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.

6. If Indian, Allotee or Tribe Name
Property ID 330828

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.

2. Name of Operator

9. API Well No.
30 015 48501

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface
At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

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

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	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: 05/10/2021

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
	98081	Zia Hills; Wolfcamp

[4] Property Code	[5] Property Name	[6] Well Number
	ZHU 2331 WC	11H

[7] OGRID No.	[8] Operator Name	[9] Elevation
217817	ConocoPhillips Company	3190.4'

[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
N	23	26S	31E		1050	SOUTH	1863	WEST	EDDY

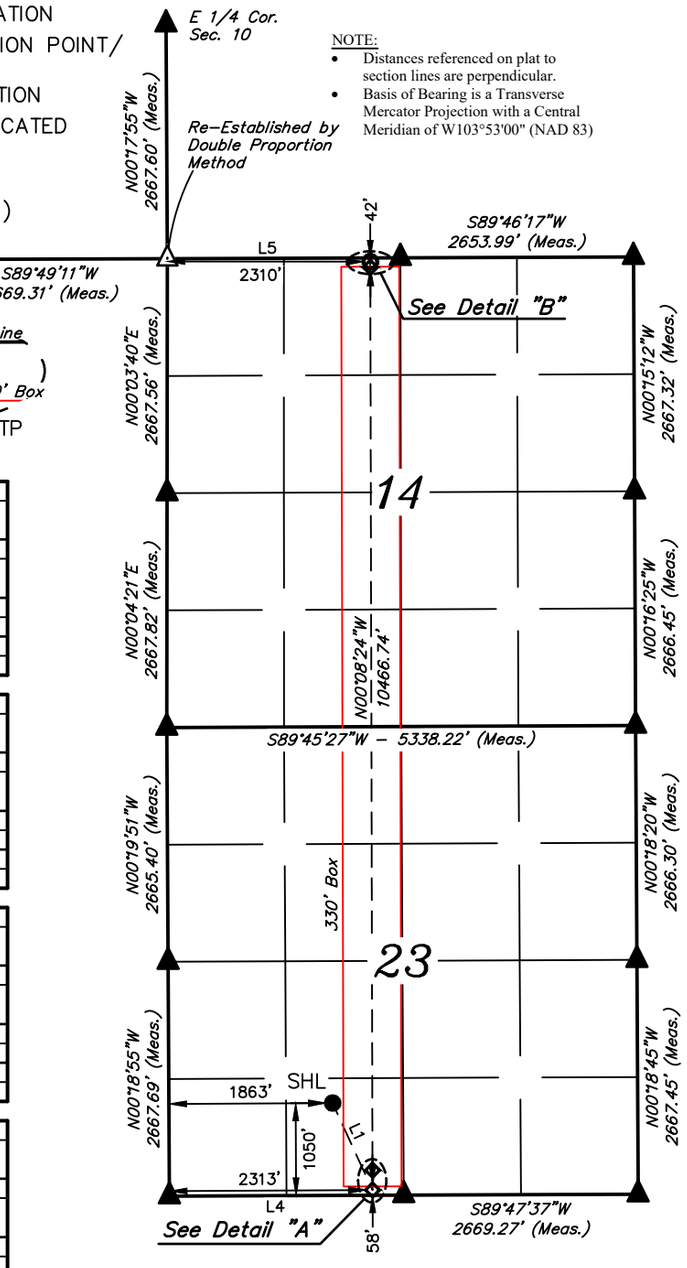
[11] Bottom Hole Location If Different From Surface

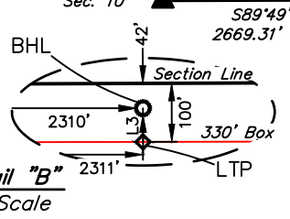
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	14	26S	31E		42	NORTH	2310	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
0			

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

[16]
- ● = SURFACE HOLE LOCATION
- ◇ = VT POINT/PENETRATION POINT/ TAKE POINT
- ○ = BOTTOM HOLE LOCATION
- ▲ = SECTION CORNER LOCATED
- △ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)





Detail "B"
No Scale

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

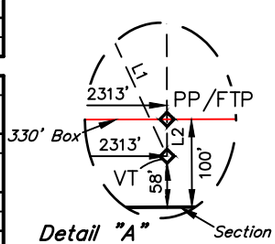
NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°01'25.44" (32.023732°)
LONGITUDE = 103°45'04.99" (103.751386°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°01'24.99" (32.023607°)
LONGITUDE = 103°45'03.29" (103.750914°)
STATE PLANE NAD 83 (N.M. EAST)
N: 372858.36' E: 721689.06'
STATE PLANE NAD 27 (N.M. EAST)
N: 372801.16' E: 680502.12'

NAD 83 (VT POINT)
LATITUDE = 32°01'15.64" (32.021010°)
LONGITUDE = 103°44'59.72" (103.749923°)
NAD 27 (VT POINT)
LATITUDE = 32°01'15.19" (32.020885°)
LONGITUDE = 103°44'58.02" (103.749450°)
STATE PLANE NAD 83 (N.M. EAST)
N: 371870.55' E: 722147.93'
STATE PLANE NAD 27 (N.M. EAST)
N: 371813.38' E: 680960.95'

NAD 83 (PP/FIRST TAKE POINT)
LATITUDE = 32°01'16.05" (32.021125°)
LONGITUDE = 103°44'59.72" (103.749923°)
NAD 27 (PP/FIRST TAKE POINT)
LATITUDE = 32°01'15.60" (32.021000°)
LONGITUDE = 103°44'58.02" (103.749451°)
STATE PLANE NAD 83 (N.M. EAST)
N: 371912.43' E: 722147.66'
STATE PLANE NAD 27 (N.M. EAST)
N: 371855.26' E: 680960.68'

NAD 83 (LAST TAKE POINT)
LATITUDE = 32°02'59.61" (32.049892°)
LONGITUDE = 103°44'59.87" (103.749964°)
NAD 27 (LAST TAKE POINT)
LATITUDE = 32°02'59.16" (32.049767°)
LONGITUDE = 103°44'58.16" (103.749490°)
STATE PLANE NAD 83 (N.M. EAST)
N: 382376.98' E: 722078.46'
STATE PLANE NAD 27 (N.M. EAST)
N: 382319.56' E: 680891.89'

NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°03'00.18" (32.050050°)
LONGITUDE = 103°44'59.87" (103.749964°)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°02'59.73" (32.049925°)
LONGITUDE = 103°44'58.16" (103.749490°)
STATE PLANE NAD 83 (N.M. EAST)
N: 382434.50' E: 722078.08'
STATE PLANE NAD 27 (N.M. EAST)
N: 382377.08' E: 680891.51'



Detail "A"
No Scale

[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.

Jeremy Lee 3/23/20
Signature Date

Jeremy Lee
Printed Name

Jeremy.L.Lee@cop.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.

October 03, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number:

Infill Horizontal Well

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S24°40'41"E	1089.39'
L2	N00°08'25"W	41.88'
L3	N00°08'24"W	57.53'
L4	S89°44'08"W	2667.65'
L5	S89°46'35"W	2653.48'

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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

☒ Original
☐ Amended

Operator & OGRID No.: ConocoPhillips Company/ 217817
Date: 3/16/20
Reason for Amendment:

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

Note: A C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule 19.15.18.12.A

Well(s)/Production Facility – Name of facility

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

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
ZHU 2331 WC 9H,10H, 11H, & 12H	Pending	Sec. 23, T26S, 31E	Various		Flared	Flaring is expected to be sporadic

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Enterprise and will be connected to Enterprise low/high pressure gathering system located in Eddy County, New Mexico. It will require 7,187 ' of pipeline to connect the facility to low/high pressure gathering system. COP provides (periodically) to Enterprise a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COP and Enterprise have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Oral , Texas , Reeves County, Texas. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

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

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

Alternatives to Reduce Flaring

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

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

Gas Capture Plan
ZHU 2331 WC Federal Wells

ZHU 2331 WC Wells-Located in Sec. 23, T26S, R31E				
Well Name:	9H	10H	11H	12H
Well Location:	1050' FSL	1050' FSL	1050' FSL	1050' FSL
	1823' FWL	1843' FWL	1863' FWL	1883' FWL
Production Facility Name:	ZHU Central Facility			
Production Facility Location:	SWNE, Section 24, T26S, R31E			
Anticipated Completion Date:	60-120 days after drilling completed; dependent upon completion crew availability			
Initial Production Volumes:				
Oil (bopd)	1,148 BOPD	1,148 BOPD	1,148 BOPD	1,148 BOPD
Gas (mcfd)	2,764 MSCFD	2,764 MSCFD	2,764 MSCFD	2,764 MSCFD
Water (bwpd)	2,541 BWPD	2,541 BWPD	2,830 BWPD	2,541 BWPD
Date of First Production:	<45 days following completion operations			
Expected Well Life Expectancy:	30 years	30 years	30 years	30 years

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

Drilling Plan Data Report
05/16/2021

APD ID: 10400055456
Submission Date: 03/26/2020
Operator Name: CONOCOPHILLIPS COMPANY
Well Name: ZHU 2331 WC
Well Number: 11H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
696430	QUATERNARY	3180	0	0	ALLUVIUM	NONE	N
696431	RUSTLER	2394	786	786	ANHYDRITE, DOLOMITE	NONE	N
696432	SALADO	2224	956	956	SALT	NONE	N
696433	CASTILE	1304	1876	1876	SALT	NONE	N
696434	DELAWARE	-908	4088	4088	SANDSTONE	NATURAL GAS, OIL	N
696435	CHERRY CANYON	-1896	5076	5076	SANDSTONE	NATURAL GAS, OIL	N
696436	BRUSHY CANYON	-3214	6394	6394	SANDSTONE	NATURAL GAS, OIL	N
696437	BONE SPRING	-4663	7843	7843	SANDSTONE	NATURAL GAS, OIL	N
696440	BONE SPRING 1ST	-5878	9058	9058	SANDSTONE	NATURAL GAS, OIL	N
696438	BONE SPRING 2ND	-6595	9775	9775	SANDSTONE	NATURAL GAS, OIL	N
696439	BONE SPRING 3RD	-7088	10268	10268	LIMESTONE	NATURAL GAS, OIL	N
696441	WOLFCAMP	-8200	11380	11380	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M
Rating Depth: 11568

Equipment: Rotating Head, Annular Preventer, Pipe/Blind Rams, Kill Lines, Choke Lines, Adapter Spool

Requesting Variance? YES

Variance request: A variance to use flexible choke line(s) from the BOP to Choke Manifold. Testing certificate is attached in "Flexhose Variance data" document. A variance to use a multibowl wellhead system. Please see attached in section 8 of drilling plan. A variance is requested to use a 5M annular and test the annular to 100% of its working pressure. The variance is requested in conjunction with the attached well control plan.
Testing Procedure: BOP/BOPE will be isolated from the casing and tested by an independent service company to 250 psi

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

low and the high pressure indicated above per Onshore Order 2 requirements. BOPE controls will be installed prior to drilling under the surface casing and will be used until the completion of drilling operations. The intermediate interval and the production interval will be tested per 10M working system requirements. See attached "Drill Plan" document.

Choke Diagram Attachment:

Zia_Hills_23_Pad_2_Choke_Manifold_20200324063048.pdf

BOP Diagram Attachment:

Zia_Hills_23_Pad_2_BOPE_20200324063105.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	836	0	836	3190	2354	836	J-55	54.5	OTHER - BTC	4.51	7.3	DRY	19.96	DRY	19.96
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	12180	0	11568		-8378	12180	OTHER	40	OTHER - BTC	2.55	1.69	DRY	1.9	DRY	1.9
3	PRODUCTION	8.5	5.5	NEW	API	N	0	21991	0	11568		-8378	21991	OTHER	20	OTHER - TXP	3.87	2.47	DRY	3.15	DRY	3.15

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_54.5_lb_J55_20200310071400.pdf

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_40_lb_L_80_IC_20200310071527.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_20_lb_P_110_ICY_20200310071800.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	436	530	1.73	12.8	908	200	Control Set 'C'	1.0% CaCl2, 1.0% SMS, 1.0% OGC-60, ¼ lb/sk Polyflake, ½ ppb FiberBlock
SURFACE	Tail		436	836	660	1.33	14.8	868	200	0:1:0 'Type III'	0.5% CaCl2, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Lead		0	5076	2480	1.73	11	4286	200	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Lead	5076	336	10455	1070	2.7	11	2864	70	WBL	0.5% CFL-4, 0.6% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Tail		10455	12180	470	1.59	13.2	741	30	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
PRODUCTION	Lead		0	21991	0	0	0	0	0	No Lead	No Lead
PRODUCTION	Tail		9955	21991	2566	1.19	15.6	3052	10	1:1:0 'Poz:Lafarge G'	20% Silica Flour, 8% Silica Flume, 2% FWCA-H (FWC-2), 0.3% HTR, 0.5% CR-4 (MCR-4), 1% TAE-1 (SEA-1), 1% CFL-4, 0.2% CFR-5, 0.3% ASM-3 (AS-3)

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: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. See attached "Drill Plan" for additional information.

Describe the mud monitoring system utilized: Closed-loop mud system using steel mud containers will be on location. Mud monitoring of any changes in levels (gains or losses) will use Pressure Volume Temperature, Pason, Visual Observations. See attached "Drill Plan" for additional information.

