

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**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER 1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other 1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		5. Lease Serial No.  6. If Indian, Allottee or Tribe Name  7. If Unit or CA Agreement, Name and No.  8. Lease Name and Well No.
2. Name of Operator		9. API Well No. <b>30 015 48516</b>
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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification.<br>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.



(Continued on page 2)

\*(Instructions on page 2)

## Additional Operator Remarks

### Location of Well

0. SHL: SWSW / 1050 FSL / 1014 FWL / TWSP: 26S / RANGE: 31E / SECTION: 23 / LAT: 32.023725 / LONG: -103.754126 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSW / 100 FSL / 332 FWL / TWSP: 26S / RANGE: 31E / SECTION: 23 / LAT: 32.021107 / LONG: -103.756313 ( TVD: 11364 feet, MD: 11475 feet )

BHL: NWNW / 37 FNL / 332 FWL / TWSP: 23S / RANGE: 31E / SECTION: 14 / LAT: 32.050049 / LONG: -103.756349 ( TVD: 11806 feet, MD: 22240 feet )

### BLM Point of Contact

Name: CIJI METHOLA

Title: GIS Support - Adjudicator

Phone: (575) 234-5924

Email: cmethola@blm.gov

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: (505) 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

<sup>1</sup> API Number 30 015 48516	<sup>2</sup> Pool Code 98081	<sup>3</sup> Pool Name ZIA HILLS; WOLFCAMP
<sup>4</sup> Property Code 330828	<sup>5</sup> Property Name ZHU 2331 WC	<sup>6</sup> Well Number 1H
<sup>7</sup> OGRID No. 217817	<sup>8</sup> Operator Name ConocoPhillips Company	<sup>9</sup> Elevation 3180.0'

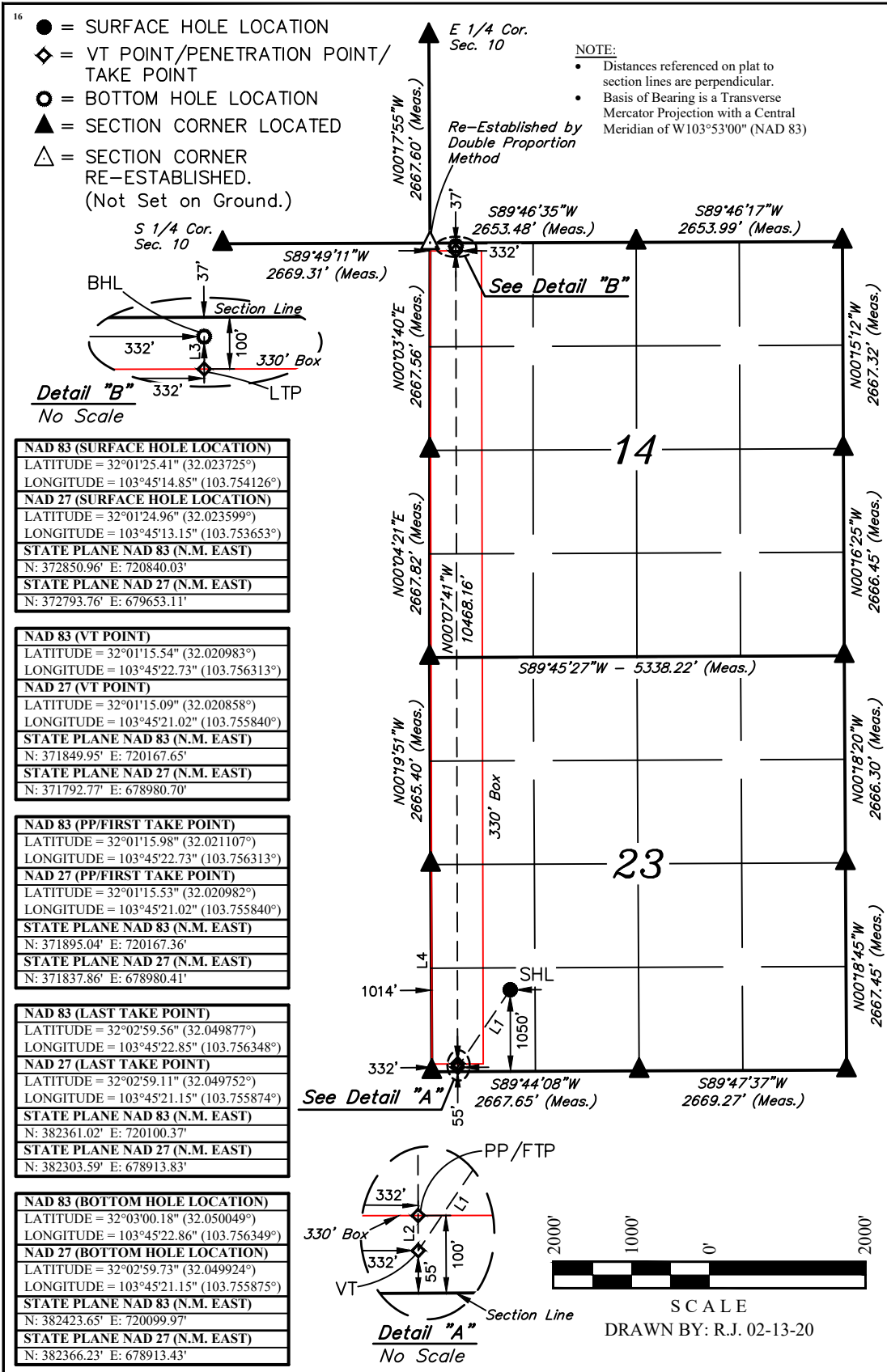
<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	23	26S	31E		1050	SOUTH	1014	WEST	EDDY

<sup>11</sup> 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
D	14	26S	31E		37	NORTH	332	WEST	EDDY
<sup>12</sup> Dedicated Acres 0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.						

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



<sup>17</sup> OPERATOR  
CERTIFICATION

I hereby certify that the information contained  
herein is true and complete to the best of my  
knowledge and belief, and that this  
organization either owns a working interest or  
unleased mineral interest in the land including  
the proposed bottom hole location or has a  
right to drill this well at this location pursuant  
to a contract with an owner of such a mineral  
or working interest, or to a voluntary pooling  
agreement or a compulsory pooling order  
heretofore entered by the division.

Signature: *Jeremy Lee* Date: 3/3/20  
Printed Name: Jeremy Lee  
E-mail Address: Jeremy.L.Lee@cop.com

<sup>18</sup> 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:

PAUL BUCHELE  
NEW MEXICO  
23782  
02-13-20  
PROFESSIONAL SURVEYOR

Certificate Number:

Infill Horizontal Well

District I  
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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

Operator & OGRID No.: ConocoPhillips Company/ 217817

☐ Amended

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, recomple 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 1H, 2H, 3H, & 4H	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

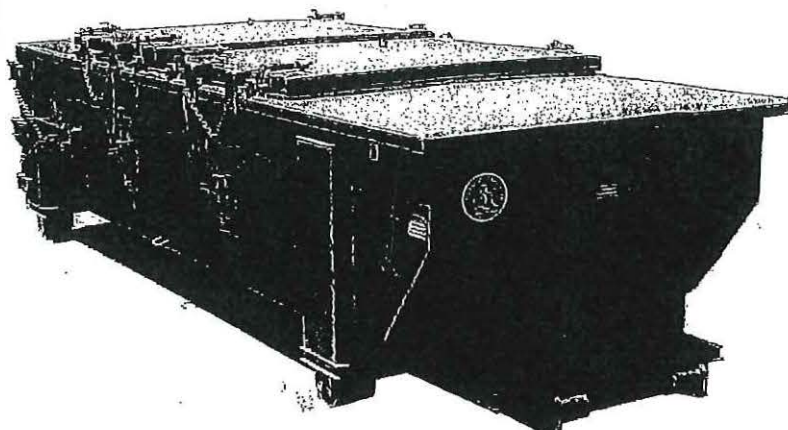


<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: left;"> </div> <div style="text-align: center;"> <b>WELL PLAN SUMMARY</b>  <b>1280 Extended Reach Single Lateral</b> </div> <div style="text-align: right;"> Date: Mar 10, 2020  Version: 1  Prepared by: M. Callahan </div> </div>																																																																																																																			
<b>WELL: ZHU 2331 WC 1H</b> <b>SURFACE LOC:</b> Sec 23 T26S R31E    1050' FSL    1014' FWL <b>BH LOC:</b> Sec 14 T26S R31E    37' FNL    332' FWL <b>ELEVATIONS:</b> GL 3,180.0'    KB +30.5'				<b>COUNTY, STATE:</b> Eddy, Co, NM <b>API No.:</b> <b>TRRC Permit:</b> <b>BLM Permit:</b> <b>WH Coord.:</b> LAT 32° 1' 24.96" N    LON 103° 45' 13.15" W <b>(NAD-27)</b>				<b>AFE: WAF.OND.</b> <b>Drilling Network No.:</b> <b>Invoice Handler ID:</b> VENNECP <b>COST ESTIMATE</b> <b>DRILLING COMPLETION FACILITIES TOTAL</b>																																																																																																											
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<b>CENTRALIZATION:</b> 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																																																																																																																			
<b>CEMENT:</b> <table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Hole</th> <th>MD</th> <th>TVD</th> <th>Spacer</th> <th>Lead</th> <th>Tail</th> <th>COMMENTS</th> </tr> </thead> <tbody> <tr> <td>Surface:</td> <td>17-1/2"x13-3/8"</td> <td>836'</td> <td>836'</td> <td>20 bbl FW</td> <td>530 sx Control Set 'C' + adds 11.5ppg 2.66 ft3/sk</td> <td>660 sx Type 'III' + adds 13ppg 1.34 ft3/sk</td> <td>Cemented to surface w/ 200%XS Add FiberBlock</td> </tr> <tr> <td>Intermediate:</td> <td>12-1/4"x9-5/8"</td> <td>12,420'</td> <td>11,806'</td> <td>40 bbl Invert Spacer + 100 bbl SW</td> <td>1110 sx WBL + adds 11.5ppg 1.77 ft3/sk</td> <td>470 sx Thermal 35 + adds 15ppg 1.63 ft3/sk</td> <td>TOC 500' into previous casing shoe w/ 70%L / 30%T XS calc'd on 12.25" Add FiberBlock</td> </tr> <tr> <td>Production:</td> <td>8-1/2"x5-1/2"</td> <td>22,240'</td> <td>11,806'</td> <td>40 bbl Visweep</td> <td>2568 sx 1:1:0 'Poz:Lafarge G' + 20% Silica Flour + 8% Silica Fume + adds 15.6 ppg 1.19ft3/sk</td> <td></td> <td>Cemented to TOL w/ 10% XS calc'd on 8.5" hole, Displ. = volume to float collar +/- half shoe track</td> </tr> </tbody> </table> <p><i>Reference Cementing Recommendation</i></p>					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"	12,420'	11,806'	40 bbl Invert Spacer + 100 bbl SW	1110 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"	22,240'	11,806'	40 bbl Visweep	2568 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																																																																																
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Comments	MD (ft)	INC (deg)	AZI (deg)	TVD (ft)	NS (ft)	EW (ft)	DLS (°/100')	VS (ft)	SEC-T-R	Section Line Distance																																																																																																									
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OUR WORK IS NEVER SO URGENT OR IMPORTANT THAT WE CANNOT TAKE THE TIME TO DO IT SAFELY!																																																																																																																			

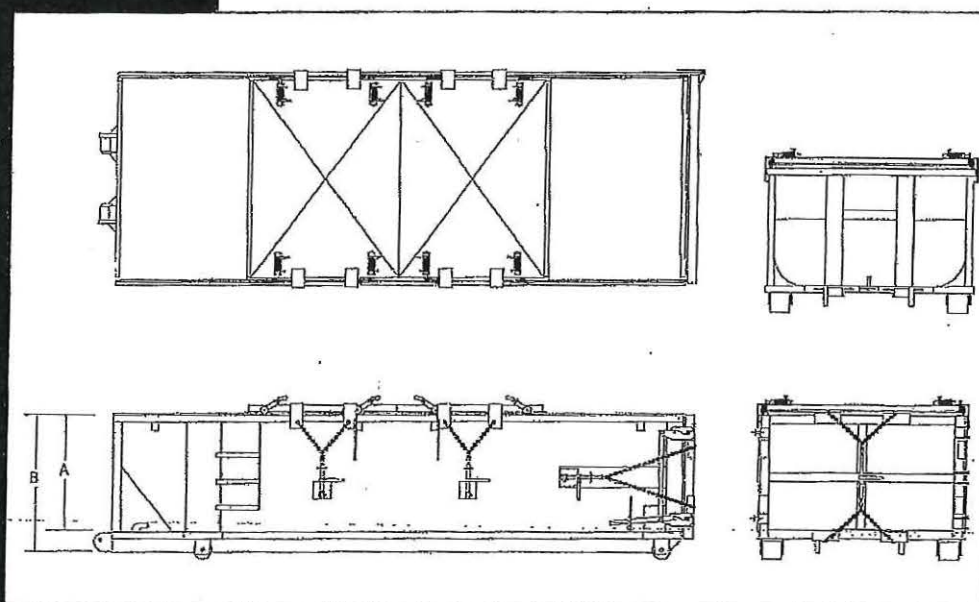
# SPECIFICATIONS

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



# **ConocoPhillips MCBU - Permian-Panhandle Gold Data**

Planning - NM East State Zone - 3001

ZHU 2331 WC 1H\_WC1\_LO-W0509

ZHU 2331 WC 1H

ZHU 2331 WC 1H

Plan: ZHU 2331 WC 1H

## **Standard Planning Report**

10 February, 2020

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Site:</b>	ZHU 2331 WC 1H_WC1_LO-W0509	<b>North Reference:</b>	Grid
<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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

<b>Site</b>	ZHU 2331 WC 1H_WC1_LO-W0509		
<b>Site Position:</b>		<b>Northing:</b>	372,793.762 usft
<b>From:</b>	Map	<b>Easting:</b>	679,653.109 usft
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16"
		<b>Latitude:</b>	32° 1' 24.958 N
		<b>Longitude:</b>	103° 45' 13.151 W
		<b>Grid Convergence:</b>	0.31 °

<b>Well</b>	ZHU 2331 WC 1H		
<b>Well Position</b>	<b>+N/-S</b>	0.00 ft	<b>Northing:</b>
	<b>+E/-W</b>	0.00 ft	<b>Easting:</b>
<b>Position Uncertainty</b>	2.00 ft	<b>Wellhead Elevation:</b>	ft
		<b>Latitude:</b>	32° 1' 24.958 N
		<b>Longitude:</b>	103° 45' 13.151 W
		<b>Ground Level:</b>	3,205.70 ft

<b>Wellbore</b>	ZHU 2331 WC 1H		
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>
			(°)
	BGGM2018	2/6/2020	6.83
			Dip Angle (°)
			59.73
			Field Strength (nT)
			47,556.11691876

<b>Design</b>	ZHU 2331 WC 1H		
<b>Audit Notes:</b>			
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>
			0.00
<b>Vertical Section:</b>	<b>Depth From (TVD)</b>	<b>+N/-S</b>	<b>+E/-W</b>
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction (°)
			355.58

<b>Plan Sections</b>										
<b>Measured Depth</b>	<b>Inclination</b>	<b>Azimuth</b>	<b>Vertical Depth</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Dogleg Rate</b>	<b>Build Rate</b>	<b>Turn Rate</b>	<b>TFO</b>	<b>Target</b>
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)	(°)	
0.00	0.00	0.00	0.00	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	
3,258.04	9.87	212.29	3,254.79	-47.80	-30.21	1.50	1.50	0.00	212.29	
9,936.82	9.87	212.29	9,834.71	-1,015.64	-641.84	0.00	0.00	0.00	0.00	
10,594.87	0.00	0.00	10,489.50	-1,063.43	-672.05	1.50	-1.50	0.00	180.00	
11,194.87	0.00	0.00	11,089.50	-1,063.43	-672.05	0.00	0.00	0.00	0.00	
12,319.87	90.00	359.64	11,805.70	-347.25	-676.60	8.00	8.00	0.00	0.00	ZHU 2331 WC 1H FT
22,240.32	90.00	359.64	11,805.70	9,573.00	-739.72	0.00	0.00	0.00	0.00	ZHU 2331 WC 1H BH

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
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<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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	1.50	212.29	2,699.99	-1.11	-0.70	-1.05	1.50	1.50	0.00
2,800.00	3.00	212.29	2,799.91	-4.43	-2.80	-4.20	1.50	1.50	0.00
2,900.00	4.50	212.29	2,899.69	-9.95	-6.29	-9.44	1.50	1.50	0.00
3,000.00	6.00	212.29	2,999.27	-17.69	-11.18	-16.77	1.50	1.50	0.00
3,100.00	7.50	212.29	3,098.57	-27.62	-17.46	-26.20	1.50	1.50	0.00
3,200.00	9.00	212.29	3,197.54	-39.75	-25.12	-37.70	1.50	1.50	0.00
3,258.04	9.87	212.29	3,254.79	-47.80	-30.21	-45.33	1.50	1.50	0.00
3,300.00	9.87	212.29	3,296.13	-53.88	-34.05	-51.09	0.00	0.00	0.00
3,400.00	9.87	212.29	3,394.65	-68.37	-43.21	-64.84	0.00	0.00	0.00
3,500.00	9.87	212.29	3,493.17	-82.86	-52.36	-78.58	0.00	0.00	0.00
3,600.00	9.87	212.29	3,591.69	-97.35	-61.52	-92.32	0.00	0.00	0.00
3,700.00	9.87	212.29	3,690.21	-111.84	-70.68	-106.06	0.00	0.00	0.00
3,800.00	9.87	212.29	3,788.73	-126.33	-79.84	-119.81	0.00	0.00	0.00
3,900.00	9.87	212.29	3,887.25	-140.83	-89.00	-133.55	0.00	0.00	0.00
4,000.00	9.87	212.29	3,985.77	-155.32	-98.15	-147.29	0.00	0.00	0.00
4,100.00	9.87	212.29	4,084.29	-169.81	-107.31	-161.04	0.00	0.00	0.00
4,200.00	9.87	212.29	4,182.81	-184.30	-116.47	-174.78	0.00	0.00	0.00
4,300.00	9.87	212.29	4,281.33	-198.79	-125.63	-188.52	0.00	0.00	0.00
4,400.00	9.87	212.29	4,379.85	-213.28	-134.79	-202.26	0.00	0.00	0.00
4,500.00	9.87	212.29	4,478.37	-227.77	-143.94	-216.01	0.00	0.00	0.00
4,600.00	9.87	212.29	4,576.89	-242.26	-153.10	-229.75	0.00	0.00	0.00
4,700.00	9.87	212.29	4,675.40	-256.76	-162.26	-243.49	0.00	0.00	0.00
4,800.00	9.87	212.29	4,773.92	-271.25	-171.42	-257.23	0.00	0.00	0.00
4,900.00	9.87	212.29	4,872.44	-285.74	-180.57	-270.98	0.00	0.00	0.00
5,000.00	9.87	212.29	4,970.96	-300.23	-189.73	-284.72	0.00	0.00	0.00
5,100.00	9.87	212.29	5,069.48	-314.72	-198.89	-298.46	0.00	0.00	0.00
5,200.00	9.87	212.29	5,168.00	-329.21	-208.05	-312.20	0.00	0.00	0.00



## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Site:</b>	ZHU 2331 WC 1H_WC1_LO-W0509	<b>North Reference:</b>	Grid
<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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	9.87	212.29	5,266.52	-343.70	-217.21	-325.95	0.00	0.00	0.00
5,400.00	9.87	212.29	5,365.04	-358.19	-226.36	-339.69	0.00	0.00	0.00
5,500.00	9.87	212.29	5,463.56	-372.69	-235.52	-353.43	0.00	0.00	0.00
5,600.00	9.87	212.29	5,562.08	-387.18	-244.68	-367.17	0.00	0.00	0.00
5,700.00	9.87	212.29	5,660.60	-401.67	-253.84	-380.92	0.00	0.00	0.00
5,800.00	9.87	212.29	5,759.12	-416.16	-263.00	-394.66	0.00	0.00	0.00
5,900.00	9.87	212.29	5,857.64	-430.65	-272.15	-408.40	0.00	0.00	0.00
6,000.00	9.87	212.29	5,956.16	-445.14	-281.31	-422.15	0.00	0.00	0.00
6,100.00	9.87	212.29	6,054.68	-459.63	-290.47	-435.89	0.00	0.00	0.00
6,200.00	9.87	212.29	6,153.20	-474.12	-299.63	-449.63	0.00	0.00	0.00
6,300.00	9.87	212.29	6,251.72	-488.62	-308.79	-463.37	0.00	0.00	0.00
6,400.00	9.87	212.29	6,350.24	-503.11	-317.94	-477.12	0.00	0.00	0.00
6,500.00	9.87	212.29	6,448.76	-517.60	-327.10	-490.86	0.00	0.00	0.00
6,600.00	9.87	212.29	6,547.28	-532.09	-336.26	-504.60	0.00	0.00	0.00
6,700.00	9.87	212.29	6,645.80	-546.58	-345.42	-518.34	0.00	0.00	0.00
6,800.00	9.87	212.29	6,744.32	-561.07	-354.57	-532.09	0.00	0.00	0.00
6,900.00	9.87	212.29	6,842.84	-575.56	-363.73	-545.83	0.00	0.00	0.00
7,000.00	9.87	212.29	6,941.36	-590.05	-372.89	-559.57	0.00	0.00	0.00
7,100.00	9.87	212.29	7,039.88	-604.55	-382.05	-573.31	0.00	0.00	0.00
7,200.00	9.87	212.29	7,138.40	-619.04	-391.21	-587.06	0.00	0.00	0.00
7,300.00	9.87	212.29	7,236.92	-633.53	-400.36	-600.80	0.00	0.00	0.00
7,400.00	9.87	212.29	7,335.44	-648.02	-409.52	-614.54	0.00	0.00	0.00
7,500.00	9.87	212.29	7,433.96	-662.51	-418.68	-628.29	0.00	0.00	0.00
7,600.00	9.87	212.29	7,532.48	-677.00	-427.84	-642.03	0.00	0.00	0.00
7,700.00	9.87	212.29	7,631.00	-691.49	-437.00	-655.77	0.00	0.00	0.00
7,800.00	9.87	212.29	7,729.52	-705.98	-446.15	-669.51	0.00	0.00	0.00
7,900.00	9.87	212.29	7,828.04	-720.48	-455.31	-683.26	0.00	0.00	0.00
8,000.00	9.87	212.29	7,926.56	-734.97	-464.47	-697.00	0.00	0.00	0.00
8,100.00	9.87	212.29	8,025.08	-749.46	-473.63	-710.74	0.00	0.00	0.00
8,200.00	9.87	212.29	8,123.60	-763.95	-482.79	-724.48	0.00	0.00	0.00
8,300.00	9.87	212.29	8,222.12	-778.44	-491.94	-738.23	0.00	0.00	0.00
8,400.00	9.87	212.29	8,320.63	-792.93	-501.10	-751.97	0.00	0.00	0.00
8,500.00	9.87	212.29	8,419.15	-807.42	-510.26	-765.71	0.00	0.00	0.00
8,600.00	9.87	212.29	8,517.67	-821.91	-519.42	-779.45	0.00	0.00	0.00
8,700.00	9.87	212.29	8,616.19	-836.41	-528.57	-793.20	0.00	0.00	0.00
8,800.00	9.87	212.29	8,714.71	-850.90	-537.73	-806.94	0.00	0.00	0.00
8,900.00	9.87	212.29	8,813.23	-865.39	-546.89	-820.68	0.00	0.00	0.00
9,000.00	9.87	212.29	8,911.75	-879.88	-556.05	-834.42	0.00	0.00	0.00
9,100.00	9.87	212.29	9,010.27	-894.37	-565.21	-848.17	0.00	0.00	0.00
9,200.00	9.87	212.29	9,108.79	-908.86	-574.36	-861.91	0.00	0.00	0.00
9,300.00	9.87	212.29	9,207.31	-923.35	-583.52	-875.65	0.00	0.00	0.00
9,400.00	9.87	212.29	9,305.83	-937.84	-592.68	-889.40	0.00	0.00	0.00
9,500.00	9.87	212.29	9,404.35	-952.34	-601.84	-903.14	0.00	0.00	0.00
9,600.00	9.87	212.29	9,502.87	-966.83	-611.00	-916.88	0.00	0.00	0.00
9,700.00	9.87	212.29	9,601.39	-981.32	-620.15	-930.62	0.00	0.00	0.00
9,800.00	9.87	212.29	9,699.91	-995.81	-629.31	-944.37	0.00	0.00	0.00
9,900.00	9.87	212.29	9,798.43	-1,010.30	-638.47	-958.11	0.00	0.00	0.00
9,936.82	9.87	212.29	9,834.71	-1,015.64	-641.84	-963.17	0.00	0.00	0.00
10,000.00	8.92	212.29	9,897.04	-1,024.36	-647.35	-971.44	1.50	-1.50	0.00
10,100.00	7.42	212.29	9,996.02	-1,036.37	-654.95	-982.83	1.50	-1.50	0.00
10,200.00	5.92	212.29	10,095.34	-1,046.20	-661.15	-992.15	1.50	-1.50	0.00
10,300.00	4.42	212.29	10,194.93	-1,053.82	-665.97	-999.38	1.50	-1.50	0.00
10,400.00	2.92	212.29	10,294.72	-1,059.23	-669.39	-1,004.51	1.50	-1.50	0.00



## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Site:</b>	ZHU 2331 WC 1H_WC1_LO-W0509	<b>North Reference:</b>	Grid
<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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	1.42	212.29	10,394.65	-1,062.44	-671.42	-1,007.55	1.50	-1.50	0.00
10,594.87	0.00	0.00	10,489.50	-1,063.43	-672.05	-1,008.50	1.50	-1.50	0.00
10,600.00	0.00	0.00	10,494.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
10,700.00	0.00	0.00	10,594.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
10,800.00	0.00	0.00	10,694.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
10,900.00	0.00	0.00	10,794.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
11,000.00	0.00	0.00	10,894.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
11,100.00	0.00	0.00	10,994.64	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
11,194.87	0.00	0.00	11,089.50	-1,063.43	-672.05	-1,008.50	0.00	0.00	0.00
11,200.00	0.41	359.64	11,094.64	-1,063.42	-672.05	-1,008.48	8.00	8.00	0.00
11,250.00	4.41	359.64	11,144.58	-1,061.31	-672.06	-1,006.38	8.00	8.00	0.00
11,300.00	8.41	359.64	11,194.26	-1,055.73	-672.10	-1,000.81	8.00	8.00	0.00
11,350.00	12.41	359.64	11,243.43	-1,046.70	-672.15	-991.80	8.00	8.00	0.00
11,400.00	16.41	359.64	11,291.84	-1,034.26	-672.23	-979.39	8.00	8.00	0.00
11,450.00	20.41	359.64	11,339.27	-1,018.47	-672.33	-963.65	8.00	8.00	0.00
11,500.00	24.41	359.64	11,385.49	-999.41	-672.46	-944.63	8.00	8.00	0.00
11,550.00	28.41	359.64	11,430.26	-977.18	-672.60	-922.45	8.00	8.00	0.00
11,600.00	32.41	359.64	11,473.37	-951.87	-672.76	-897.21	8.00	8.00	0.00
11,650.00	36.41	359.64	11,514.61	-923.62	-672.94	-869.03	8.00	8.00	0.00
11,700.00	40.41	359.64	11,553.79	-892.57	-673.14	-838.05	8.00	8.00	0.00
11,750.00	44.41	359.64	11,590.69	-858.85	-673.35	-804.42	8.00	8.00	0.00
11,800.00	48.41	359.64	11,625.16	-822.64	-673.58	-768.31	8.00	8.00	0.00
11,850.00	52.41	359.64	11,657.02	-784.12	-673.83	-729.88	8.00	8.00	0.00
11,900.00	56.41	359.64	11,686.11	-743.47	-674.08	-689.33	8.00	8.00	0.00
11,950.00	60.41	359.64	11,712.30	-700.89	-674.35	-646.85	8.00	8.00	0.00
12,000.00	64.41	359.64	11,735.45	-656.58	-674.64	-602.66	8.00	8.00	0.00
12,050.00	68.41	359.64	11,755.45	-610.77	-674.93	-556.96	8.00	8.00	0.00
12,100.00	72.41	359.64	11,772.22	-563.68	-675.23	-509.98	8.00	8.00	0.00
12,150.00	76.41	359.64	11,785.65	-515.53	-675.53	-461.95	8.00	8.00	0.00
12,200.00	80.41	359.64	11,795.69	-466.56	-675.85	-413.10	8.00	8.00	0.00
12,250.00	84.41	359.64	11,802.29	-417.01	-676.16	-363.67	8.00	8.00	0.00
12,300.00	88.41	359.64	11,805.42	-367.12	-676.48	-313.91	8.00	8.00	0.00
12,319.87	90.00	359.64	11,805.70	-347.25	-676.60	-294.09	8.00	8.00	0.00
12,400.00	90.00	359.64	11,805.70	-267.12	-677.11	-214.16	0.00	0.00	0.00
12,500.00	90.00	359.64	11,805.70	-167.12	-677.75	-114.41	0.00	0.00	0.00
12,600.00	90.00	359.64	11,805.70	-67.12	-678.39	-14.66	0.00	0.00	0.00
12,700.00	90.00	359.64	11,805.70	32.87	-679.02	85.09	0.00	0.00	0.00
12,800.00	90.00	359.64	11,805.70	132.87	-679.66	184.84	0.00	0.00	0.00
12,900.00	90.00	359.64	11,805.70	232.87	-680.30	284.59	0.00	0.00	0.00
13,000.00	90.00	359.64	11,805.70	332.87	-680.93	384.34	0.00	0.00	0.00
13,100.00	90.00	359.64	11,805.70	432.87	-681.57	484.09	0.00	0.00	0.00
13,200.00	90.00	359.64	11,805.70	532.86	-682.20	583.84	0.00	0.00	0.00
13,300.00	90.00	359.64	11,805.70	632.86	-682.84	683.59	0.00	0.00	0.00
13,400.00	90.00	359.64	11,805.70	732.86	-683.48	783.34	0.00	0.00	0.00
13,500.00	90.00	359.64	11,805.70	832.86	-684.11	883.09	0.00	0.00	0.00
13,600.00	90.00	359.64	11,805.70	932.86	-684.75	982.84	0.00	0.00	0.00
13,700.00	90.00	359.64	11,805.70	1,032.85	-685.39	1,082.59	0.00	0.00	0.00
13,800.00	90.00	359.64	11,805.70	1,132.85	-686.02	1,182.34	0.00	0.00	0.00
13,900.00	90.00	359.64	11,805.70	1,232.85	-686.66	1,282.09	0.00	0.00	0.00
14,000.00	90.00	359.64	11,805.70	1,332.85	-687.29	1,381.84	0.00	0.00	0.00
14,100.00	90.00	359.64	11,805.70	1,432.85	-687.93	1,481.59	0.00	0.00	0.00
14,200.00	90.00	359.64	11,805.70	1,532.84	-688.57	1,581.34	0.00	0.00	0.00
14,300.00	90.00	359.64	11,805.70	1,632.84	-689.20	1,681.09	0.00	0.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Site:</b>	ZHU 2331 WC 1H_WC1_LO-W0509	<b>North Reference:</b>	Grid
<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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	359.64	11,805.70	1,732.84	-689.84	1,780.84	0.00	0.00	0.00
14,500.00	90.00	359.64	11,805.70	1,832.84	-690.48	1,880.59	0.00	0.00	0.00
14,600.00	90.00	359.64	11,805.70	1,932.84	-691.11	1,980.34	0.00	0.00	0.00
14,700.00	90.00	359.64	11,805.70	2,032.83	-691.75	2,080.09	0.00	0.00	0.00
14,800.00	90.00	359.64	11,805.70	2,132.83	-692.38	2,179.83	0.00	0.00	0.00
14,900.00	90.00	359.64	11,805.70	2,232.83	-693.02	2,279.58	0.00	0.00	0.00
15,000.00	90.00	359.64	11,805.70	2,332.83	-693.66	2,379.33	0.00	0.00	0.00
15,100.00	90.00	359.64	11,805.70	2,432.83	-694.29	2,479.08	0.00	0.00	0.00
15,200.00	90.00	359.64	11,805.70	2,532.82	-694.93	2,578.83	0.00	0.00	0.00
15,300.00	90.00	359.64	11,805.70	2,632.82	-695.57	2,678.58	0.00	0.00	0.00
15,400.00	90.00	359.64	11,805.70	2,732.82	-696.20	2,778.33	0.00	0.00	0.00
15,500.00	90.00	359.64	11,805.70	2,832.82	-696.84	2,878.08	0.00	0.00	0.00
15,600.00	90.00	359.64	11,805.70	2,932.82	-697.47	2,977.83	0.00	0.00	0.00
15,700.00	90.00	359.64	11,805.70	3,032.81	-698.11	3,077.58	0.00	0.00	0.00
15,800.00	90.00	359.64	11,805.70	3,132.81	-698.75	3,177.33	0.00	0.00	0.00
15,900.00	90.00	359.64	11,805.70	3,232.81	-699.38	3,277.08	0.00	0.00	0.00
16,000.00	90.00	359.64	11,805.70	3,332.81	-700.02	3,376.83	0.00	0.00	0.00
16,100.00	90.00	359.64	11,805.70	3,432.80	-700.66	3,476.58	0.00	0.00	0.00
16,200.00	90.00	359.64	11,805.70	3,532.80	-701.29	3,576.33	0.00	0.00	0.00
16,300.00	90.00	359.64	11,805.70	3,632.80	-701.93	3,676.08	0.00	0.00	0.00
16,400.00	90.00	359.64	11,805.70	3,732.80	-702.56	3,775.83	0.00	0.00	0.00
16,500.00	90.00	359.64	11,805.70	3,832.80	-703.20	3,875.58	0.00	0.00	0.00
16,600.00	90.00	359.64	11,805.70	3,932.79	-703.84	3,975.33	0.00	0.00	0.00
16,700.00	90.00	359.64	11,805.70	4,032.79	-704.47	4,075.08	0.00	0.00	0.00
16,800.00	90.00	359.64	11,805.70	4,132.79	-705.11	4,174.83	0.00	0.00	0.00
16,900.00	90.00	359.64	11,805.70	4,232.79	-705.75	4,274.58	0.00	0.00	0.00
17,000.00	90.00	359.64	11,805.70	4,332.79	-706.38	4,374.33	0.00	0.00	0.00
17,100.00	90.00	359.64	11,805.70	4,432.78	-707.02	4,474.08	0.00	0.00	0.00
17,200.00	90.00	359.64	11,805.70	4,532.78	-707.65	4,573.83	0.00	0.00	0.00
17,300.00	90.00	359.64	11,805.70	4,632.78	-708.29	4,673.58	0.00	0.00	0.00
17,400.00	90.00	359.64	11,805.70	4,732.78	-708.93	4,773.33	0.00	0.00	0.00
17,500.00	90.00	359.64	11,805.70	4,832.78	-709.56	4,873.08	0.00	0.00	0.00
17,600.00	90.00	359.64	11,805.70	4,932.77	-710.20	4,972.83	0.00	0.00	0.00
17,700.00	90.00	359.64	11,805.70	5,032.77	-710.84	5,072.58	0.00	0.00	0.00
17,800.00	90.00	359.64	11,805.70	5,132.77	-711.47	5,172.33	0.00	0.00	0.00
17,900.00	90.00	359.64	11,805.70	5,232.77	-712.11	5,272.08	0.00	0.00	0.00
18,000.00	90.00	359.64	11,805.70	5,332.77	-712.74	5,371.83	0.00	0.00	0.00
18,100.00	90.00	359.64	11,805.70	5,432.76	-713.38	5,471.58	0.00	0.00	0.00
18,200.00	90.00	359.64	11,805.70	5,532.76	-714.02	5,571.33	0.00	0.00	0.00
18,300.00	90.00	359.64	11,805.70	5,632.76	-714.65	5,671.08	0.00	0.00	0.00
18,400.00	90.00	359.64	11,805.70	5,732.76	-715.29	5,770.83	0.00	0.00	0.00
18,500.00	90.00	359.64	11,805.70	5,832.76	-715.93	5,870.58	0.00	0.00	0.00
18,600.00	90.00	359.64	11,805.70	5,932.75	-716.56	5,970.33	0.00	0.00	0.00
18,700.00	90.00	359.64	11,805.70	6,032.75	-717.20	6,070.08	0.00	0.00	0.00
18,800.00	90.00	359.64	11,805.70	6,132.75	-717.83	6,169.83	0.00	0.00	0.00
18,900.00	90.00	359.64	11,805.70	6,232.75	-718.47	6,269.58	0.00	0.00	0.00
19,000.00	90.00	359.64	11,805.70	6,332.75	-719.11	6,369.33	0.00	0.00	0.00
19,100.00	90.00	359.64	11,805.70	6,432.74	-719.74	6,469.08	0.00	0.00	0.00
19,200.00	90.00	359.64	11,805.70	6,532.74	-720.38	6,568.83	0.00	0.00	0.00
19,300.00	90.00	359.64	11,805.70	6,632.74	-721.02	6,668.58	0.00	0.00	0.00
19,400.00	90.00	359.64	11,805.70	6,732.74	-721.65	6,768.33	0.00	0.00	0.00
19,500.00	90.00	359.64	11,805.70	6,832.74	-722.29	6,868.07	0.00	0.00	0.00
19,600.00	90.00	359.64	11,805.70	6,932.73	-722.92	6,967.82	0.00	0.00	0.00
19,700.00	90.00	359.64	11,805.70	7,032.73	-723.56	7,067.57	0.00	0.00	0.00

## ConocoPhillips

## Planning Report

<b>Database:</b>	EDT 14 Central Planning	<b>Local Co-ordinate Reference:</b>	Well ZHU 2331 WC 1H
<b>Company:</b>	ConocoPhillips MCBU - Permian-Panhandle Gold Data	<b>TVD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Project:</b>	Planning - NM East State Zone - 3001	<b>MD Reference:</b>	RKB @ 3235.70ft (RKB)
<b>Site:</b>	ZHU 2331 WC 1H_WC1_LO-W0509	<b>North Reference:</b>	Grid
<b>Well:</b>	ZHU 2331 WC 1H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	ZHU 2331 WC 1H		
<b>Design:</b>	ZHU 2331 WC 1H		

