineers Office).

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13.375 casing @ 1088' (275' above the salt) and circulating cement back to surface. The 7.625 intermediate casing will be set at 11675' and bring TOC back to surface. An 6.75 inch curve and an 6.75 inch lateral hole will be drilled to MD/TD and 5.5 semi-premium x 5.5 Semi-flush casing will be set at TD and cemented back a minimum of 200' into the 7.625 casing shoe.

3. Casing Design

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used	SF Burst	SF Collapse	SF Tension (B)
17 1/2	0' – 1088'	13 3/8	54.5	BTC	J-55	New	1.01	2.00	14.38
9 7/8	0' – 11675'	7 5/8	29.7	BTC	HCL-80	New	1.16	2.59	1.97
6 3/4	0' – 13438'	5 1/2	20	semi-premium	CYP-110	New	1.26	1.39	2.01
6 3/4	13438' - 20687'	5 1/2	20	Semi-flush	CYP-110	New	1.26	1.26	1.73

- Apache Corporation requests to not utilize centralizers in the curve and lateral
- 7.625" Collapse analyzed using 50% evacuation based on regional experience
- 5.5" Tension calculated using vertical hanging weight plus the lateral weight multiplied by a friction factor of 0.35
- Test on Casing will be limited to 70% burst of the casing or 1500 psi, whichever is less
- 5.5", 20 ppf, semi-premium casing will be run from surface to 11475 and crossed over to 5.5", 20 ppf, Semi-flush casing from 11475 to TD.
- Request to use 5" BTC Float equipment for the the production casing

Wellhead:

Permanent Wellhead – Multibowl System

A. Starting Head: 13-5/8" 10M top flange x 13-3/8" 10M SOW/BTC bottom
B. Tubing Head: 13-5/8" 10M bottom flange x 7-1/16" 10M top flange

- Wellhead will be installed by manufacturer's representatives.
- Manufacturer will monitor welding process to ensure appropriate temperature of seal.
- Operator will test the 7.625" casing per BLM Onshore Order 2
- Wellhead Manufacturer representative will not be present for BOP test plug installation

4. Cement Program

Surface Casing: 13.375, 54.5 New J-55, BTC casing to be set at +/- 1088'

TOC: Surface

Lead: 620 sxs Class - C, 5% Sodium chloride & 0.35% metasilicate (mixed at 13.5 ppg, 1.72 ft3/sx, 9.02 gal/sx water)

TOC: 788'

Tail: 200 sxs Class - C, 0.003 gal/sx Foam preventer & 0.25% sodium metasilicate (mixed at 14.8 ppg, 1.34 ft3/sx, 6.36 gal/sx water)

Intermediate Casing: 7.625, 29.7 New HCL-80, BTC casing to be set at +/- 11675'

If deemed necessary for operations, a DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe.
The DV tool depth(s) will be adjusted on hole conditions & cement volumes will be adjusted proportionally.
A DVT may be used in the 7.625 csg & ECP may be placed below DVT. ECP/DV Tool to be set at 7534

1st Stage

TOC: Surface

Lead: 600 sxs Class - C, 0.2% Anti-foam & 0.55% retarder (mixed at 11.3 ppg, 2.76 ft3/sx, 15.93 gal/sx water)

TOC: 11375'

Tail: 60 sxs Class - H, 0.1% Fluid loss, 0.2% retarder, & 0.2% anti-foam (mixed at 14.8 ppg, 1.34 ft3/sx, 6.36 gal/sx water)

2nd Stage / Squeeze

TOC: Surface

Lead: 1220 sxs Class - , (mixed at ppg, ft3/sx, gal/sx water)

Per meeting on 4/7/2022, Apache requests to pump a two-stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon / surface and the second stage performed as a bradenhead squeeze with planned cement from the Brushy Canyon to surface. The final cement top after the second stage job will be verified by an Echometer. If necessary, a top out job will be executed as a contingency to meet regulatory requirements. If cement is still not meeting the objective, then another Echometer will be performed for the cement top verification.

Apache will include the Echometer verified fluid top and the volume of displacement fluid above the cement slurry in the annulus in all post-drill sundries on wells utilizing this cement program.

Apache will report to the BLM the volume of fluid (limited to 5 bbl.) used to flush intermediate casing valves following the backside cementing procedures.

Apache requests to pump an optional lead if well conditions dictate to bring cement to surface on the first stage. If cement is brought to surface, the BLM will be notified and the second stage bradenhead squeeze and subsequent TOC verification will be negated.