Circulating Medium Table

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

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
836	11568	OTHER : Brine	9.5	10.5							
0	836	OTHER : Fresh Water	8.6	9.1							
11568	11568	OIL-BASED MUD	10.5	11.5							

Section 6 - Test, Logging, Coring

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

Production tests will be conducted multiple times per week, through a test separator, during first months following completion. Thereafter, tests will be less frequently.

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

GAMMA RAY LOG,

Coring operation description for the well:

No coring operation is planned at this time.

This well will be an Infill Horizontal well as defined in Part H of 19.15.16.7 NMAC. It will not have a unique horizontal spacing unit. It will share a horizontal spacing unit.

ConocoPhillips Company requests a variance to the requirement to run a neutron porosity log for any wells within one mile of an existing well with a neutron porosity log (vertical well, or vertical portion of a horizontal well). If there is an existing neutron log within one mile, ConocoPhillips requests to log gamma ray only. If there is not an existing neutron log within one mile, ConocoPhillips request to run a GR/N log on the vertical section of one well per pad.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8097 **Anticipated Surface Pressure:** 5552

Anticipated Bottom Hole Temperature(F): 185

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S_C_Plan_20200310075517.pdf

Typical_Rig_Layout_20200324064452.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Wellhead_diagram_3_String__20200310081710.pdf

ZHU_2331_WC_11H_Drill_Plan_20200325130122.pdf

ZHU_2331_WC_11H_Well_Plan_20200325130130.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Drill_Waste_Containment1_20200310081559.pdf

Zia_Hills_23_Pad_2_Kelly_Cock_20200324064604.pdf

ZHU_2331_WC_9H_12H_Gas_Capture_Plan_20200723134150.pdf

Other Variance attachment:

Flexhose_Variance_20200310081645.pdf

Wild_Well_Control_Plan_20200310081652.pdf

ConocoPhillips MCBU - Permian-Panhandle Gold Data

Planning - NM East State Zone - 3001
ZHU 2331 WC 11H_WCS-W4264
ZHU 2331 WC 11H_WCS

ZHU 2331 WC 11H_WCS

Plan: ZHU 2331 WC 11H_WCS

Standard Planning Report

11 February, 2020

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Project	Planning - NM East State Zone - 3001, Permian Basin - New Mexico - East/South East, Planning Project for Permian wells in NM Zone 3001		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		Using geodetic scale factor

Site	ZHU 2331 WC 11H_WCS-W4264				
Site Position:		**Northing:**	372,801.160 usft	**Latitude:**	32° 1' 24.986 N
From:	Map	**Easting:**	680,502.124 usft	**Longitude:**	103° 45' 3.289 W
Position Uncertainty:	0.00 ft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.31 °

Well	ZHU 2331 WC 11H_WCS					
Well Position	**+N/-S**	0.00 ft	**Northing:**	372,801.160 usft	**Latitude:**	32° 1' 24.986 N
	+E/-W	0.00 ft	**Easting:**	680,502.124 usft	**Longitude:**	103° 45' 3.289 W
Position Uncertainty		2.00 ft	**Wellhead Elevation:**	ft	**Ground Level:**	3,205.70 ft

Wellbore	ZHU 2331 WC 11H_WCS				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	User Defined	2/10/2020	0.00	0.00	0.00000000

Design	ZHU 2331 WC 11H_WCS			
Audit Notes:				
Version:	**Phase:**	PLAN	**Tie On Depth:**	0.00

Vertical Section:	**Depth From (TVD) (ft)**	**+N/-S (ft)**	**+E/-W (ft)**	**Direction (°)**
	0.00	0.00	0.00	2.33

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,717.29	10.76	156.38	4,713.08	-61.52	26.90	1.50	1.50	0.00	156.38	
10,137.93	10.76	156.38	10,038.42	-988.69	432.36	0.00	0.00	0.00	0.00	
10,855.21	0.00	0.00	10,751.50	-1,050.21	459.26	1.50	-1.50	0.00	180.00	
10,955.21	0.00	0.00	10,851.50	-1,050.21	459.26	0.00	0.00	0.00	0.00	
12,080.21	90.00	359.62	11,567.70	-334.03	454.56	8.00	8.00	0.00	0.00	ZHU 2331 WC 11H_V
21,990.91	90.00	359.62	11,567.70	9,576.45	389.41	0.00	0.00	0.00	0.00	ZHU 2331 WC 11H_V

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	1.50	156.38	4,099.99	-1.20	0.52	-1.18	1.50	1.50	0.00
4,200.00	3.00	156.38	4,199.91	-4.80	2.10	-4.71	1.50	1.50	0.00
4,300.00	4.50	156.38	4,299.69	-10.79	4.72	-10.59	1.50	1.50	0.00
4,400.00	6.00	156.38	4,399.27	-19.17	8.38	-18.82	1.50	1.50	0.00
4,500.00	7.50	156.38	4,498.57	-29.94	13.09	-29.38	1.50	1.50	0.00
4,600.00	9.00	156.38	4,597.54	-43.09	18.84	-42.29	1.50	1.50	0.00
4,700.00	10.50	156.38	4,696.09	-58.60	25.63	-57.51	1.50	1.50	0.00
4,717.29	10.76	156.38	4,713.08	-61.52	26.90	-60.38	1.50	1.50	0.00
4,800.00	10.76	156.38	4,794.34	-75.67	33.09	-74.27	0.00	0.00	0.00
4,900.00	10.76	156.38	4,892.58	-92.78	40.57	-91.05	0.00	0.00	0.00
5,000.00	10.76	156.38	4,990.82	-109.88	48.05	-107.84	0.00	0.00	0.00
5,100.00	10.76	156.38	5,089.06	-126.99	55.53	-124.62	0.00	0.00	0.00
5,200.00	10.76	156.38	5,187.31	-144.09	63.01	-141.41	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,300.00	10.76	156.38	5,285.55	-161.19	70.49	-158.20	0.00	0.00	0.00
5,400.00	10.76	156.38	5,383.79	-178.30	77.97	-174.98	0.00	0.00	0.00
5,500.00	10.76	156.38	5,482.03	-195.40	85.45	-191.77	0.00	0.00	0.00
5,600.00	10.76	156.38	5,580.27	-212.51	92.93	-208.56	0.00	0.00	0.00
5,700.00	10.76	156.38	5,678.52	-229.61	100.41	-225.34	0.00	0.00	0.00
5,800.00	10.76	156.38	5,776.76	-246.72	107.89	-242.13	0.00	0.00	0.00
5,900.00	10.76	156.38	5,875.00	-263.82	115.37	-258.91	0.00	0.00	0.00
6,000.00	10.76	156.38	5,973.24	-280.92	122.85	-275.70	0.00	0.00	0.00
6,100.00	10.76	156.38	6,071.48	-298.03	130.33	-292.49	0.00	0.00	0.00
6,200.00	10.76	156.38	6,169.73	-315.13	137.81	-309.27	0.00	0.00	0.00
6,300.00	10.76	156.38	6,267.97	-332.24	145.29	-326.06	0.00	0.00	0.00
6,400.00	10.76	156.38	6,366.21	-349.34	152.77	-342.85	0.00	0.00	0.00
6,500.00	10.76	156.38	6,464.45	-366.45	160.25	-359.63	0.00	0.00	0.00
6,600.00	10.76	156.38	6,562.69	-383.55	167.73	-376.42	0.00	0.00	0.00
6,700.00	10.76	156.38	6,660.94	-400.65	175.21	-393.21	0.00	0.00	0.00
6,800.00	10.76	156.38	6,759.18	-417.76	182.69	-409.99	0.00	0.00	0.00
6,900.00	10.76	156.38	6,857.42	-434.86	190.17	-426.78	0.00	0.00	0.00
7,000.00	10.76	156.38	6,955.66	-451.97	197.65	-443.56	0.00	0.00	0.00
7,100.00	10.76	156.38	7,053.90	-469.07	205.13	-460.35	0.00	0.00	0.00
7,200.00	10.76	156.38	7,152.15	-486.18	212.61	-477.14	0.00	0.00	0.00
7,300.00	10.76	156.38	7,250.39	-503.28	220.09	-493.92	0.00	0.00	0.00
7,400.00	10.76	156.38	7,348.63	-520.39	227.57	-510.71	0.00	0.00	0.00
7,500.00	10.76	156.38	7,446.87	-537.49	235.05	-527.50	0.00	0.00	0.00
7,600.00	10.76	156.38	7,545.11	-554.59	242.53	-544.28	0.00	0.00	0.00
7,700.00	10.76	156.38	7,643.36	-571.70	250.01	-561.07	0.00	0.00	0.00
7,800.00	10.76	156.38	7,741.60	-588.80	257.49	-577.86	0.00	0.00	0.00
7,900.00	10.76	156.38	7,839.84	-605.91	264.97	-594.64	0.00	0.00	0.00
8,000.00	10.76	156.38	7,938.08	-623.01	272.45	-611.43	0.00	0.00	0.00
8,100.00	10.76	156.38	8,036.32	-640.12	279.93	-628.21	0.00	0.00	0.00
8,200.00	10.76	156.38	8,134.57	-657.22	287.41	-645.00	0.00	0.00	0.00
8,300.00	10.76	156.38	8,232.81	-674.32	294.89	-661.79	0.00	0.00	0.00
8,400.00	10.76	156.38	8,331.05	-691.43	302.37	-678.57	0.00	0.00	0.00
8,500.00	10.76	156.38	8,429.29	-708.53	309.85	-695.36	0.00	0.00	0.00
8,600.00	10.76	156.38	8,527.53	-725.64	317.33	-712.15	0.00	0.00	0.00
8,700.00	10.76	156.38	8,625.78	-742.74	324.81	-728.93	0.00	0.00	0.00
8,800.00	10.76	156.38	8,724.02	-759.85	332.28	-745.72	0.00	0.00	0.00
8,900.00	10.76	156.38	8,822.26	-776.95	339.76	-762.50	0.00	0.00	0.00
9,000.00	10.76	156.38	8,920.50	-794.05	347.24	-779.29	0.00	0.00	0.00
9,100.00	10.76	156.38	9,018.74	-811.16	354.72	-796.08	0.00	0.00	0.00
9,200.00	10.76	156.38	9,116.99	-828.26	362.20	-812.86	0.00	0.00	0.00
9,300.00	10.76	156.38	9,215.23	-845.37	369.68	-829.65	0.00	0.00	0.00
9,400.00	10.76	156.38	9,313.47	-862.47	377.16	-846.44	0.00	0.00	0.00
9,500.00	10.76	156.38	9,411.71	-879.58	384.64	-863.22	0.00	0.00	0.00
9,600.00	10.76	156.38	9,509.95	-896.68	392.12	-880.01	0.00	0.00	0.00
9,700.00	10.76	156.38	9,608.20	-913.79	399.60	-896.80	0.00	0.00	0.00
9,800.00	10.76	156.38	9,706.44	-930.89	407.08	-913.58	0.00	0.00	0.00
9,900.00	10.76	156.38	9,804.68	-947.99	414.56	-930.37	0.00	0.00	0.00
10,000.00	10.76	156.38	9,902.92	-965.10	422.04	-947.15	0.00	0.00	0.00
10,100.00	10.76	156.38	10,001.16	-982.20	429.52	-963.94	0.00	0.00	0.00
10,137.93	10.76	156.38	10,038.42	-988.69	432.36	-970.31	0.00	0.00	0.00
10,200.00	9.83	156.38	10,099.50	-998.85	436.80	-980.28	1.50	-1.50	0.00
10,300.00	8.33	156.38	10,198.24	-1,013.31	443.13	-994.47	1.50	-1.50	0.00
10,400.00	6.83	156.38	10,297.37	-1,025.39	448.41	-1,006.33	1.50	-1.50	0.00

