Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

BURI	EAU OF LAND MANAGEMENT		J. Lease Serial No. N	NMNM0438001
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	re-enter an	6. If Indian, Allottee of	or Tribe Name
	TRIPLICATE - Other instructions on page	e 2	7. If Unit of CA/Agree	eement, Name and/or No.
I. Type of Well Oil Well Gas W	Vell Other		8. Well Name and No	DEEP ELEM 4 FED COM/505H
2. Name of Operator EOG RESOURCE			9. API Well No. 30-0	45.47040
		(; 1 1 1)	10. Field and Pool or	
a. Address 1111 BAGBY SKY LOB	BY 2, HOUSTON, TX 770 3b. Phone No. (713) 651-700			NOLFCAMP (GAS)
Location of Well (Footage, Sec., T.,R SEC 4/T26S/R31E/NMP	.,M., or Survey Description)		11. Country or Parish EDDY/NM	, State
12. CHE	CK THE APPROPRIATE BOX(ES) TO INI	DICATE NATURE OF	NOTICE, REPORT OR OT	HER DATA
TYPE OF SUBMISSION		ТҮРЕ О	F ACTION	
Notice of Intent	Acidize Deep	en	Production (Start/Resume)	<u> </u>
		aulic Fracturing	Reclamation	Well Integrity
Subsequent Report		Construction	Recomplete	Other
		and Abandon	Temporarily Abandon	
Final Abandonment Notice	Convert to Injection Plug peration: Clearly state all pertinent details, in		Water Disposal	
completed. Final Abandonment Not is ready for final inspection.) EOG respectfully requests an the following changes: Deep Elem 4 Fed Com 754H (ons. If the operation results in a multiple contices must be filed only after all requirements amendment to our approved APD for this FKA 505H) API #: 30-015-47916	s, including reclamations		
Change name from Deep Elen	n 4 Fed Com 505H to Deep Elem 4 Fed	Com 754H.		
•	1-E, Sec 16, 100' FSL, 797' FWL, Eddy O' FSL, 1435' FWL, Eddy Co., N.M.	Co., NM,		
Continued on page 3 additional	Linformation			
	true and correct. Name (Printed/Typed)			
STAR HARRELL / Ph: (432) 848-9	, , , , , , , , , , , , , , , , , , , ,	Regulatory Sp Title	ecialist	
(Electronic Submission Signature	n)	Date	03/07/2	2024
	THE SPACE FOR FEDI	ERAL OR STATE	OFICE USE	
Approved by		5		20/40/22
CHRISTOPHER WALLS / Ph: (575	5) 234-2234 / Approved	Petroleun Title	n Engineer	03/12/2024 Date
	ned. Approval of this notice does not warran equitable title to those rights in the subject leduct operations thereon.		BAD	

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

(Instructions on page 2)

DISTRICT I

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

DISTRICT II
81 I S. First St., Artesin, NM 88210
Phone: (575) 748-9720

DISTRICT II
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) 376-3460 Fax: (505) 476-3462

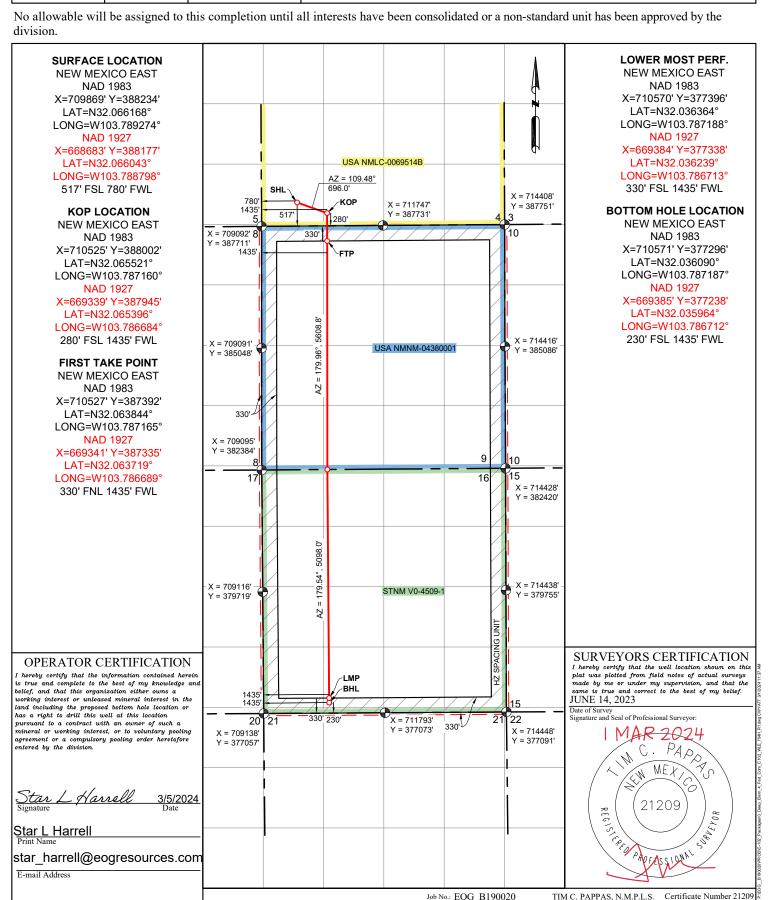
State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-015-47	PI Number '916			Pool Code 98220		Pool Name Purple Sage; Wolfcamp (Gas)				
Property Co 32997			•	DE	Property Name Well Number DEEP ELEM 4 FED COM 754H					
0GRID N 7377				Operator Name Elevation EOG RESOURCES, INC. 3291'						
					Surface Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
М	4	26 S	31 E		517	SOUTH	780	WEST	EDDY	
•			Bott	om Hole	Location If Diff	erent From Surfac	e	•		
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
М	16	26 S	31 E		230	SOUTH	1435	WEST	EDDY	
Dedicated Acres	Joint or	Infill	Consolidated Coo							
1280					PEN	DING COM AGF	REEMENT			





Revised Permit Information 01/31/2024:

Well Name: Deep Elem 4 Fed Com 754H

Location: SHL: 517' FSL & 780' FWL, Section 4, T-26-S, R-31-E, Eddy Co., N.M.

BHL: 230' FSL & 1435' FWL, Section 16, T-26-S, R-31-E, Eddy Co., N.M.

CASING PROGRAM:

Hole	Interv	al MD	Interva	al TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
12-1/4"	0	1,240	0	1,240	9-5/8"	36#	J-55	LTC
8-3/4"	0	10,284	0	10,230	7-5/8"	29.7#	ICYP-110	MO FXL
6-3/4"	0	9,784	0	9,730	5-1/2"	20#	P110-EC	DWC/C IS MS
6-3/4"	9,784	10,284	9,730	10,230	5-1/2"	20#	P110-EC	VAM Sprint SF
6-3/4"	10,284	23,043	10,230	12,489	5-1/2"	20#	P110-EC	DWC/C IS MS

Variance is requested to waive the centralizer requirements for the 7-5/8" casing in the 8-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 8-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 5-1/2" casing in the 6-3/4" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 6-3/4" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 5-1/2" casing by 7-5/8" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

CEMENTING PROGRAM:

		Wt.	Yld	Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	Siully Description
1,240'	340	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-
9-5/8''				Flake (TOC @ Surface)
	80	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium
				Metasilicate (TOC @ 1,040')
10,230'	490	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3%
7-5/8''				Microbond (TOC @ 6,070')
	1040	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M +
				6% Bentonite Gel (TOC @ surface)
23,043'	2130	13.2	1.41	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond
5-1/2"				(TOC @ 9,730')



Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
Calcium Chloride	Accelerator
Cello-flake	Lost circulation prevention
Sodium Metasilicate	Accelerator
MagOx	Expansive agent
Pre-Mag-M	Expansive agent
Sodium Chloride	Accelerator
FL-62	Fluid loss control
Halad-344	Fluid loss control
Halad-9	Fluid loss control
HR-601	Retarder
Microbond	Expansive Agent

EOG requests variance from minimum standards to pump a two stage cement job on the 7-5/8" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6,270') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 40 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

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

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

MUD PROGRAM:

Measured Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,240'	Fresh - Gel	8.6-8.8	28-34	N/c
1,240' – 10,230'	Brine	9.0-10.5	28-34	N/c
10,230' – 12,063'	Oil Base	8.7-9.4	58-68	N/c - 6
12,063' – 23,043' Lateral	Oil Base	10.0-14.0	58-68	4 - 6



TUBING REQUIREMENTS

EOG respectively requests an exception to the following NMOCD rule:

• 19.15.16.10 Casing AND TUBING RQUIREMENTS: J (3): "The operator shall set tubing as near the bottom as practical and tubing perforations shall not be more than 250 feet above top of pay zone."

With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over time. An additional consideration for EOT placement during artificial lift installations is avoiding the high dog leg severity and inclinations found in the curve section of the wellbore to help improve reliability and performance. Dog leg severity and inclinations tend not to hamper gas lifted or flowing wells, but they do effect other forms of artificial lift like rod pump or ESP (electric submersible pump). Keeping the EOT above KOP is an industry best practice for those respective forms of artificial lift.

KB: 3316'

GL: 3291'

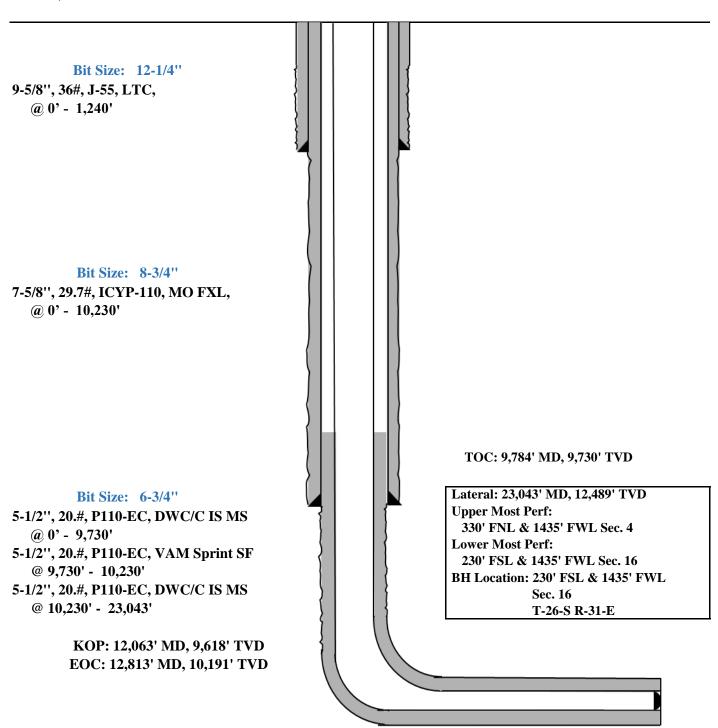


Deep Elem 4 Fed Com 754H

517' FSL Revised Wellbore 780' FWL

Section 4

T-26-S, R-31-E API: 30-015-47916





Design B CASING PROGRAM:

Hole	Interval MD		Interva	Interval TVD				
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
13"	0	1,240	0	1,240	10-3/4"	40.5#	J-55	STC
9-7/8"	0	10,284	0	10,230	8-3/4"	38.5#	P110-EC	SLIJ II NA
7-7/8"	0	23,043	0	12,489	6"	24.5#	P110-EC	VAM Sprint-SF

Variance is requested to waive the centralizer requirements for the 8-3/4" casing in the 9-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 9-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive any centralizer requirements for the 6" casing in the 7-7/8" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 7-7/8" hole interval to maximize cement bond and zonal isolation.

Variance is also requested to waive the annular clearance requirements for the 6" casing by 8-3/4" casing annulus to the proposed top of cement.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement from Onshore Order #2 under the following conditions:

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- Annular clearance less than 0.422" is acceptable for the production open hole section.