In in the event cement is not circulate to surface on the first stage offline, whether intentionally or unintentionally, Apache requests the option to conduct the bradenhead squeeze and TOC verification offline as per standard approval from BLM when unplanned remediate is needed and batch drilling is approved. In the event the bradenhead is conducted, we will ensure first stage cement job is cemented properly and the well is static with floats holding and no pressure on the casing annulus as with all other casing strings where batch drilling operations occur before moving off the rig. The TA cap will also be installed per wellhead manufacture procedure and pressure inside the casing will be monitored via the valve on the TA cap as per standard batch drilling operations.

Production Casing: 5.5, 20 New CYP-110, casing to be set at +/- 20687'

TOC: 11475' Inside previous casing shoe: 200'

Lead: 39 sxs Class - C, 0.2% Anti-foam & 0.45% retarder (mixed at 11.5 ppg, 2.59 ft3/sx, 14.62 gal/sx water)

TOC: 12538'

Tail: 510 sxs Class - H, 0.2% Anti-foam & 0.4% fluid loss (mixed at 13.2 ppg, 1.53 ft3/sx, 7.2 gal/sx water)

5. Pressure Control Equipment

Once the permanent WH is installed on the 13.375 casing, the blow out preventer equipment (BOP) will consist of a 13-5/8" minimum 3M Hydril and a 13-5/8" minimum 10M 3-Ram BOP. MASP should not exceed 2713 psi.

All BOP testing will be done by an independent service company. Annular pressure tests will be limited to 70% of the working pressure. When nippling up on the 13.375, 10M bradenhead and flange, the BOP test will be limited to 10000 psi. All BOP tests will include a low pressure test as per BLM regulations. The 10M BOP diagrams are attached. Blind rams will be functioned tested each trip, pipe rams will be functioned tested at a minimum every 7 days.

Equipment will consist of rotating head, mud gas separator, blowdown pit (panic line) and flare line just to name a few.

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	☒	Tested to:
9.875"	13-5/8"	5M	Annular	x	70% of working pressure
			Blind Ram	x	5M
			Pipe Ram	x	
			Double Ram	x	
6.75" - 6.75"	13-5/8"	10M	Annular	x	70% of working pressure
			Blind Ram	x	10M
			Pipe Ram	x	
			Double Ram	x	

A variance is requested to allow use of a flex hose as the choke line from the BOP to the Choke Manifold. If this hose is used, a copy of the manufacturer's certification and pressure test chart will be kept on the rig. The manufacture does not require anchors.

In any instance where 10M BOP is required by BLM, Apache requests a variance to utilize 5M annular with 10M ram preventers (a common BOP configuration, which allows use of 10M rams in unlikely event that pressures exceed 5M). Also a variance is requested to test the 5M annular to 70% of working pressure at 3500 psi.

Per meeting on 4/7/2022, Apache requests a variance to be able to batch drill this well if necessary. In doing so, Apache will set each casing string and ensure that the well is cemented properly and the well is static. With floats holding, no pressure on the csg annulus, and the installation of a TA cap as per wellhead recommendations, Apache will contact the BLM on each rig skid on the pad. Once surface and intermediate strings are all completed.

Per meeting on 4/7/2022, A variance is requested to **ONLY** test broken pressure seals on the BOP equipment when moving from wellhead to wellhead which is in compliance with API Standard 53. API standard 53 states, that for pad drilling operation, moving from one wellhead to another within 30 days, pressure testing is required for pressure-containing and pressure-controlling connections when the integrity of a pressure seal is broken.
We will also function test BOP equipment after each nipple up. A full BOP test will be required prior to drilling the 1st production hole and every 30 days after.

6. Proposed Mud Circulation System

INTERVAL	Hole Size	Mud Type	MW (ppg)	Viscosity (sec/qt)	Fluid Loss (cc)
0' - 1088'	17.5	FW / Native (Spud mud)	9.3 - 10.5	32-40	NC
1088' - 11675'	9.875	Brine / Cut Brine / Direct Emuslion	8 - 9.2	28-32	NC
11675' - 20687'	6.75 - 6.75	Cut Brine / WBM / OBM	12.3 - 13.5	28-36	NC

The necessary mud products for weight addition and fluid loss control will be on location at all times.
The mud system type will be; **Closed**
Will an air gas system be used; **No**