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	359.64	11,805.70	7,132.73	-724.20	7,167.32	0.00	0.00	0.00
19,900.00	90.00	359.64	11,805.70	7,232.73	-724.83	7,267.07	0.00	0.00	0.00
20,000.00	90.00	359.64	11,805.70	7,332.73	-725.47	7,366.82	0.00	0.00	0.00
20,100.00	90.00	359.64	11,805.70	7,432.72	-726.11	7,466.57	0.00	0.00	0.00
20,200.00	90.00	359.64	11,805.70	7,532.72	-726.74	7,566.32	0.00	0.00	0.00
20,300.00	90.00	359.64	11,805.70	7,632.72	-727.38	7,666.07	0.00	0.00	0.00
20,400.00	90.00	359.64	11,805.70	7,732.72	-728.01	7,765.82	0.00	0.00	0.00
20,500.00	90.00	359.64	11,805.70	7,832.72	-728.65	7,865.57	0.00	0.00	0.00
20,600.00	90.00	359.64	11,805.70	7,932.71	-729.29	7,965.32	0.00	0.00	0.00
20,700.00	90.00	359.64	11,805.70	8,032.71	-729.92	8,065.07	0.00	0.00	0.00
20,800.00	90.00	359.64	11,805.70	8,132.71	-730.56	8,164.82	0.00	0.00	0.00
20,900.00	90.00	359.64	11,805.70	8,232.71	-731.20	8,264.57	0.00	0.00	0.00
21,000.00	90.00	359.64	11,805.70	8,332.71	-731.83	8,364.32	0.00	0.00	0.00
21,100.00	90.00	359.64	11,805.70	8,432.70	-732.47	8,464.07	0.00	0.00	0.00
21,200.00	90.00	359.64	11,805.70	8,532.70	-733.10	8,563.82	0.00	0.00	0.00
21,300.00	90.00	359.64	11,805.70	8,632.70	-733.74	8,663.57	0.00	0.00	0.00
21,400.00	90.00	359.64	11,805.70	8,732.70	-734.38	8,763.32	0.00	0.00	0.00
21,500.00	90.00	359.64	11,805.70	8,832.70	-735.01	8,863.07	0.00	0.00	0.00
21,600.00	90.00	359.64	11,805.70	8,932.69	-735.65	8,962.82	0.00	0.00	0.00
21,700.00	90.00	359.64	11,805.70	9,032.69	-736.29	9,062.57	0.00	0.00	0.00
21,800.00	90.00	359.64	11,805.70	9,132.69	-736.92	9,162.32	0.00	0.00	0.00
21,900.00	90.00	359.64	11,805.70	9,232.69	-737.56	9,262.07	0.00	0.00	0.00
22,000.00	90.00	359.64	11,805.70	9,332.69	-738.19	9,361.82	0.00	0.00	0.00
22,100.00	90.00	359.64	11,805.70	9,432.68	-738.83	9,461.57	0.00	0.00	0.00
22,200.00	90.00	359.64	11,805.70	9,532.68	-739.47	9,561.32	0.00	0.00	0.00
22,240.32	90.00	359.64	11,805.70	9,573.00	-739.72	9,601.54	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 1H BHL - plan hits target center - Point	0.00	0.00	11,805.70	9,573.00	-739.72	382,366.226	678,913.427	32° 2' 59.728 N	103° 45' 21.148 W
ZHU 2331 WC 1H FTP - plan hits target center - Point	0.00	0.00	11,805.70	-347.25	-676.60	372,446.530	678,976.542	32° 1' 21.558 N	103° 45' 21.031 W

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
12,319.87	11,805.70	9 5/8"	9-5/8	12-1/4	
22,240.32	11,805.70	7" x 8 3/4"	7	8-3/4	
2,200.00	2,200.00	16"	16	17-1/2	

## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

<b>OPERATOR'S NAME:</b>	<b>CONOCOPHILLIPS COMPANY</b>
<b>LEASE NO.:</b>	<b>NMLC0064756</b>
<b>WELL NAME &amp; NO.:</b>	<b>ZHU 2331 WC 1H</b>
<b>SURFACE HOLE FOOTAGE:</b>	<b>1050'S &amp; 1014'/W</b>
<b>BOTTOM HOLE FOOTAGE:</b>	<b>37'/N &amp; 332'/W</b>
<b>LOCATION:</b>	<b>Section 23, T.26 S., R.31 E., NMP</b>
<b>COUNTY:</b>	<b>Eddy County, New Mexico</b>

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input type="radio"/> Low	<input checked="" type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input type="checkbox"/> COM	<input type="checkbox"/> 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.
- 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 -5%, 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.

### 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.



## 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 2<sup>nd</sup> 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.

## A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

**B. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 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 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.

**OTA12292020**



**H<sub>2</sub>S Contingency Plan**  
November 2016

H<sub>2</sub>S Contingency Plan Holders:

Attached is an H<sub>2</sub>S 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**

### **Section**

#### **I. Purpose**

#### **II. Scope**

#### **III. Procedures**

#### **IV. Emergency Equipment and Maintenance**

Emergency Equipment Suppliers

General Information

H2S Safety Equipment and Monitoring Systems

#### **V. Emergency Call List**

#### **VI. Public/Media Relations**

#### **VII. Public Notification/Evacuation**

#### **VIII. Forms/Reports**



# **HYDROGEN SULFIDE (H<sub>2</sub>S) 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<sub>2</sub>S 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<sub>2</sub>S release. Release of H<sub>2</sub>S 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 H<sub>2</sub>S 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<sub>2</sub>S 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<sub>2</sub>S radius of exposure (ROE). All manned barricades must be equipped with an H<sub>2</sub>S 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<sub>2</sub>S. 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<sub>2</sub>S 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 H<sub>2</sub>S, 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 H<sub>2</sub>S may be encountered and the potential hazards that may exist.
4. Authorize the evacuation of local residents if H<sub>2</sub>S 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.**

H <sub>2</sub> S monitors	432.580.3770
Breathing air includes cascade systems	
First aid and medical supplies	
Safety equipment	
H <sub>2</sub> S Specialist	

###### **Total Safety US Odessa, Tx/ Hobbs, NM**

H <sub>2</sub> S monitors	432.561.5049 Odessa
Breathing air includes cascade systems	575.392.2973 Hobbs
First aid and medical supplies	
Safety equipment	

###### **DXP/ Indian Fire & Safety – Hobbs, NM**

H <sub>2</sub> S monitors	575.393.3093
Breathing air including cascade systems trailer mounted	
30 minute air packs	
Safety Equipment	

###### **TC Safety – Odessa, Tx.**

H <sub>2</sub> S monitors	432.413.8240
Cascade systems trailer mounted	
30 minute air packs	
Safety Equipment	
H <sub>2</sub> S Specialist	

###### **Secorp Industries – Odessa, Tx.**

H <sub>2</sub> S Monitor Systems	432.614.2565
Cascade Systems	
H <sub>2</sub> S Specialist	
H <sub>2</sub> S, CPR, First Aid Training	

## **Emergency Equipment and Maintenance (continued)**

### **General Information**

Materials used for repair should be suitable for use where H<sub>2</sub>S 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<sub>2</sub>S areas shall have received training on the hazards, characteristics, and properties of H<sub>2</sub>S, and on procedures and safety equipment applicable for use in H<sub>2</sub>S 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 is 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:

<b>Supervisory Personnel</b>	<b>Office No.</b>	<b>Cellphone</b>
Drilling Supt. (Unconventional) <b>Scott Nicholson</b>	432.688.9065	432.230.8010
Field Superintendents: <b>Clint Case.</b>	432.688.6878	940.231.2839
Safety Support: <b>Matt Oster</b> <b>Ryan Vaccarella</b>	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 <b>James Buzan</b>	432.688.6860	832.630.4320
Manger GCBU/MCBU D & C <b>Seth Crissman</b>	832.486.6191	832.513.9308

### **EMERGENCY CALL LIST: State Officials**

#### **Regulatory Agencies**

**Texas Railroad Commission (District 8)**  
Midland, Texas

Office: 432.684.5581

**New Mexico Oil Conservation Commission**  
P. O. Box 1980  
Hobbs, New Mexico 88240-1980

Office: 575.393.6161

**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<sub>2</sub>S. 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<sub>2</sub>S is heavier than air and can settle in low spots. Shifts in wind direction can also change the location of possible hazardous areas.

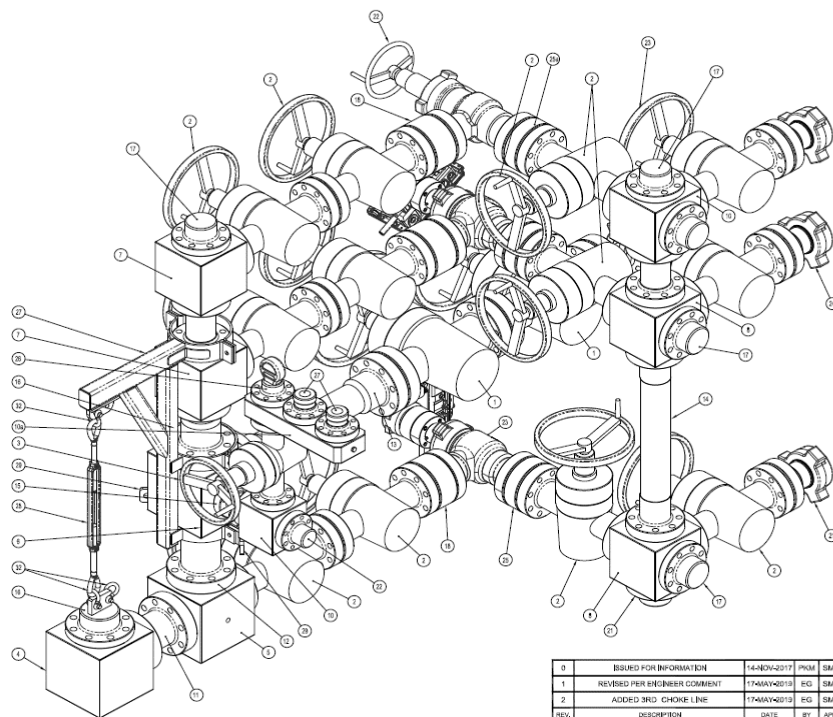
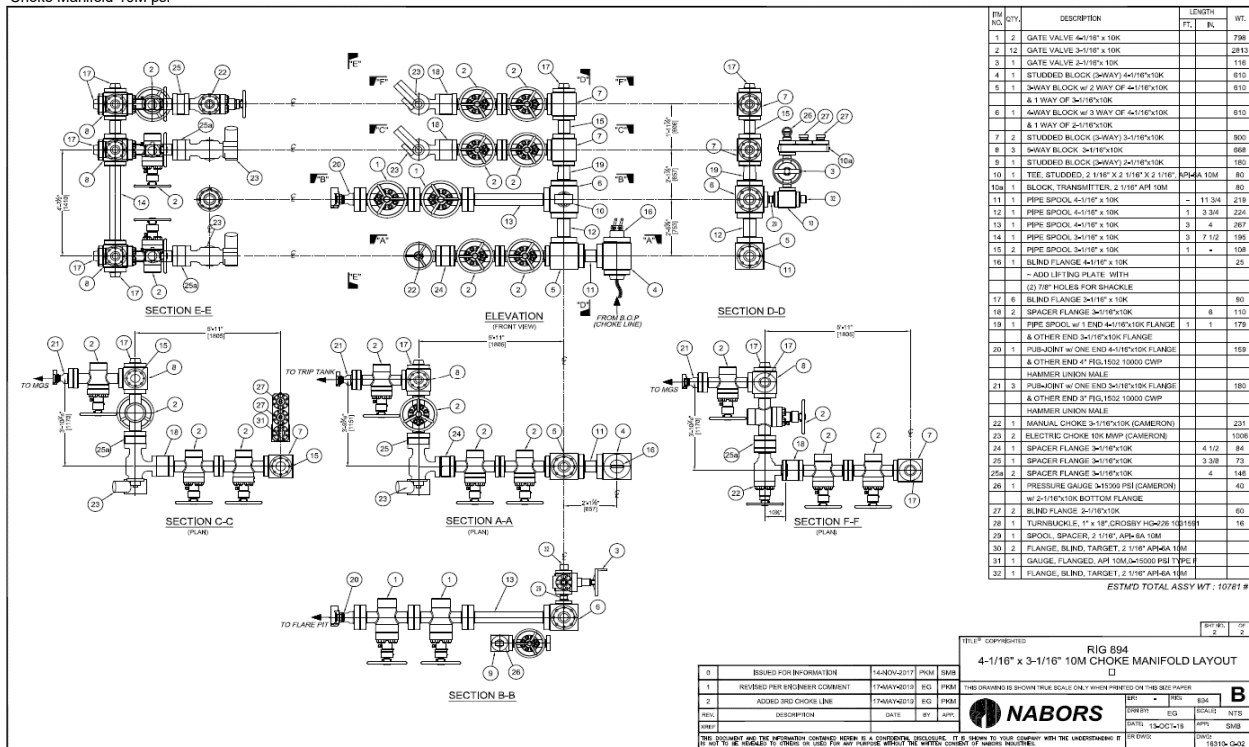
## VIII.      **FORMS & REPORTS**

- 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

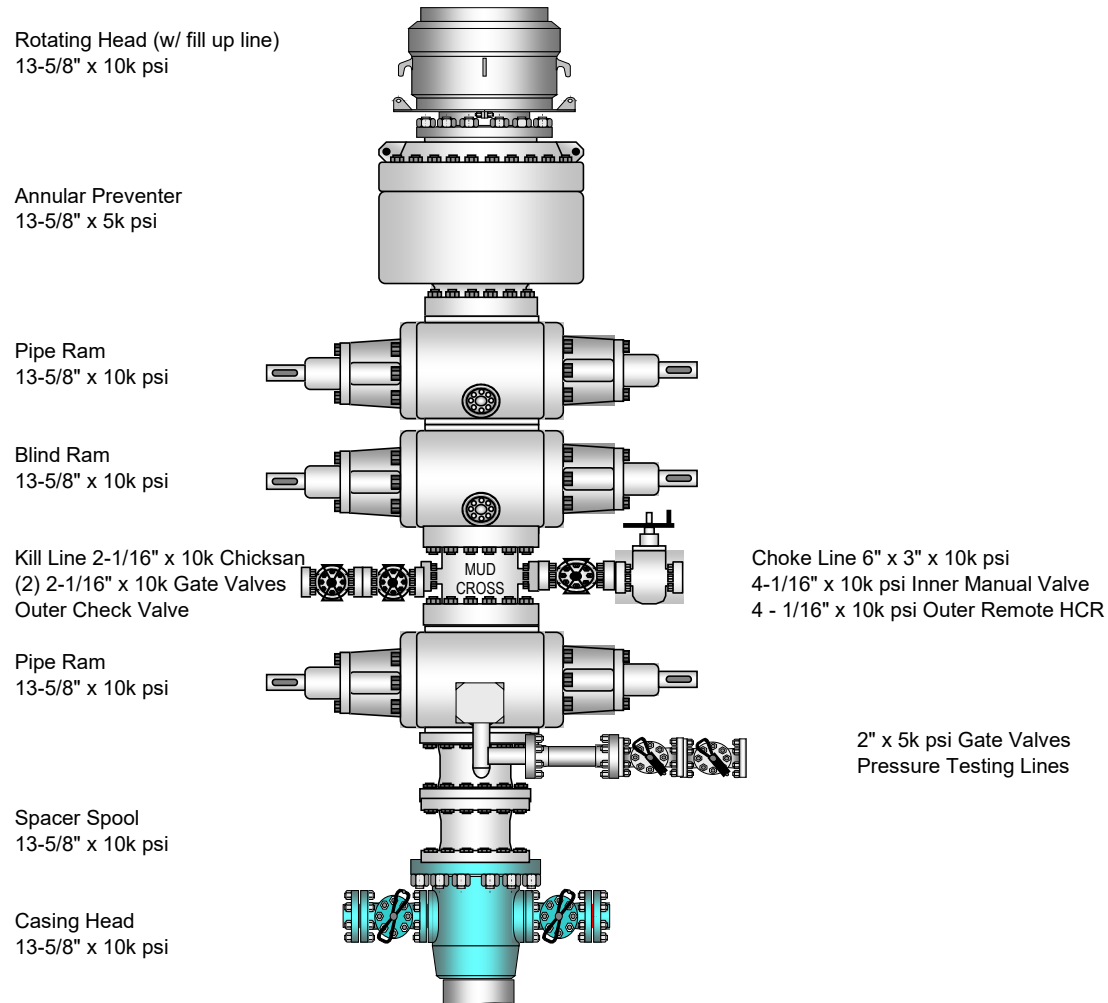
Gas Capture Plan  
ZHU 2331 WC Federal Wells

ZHU 2331 WC Wells-Located in Sec. 23, T26S, R31E				
Well Name:	1H	2H	3H	4H
Well Location:	1050' FSL	1050' FSL	1050' FSL	1050' FSL
	1014' FWL	1034' FWL	1054' FWL	1074' 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 (mcf/d)	2,764 MSCFD	2,764 MSCFD	2,764 MSCFD	2,764 MSCFD
Water (bwpd)	2,541 BWPD	2,830 BWPD	2,541 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

Choke Manifold 10M psi



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



CONTITECH RUBBER Industrial Kft.	No: QC-DB- 45 / 2012
	Page: 9 / 50



## Hose Data Sheet

CRI Order No.	516273
Customer	ContiTech Beattie Co.
Customer Order No	PO5438 STOCK
Item No.	3
Hose Type	Flexible Hose
<b>Standard</b>	<b>API SPEC 16 C</b>
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSIBX155 RING GROOVE
Type of coupling other end	FLANGE 4 1/16" API SPEC 6A TYPE 6BX FOR 10000 PSI BX155 RING GROOVE
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St. steel outer wrap
Internal stripwound tube	No
Lining	OIL RESISTANT
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max. design temperature [°C]	100
Min. design temperature [°C]	-20
MBR operating [m]	1,60
MBR storage [m]	1,40
Type of packing	WOODEN CRATE ISPM-15

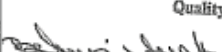
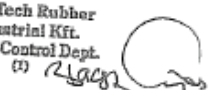


QC-DB- 45/2012

Page: 7/50

## Fluid Technology

Quality Document

<b>QUALITY CONTROL INSPECTION AND TEST CERTIFICATE</b>				CERT. N°: 184	
PURCHASER: ContiTech Beattie Co.				P.O. N°: 005438	
CONTITECH ORDER N°: 516273		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 61477		NOMINAL / ACTUAL LENGTH: 10,67 m / 10,71 m			
W.P. 68,9 MPa	10000 psi	T.P. 103,4 MPa	15000 psi	Duration: 60	min
Pressure test with water at ambient temperature					
See attachment. ( 1 page )					
↑ 10 mm = 10 Min. → 10 mm = 20 MPa					
COUPLINGS Type		Serial N°		Quality	
3" coupling with		10178 10173		AISI 4130	
4 1/16" 10K API Flange end				AISI 4130	
				Heat N°	
				20231	
				33051	
<b>NOT DESIGNED FOR WELL TESTING</b>				<b>API Spec 16 C</b>	
				<b>Temperature rate: "B"</b>	
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.					
COUNTRY OF ORIGIN HUNGARY/EU					
Date:		Inspector		Quality Control	
30. January 2012.				ContiTech Rubber Industrial Kft. Quality Control Dept.  	