CEMENTING PROGRAM:

		Wt.	Yld	Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	Starry Description
1,240'	320	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-
10-3/4"				Flake (TOC @ Surface)
	70	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium
				Metasilicate (TOC @ 1,040')
10,230'	560	14.2	1.11	1st Stage (Tail): Class C + 0.6% Halad-9 + 0.45% HR-601 + 3%
8-3/4"				Microbond (TOC @ 6,070')
	1180	14.8	1.5	2nd Stage (Bradenhead squeeze): Class C + 3% Salt + 1% PreMag-M +
				6% Bentonite Gel (TOC @ surface)
23,043'	1850	13.2	1.31	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond
6"				(TOC @ 9,730')



EOG requests variance from minimum standards to pump a two stage cement job on the 8-3/4" intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon (6,270') and the second stage performed as a 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of 182 sacks of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top will be verified by Echo-meter.

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

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

VARIANCE REQUESTS:

EOG requests the additional variance(s) in the attached document(s):

Variances requested include (supporting documents attached):

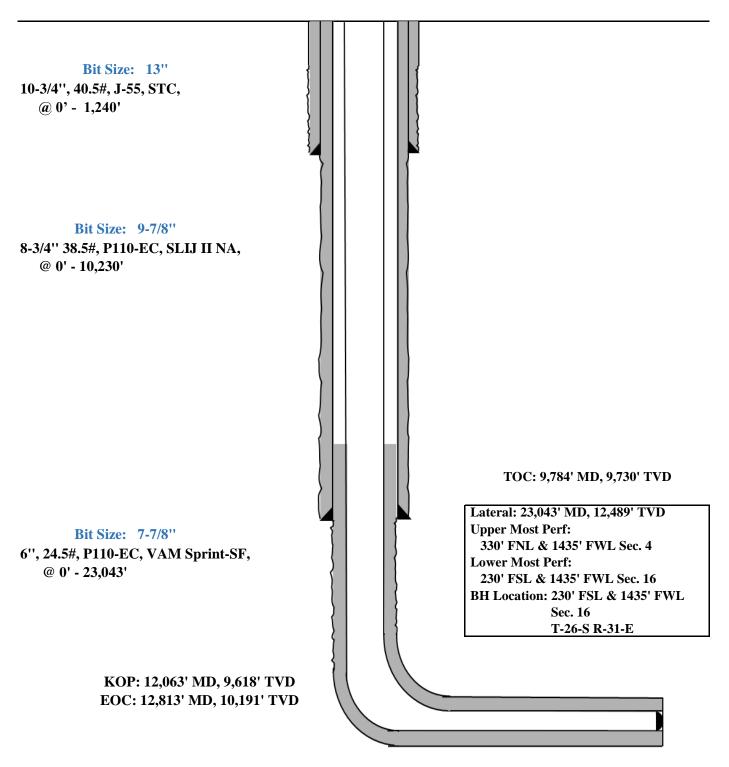
- BOP Break Testing for 5M Intermediate Intervals (EOG BLM Variance 3a_b)
- Offline Cementing for Surface and Intermediate Intervals (EOG BLM Variance 3a_b)
- Intermediate Bradenhead Cement (EOG BLM Variance 2a)



517' FSL Proposed Wellbore KB: 3316' 780' FWL GL: 3291'

Section 4

T-26-S, R-31-E API: 30-015-47916





GEOLOGIC NAME OF SURFACE FORMATION:

Permian

ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,124'
Tamarisk Anhydrite	1,215'
Top of Salt	1,477'
Base of Salt	3,730'
Lamar	3,837'
Bell Canyon	4,091'
Cherry Canyon	5,010'
Brushy Canyon	6,270'
Bone Spring Lime	7,983'
Leonard (Avalon) Shale	8,114'
1st Bone Spring Sand	8,965'
2nd Bone Spring Shale	9,216'
2nd Bone Spring Sand	9,626'
3rd Bone Spring Carb	10,126'
3rd Bone Spring Sand	10,887'
Wolfcamp	11,280'
TD	12,489'

ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0-400'	Fresh Water
Bell Canyon	4,091'	Oil
Cherry Canyon	5,010'	Oil
Brushy Canyon	6,270'	Oil
Leonard (Avalon) Shale	8,114'	Oil
1st Bone Spring Sand	8,965'	Oil
2nd Bone Spring Shale	9,216'	Oil
2nd Bone Spring Sand	9,626'	Oil

Midland

Eddy County, NM (NAD 83 NME) Deep Elem 4 Fed Com #754H

OH

Plan: Plan #0.3

Standard Planning Report

04 March, 2024

PEDM Database: Company:

Site:

Midland

Project: Eddy County, NM (NAD 83 NME)

Deep Elem 4 Fed Com

Well: #754H Wellbore: OH Design: Plan #0.3 **Local Co-ordinate Reference:**

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

Minimum Curvature

Project Eddy County, NM (NAD 83 NME)

US State Plane 1983 Map System: North American Datum 1983 Geo Datum:

New Mexico Eastern Zone Map Zone:

System Datum:

Mean Sea Level

Using geodetic scale factor

Deep Elem 4 Fed Com Site

Northing: 388,239.00 usft Site Position: Latitude: 32° 3' 58.075 N From: Мар Easting: 713,374.00 usft Longitude: 103° 46' 40.657 W

Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 "

Well #754H

Well Position 0.0 usft +N/-S Northing: 388,234.00 usft Latitude: 32° 3' 58.202 N +E/-W 0.0 usft Easting: 709,869.00 usft Longitude: 103° 47' 21.390 W **Position Uncertainty** 0.0 usft Wellhead Elevation: usft **Ground Level:** 3,291.0 usft

0.29 **Grid Convergence:**

ОН Wellbore

Model Name Declination Field Strength Magnetics Sample Date Dip Angle (°) (°) (nT) 47,477.31035776 IGRF2020 7/6/2020 6.74 59.75

Design Plan #0.3

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 176.33 0.0 0.0 0.0

Plan Survey Tool Program Date 3/4/2024

Depth From Depth To

(usft) (usft) Survey (Wellbore) **Tool Name** Remarks

EOG MWD+IFR1 0.0 23,043.0 Plan #0.3 (OH) MWD + IFR1

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

										Plan Sections
Target	TFO (°)	Turn Rate (°/100usft)	Build Rate (°/100usft)	Dogleg Rate (°/100usft)	+E/-W (usft)	+N/-S (usft)	Vertical Depth (usft)	Azimuth (°)	Inclination (°)	Measured Depth (usft)
	0.00	0.00	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
	0.00	0.00	0.00	0.00	0.0	0.0	1,300.0	0.00	0.00	1,300.0
	109.48	0.00	2.00	2.00	31.3	-11.1	1,734.8	109.48	8.73	1,736.5
	0.00	0.00	0.00	0.00	624.9	-221.0	5,835.2	109.48	8.73	5,884.9
	180.00	0.00	-2.00	2.00	656.2	-232.1	6,270.0	0.00	0.00	6,321.4
KOP (Deep Elem 4 Fe	0.00	0.00	0.00	0.00	656.2	-232.1	12,011.5	0.00	0.00	12,062.9
	179.81	23.98	12.00	12.00	657.7	-709.4	12,489.0	179.81	89.98	12,812.8
FTP (Deep Elem 4 Fe	0.00	0.00	0.00	0.00	658.2	-842.2	12,489.0	179.81	89.98	12,945.6
LTP (Deep Elem 4 Fe	-75.66	0.00	0.00	0.00	701.1	-10,839.5	12,489.0	179.69	90.02	22,943.0
PBHL (Deep Elem 4 F	-93.25	-0.53	-0.03	0.54	702.1	-10,939.5	12,489.0	179.16	89.98	23,043.0

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0 1,300.0	0.00 0.00	0.00 0.00	1,200.0 1,300.0	0.0 0.0	0.0 0.0	0.0 0.0	0.00	0.00 0.00	0.00 0.00
1,300.0	2.00	109.48	1,300.0	-0.6	1.6	0.0	0.00 2.00	2.00	0.00
1,400.0			1,400.0						
1,500.0	4.00	109.48	1,499.8	-2.3	6.6	2.7	2.00	2.00	0.00
1,600.0	6.00	109.48	1,599.5	-5.2	14.8	6.2	2.00	2.00	0.00
1,700.0	8.00	109.48	1,698.7	-9.3	26.3	11.0	2.00	2.00	0.00
1,736.5	8.73	109.48	1,734.8	-11.1	31.3	13.0	2.00	2.00	0.00
1,800.0	8.73	109.48	1,797.6	-14.3	40.4	16.8	0.00	0.00	0.00
1,900.0	8.73	109.48	1,896.4	-19.3	54.7	22.8	0.00	0.00	0.00
2,000.0	8.73	109.48	1,995.3	-24.4	69.0	28.8	0.00	0.00	0.00
2,100.0	8.73	109.48	2,094.1	-29.5	83.3	34.7	0.00	0.00	0.00
2,200.0	8.73	109.48	2,192.9	-34.5	97.6	40.7	0.00	0.00	0.00
2,300.0	8.73	109.48	2,291.8	-39.6	111.9	46.7	0.00	0.00	0.00
2,400.0	8.73	109.48	2,390.6	-44.6	126.2	52.6	0.00	0.00	0.00
2,400.0	8.73	109.48	2,489.5	-44.6 -49.7	140.5	58.6	0.00	0.00	0.00
2,600.0	8.73	109.48	2,588.3	-49.7 -54.8	154.8	64.6	0.00	0.00	0.00
2,700.0	8.73	109.48	2,687.2	-59.8	169.2	70.5	0.00	0.00	0.00
2,800.0	8.73	109.48	2,786.0	-64.9	183.5	76.5	0.00	0.00	0.00
2,900.0	8.73	109.48	2,884.8	-69.9	197.8	82.5	0.00	0.00	0.00
3,000.0	8.73	109.48	2,983.7	-75.0	212.1	88.4	0.00	0.00	0.00
3,100.0	8.73	109.48	3,082.5	-80.1	226.4	94.4	0.00	0.00	0.00
3,200.0	8.73	109.48	3,181.4	-85.1	240.7	100.4	0.00	0.00	0.00
3,300.0	8.73	109.48	3,280.2	-90.2	255.0	106.3	0.00	0.00	0.00
3,400.0	8.73	109.48	3,379.0	-95.2	269.3	112.3	0.00	0.00	0.00
3,500.0	8.73	109.48	3,477.9	-100.3	283.6	118.3	0.00	0.00	0.00
3,600.0	8.73	109.48	3,576.7	-105.4	297.9	124.2	0.00	0.00	0.00
3,700.0	8.73	109.48	3,675.6	-110.4	312.2	130.2	0.00	0.00	0.00
3,800.0	8.73	109.48	3,774.4	-115.5	326.6	136.2	0.00	0.00	0.00
3,900.0	8.73	109.48	3,873.2	-120.6	340.9	142.1	0.00	0.00	0.00
4,000.0	8.73	109.48	3,972.1	-125.6	355.2	148.1	0.00	0.00	0.00
4,100.0	8.73	109.48	4,070.9	-130.7	369.5	154.1	0.00	0.00	0.00
4,200.0	8.73	109.48	4,169.8	-135.7	383.8	160.0	0.00	0.00	0.00
4,300.0	8.73	109.48	4,268.6	-140.8	398.1	166.0	0.00	0.00	0.00
4,400.0	8.73	109.48	4,367.5	-145.9	412.4	172.0	0.00	0.00	0.00
4,500.0	8.73	109.48	4,466.3	-150.9	426.7	177.9	0.00	0.00	0.00
4,600.0	8.73	109.48	4,565.1	-156.0	441.0	183.9	0.00	0.00	0.00
4,700.0	8.73	109.48	4,664.0	-161.0	455.3 460.6	189.9	0.00	0.00	0.00
4,800.0	8.73	109.48	4,762.8	-166.1	469.6	195.8	0.00	0.00	0.00
4,900.0	8.73	109.48	4,861.7	-171.2	484.0	201.8	0.00	0.00	0.00
5,000.0	8.73	109.48	4,960.5	-176.2	498.3	207.8	0.00	0.00	0.00
5,100.0	8.73	109.48	5,059.3	-181.3	512.6	213.7	0.00	0.00	0.00
5,200.0	8.73	109.48	5,158.2	-186.3	526.9	219.7	0.00	0.00	0.00