Spud with fresh water/native mud and set 13.375 surface casing, isolating the fresh water aquifer. Drill out from under 13.375 surface casing with a brine/oil direct emulsion mud system. Use fibrous materials as needed to control seepage and lost circulation. Pump viscous sweeps as needed for hole cleaning. Pump speed will be recorded on a daily drilling report after mudding up.
A Pason or Totco will be used to detect changes in loss or gain of mud volume. A mud test will be performed every 24 hours to determine: density, viscosity, strength, filtration and pH as necessary. Use available solids controls equipment to help keep mud weight down after mud up.
Rig up solids control equipment to operate as a closed loop system

7. Auxiliary Well Control and Monitoring Equipment

A. An upper kelly valve will be used for the drill string at all times.
B. A full opening drill pipe stabbing valve having appropriate connections will be on the rig floor at all times.
C. H2S monitors will be on location when drilling below the 13.375 casing.

8. Logging, Coring and Testing Program

Mud Logger: Mud Logging Unit (2 man) below intermediate casing.

Will run GR/CNL from TD to surf (horizontal well - vertical portion of hole). Stated logs run will be in the completion report & submitted to BLM.

No coring planned

Open & cased hole logs run in well:

☐ CALIPER	☐ CEMENT BOND LOG	☐ CNL (Neutron log) /FDC (Formation Density log)
☐ COMPENSATED DENSILOG	☐ COMPENSATED NEUTRON LOG	☐ COMPUTER GENERATED LOG
☐ DIP METER LOG	☑ DIRECTIONAL SURVEY	☐ DUAL INDUCTION/MICRO-RESISTIVITY
☐ DUAL LATERAL LOG/MICRO-SPHERICALLY FOCUSED	☐ ELECTRIC LOG	☐ FORMATION DENSITY COMPENSATED LOG
☑ GAMMA RAY LOG	☑ MEASUREMENT WHILE DRILLING	☑ MUD LOG/GEOLOGIC LITHOLOGY LOG
☐ OTHER	☐ POROSITY-RESISTIVITY LOG	☐ SIDEWALL NEUTRON LOG
☐ SONIC LOG	☐ SPONTANEOUS POTENTIAL LOG	☐ TEMPERATURE LOG

9. Abnormal Pressures and Temperatures / Potential Hazards

BHT of 140 to 160 F is anticipated.
No H2S is expected but monitors will be in place to detect any H2S occurrences. Should these circumstances be encountered the operator and drilling contractor are prepared to take all necessary steps to ensure safety of all personnel and environment.
Lost circulation could occur but is not expected and hole seepage will be compensated for by additions of small amounts of LCM in the drilling fluid.
The maximum anticipated bottom hole pressure for this well during the production section is 8793 psi.

No Anticipated abnormal pressures, temps, or potential geological hazards.

10. Anticipated Starting Date and Duration of Operations

Road and location construction will begin after BLM have approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 45 days. If production casing is run, an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

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

SUPO Data Report
05/13/2024

APD ID: 10400095242
Submission Date: 11/07/2023
Operator Name: APACHE CORPORATION
Well Name: GHOST RIDER 22 15 FEDERAL COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

GhostRider22_15FedCom_ExistingRoads_20231012145522.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: If road improvements are needed, caliche from nearest available pit will be used to patch, blade, water and roll. Caliche pit location: 32 13'17"N 103 39'53"W

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

GhostRider22_15FedCom601H_ExistingWells_1MiRadius_20231107160140.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 1 emulsion; 1 gas line, approx 610' in length, will be installed and buried on pad. Lines will connect to existing header that was installed in 2019 for future growth. From header, existing lines follow existing corridor to satellite, East of Pad 2. Lines are rated as follows: 4" Flexsteel emulsion and gas flowlines rated 750 psig working pressure and 350psig operating pressure. No new surface disturbance. The proposed lines do not cross lease boundaries, so a ROW will not need to be acquired from BLM.

