Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR

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

BUR	EAU OF LAND MANAGEMENT	5. Lease Serial No.	5. Lease Serial No. NMNM119276			
Do not use this t	IOTICES AND REPORTS ON W form for proposals to drill or to Use Form 3160-3 (APD) for suc	6. If Indian, Allottee	or Tribe Name			
SUBMIT IN	TRIPLICATE - Other instructions on pag	7. If Unit of CA/Agre	eement, Name and/or No.			
1. Type of Well Oil Well Gas W	/ell Other		8. Well Name and No	O. MODELO 10 FED COM/601H		
2. Name of Operator EOG RESOURG	_		9. API Well No. 3002	2551808		
	BY 2, HOUSTON, TX 77(3b. Phone No.	(include area code)		10. Field and Pool or Exploratory Area		
	(713) 651-70		TRIST DRAW/BC			
4. Location of Well (Footage, Sec., T., R SEC 10/T24S/R32E/NMP	.,M., or Survey Description)		11. Country or Parish LEA/NM	n, State		
12. CHE	CK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF N	OTICE, REPORT OR OT	THER DATA		
TYPE OF SUBMISSION		TYPE OF	ACTION			
✓ Notice of Intent	Acidize Deep Alter Casing Hydr	_	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity		
Subsequent Report	Casing Repair New	Construction I	Recomplete	Other		
Final Abandonment Notice		_	Temporarily Abandon Water Disposal			
completion of the involved operation completed. Final Abandonment Notice is ready for final inspection.) Modelo 10 Fed Com 211H (Final EOG respectfully requests and the following changes: Change name from Modelo 10 Change BHL from T-25-S, R-3 to T-25-S, R-33-E, Sec 19, 25: Change target formation to Le Continued on page 3 additional	amendment to our approved APD for the Fed Com 601H to Modelo 10 Fed Com 63-E, Sec 19, 2540' FNL, 1650' FWL, Le 39' FNL, 1485' FEL, Lea Co., N.M. onard B.	is well to reflect	in a new interval, a Form	3160-4 must be filed once testing has been		
 I hereby certify that the foregoing is CRAIG RICHARDSON / Ph: (432) 	true and correct. Name (Printed/Typed)	Regulatory Spe	cialist			
ONAIO MONANDOON 7111. (402)		Title				
Signature (Electronic Submission	on)	Date	08/29/2	2023		
	THE SPACE FOR FED	ERAL OR STATE	OFICE USE			
Approved by		ENCINEE	D	00/49/2022		
KEITH P IMMATTY / Ph: (575) 988	3-4722 / Approved	Title	N	09/18/2023 Date		
	ned. Approval of this notice does not warran equitable title to those rights in the subject leduct operations thereon.		AD			

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) 393-0161 Fast: (575) 393-0720

DISTRICT II

81 I S. First St., Artesin, NM 88210
Phone: (575) 484-1283 Fast: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone: (505) 334-6178 Fast: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fc, NM 87505
Phone: (505) 476-3460 Fast: (505) 476-3462

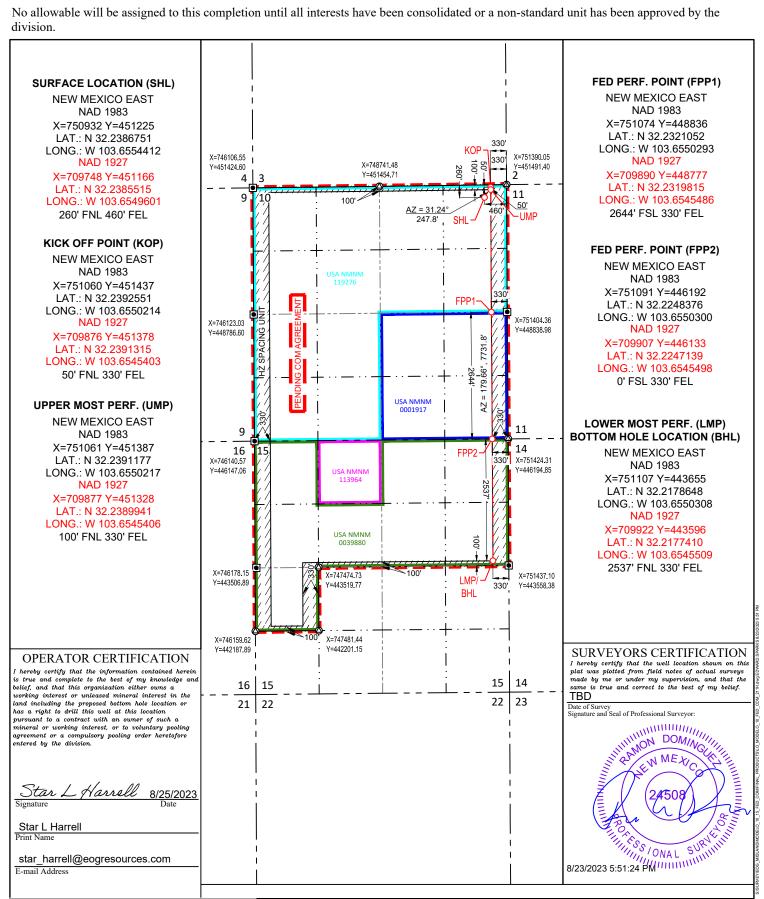
State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

	API Number 30-025-51808			Pool Code 96603		Pool Name Triste Draw; Bone Spring					
Property Co	Property Code 325486			Property Name				Property Name Well Number			
	OGRID No. 7377				MODELO 10 FED COM Operator Name Elevation EOG RESOURCES, INC. 3638'				on		
					Surface Locat	ion		ļ.			
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
A	10	24-S	32-E	-	260'	60' NORTH 460'			LEA		
			Bott	om Hole	Location If Diff	erent From Surfac	ee				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
H	15	24-S	32-E	-	2537' NORTH 330' EAST LEA				LEA		
Dedicated Acres	Joint or	Infill	Consolidated Coo	de Orde	Order No.						
1000.00					PENDING COM AGREEMENT						





Revised Permit Information 05/10/2023:

Well Name: Modelo 10 Fed Com 211H

Location: SHL: 735' FSL & 625' FEL, Section 18, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2539' FNL & 1485' FEL, Section 19, T-25-S, R-33-E, Lea Co., N.M.

Casing Program A:

Hole	Interv	al MD	Interva	d TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
16"	0	1,000	0	1,000	13-3/8"	54.5#	J-55	STC
11"	0	4,600	0	4,590	9-5/8"	40#	J-55	LTC
7-7/8"	0	17,392	0	9,818	6"	22.3#	P110-EC	DWC/C IS

Variance is requested to waive the centralizer requirements for the 9-5/8" casing in the 11" hole size. An expansion additive will be utilized, in the cement slurry, for the entire length of the 11" 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.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.