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

200.g									
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	8.73	109.48	5,257.0	-191.4	541.2	225.7	0.00	0.00	0.00
5,400.0	8.73	109.48	5,355.9	-196.5	555.5	231.6	0.00	0.00	0.00
5,500.0	8.73	109.48	5,454.7	-201.5	569.8	237.6	0.00	0.00	0.00
5,600.0	8.73	109.48	5,553.6	-206.6	584.1	243.6	0.00	0.00	0.00
5,700.0	8.73	109.48	5,652.4	-211.6	598.4	249.5	0.00	0.00	0.00
5,800.0	8.73	109.48	5,751.2	-216.7	612.7	255.5	0.00	0.00	0.00
5,884.9	8.73	109.48	5,835.2	-221.0	624.9	260.6	0.00	0.00	0.00
5,900.0	8.43	109.48	5,850.1	-221.7	627.0	261.5	2.00	-2.00	0.00
6,000.0	6.43	109.48	5,949.2	-226.1	639.2	266.5	2.00	-2.00	0.00
6,100.0	4.43	109.48	6,048.8	-229.2	648.1	270.3	2.00	-2.00	0.00
6,200.0	2.43	109.48	6,148.6	-231.2	653.8	272.6	2.00	-2.00	0.00
6,300.0	0.43	109.48	6,248.6	-232.0	656.1	273.6	2.00	-2.00	0.00
6,321.4	0.00	0.00	6,270.0	-232.1	656.2	273.6	2.00	-2.00	0.00
6,400.0	0.00	0.00	6,348.6	-232.1	656.2	273.6	0.00	0.00	0.00
6,500.0	0.00	0.00	6,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
6,600.0	0.00	0.00	6,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
6,700.0	0.00	0.00	6.648.6	-232.1	656.2	273.6	0.00	0.00	0.00
· · · · · · · · · · · · · · · · · · ·	0.00	0.00	-,	-232.1 -232.1		273.6 273.6		0.00	
6,800.0			6,748.6	-232.1 -232.1	656.2		0.00		0.00
6,900.0 7,000.0	0.00 0.00	0.00 0.00	6,848.6 6,948.6	-232.1 -232.1	656.2 656.2	273.6 273.6	0.00 0.00	0.00 0.00	0.00 0.00
7,000.0	0.00	0.00	7,048.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,200.0	0.00	0.00	7,148.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,300.0	0.00	0.00	7,248.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,400.0	0.00	0.00	7,348.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,500.0	0.00	0.00	7,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,600.0	0.00	0.00	7,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,700.0	0.00	0.00	7,648.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,800.0	0.00	0.00	7,748.6	-232.1	656.2	273.6	0.00	0.00	0.00
7,900.0	0.00	0.00	7,848.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,000.0	0.00	0.00	7,948.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,100.0	0.00	0.00	8,048.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,200.0	0.00	0.00	8,148.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,300.0	0.00	0.00	8,248.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,400.0	0.00	0.00	8,348.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,500.0	0.00	0.00	8,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,600.0	0.00	0.00	8,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,700.0	0.00	0.00	8,648.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,800.0	0.00	0.00	8,748.6	-232.1	656.2	273.6	0.00	0.00	0.00
8,900.0	0.00	0.00	8,848.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,000.0	0.00	0.00	8,948.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,100.0	0.00	0.00	9,048.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,148.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,200.0	0.00	0.00	9,146.6	-232.1 -232.1	656.2	273.6	0.00	0.00	0.00
9,400.0	0.00	0.00	9,348.6	-232.1 -232.1	656.2	273.6	0.00	0.00	0.00
9,500.0	0.00	0.00	9,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,600.0	0.00	0.00	9,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,700.0	0.00	0.00	9,648.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,800.0	0.00	0.00	9,748.6	-232.1	656.2	273.6	0.00	0.00	0.00
9,900.0 10,000.0	0.00	0.00	9,848.6 9,948.6	-232.1 -232.1	656.2	273.6	0.00	0.00	0.00
10,000.0	0.00	0.00 0.00	9,948.6 10,048.6	-232.1 -232.1	656.2 656.2	273.6 273.6	0.00	0.00 0.00	0.00 0.00
	0.00						0.00		
10,200.0	0.00	0.00	10,148.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,300.0	0.00	0.00	10,248.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,400.0	0.00	0.00	10,348.6	-232.1	656.2	273.6	0.00	0.00	0.00

PEDM Database: Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

Well: #754H ОН Wellbore: Design: Plan #0.3 Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

Jesign:	FIAIT #0.3								
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,500.0	0.00	0.00	10,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,600.0	0.00	0.00	10,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,700.0	0.00	0.00	10,648.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,800.0	0.00	0.00	10,748.6	-232.1	656.2	273.6	0.00	0.00	0.00
10,900.0	0.00	0.00	10,848.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,000.0	0.00	0.00	10,948.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,100.0	0.00	0.00	11,048.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,200.0	0.00	0.00	11,148.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,300.0	0.00	0.00	11,248.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,400.0	0.00	0.00	11,348.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,500.0	0.00	0.00	11,448.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,600.0	0.00	0.00	11,548.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,700.0	0.00	0.00	11,648.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,800.0	0.00	0.00	11,748.6	-232.1	656.2	273.6	0.00	0.00	0.00
11,900.0	0.00	0.00	11,848.6	-232.1	656.2	273.6	0.00	0.00	0.00
12,000.0	0.00	0.00	11,948.6	-232.1	656.2	273.6	0.00	0.00	0.00
12,062.9	0.00	0.00	12,011.5	-232.1	656.2	273.6	0.00	0.00	0.00
12,075.0	1.45	179.81	12,023.6	-232.2	656.2	273.8	12.00	12.00	0.00
12,100.0	4.45	179.81	12,048.5	-233.5	656.2	275.0	12.00	12.00	0.00
12,125.0	7.45	179.81	12,073.4	-236.1	656.2	277.6	12.00	12.00	0.00
12,150.0	10.45	179.81	12,098.1	-240.0	656.2	281.5	12.00	12.00	0.00
12,175.0	13.45	179.81	12,122.5	-245.2	656.2	286.7	12.00	12.00	0.00
12,200.0	16.45	179.81	12,146.7	-251.6	656.2	293.1	12.00	12.00	0.00
12,225.0	19.45	179.81	12,170.5	-259.3	656.3	300.8	12.00	12.00	0.00
12,250.0	22.45	179.81	12,170.8	-268.2	656.3	309.7	12.00	12.00	0.00
12,275.0	25.45	179.81	12,216.7	-278.4	656.3	319.9	12.00	12.00	0.00
12,300.0	28.45	179.81	12,238.9	-289.7	656.4	331.2	12.00	12.00	0.00
12,325.0	31.45	179.81	12,260.6	-302.2	656.4	343.6	12.00	12.00	0.00
12,350.0	34.45	179.81	12,281.6	-315.8	656.5	357.2	12.00	12.00	0.00
12,375.0	37.45	179.81	12,301.8	-330.5	656.5	371.8	12.00	12.00	0.00
12,400.0	40.45	179.81	12,321.3	-346.2	656.6	387.5	12.00	12.00	0.00
12,425.0	43.45	179.81	12,339.9	-362.9	656.6	404.2	12.00	12.00	0.00
12,450.0	46.45	179.81	12,357.5	-380.5	656.7	421.8	12.00	12.00	0.00
12,475.0	49.45	179.81	12,337.3	-399.1	656.7	440.4	12.00	12.00	0.00
12,500.0	52.45	179.81	12,390.0	-418.5	656.8	459.7	12.00	12.00	0.00
12,525.0	55.45	179.81	12,404.7	-438.7	656.9	479.9	12.00	12.00	0.00
12,550.0	58.45	179.81	12,418.4	-459.7	656.9	500.8	12.00	12.00	0.00
12,575.0	61.45	179.81	12.430.9	-481.3	657.0	522.4	12.00	12.00	0.00
12,600.0	64.45	179.81	12,430.9	- 4 61.3 -503.6	657.0	522.4 544.6	12.00	12.00	0.00
12,625.0	67.45	179.81	12,442.5	-526.4	657.1	567.4	12.00	12.00	0.00
12,650.0	70.45	179.81	12,461.4	-549.7	657.2	590.7	12.00	12.00	0.00
12,675.0	73.45	179.81	12,469.2	-573.5	657.3	614.4	12.00	12.00	0.00
12,700.0	76.45	179.81	12,475.7	-597.6	657.4	638.5	12.00	12.00	0.00
12,700.0	76.45 79.45	179.81	12,475.7	-597.6 -622.1	657.4 657.5	662.9	12.00	12.00	0.00
12,750.0	82.45	179.81	12,480.9	-646.8	657.5	687.6	12.00	12.00	0.00
12,775.0	85.45	179.81	12,487.5	-671.6	657.6	712.4	12.00	12.00	0.00
12,800.0	88.45	179.81	12,488.8	-696.6	657.7	737.3	12.00	12.00	0.00
12,812.8	89.98	179.81	12,489.0	-709.4	657.7	750.1	12.00	12.00	0.00
12,900.0	89.98	179.81	12,489.0	-709.4 -796.6	658.0	837.1	0.00	0.00	0.00
12,945.6	89.98	179.81	12,489.0	-790.0 -842.2	658.2	882.6	0.00	0.00	0.00
13,000.0	89.98	179.81	12,489.0	-896.6	658.3	936.9	0.00	0.00	0.00
13,100.0	89.99	179.81	12,489.0	-996.6	658.7	1,036.7	0.00	0.00	0.00
			,						
13,200.0	89.99	179.81	12,489.1	-1,096.6	659.0	1,136.5	0.00	0.00	0.00
13,300.0	89.99	179.81	12,489.1	-1,196.6	659.3	1,236.4	0.00	0.00	0.00