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,500.00	5.33	156.38	10,396.80	-1,035.09	452.65	-1,015.85	1.50	-1.50	0.00
10,600.00	3.83	156.38	10,496.48	-1,042.41	455.85	-1,023.02	1.50	-1.50	0.00
10,700.00	2.33	156.38	10,596.33	-1,047.33	458.00	-1,027.85	1.50	-1.50	0.00
10,800.00	0.83	156.38	10,696.29	-1,049.85	459.10	-1,030.33	1.50	-1.50	0.00
10,855.21	0.00	0.00	10,751.50	-1,050.21	459.26	-1,030.69	1.50	-1.50	0.00
10,900.00	0.00	0.00	10,796.29	-1,050.21	459.26	-1,030.69	0.00	0.00	0.00
10,955.21	0.00	0.00	10,851.50	-1,050.21	459.26	-1,030.69	0.00	0.00	0.00
11,000.00	3.58	359.62	10,896.26	-1,048.81	459.26	-1,029.29	8.00	8.00	0.00
11,050.00	7.58	359.62	10,946.01	-1,043.95	459.22	-1,024.43	8.00	8.00	0.00
11,100.00	11.58	359.62	10,995.31	-1,035.63	459.17	-1,016.12	8.00	8.00	0.00
11,150.00	15.58	359.62	11,043.90	-1,023.89	459.09	-1,004.39	8.00	8.00	0.00
11,200.00	19.58	359.62	11,091.55	-1,008.79	458.99	-989.31	8.00	8.00	0.00
11,250.00	23.58	359.62	11,138.04	-990.40	458.87	-970.94	8.00	8.00	0.00
11,300.00	27.58	359.62	11,183.13	-968.81	458.73	-949.38	8.00	8.00	0.00
11,350.00	31.58	359.62	11,226.60	-944.14	458.57	-924.72	8.00	8.00	0.00
11,400.00	35.58	359.62	11,268.24	-916.48	458.39	-897.10	8.00	8.00	0.00
11,450.00	39.58	359.62	11,307.86	-886.00	458.19	-866.65	8.00	8.00	0.00
11,500.00	43.58	359.62	11,345.25	-852.82	457.97	-833.51	8.00	8.00	0.00
11,550.00	47.58	359.62	11,380.24	-817.11	457.73	-797.84	8.00	8.00	0.00
11,600.00	51.58	359.62	11,412.65	-779.05	457.48	-759.82	8.00	8.00	0.00
11,650.00	55.58	359.62	11,442.33	-738.83	457.22	-719.64	8.00	8.00	0.00
11,700.00	59.58	359.62	11,469.12	-696.63	456.94	-677.49	8.00	8.00	0.00
11,750.00	63.58	359.62	11,492.91	-652.66	456.65	-633.57	8.00	8.00	0.00
11,800.00	67.58	359.62	11,513.58	-607.15	456.35	-588.10	8.00	8.00	0.00
11,850.00	71.58	359.62	11,531.02	-560.30	456.04	-541.31	8.00	8.00	0.00
11,900.00	75.58	359.62	11,545.15	-512.35	455.73	-493.41	8.00	8.00	0.00
11,950.00	79.58	359.62	11,555.90	-463.53	455.41	-444.64	8.00	8.00	0.00
12,000.00	83.58	359.62	11,563.21	-414.08	455.08	-395.25	8.00	8.00	0.00
12,050.00	87.58	359.62	11,567.06	-364.24	454.76	-345.46	8.00	8.00	0.00
12,080.21	90.00	359.62	11,567.70	-334.03	454.56	-315.29	8.00	8.00	0.00
12,100.00	90.00	359.62	11,567.70	-314.25	454.43	-295.52	0.00	0.00	0.00
12,200.00	90.00	359.62	11,567.70	-214.25	453.77	-195.64	0.00	0.00	0.00
12,300.00	90.00	359.62	11,567.70	-114.25	453.11	-95.75	0.00	0.00	0.00
12,400.00	90.00	359.62	11,567.70	-14.25	452.45	4.14	0.00	0.00	0.00
12,500.00	90.00	359.62	11,567.70	85.74	451.80	104.03	0.00	0.00	0.00
12,600.00	90.00	359.62	11,567.70	185.74	451.14	203.92	0.00	0.00	0.00
12,700.00	90.00	359.62	11,567.70	285.74	450.48	303.81	0.00	0.00	0.00
12,800.00	90.00	359.62	11,567.70	385.74	449.82	403.70	0.00	0.00	0.00
12,900.00	90.00	359.62	11,567.70	485.74	449.17	503.58	0.00	0.00	0.00
13,000.00	90.00	359.62	11,567.70	585.73	448.51	603.47	0.00	0.00	0.00
13,100.00	90.00	359.62	11,567.70	685.73	447.85	703.36	0.00	0.00	0.00
13,200.00	90.00	359.62	11,567.70	785.73	447.20	803.25	0.00	0.00	0.00
13,300.00	90.00	359.62	11,567.70	885.73	446.54	903.14	0.00	0.00	0.00
13,400.00	90.00	359.62	11,567.70	985.73	445.88	1,003.03	0.00	0.00	0.00
13,500.00	90.00	359.62	11,567.70	1,085.72	445.22	1,102.92	0.00	0.00	0.00
13,600.00	90.00	359.62	11,567.70	1,185.72	444.57	1,202.80	0.00	0.00	0.00
13,700.00	90.00	359.62	11,567.70	1,285.72	443.91	1,302.69	0.00	0.00	0.00
13,800.00	90.00	359.62	11,567.70	1,385.72	443.25	1,402.58	0.00	0.00	0.00
13,900.00	90.00	359.62	11,567.70	1,485.71	442.59	1,502.47	0.00	0.00	0.00
14,000.00	90.00	359.62	11,567.70	1,585.71	441.94	1,602.36	0.00	0.00	0.00
14,100.00	90.00	359.62	11,567.70	1,685.71	441.28	1,702.25	0.00	0.00	0.00
14,200.00	90.00	359.62	11,567.70	1,785.71	440.62	1,802.14	0.00	0.00	0.00
14,300.00	90.00	359.62	11,567.70	1,885.71	439.96	1,902.02	0.00	0.00	0.00

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Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
14,400.00	90.00	359.62	11,567.70	1,985.70	439.31	2,001.91	0.00	0.00	0.00
14,500.00	90.00	359.62	11,567.70	2,085.70	438.65	2,101.80	0.00	0.00	0.00
14,600.00	90.00	359.62	11,567.70	2,185.70	437.99	2,201.69	0.00	0.00	0.00
14,700.00	90.00	359.62	11,567.70	2,285.70	437.33	2,301.58	0.00	0.00	0.00
14,800.00	90.00	359.62	11,567.70	2,385.70	436.68	2,401.47	0.00	0.00	0.00
14,900.00	90.00	359.62	11,567.70	2,485.69	436.02	2,501.36	0.00	0.00	0.00
15,000.00	90.00	359.62	11,567.70	2,585.69	435.36	2,601.24	0.00	0.00	0.00
15,100.00	90.00	359.62	11,567.70	2,685.69	434.71	2,701.13	0.00	0.00	0.00
15,200.00	90.00	359.62	11,567.70	2,785.69	434.05	2,801.02	0.00	0.00	0.00
15,300.00	90.00	359.62	11,567.70	2,885.68	433.39	2,900.91	0.00	0.00	0.00
15,400.00	90.00	359.62	11,567.70	2,985.68	432.73	3,000.80	0.00	0.00	0.00
15,500.00	90.00	359.62	11,567.70	3,085.68	432.08	3,100.69	0.00	0.00	0.00
15,600.00	90.00	359.62	11,567.70	3,185.68	431.42	3,200.58	0.00	0.00	0.00
15,700.00	90.00	359.62	11,567.70	3,285.68	430.76	3,300.46	0.00	0.00	0.00
15,800.00	90.00	359.62	11,567.70	3,385.67	430.10	3,400.35	0.00	0.00	0.00
15,900.00	90.00	359.62	11,567.70	3,485.67	429.45	3,500.24	0.00	0.00	0.00
16,000.00	90.00	359.62	11,567.70	3,585.67	428.79	3,600.13	0.00	0.00	0.00
16,100.00	90.00	359.62	11,567.70	3,685.67	428.13	3,700.02	0.00	0.00	0.00
16,200.00	90.00	359.62	11,567.70	3,785.66	427.47	3,799.91	0.00	0.00	0.00
16,300.00	90.00	359.62	11,567.70	3,885.66	426.82	3,899.80	0.00	0.00	0.00
16,400.00	90.00	359.62	11,567.70	3,985.66	426.16	3,999.68	0.00	0.00	0.00
16,500.00	90.00	359.62	11,567.70	4,085.66	425.50	4,099.57	0.00	0.00	0.00
16,600.00	90.00	359.62	11,567.70	4,185.66	424.84	4,199.46	0.00	0.00	0.00
16,700.00	90.00	359.62	11,567.70	4,285.65	424.19	4,299.35	0.00	0.00	0.00
16,800.00	90.00	359.62	11,567.70	4,385.65	423.53	4,399.24	0.00	0.00	0.00
16,900.00	90.00	359.62	11,567.70	4,485.65	422.87	4,499.13	0.00	0.00	0.00
17,000.00	90.00	359.62	11,567.70	4,585.65	422.22	4,599.02	0.00	0.00	0.00
17,100.00	90.00	359.62	11,567.70	4,685.65	421.56	4,698.90	0.00	0.00	0.00
17,200.00	90.00	359.62	11,567.70	4,785.64	420.90	4,798.79	0.00	0.00	0.00
17,300.00	90.00	359.62	11,567.70	4,885.64	420.24	4,898.68	0.00	0.00	0.00
17,400.00	90.00	359.62	11,567.70	4,985.64	419.59	4,998.57	0.00	0.00	0.00
17,500.00	90.00	359.62	11,567.70	5,085.64	418.93	5,098.46	0.00	0.00	0.00
17,600.00	90.00	359.62	11,567.70	5,185.63	418.27	5,198.35	0.00	0.00	0.00
17,700.00	90.00	359.62	11,567.70	5,285.63	417.61	5,298.24	0.00	0.00	0.00
17,800.00	90.00	359.62	11,567.70	5,385.63	416.96	5,398.12	0.00	0.00	0.00
17,900.00	90.00	359.62	11,567.70	5,485.63	416.30	5,498.01	0.00	0.00	0.00
18,000.00	90.00	359.62	11,567.70	5,585.63	415.64	5,597.90	0.00	0.00	0.00
18,100.00	90.00	359.62	11,567.70	5,685.62	414.98	5,697.79	0.00	0.00	0.00
18,200.00	90.00	359.62	11,567.70	5,785.62	414.33	5,797.68	0.00	0.00	0.00
18,300.00	90.00	359.62	11,567.70	5,885.62	413.67	5,897.57	0.00	0.00	0.00
18,400.00	90.00	359.62	11,567.70	5,985.62	413.01	5,997.46	0.00	0.00	0.00
18,500.00	90.00	359.62	11,567.70	6,085.62	412.35	6,097.34	0.00	0.00	0.00
18,600.00	90.00	359.62	11,567.70	6,185.61	411.70	6,197.23	0.00	0.00	0.00
18,700.00	90.00	359.62	11,567.70	6,285.61	411.04	6,297.12	0.00	0.00	0.00
18,800.00	90.00	359.62	11,567.70	6,385.61	410.38	6,397.01	0.00	0.00	0.00
18,900.00	90.00	359.62	11,567.70	6,485.61	409.73	6,496.90	0.00	0.00	0.00
19,000.00	90.00	359.62	11,567.70	6,585.60	409.07	6,596.79	0.00	0.00	0.00
19,100.00	90.00	359.62	11,567.70	6,685.60	408.41	6,696.68	0.00	0.00	0.00
19,200.00	90.00	359.62	11,567.70	6,785.60	407.75	6,796.56	0.00	0.00	0.00
19,300.00	90.00	359.62	11,567.70	6,885.60	407.10	6,896.45	0.00	0.00	0.00
19,400.00	90.00	359.62	11,567.70	6,985.60	406.44	6,996.34	0.00	0.00	0.00
19,500.00	90.00	359.62	11,567.70	7,085.59	405.78	7,096.23	0.00	0.00	0.00
19,600.00	90.00	359.62	11,567.70	7,185.59	405.12	7,196.12	0.00	0.00	0.00
19,700.00	90.00	359.62	11,567.70	7,285.59	404.47	7,296.01	0.00	0.00	0.00

ConocoPhillips

Planning Report

Database:	EDT 14 Central Planning	**Local Co-ordinate Reference:**	Well ZHU 2331 WC 11H_WCS
Company:	ConocoPhillips MCBU - Permian-Panhandle Gold Data	**TVD Reference:**	RKB @ 3235.70ft (RKB)
Project:	Planning - NM East State Zone - 3001	**MD Reference:**	RKB @ 3235.70ft (RKB)
Site:	ZHU 2331 WC 11H_WCS-W4264	**North Reference:**	Grid
Well:	ZHU 2331 WC 11H_WCS	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	ZHU 2331 WC 11H_WCS		
Design:	ZHU 2331 WC 11H_WCS		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
19,800.00	90.00	359.62	11,567.70	7,385.59	403.81	7,395.90	0.00	0.00	0.00
19,900.00	90.00	359.62	11,567.70	7,485.58	403.15	7,495.78	0.00	0.00	0.00
20,000.00	90.00	359.62	11,567.70	7,585.58	402.49	7,595.67	0.00	0.00	0.00
20,100.00	90.00	359.62	11,567.70	7,685.58	401.84	7,695.56	0.00	0.00	0.00
20,200.00	90.00	359.62	11,567.70	7,785.58	401.18	7,795.45	0.00	0.00	0.00
20,300.00	90.00	359.62	11,567.70	7,885.58	400.52	7,895.34	0.00	0.00	0.00
20,400.00	90.00	359.62	11,567.70	7,985.57	399.86	7,995.23	0.00	0.00	0.00
20,500.00	90.00	359.62	11,567.70	8,085.57	399.21	8,095.12	0.00	0.00	0.00
20,600.00	90.00	359.62	11,567.70	8,185.57	398.55	8,195.00	0.00	0.00	0.00
20,700.00	90.00	359.62	11,567.70	8,285.57	397.89	8,294.89	0.00	0.00	0.00
20,800.00	90.00	359.62	11,567.70	8,385.57	397.23	8,394.78	0.00	0.00	0.00
20,900.00	90.00	359.62	11,567.70	8,485.56	396.58	8,494.67	0.00	0.00	0.00
21,000.00	90.00	359.62	11,567.70	8,585.56	395.92	8,594.56	0.00	0.00	0.00
21,100.00	90.00	359.62	11,567.70	8,685.56	395.26	8,694.45	0.00	0.00	0.00
21,200.00	90.00	359.62	11,567.70	8,785.56	394.61	8,794.34	0.00	0.00	0.00
21,300.00	90.00	359.62	11,567.70	8,885.55	393.95	8,894.22	0.00	0.00	0.00
21,400.00	90.00	359.62	11,567.70	8,985.55	393.29	8,994.11	0.00	0.00	0.00
21,500.00	90.00	359.62	11,567.70	9,085.55	392.63	9,094.00	0.00	0.00	0.00
21,600.00	90.00	359.62	11,567.70	9,185.55	391.98	9,193.89	0.00	0.00	0.00
21,700.00	90.00	359.62	11,567.70	9,285.55	391.32	9,293.78	0.00	0.00	0.00
21,800.00	90.00	359.62	11,567.70	9,385.54	390.66	9,393.67	0.00	0.00	0.00
21,900.00	90.00	359.62	11,567.70	9,485.54	390.00	9,493.56	0.00	0.00	0.00
21,990.91	90.00	359.62	11,567.70	9,576.45	389.41	9,584.36	0.00	0.00	0.00