Cementing Program:

Ceme	mung rros	51 4111.		
Depth	No. Sacks	Wt.	Yld Ft3/sk	Slurry Description
1,000' 13-3/8"	300	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-Flake (TOC @ Surface)
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 800')
4,590' 9-5/8"	430	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	140	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 3,670')
17,392' 6"	470	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,090')
	960	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 9350')



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

Note: Cement volumes based on bit size plus at least 25% excess in the open hole plus 10% excess in the cased-hole overlap section.

Mud Program:

Depth (TVD)	Type	Weight (ppg)	Viscosity	Water Loss
0 – 1,000'	Fresh - Gel	8.6-8.8	28-34	N/c
1,000' – 4,590'	Brine	8.6-8.8	28-34	N/c
4,590' – 17,392'	Oil Base	8.8-9.5	58-68	N/c - 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."

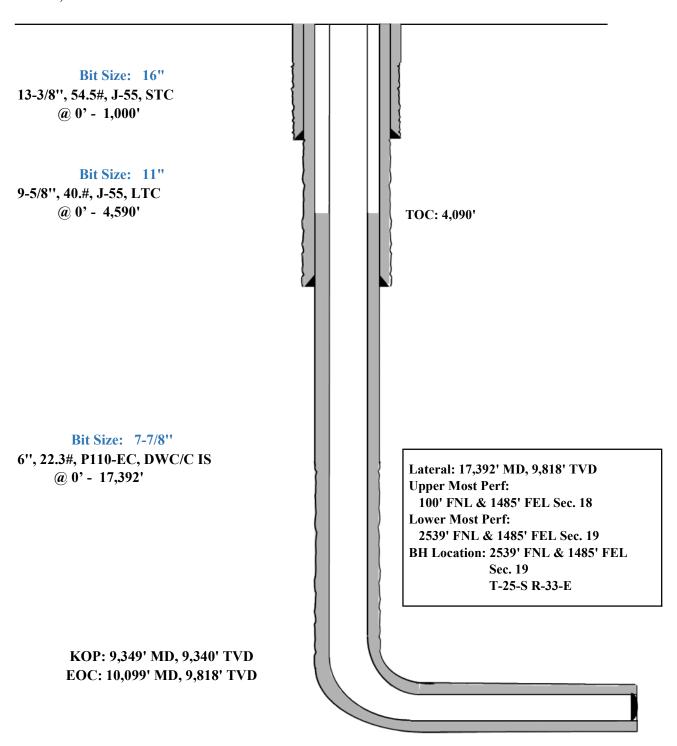
With horizontal flowing and gas lifted wells an end of tubing depth placed at or slightly above KOP is a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher 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.



735' FSL Revised Wellbore A: KB: 3512' 625' FEL GL: 3487'

Section 18

T-25-S, R-33-E API: 30-025-51808





Revised Permit Information 05/10/2023:

Well Name: Modelo 10 Fed Com 211H

Location: SHL: 735' FSL & 625' FEL, Section 18, T-25-S, R-33-E, Lea Co., N.M.

BHL: 2539' FNL & 1485' FEL, Section 19, T-25-S, R-33-E, Lea Co., N.M.

Casing Program B:

Hole	Interval MD		Interval TVD		Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
13-1/2"	0	1,000	0	1,000	10-3/4"	40.5#	J-55	STC
9-7/8"	0	4,009	0	4,000	8-5/8"	32#	J-55	BTC-SC
9-7/8"	4,009	4,599	4,000	4,590	8-5/8"	32#	P110-EC	BTC-SC
6-3/4"	0	17,392	0	9,818	5-1/2"	17#	HCP-110	LTC

Cementing Program:

	itenting i i			
Depth	No. Sacks	Wt. ppg	Yld Ft3/sk	Slurry Description
1,000'	340	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello- Flake (TOC @ Surface)
	110	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 800')
4,590' 8-5/8''	310	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	100	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 3,670')
17,392' 5-1/2"	530	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 4,090')
	590	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 9350')



Variance is requested to waive the centralizer requirements for the 8-5/8" 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 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.

EOG requests permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

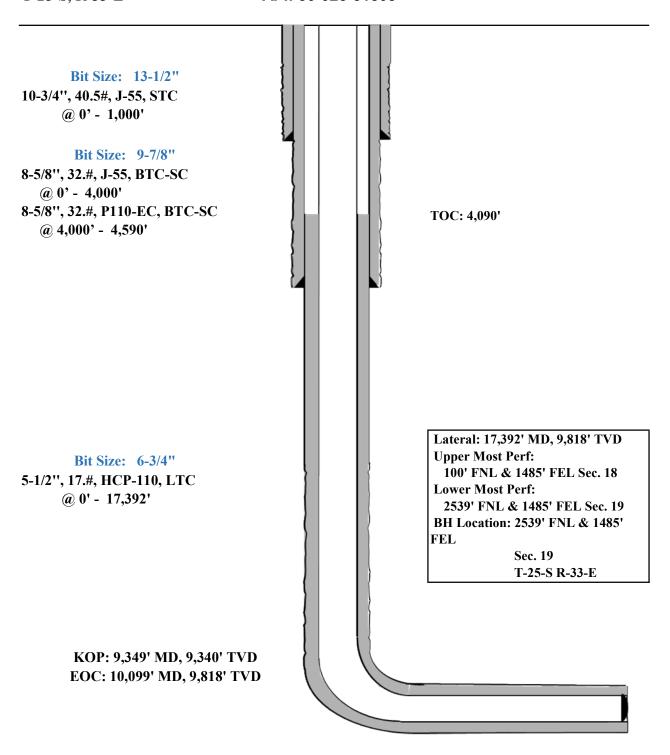
- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues.



735' Revised Wellbore B: KB: 3512' 625' GL: 3487'

Section 18

T-25-S, R-33-E API: 30-025-51808





GEOLOGIC NAME OF SURFACE FORMATION:

Permian

ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	896'
Tamarisk Anhydrite	977'
Top of Salt	1,208'
Base of Salt	4,491'
Lamar	4,643'
Bell Canyon	4,682'
Cherry Canyon	5,574'
Brushy Canyon	6,933'
Bone Spring Lime	8,559'
Leonard (Avalon) Shale	8,680'
1st Bone Spring Sand	9,678'
2nd Bone Spring Shale	9,887'
2nd Bone Spring Sand	10,250'
3rd Bone Spring Carb	10,721'
3rd Bone Spring Sand	11,302'
Wolfcamp	11,791'
TD	9,818'

ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	4,682'	Oil
Cherry Canyon	5,574'	Oil
Brushy Canyon	6,933'	Oil
Leonard (Avalon) Shale	8,680'	Oil
1st Bone Spring Sand	9,678'	Oil
2nd Bone Spring Shale	9,887'	Oil
2nd Bone Spring Sand	10,250'	Oil

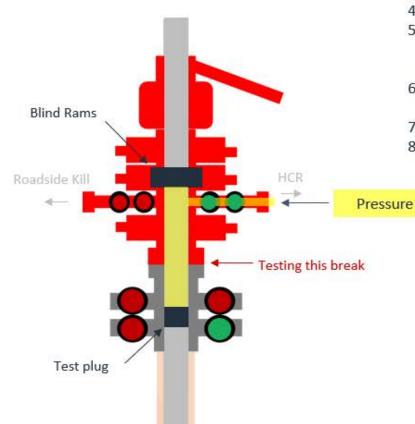


Break-test BOP & Offline Cementing:

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.