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

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North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

esign:	Plan #0.3								
Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	89.99	179.81	12,489.1	-1,296.6	659.7	1,336.2	0.00	0.00	0.00
13,500.0	89.99	179.81	12,489.1	-1,396.6	660.0	1,436.0	0.00	0.00	0.00
13,600.0	89.99	179.81	12,489.2	-1,496.6	660.3	1,535.8	0.00	0.00	0.00
13,700.0	89.99	179.80	12,489.2	-1,596.6	660.7	1,635.6	0.00	0.00	0.00
13,800.0	89.99	179.80	12,489.2	-1,696.6	661.0	1,735.4	0.00	0.00	0.00
13,900.0	89.99	179.80	12,489.2	-1,796.6	661.4	1,835.3	0.00	0.00	0.00
14,000.0	89.99	179.80	12,489.2	-1,896.6	661.7	1,935.1	0.00	0.00	0.00
14,100.0	89.99	179.80	12,489.3	-1,996.6	662.1	2,034.9	0.00	0.00	0.00
,						,			
14,200.0	89.99	179.80	12,489.3	-2,096.6	662.4	2,134.7	0.00	0.00	0.00
14,300.0	89.99	179.80	12,489.3	-2,196.6	662.8	2,234.5	0.00	0.00	0.00
14,400.0	89.99	179.80	12,489.3	-2,296.6	663.1	2,334.3	0.00	0.00	0.00
14,500.0 14,600.0	89.99 89.99	179.79 179.79	12,489.3 12,489.4	-2,396.6 -2,496.6	663.5 663.8	2,434.2 2,534.0	0.00 0.00	0.00 0.00	0.00 0.00
14,700.0	89.99	179.79	12,489.4	-2,596.6	664.2	2,633.8	0.00	0.00	0.00
14,800.0	89.99	179.79	12,489.4	-2,696.6	664.6	2,733.6	0.00	0.00	0.00
14,900.0	89.99	179.79	12,489.4	-2,796.6	664.9	2,833.4	0.00	0.00	0.00
15,000.0	89.99	179.79	12,489.4	-2,896.6	665.3	2,933.2	0.00	0.00	0.00
15,100.0	89.99	179.79	12,489.4	-2,996.6	665.7	3,033.1	0.00	0.00	0.00
15,200.0	89.99	179.79	12,489.5	-3,096.6	666.0	3,132.9	0.00	0.00	0.00
15,300.0	89.99	179.79	12,489.5	-3,196.6	666.4	3,232.7	0.00	0.00	0.00
15,400.0	89.99	179.78	12,489.5	-3,296.6	666.8	3,332.5	0.00	0.00	0.00
15,500.0	89.99	179.78	12,489.5	-3,396.6	667.2	3,432.3	0.00	0.00	0.00
15,600.0	89.99	179.78	12,489.5	-3,496.6	667.5	3,532.2	0.00	0.00	0.00
15,700.0	89.99	179.78	12,489.5	-3,596.6	667.9	3,632.0	0.00	0.00	0.00
15,800.0	89.99	179.78	12,489.5	-3,696.6	668.3	3,731.8	0.00	0.00	0.00
15,900.0	89.99	179.78	12,489.6	-3,796.6	668.7	3,831.6	0.00	0.00	0.00
16,000.0	89.99	179.78	12,489.6	-3,896.6	669.1	3,931.4	0.00	0.00	0.00
16,100.0	89.99	179.78	12,489.6	-3,996.6	669.5	4,031.2	0.00	0.00	0.00
16,200.0	89.99	179.77	12,489.6	-4,096.6	669.9	4,131.1	0.00	0.00	0.00
16,300.0	90.00	179.77	12,489.6	-4,196.6	670.3	4,230.9	0.00	0.00	0.00
16,400.0	90.00	179.77	12,489.6	-4,296.6	670.7	4,330.7	0.00	0.00	0.00
16,500.0	90.00	179.77	12,489.6	-4,396.6	671.1	4,430.5	0.00	0.00	0.00
16,600.0	90.00	179.77	12,489.6	-4,496.6	671.5	4,530.3	0.00	0.00	0.00
16,700.0	90.00	179.77	12,489.6	-4,596.6	671.9	4,630.2	0.00	0.00	0.00
16,800.0	90.00	179.77	12,489.6	-4,696.6	672.3	4,730.0	0.00	0.00	0.00
16,900.0 17,000.0	90.00 90.00	179.77 179.77	12,489.6 12,489.6	-4,796.6 -4,896.6	672.7 673.1	4,829.8 4,929.6	0.00 0.00	0.00 0.00	0.00 0.00
17,100.0	90.00	179.77	12,489.6	-4,996.6	673.5	5,029.4	0.00	0.00	0.00
17,200.0	90.00	179.76	12,489.6	-5,096.6	673.9	5,129.3	0.00	0.00	0.00
17,300.0	90.00	179.76	12,489.7	-5,196.6	674.3	5,229.1	0.00	0.00	0.00
17,400.0	90.00	179.76	12,489.7	-5,296.6	674.7	5,328.9	0.00	0.00	0.00
17,500.0	90.00	179.76 179.76	12,489.7	-5,396.6 5,406.6	675.2	5,428.7	0.00	0.00	0.00
17,600.0	90.00	1/9./6	12,489.7	-5,496.6	675.6	5,528.5	0.00	0.00	0.00
17,700.0	90.00	179.76	12,489.7	-5,596.6	676.0	5,628.4	0.00	0.00	0.00
17,800.0	90.00	179.76	12,489.7	-5,696.6	676.4	5,728.2	0.00	0.00	0.00
17,900.0	90.00	179.75	12,489.7	-5,796.6	676.9	5,828.0	0.00	0.00	0.00
18,000.0	90.00	179.75	12,489.7	-5,896.6	677.3	5,927.8	0.00	0.00	0.00
18,100.0	90.00	179.75	12,489.7	-5,996.6	677.7	6,027.6	0.00	0.00	0.00
18,200.0	90.00	179.75	12,489.7	-6,096.6	678.1	6,127.5	0.00	0.00	0.00
18,300.0	90.00	179.75	12,489.7	-6,196.6	678.6	6,227.3	0.00	0.00	0.00
18,400.0	90.00	179.75	12,489.7	-6,296.6	679.0	6,327.1	0.00	0.00	0.00
18,500.0	90.00	179.75	12,489.7	-6,396.6	679.5	6,426.9	0.00	0.00	0.00
18,600.0	90.00	179.75	12,489.7	-6,496.5	679.9	6,526.8	0.00	0.00	0.00
		179.74	12,489.6	-6,596.5	680.3	6,626.6	0.00	0.00	0.00