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
ZHU 2331 WC 11H_WC - plan hits target center - Point	0.00	0.00	11,567.70	9,576.45	389.41	382,377.077	680,891.509	32° 2' 59.730 N	103° 44' 58.165 W
ZHU 2331 WC 11H_WC - plan hits target center - Point	0.00	0.00	11,567.70	-334.03	454.56	372,467.146	680,956.656	32° 1' 21.656 N	103° 44' 58.030 W

Casing Points

Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
2,200.00	2,200.00	16"	16	17-1/2
12,080.21	11,567.70	9 5/8"	9-5/8	12-1/4
21,990.91	11,567.70	7" x 8 3/4"	7	8-3/4

ConocoPhillips

WELL PLAN SUMMARY

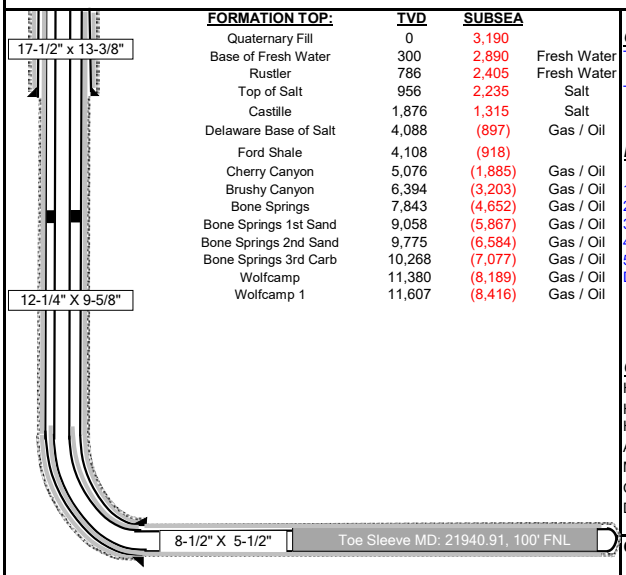
1280 Extended Reach Single Lateral

Date: Mar 23, 2020
Version: 1
Prepared by: M. Callahan

WELL: ZHU 2331 WC 11H
SURFACE LOC: Sec 23 T26S R31E 1050' FSL 1863' FWL
BH LOC: Sec 14 T26S R31E 42' FNL 2310' FWL
ELEVATIONS: GL 3,190.4' KB +30.5'

COUNTY,STATE: Eddy, Co, NM
API No.:
TRRC Permit:
BLM Permit:
WH Coord.: (NAD-27) LAT 32º 1' 24.99" N LON 103º 45' 3.29" W

AFE: WAF.OND.
Drilling Network No.:
Invoice Handler ID: VENNECP
COST ESTIMATE
DRILLING
COMPLETION
FACILITIES
TOTAL



FORMATION TOP:	TVD	SUBSEA	
Quaternary Fill	0	3,190	
Base of Fresh Water	300	2,890	Fresh Water
Rustler	786	2,405	Fresh Water
Top of Salt	956	2,235	Salt
Castille	1,876	1,315	Salt
Delaware Base of Salt	4,088	(897)	Gas / Oil
Ford Shale	4,108	(918)	
Cherry Canyon	5,076	(1,885)	Gas / Oil
Brushy Canyon	6,394	(3,203)	Gas / Oil
Bone Springs	7,843	(4,652)	Gas / Oil
Bone Springs 1st Sand	9,058	(5,867)	Gas / Oil
Bone Springs 2nd Sand	9,775	(6,584)	Gas / Oil
Bone Springs 3rd Carb	10,268	(7,077)	Gas / Oil
Wolfcamp	11,380	(8,189)	Gas / Oil
Wolfcamp 1	11,607	(8,416)	Gas / Oil
TARGET	21,991	11,568	Gas / Oil
Formation Dip Rate:	est 90.1° (up dip)		
PBTD	21,991	11,568	Gas / Oil

Estimated BH Static Temperature (°F): 185
Max. Anticipated BH Pressure: 0.700 psi/ft 8,097 psi 13.5 ppg
Max Anticipated Surface Pressure: 927 psi

Objective

This well is to be drilled with safety and protection of the environment as the primary objectives.

The objective is to drill a single lateral well in the Wolfcamp formation and completed with 5-1/2"cemented casing.

Notes

1.) Refer to drilling procedure for additional detail and information.
2.) The primary regulatory agency is the BLM.
3.) Surface: 2° max., 1°/ 100' DLS; svy every 500'
4.) Int: 90° max., 8°/ 100'; svy every 90' (svy every 30' in build and drop, 30' in curve)
5.) Losses to be expected in Cherry and Brushy Canyon formations. Overpressure may be encountered throughout Delaware.

Goals

Have no lost time or recordable accidents.
Have no spills or adverse environmental impact.
Have no stuck pipe incidents.
Avoid lost circulation incidents.
Maintain well control and follow ConocoPhillips well control policy.
Obtain good mud log data.
Deliver usable wellbore to production department.

CONTACTS

		Office	Cell
Drilling Engineer:	Mike Callahan	832-486-2480	907-231-2176
Geologist:	Josh Day	281-206-5620	423-512-0347
Onsite Drilling Rep.:	Greg Rivera	432-309-9007	
	Manny Castillo		
Field Drilling Supt.:	James Taylor	830-583-4828	956-229-1393
	Patrick Wellman		432-215-7079
Drilling Supt.:	J.G. Samuell	281-293-1936	832-465-8148

DRILLING FLUID:

	Type	Interval (MD)	Density ppg	Vis sec/qt	PV cP	YP #/100ft2	pH	FL mL	LGS % by vol	NaCl ppb sol	Remarks
Surface:	Fresh Water	Surface - 836'	8.6	28-50	1-5	2-6	7.5-8.5	NC	< 5.0	10,000	Rig Tanks
Intermediate 1:	Emulsified Brine	836' - 12180'	9.5	28-50	1-5	2-6	7.5-8.5	NC	< 5.0	180,000	Rig Tanks
Production:	OBM	12180' - 21991'	13.5	50-70	18-25	8-14	9.5-10	< 8	< 8.0	400 - 00	Rig Tanks

Reference Drilling Fluids Program

CASING:

	Hole	TOP (MD)	BTM (MD)	Length	Size	Wt	Grade	Connection
Surface:	17-1/2"	31'	836'	805'	13 3/8	54.50	J-55	BTC
	ACP/DV Tool run 100' below water board depth if necessary							
Intermediate	12-1/4"	31'	12,180'	12,150'	9 5/8	40.00	L80-IC	BTC
Production:	8-1/2"	31'	21,991'	21,960'	5 1/2	20.00	P-110 ICY	TXP

CENTRALIZATION:
Surface Casing: 1 per 4 joints.
Intermediate Casing: Shoe joint. 1 per joint from FC to 7,800'. 1 per 2 joints 7,800' to 2,300'. 1 per 4 joints 2,300' to surface.
Production Liner: Rigid body 1 per 2 joints TD to Int Shoe. Bow Spring 1 per 2 joints Int shoe to 100' above KOP. 1 per 4 joints to surface

BOP:
Minimum - COP Class 3 Well Control Requirements
Rig - 13-5/8"x10M psi Rams / 4-1/16"x10M psi Manifold
Stackup - Rotating Head, Annular Preventer, Pipe Ram, Blind Ram, Mud Cross (Choke & Kill Valves), Pipe Ram
Waste Handling: Closed loop cuttings disposal system with haul off to approved facility.
Mud Pit: Float Based Electronic PVT with Flow Sensor and Gravity Trip Tank, Alarms +/- 10 BBLS
Wellhead: 13-5/8" x 10M psi (Casing Head - "A" Section)

CEMENT:

	Hole	MD	TVD	Spacer	Lead	Tail	COMMENTS
Surface:	17-1/2"X13-3/8"	836'	836'	20 bbl FW	530 sx Control Set 'C' + adds 11.5ppg 2.66 ft3/sk	660 sx Type 'III' + adds 13ppg 1.34 ft3/sk	Cemented to surface w/ 200%XS Add FiberBlock
Intermediate:	12-1/4"X9-5/8"	12,180'	11,568	40 bbl Invert Spacer + 100 bbl SW	1070 sx WBL + adds 11.5ppg 1.77 ft3/sk	470 sx Thermal 35 + adds 15ppg 1.63 ft3/sk	TOC 500' into previous casing shoe w/ 70%L / 30%T XS calc'd on 12.25" Add FiberBlock
Production:	8-1/2"X5-1/2"	21,991'	11,568'	40 bbl Visweep	2566 sx 1:1:0 'Poz:Lafarge G' + 20% Silica Flour + 8% Silica Fume + adds 15.6 ppg 1.19ft3/sk		Cemented to TOL w/ 10% XS calc'd on 8.5" hole, Displ. = volume to float collar +/- half shoe track

Reference Cementing Recommendation

DIRECTIONAL PLAN:

Comments	MD (ft)	INC (deg)	AZI (deg)	TVD (ft)	NS (ft)	EW (ft)	DLS (º/100')	VS (ft)	SEC-T-R	Section Line Distance	
Build @ 1.5°/100'	4,000'	0	0	4,000'	0	0	0	0	Sec 23 T26S R31E	1050' FSL	1863' FWL
End Build @ 11°	4,717'	11	156	4,713'	-62	27	1.5	-60	Sec 23 T26S R31E	988' FSL	1890' FWL
Drop @ 1.5°/100'	10,138'	11	156	10,038'	-989	432	0.0	-970	Sec 23 T26S R31E	61' FSL	2295' FWL
Complete Drop, Hold to KOP	10,855'	0	0	10,752'	-1050	459	1.5	-1031	Sec 23 T26S R31E	0' FSL	2322' FWL
KOP Build @ 8°/100'	10,955'	0	0	10,852'	-1050	459	0	-1031	Sec 23 T26S R31E	0' FSL	2322' FWL
Curve LP	12,080'	90	360	11,568'	-334	455	8	-315	Sec 23 T26S R31E	716' FSL	2318' FWL
Toe Sleeve 2	21,891'	90	0	11,568'	9676	389	0	9,484	Sec 14 T26S R31E	150' FNL	2310' FWL
Toe Sleeve 1	21,941'	90	0	11,568'	9626	389	0	9,534	Sec 14 T26S R31E	100' FNL	2310' FWL
PBHL/TD	21,991'	90	360	11,568'	9576	389	0	9,584	Sec 14 T26S R31E	42' FNL	2310' FWL

Reference Directional Plan MWD Surveys will be taken at 90' interval below surface casing, 30' while building curve, and every 90' while drilling lateral.

FORMATION EVALUATION:
Mud Logging - One-Man: First surface hole to TD. First intermediate hole to TD
Mud Logging - Two-Man: Intermediate Casing Point to TD
Open Hole - PEX None
Cased Hole - GR/CBL/USIT NA
MWD - GR 200' above KOP to TD

Correlation Well:

OUR WORK IS NEVER SO URGENT OR IMPORTANT THAT WE CANNOT TAKE THE TIME TO DO IT SAFELY!

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	ConocoPhillips Company
LEASE NO.:	NMLC0064756
LOCATION:	Section 23, T. 26 S., R. 31 E.
COUNTY:	Eddy County

Environmental Assessment DOI-BLM-NM-P020-2021-0375-EA

APD, Well Pads, Facility Pads, Buried Pipelines, and Access Road

Well Pad 1
ZHU 2331 WC 1H
Surface Hole Location: 1050' FSL & 1014' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 37' FNL & 332' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 2H
Surface Hole Location: 1050' FSL & 1034' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 37' FNL & 332' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 3H
Surface Hole Location: 1050' FSL & 1054' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 39' FNL & 661' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 4H
Surface Hole Location: 1050' FSL & 1074' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 44' FNL & 987' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 5H
Surface Hole Location: 1050' FSL & 1094' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 44' FNL & 987' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 6H
Surface Hole Location: 1050' FSL & 1114' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 42' FNL & 1319' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 BS 1H
Surface Hole Location: 1180' FSL & 1014' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 2H
Surface Hole Location: 1180' FSL & 1034' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 3H
Surface Hole Location: 1180' FSL & 1054' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 4H
Surface Hole Location: 1180' FSL & 1074' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

Approval Date: 05/10/2021

ZHU 2331 BS 5H
Surface Hole Location: 1180' FSL & 1094' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 6H
Surface Hole Location: 1180' FSL & 1114' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

Well Pad 2
ZHU 2331 WC 7H
Surface Hole Location: 1050' FSL & 1783' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 43' FNL & 1648' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 8H
Surface Hole Location: 1050' FSL & 1803' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 43' FNL & 1648' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 9H
Surface Hole Location: 1050' FSL & 1823' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 44' FNL & 1980' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 10H
Surface Hole Location: 1050' FSL & 1843' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 42' FNL & 2310' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 11H
Surface Hole Location: 1050' FSL & 1863' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 42' FNL & 2310' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 WC 12H
Surface Hole Location: 1050' FSL & 1883' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: 43' FNL & 2639' FWL, Section 14, T. 26 S, R 31 E.