Production Facilities map:

GhostRider600Wells_ExistingFLandNewFL_REV_4.1.24_20240410081251.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Brine/Direct emulsion

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude: 32.650583 **Source longitude:** -103.78188

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: STATE

Water source volume (barrels): 3000 **Source volume (acre-feet):** 0.38668014

Source volume (gal): 126000

Water source type: RECYCLED

Water source use type: DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source latitude: 32.627549 **Source longitude:** -103.674627

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

DUST CONTROL

SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source datum: NAD83

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: PRIVATE

Source transportation land ownership: STATE

Water source volume (barrels): 2476.190476 **Source volume (acre-feet):** 0.31916456

Source volume (gal): 104000

Water source and transportation

GhostRider22_15FedCom_WaterSource_20231012150736.pdf

Water source comments:

New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche from nearby pit will be used for road improvement: 32 13' 17"N 103 39' 53"W

Construction Materials source location

GhostRider22_15FedCom_CalichePitLoc_20240410073325.pdf

Section 7 - Methods for Handling

Waste type: DRILLING

Waste content description: Excess cement returns

Amount of waste: 40 barrels

Waste disposal frequency : Weekly

Safe containment description: Cement returns will be stored in steel roll off bins then transferred to disposal vacuum trucks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description: Haul to private facility

Disposal location description: R360, 6601 W Hobbs Hwy, Carlsbad, NM 88220

Waste type: DRILLING

Waste content description: Drilling fluid from well, during drilling operations, will be stored safely and recycled to next well. Any excess will be hauled to approved NMOCD disposal facility

Amount of waste: 5000 barrels

Waste disposal frequency : One Time Only

Safe containment description: Drilling fluids will be stored in sealed frac tanks

Safe containmant attachment:

Waste disposal type: RECYCLE **Disposal location ownership:** OTHER

Disposal type description:

Disposal location description: Operators next well

Waste type: SEWAGE

Waste content description: Human waste & grey water will be properly contained & disposed of at a state approved disposal facility

Amount of waste: 2000 gallons

Waste disposal frequency : Weekly

Safe containment description: Sewage will be store din steel waste tanks

Safe containmant attachment:

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** OTHER
Disposal type description: muni

Disposal location description: Hobbs Municipal Waste facility

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of at a state approved disposal facility. All trash on and around well site will be collected for disposal
Amount of waste: 1500 gallons

Waste disposal frequency : Weekly

Safe containment description: Garbage will be disposed of in portable trash trailers

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** STATE
Disposal type description:

Disposal location description: Lea County landfill or Eddy County landfill

Waste type: CHEMICALS

Waste content description: After drilling & completions, chemicals, salts, frac sand & other waste material will be removed & disposed of at a state approved disposal facility
Amount of waste: 2000 pounds

Waste disposal frequency : Weekly

Safe containment description: Chemicals will be stored in frac tanks

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE
Disposal type description:

Disposal location description: R360, 6601 W Hobbs Hwy, Carlsbad, NM88220

Waste type: PRODUCED WATER

Waste content description: Produced water will be hauled to private SWD

Amount of waste: 1500 barrels

Waste disposal frequency : Daily

Safe containment description: Produced water will be transported via pipeline to battery, and from battery to SWD

Safe containmant attachment:

Waste disposal type: OTHER **Disposal location ownership:** PRIVATE

Disposal type description: SWD

Disposal location description: OWL/Mesquite

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location Cuttings will be stored in steel haul off bins and taken to an NMOCD approved disposal facility

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities

Comments:

Section 9 - Well Site

Well Site Layout Diagram:

GhostRider22_15FedCom601H_WellLayoutDiagram_20231107160740.pdf

GhostRider22_15FedCom601H_WellsiteRigLayout_20231107160750.pdf

Comments:

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Section 10 - Plans for Surface Reclamation

Type of disturbance: No New Surface Disturbance **Multiple Well Pad Name:** GHOST RIDER 22 15 FEDERAL COM

Multiple Well Pad Number: 2 SOUTH

Recontouring

Drainage/Erosion control construction: Slight slope for water drainage

Drainage/Erosion control reclamation: Reclamation is going to follow natural terrain to control erosion, runoff and siltation of surrounding area

Well pad proposed disturbance (acres):	**Well pad interim reclamation (acres):** 0	**Well pad long term disturbance (acres):** 0
Road proposed disturbance (acres):	**Road interim reclamation (acres):** 0	**Road long term disturbance (acres):** 0
Powerline proposed disturbance (acres):	**Powerline interim reclamation (acres):** 0	**Powerline long term disturbance (acres):** 0
Pipeline proposed disturbance (acres):	**Pipeline interim reclamation (acres):** 0	**Pipeline long term disturbance (acres):** 0
Other proposed disturbance (acres):	**Other interim reclamation (acres):** 0	**Other long term disturbance (acres):** 0
Total proposed disturbance: 0	**Total interim reclamation:** 0	**Total long term disturbance:** 0

Disturbance Comments: Other long term/short term disturbance will be for installation of electrical line approx. 4828.43' in length and 30' wide for construction

Reconstruction method: Areas planned for interim reclamation will be contoured to original contour if feasible, or if not feasible, to an interim contour that blends with surrounding topography as much as possible. Where applicable, fill material of well pad will be back filled into the cut to bring area back to original contour.