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

Measured Depth Inclination Azimuth Cyth Depth (ustt)	ned Survey									
18,000	Depth			Depth			Section	Rate	Rate	Rate
19,000 0 90.00 179.74 12,489.6 -6,896.5 681.7 6,926.0 0.00 0.00 0.00 0.00 19,000 179.74 12,489.6 -7,096.5 682.6 7,125.7 0.00 0.00 0.00 0.00 19,000 90.00 179.74 12,489.6 -7,096.5 682.6 7,125.7 0.00 0.00 0.00 0.00 19,000 90.00 179.74 12,489.6 -7,196.5 683.1 7,225.5 0.00 0.00 0.00 0.00 19,000 179.74 12,489.6 -7,296.5 683.5 7,325.3 0.00 0.00 0.00 0.00 19,000 179.74 12,489.6 -7,296.5 683.5 7,325.3 0.00 0.00 0.00 0.00 19,000 179.74 12,489.6 -7,396.5 684.0 7,425.2 0.00 0.00 0.00 0.00 19,000 90.00 179.74 12,489.6 -7,396.5 684.0 7,425.2 0.00 0.00 0.00 0.00 19,000 90.00 179.73 12,489.6 -7,896.5 684.0 7,426.2 0.00 0.00 0.00 0.00 19,000 90.00 179.73 12,489.6 -7,896.5 684.9 7,525.8 0.00 0.00 0.00 0.00 19,800 90.01 179.73 12,489.6 -7,596.5 685.8 7,724.8 0.00 0.00 0.00 19,900 90.01 179.73 12,489.6 -7,596.5 685.8 7,724.3 0.00 0.00 0.00 0.00 19,900 90.01 179.73 12,489.6 -7,985.5 685.8 7,824.5 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -7,896.5 688.8 7,824.3 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -7,896.5 686.8 8,624.1 0.00 0.00 0.00 0.00 0.00 0.00 0.00 90.01 179.73 12,489.5 -8,166.5 687.3 8,123.9 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0										
19,100 0 90.00 179.74 12,489.6 -6,996.5 682.1 7,025.9 0.00 0.00 0.00 19,200.0 90.00 179.74 12,489.6 -7,096.5 683.1 7,225.5 0.00 0.00 0.00 19,300.0 90.00 179.74 12,489.6 -7,196.5 683.1 7,225.5 0.00 0.00 0.00 19,500 90.00 179.74 12,489.6 -7,596.5 683.5 7,325.3 0.00 0.00 0.00 19,500 90.00 179.74 12,489.6 -7,396.5 684.0 7,325.3 0.00 0.00 0.00 19,500 90.00 179.74 12,489.6 -7,396.5 684.0 7,425.2 0.00 0.00 0.00 19,500 90.01 179.73 12,489.6 -7,496.5 684.4 7,525.0 0.00 0.00 0.00 19,500 90.01 179.73 12,489.6 -7,596.5 684.4 7,525.0 0.00 0.00 0.00 19,800 90.01 179.73 12,489.6 -7,596.5 685.8 7,324.5 0.00 0.00 0.00 19,900 90.01 179.73 12,489.6 -7,596.5 685.8 7,324.5 0.00 0.00 0.00 19,900 90.01 179.73 12,489.6 -7,596.5 686.8 7,324.5 0.00 0.00 0.00 0.00 19,900 90.01 179.73 12,489.5 -7,596.5 686.8 7,324.5 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -7,596.5 686.8 8,024.1 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -7,596.5 686.8 8,024.1 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -8,965.5 686.8 8,024.1 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -8,965.5 687.7 8,223.8 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -8,965.5 687.7 8,223.8 0.00 0.00 0.00 0.00 20,000 90.01 179.73 12,489.5 -8,965.5 687.7 8,223.8 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.5 -8,965.5 688.2 8,233.8 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.5 -8,965.5 688.7 8,224.8 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.5 -8,965.5 688.7 8,225.0 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.4 -8,966.5 689.2 8,222.2 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.4 -8,966.5 690.2 8,722.9 0.00 0.00 0.00 0.00 20,000 90.01 179.72 12,489.4 -8,966.5 690.2 8,722.9 0.00 0.00 0.00 0.00 21,000 90.01 179.72 12,489.4 -8,966.5 690.1 8,922.7 0.00 0.00 0.00 0.00 21,000 90.01 179.72 12,489.4 -8,966.5 690.2 8,722.9 0.00 0.00 0.00 0.00 21,000 90.01 179.71 12,489.3 -9,966.5 696.1 9,222.3 0.00 0.00 0.00 0.00 21,000 90.01 179.71 12,489.3 -9,966.5 696.1 9,222.0 0.00 0.00 0.00 0.00 21,000 90.01 179.71 12,489.3 -9,966.5 696.1 9,222.0 0.00 0.00 0.00 0.00 22										
19,200.0 90.00 179.74 12,489.6 -7,096.5 682.6 7,125.7 0.00 0.00 0.00 19,300.0 90.00 179.74 12,489.6 -7,196.5 683.1 7,225.5 0.00 0.00 0.00 0.00 19,400.0 90.00 179.74 12,489.6 -7,196.5 683.1 7,225.5 0.00 0.00 0.00 0.00 19,500.0 90.00 179.74 12,489.6 -7,396.5 683.5 7,325.3 0.00 0.00 0.00 0.00 19,500.0 90.00 179.74 12,489.6 -7,396.5 684.0 7,425.2 0.00 0.00 0.00 0.00 19,500.0 90.01 179.73 12,489.6 -7,596.5 684.0 7,425.2 0.00 0.00 0.00 0.00 19,500.0 90.01 179.73 12,489.6 -7,596.5 684.9 7,624.8 0.00 0.00 0.00 19,900.0 90.01 179.73 12,489.6 -7,596.5 685.4 7,724.6 0.00 0.00 0.00 0.00 19,900.0 90.01 179.73 12,489.6 -7,596.5 685.4 7,724.6 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	,			,	,		,			
19,300	19,100.0	90.00	179.74	12,489.6	-6,996.5	682.1	7,025.9	0.00	0.00	0.00
19,400.0 90.00 179.74 12,489.6 -7,296.5 684.0 7,425.5 0.00 0.	19,200.0	90.00	179.74	12,489.6	-7,096.5	682.6	7,125.7	0.00	0.00	0.00
19,500.0 90.00 179.74 12,489.6 -7,396.5 684.0 7,425.2 0.00 0.00 0.00 0.00 19,700.0 90.01 179.73 12,489.6 -7,596.5 684.4 7,525.0 0.00 0.00 0.00 0.00 19,700.0 90.01 179.73 12,489.6 -7,596.5 685.4 7,724.6 0.00	19,300.0	90.00	179.74	12,489.6	-7,196.5	683.1	7,225.5	0.00	0.00	0.00
19,600.0 90.01 179.73 12,489.6 -7,496.5 684.4 7,525.0 0.00 0.00 0.00 19,700.0 90.01 179.73 12,489.6 -7,596.5 684.9 7,624.8 0.00 0.00 0.00 0.00 19,900.0 90.01 179.73 12,489.6 -7,796.5 685.8 7,824.5 0.00	19,400.0	90.00	179.74	12,489.6	-7,296.5	683.5	7,325.3	0.00	0.00	0.00
19,700.0 90.01 179.73 12,489.6 -7,596.5 684.9 7,624.8 0.00 0.00 0.00 19,900.0 90.01 179.73 12,489.6 -7,696.5 686.4 7,724.6 0.00 0.00 0.00 20,000.0 90.01 179.73 12,489.5 -7,896.5 686.3 7,824.5 0.00 0.00 0.00 0.00 20,000.0 90.01 179.73 12,489.5 -7,896.5 686.3 7,924.3 0.00 0.00 0.00 0.00 20,000.0 90.01 179.73 12,489.5 -7,996.5 686.8 8,024.1 0.00 0.00 0.00 20,200.0 90.01 179.73 12,489.5 -8,966.5 687.3 8,123.9 0.00 0.00 0.00 20,200.0 90.01 179.73 12,489.5 -8,966.5 687.3 8,123.9 0.00 0.00 0.00 0.00 20,200.0 90.01 179.73 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,296.5 688.2 8,323.6 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.2 8,323.6 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 21,000 90.01 179.72 12,489.4 -8,996.5 691.1 8,922.5 0.00 0.00 0.00 21,000 90.01 179.72 12,489.4 -8,996.5 691.1 8,922.5 0.00 0.00 0.00 21,000 90.01 179.71 12,489.4 -8,996.5 691.1 8,922.5 0.00 0.00 0.00 21,000 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,000 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 0.00 22,000.0 90.01 179.70 12,489.2 -10,196.5 699.7 10,200.6 0.00 0.00 0.00 0.00 22,000.0 90.01 179.70 12,489.2 -10,196.5 699.7 10,200.6 0.00 0.00 0.00 0.00 0.00 0.00 0.00	19,500.0	90.00	179.74	12,489.6	-7,396.5	684.0	7,425.2	0.00	0.00	0.00
19,800.0 90.01 179.73 12,489.6 -7,696.5 685.8 7,724.6 0.00 0.	19,600.0	90.01	179.73	12,489.6	-7,496.5	684.4	7,525.0	0.00	0.00	0.00
19,900.0 90.01 179.73 12,489.5 -7,896.5 686.8 7,824.5 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0	19,700.0	90.01	179.73	12,489.6	-7,596.5	684.9	7,624.8	0.00	0.00	0.00
20,000.0 90.01 179,73 12,489.5 -7,896.5 686.8 8,024.1 0.00 0.00 0.00 20,000.0 90.01 179,73 12,489.5 -7,996.5 686.8 8,024.1 0.00 0.00 0.00 20,300.0 90.01 179,73 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,300.0 90.01 179,72 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,500.0 90.01 179,72 12,489.5 -8,196.5 689.7 8,232.3 0.00 0.00 0.00 20,600.0 90.01 179,72 12,489.5 -8,596.5 689.2 8,523.2 0.00 0.00 0.00 20,700.0 90.01 179,72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,900.0 90.01 179,72 12,489.4 -8,796.5 690.6 8,722.9 0.00 0.00	19,800.0	90.01	179.73	12,489.6	-7,696.5	685.4	7,724.6	0.00	0.00	0.00
20,100.0 90.01 179.73 12,489.5 -7,996.5 686.8 8,024.1 0.00 0.00 0.00 20,200.0 90.01 179.73 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,400.0 90.01 179.72 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,233.6 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,800.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00	19,900.0	90.01	179.73	12,489.6	-7,796.5	685.8	7,824.5	0.00	0.00	0.00
20,100.0 90.01 179.73 12,489.5 -7,996.5 686.8 8,024.1 0.00 0.00 0.00 20,200.0 90.01 179.73 12,489.5 -8,096.5 687.3 8,223.8 0.00 0.00 0.00 20,400.0 90.01 179.72 12,489.5 -8,296.5 688.2 8,323.6 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.7 8,623.0 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,896.5 691.1 8,922.5 0.00 0.00	20.000.0	90.01	179.73	12.489.5	-7.896.5	686.3	7.924.3	0.00	0.00	0.00
20,300.0 90.01 179.73 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,400.0 90.01 179.72 12,489.5 -8,296.5 688.7 8,423.4 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.2 8,523.2 0.00 0.00 0.00 20,800.0 90.01 179.72 12,489.4 -8,596.5 690.6 8,822.7 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,796.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,996.5 691.6 8,922.5 0.00 0.00 0.00 21,200.0 90.01 179.71 12,489.4 -9,096.5 691.6 9,122.2 0.00 0.00	20,100.0	90.01	179.73	12,489.5		686.8	8,024.1	0.00	0.00	0.00
20,300.0 90.01 179.73 12,489.5 -8,196.5 687.7 8,223.8 0.00 0.00 0.00 20,400.0 90.01 179.72 12,489.5 -8,296.5 688.7 8,423.4 0.00 0.00 0.00 20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 689.2 8,523.2 0.00 0.00 0.00 20,800.0 90.01 179.72 12,489.4 -8,696.5 690.6 8,822.7 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,796.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.71 12,489.4 -9,096.5 691.6 9,022.3 0.00 0.00	20,200.0	90.01	179.73	12,489.5	-8,096.5	687.3	8,123.9	0.00	0.00	0.00
20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,600.0 90.01 179.72 12,489.5 -8,596.5 689.2 8,523.2 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 690.2 8,722.9 0.00 0.00 0.00 20,800.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,696.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.71 12,489.4 -9,196.5 692.1 9,122.2 0.00 0.00	20,300.0	90.01	179.73	12,489.5	-8,196.5	687.7	8,223.8	0.00	0.00	0.00
20,500.0 90.01 179.72 12,489.5 -8,396.5 688.7 8,423.4 0.00 0.00 0.00 20,600.0 90.01 179.72 12,489.5 -8,596.5 689.2 8,523.2 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.5 -8,596.5 690.2 8,722.9 0.00 0.00 0.00 20,800.0 90.01 179.72 12,489.4 -8,696.5 690.2 8,722.9 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,696.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.71 12,489.4 -9,196.5 692.1 9,122.2 0.00 0.00	20,400.0	90.01	179.72	12.489.5	-8.296.5	688.2	8.323.6	0.00	0.00	0.00
20,600.0 90.01 179.72 12,489.5 -8,496.5 689.2 8,523.2 0.00 0.00 0.00 20,700.0 90.01 179.72 12,489.4 -8,696.5 689.7 8,623.0 0.00 0.00 0.00 20,900.0 90.01 179.72 12,489.4 -8,796.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,796.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.71 12,489.4 -9,196.5 692.1 9,122.2 0.00 0.00 0.00 21,300.0 90.01 179.71 12,489.3 -9,296.5 693.1 9,321.8 0.00 0.00	,			,	,		,			
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20,900.0 90.01 179.72 12,489.4 -8,796.5 690.6 8,822.7 0.00 0.00 0.00 21,000.0 90.01 179.72 12,489.4 -8,896.5 691.1 8,922.5 0.00 0.00 0.00 21,200.0 90.01 179.72 12,489.4 -8,996.5 691.6 9,022.3 0.00 0.00 0.00 21,200.0 90.01 179.72 12,489.4 -9,096.5 692.1 9,122.2 0.00 0.00 0.00 21,300.0 90.01 179.71 12,489.4 -9,196.5 692.6 9,222.0 0.00 0.00 0.00 21,400.0 90.01 179.71 12,489.3 -9,296.5 693.1 9,321.8 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,596.5 694.6 9,621.3 0.00 0.00 0.00 21,800.0 90.01 179.71 12,489.3 -9,596.5										
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21,400.0 90.01 179.71 12,489.3 -9,296.5 693.1 9,321.8 0.00 0.00 0.00 21,500.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,496.5 694.1 9,521.5 0.00 0.00 0.00 21,700.0 90.01 179.71 12,489.3 -9,596.5 694.6 9,621.3 0.00 0.00 0.00 21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.2 9,920.8 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5	21,200.0	90.01	179.72	12,489.4	-9,096.5	692.1	9,122.2	0.00	0.00	0.00
21,400.0 90.01 179.71 12,489.3 -9,296.5 693.1 9,321.8 0.00 0.00 0.00 21,500.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,496.5 694.1 9,521.5 0.00 0.00 0.00 21,700.0 90.01 179.71 12,489.3 -9,596.5 694.6 9,621.3 0.00 0.00 0.00 21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,000.0 90.01 179.70 12,489.2 -9,996.5 696.2 9,920.8 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5	21,300.0	90.01	179.71	12,489.4	-9,196.5	692.6	9,222.0	0.00	0.00	0.00
21,500.0 90.01 179.71 12,489.3 -9,396.5 693.6 9,421.6 0.00 0.00 0.00 21,600.0 90.01 179.71 12,489.3 -9,496.5 694.1 9,521.5 0.00 0.00 0.00 21,700.0 90.01 179.71 12,489.3 -9,596.5 694.6 9,621.3 0.00 0.00 0.00 21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.1 -10,296.5	21,400.0	90.01	179.71	12,489.3	-9,296.5	693.1	9,321.8	0.00	0.00	0.00
21,700.0 90.01 179.71 12,489.3 -9,596.5 694.6 9,621.3 0.00 0.00 0.00 21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 <td></td> <td>90.01</td> <td>179.71</td> <td>12,489.3</td> <td></td> <td>693.6</td> <td>9,421.6</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>		90.01	179.71	12,489.3		693.6	9,421.6	0.00	0.00	0.00
21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,596.5 </td <td>,</td> <td></td> <td></td> <td></td> <td>,</td> <td></td> <td></td> <td></td> <td></td> <td></td>	,				,					
21,800.0 90.01 179.71 12,489.3 -9,696.5 695.1 9,721.1 0.00 0.00 0.00 21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,596.5 </td <td>21,700.0</td> <td>90.01</td> <td>179.71</td> <td>12,489.3</td> <td>-9,596.5</td> <td>694.6</td> <td>9,621.3</td> <td>0.00</td> <td>0.00</td> <td>0.00</td>	21,700.0	90.01	179.71	12,489.3	-9,596.5	694.6	9,621.3	0.00	0.00	0.00
21,900.0 90.01 179.71 12,489.2 -9,796.5 695.7 9,821.0 0.00 0.00 0.00 22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.2 10,320.1 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5	21,800.0	90.01	179.71	12,489.3	-9,696.5	695.1	9,721.1	0.00	0.00	0.00
22,000.0 90.01 179.71 12,489.2 -9,896.5 696.2 9,920.8 0.00 0.00 0.00 22,100.0 90.01 179.70 12,489.2 -9,996.5 696.7 10,020.6 0.00 0.00 0.00 22,200.0 90.01 179.70 12,489.2 -10,096.5 697.2 10,120.4 0.00 0.00 0.00 22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696										
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22,300.0 90.01 179.70 12,489.2 -10,196.5 697.7 10,220.3 0.00 0.00 0.00 22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,	22,100.0	90.01	179.70	12,489.2	-9,996.5	696.7	10,020.6	0.00	0.00	0.00
22,400.0 90.01 179.70 12,489.1 -10,296.5 698.2 10,320.1 0.00 0.00 0.00 22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,200.0	90.01	179.70	12,489.2	-10,096.5	697.2	10,120.4	0.00	0.00	0.00
22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,300.0	90.01	179.70	12,489.2	-10,196.5	697.7	10,220.3	0.00	0.00	0.00
22,500.0 90.01 179.70 12,489.1 -10,396.5 698.8 10,419.9 0.00 0.00 0.00 22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,400.0	90.01	179.70	12,489.1	-10,296.5	698.2	10,320.1	0.00	0.00	0.00
22,600.0 90.01 179.70 12,489.1 -10,496.5 699.3 10,519.7 0.00 0.00 0.00 22,700.0 90.01 179.70 12,489.1 -10,596.5 699.8 10,619.6 0.00 0.00 0.00 22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53										
22,800.0 90.01 179.70 12,489.0 -10,696.5 700.3 10,719.4 0.00 0.00 0.00 22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,600.0	90.01	179.70	12,489.1	-10,496.5	699.3	10,519.7	0.00	0.00	0.00
22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,700.0	90.01	179.70	12,489.1	-10,596.5	699.8	10,619.6	0.00	0.00	0.00
22,900.0 90.02 179.70 12,489.0 -10,796.5 700.9 10,819.2 0.00 0.00 0.00 22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	22,800.0	90.01	179.70	12,489.0	-10,696.5	700.3	10,719.4	0.00	0.00	0.00
22,943.0 90.02 179.69 12,489.0 -10,839.5 701.1 10,862.2 0.00 0.00 0.00 23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53	,			,	,		,			
23,000.0 90.00 179.39 12,489.0 -10,896.5 701.6 10,919.1 0.54 -0.03 -0.53				,			,			
23 0/3 0 80 08 170 16 12 /80 0 10 030 5 702 1 10 062 0 0.54 0.02 0.52	,			,						
- ZJ.U+J.U 08.80 178.10 [Z.408.U -]U.808.D 7UZ 1 1U.807.U U.34 -U.35 -U.55	23,043.0	89.98	179.16	12,489.0	-10,939.5	702.1	10,962.0	0.54	-0.03	-0.53