ZHU 2331 BS 7H
Surface Hole Location: 1180' FSL & 1783' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 8H
Surface Hole Location: 1180' FSL & 1803' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 9H
Surface Hole Location: 1180' FSL & 1823' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 10H
Surface Hole Location: 1180' FSL & 1843' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 11H
Surface Hole Location: 1180' FSL & 1863' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

ZHU 2331 BS 12H
Surface Hole Location: 1180' FSL & 1883' FWL, Section 23, T. 26 S., R. 31 E.
Bottom Hole Location: To Be Determined

Approval Date: 05/10/2021

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

SPECIAL REQUIREMENT(S)

Watershed:
The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

TANK BATTERY:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present.

The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Cave/Karst:

Construction Mitigation

In order to mitigate the impacts from construction activities on cave and karst resources, the following Conditions of Approval will apply to this APD or project:

General Construction:

- No blasting
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction, and no additional construction shall occur until clearance has been issued by the Authorized Officer.
- All linear surface disturbance activities will avoid sinkholes and other karst features to lessen the possibility of encountering near surface voids during construction, minimize changes to runoff, and prevent untimely leaks and spills from entering the karst drainage system.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

Pad Construction:

- The pad will be constructed and leveled by adding the necessary fill and caliche – no blasting.
- The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.
- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g., caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised (i.e. an access road crossing the berm cannot be lower than the berm height).
- Following a rain event, all fluids will vacuumed off of the pad and hauled off-site and disposed at a proper disposal facility.

Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

Buried Pipeline/Cable Construction:

- Rerouting of the buried line(s) may be required if a subsurface void is encountered during construction to minimize the potential subsidence/collapse of the feature(s) as well as the possibility of leaks/spills entering the karst drainage system.

Drilling Mitigation
Federal regulations and standard Conditions of Approval applied to all APDs require that adequate measures are taken to prevent contamination to the environment. Due to the extreme sensitivity of the cave and karst resources in this project area, the following additional Conditions of Approval will be added to this APD.

To prevent cave and karst resource contamination the following will be required:

- Closed loop system using steel tanks - all fluids and cuttings will be hauled off-site and disposed of properly at an authorized site
- Rotary drilling with fresh water where cave or karst features are expected to prevent contamination of freshwater aquifers.
- Directional drilling is only allowed at depths greater than 100 feet below the cave occurrence zone to prevent additional impacts resulting from directional drilling.
- Lost circulation zones will be logged and reported in the drilling report so BLM can assess the situation and work with the operator on corrective actions.
- Additional drilling, casing, and cementing procedures to protect cave zones and fresh water aquifers. See drilling COAs.

Production Mitigation
In order to mitigate the impacts from production activities and due to the nature of karst terrane, the following Conditions of Approval will apply to this APD:

- Tank battery locations and facilities will be bermed and lined with a 20 mil thick permanent liner that has a 4 oz. felt backing, or equivalent, to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.
- Development and implementation of a leak detection system to provide an early alert to operators when a leak has occurred.
- Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Residual and Cumulative Mitigation
The operator will perform annual pressure monitoring on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be taken to correct the problem to the BLM's approval.

Plugging and Abandonment Mitigation
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Range:

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Cattleguards
Where a permanent cattleguard is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the

existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Phantom Bank Heronries

Surface disturbance will not be allowed within up to 200 meters of active heronries or by delaying activity for up to 120 days, or a combination of both.

Exhaust noise from engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

V. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not twenty (20) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

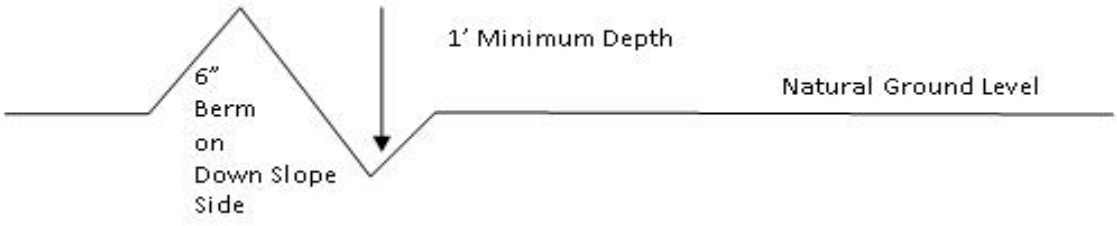
Ditching
Ditching shall be required on both sides of the road.

Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement
Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Approval Date: 05/10/2021

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

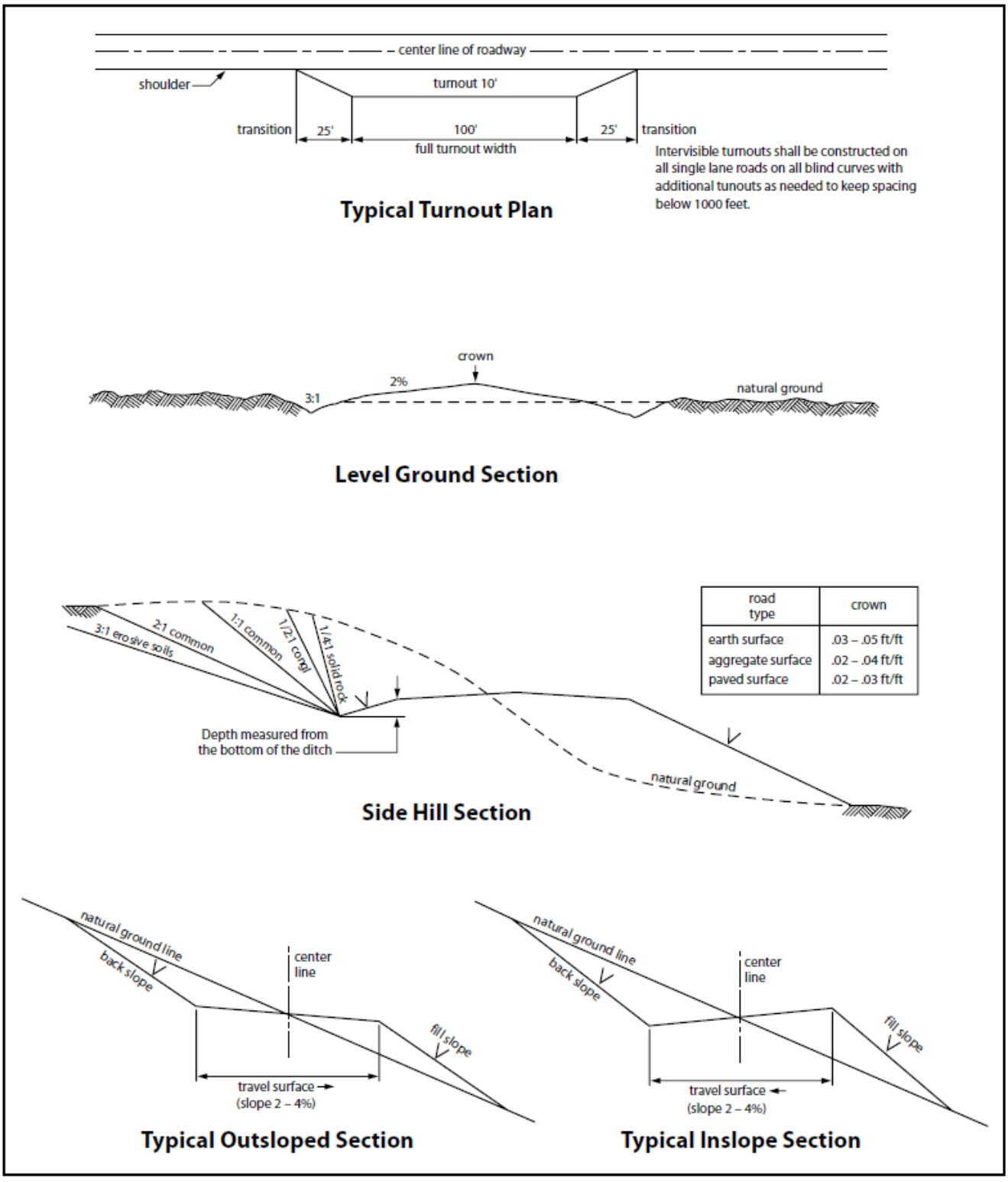


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

Approval Date: 05/10/2021

VI. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures
Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C.

9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation*.)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
(X) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 17 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

17. The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

18. Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

20. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.

Approval Date: 05/10/2021

b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

21. Special Stipulations:

Karst:

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

VII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

VIII. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Approval Date: 05/10/2021

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**CONOCOPHILLIPS COMPANY**
LEASE NO.:	**NMLC0064756**
WELL NAME & NO.:	ZHU 2331 WC 11H
SURFACE HOLE FOOTAGE:	1050'/S & 1863'/W
BOTTOM HOLE FOOTAGE	42'/N & 2310'/W
LOCATION:	Section 23, T.26 S., R.31 E., NMP
COUNTY:	Eddy 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
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☐ COM	☐ Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **836 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    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.

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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.

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

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

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  Excess cement calculates to -6%, additional cement might be required.

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Medium Cave/Karst Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

3. The minimum required fill of cement behind the **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.

Approval Date: 05/10/2021

C. PRESSURE CONTROL

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

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

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

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 2500 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.

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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
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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 Onshore Oil and Gas Order No. 2 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.

Approval Date: 05/10/2021

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.

Approval Date: 05/10/2021

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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 when specified), whichever is greater. However, if the float does not

Approval Date: 05/10/2021

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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 Onshore Order No. 2.

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.

OTA03092021

Approval Date: 05/10/2021

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

APD Print Report
05/16/2021

APD ID: 10400055456
Submission Date: 03/26/2020
Operator Name: CONOCOPHILLIPS COMPANY
Federal/Indian APD: FED
Well Name: ZHU 2331 WC
Well Number: 11H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Application

Section 1 - General

APD ID: 10400055456
Tie to previous NOS? N
Submission Date: 03/26/2020
BLM Office: CARLSBAD
User: JEREMY LEE
Title: Regulatory Coordinator
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMLC0064756
Lease Acres:
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? YES
Federal or Indian agreement: FEDERAL
Agreement number: NMNM038329X
Agreement name:
Keep application confidential? N
Permitting Agent? NO
APD Operator: CONOCOPHILLIPS COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: CONOCOPHILLIPS COMPANY
Operator Address: PO Box 2197
Zip: 77252
Operator PO Box:
Operator City: Houston
State: TX
Operator Phone: (281)293-1748
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:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: ZHU 2331 WC **Well Number:** 11H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** WC-025 G-09 S253236A; UPR WOLFCAMP **Pool Name:** ZIA HILLS; WOLFCAMP

Is the proposed well in an area containing other mineral resources? NONE

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** ZIA HILLS 23 PAD **Number:** 2

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 47 Miles **Distance to nearest well:** 20 FT **Distance to lease line:** 1050 FT

Reservoir well spacing assigned acres Measurement: 0 Acres

Well plat: ZHU_2331_WC_11H_C_102_20200325122007.pdf

Well work start Date: 03/30/2021 **Duration:** 90 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 lease?
SHL Leg #1	1050	FSL	1863	FWL	26S	31E	23	Aliquot SESW	32.023732	-103.751386	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC064756	3190	0	0	Y
KOP Leg #1	0	FSL	2322	FWL	26S	31E	26	Aliquot SWSE	32.0208387	-103.7499228	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC064756	-7662	10955	10852	Y

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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 lease?
PPP Leg #1-1	100	FSL	2313	FWL	26S	31E	23	Aliquot SWSE	32.021125	-103.749923	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC064756	-8189	11550	11379	Y
EXIT Leg #1	100	FNL	2311	FWL	26S	31E	14	Aliquot NWNE	32.049892	-103.749964	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC064756	-8378	21933	11568	Y
BHL Leg #1	42	FNL	2310	FWL	23S	31E	14	Aliquot NENW	32.05005	-103.749964	EDDY	NEW MEXICO	NEW MEXICO	F	NMLC064756	-8378	21991	11568	Y

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
696430	QUATERNARY	3180	0	0	ALLUVIUM	NONE	N
696431	RUSTLER	2394	786	786	ANHYDRITE, DOLOMITE	NONE	N
696432	SALADO	2224	956	956	SALT	NONE	N
696433	CASTILE	1304	1876	1876	SALT	NONE	N
696434	DELAWARE	-908	4088	4088	SANDSTONE	NATURAL GAS, OIL	N
696435	CHERRY CANYON	-1896	5076	5076	SANDSTONE	NATURAL GAS, OIL	N
696436	BRUSHY CANYON	-3214	6394	6394	SANDSTONE	NATURAL GAS, OIL	N
696437	BONE SPRING	-4663	7843	7843	SANDSTONE	NATURAL GAS, OIL	N
696440	BONE SPRING 1ST	-5878	9058	9058	SANDSTONE	NATURAL GAS, OIL	N
696438	BONE SPRING 2ND	-6595	9775	9775	SANDSTONE	NATURAL GAS, OIL	N
696439	BONE SPRING 3RD	-7088	10268	10268	LIMESTONE	NATURAL GAS, OIL	N