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Budapest 61 10., Szeged H-6720  
P.O. Box 152 Szeged H-6701  
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e-mail: [info@fluid-contact.hu](mailto:info@fluid-contact.hu)  
Internet: [www.conl@ctc-niche.hu](http://www.conl@ctc-niche.hu)

The Court of Congress County as  
Registry Court  
Registry Court No: HU 06-09-002502  
EU WST No: HU11048200

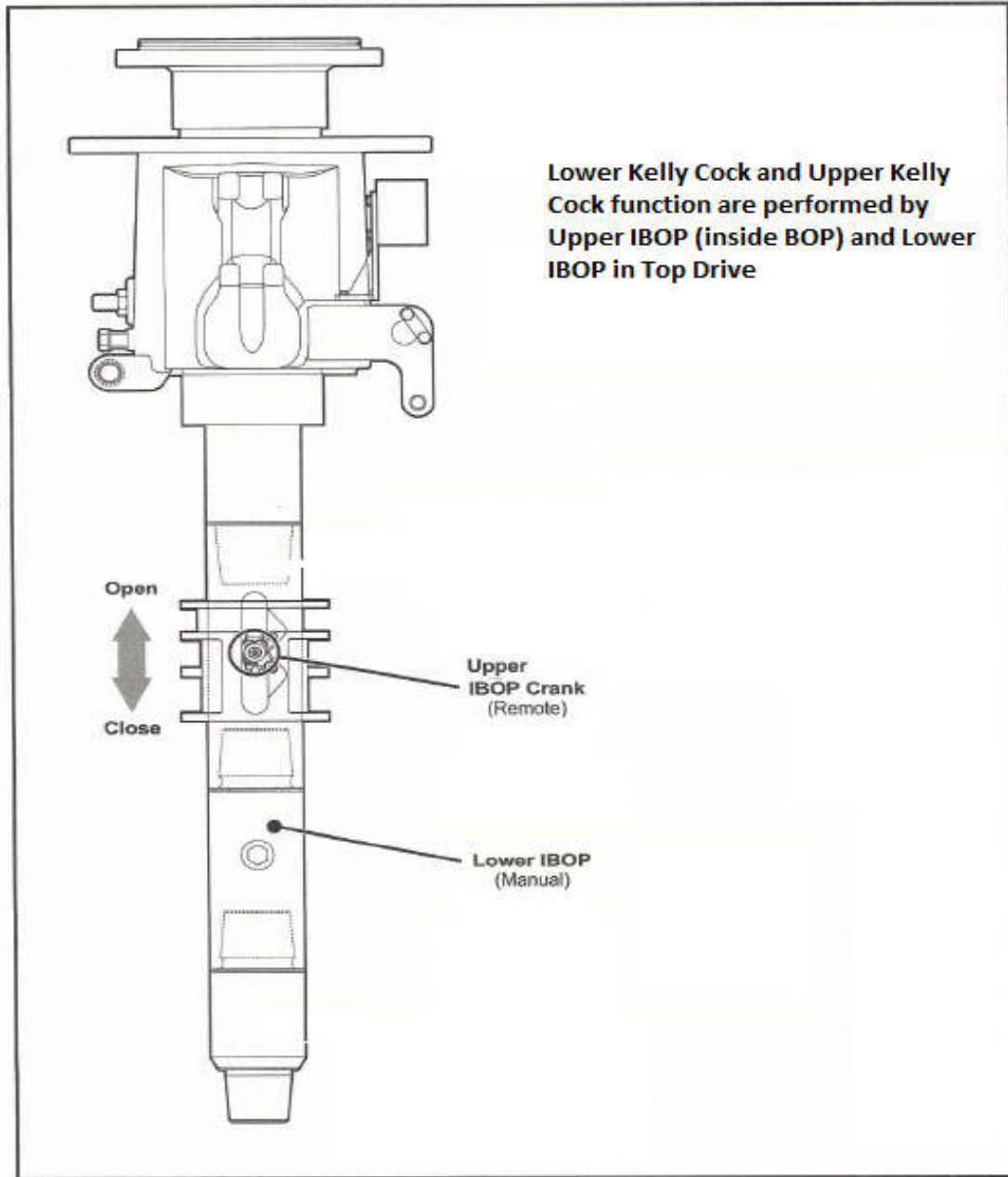
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## Page: 1 / 1

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## PH-75 pipehandler the IBOP valves



# ConocoPhillips Wild Well Control Plan

## 1. DRILLING WELL CONTROL PLAN

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### 1.1 WELL CONTROL - CERTIFICATIONS

#### Required IADC/IWCF Well Control Certifications Supervisor Level:

Any personnel who supervises or operates the BOP must possess a valid current IADC training certification and photo identification. This would include the onsite drilling supervisor, tool pusher/rig manager, driller, and any personnel that will be acting in these capacities. Another example of this may be a wireline or snubbing crew rigged up on the rig to assist the rig, the operator of each system must also have a valid control certification for their level of operation.

BLM recognizes IADC training as the industry approved accredited training. Online self-certifications will not be acceptable. Enforcement actions for the lack of a valid Supervisory Level certificate shall be prompt action to correct the deficiency. **Enforcement actions include but are not limited to immediate replacement of personnel lacking certifications, drilling operations being shut down or installment of a 10M annular.**

IADC Driller Level for all Drillers and general knowledge for the Assistant Driller, Derrick Hands, Floor Hands and Motor Hands is recognized by the BLM; however, a Driller Level certification will need to be presented only if acting in a temporary Driller Level certification capacity.

#### **Well Control-Position/Roles**

IADC Well control training and certification is targeted toward each role, e.g., Supervisor Level toward those who direct, Driller Level to those who act, Introductory to those who need to know.

- **Supervisor Level**
  - Specifies and has oversight that the correct actions are carried out
  - Role is to supervise well control equipment, training, testing, and well control events
  - Directs the testing of BOP and other well control equipment
  - Regularly direct well control crew drills
  - Land based rigs – usually runs the choke during a well kill operation
  - Due to role on the rig, training and certification is targeted more toward management of well control and managing an influx out of the well
- **Driller Level**
  - Performs an action to prevent or respond to well control accident
  - Role is to monitor the well via electronic devices while drilling and detect unplanned influxes
  - Assist with the testing of BOP and other well control equipment
  - Regularly assist with well control crew drills
  - When influx is detected, responsible to close the BOP
  - Due to role on the rig, training and certification is targeted more toward monitoring and shutting the well in (closing the BOP) when an influx is detected

**(Well Control-Positions/Roles Continued)**

- **Derrick Hand, Assistant Driller Introductory Level**
  - Role is to assist Driller with kick detection by physically monitoring the well at the mixing pits/tanks
  - Regularly record mud weights/viscosity for analysis by the Supervisor level and mud engineer so pre-influx signs can be detected
  - Mix required kill fluids as directed by Supervisor or Driller
  - Due to role on the rig, training and certification is targeted more toward monitoring for influxes, either via mud samples or visual signs on the pits/tanks
- **Motorman, Floor Hand Introductory Level**
  - Role is to assist the Supervisor, Driller, or Derrick Hand with detecting influxes
  - Be certain all valves are aligned for proper well control as directed by Supervisor
  - Perform Supervisor or Driller assigned tasks during a well control event
  - Due to role on the rig, training and certification is targeted more toward monitoring for influxes

**1.2 WELL CONTROL-COMPONENT AND PREVENTER COMPATIBILITY CHECKLIST**

The table below, which covers the drilling and casing of the 10M Stack portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

- **Example 8-3/4" Production hole section, 10M requirement**

Component	OD	Preventer	RWP
Drill pipe	5"	Fixed lower 5" Upper 4.5-7" VBR	10M
HWDP	5"	Fixed lower 5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	6.25-6.75"	Upper 4.5-7" VBR	10M
Mud Motor	6.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

- VBR = Variable Bore Ram. Compatible range listed in chart.

**1.3 WELL CONTROL-BOP TESTING**

BOP Test will be completed per Onshore Oil and Gas Order #2 Well Control requirements. The 5M Annular Preventer on a required 10M BOP stack will be tested to 70 % of rated working pressure including a 10 minute low pressure test. Pressure shall be maintained at least 10 minutes.

## 1.4 WELL CONTROL - DRILLS

The following drills are conducted and recorded in the Daily Drilling Report and the Contractor's reporting system while engaged in drilling operations:

Type	Frequency	Objective	Comments
Shallow gas kick drill - drilling	Once per well with crew on tour	Response training to a shallow gas influx	To be done prior to drilling surface hole if shallow gas is noted
Kick drill - drilling	Once per week per crew	Response training to an influx while drilling (bit on bottom)	Only one kick drill per week per crew is required, alternating between drilling and tripping.
Kick drill - tripping	Once per week per crew	Response training to an influx while tripping (bit off bottom). Practice stabbing TIW valve	
Choke drill	Once per well with crew on tour	Practice in operating the remotely operated choke with pressure in the well	Before drilling out of the last casing set above a prospective reservoir  Include the scenario of flowing well with gas on drill floor as a table top
H <sub>2</sub> S drill	Prior to drilling into a potential H <sub>2</sub> S zone/reservoir	Practice in use of respiratory equipment	

## 1.5 WELL CONTROL – MONITORING

- Drilling operations which utilize static fluid levels in the wellbore as the active barrier element, a means of accurately monitoring fill-up and displacement volumes during trips are available to the driller and operator. A recirculating trip tank is installed and equipped with a volume indicator easily read from the driller's / operator's position. This data is recorded on a calibrated chart recorder or digitally. The actual volumes are compared to the calculated volumes.
- The On-Site Supervisor ensures hole-filling and pit monitoring procedures are established and documented for every rig operation.
- The well is kept full of fluid with a known density and monitored at all times even when out of the hole.
- Flow checks are a minimum of 15 minutes.
- A flow check is made:
  - In the event of a drilling break.
  - After indications of down hole gains or losses.
  - Prior to all trips out of the hole.
  - After pulling into the casing shoe.
  - Before the BHA enters the BOP stack.
  - If trip displacement is incorrect.

**Well Control-Monitoring (Continued)**

- Prior to dropping a survey instrument.
- Prior to dropping a core ball.
- After a well kill operation.
- When the mud density is reduced in the well.
- Flow checks may be made at any time at the sole discretion of the driller or his designate. The Onsite Supervisor ensures that personnel are aware of this authority and the authority to close the well in immediately without further consultation.
- Record slow circulating rates ( SCR ) after each crew change, bit trip, and 500' of new hole drilled and after any variance greater than 0.2 ppg in MW. Slow pump rate recordings should include return flow percent, TVD, MD & pressure. SCR's will be done on all pumps at 30, 40 & 50 SPM. Pressures will be recorded at the choke panel. SCR will be recorded in the IADC daily report and MRO Wellview daily report
- Drilling blind (i.e. without returns) is permissible only in known lithology where the absence of hydrocarbons has been predetermined and written approval of the Drilling Manager.
- All open hole logs to be run with pack-off, lubricator or Drilling Manager approved alternative means.
- The Drilling Contractor has a fully working pit level totalizer / monitoring system with read out for the driller and an audible alarm set to 10 BBL gain / loss volume. Systems are selectable to enable monitoring of all pits in use. Pit volumes are monitored at all times, especially when transferring fluids. Both systems data is recorded on a calibrated chart recorder or electronically.
- The Drilling Contractor has a fully working return mud flow indicator with drillers display and an audible alarm, and is adjustable to record any variance in return volumes.

**1.6 WELL CONTROL – SHUT IN**

- The “hard shut in” method (i.e. against a closed choke using either an annular or ram type preventer) is the Company standard.
- The HCR(s) or failsafe valves are left closed during drilling to prevent any erosion and buildup of solids. The adjustable choke should also be left closed.
- The rig specific shut in procedure, the BOP configuration along with space-out position for the tool joints is posted in the Driller's control cabin or doghouse.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Manager.
- During a well kill by circulation, constant bottom hole pressure is maintained throughout.
- Kill sheets are maintained by the Driller and posted in the Driller's control cabin or doghouse. The sheet is updated at a minimum every 500 feet.

## 2. SHUT-IN PROCEDURES:

---

### 2.1 PROCEDURE WHILE DRILLING

- Sound alarm (alert crew)
- Space out drill string – Stop rotating, pick the drill string up off bottom, and space out to ensure no tool joint is located in the BOP element selected for initial closure.
- Shut down pumps (stop pumps and observe well.)
- Shut-in Well - If flow is suspected or confirmed, close uppermost applicable BOP element. (HCR and choke will already be in the closed position.)
  - **Note:** Either the uppermost pipe ram or annular preventer can be used.
- Confirm shut-in
- Notify toolpusher/company representative
- Gather all relevant data required:
  - SIDPP and SICP
  - Hole Depth and Hole TVD
  - Pit gain
  - Time
  - Kick Volume
  - Pipe depth
  - MW in, MW out
  - SPR's (Slow Pump Rate's)
- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit
- If pressure has built or is anticipated during the kill to reach 2,500 psi or greater, the annular preventer CANNOT be used as per Oil Company Well Control Policy, swap to the upper BOP pipe ram.

### 2.2 PROCEDURE WHILE TRIPPING

- Sound alarm (alert crew)
- Stab full opening safety valve in the drill string and close.
- Space out drill string (ensure no tool joint is located in the BOP element selected for initial closure).
- Shut down pumps (stop pumps and observe well.)
- Shut-in Well - If flow is suspected or confirmed, close uppermost applicable BOP element. (HCR and choke will already be in the closed position.)
  - **Note:** Either the uppermost pipe ram or annular preventer can be used.
- Confirm shut-in
- Notify tool pusher/company representative
- Gather all relevant data required:
  - SIDPP and SICP
  - Hole Depth and Hole TVD
  - Pit gain



## Procedure While Tripping (Continued)

- Time
  - Kick Volume
  - Pipe depth
  - MW in, MW out
  - SPR's (Slow Pump Rate's)
- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit  
If pressure has built or is anticipated during the kill to reach X,XXX psi or greater, the annular preventer CANNOT be used as per Company Well Control Policy, swap to the upper BOP pipe ram.

## 2.3 PROCEDURE WHILE RUNNING CASING

- Sound alarm (alert crew)
- Stab crossover and full opening safety valve and close
- Space out casing (ensure no coupling is located in the BOP element selected for initial closure).
- Shut down pumps (stop pumps and observe well.)
- Shut-in Well - If flow is suspected or confirmed, close uppermost applicable BOP element. (HCR and choke will already be in the closed position.)
  - **Note:** Either the uppermost pipe ram or annular preventer can be used.
- Confirm shut-in
- Notify tool pusher/company representative
- Gather all relevant data required:
  - SIDPP and SICP
  - Hole Depth and Hole TVD
  - Pit gain
  - Time
  - Kick Volume
  - Pipe depth
  - MW in, MW out
  - SPR's (Slow Pump Rate's)
- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit  
If pressure has built or is anticipated during the kill to reach 2,500 psi or greater, the annular preventer CANNOT be used, swap to the upper BOP pipe ram.

## 2.4 PROCEDURE WITH NO PIPE IN HOLE (OPEN HOLE)

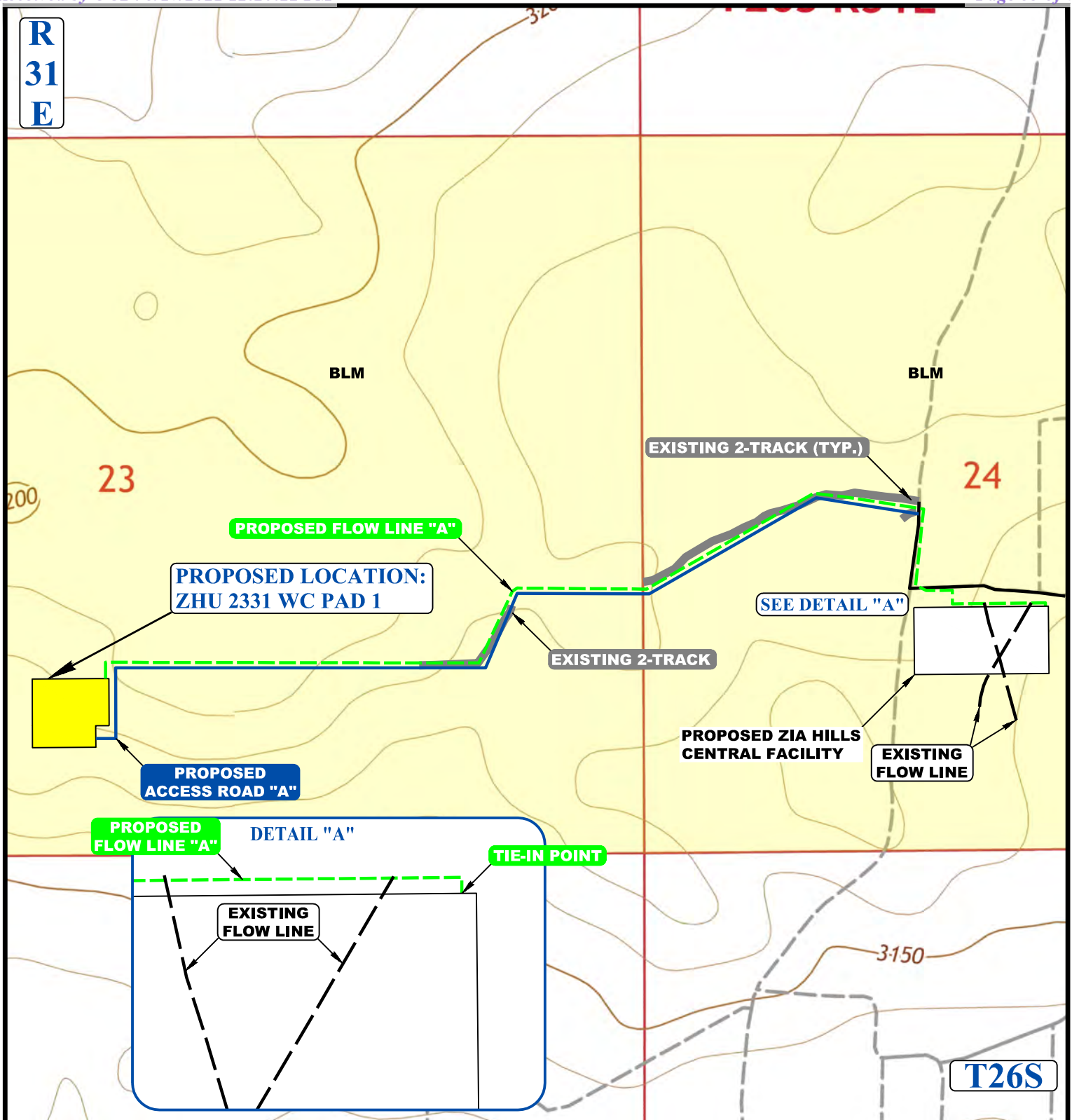
- Sound alarm (alert crew)
- Shut-in with blind rams or BSR. (HCR and choke will already be in the closed position.)
- Confirm shut-in
- Notify toolpusher/company representative
- Gather all relevant data required:
  - Shut-In Pressure
  - Hole Depth and Hole TVD
  - Pit gain
  - Time
  - Kick Volume
  - MW in, MW out
  - SPR's (Slow Pump Rate's)
- Regroup and identify forward plan (let well stabilize, update kill sheet, inventory mud additives and mud volumes on location)
- Company Representative, Drilling Superintendent, Drilling Engineer and Drilling Manager will discuss well control kill method to be utilized. A verbal Risk Assessment and preferred kill method will be finalized. Initial Risk Assessment will be finalized within 1 hour of initial shut in.
- No well kill operation commences until there is a plan agreed by the Superintendent, On-Site Supervisor and the Drilling Contractor PIC.
- Recheck all pressures and fluid volume on accumulator unit.