Database: PEDM Company: Midland

Project: Eddy County, NM (NAD 83 NME)

Site: Deep Elem 4 Fed Com

 Well:
 #754H

 Wellbore:
 OH

 Design:
 Plan #0.3

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #754H

KB = 25' @ 3316.0usft KB = 25' @ 3316.0usft

Grid

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
KOP (Deep Elem 4 Fed - plan hits target cer - Point	0.00 ter	0.00	12,011.5	-232.1	656.2	388,002.00	710,525.00	32° 3′ 55.873 N	103° 47' 13.780 W
FTP (Deep Elem 4 Fed (- plan hits target cer - Point	0.00 ter	0.00	12,489.0	-842.2	658.2	387,392.00	710,527.00	32° 3' 49.837 N	103° 47' 13.793 W
PBHL (Deep Elem 4 Fec - plan hits target cer - Point	0.00 ter	0.00	12,489.0	-10,939.5	702.1	377,296.00	710,571.00	32° 2' 9.926 N	103° 47' 13.875 W
LTP (Deep Elem 4 Fed (- plan hits target cer - Point	0.00 ter	0.00	12,489.0	-10,839.5	701.1	377,396.00	710,570.00	32° 2' 10.915 N	103° 47' 13.880 W



1600

2000

2400

12000

12400

- - - - - - - - -

+ + + + + + +

4400

Azimuths to Grid North
True North: -0.29°
Magnetic North: 6.46°

Magnetic Field
Strength: 47477.3nT
Dip Angle: 59.75°
Date: 7/6/2020
Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 6.46°
To convert a Magnetic Direction to a True Direction, Add 6.74° East
To convert a True Direction to a Grid Direction, Subtract 0.29°

Eddy County, NM (NAD 83 NME)

Deep Elem 4 Fed Com #754H

Plan #0.3

PROJECT DETAILS: Eddy County, NM (NAD 83 NME)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

WELL DETAILS: #754H

3291.0

KB = 25' @ 3316.0usft

Northing Easting Latittude Longitude
388234.00 709869.00 32° 3' 58.202 N 103° 47' 21.390 W

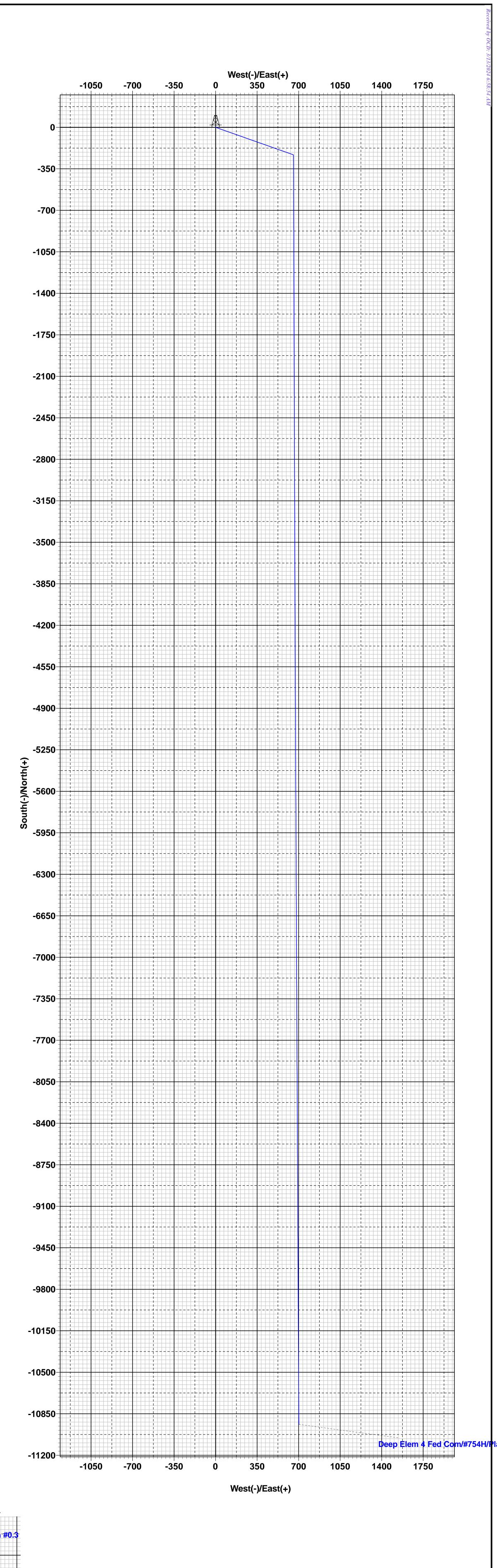
						SE	CTION I	DETAILS		
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	1300.0	0.00	0.00	1300.0	0.0	0.0	0.00	0.00	0.0	
3	1736.5	8.73	109.48	1734.8	-11.1	31.3	2.00	109.48	13.0	
4	5884.9	8.73	109.48	5835.2	-221.0	624.9	0.00	0.00	260.6	
5	6321.4	0.00	0.00	6270.0	-232.1	656.2	2.00	180.00	273.6	
6	12062.9	0.00	0.00	12011.5	-232.1	656.2	0.00	0.00	273.6	KOP (Deep Elem 4 Fed Com #505H)
7	12812.8	89.98	179.81	12489.0	-709.4	657.7	12.00	179.81	750.1	
8	12945.6	89.98	179.81	12489.0	-842.2	658.2	0.00	0.00	882.6	FTP (Deep Elem 4 Fed Com #505H)
9	22943.0	90.02	179.69	12489.0	-10839.5	701.1	0.00	-75.66	10862.2	LTP (Deep Elem 4 Fed Com #505H)
10	23043.0	89.98	179.16	12489.0	-10939.5	702.1	0.54	-93.25	10962.0	PBHL (Deep Elem 4 Fed Com #505H)

CASING DETAILS

No casing data is available

Name	TVD	+N/-S	+E/-W	Northing	Easting
KOP (Deep Elem 4 Fed Com #505H)	12011.5	-232.1	656.2	388002.00	710525.00
FTP (Deep Elem 4 Fed Com #505H)	12489.0	-842.2	658.2	387392.00	710527.00
LTP (Deep Elem 4 Fed Com #505H)	12489.0	-10839.5	701.1	377396.00	710570.00
PBHL (Deep Elem 4 Fed Com #505H)	12489.0	-10939.5	702.1	377296.00	710571.00

- + + + + + + +



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: EOG RESOURCES INCORPORATED
WELL NAME & NO.: DEEP ELEM 4 FED COM 754H
SURFACE HOLE FOOTAGE: 517'/S & 780'/W
BOTTOM HOLE FOOTAGE 230'/S & 1435'/W
LOCATION: Section 4, T.26 S., R.31 E., NMP
COUNTY: Eddy County, New Mexico

COA

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

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated AT SPUD. As a result, the Hydrogen Sulfide area must meet 43 CFR part 3170 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Primary Casing Design:

1. The 9-5/8 inch surface casing shall be set at approximately 1240 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 12-1/4 inch in diameter.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
 - 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 tail 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.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC.

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

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

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

- 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 due to operator not meeting casing clearance requirement per 43 CFR 3170. Operator shall provide method of verification.

Alternate Casing Design:

- 1. The 10-3/4 inch surface casing shall be set at approximately 1240 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface. The surface hole shall be 13 inch in diameter.
 - e. 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.
 - f. 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)
 - g. 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.
 - h. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the **8-3/4** inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
 Wait on cement (WOC) time for a primary cement job is to include the tail 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.

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus after primary cementing stage. Operator must run Echo-meter to verify Cement Slurry/Fluid top in the annulus Or operator shall run a CBL from TD of the 7-5/8" casing to surface after the second stage BH to verify TOC.

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

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

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

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

- 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 due to operator not meeting casing clearance requirement per 43 CFR 3170. 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).'
- Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the 9-5/8 inch surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 10,000 (10M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in 43 CFR 3172.6(b)(9) must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

• In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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

- BOPE Break Testing is ONLY permitted for 5M BOPE or less. (Annular preventer must be tested to a minimum of 70% of BOPE working pressure and shall be higher than the MASP)
- BOPE Break Testing is NOT permitted to drilling the production hole section.
- Variance only pertains to the intermediate hole-sections and no deeper than the Bone Springs formation.
- While in transfer between wells, the BOPE shall be secured by the hydraulic carrier or cradle.
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-361-2822 Eddy County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per Onshore Oil and Gas Order No. 2.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

Casing Clearance:

Operator casing variance is approved for the utilization of

- Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casing strings.
- -Annular clearance less than 0.422" is acceptable for the production open hole section.

Operator shall clean up cycles until wellbore is clear of cuttings and any large debris, ensure cutting sizes are adequate "coffee ground or less" before cementing.

Offline Cementing

Contact the BLM prior to the commencement of any offline cementing procedure.

GENERAL REQUIREMENTS

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

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

EMAIL or call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,

BLM_NM_CFO_DrillingNotifications@BLM.GOV (575) 361-2822

✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 689-5981

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per **43 CFR part 3170 Subpart 3172** as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a

digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

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

- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL
- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 43 CFR part 3170 Subpart 3172 and API STD 53 Sec. 5.3.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead cement), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the cement plug. The BOPE test can be initiated after bumping the cement plug with the casing valve open. (only applies to single stage cement jobs, prior to the cement setting up.)
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer and can be initiated immediately with the casing valve open. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to **43 CFR part 3170 Subpart 3172** with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per 43 CFR

part 3170 Subpart 3172.