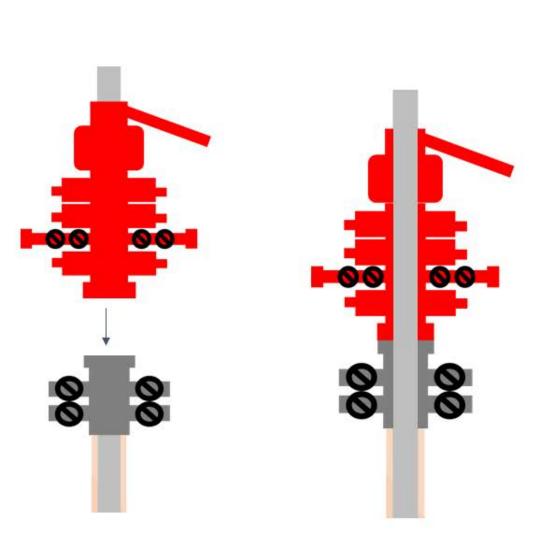
Break Test Diagram (HCR valve)

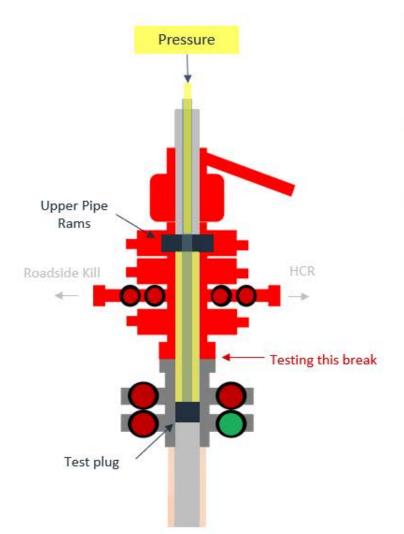


Steps

- 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.
 - b. 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

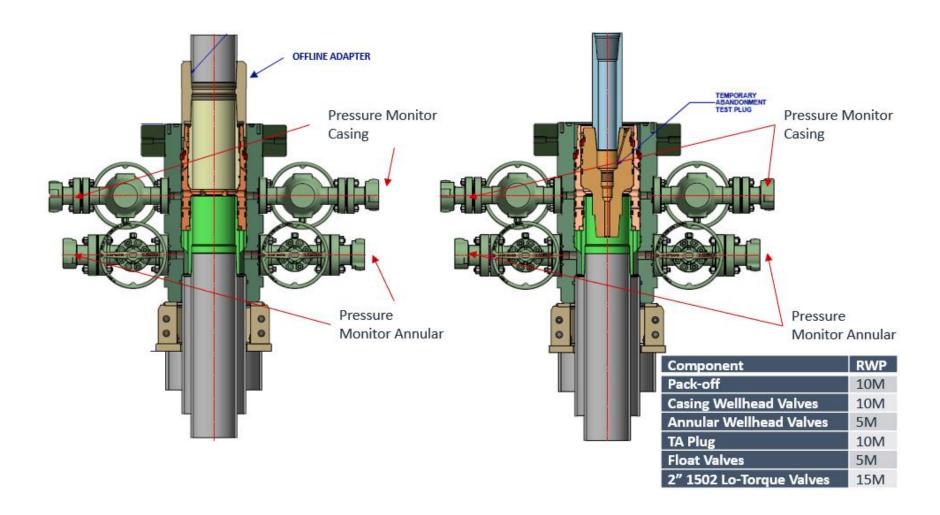
General Procedure After Cementing

- 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



2/24/2022

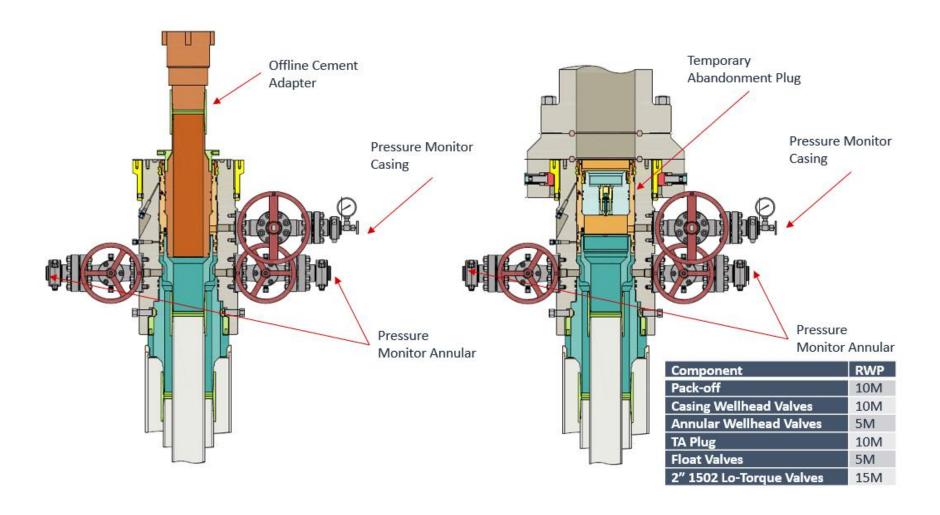
Figure 1: Cameron TA Plug and Offline Adapter Schematic





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Figure 2: Cactus TA Plug and Offline Adapter Schematic