Operator Name: CONOCOPHILLIPS COMPANY

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Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
696441	WOLFCAMP	-8200	11380	11380	LIMESTONE, SANDSTONE, SHALE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 11568

Equipment: Rotating Head, Annular Preventer, Pipe/Blind Rams, Kill Lines, Choke Lines, Adapter Spool

Requesting Variance? YES

Variance request: A variance to use flexible choke line(s) from the BOP to Choke Manifold. Testing certificate is attached in "Flexhose Variance data" document. A variance to use a multibowl wellhead system. Please see attached in section 8 of drilling plan. A variance is requested to use a 5M annular and test the annular to 100% of its working pressure. The variance is requested in conjunction with the attached well control plan.
Testing Procedure: BOP/BOPE will be isolated from the casing and tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. BOPE controls will be installed prior to drilling under the surface casing and will be used until the completion of drilling operations. The intermediate interval and the production interval will be tested per 10M working system requirements. See attached "Drill Plan" document.
Choke Diagram Attachment:

Zia_Hills_23_Pad_2_Choke_Manifold_20200324063048.pdf

BOP Diagram Attachment:

Zia_Hills_23_Pad_2_BOPE_20200324063105.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	836	0	836	3190	2354	836	J-55	54.5	OTHER - BTC	4.51	7.3	DRY	19.96	DRY	19.96
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	12180	0	11568		-8378	12180	OTHER	40	OTHER - BTC	2.55	1.69	DRY	1.9	DRY	1.9
3	PRODUCTION	8.5	5.5	NEW	API	N	0	21991	0	11568		-8378	21991	OTHER	20	OTHER - TXP	3.87	2.47	DRY	3.15	DRY	3.15

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Well Name: ZHU 2331 WC **Well Number:** 11H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

13.375_54.5_lb_J55_20200310071400.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

9.625_40_lb_L_80_IC_20200310071527.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

5.5_20_lb_P_110_ICY_20200310071800.pdf

Section 4 - Cement

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	436	530	1.73	12.8	908	200	Control Set 'C'	1.0% CaCl2, 1.0% SMS, 1.0% OGC-60, ¼ lb/sk Polyflake, ½ ppb FiberBlock
SURFACE	Tail		436	836	660	1.33	14.8	868	200	0:1:0 'Type III'	0.5% CaCl2, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Lead		0	5076	2480	1.73	11	4286	200	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Lead	5076	336	10455	1070	2.7	11	2864	70	WBL	0.5% CFL-4, 0.6% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
INTERMEDIATE	Tail		10455	12180	470	1.59	13.2	741	30	Thermal 35	10% NaCl, 0.9% CFR, 0.7% CFL-4, 0.1% LTR, 0.2% SPC-II, 0.4% CDF-4P, ¼ lb/sk Polyflake, ½ ppb FiberBlock
PRODUCTION	Lead		0	21991	0	0	0	0	0	No Lead	No Lead
PRODUCTION	Tail		9955	21991	2566	1.19	15.6	3052	10	1:1:0 'Poz:Lafarge G'	20% Silica Flour, 8% Silica Flume, 2% FWCA-H (FWC-2), 0.3% HTR, 0.5% CR-4 (MCR-4), 1% TAE-1 (SEA-1), 1% CFL-4, 0.2% CFR-5, 0.3% ASM-3 (AS-3)

Operator Name: CONOCOPHILLIPS COMPANY

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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: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. See attached "Drill Plan" for additional information.
Describe the mud monitoring system utilized: Closed-loop mud system using steel mud containers will be on location. Mud monitoring of any changes in levels (gains or losses) will use Pressure Volume Temperature, Pason, Visual Observations. See attached "Drill Plan" for additional information.

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
836	11568	OTHER : Brine	9.5	10.5							
0	836	OTHER : Fresh Water	8.6	9.1							
11568	11568	OIL-BASED MUD	10.5	11.5							

Section 6 - Test, Logging, Coring

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

Production tests will be conducted multiple times per week, through a test separator, during first months following completion. Thereafter, tests will be less frequently.
List of open and cased hole logs run in the well:

GAMMA RAY LOG,

Coring operation description for the well:

No coring operation is planned at this time.

This well will be an Infill Horizontal well as defined in Part H of 19.15.16.7 NMAC. It will not have a unique horizontal spacing

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unit. It will share a horizontal spacing unit.

ConocoPhillips Company requests a variance to the requirement to run a neutron porosity log for any wells within one mile of an existing well with a neutron porosity log (vertical well, or vertical portion of a horizontal well). If there is an existing neutron log within one mile, ConocoPhillips requests to log gamma ray only. If there is not an existing neutron log within one mile, ConocoPhillips request to run a GR/N log on the vertical section of one well per pad.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8097 **Anticipated Surface Pressure:** 5552

Anticipated Bottom Hole Temperature(F): 185

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S_C_Plan_20200310075517.pdf
Typical_Rig_Layout_20200324064452.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Wellhead_diagram_3_String__20200310081710.pdf
ZHU_2331_WC_11H_Drill_Plan_20200325130122.pdf
ZHU_2331_WC_11H_Well_Plan_20200325130130.pdf

Other proposed operations facets description:

Other proposed operations facets attachment:

Drill_Waste_Containment1_20200310081559.pdf
Zia_Hills_23_Pad_2_Kelly_Cock_20200324064604.pdf
ZHU_2331_WC_9H_12H_Gas_Capture_Plan_20200723134150.pdf

Other Variance attachment:

Flexhose_Variance_20200310081645.pdf
Wild_Well_Control_Plan_20200310081652.pdf

SUPO

Operator Name: CONOCOPHILLIPS COMPANY

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Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Zia_Hills_23_Pad_2_Existing_Road_Map_20200324064648.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: The existing 2-track will be upgraded.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Zia_Hills_23_Pad_1_Access_Road_Map_10_8_20_20201008094404.pdf

New road type: RESOURCE

Length: 148.25 Feet **Width (ft.):** 30

Max slope (%): 2 **Max grade (%):** 2

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 20

New road access erosion control: The inside slope of the side ditches shall be 3:1. Any topsoil removed from the access road will be conserved as appropriate and with low profile. This access road is on fairy level ground. No additional erosion control is planned.

New road access plan or profile prepared? N

New road access plan attachment:

Access road engineering design? N

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

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Access topsoil source: OFFSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth:

Offsite topsoil source description: Caliche will be from a BLM approved source or third-party commercial location. Material meets BLM requirements and standards.

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information: The access road and existing road right of way will be 30 ft wide for a 20 ft wide drive-able surface and 5 ft on each side to accommodate the size of the rig. 148.25 ft is new road and the remainder is road permitted under the Zia Hills 23 Pad 1 well APDs. The Zia Hills 23 Pad 2 will utilize this road. Only 1 access road will be built for the Zia Hills 23 Pad 2.

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: The proposed road to the location is surveyed and staked with stations set along the centerline at specific intervals. The road will be centerline crowned with a 2% crown for appropriate drainage. The inside slope of the side ditches shall be 3:1. Any topsoil removed from the access road will be conserved as appropriate. This access road is on level ground.

Road Drainage Control Structures (DCS) description: No additional road drainage is needed other than standard BLM requirements for this area and those discussed in the BLM “Gold Book”. This access road is on level ground.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Zia_Hills_23_Pad_2_One_mile_well_radius_map_20200324065054.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: The Zia Hills 23 Pad 2 proposed facility pad will be adjacent to the proposed wellhead pad. The planned dimensions of the facility pad are 100 ft x 350 ft. Approximately 120.44 ft of flowlines will be ran from the proposed Zia Hills 23 Pad 2 facility pad to a tie-in at the Zia Hills 23 Pad 1 proposed flowline. The route is depicted in the Pipeline ROW plats. The following buried pipelines will be installed in the ROW: A 12-inch buried coated steel gas pipeline from proposed facility area to existing pipeline tie-in. The working pressure of the pipeline will be about 270 psi with a max pressure of 740 psig. A 12-inch buried poly water pipeline from proposed facility area to existing pipeline tie-in. The working pressure of the pipeline will be about 250 psi with a max pressure of 800 psig. A 10-inch buried coated steel oil pipeline from proposed facility area to existing pipeline tie-in. The working pressure of the pipeline will be about 270 psi with a max

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pressure of 1480 psig. An 8-inch buried coated steel gas pipeline from proposed facility area to existing pipeline tie-in. The working pressure of the pipeline will be about 1250 psi with a max pressure of 1480 psig. No overhead electric lines will be run.

Production Facilities map:

Zia_Hills_2331_Pad_1___Pad_2_Production_Facility_20200317081725.pdf

Zia_Hills_23_Pad_2_Pipelines_20200723134315.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: STIMULATION

Source latitude: 31.995947 **Source longitude:** -103.744446

Source datum: NAD27

Water source permit type: WATER WELL

Water source transport method: PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 66666.664 **Source volume (acre-feet):** 8.592873

Source volume (gal): 2800000

Water source and transportation map:

Zia_Hills_23_Pad_2_Water_Wells_20200324065658.pdf

Water source comments: Water will be trucked from the water wells in Texas to the Lois Lane frac ponds and from the frac ponds the water will be sent via temp pipe lines. However, COP plans to use additional/ different water well(s) depending on availability at the time of fracturing the wells but the locations will meet BLM requirements and standards. The Lois Lane frac pond contains 15.243 acres and is located in the NW/NE and extends into the SW/NE of Section 27, T26S, 32E, N.M.P.M. COP may additional utilize other BLM approved means as a source for water to stimulate the well.

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:

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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:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Clean caliche will be used to construct well pad, road, and facility pad. Our first source for caliche will be from Kiehne's pit is located in Section 21, T26S, R32E, Lea County, NM and the second source will be State Pit 643-Eddy located in Section 15, T25S, R27E, Eddy County, NM. However, COP plans to use additional caliche source(s) depending on caliche availability at the time of location construction and material will meet BLM requirements and standards. Trucking for source material will utilize authorized roads as per Access Road Topo A attached.

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling fluid and cuttings

Amount of waste: 2300 barrels

Waste disposal frequency : Daily

Safe containment description: Cuttings will be held in a closed-loop system and trucked to an approved disposal facility.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to approved disposal facility

Waste type: SEWAGE

Waste content description: Sewage will be disposed of in strict conformance with county and state requirements in a portable chemical toilet at a portable sewage treatment plant.

Amount of waste: 9000 gallons

Waste disposal frequency : Weekly

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Safe containment description: Inside a portable chemical toilet.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Sewage treatment plant.

Waste type: GARBAGE

Waste content description: Portable dumpsters will be used for all trash.

Amount of waste:

Waste disposal frequency : Weekly

Safe containment description: Inside a portable dumpster.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: All trash will be hauled off site.

Waste type: CHEMICALS

Waste content description: Drilling fluids, chemical, and salt.

Amount of waste: 1 barrels

Waste disposal frequency : Weekly

Safe containment description: Fluids will be captured in catch basins and will be removed from location.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: These will be disposed of in a state approved facility.

Waste type: PRODUCED WATER

Waste content description: Produced water or testing tanks will be located and/or diked so that any spilled fluid will flow into the onsite containers. Production water tanks will not be placed on topsoil stockpiles.

Amount of waste: 40 barrels

Waste disposal frequency : Weekly

Safe containment description: Produced water or testing tanks will be located and/or diked so that any spilled fluid will flow into the onsite containers. Production water tanks will not be placed on topsoil stockpiles.

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Will be taken to an approved disposal facility.

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? N

Description of cuttings location

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 Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Operator Name: CONOCOPHILLIPS COMPANY

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Section 9 - Well Site Layout

Well Site Layout Diagram:

Zia_Hills_23_Pad_2_Arc_Boundary_20200324065914.pdf
Zia_Hills_23_Pad_2_Location_Layout_20200324065846.pdf
Typical_Rig_Layout_20200324065901.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: ZIA HILLS 23 PAD

Multiple Well Pad Number: 2

Recontouring attachment:

Zia_Hills_23_Pad_2_Reclamation_Diagram_20200713134335.pdf

Drainage/Erosion control construction: Topsoil will be stripped and set along designated side of the wellsite. The next layer of dirt (stockpile) is done with the cut and fill method whereby the highest portion of the wellsite is pushed to lower portion(s) to balance the pad. The access road is done in a similar manner. To the greatest extent practicable, the location is placed so that the least amount of dirt is to be cut and disturbed, and so a good balance can be maintained during project. Topsoil stockpile will have lowest practicable profile to reduce wind erosion. For more detail please see attached Surface Use Plan of Operations.

Drainage/Erosion control reclamation: Upon project completion, if this well is a producer, excess caliche is removed from the interim reclamation portion of pad. Topsoil stockpile is balanced back onto the unused portion of the well pad and recontoured as appropriate. Any drainage ditches will not be blocked with topsoil and/or organic material. Lowering the profile of the topsoil stockpile will reduce wind erosion. Erosion controls will be maintained per BLM guidelines and conditions. For more detail please see attached Surface Use Plan of Operations. Reclamation activities are planned to be accomplished within six months of project completion, contingent upon weather. A site specific "Reclamation Diagram" interim plan is attached. At such time as well is permanently abandoned, ConocoPhillips Company will contact the BLM for development of final rehabilitation plan. Upon abandonment, a dry hole marker will be installed as directed by Authorized BLM Officer at the time, in accordance with 43 CFR 3162.6. An above ground dry hole marker sealing the casing will have a weep hole which will allow pressure to dissipate and make detection of any fluid seepage easier. If below ground “well marker” is directed, ConocoPhillips Company will follow BLM requirements and standards for that method of abandonment. During final reclamation erosion is to be minimized through lower profile of any soil piles. Please see attached Surface Use Plan of Operations for more information.