C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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

JS 3/12/2024

SEC4-T26SR31E_DEEP ELEM 4 FED COM_Eddy__EOG RESOURCES INCORPORATED_3-12-2024_JS

DEEP ELEM 4 FED COM

9 5/8	S	surface csg in a	12 1/4	inch hole.		<u>Design I</u>	Factors		Surface			
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	36.00		j 55	ltc	10.15	3.56	0.63	1,240	6	1.06	6.87	44,640
"B"				ltc				0				0
	w/8	.4#/g mud, 30min Sfc Csg Test p	sig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	1,240				44,640
Comparison o	of Proposed to	Minimum Required Cemer	nt Volumes_									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
12 1/4	0.3132	420	695	388	79	8.80	3329	5M				0.81
Burst Frac Grad	dient(s) for Se	gment(s) A, B = , b $AII > 0.7$	70, OK.		Alt Burst ok							

7 5/8	cas	ing inside the	9 5/8			Design	<u>Factors</u>		•	Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	29.70		p 110	MO-FXL	2.16	1.26	0.83	10,230	1	1.20	2.12	303,831
"B"								0				0
	w/8.4‡	#/g mud, 30min Sfc Csg Test p	sig: 842				Totals:	10,230				303,831
1		The cement v	olume(s) are intende	ed to achieve a top of	0	ft from si	urface or a	1240				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
8 3/4	0.1005	1530	2104	1048	101	10.50	6335	10M				0.56
D V Tool(s):							sum of sx	Σ CuFt				Σ%excess
t by stage %:		#VALUE!	#VALUE!				1530	2104				101
Class 'H' tail cn	nt yld > 1.20						MASP is withi	n 10% of 50	00psig, n	eed exrta	equip?	
Burst Frac Grad	dient(s) for Segm	nent(s): A, B, C, D = 0.74, b	o, c, d All > 0.70, O	K.	Alt Burst ok							

5 1/2	casin	g inside the	7 5/8	_		Design Fac	ctors		_	Prod 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	20.00		p 110	DWC/C-IS MS EC	2.92	1.71	1.58	9,730	2	2.27	2.45	194,600
"B"	20.00		p 110	VAM SPRINT SF EC	11.89	1.62	1.58	500	2	2.27	2.33	10,000
	w/8.4#/g	mud, 30min Sfc Csg Test	psig: 2,141				Totals:	12,489				249,780
		The cement	volume(s) are inte	nded to achieve a top of	9730	ft from su	rface or a	500				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
6 3/4	0.0835	2120	2989	235	1172	14.00						0.32
Class 'C' tail cm	it yld > 1.35											

#N/A									-		• .	
0	5 1/2					<u>Design l</u>	-actors		<choose casing=""></choose>			
Segment	#/ft	Grade		Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"				0.00				0				0
"B"				0.00				0				0
	w/8.4#/	g mud, 30min Sfc Csg Test p	sig:				Totals:	0				0
		Cmt vol ca	c below includes this	s csg, TOC intended	#N/A	ft from su	rface or a	#N/A				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
0		#N/A	#N/A	0	#N/A							
#N/A			Capitan Reef est t	op XXXX.								

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SEC4-T26SR31E_DEEP ELEM 4 FED COM_Eddy__EOG RESOURCES INCORPORATED_3-12-2024_JS_B

DEEP ELEM 4 FED COM

10 3/4	su	rface csg in a	13	inch hole.	Design Factors					Surfac	e	
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	40.50		j 55	stc	8.36	2.79	0.56	1,240	6	0.94	5.37	50,220
"B"				stc				0				0
	w/8.4	#/g mud, 30min Sfc Csg Test	psig: 1,500	Tail Cmt	does not	circ to sfc.	Totals:	1,240	_		-	50,220
Comparison o	of Proposed to I	Minimum Required Ceme	ent Volumes_									
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
13	0.2915	390	647	361	79	8.80	3332	5M				0.63
Burst Frac Grad	Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK. Alt Burst ok											

83/4	cas	ing inside the	10 3/4	<u>Design Factors</u>					-	Int 1		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	38.50		p 110	VAM SLIJ II NA EC	2.37	0.93	1.14	10,237	2	1.64	1.56	394,125
"B"								0				0
	w/8.4#	#/g mud, 30min Sfc Csg Test	psig: 2,252				Totals:	10,237				394,125
		The cement	volume(s) are inte	nded to achieve a top of	0	ft from s	urface or a	1240				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
9 7/8	0.1143	1740	2392	1193	100	10.50	6335	10M				0.48
D V Tool(s):							sum of sx	<u>Σ CuFt</u>				$\Sigma\%$ excess
t by stage %:		#VALUE!	#VALUE!				1740	2392				100
Class 'H' tail cr	nt yld > 1.20						MASP is withi	in 10% of 50	00psig, n	eed exrta	a equip?	
					Keep Casing	full						

6	casing	; inside the	8 3/4	_		Design Fac	ctors			Prod 1		
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	24.50		p 110	VAM SPRINT SF EC	1.87	1.28	1.61	22,997	2	2.30	1.97	563,427
"B"								0				0
	w/8.4#/g	mud, 30min Sfc Csg Test	psig: 2,748				Totals:	22,997				563,427
		The cement	volume(s) are inte	nded to achieve a top of	9730	ft from su	rface or a	507				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
7 7/8	0.1419	1850	2424	1884	29	14.00						0.80
lass 'C' tail cm	t yld > 1.35											

#N/A 0		6 _					Design Factors				Casing>	-//-//-
Segment	#/ft	Grade		Coupling	#N/A	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"				0.00				0				0
"B"				0.00				0				0
	w/8.4#	#/g mud, 30min Sfc Csg Test p	sig:				Totals:	0				0
		Cmt vol cal	c below includes t	his csg, TOC intended	#N/A	ft from su	rface or a	#N/A				overlap.
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Req'd				Min Dist
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cplg
0		#N/A	#N/A	0	#N/A							
#N/A			Capitan Reef es	st top XXXX.								

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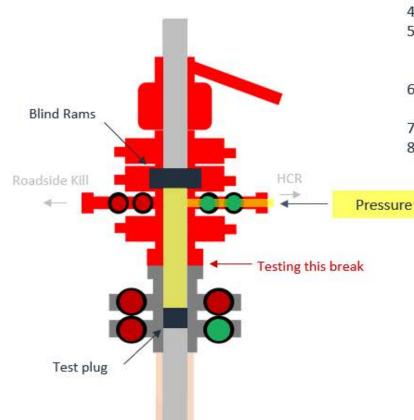


Break-test BOP & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of ECFR Title 43 Part 3172.6(b)(9)(iv) to allow a testing schedule of the blow out preventer (BOP) and blow out prevention equipment (BOPE) along with Batch Drilling & Offline cement operations to include the following:

- Full BOPE test at first installation on the pad.
- Full BOPE test every 21 days.
- This test will be conducted for 5M rated hole intervals only.
- Each rig requesting the break-test variance is capable of picking up the BOP without damaging components using winches, following API Standard 53, Well Control Equipment Systems for Drilling Wells (Fifth edition, December 2018, Annex C. Table C.4) which recognizes break testing as an acceptable practice.
- Function tests will be performed on the following BOP elements:
 - Annular à during each full BOPE test
 - Upper Pipe Rams à On trip ins where FIT required
 - Blind Rams à Every trip
 - Lower Pipe Rams à during each full BOPE test
- Break testing BOP and BOPE coupled with batch drilling operations and option to offline cement and/or remediate (if needed) any surface or intermediate sections, according to attached offline cementing support documentation.
- After the well section is secured, the BOP will be disconnected from the wellhead and walked with the rig to another well on the pad.
- TA cap will also be installed per Wellhead vendor procedure and pressure inside the
 casing will be monitored via the valve on the TA cap as per standard batch drilling
 ops.

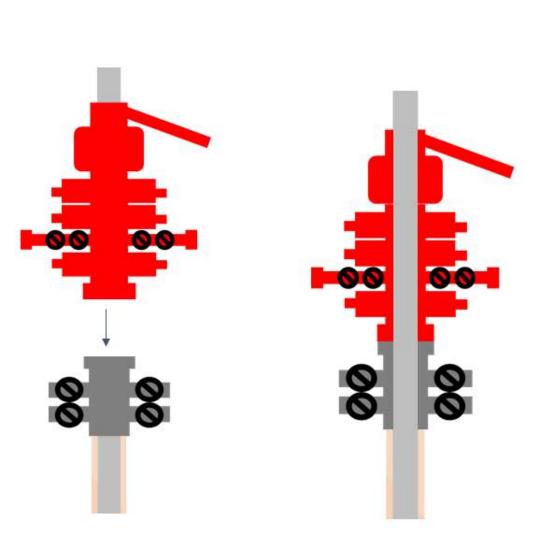
Break Test Diagram (HCR valve)

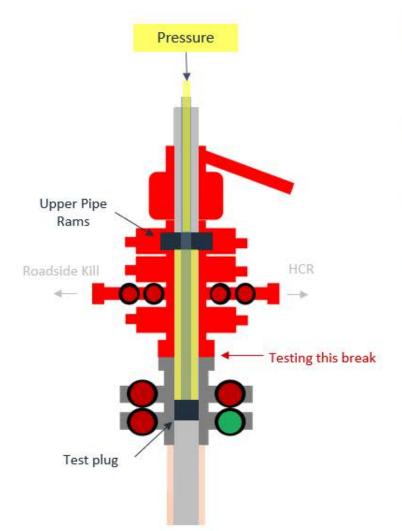


Steps

- 1. Set plug in wellhead (lower barrier)
- 2. Close Blind Rams (upper barrier)
- 3. Close roadside kill
- 4. Open HCR (pressure application)
- Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- Tie BOP testers high pressure line to main choke manifold crown valve
- 7. Pressure up to test break
- Bleed test pressure from BOP testing unit

Break Test Diagram (Test Joint)





Steps

- Set plug in with test joint wellhead (lower barrier)
- 2. Close Upper Pipe Rams (upper barrier)
- 3. Close roadside kill
- Close HCR
- Open wellhead valves below test plug to ensure if leak past test plug, pressure won't be applied to wellbore
- Tie BOP testers high pressure line to top of test joint
- 7. Pressure up to test break
- Bleed test pressure from BOP testing unit



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Cement Program

1. No changes to the cement program will take place for offline cementing.

Summarized Operational Procedure for Intermediate Casing

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment back pressure valves.
 - a. Float equipment is equipped with two back pressure valves rated to a minimum of 5,000 psi.
- 2. Land production casing on mandrel hanger through BOP.
 - a. If casing is unable to be landed with a mandrel hanger, then the casing will be cemented online.
- 3. Break circulation and confirm no restrictions.
 - a. Ensure no blockage of float equipment and appropriate annular returns.
 - b. Perform flow check to confirm well is static.
- 4. Set pack-off
 - a. If utilizing a fluted/ported mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid, remove landing joint, and set annular packoff through BOP. Pressure test to 5,000 psi for 10 min.
 - b. If utilizing a solid mandrel hanger, ensure well is static on the annulus and inside the casing by filling the pipe with kill weight fluid. Pressure test seals to 5,000 psi for 10 min. Remove landing joint through BOP.
- 5. After confirmation of both annular barriers and the two casing barriers, install TA plug and pressure test to 5,000 psi for 10 min. Notify the BLM with intent to proceed with nipple down and offline cementing.
 - a. Minimum 4 hrs notice.
- 6. With the well secured and BLM notified, nipple down BOP and secure on hydraulic carrier or cradle.
 - a. Note, if any of the barriers fail to test, the BOP stack will not be nippled down until after the cement job has concluded and both lead and tail slurry have reached 500 psi.
- 7. Skid/Walk rig off current well.
- 8. Confirm well is static before removing TA Plug.
 - a. Cementing operations will not proceed until well is under control. (If well is not static, notify BLM and proceed to kill)
 - b. Casing outlet valves will provide access to both the casing ID and annulus. Rig or third party pump truck will kill well prior to cementing.
 - c. Well control plan can be seen in Section B, Well Control Procedures.
 - d. If need be, rig can be moved back over well and BOP nippled back up for any further remediation.