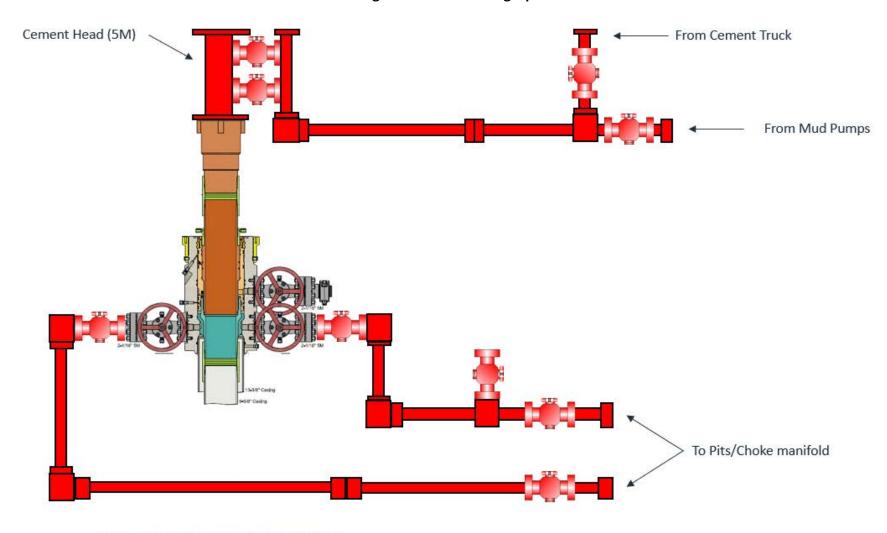


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Figure 3: Back Yard Rig Up



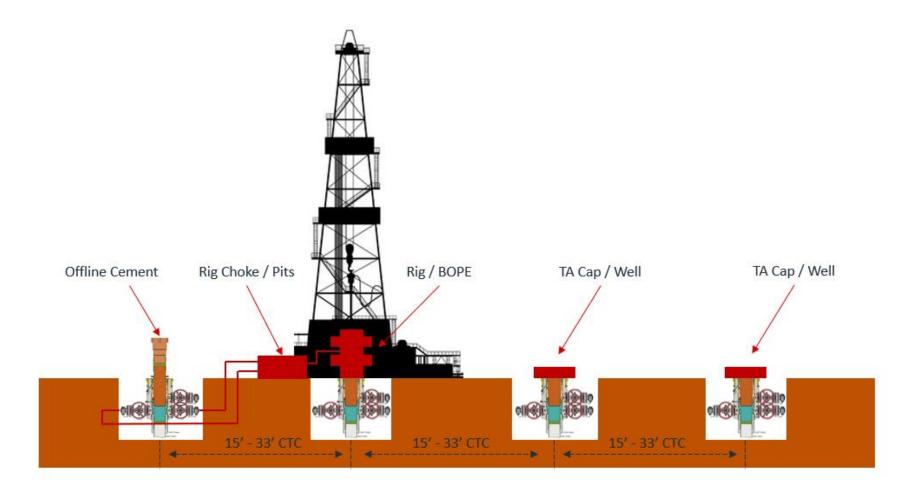
*** All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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Salt Section Annular Clearance Variance Request

Daniel Moose

Current Design (Salt Strings)

0.422" Annular clearance requirement

- Casing collars shall have a minimum clearance of 0.422 inches on all sides in the hole/casing annulus, with recognition that variances can be granted for justified exceptions.
- 12.25" Hole x 9.625"40# J55/HCK55 LTC Casing
 - 1.3125" Clearance to casing OD
 - 0.8125" Clearance to coupling OD
- 9.875" Hole x 8.75" 38.5# P110 Sprint-SF Casing
 - 0.5625" Clearance to casing OD
 - 0.433" Clearance to coupling OD

Annular Clearance Variance Request

EOG request permission to allow deviation from the 0.422" annulus clearance requirement for the intermediate (salt) section from Onshore Order #2 under the following conditions:

- The variance is not applicable within the Potash Boundaries or Capitan Reef areas.
- Operator takes responsibility to get casing to set point in the event that the clearance causes stuck pipe issues

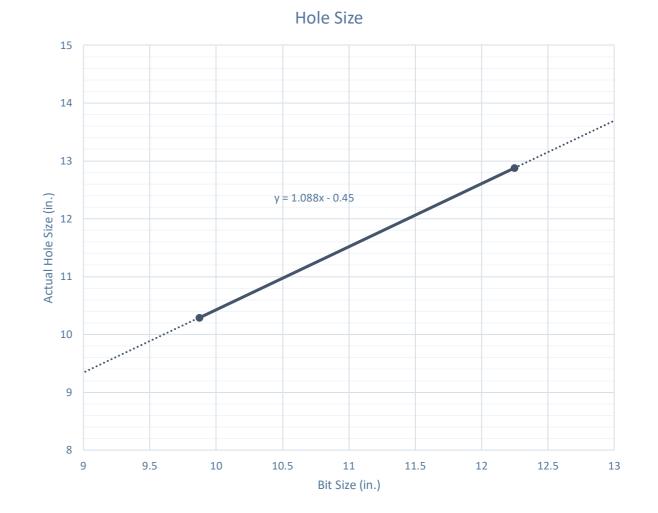
Volumetric Hole Size Calculation

Hole Size Calculations Off Cement Volumes

- Known volume of cement pumped
- Known volume of cement returned to surface
- Must not have had any losses
- Must have bumped plug

Average Hole Size

- 12.25" Hole
 - 12.88" Hole
 - 5.13% diameter increase
 - 10.52% area increase
 - 0.63" Average enlargement
 - 0.58" Median enlargement
 - 179 Well Count
- 9.875" Hole
 - 10.30" Hole
 - 4.24% diameter increase
 - 9.64% area increase
 - 0.42" Average enlargement
 - 0.46" Median enlargement
 - 11 Well Count

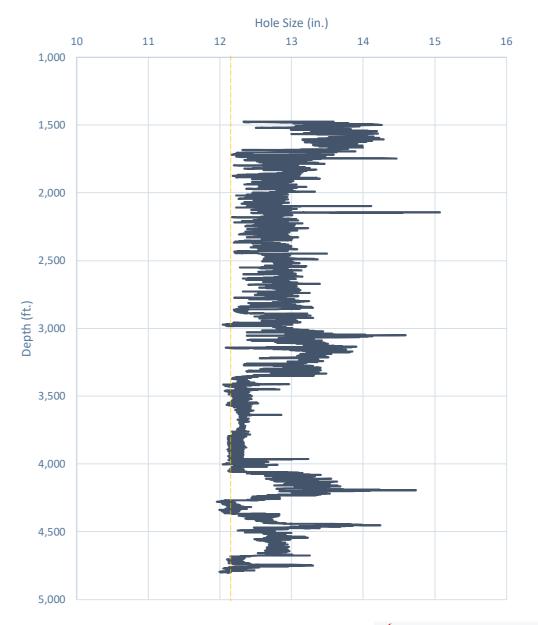


Modelo 10 Fed Com #501H

Caliper Hole Size (12.25")

Average Hole Size

- 12.25" Bit
 - 12.76" Hole
 - 4.14% diameter increase
 - 8.44% area increase
 - 0.51" Average enlargement
 - 0.52" Median enlargement
 - Brine