Well pad proposed disturbance (acres): 6.991
Road proposed disturbance (acres): 0.102
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0.166
Other proposed disturbance (acres): 0

Total proposed disturbance: 7.259

Well pad interim reclamation (acres): 2.639
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0.028
Other interim reclamation (acres): 0

Total interim reclamation: 2.667

Well pad long term disturbance (acres): 4.352
Road long term disturbance (acres): 0.102
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0.138
Other long term disturbance (acres): 0

Total long term disturbance: 4.5920000000000005

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Disturbance Comments: ConocoPhillips requests deferral of interim reclamation until all the wells proposed to be drilled from this pad have been drilled and completed. Interim reclamation to be completed within 6 months of well completion of the last permitted well on this pad.

Reconstruction method: If this well is a producer site rehabilitation will be completed within six months, weather permitting. Excess caliche will be removed, as appropriate and either disposed of in a permitted facility or, if clean, stored for future use. Topsoil from the stockpile will be spread along areas to be interim reclaimed. Any drainage ditches will not be blocked with topsoil. Under normal weather conditions, the timetable for rehabilitation will allow two to three months to complete any recontouring and top-soiling necessary. At such time as well is permanently abandoned, ConocoPhillips Company will contact BLM for development of final rehabilitation plan. Upon abandonment, a dry hole marker will be installed as directed by Authorized BLM Officer at the time, in accordance with 43 CFR 3162.6. An above ground dry hole marker sealing the casing will have a weep hole which will allow pressure to dissipate and make detection of any fluid seepage easier. If below ground “well marker” is directed, ConocoPhillips Company will follow BLM requirements and standards for that method of abandonment. Excess caliche will be removed, as appropriate and either disposed of in a permitted facility. Location soil may be “flipped” with BLM concurrence, clean topsoil spread and re-contoured to blend with surrounding area. This method will be accomplished in accordance to BLM standards set forth by the Authorized Officer.

Topsoil redistribution: Areas planned for interim reclamation will be re-contoured to the extent feasible. Topsoil will be evenly re-spread and re-vegetated over the disturbed area not needed for continuing production operations. At such time as well is abandoned, disturbed areas will be re-contoured to a contour that blends with surrounding landscape. Topsoil will be redistributed evenly over the entire disturbed site to depth of 4-6 inches.

Soil treatment: The topsoil will be stripped and set along the designated perimeter of the wellsite. The next layer of dirt is moved with the cut and fill method whereby the highest point of the wellsite is cut into and then pushed to a lower side to balance the well pad. Upon well completion, the soil will be balanced back onto portions of the pad not needed for long-term operations. Erosion will be minimized by maintaining a lower stockpile profile.

Existing Vegetation at the well pad: Based on an existing EA in the vicinity, the proposed area is expected to be classified as transitional between the Plains-Mesa Sand Scrub and Chihuahuan Desert Scrub plant communities. The area surrounding the location is expected to have dominant shrub species including white thorn acia, range ratany, javelin bushy, honey mesquite, invading creosote and a few althorns. Dominant grass species in the project included but not limited to sand and mesa dropseed, roa grande bristlegrass, black grama and burrograss. An EA will be performed that will list species in the area.

Existing Vegetation at the well pad attachment:

Zia_Hills_23_Pad_2_Location_Photos_20200324070859.pdf

Existing Vegetation Community at the road: See Zia Hills 23 Pad 2 Location Photos

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: See Zia Hills 23 Pad 2 Location Photos

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: See Zia Hills 23 Pad 2 Location Photos

Existing Vegetation Community at other disturbances attachment:

Non native seed used?

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project?

Seedling transplant description attachment:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Jeremy **Last Name:** Lee

Phone: (832)486-2510 **Email:** Jeremy.L.Lee@cop.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Two Class B noxious weed species, African rue and Malta starthistle and two Class C noxious weed species, Russian olive and salt cedar are of concern. ConocoPhillips Company will consult with BLM for acceptable weed control methods, if the need arises. Any weed control would follow USEPA and BLM requirements and standards. No noxious weed species are expected in the project area.
Weed treatment plan attachment:

Monitoring plan description: Weeds will be controlled on disturbed areas within the exterior limits of the well pad. Monitoring will be in accordance with Best Management Practices and guidelines established by BLM.
Monitoring plan attachment:

Success standards: Reclamation success standards will utilize BLM approved methods.

Pit closure description: No pits will be used, a closed-loop system will be in place.

Pit closure attachment:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

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:**

Disturbance type: NEW 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:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

USFS Region:

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

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:**

Disturbance type: PIPELINE

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:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

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

Section 12 - Other Information

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

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,288101 ROW – O&G Facility Sites,289001 ROW-O&G Well Pad

ROW Applications

SUPO Additional Information: ConocoPhillips request an extra 10-foot-wide area for temporary workspace to safely install the pipeline. ConocoPhillips request to blade the entire pipeline ROW and the 10-foot-wide temporary workspace. ConocoPhillips submits the leak detection plan for the flowlines.
Use a previously conducted onsite? Y

Previous Onsite information: Onsite conducted 5/22/2018.

Other SUPO Attachment

Zia_HIlls_Leak_Detection_R1_20200324071617.pdf

PWD

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Section 1 - General

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

Section 2 - Lined Pits

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 specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

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 specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

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

Beneficial use user confirmation:

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 evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Section 4 - Injection

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 attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

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 - Other

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):

Other PWD type description:

Operator Name: CONOCOPHILLIPS COMPANY

Well Name: ZHU 2331 WC **Well Number:** 11H

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: ES0085

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 attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

Operator Certification

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 26OEOACA

ConocoPhillips

H_2S Contingency Plan
November 2016

H_2S Contingency Plan Holders:

Attached is an H_2S Contingency Plan for COPC Permian Drilling working in the West Texas and Southeastern New Mexico areas operated by ConocoPhillips Company.

If you have any question regarding this plan, please call Matt Oster (830) 583-1297, or Ryan Vacarella (985) 217-7594.

Table of Contents

ConocoPhillips

HYDROGEN SULFIDE (H_2S) OPERATIONS

Contingency Plan
For
Permian Drilling Operations

ConocoPhillips Company

Mid-Continent Business Unit
Permian Asset Area

I. PURPOSE

The purpose of this Contingency Plan is to provide an organized plan of action for alerting and protecting the public following the release of a potentially hazardous volume of hydrogen sulfide. This plan prescribes mandatory safety procedures to be followed in the event of a release of H_2S into the atmosphere from exploration and production operations included in the scope of this plan. The extent of action taken will be determined by the supervisor and will depend on the severity and extent of H_2S release. Release of H_2S must be reported to the Drilling Superintendent and documented on the IADC and in Wellview.

II. SCOPE

This Contingency plan shall cover the West Texas and Southeastern New Mexico areas, which contain H2S gas and could result in a release where the R.O.E. is greater than 100 ppm at 50' and less than 3000' and does not include a public area and 500 ppm R.O.E. does not include a public road. Radius of exposure is defined as the maximum distance from the source of release that a specified calculated average concentration of H_2S could exist under specific weather conditions.

III. PROCEDURES

First Employee on Scene

____Assess the incident and ensure your own safety.

Note the following:

——— Location of the incident.
____Nature of the incident.
——— Wind direction and weather conditions.
____Other assistance that may be needed.

____ Call local supervisory personnel (refer to Section V: Emergency Call List) until personal contact is made with a person on the list.

____ Perform emergency assessment and response as needed. The response may include rescue and/or evacuation of personnel, shutting in a system and/or notification of nearby residents/public (refer to Section VII: Public Notification/Evacuation).

____ Secure the site.

____ Follow the direction of the On-scene Incident Commander (first ConocoPhillips supervisor arriving on-scene).

First Supervisor on Scene (ConocoPhillips On-scene Incident Commander)

——— Becomes ConocoPhillips' On-scene Incident Commander upon arrival to location.

——— Follow the principles of the **D.E.C.I.D.E.** process below to assess the incident. (Note wind direction and weather conditions and ensure everyone's safety).

DETECT the problem
ESTIMATE likely harm without intervention
CHOOSE response objectives
IDENTIFY action options
DO the best option
EVALUATE the progress

____Complete the Preliminary Emergency Information Sheet (refer to Section VIII: Forms/Reports).

____Call your supervisor (refer to Section V: Emergency Call List).

____Perform emergency response as necessary. (This may include notification & evacuation of all personnel and/or nearby residents/public (refer to Section VII: Public Notification/Evacuation), requesting assistance from ConocoPhillips personnel or outside agencies (refer to Section V: Emergency Call List) and obtaining any safety equipment that may be required (refer to Section IV: Emergency Equipment and Maintenance).

____ Notify appropriate local emergency response agencies of the incident as needed. Also notify the appropriate regulatory agencies. (refer to Section V: Emergency Call List).

____ Ensure site security.

__ Set barricades and /or warning signs at or beyond the calculated 100 ppm H_2S radius of exposure (ROE). All manned barricades must be equipped with an H_2S monitor and a 2-way radio.

__ Set roadblocks and staging area as determined.

____ Establish the Incident Command Structure by designating appropriate on-scene response personnel as follows:

Recording Secretary _____
Public Information Officer _____
Safety/Medical Officer _____
Decontamination Officer _____

____ Have the “Recording Secretary” begin documenting the incident on the “Incident Log” (refer to Section VIII: Forms/Reports).

____ If needed, request radio silence on all channels that use your radio tower stating that, until further notice, the channels should be used for emergency communications only.

____ Perform a Site Characterization and designate the following:

Hot Zone -- Hazardous Area
Warm Zone -- Preparation & Decontamination Area
Cold Zone -- Safe Area

AND

On-Scene Incident Command Post	(Cold Zone)
Public Relations Briefing Area	(Cold Zone)
Staging Area	(Cold Zone)
Triage Area	(Cold Zone)
Decontamination Area	(Warm Zone)

____Refer all media personnel to ConocoPhillips' On-Scene Public Information Officer (refer to Section VI: Public Media Relations).

____Coordinate the attempt to stop the release of H_2S. You should consider closing upstream and downstream valves to shut-off gas supply sources, and/or plugging or clamping leaks. Igniting escaping gas to reduce the toxicity hazard should be used **ONLY AS A LAST RESORT**. (It must first be determined if the gas can be safely ignited, taking into consideration if there is a possibility of a widespread flammable atmosphere.)

____Once the emergency is over, return the situation to normal by:

Confirming the absence of H_2S and combustible gas throughout the area,

Discontinuing the radio silence on all channels, stating that the emergency incident is over,

Removing all barricades and warning signs,

Allowing evacuees to return to the area, and

Advising all parties previously notified that the emergency has ended.

____ Ensure the proper regulatory authorities/agencies are notified of the incident (refer to Section V: Emergency Call List).

____ Clean up the site. (Be sure all contractor crews have had appropriate HAZWOPER training.)

____ Report completion of the cleanup to the Asset Environmentalist. (Environmentalist will report this to the proper State and/or Federal agencies.)

____ Fill out all required incident reports and send originals to the Safety Department. (Keep a copy for your records.)

- Company employee receiving occupational injury or illnesses.
- Company employee involved in a vehicle accident while driving a company vehicle.
- Company property that is damaged or lost.
- Accident involving the public or a contractor; includes personal injuries, vehicle accidents, and property damage. Also includes any situation, which could result in a claim against the Company.
- Hazardous Material Spill/Release Report Form
- Emergency Drill Report

____ Assist the Safety Department in the investigation of the incident. Review the factors that caused or allowed the incident to occur, and modify operating, maintenance, and/or surveillance procedures as needed. Make appropriate repairs and train or retrain employees in the use and operation of the system.

____ If this incident was simulated for practice in emergency response, complete the Emergency Drill Report found in Section VIII: Forms/Reports and submit a copy to the Drilling Manager. (Keep one copy in area files to document exercising of the plan.)

Emergency Procedures
Responsibility

In the event of a release of potentially hazardous amounts of H2S, all personnel will immediately proceed upwind/ crosswind to the nearest designated briefing area. The COPC Drilling Rep. will immediately, upon assessing the situation, set this into action by taking the proper procedures to contain the gas and notify appropriate people and agencies.

1. In an emergency situation, the Drilling Rep. on duty will have complete responsibility and will take whatever action is deemed necessary in an emergency situation to insure the personnel's safety, to protect the well and to prevent property damage.

2. The Toolpusher will assume all responsibilities of the Drilling Rep. in an emergency situation in the event the Drilling Rep. becomes incapacitated.

3. Advise each contractor, service company, and all others entering the site that H2S may be encountered and the potential hazards that may exist.

4. Authorize the evacuation of local residents if H2S threatens their safety.

5. Keep the number of persons on location to a minimum during hazardous operations.

6. Direct corrective actions to control the flow of gas.

7. Has full responsibility for igniting escaping gas to reduce the toxicity hazard.

   This should be used **ONLY AS A LAST RESORT**.