## 2.5 PROCEDURE WHILE PULLING BHA THRU STACK

- PRIOR to pulling last joint of drill pipe thru the stack.
  - Perform flow check, if flowing.
  - Sound alarm (alert crew).
  - Stab full opening safety valve and close
  - Space out drill string with tool joint just beneath the upper pipe ram.
  - Shut-in using upper pipe ram. (HCR and choke will already be in the closed position).
  - Confirm shut-in.
  - Notify toolpusher/company representative
  - Read and record the following:
    - SIDPP and SICP
    - Pit gain
    - Time
  - Regroup and identify forward plan
- 
- **With BHA in the stack and compatible ram preventer and pipe combo immediately available.**
    - Sound alarm (alert crew)
    - Stab crossover and full opening safety valve and close
    - Space out drill string with upset just beneath the compatible pipe ram.
    - Shut-in using compatible pipe ram. (HCR and choke will already be in the closed position.)
    - Confirm shut-in
    - Notify toolpusher/company representative
    - Read and record the following:
      - SIDPP and SICP
      - Pit gain

### Procedures While Pulling BHA thru Stack (Continued)

- Time
  - Regroup and identify forward plan
- **With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.**
  - Sound alarm (alert crew)
  - If possible to pick up high enough, pull string clear of the stack and follow “Open Hole” scenario.
  - If impossible to pick up high enough to pull the string clear of the stack:
  - Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
  - Space out drill string with tool joint just beneath the upper pipe ram.
  - Shut-in using upper pipe ram. (HCR and choke will already be in the closed position.)
  - Confirm shut-in
  - Notify toolpusher/company representative
  - Read and record the following:
    - SIDPP and SICP
    - Pit gain
    - Time



**APPROXIMATE TOTAL FLOW LINE "A" DISTANCE = 8,416' +/-**

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTEH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

**LEGEND:**

- EXISTING ROAD
- PROPOSED ROAD
- PROPOSED FLOW LINE
- EXISTING 2-TRACK
- EXISTING FLOW LINE



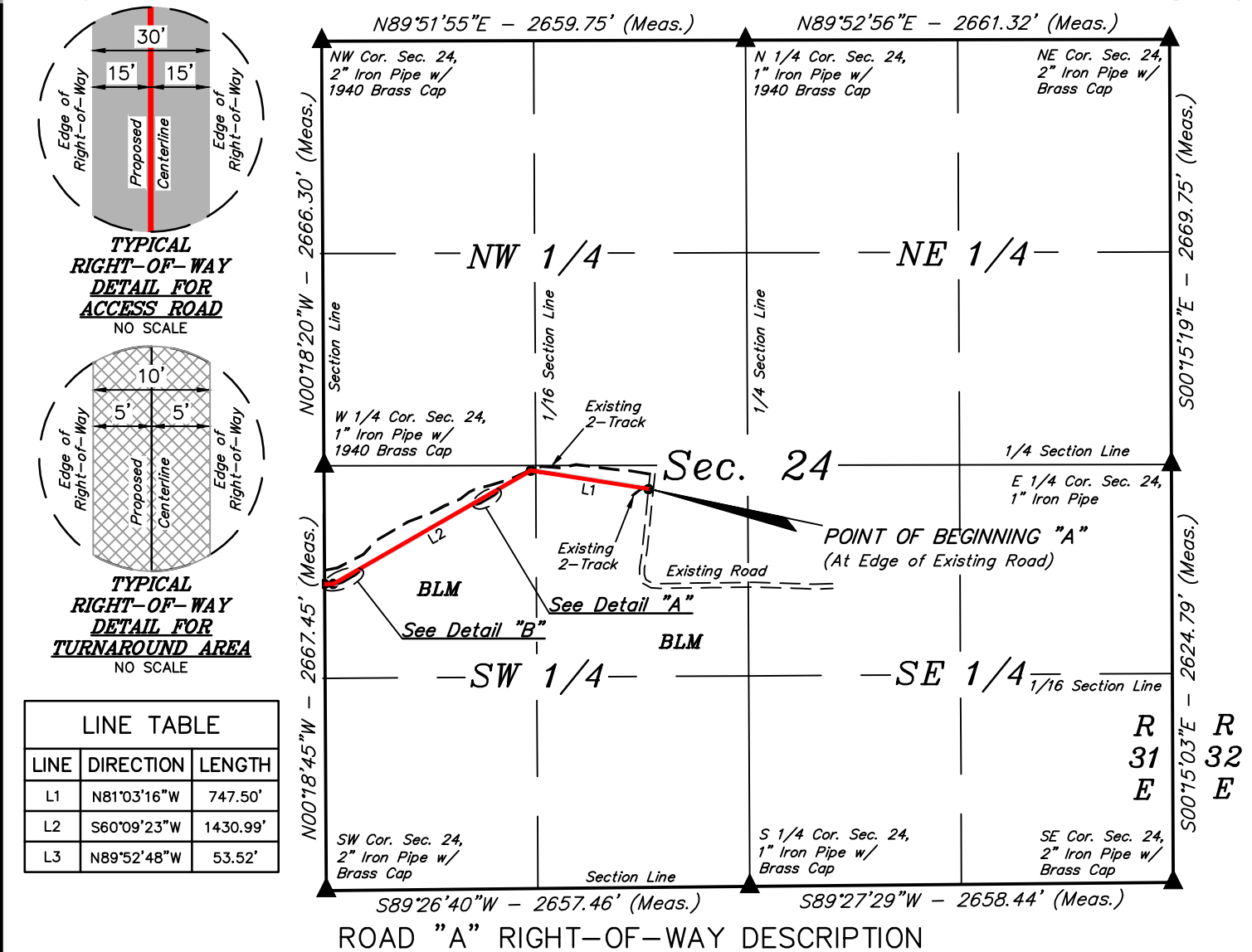
**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



**ConocoPhillips Company**

**ZHU 2331 WC PAD 1**  
**SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	S.T.O.	10-07-19	1 : 12,000
<b>PIPELINE MAP</b>			<b>TOPO D</b>



ROAD "A" RIGHT-OF-WAY DESCRIPTION

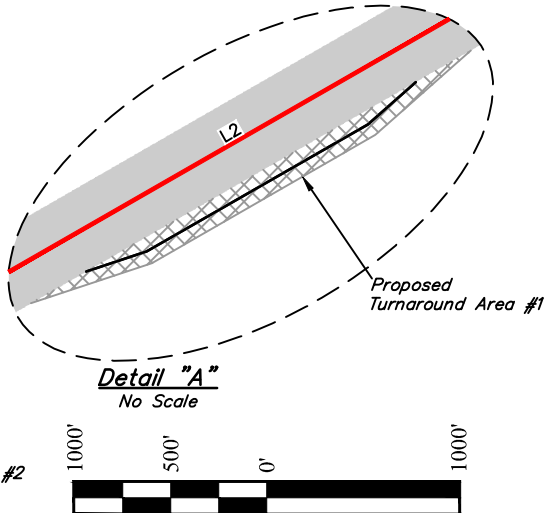
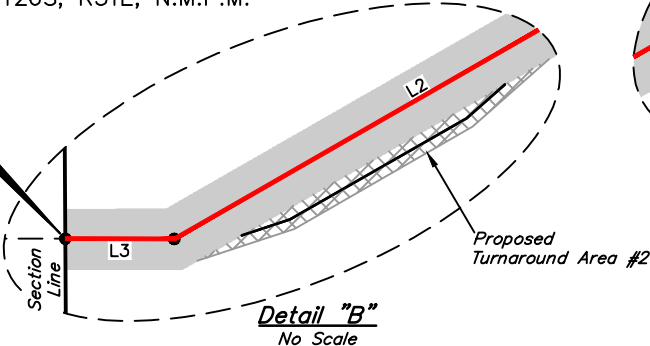
A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE NE 1/4 SW 1/4 OF SECTION 24, T26S, R31E, N.M.P.M., WHICH BEARS S85°54'00"E 2042.42' FROM THE WEST 1/4 CORNER OF SAID SECTION 24, THENCE N81°03'16"W 747.50'; THENCE S60°09'23"W 1430.99'; THENCE N89°52'48"W 53.52' TO A POINT ON THE WEST LINE OF THE NW 1/4 SW 1/4 OF SAID SECTION 24 AND THE POINT OF TERMINATION, WHICH BEARS S00°18'45"E 741.80' FROM THE WEST 1/4 CORNER OF SAID SECTION 24. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 1.537 ACRES MORE OR LESS.

POINT OF BEGINNING "A" BEARS S85°54'00"E 2042.42' FROM THE WEST 1/4 CORNER OF SECTION 24, T26S, R31E, N.M.P.M.

POINT OF TERMINATION "A" BEARS S00°18'45"E 741.80' FROM THE WEST 1/4 CORNER OF SECTION 24, T26S, R31E, N.M.P.M.

POINT OF  
TERMINATION "A"  
(At Section Line)



ACCESS ROAD ACREAGE / LENGTH TABLE "A"			
LOCATION	FEET	RODS	ACRES
SEC. 24 (SW 1/4)	2232.01	135.27	1.537

TURNAROUND ACREAGE / LENGTH TABLE #1			
LOCATION	FEET	RODS	ACRES
SEC. 24 (SW 1/4)	150.00	9.09	0.034

TURNAROUND ACREAGE / LENGTH TABLE #2			
LOCATION	FEET	RODS	ACRES
SEC. 24 (SW 1/4)	150.00	9.09	0.034

CERTIFICATE  
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

23782

09-30-20

PROFESSIONAL SURVEYOR

▲ = SECTION CORNERS LOCATED.

NOTES:

- The maximum grade of existing ground for the proposed access road is ±4.07%.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

U. I. N. T. A. H.  
ENGINEERING & LAND SURVEYING

UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

FILE: C-7098-A1

REV: 1 09-30-20 L.K. (UPDATE TURNAROUND AREAS)

ConocoPhillips Company

ZHU 2331 WC  
ON BLM LANDS IN  
SECTION 24, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

SURVEYED BY	S.R.	08-12-19	SCALE
DRAWN BY	J.P.P.	03-04-20	1" = 1000'

ACCESS ROAD R-O-W

Released to Imaging: 5/18/2021 4:38:52 PM





ROAD "A" RIGHT-OF-WAY DESCRIPTION

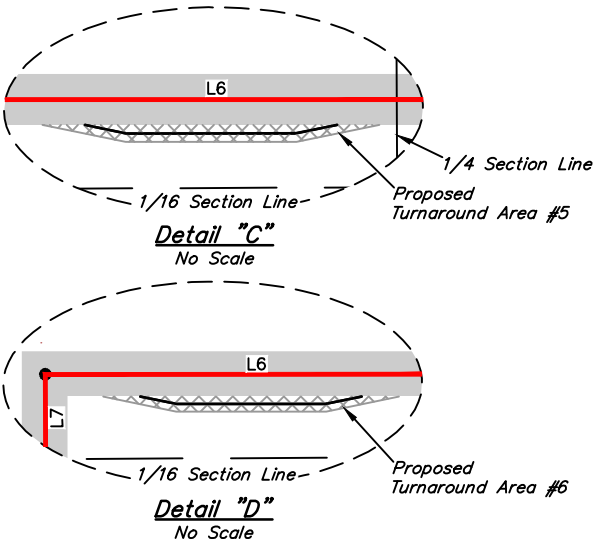
A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT ON THE EAST LINE OF THE NE 1/4 SE 1/4 OF SECTION 23, T26S, R31E, N.M.P.M., WHICH BEARS S00°18'45"E 741.80' FROM THE EAST 1/4 CORNER OF SAID SECTION 23, THENCE N89°52'48"W 929.04'; THENCE S23°07'42"W 600.38'; THENCE S89°59'24"W 2749.57'; THENCE S00°13'58"E 525.19'; THENCE S89°42'08"W 149.88' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 23 AND THE POINT OF TERMINATION, WHICH BEARS N55°26'11"E 1535.15' FROM THE SOUTHWEST CORNER OF SAID SECTION 23. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 3.412 ACRES MORE OR LESS.

ROAD "B" RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 23, T26S, R31E, N.M.P.M., WHICH BEARS N55°34'01"W 1519.85' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 23, THENCE N89°42'08"E 148.25' TO A POINT IN THE SE 1/4 SW 1/4 OF SAID SECTION 23 AND THE POINT OF TERMINATION, WHICH BEARS N52°06'35"W 1400.56' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 23. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". CONTAINS 0.102 ACRES MORE OR LESS.



CERTIFICATE  
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO, AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

23782  
09-30-20  
PROFESSIONAL SURVEYOR

Sheet 2 of 2

FILE: C-7098-B2

REV: 1    09-30-20    L.K.    (UPDATE TURNAROUND AREAS)

- NOTES:
- The maximum grade of existing ground for the proposed access road "A" is ±4.07%.
  - The maximum grade of existing ground for the proposed access road "B" is ±2.29%.
  - Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"



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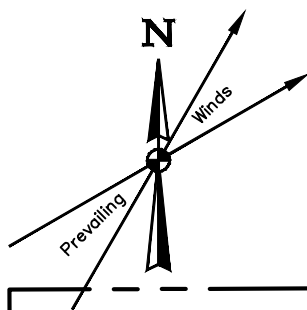
ConocoPhillips Company

ZHU 2331 WC  
ON BLM LANDS IN  
SECTION 23, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

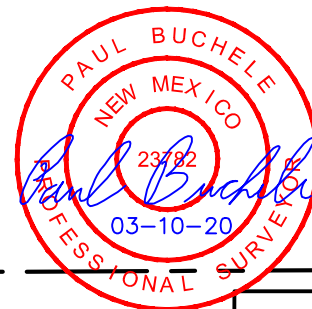
SURVEYED BY	S.R.	08-12-19	SCALE
DRAWN BY	J.P.P.	03-04-20	N/A

ACCESS ROAD R-O-W





771' X 710' Archaeological Survey Boundary



Topsoil Stockpile

Facility Pad

Proposed Access Road "A"

ZHU 2331 BS 1H  
ZHU 2331 BS 2H  
ZHU 2331 BS 3H  
ZHU 2331 BS 4H  
ZHU 2331 BS 5H  
ZHU 2331 BS 6H

ZHU 2331 WC 1H  
ZHU 2331 WC 2H  
ZHU 2331 WC 3H  
ZHU 2331 WC 4H  
ZHU 2331 WC 5H  
ZHU 2331 WC 6H

REV: 1 03-10-20 S.T.O. (UPDATE WELL NAMES)

ConocoPhillips Company

ZHU 2331 WC PAD 1  
SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO



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SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	R.J.	02-14-20	1" = 100'
ARCHAEOLOGICAL SURVEY BOUNDARY			FIGURE #5

BEGINNING AT THE INTERSECTION OF HIGHWAY 18 AND HIGHWAY 128 IN JAL, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY DIRECTION ALONG HIGHWAY 128 APPROXIMATELY 30.0 MILES TO THE JUNCTION OF THIS ROAD AND ORLA ROAD/CR J-1 TO THE SOUTH; TURN LEFT AND PROCEED IN A SOUTHERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 13.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN RIGHT AND PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 2.0 MILES TO THE BEGINNING OF THE PROPOSED ZHU 2331 WC ACCESS ROAD "A" TO THE NORTHWEST; FOLLOW ROAD FLAGS IN A NORTHWESTERLY, THEN SOUTHWESTERLY, THEN WESTERLY, THEN SOUTHWESTERLY; THEN WESTERLY, THEN SOUTHERLY, THEN WESTERLY DIRECTION APPROXIMATELY 7,186' TO THE PROPOSED LOCTION

TOTAL DISTANCE FROM JAL, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 47.0 MILES.

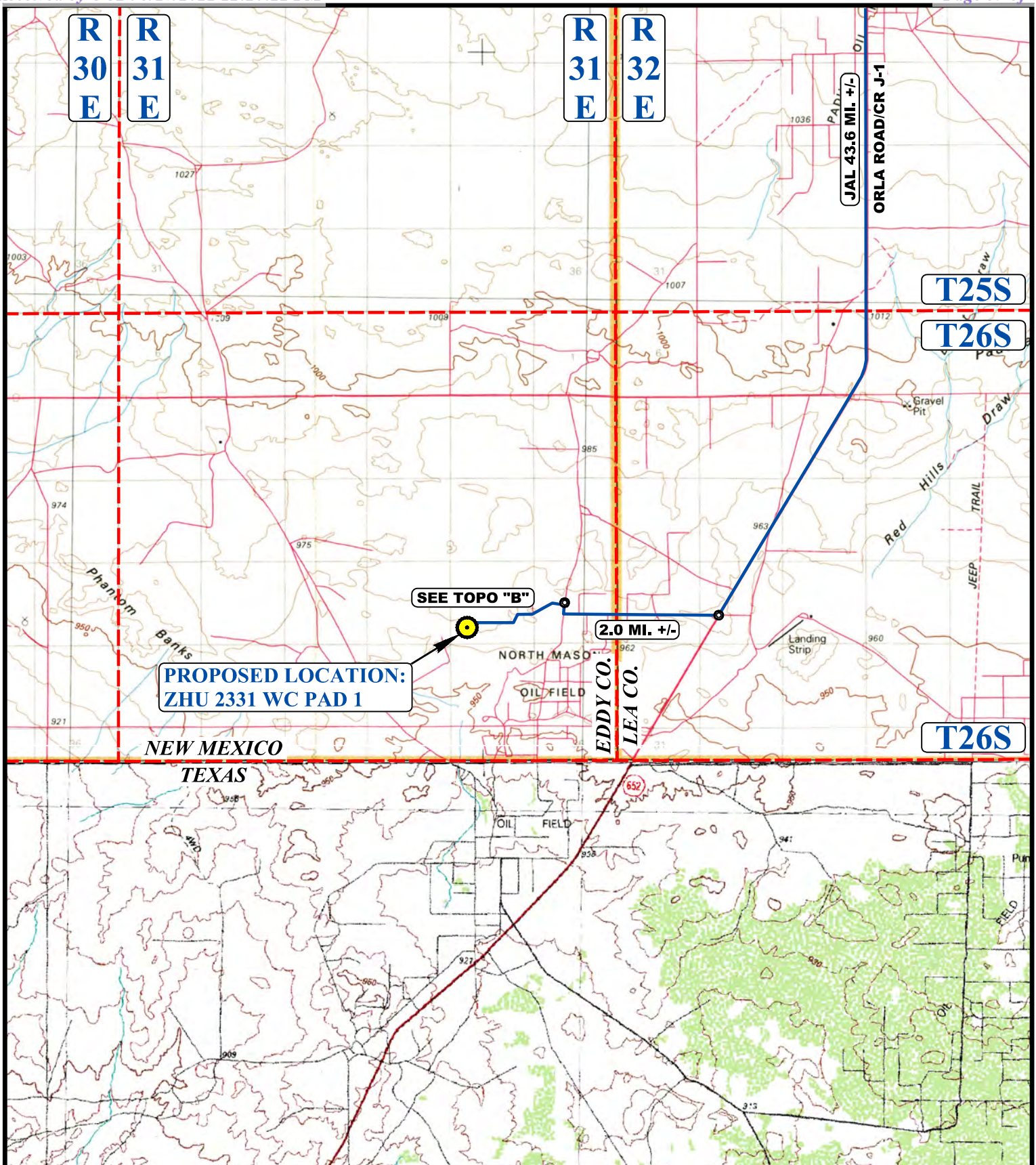
### ConocoPhillips Company

ZHU 2331 WC PAD 1  
SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

SURVEYED BY	C.T., D.D.	10-03-19	
DRAWN BY	S.T.O.	10-07-19	
<b>ROAD DESCRIPTION</b>			



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**LEGEND:**

 PROPOSED LOCATION



**ConocoPhillips Company**

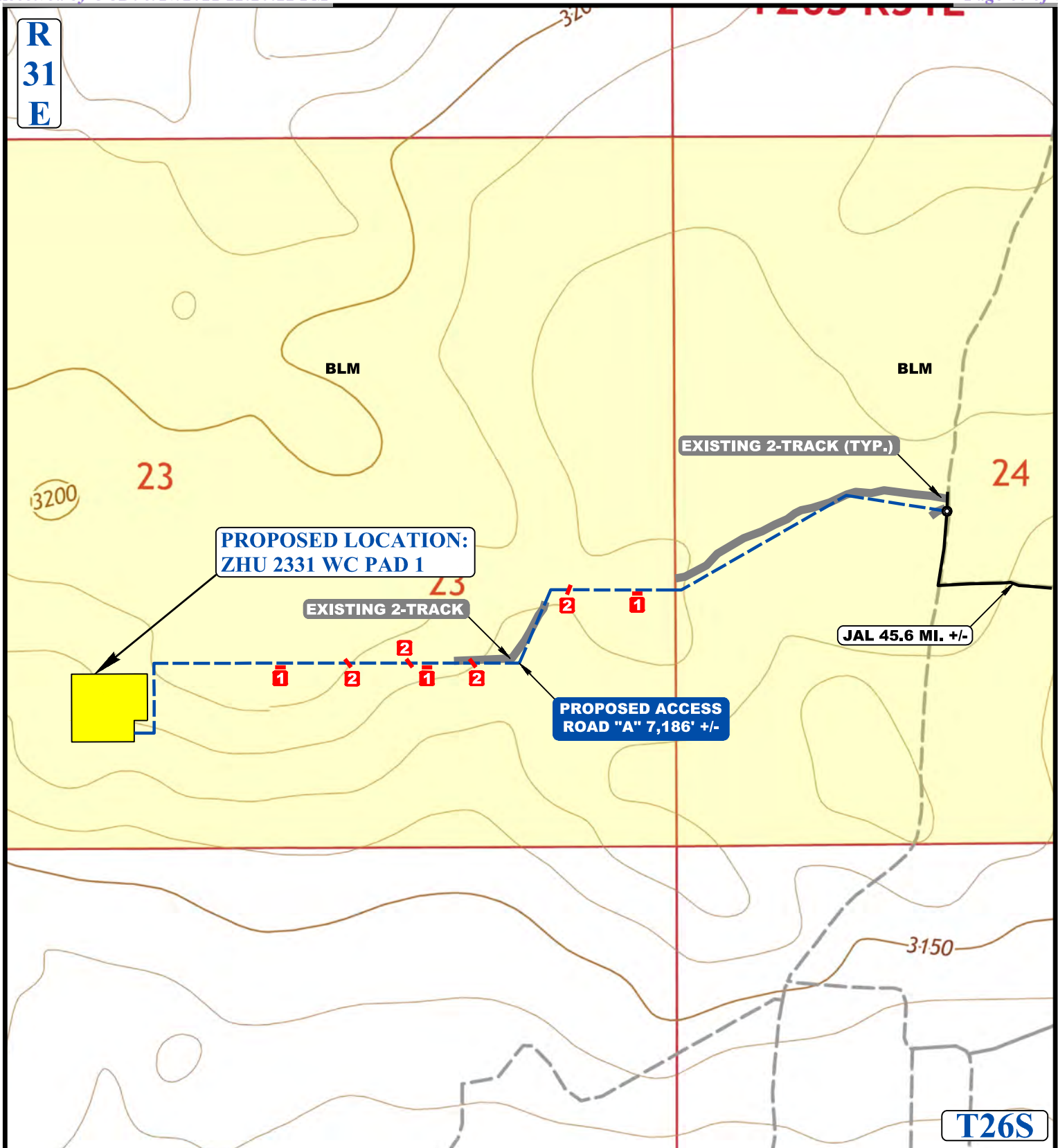
**ZHU 2331 WC PAD 1**  
 SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	S.T.O.	10-07-19	1 : 100,000
<b>ACCESS ROAD MAP</b>			<b>TOPO A</b>