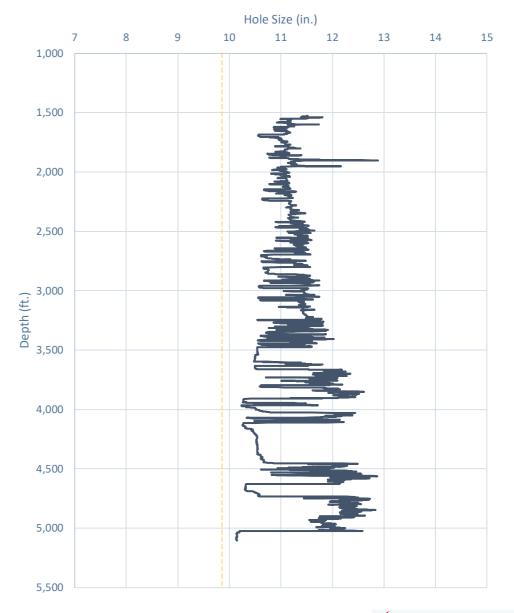


Caliper Hole Size (9.875")

Average Hole Size

- 9.875" Hole
 - 11.21" Hole
 - 13.54% diameter increase
 - 28.92% area increase
 - 1.33" Average enlargement
 - 1.30" Median enlargement
 - EnerLite

Whirling Wind 11 Fed Com #744H



Design A

Proposed 11" Hole with 9.625" 40# J55/HCK55 LTC Casing

- 11" Bit + 0.52" Average hole enlargement = 11.52" Hole Size
 - 0.9475" Clearance to casing OD

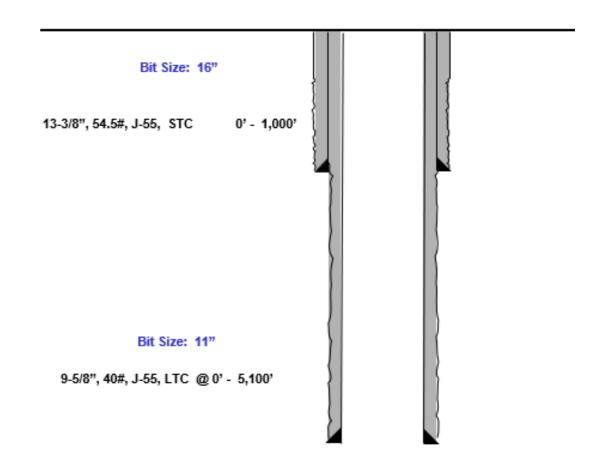
$$=\frac{11.52-9.625}{2}$$

• 0.4475" Clearance to coupling OD

$$=\frac{11.52-10.625}{2}$$

- Previous Shoe 13.375" 54.5# J55 STC
 - 0.995" Clearance to coupling OD (~1,200' overlap)

$$=\frac{12.615-10.625}{2}$$



Design B

Proposed 9.875" Hole with 8.625" 32# J55/P110 BTC-SC Casing

- 9.875" Bit + 0.42" Average hole enlargement = 10.295" Hole Size
 - 0.835" Clearance to casing OD

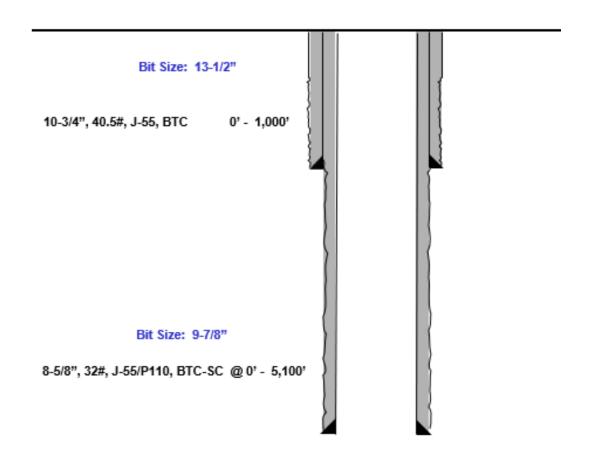
$$=\frac{10.295-8.625}{2}$$

• 0.585" Clearance to coupling OD

$$=\frac{10.295-9.125}{2}$$

- Previous Shoe 10.75" 40.5# J55 STC
 - 0.4625" Clearance to coupling OD (~1,200' overlap)

$$=\frac{10.05-9.125}{2}$$



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Released to Imaging: 10/27/2023 2:32:24 PM

Received by OCD: 9/20/2023 7:04:21 AM

Page 31 of 42

Casing Spec Sheets

PERFORMANCE DATA

API LTC 9.625 in 40.00 lbs/ft K55 HC Technical Data Sheet

Tubular Parameters					
Size	9.625	in	Minimum Yield	55	ksi
Nominal Weight	40.00	lbs/ft	Minimum Tensile	95	ksi
Grade	K55 HC		Yield Load	629	kips
PE Weight	38.94	lbs/ft	Tensile Load	1088	kips
Wall Thickness	0.395	in	Min. Internal Yield Pressure	3,950	psi
Nominal ID	8.835	in	Collapse Pressure	3600	psi
Drift Diameter	8.750	in		•	1

Connection Parameters									
Connection OD	10.625	in							
Coupling Length	10.500	in							
Threads Per Inch	8	tpi							
Standoff Thread Turns	3.50	turns							
Make-Up Loss	4.750	in							
Min. Internal Yield Pressure	3,950	psi							

11.454

Pipe Body and API Connections Performance Data

13.375 54.50/0.380 J55 PDF

New Search ii



6/8/2015 10:04:37 AM					
Mechanical Properties	Ptpe	втс	LTC	STC	
Minimum Yield Strength	55,000	-	-	-	psi
Maximum Yield Strength	80,000	-	-	-	psi
Minimum Tensile Strength	75,000	-	-	-	psi
Dimensions	Ptpe	втс	LTC	STC	
Outside Diameter	13.375	14.375	-	14.375	in.
Wall Thickness	0.380	-	-	-	in.
Inside Diameter	12.615	12.615	-	12.615	in.
Standard Drift	12.459	12.459	-	12.459	in.
Alternate Drift	-	-	-	-	in.
Nominal Linear Weight, T&C	54.50	-	-	-	lbs/ft
Plain End Weight	52.79	-	-	-	lbs/ft
Performance	Pipe	втс	LTC	STC	
Minimum Collapse Pressure	1,130	1,130	-	1,130	psi
Minimum Internal Yield Pressure	2,740	2,740	-	2,740	psi
Minimum Pipe Body Yield Strength	853.00	-	-	-	1000 lbs
Joint Strength		909	-	514	1000 lbs
Reference Length	-	11,125	-	6,290	ft
Make-Up Data	Ptpe	втс	LTC	STC	
Make-Up Loss	-	4.81	-	3.50	in.
Minimum Make-Up Torque	-	-	-	3,860	ft-lbs
Maximum Make-Up Torque	-	-	-	6,430	ft-lbs