Topsoil redistribution: Topsoil that was spread over interim reclamation areas will be stockpiled prior to recontouring. Topsoil will be redistributed evenly over entire disturbed site to ensure successful revegetation

Soil treatment: No soil treatment expected

Existing Vegetation at the well pad: Uniformly distributed grassland of black grama, dropseeds, bluestem, sand sage and shinnery oak. The present plant community consists of shinnery oak, mesquite, broom snakeweed, yucca and desert grasses and forbs. Project area lies on a sandy grassland terrain.

Existing Vegetation at the well pad

Existing Vegetation Community at the road: Uniformly distributed grassland of black grama, dropseeds, bluestem, sand sage and shinnery oak. The present plant community consists of shinnery oak, mesquite, broom snakeweed, yucca and desert grasses and forbs. Project area lies on a sandy grassland terrain.

Existing Vegetation Community at the road

Existing Vegetation Community at the pipeline: Uniformly distributed grassland of black grama, dropseeds, bluestem, sand sage and shinnery oak. The present plant community consists of shinnery oak, mesquite, broom snakeweed, yucca and desert grasses and forbs. Project area lies on a sandy grassland terrain.

Existing Vegetation Community at the pipeline

Existing Vegetation Community at other disturbances: Uniformly distributed grassland of black grama, dropseeds, bluestem, sand sage and shinnery oak. The present plant community consists of shinnery oak, mesquite, broom snakeweed, yucca and desert grasses and forbs. Project area lies on a sandy grassland

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

terrain.

Existing Vegetation Community at other disturbances

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation

Operator Contact/Responsible Official

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment

Weed treatment plan description: Operator will consult with authorized officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

Weed treatment plan

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Monitoring plan description: Interim reclamation, reclaimed areas, will be monitored periodically to ensure vegetation has re-established, that area is not redisturbed, and erosion is controlled
Monitoring plan

Success standards: Objective of interim reclamation is to resore vegetative cover and a portion of landform sufficient to maintain healthy, biologically active topsoil, control erosion, and minimize habitat and forage loss, visual impact, and weed infestation during life of well or facilities. Long term objective of final reclamation is to return land to a condition similar to what existed prior to disturbance. This includes restoration of landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity. BLM will be notified 3 days prior to commencement of any reclamation procedures. If circumstances allow, interim and/or final reclamation actions will be completed no later than 6 months from when the final well on location has been completed or plugged. We will gain written permission from BLM if more time is needed.

Pit closure description: Not applicable

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Section 12 - Other

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: Onsite for Ghost Rider 22 15 Fed Com Pad 2 South, Sec 22, conducted on 12/6/2016 and 9/11/2017 by BLM Rep: Keely Watland.

Other SUPO

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

PWD Data Report
05/13/2024

APD ID: 10400095242 **Submission Date:** 11/07/2023

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

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

Section 1 - General

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

Section 2 - Lined

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Lined pit Monitor description:

Lined pit Monitor

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

Section 3 - Unlined

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

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

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

Unlined pit Monitor

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

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic

State

Unlined Produced Water Pit Estimated

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

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information

Section 4 -

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

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

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

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

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

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection

Underground Injection Control (UIC) Permit?

UIC Permit

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

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

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

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

Other PWD discharge volume (bbl/day):

Operator Name: APACHE CORPORATION

Well Name: GHOST RIDER 22 15 FEDERAL COM **Well Number:** 601H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements

AFMSS

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

Bond Info Data
05/13/2024

APD ID: 10400095242
Submission Date: 11/07/2023
Operator Name: APACHE CORPORATION
Well Name: GHOST RIDER 22 15 FEDERAL COM
Well Number: 601H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes
Show Final Text

Bond

Federal/Indian APD: FED

BLM Bond number: BLM-CO-1463; NMB-000736

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information

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 346243

CONDITIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 346243
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	6/13/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	6/13/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	6/13/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	6/13/2024
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing	6/13/2024