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NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

#### LEGEND:

- EXISTING ROAD
- - - PROPOSED ROAD
- - - EXISTING 2-TRACK
- 1** INSTALL TURN OUT
- 2** INSTALL 18" CULVERT



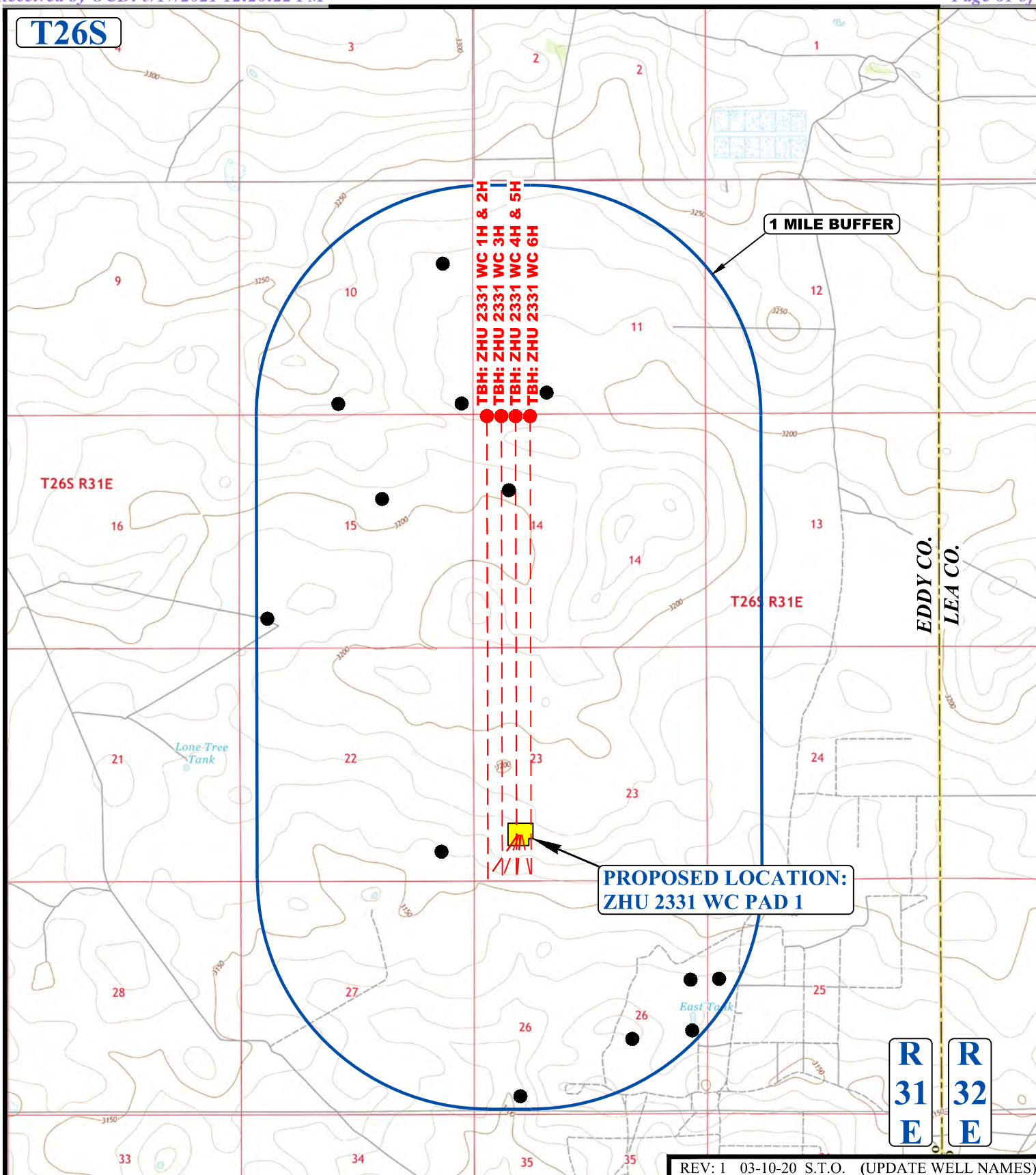
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#### ConocoPhillips Company

**ZHU 2331 WC PAD 1**  
**SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	S.T.O.	10-07-19	1 : 12,000
<b>ACCESS ROAD MAP</b>			<b>TOPO B</b>

**LEGEND:**

● EXISTING WELL

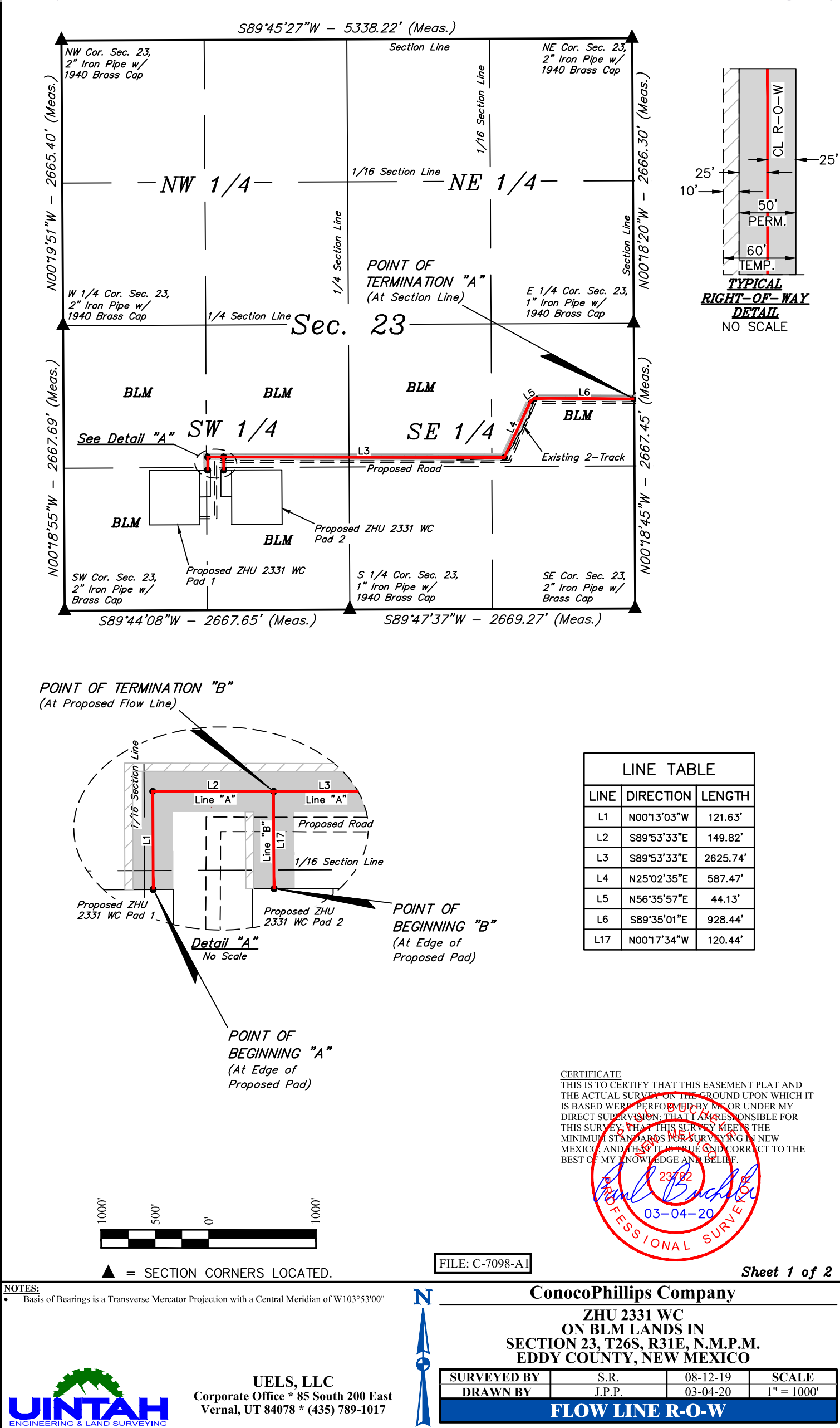
**ConocoPhillips Company**

**ZHU 2331 WC PAD 1**  
 SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.  
 EDDY COUNTY, NEW MEXICO

SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	R.J.	02-14-20	1 : 36,000
<b>WELL PROXIMITY MAP</b>			<b>TOPO C</b>



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FLOW LINE "A" RIGHT-OF-WAY DESCRIPTION

A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE LEFT SIDE OF SAID RIGHT-OF-WAY FOR A TOTAL WIDTH OF 60' DURING CONSTRUCTION.

BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 23, T26S, R31E, N.M.P.M., WHICH BEARS N45°34'37"W 1862.89' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 23, THENCE N00°13'03"W 121.63'; THENCE S89°53'33"E 149.82'; THENCE CONTINUING S89°53'33"E 2625.74'; THENCE N25°02'35"E 587.47'; THENCE N56°35'57"E 44.13'; THENCE S89°35'01"E 928.44' TO A POINT ON THE EAST LINE OF THE NE 1/4 SE 1/4 OF SAID SECTION 23 AND THE POINT OF TERMINATION, WHICH BEARS S00°18'45"E 706.90' FROM THE EAST 1/4 CORNER OF SAID SECTION 23. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". RIGHT-OF-WAY CONTAINS 5.116 ACRES MORE OR LESS. TEMPORARY RIGHT-OF-WAY CONTAINS 1.023 ACRES MORE OR LESS.

FLOW LINE "B" RIGHT-OF-WAY DESCRIPTION

A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE LEFT SIDE OF SAID RIGHT-OF-WAY FOR A TOTAL WIDTH OF 60' DURING CONSTRUCTION.

BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 23, T26S, R31E, N.M.P.M., WHICH BEARS N42°08'08"W 1759.59' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 23, THENCE N00°17'34"W 120.44' TO A POINT IN THE NE 1/4 SW 1/4 OF SAID SECTION 23 AND THE POINT OF TERMINATION, WHICH BEARS N39°38'52"W 1851.06' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 23. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". RIGHT-OF-WAY CONTAINS 0.138 ACRES MORE OR LESS. TEMPORARY RIGHT-OF-WAY CONTAINS 0.028 ACRES MORE OR LESS.

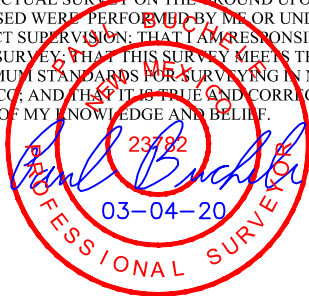
ACREAGE / LENGTH TABLE "A"

LOCATION	FEET	RODS	PERM. ACRES	TEMP. ACRES
SEC. 23 (SW 1/4)	1444.92	87.57	1.659	0.332
SEC. 23 (SE 1/4)	3012.31	182.56	3.458	0.692
TOTAL	4457.23	270.13	5.116	1.023

ACREAGE / LENGTH TABLE "B"

LOCATION	FEET	RODS	PERM. ACRES	TEMP. ACRES
SEC. 23 (SW 1/4)	120.44	7.30	0.138	0.028

CERTIFICATE  
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



FILE: C-7098-A2

NOTES:  
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

ConocoPhillips Company

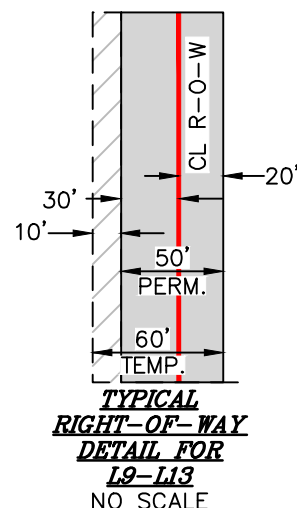
ZHU 2331 WC  
ON BLM LANDS IN  
SECTION 23, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

SURVEYED BY	S.R.	08-12-19	SCALE
DRAWN BY	J.P.P.	03-04-20	N/A

FLOW LINE R-O-W




UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



A horizontal graphic scale bar with alternating black and white segments. It is labeled with '600'', '300'', '0'', and '600'' from left to right.

LINE TABLE		
LINE	DIRECTION	LENGTH
L7	S89°35'01"E	33.90'
L8	N60°09'24"E	1430.09'
L9	S83°24'30"E	224.17'
L10	S81°18'14"E	602.47'
L11	S05°55'04"W	570.58'
L12	S63°41'18"E	87.12'
L13	N89°25'07"E	194.24'
L14	S00°02'50"E	100.47'
L15	N89°25'18"E	691.69'
L16	S00°03'58"E	24.51'

CERTIFICATE  
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

A red circular seal for a Professional Surveyor. The outer ring contains the text "PROFESSIONAL SURVEYOR" at the top and "STATE OF TEXAS" at the bottom. In the center, the number "23782" is printed in red, the name "Paul Buchholz" is written in blue ink, and the date "03-04-20" is printed in blue.

<b><i>ACREAGE / LENGTH TABLE "A"</i></b>				
LOCATION	FEET	RODS	PERM. ACRES	TEMP. ACRES
SEC. 24 (SW 1/4)	3568.93	216.30	4.012	0.743
SEC. 24 (NW 1/4)	26.93	1.63	0.124	0.087
SEC. 24 (SE 1/4)	363.39	22.02	0.417	0.083
TOTAL	3959.26	239.96	4.553	0.913

▲ = SECTION CORNERS LOCATED.

FILE: C-7098-B1

*Sheet 1 of 2*

**NOTES:**

- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"



**ConocoPhillips Company**

**ZHU 2331 WC  
ON BLM LANDS IN  
SECTION 24, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO**

<b>SURVEYED BY</b>	S.R.	08-12-19	<b>SCALE</b>
<b>DRAWN BY</b>	J.P.P.	03-04-20	1" = 600'

**FLOW LINE R-O-W**

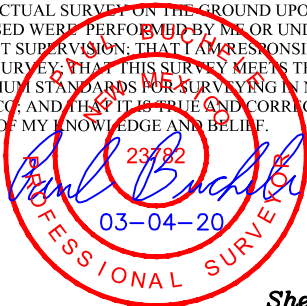
**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



FLOW LINE RIGHT-OF-WAY DESCRIPTION

BEGINNING AT A POINT ON THE WEST LINE OF THE NW 1/4 SW 1/4 OF SECTION 24, T26S, R31E, N.M.P.M., WHICH BEARS S00°18'45"E 706.90' FROM THE WEST 1/4 CORNER OF SAID SECTION 24, THENCE A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE LEFT SIDE OF SAID RIGHT-OF-WAY FOR A TOTAL WIDTH OF 60' DURING CONSTRUCTION, S89°35'01"E 33.90'; THENCE N60°09'24"E 1430.09'; THENCE A 50' WIDE RIGHT-OF-WAY 20' ON THE RIGHT SIDE AND 30' ON THE LEFT SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE LEFT SIDE OF SAID RIGHT-OF-WAY FOR A TOTAL WIDTH OF 60' DURING CONSTRUCTION, S83°24'30"E 224.17'; THENCE S81°18'14"E 602.47'; THENCE S05°55'04"W 570.58'; THENCE S63°41'18"E 87.12'; THENCE N89°25'07"E 194.24'; THENCE A 50' WIDE RIGHT-OF-WAY 25' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE WITH A 10' WIDE TEMPORARY RIGHT-OF-WAY ON THE LEFT SIDE OF SAID RIGHT-OF-WAY FOR A TOTAL WIDTH OF 60' DURING CONSTRUCTION, S00°02'50"E 100.47'; THENCE N89°25'18"E 691.69'; THENCE S00°03'58"E 24.51' TO A POINT IN THE NW 1/4 SE 1/4 OF SAID SECTION 24 AND THE POINT OF TERMINATION, WHICH BEARS N10°20'34"E 1837.01' CORNER OF SAID SECTION 24. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A TRANSVERSE MERCATOR PROJECTION WITH A CENTRAL MERIDIAN OF W103°53'00". RIGHT-OF-WAY CONTAINS 4.553 ACRES MORE OR LESS. TEMPORARY RIGHT-OF-WAY CONTAINS 0.913 ACRES MORE OR LESS.

CERTIFICATE  
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.