Nom. Pipe Body Area

Received by OCD: 9/20/2023 7:04:21 AM

Page 32 of 42

6,915

STC

3.50

3,150

5,250

in.

ft-lbs

ft-lbs

Casing Spec Sheets

Pipe Body and API Connections Performance Data

10.750 40.50/0.350 J55 PDF

New Search » « Back to Previous List USC Metric 6/8/2015 10:14:05 AM BTC STC Ptpe Mechanical Properties Minimum Yield Strength 55,000 psi Maximum Yield Strength 80,000 Minimum Tensile Strength 75,000 psi BTC LTC STC Pipe 11.750 Outside Diameter 10.750 11.750 in. Wall Thickness 0.350 Inside Diameter 10.050 10.050 10.050 Standard Drift 9.894 9.894 in. Alternate Drift in. Nominal Linear Weight, T&C 40.50 lbs/ft Plain End Weight 38.91 lbs/ft Performance Ptpe BTC STC Minimum Collapse Pressure psi 3,130 Minimum Internal Yield Pressure 3,130 3,130 Minimum Pipe Body Yield Strength 629.00 1000 lbs 700 420 Joint Strength 1000 lbs

Ptpe

11,522

BTC

4.81

							V •	val	lour	ec
ш					AP	1 5CT,	10th Ed.	Connect	ion Data	Sheet
9		HT (lb/ft)	WALL (i	in)	GR	ADE	*API DR	IFT (in)	RBV	<i>l</i> %
A FT	8.625 Nomina Plain Er		0.352		J	55	7.79	96	87.	.5
MADE IN USA	Material Pr	operties (PE)	,			l	Pipe Bod	y Data (I	PE)	
DE	Р	ipe					Geo	metry		
	Minimum Yield Streng	th: 55	ksi		Nomir	nal ID:			7.92 i	nch
#0d	Maximum Yield Stren	gth: 80	ksi		Nomir	nal Area	a:		9.149 i	n ²
#	Minimum Tensile Stre	ngth: 75	ksi		*Spec	ial/Alt. [Drift:		7.875 i	nch
SLN	Cou	pling					Perfo	rmance		
#0/M	Minimum Yield Streng	th: 55	ksi		Pipe E	Body Yi	eld Streng	gth:	503 I	ips
	Maximum Yield Stren	gth: 80	ksi				istance:		2,530	osi
DA 7.875	Minimum Tensile Stre	ngth: 75	ksi			l Yield Pr istorical)	essure:		3,930	osi
	ADLO	4i D - 4 -								
S2L2		ection Data OD: 9.625"				Al	PI Conne	ction To	rque	
S S	STC Per	formance					STC Tor	que (ft-lk	os)	
# 155	STC Internal Pressure	3,930	psi		Min:	2,793	Opti:	3,724	Max:	4,655
5 32#	STC Joint Strength:		kips							
8.62		formance					LTC Tore	que (ft-lk	os)	
VALLOUREC STAR 8.625	LTC Internal Pressure	,			Min:	3,130	Opti:	4,174	Max:	5,217
C ST	LTC Joint Strength:		kips							
URE	SC-BTC Performand	e - Cpig OD =	9.125				BTC Tore	que (ft-ll	os)	
ПСО	BTC Internal Pressure	3,930	psi		follo	w API gu	iidelines reg	garding po	sitional ma	ke up
A >	BTC Joint Strength:	503	kips							
	_		l be used unle			•				
	**If above API c	onnections do not	t suit your ne 100% of p				m connection	ons are av	ailable up	.0
	ALL INFORMATION IS PROVIDED BY VA AND ON AN "AS IS" BASIS WITHOUT	LLOUREC OR ITS AFFILIATE WARRANTY OR REPRESEN	S AT USER'S SOLE I	RISK, IND, V	WITHOUT LI	IABILITY FOR L	OSS, DAMAGE OF PLIED, INCLUDING	R INJURY RESULT	ING FROM THE TATION ANY WA	USE THEREOF; RRANTY OF

MERCHANTABILITY, FITNESS FOR PURPOSE, ACCURACY OR COMPLETENESS. THE INFORMATION CONTAINED IN THIS DOCUMENT IS PROVIDED FOR INFORMATIONAL PURPOSES ONLY AND IS BASED ON ESTIMATES THAT HAVE NOT BEEN VERIFIED OR TESTED. IN NO EVENT SHALL VALLOUREC OR ITS AFFILIATES BE RESPONSIBLE FOR ANY INDIRECT, SPECIAL,

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Reference Length

Make-Up Data

Make-Up Loss

Minimum Make-Up Torque

Maximum Make-Up Torque



Midland

Lea County, NM (NAD 83 NME) Modelo 10 Fed Com #211H

OH

Plan: Plan #0.1 RT

Standard Planning Report

25 August, 2023



Database: Company:

Project:

PEDM Midland

Lea County, NM (NAD 83 NME)

Modelo 10 Fed Com Site:

Well: #211H Wellbore: ОН

Plan #0.1 RT Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft kb = 26' @ 3664.0usft

Grid

Minimum Curvature

Project Lea County, NM (NAD 83 NME)

Map System: Geo Datum:

Map Zone:

Well Position

US State Plane 1983 North American Datum 1983 New Mexico Eastern Zone

System Datum:

Mean Sea Level

Modelo 10 Fed Com Site

Site Position: From: Мар Northing: Easting:

451,286.00 usft 750,991.00 usft

Latitude: Longitude:

32° 14' 19.830 N 103° 39' 18.896 W

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

Well #211H

> +N/-S +E/-W

0.0 usft 0.0 usft 0.0 usft

Northing: Easting:

451,225.00 usft 750,932.00 usft Latitude: Longitude:

32° 14' 19.230 N 103° 39' 19.587 W

Position Uncertainty Wellhead Elevation: usft **Ground Level:** 3,638.0 usft

0.36 **Grid Convergence:**

ОН Wellbore

Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) 47,263.92305398 IGRF2020 8/25/2023 6.33 59.83

Plan #0.1 RT Design

Audit Notes:

Version:

Vertical Section:

Phase:

PLAN +N/-S Tie On Depth: +E/-W

Remarks

0.0

Depth From (TVD) Direction (usft) (usft) (usft) (°) 178.68 0.0 0.0 0.0

Plan Survey Tool Program

Date 8/25/2023

Depth From (usft)

0.0

Depth To (usft) 16,910.6

Survey (Wellbore)

Tool Name Plan #0.1 RT (OH)