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- e. Diagram for rig positioning relative to offline cementing can be seen in Figure 4.
- 9. Rig up return lines to take returns from wellhead to pits and rig choke.
 - a. Test all connections and lines from wellhead to choke manifold to 5,000 psi high for 10 min.
 - If either test fails, perform corrections and retest before proceeding.
 - c. Return line schematics can be seen in Figure 3.
- 10. Remove TA Plug from the casing.
- 11. Install offline cement tool.
 - a. Current offline cement tool schematics can be seen in Figure 1 (Cameron) and Figure 2 (Cactus).
- 12. Rig up cement head and cementing lines.
 - a. Pressure test cement lines against cement head to 80% of casing burst for 10 min.
- 13. Break circulation on well to confirm no restrictions.
 - a. If gas is present on circulation, well will be shut in and returns rerouted through gas buster.
 - b. Max anticipated time before circulating with cement truck is 6 hrs.
- 14. Pump cement job as per plan.
 - a. At plug bump, test casing to 0.22 psi/ft or 1500 psi, whichever is greater.
 - b. If plug does not bump on calculated, shut down and wait 8 hrs or 500 psi compressive strength, whichever is greater before testing casing.
- 15. Confirm well is static and floats are holding after cement job.
 - a. With floats holding and backside static:
 - i. Remove cement head.
 - b. If floats are leaking:
 - i. Shut-in well and WOC (Wait on Cement) until tail slurry reaches 500 psi compressive strength and the casing is static prior to removing cement head.
 - c. If there is flow on the backside:
 - i. Shut in well and WOC until tail slurry reaches 500 psi compressive strength. Ensure that the casing is static prior to removing cement head.
- 16. Remove offline cement tool.
- 17. Install night cap with pressure gauge for monitoring.
- 18. Test night cap to 5,000 psi for 10 min.



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Example Well Control Plan Content

A. Well Control Component Table

The table below, which covers the cementing of the <u>5M MASP (Maximum Allowable Surface Pressure) portion of the well</u>, outlines the well control component rating in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the BOP nippled up to the wellhead.

Intermediate hole section, 5M requirement

Component	RWP
Pack-off	10M
Casing Wellhead Valves	10M
Annular Wellhead Valves	5M
TA Plug	10M
Float Valves	5M
2" 1502 Lo-Torque Valves	15M

B. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while circulating and cementing through the Offline Cement Adapter.

General Procedure While Circulating

- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.

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- 6. Read and record the following:
 - a. SICP (Shut in Casing Pressure) and AP (Annular Pressure)
 - b. Pit gain
 - c. Time
 - d. Regroup and identify forward plan to continue circulating out kick via rig choke and mud/gas separator. Circulate and adjust mud density as needed to control well.

General Procedure While Cementing

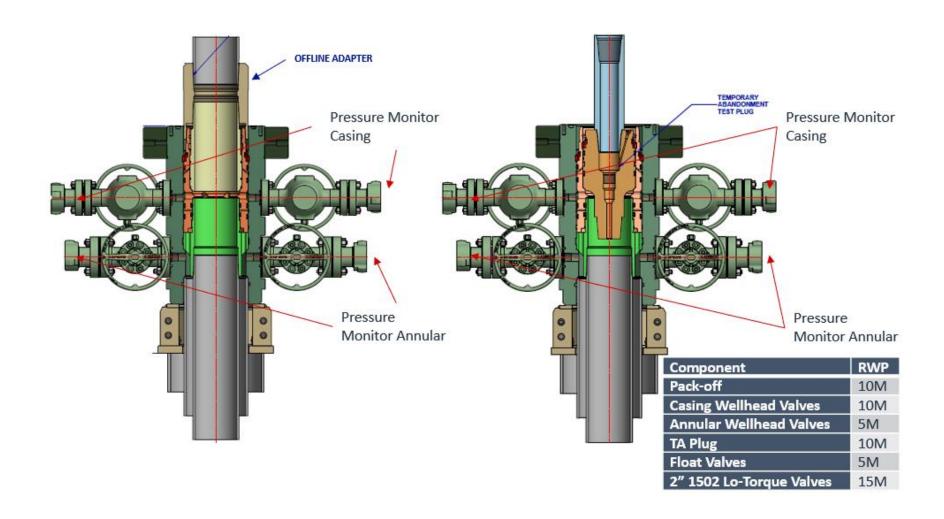
- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking returns through choke manifold and mud/gas separator.
- 7. Continue to place cement until plug bumps.
- 8. At plug bump close rig choke and cement head.
- 9. Read and record the following
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead

General Procedure After Cementing

- 1. Sound alarm (alert crew).
- 2. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 3. Confirm shut-in.
- 4. Notify tool pusher/company representative.
- 5. Read and record the following:
 - a. SICP and AP
 - b. Pit gain
 - c. Time
 - d. Shut-in annulus valves on wellhead

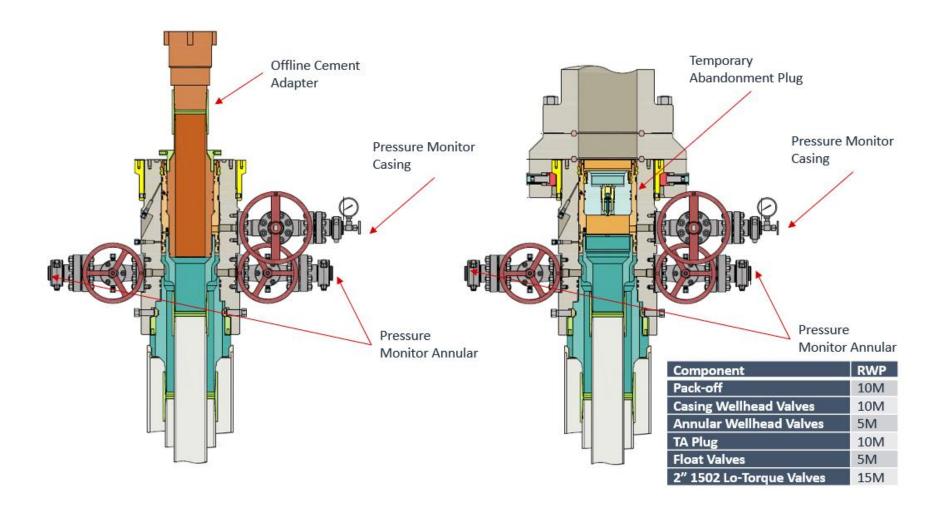
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Figure 1: Cameron TA Plug and Offline Adapter Schematic



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Figure 2: Cactus TA Plug and Offline Adapter Schematic

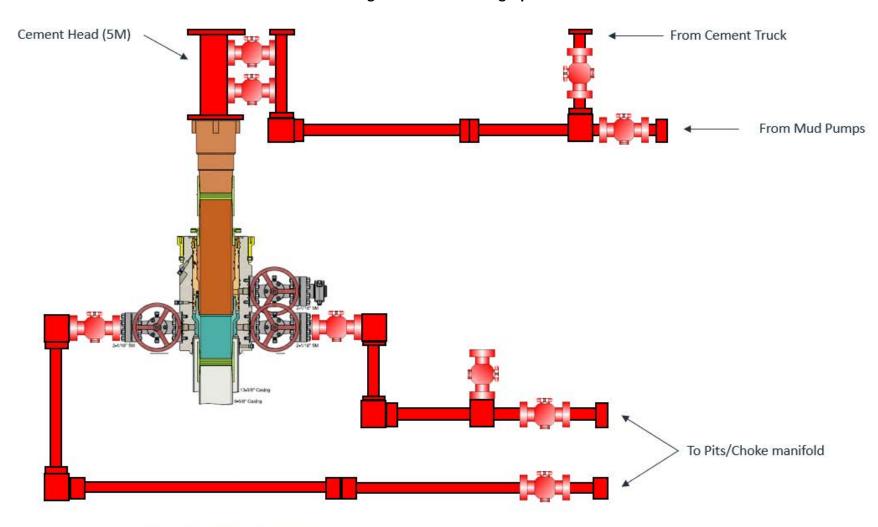


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Figure 3: Back Yard Rig Up



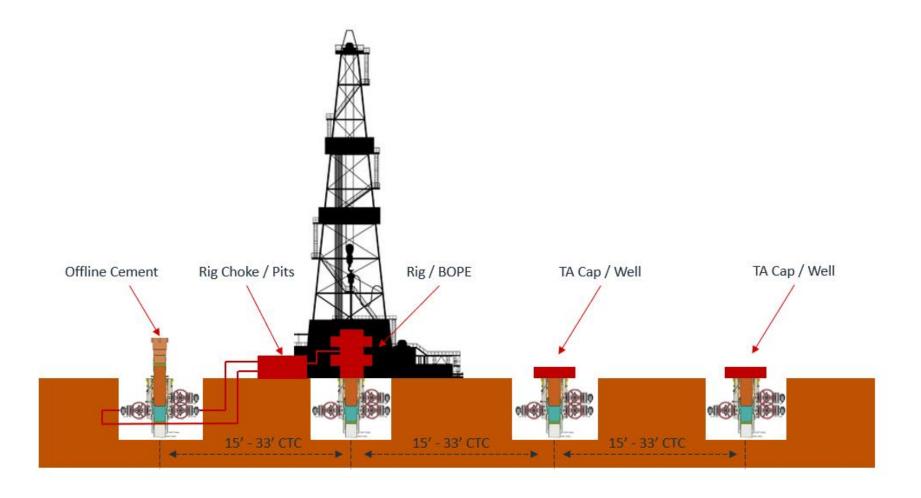
*** All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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Deep Elem 4 Fed Com 754H (FKA 505H) API #: 30-015-47916 Variances

EOG respectfully requests the below variances to be applied to the above well:

- Variance is requested to waive the centralizer requirements for the intermediate casing in the intermediate hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the intermediate interval to maximize cement bond and zonal isolation.
- Variance is also requested to waive the centralizer requirements for the production casing in the production hole. An expansion additive will be utilized, in the cement slurry, for the entire length of the production interval to maximize cement bond and zonal isolation.
- Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).
 - Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.
- EOG Resources requests the option to contract a Surface Rig to drill, set surface casing, and Cement on the subject well. After WOC 8 hours or 500 psi compressive strength (whichever is greater), the Surface Rig will move off so the wellhead can be installed. A welder will cut the casing to the proper height and weld on the wellhead (both "A" and "B" sections). The weld will be tested to 1,500 psi. All valves will be closed and a wellhead cap will be installed (diagram attached). If the timing between rigs is such that EOG Resources

would not be able to preset the surface, the Primary Rig will MIRU and drill the well in its entirety per the APD.

EOG requests the additional variance(s) in the attached document(s):

- EOG BLM Variance 3a b BOP Break-test and Offline Intermediate Cement
- EOG BLM Variance 2a Inermediate Bradenhead Cement



Intermediate Bradenhead Cement:

EOG requests variance from minimum standards to pump a two stage cement job on the intermediate casing string with the first stage being pumped conventionally with the calculated top of cement at the Brushy Canyon and the second stage performed as 1000 sack bradenhead squeeze with planned cement from the Brushy Canyon to surface. If necessary, a top out consisting of Class C cement + 3% Salt + 1% PreMag-M + 6% Bentonite Gel (2.30 yld, 12.91 ppg) will be executed as a contingency. Top of cement will be verified by Echo-meter.

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

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

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

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

CONDITIONS

Action 322805

CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
5509 Champions Drive	Action Number:
Midland, TX 79706	322805
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Work was performed without OCD approval.	12/12/2025