IV. EMERGENCY EQUIPMENT and MAINTENANCE

Emergency Equipment Suppliers

DXP/ Safety International – Odessa, Tx. 432.580.3770
H_2S monitors
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment
H2S Specialist

Total Safety US Odessa, Tx/ Hobs, NM 432.561.5049 Odessa
H_2S monitors 575.392.2973 Hobbs
Breathing air includes cascade systems
First aid and medical supplies
Safety equipment

DXP/ Indian Fire & Safety – Hobbs, NM 575.393.3093
H_2S monitors
Breathing air including cascade systems trailer mounted
30 minute air packs
Safety Equipment

TC Safety – Odessa, Tx.
H_2S monitors 432.413.8240
Cascade systems trailer mounted
30 minute air packs
Safety Equipment
H2S Specialist

Secorp Industries – Odessa, Tx. 432.614.2565
H2S Monitor Systems
Cascade Systems
H2S Specialist
H2S, CPR, First Aid Training

Emergency Equipment and Maintenance (continued)

General Information

Materials used for repair should be suitable for use where H_2S concentrations exceed 100 ppm. In general, carbon steels having low-yield strengths and a hardness below RC-22 are suitable. The engineering staff should be consulted if any doubt exists on material specifications.

Appropriate signs should be maintained in good condition at location entrance and other locations as specified in Texas Rule 36 and NMOCD Rule 118.

All notification lists should be kept current with changes in names, telephone numbers, etc.

All shutdown devices, alarms, monitors, breathing air systems, etc., should be maintained in accordance with applicable regulations.

All personnel working in H_2S areas shall have received training on the hazards, characteristics, and properties of H_2S, and on procedures and safety equipment applicable for use in H_2S areas.

H2S Safety Equipment and Monitoring Systems

An H2S emergency response package will be maintained at locations requiring H2S monitoring. The package will contain at a minimum the following:

3 – Fixed H2S sensors located as follows:
- 1 – on the rig floor
- 1 – at the Bell Nipple
- 1 – at the Shale Shaker or Flowline

1 – Entrance Warning Sign located at the main entrance to the location, with warning signs and colored flags to determine the current status for entry into the location.

2 – Windsocks that are clearly visible.

1 – Audible warning system located on rig floor

2 – Visual warning systems (Beacon Lights)
- 1 – Located at the rig floor
- 1 – Located in the mud mixing room

Note: All alarms (audible and visual) should be set to alarm at 10 ppm.

2 - Briefing areas clearly marked
- 2 - SCBA's at each briefing area
- 1- SCBA located at the Drilling Reps office

Note:
1. **All SCBA's must be positive pressure type only!!!**
2. **All SCBA's must either be Scott or Drager brand.**
3. **All SCBA's face pieces should be size large, unless otherwise specified by the Drilling Supervisor.**

5 – Emergency Escape Paks located at Top Doghouse.
Note: Ensure provisions are included for any personnel working above rig floor in derrick.

1 – Tri or Quad gas monitor located at the Drilling Reps office. This will be used to determine if the work area if safe to re-enter prior to returning to work following any alarm.

V. EMERGENCY CALL LIST:

The following is a priority list of personnel to contact in an emergency situation:

Supervisory Personnel	Office No.		Cellphone
Drilling Supt. (Unconventional) **Scott Nicholson**	432.688.9065		432.230.8010
Field Superintendents: **Clint Case**.	432.688.6878		940.231.2839
Safety Support: **Matt Oster** **Ryan Vaccarella**	830.583.1245 985.217.7594		601.540.6988 NA
Supt Operations-SEMN/Shale Mike Neuschafer	432.688.6834		713.419.9919
MCBU Safety Coordinator **James Buzan**	432.688.6860		832.630.4320
Manger GCBU/MCBU D & C **Seth Crissman**	832.486.6191		832.513.9308

EMERGENCY CALL LIST: State Officials

Regulatory Agencies

Texas Railroad Commission (District 8) Office: 432.684.5581
Midland, Texas

New Mexico Oil Conservation Commission Office: 575.393.6161
P. O. Box 1980
Hobbs, New Mexico 88240-1980

Bureau of Land Mngt.
Carlsbad Field Office
620 E. Greene St.
Carlsbad, NM 88220

Office: 575.234.5972
Fax: 575.885.9264

EMERGENCY CALL LIST: Local Officials

Refer to the Location Information Sheet
Note: The LIS should include any area residents (i.e. rancher's house, etc)

VI. Public Media Relations

The **Public Information Officer** becomes the ConocoPhillips on-scene contact (once designated by the Phillips On-Scene Incident Commander).

Confers with Houston Office's Human Relations Representative, who is responsible for assisting in the coordination of local public relations duties.

Answer media questions honestly and **only with facts,** do not speculate about the cause, amount of damage, or the potential impact of the incident of the community, company, employees, or environment. (This information will be formally determined in the incident investigation.)

If you are comfortable answering a question or if you are unsure of the answer, use terms such as the following:

- "I do not know. I will try to find out."
- I am not qualified to answer that question, but I will try to find someone who can."
- "It is under investigation."

Note:
Do Not Say "No Comment." (This implies a cover-up.)

Do Not Disclose Names of Injured or Dead! Confer with the Houston Office's Human Relations Representative, who is responsible for providing that information.

VII. Public Notification/Evacuation

Alert and/or Evacuate People within the Exposure Area

1. Public Notification – If the escape of gas could result in a hazard to area residents, the general public, or employees, the person **first** observing the leak should take **immediate** steps to cause notification of any nearby residents. The avoidance of injury or loss of life should be of prime consideration and given top priority in all cases. If the incident is of such magnitude, or at such location as to create a hazardous situation, local authorities will be requested to assist in the evacuation and roadblocks of the designated area until the situation can be returned to normal.

   Note: Bilingual employees may be needed to assist in notification of residents.

2. Evacuation Procedures – Evacuation will proceed upwind from the source of the release of H_2S. Extreme caution should be exercised in order to avoid any depressions or low-lying areas in the terrain. The public area within the radius of exposure should be evacuated in a southwesterly and southeasterly direction so as to avoid the prevailing southern wind direction.

   Roadblocks and the staging area should be established as necessary for current wind conditions.

Note: In all situations, consideration should be given to wind direction and weather conditions. H_2S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

VIII. FORMS & REPORTS

I. Incident Log

II. Preliminary Emergency Information Sheet

III. Emergency Drill Report

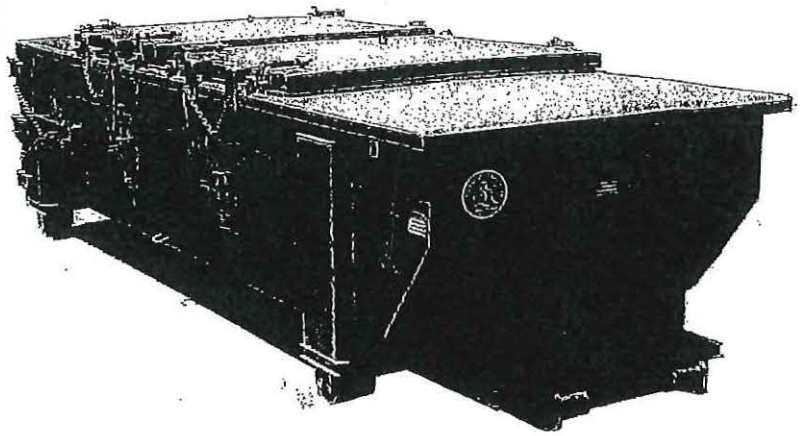
IV. Onshore Hazardous Material Spill/Release Report Form

V. Immediate Report of Occupational Injury or Illness
Report of Accident-Public Contractor
Report of Loss or Damage to Company Property
Report of Automotive Incident

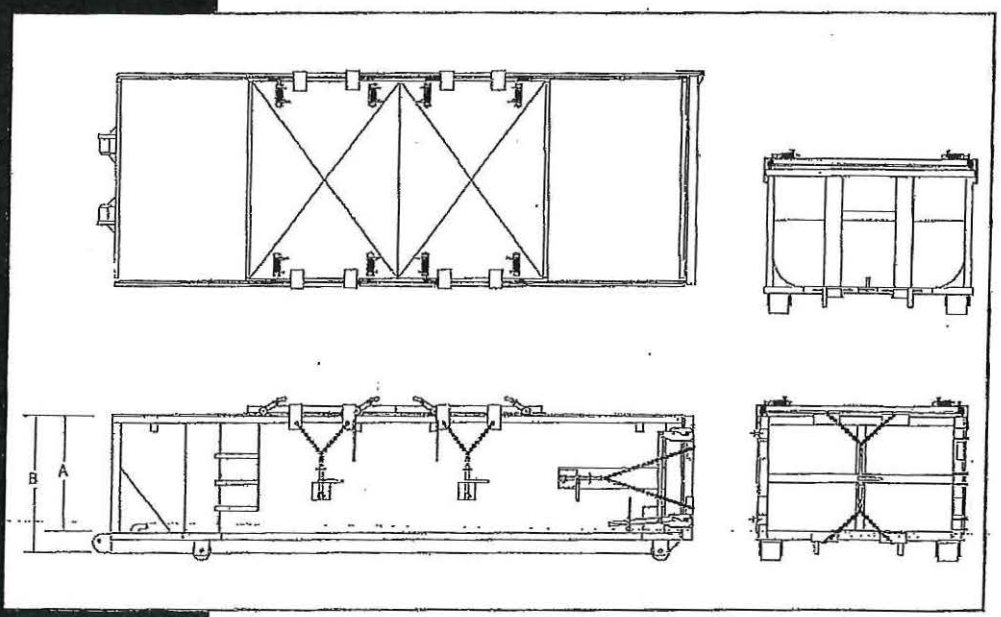
SPECIFICATIONS

FLOOR: 3/16" PL one piece
CROSS MEMBER: 3 x 4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top, inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK UP: Standard cable with 2" x 6" x 1/4" rails, gusset at each crossmember
WHEELS: 10 DIA x 9 long with rease fittings
DOOR LATCH: 3 Independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct to metal, rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" long (21'-8" inside), 99" wide (88" inside), see drawing for height
OPTIONS: Steel grit blast and special paint, Ampliroll, Heil and Dino pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: (2) 68" x 90" metal rolling lids spring loaded, self raising
ROLLERS: 4" V-groove rollers with delrin bearings and grease fittings
OPENING: (2) 60" x 82" openings with 8" divider centered on container
LATCH: (2) independent ratchet binders with chains per lid
GASKETS: Extruded rubber seal with metal retainers

Heavy Duty Split Metal Rolling Lid



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77



BOPE Configuration & Specifications
13-5/8" x 10,000 psi System

Rotating Head (w/ fill up line)
13-5/8" x 10k psi

Annular Preventer
13-5/8" x 5k psi

Pipe Ram
13-5/8" x 10k psi

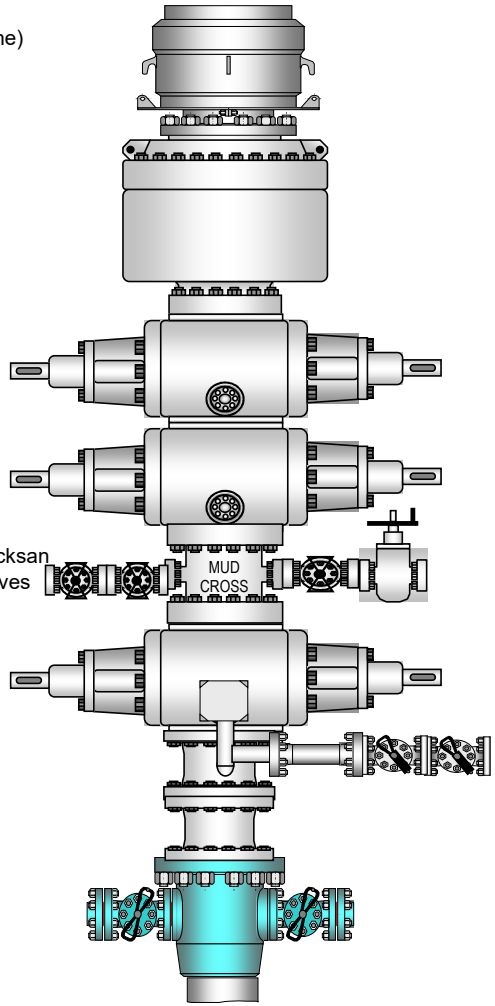
Blind Ram
13-5/8" x 10k psi

Kill Line 2-1/16" x 10k Chicksan
(2) 2-1/16" x 10k Gate Valves
Outer Check Valve

Pipe Ram
13-5/8" x 10k psi

Spacer Spool
13-5/8" x 10k psi

Casing Head
13-5/8" x 10k psi



Choke Line 6" x 3" x 10k psi
4-1/16" x 10k psi Inner Manual Valve
4 - 1/16" x 10k psi Outer Remote HCR

2" x 5k psi Gate Valves
Pressure Testing Lines

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

COMMENTS

Action 28357

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
COG OPERATING LLC	600 W Illinois Ave	Midland, TX79701	229137	28357	FORM 3160-3

Created By	Comment	Comment Date
kpickford	KP GEO Review 5/17/2021	05/17/2021

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CONDITIONS

Action 28357

CONDITIONS OF APPROVAL

Operator:	OGRID:	Action Number:	Action Type:
COG OPERATING LLC 600 W Illinois Ave Midland, TX79701	229137	28357	FORM 3160-3

OCD Reviewer	Condition
kpickford	Notify OCD 24 hours prior to casing & cement
kpickford	Will require a File As Drilled C-102 and a Directional Survey with the C-104
kpickford	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
kpickford	Cement is required to circulate on both surface and intermediate1 strings of casing
kpickford	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