FILE: C-7098-B2

Sheet 2 of 2

NOTES:  
• Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

ConocoPhillips Company

ZHU 2331 WC  
ON BLM LANDS IN  
SECTION 24, T26S, R31E, N.M.P.M.  
EDDY COUNTY, NEW MEXICO

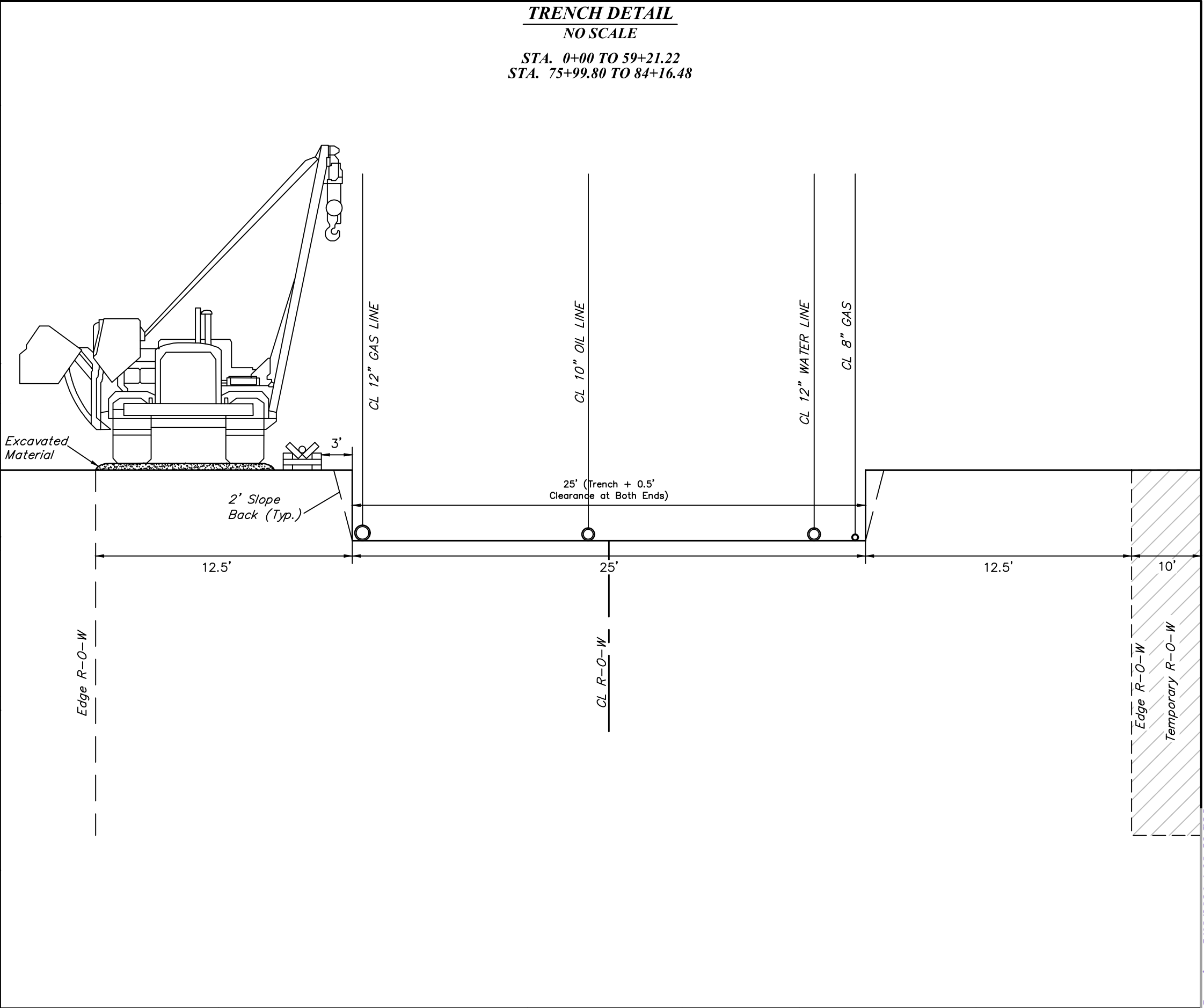
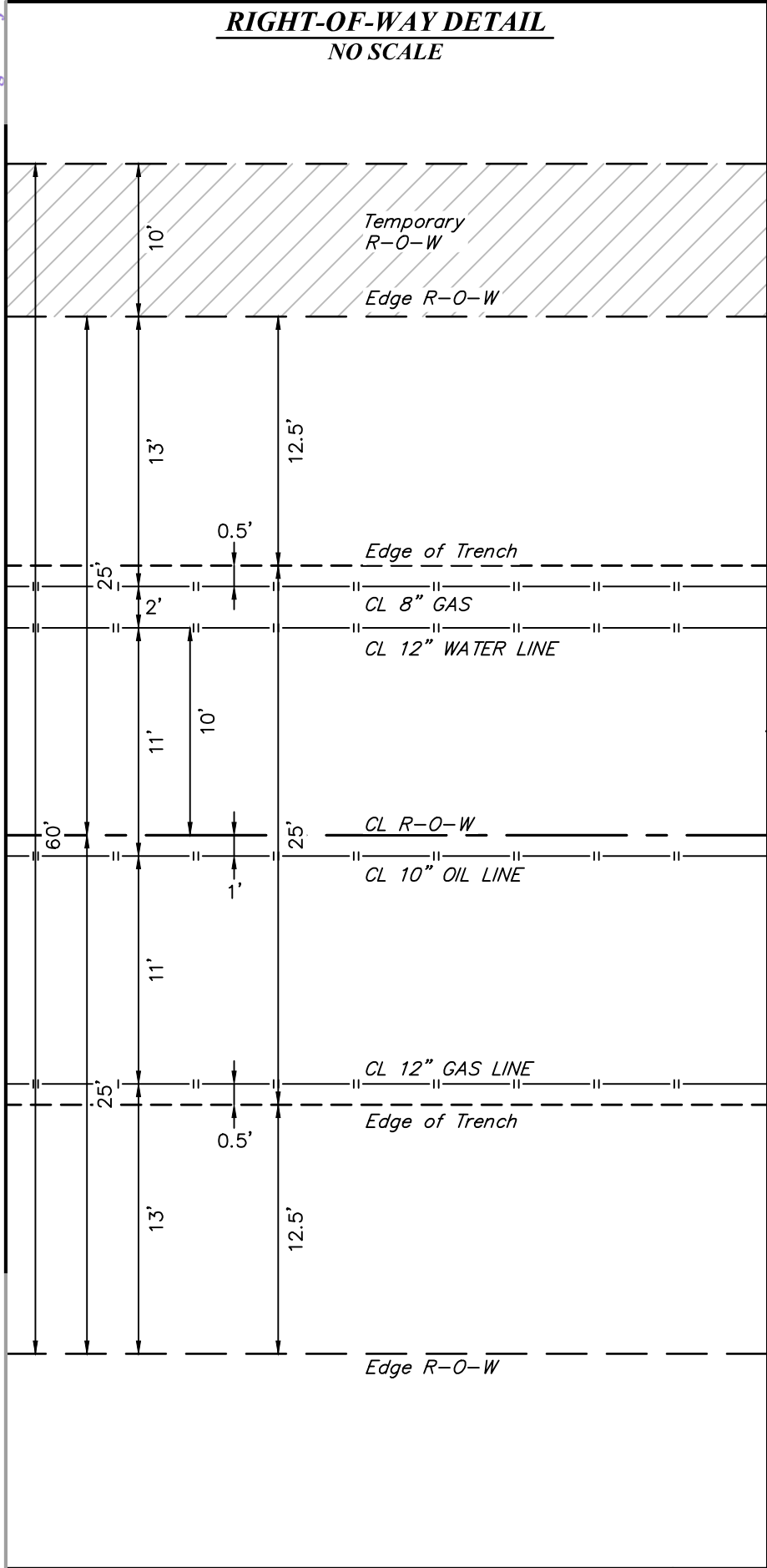
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DRAWN BY	J.P.P.	03-04-20	N/A

FLOW LINE R-O-W



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Page 66 of 75  
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Released to Imaging: 5/18/2021 4:38:52 PM



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Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

REVISION			SUMMARY OF MATERIALS		
NO.	DESCRIPTION	DATE	ITEM NO.	LINEAR FEET	DESCRIPTION

PROJECT DATA	SCALE: N/A
SURVEYED BY: S.R.	DRAWING# N/A
DRAWN BY: J.P.P.	SHEET: 1 OF 2
DATE: 03-04-20	

LOCATED IN  
SECTION 23 & 24,  
T26S, R31E, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO

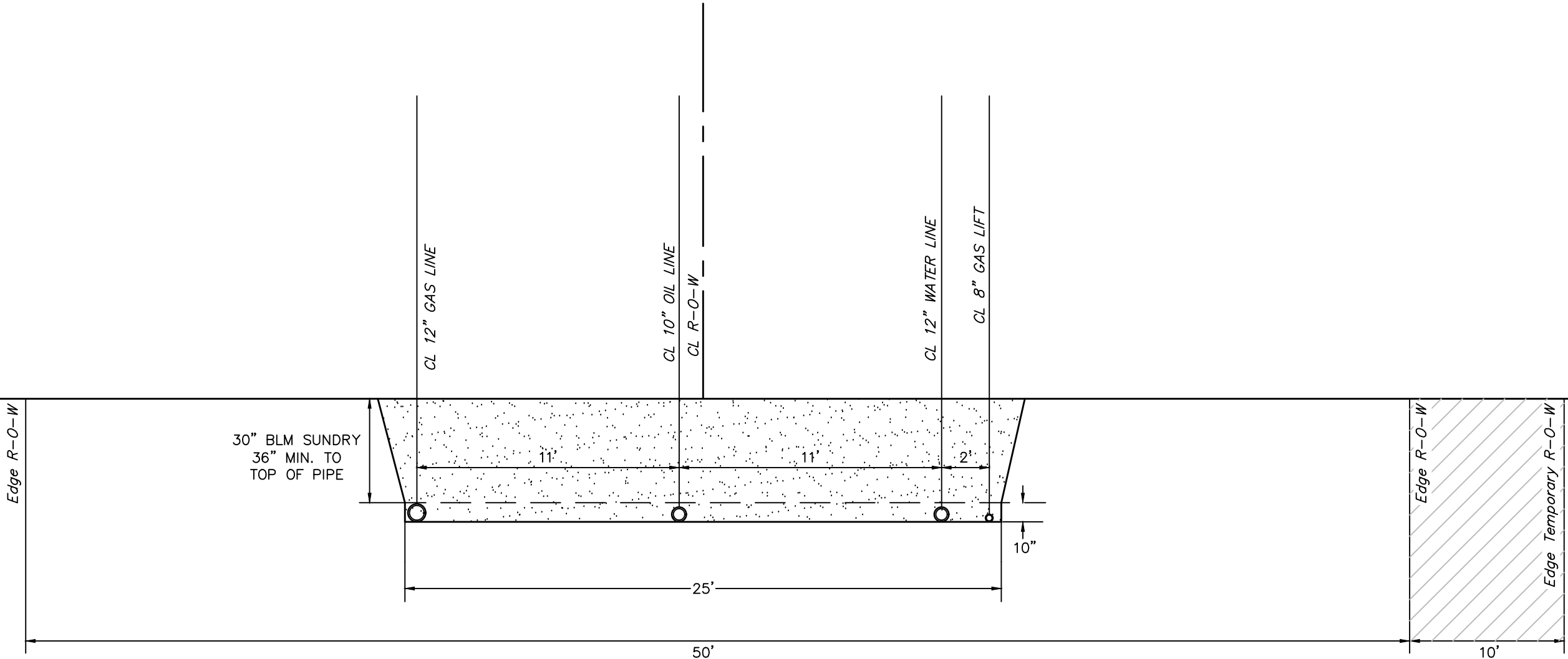
**ConocoPhillips Company**  
**ZHU 2331 WC**  
**RIGHT-OF-WAY DETAIL**

BACKFILL DIAGRAM

NO SCALE

STA. 0+00 TO 59+21.22

STA. 75+99.80 TO 84+16.48



BACKFILL DIRT TO BE AS FREE OF ROCKS AND  
LARGE PARTICLES AS POSSIBLE

12" GAS LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 270# PSI

10" OIL LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 270# PSI

12" WATER LINE WILL BE POLY PIPE WITH  
AN OPERATING PRESSURE UP TO 250# PSI

8" GAS LIFT LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 1250# PSI

SOFT FILL DIRT OR SAND WITH NO ROCKS OR SOLID  
PARTICLES GREATER THAN 1" IN CIRCUMFERENCE

6" CLEARANCE AT BOTH ENDS

12" CLEARANCE BETWEEN EACH PIPE



UELS, LLC  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

REVISION			SUMMARY OF MATERIALS		
NO.	DESCRIPTION	DATE	ITEM NO.	LINEAR FEET	DESCRIPTION

PROJECT DATA

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DRAWN BY: J.P.P.  
DATE: 03-04-20

SCALE: N/A

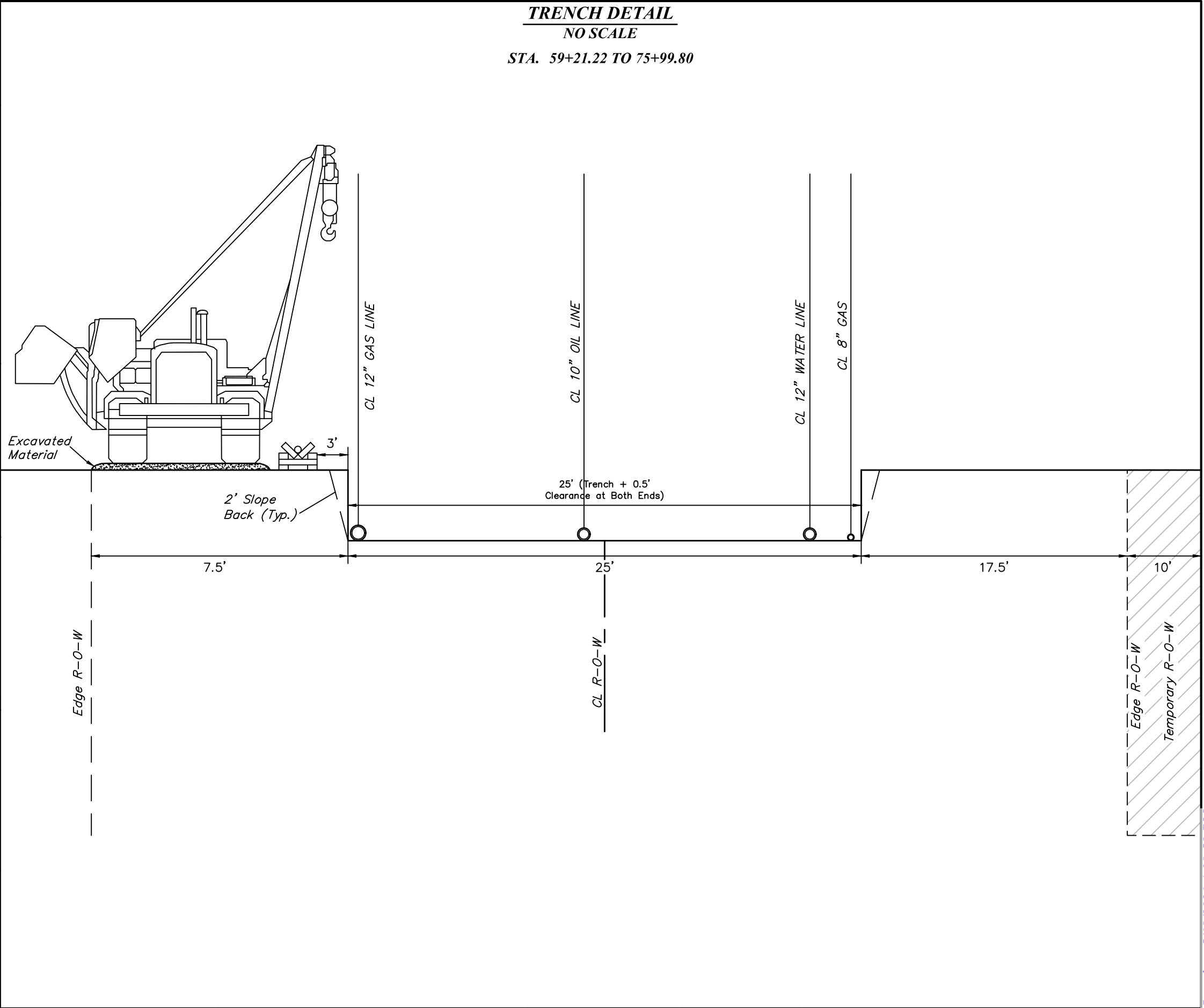
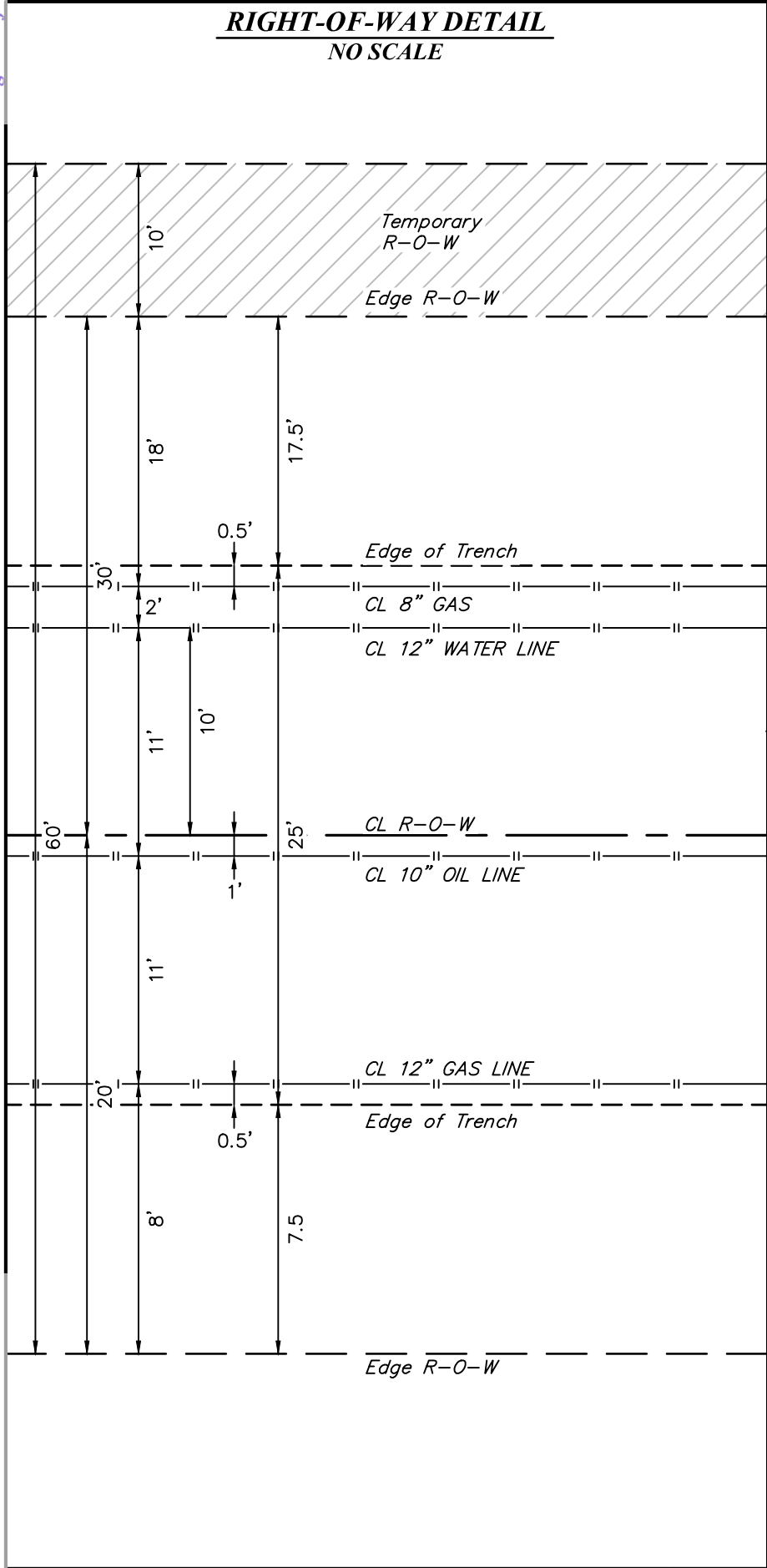
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SHEET: 2 OF 2

LOCATED IN  
SECTION 23 & 24,  
T26S, R31E, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO

ConocoPhillips Company  
ZHU 2331 WC  
RIGHT-OF-WAY DETAIL

Page 68 of 75  
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Released to Imaging: 5/18/2021 4:38:52 PM

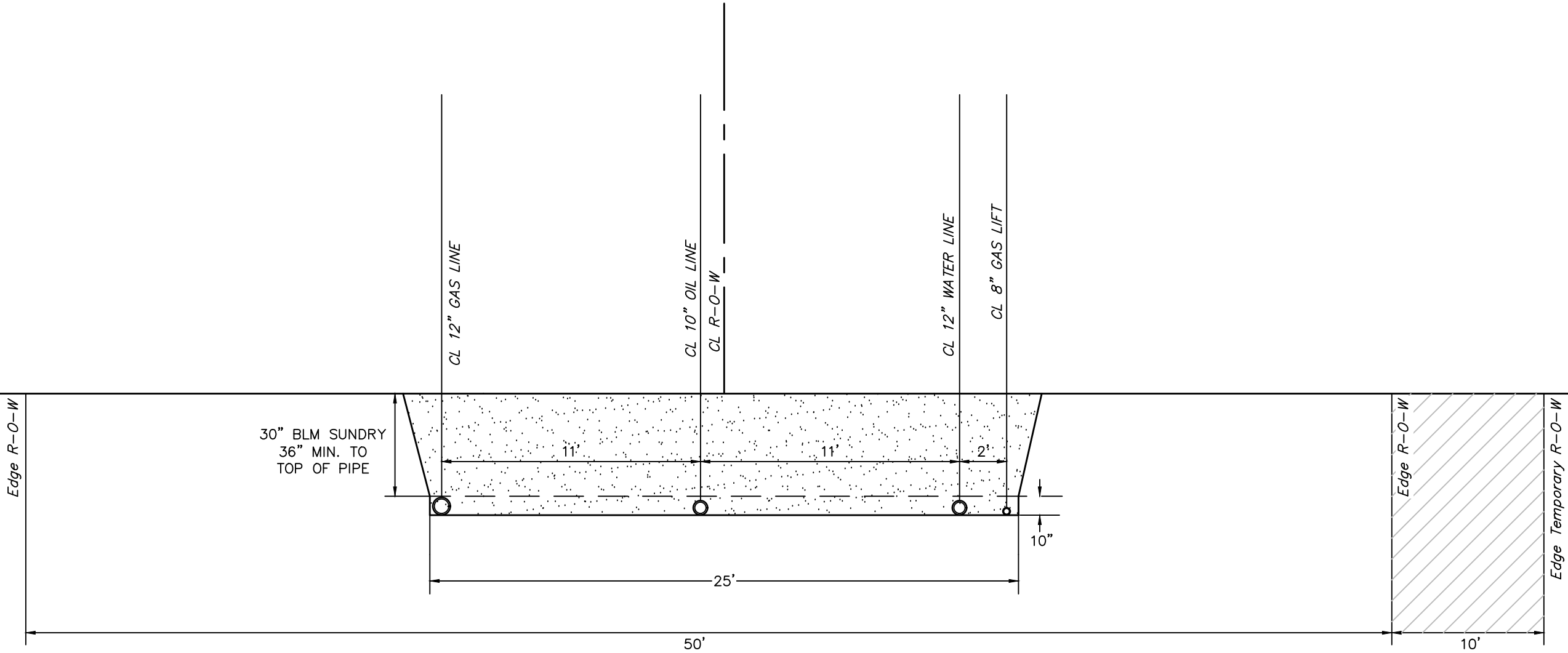


 <b>UINTEAH</b> ENGINEERING & LAND SURVEYING	<b>REVISION</b>			<b>SUMMARY OF MATERIALS</b>			<b>PROJECT DATA</b>		SCALE: N/A	<b>LOCATED IN</b> SECTION 23 & 24, T26S, R31E, N.M.P.M., EDDY COUNTY, NEW MEXICO	<b>ConocoPhillips Company</b> <b>ZHU 2331 WC</b> <b>RIGHT-OF-WAY DETAIL</b>
	NO.	DESCRIPTION	DATE	ITEM NO.	LINEAR FEET	DESCRIPTION	SURVEYED BY: S.R.	DRAWING# N/A			
							DRAWN BY: J.P.P.				
							DATE: 03-04-20	SHEET: 1 OF 2			

BACKFILL DIAGRAM

NO SCALE

STA. 59+21.22 TO 75+99.80



BACKFILL DIRT TO BE AS FREE OF ROCKS AND  
LARGE PARTICLES AS POSSIBLE

12" GAS LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 270# PSI

10" OIL LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 270# PSI

12" WATER LINE WILL BE POLY PIPE WITH  
AN OPERATING PRESSURE UP TO 250# PSI

8" GAS LIFT LINE WILL BE COATED STEEL WITH  
AN OPERATING PRESSURE UP TO 1250# PSI

SOFT FILL DIRT OR SAND WITH NO ROCKS OR SOLID  
PARTICLES GREATER THAN 1" IN CIRCUMFERENCE

6" CLEARANCE AT BOTH ENDS

12" CLEARANCE BETWEEN EACH PIPE



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Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

REVISION			SUMMARY OF MATERIALS		
NO.	DESCRIPTION	DATE	ITEM NO.	LINEAR FEET	DESCRIPTION

PROJECT DATA

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DRAWN BY: J.P.P.  
DATE: 03-04-20

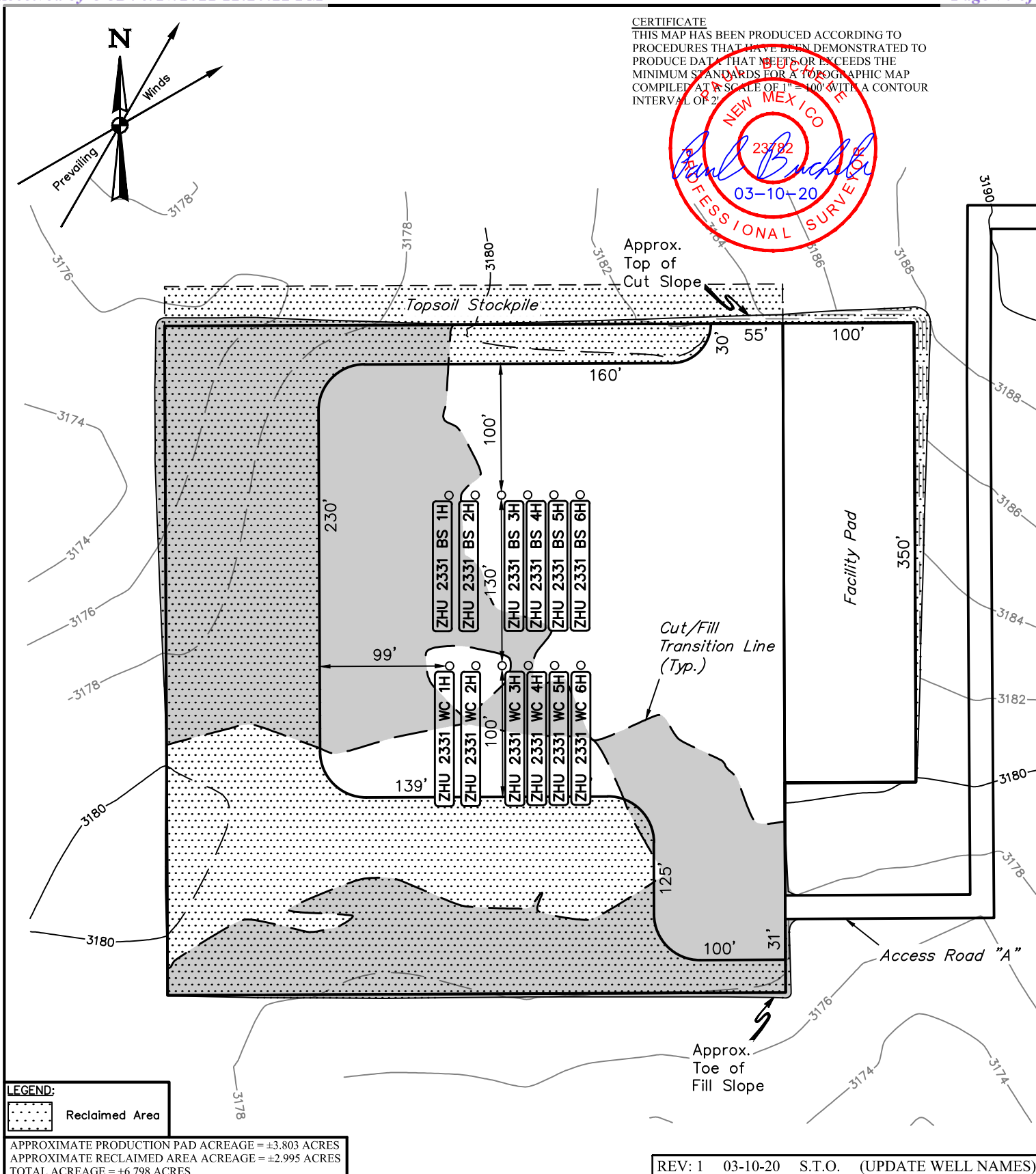
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DRAWING# N/A

SHEET: 2 OF 2

LOCATED IN  
SECTION 23 & 24,  
T26S, R31E, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO

ConocoPhillips Company  
ZHU 2331 WC  
RIGHT-OF-WAY DETAIL



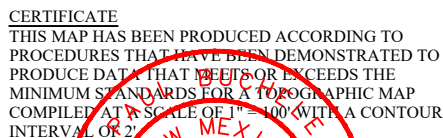
ConocoPhillips Company

**ZHU 2331 WC PAD 1**  
**SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**

SURVEYED BY	C.T., D.D.	10-03-19	SCALE
DRAWN BY	R.J.	02-14-20	1" = 100'
<b>RECLAMATION DIAGRAM</b>		<b>FIGURE #4</b>	



**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017



- Contours shown at 2' intervals.

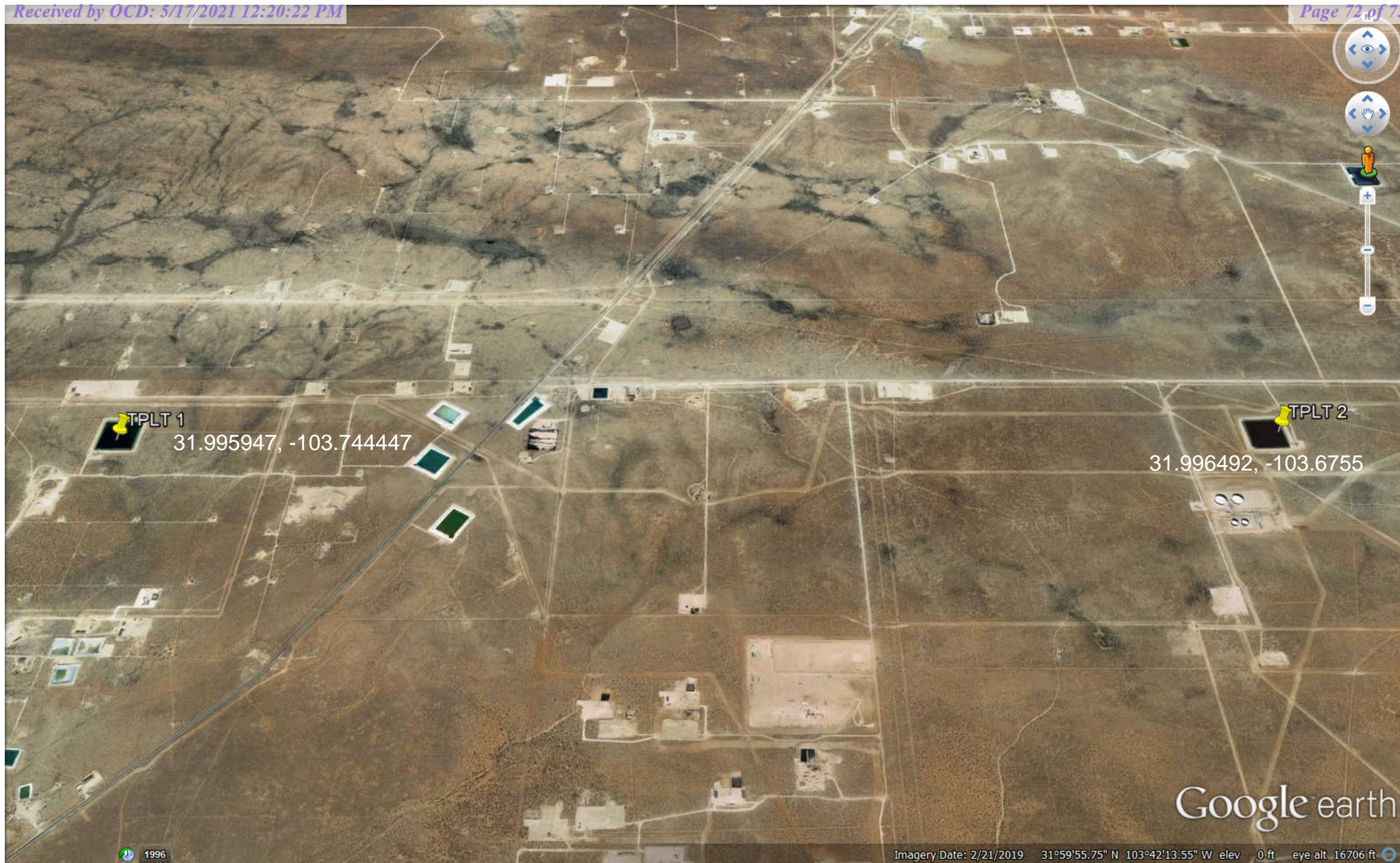
**ZHU 2331 WC PAD 1**  
**SW 1/4 SW 1/4, SECTION 23, T26S, R31E, N.M.P.M.**  
**EDDY COUNTY, NEW MEXICO**



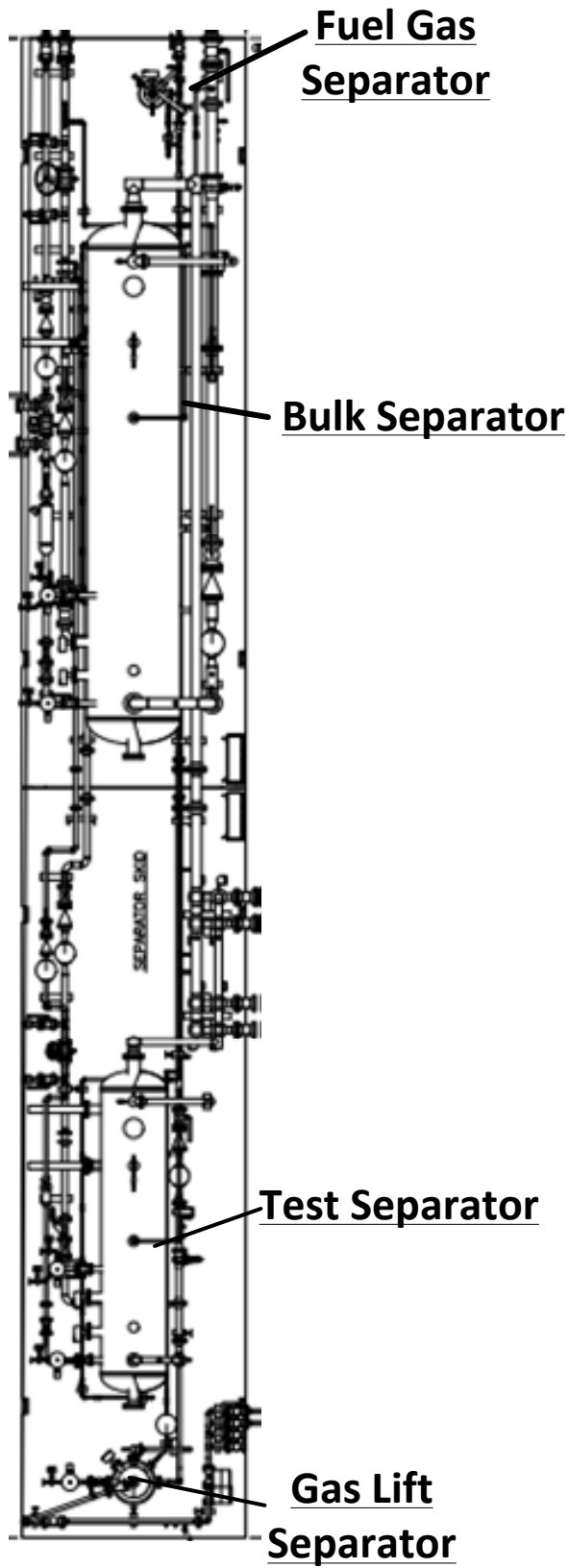
**UELS, LLC**  
Corporate Office \* 85 South 200 East  
Vernal, UT 84078 \* (435) 789-1017

<b>SURVEYED BY</b>	C.T., D.D.	10-03-19	<b>SCALE</b>
<b>DRAWN BY</b>	R.J.	02-14-20	1" = 100'
<b>TYPICAL RIG LAYOUT</b>			<b>FIGURE #3</b>

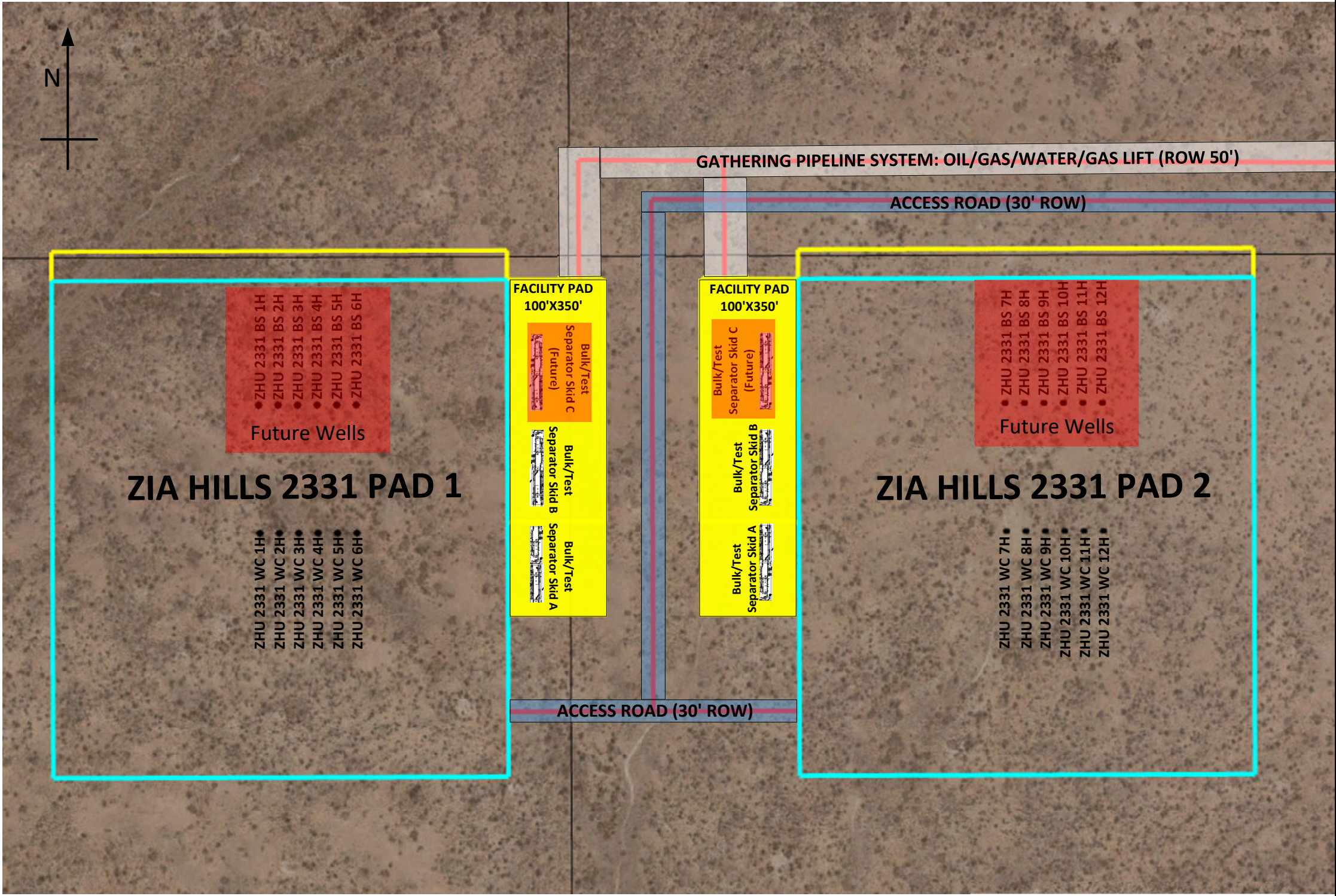








**Bulk/Test Separator Skid**



**ZIA HILLS 2331 Pad 1 & Pad 2**

LEA COUNTY, NM  
T26S-R31E-S23



ZIA HILLS 23 PAD 1 and Pad 2  
AERIAL EQUIPMENT PLAN



**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 28451

**COMMENTS**

Operator:				OGRID:		Action Number:	Action Type:
	CONOCOPHILLIPS COMPANY	600 W. Illinois Avenue	Midland, TX79701		217817	28451	FORM 3160-3

Created By	Comment	Comment Date
kpickford	KP GEO Review 5/18/2021	05/18/2021

**District I**

1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

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

CONDITIONS

Action 28451

**CONDITIONS OF APPROVAL**

Operator:	CONOCOPHILLIPS COMPANY	600 W. Illinois Avenue	Midland, TX79701	OGRID:	217817	Action Number:	28451	Action Type:	FORM 3160-3
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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