EOG MWD+IFR1

MWD + IFR1

8/25/2023 11:27:18AM Page 2



Database: Company:

PEDM Midland

Lea County, NM (NAD 83 NME)

Project: Modelo 10 Fed Com Site:

Well: #211H ОН Wellbore:

Design: Plan #0.1 RT Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft kb = 26' @ 3664.0usft

Grid

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,208.0	0.00	0.00	1,208.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,334.6	2.53	31.12	1,334.6	2.4	1.4	2.00	2.00	0.00	31.12	
6,811.8	2.53	31.12	6,806.4	209.6	126.6	0.00	0.00	0.00	0.00	
6,938.4	0.00	0.00	6,933.0	212.0	128.0	2.00	-2.00	0.00	180.00	
8,855.9	0.00	0.00	8,850.5	212.0	128.0	0.00	0.00	0.00	0.00	KOP(Modelo 10 Fed (
9,076.4	26.46	178.85	9,063.2	162.0	129.0	12.00	12.00	81.13	178.85	FTP(Modelo 10 Fed C
9,605.9	90.00	179.75	9,327.9	-265.4	132.9	12.00	12.00	0.17	1.01	
11,729.5	90.00	179.75	9,328.0	-2,389.0	142.0	0.00	0.00	0.00	0.00	Fed Perf 1(Modelo 10
14,373.5	90.00	179.51	9,328.0	-5,033.0	159.0	0.01	0.00	-0.01	-89.02	Fed Perf 2(Modelo 10
16,910.6	90.00	179.77	9,328.0	-7,570.0	175.0	0.01	0.00	0.01	90.93	PBHL(Modelo 10 Fed



Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Modelo 10 Fed Com

 Well:
 #211H

 Wellbore:
 OH

 Design:
 Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft kb = 26' @ 3664.0usft

Grid

esign:	Plan #0.1 RT								
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				0.0				0.00	
	0.00	0.00	700.0		0.0	0.0	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
1,000.0		0.00	1,000.0					0.00	
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,208.0	0.00	0.00	1,208.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	1.84	31.12	1,300.0	1.3	0.8	-1.2	2.00	2.00	0.00
1,334.6	2.53	31.12	1,334.6	2.4	1.4	-2.4	2.00	2.00	0.00
4 400 0	0.50	04.40	4 000 0	4.0	0.0	4.0	0.00	0.00	0.00
1,400.0	2.53	31.12	1,399.9	4.9	2.9	-4.8	0.00	0.00	0.00
1,500.0	2.53	31.12	1,499.8	8.7	5.2	-8.5	0.00	0.00	0.00
1,600.0	2.53	31.12	1,599.7	12.4	7.5	-12.3	0.00	0.00	0.00
1,700.0	2.53	31.12	1,699.6	16.2	9.8	-16.0	0.00	0.00	0.00
1,800.0	2.53	31.12	1,799.5	20.0	12.1	-19.7	0.00	0.00	0.00
1,900.0	2.53	31.12	1,899.4	23.8	14.4	-23.4	0.00	0.00	0.00
2,000.0	2.53	31.12	1,999.3	27.6	16.6	-27.2	0.00	0.00	0.00
2,100.0	2.53	31.12	2,099.2	31.4	18.9	-30.9	0.00	0.00	0.00
2,200.0	2.53	31.12	2,199.1	35.1	21.2	-34.6	0.00	0.00	0.00
2,300.0	2.53	31.12	2,299.0	38.9	23.5	-38.4	0.00	0.00	0.00
2,400.0	2.53	31.12	2,398.9	42.7	25.8	-42.1	0.00	0.00	0.00
2,500.0	2.53	31.12	2,498.8	46.5	28.1	-45.8	0.00	0.00	0.00
2,600.0	2.53	31.12	2,598.7	50.3	30.3	-49.6	0.00	0.00	0.00
2,700.0	2.53	31.12	2,698.6	54.0	32.6	-53.3	0.00	0.00	0.00
2,800.0	2.53	31.12	2,798.5	57.8	34.9	-57.0	0.00	0.00	0.00
2,900.0	2.53	31.12	2,898.4	61.6	37.2	-60.7	0.00	0.00	0.00
3,000.0	2.53	31.12	2,998.3	65.4	39.5	-64.5	0.00	0.00	0.00
3,100.0	2.53	31.12	3,098.2	69.2	41.8	-68.2	0.00	0.00	0.00
3,200.0	2.53	31.12	3,198.1	73.0	44.1	-71.9	0.00	0.00	0.00
3,300.0	2.53	31.12	3,298.0	76.7	46.3	-75.7	0.00	0.00	0.00
3,400.0	2.53	31.12	3,397.9	80.5	48.6	-79.4	0.00	0.00	0.00
3,500.0	2.53	31.12	3,497.8	84.3	50.9	-83.1	0.00	0.00	0.00
3,600.0	2.53	31.12	3,597.7	88.1	53.2	-86.8	0.00	0.00	0.00
3,700.0	2.53	31.12	3,697.6	91.9	55.5	-90.6	0.00	0.00	0.00
3,800.0	2.53	31.12	3,797.6	95.7	57.8	-94.3	0.00	0.00	0.00
3,900.0	2.53	31.12	3,897.5	99.4	60.0	-98.0	0.00	0.00	0.00
4,000.0	2.53	31.12	3,997.4	103.2	62.3	-101.8	0.00	0.00	0.00
4,100.0	2.53	31.12	4,097.3	107.0	64.6	-105.5	0.00	0.00	0.00
4,200.0	2.53	31.12	4,197.2	110.8	66.9	-109.2	0.00	0.00	0.00
4,300.0	2.53	31.12	4,297.1	114.6	69.2	-113.0	0.00	0.00	0.00
4,400.0	2.53	31.12	4,397.0	118.4	71.5	-116.7	0.00	0.00	0.00
4,500.0	2.53	31.12	4,496.9	122.1	73.7	-120.4	0.00	0.00	0.00
4,600.0	2.53	31.12	4,596.8	125.9	76.0	-124.1	0.00	0.00	0.00
4,700.0	2.53	31.12	4,696.7	129.7	78.3	-127.9	0.00	0.00	0.00
4,800.0	2.53	31.12	4,796.6	133.5	80.6	-131.6	0.00	0.00	0.00
4,900.0	2.53	31.12	4,896.5	137.3	82.9	-135.3	0.00	0.00	0.00
5,000.0	2.53	31.12	4,996.4	141.1	85.2	-139.1	0.00	0.00	0.00
5,100.0	2.53	31.12	5,096.3	144.8	87.5	-142.8	0.00	0.00	0.00
5,200.0	2.53	31.12	5,196.2	148.6	89.7	-146.5	0.00	0.00	0.00



Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

Site: Modelo 10 Fed Com

 Well:
 #211H

 Wellbore:
 OH

 Design:
 Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft kb = 26' @ 3664.0usft

Grid

Design:	Plan #0.1 R1								
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	2.53	31.12	5,296.1	152.4	92.0	-150.2	0.00	0.00	0.00
5,400.0	2.53	31.12	5,396.0	156.2	94.3	-154.0	0.00	0.00	0.00
5,500.0	2.53	31.12	5,495.9	160.0	96.6	-157.7	0.00	0.00	0.00
5,600.0	2.53	31.12	5,595.8	163.8	98.9	-161.4	0.00	0.00	0.00
5,700.0	2.53	31.12	5,695.7	167.5	101.2	-165.2	0.00	0.00	0.00
5,800.0	2.53	31.12	5,795.6	171.3	103.4	-168.9	0.00	0.00	0.00
5,900.0	2.53	31.12	5,895.5	175.1	105.7	-172.6	0.00	0.00	0.00
6,000.0	2.53	31.12	5,995.4	178.9	108.0	-176.3	0.00	0.00	0.00
6,100.0	2.53	31.12	6,095.3	182.7	110.3	-180.1	0.00	0.00	0.00
6,200.0	2.53	31.12	6,195.2	186.5	112.6	-183.8	0.00	0.00	0.00
6,300.0	2.53	31.12	6,295.1	190.2	114.9	-187.5	0.00	0.00	0.00
6,400.0	2.53	31.12	6,395.0	194.0	117.1	-191.3	0.00	0.00	0.00
6,500.0	2.53	31.12	6,494.9	197.8	119.4	-195.0	0.00	0.00	0.00
6,600.0	2.53	31.12	6,594.8	201.6	121.7	-198.7	0.00	0.00	0.00
6,700.0	2.53	31.12	6,694.7	205.4	124.0	-202.5	0.00	0.00	0.00
6,800.0	2.53	31.12	6,794.6	209.2	126.3	-206.2	0.00	0.00	0.00
6,811.8	2.53	31.12	6.806.4	209.6	126.6	-206.6	0.00	0.00	0.00
6,900.0	0.77	31.12	6,894.6	211.8	120.0	-208.8	2.00	-2.00	0.00
6,938.4	0.00	0.00	6,933.0	212.0	128.0	-200.0	2.00	-2.00	0.00
7,000.0	0.00	0.00	6,994.6	212.0	128.0	-209.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,094.6	212.0	128.0	-209.0	0.00	0.00	0.00
-									
7,200.0	0.00	0.00	7,194.6	212.0	128.0	-209.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,294.6	212.0	128.0	-209.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,394.6	212.0 212.0	128.0 128.0	-209.0	0.00	0.00	0.00
7,500.0 7,600.0	0.00 0.00	0.00 0.00	7,494.6 7,594.6	212.0	128.0	-209.0 -209.0	0.00 0.00	0.00 0.00	0.00 0.00
7,700.0	0.00	0.00	7,694.6	212.0	128.0	-209.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,794.6	212.0	128.0	-209.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,894.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,994.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,094.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,194.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,294.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,394.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,494.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,594.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,694.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,794.6	212.0	128.0	-209.0	0.00	0.00	0.00
8,855.9	0.00	0.00	8,850.5	212.0	128.0	-209.0	0.00	0.00	0.00
8,875.0	2.29	178.85	8,869.6	211.6	128.0	-208.6	12.00	12.00	0.00
8,900.0	5.29	178.85	8,894.5	210.0	128.0	-207.0	12.00	12.00	0.00
8,925.0	8.29	178.85	8,919.3	207.0	128.1	-204.0	12.00	12.00	0.00
8,950.0	11.29	178.85	8,944.0	202.8	128.2	-199.7	12.00	12.00	0.00
8,975.0	14.29	178.85	8,968.3	197.2	128.3	-194.2	12.00	12.00	0.00
9,000.0	17.29	178.85	8,992.4	190.4	128.4	-187.4	12.00	12.00	0.00
9,025.0	20.29	178.85	9,016.1	182.4	128.6	-179.4	12.00	12.00	0.00
9,050.0	23.29	178.85	9,039.3	173.1	128.8	-170.1	12.00	12.00	0.00
9,076.4	26.46	178.85	9,063.2	162.0	129.0	-159.0	12.00	12.00	0.00
9,100.0	29.30	178.96	9,084.1	151.0	129.2	-147.9	12.00	12.00	0.43
9,125.0	32.29	179.05	9,105.5	138.2	129.4	-135.1	12.00	12.00	0.36
9,150.0	35.29	179.12	9,126.3	124.3	129.7	-121.2	12.00	12.00	0.30
9,175.0 9,200.0	38.29 41.29	179.19 170.24	9,146.3	109.3 93.3	129.9	-106.3 -90.3	12.00	12.00	0.26
9,200.0	41.29 44.29	179.24 179.30	9,165.5 9,183.9	93.3 76.3	130.1 130.3	-90.3 -73.3	12.00 12.00	12.00 12.00	0.23 0.20
9,225.0	44.29	179.30	স, । তঠ. স	10.3	130.3	-13.3	12.00	12.00	U.ZU



Database: Company:

Project:

PEDM Midland

Lea County, NM (NAD 83 NME)

Site: Modelo 10 Fed Com

Well: #211H Wellbore: OH

Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft

kb = 26' @ 3664.0usft

Grid

esign:	Plan #0.1 RT								
anned 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)
9,250.0	47.29	179.34	9,201.3	58.4	130.5	-55.4	12.00	12.00	0.18
9,275.0	50.29	179.38	9,217.8	39.6	130.7	-36.6	12.00	12.00	0.17
9,300.0	53.29	179.42	9,233.2	20.0	130.9	-16.9	12.00	12.00	0.15
9,325.0	56.29	179.46	9,247.7	-0.5	131.1	3.5	12.00	12.00	0.14
9,350.0	59.29	179.49	9,261.0	-21.6	131.3	24.7	12.00	12.00	0.13
9,375.0	62.29	179.52	9,273.2	-43.4	131.5	46.5	12.00	12.00	0.12
9,400.0	65.29	179.55	9,284.2	-65.9	131.7	68.9	12.00	12.00	0.12
9,425.0 9,450.0	68.29 71.29	179.58 179.60	9,294.1 9,302.7	-88.8 -112.3	131.9 132.0	91.9 115.3	12.00 12.00	12.00 12.00	0.11 0.11
9,450.0	71.29 74.29	179.63	9,302.7 9,310.1	-112.3 -136.2	132.0	139.2	12.00	12.00	0.11
9,500.0	74.29 77.29	179.65	9,316.2	-160.4	132.2	163.4	12.00	12.00	0.10
9,525.0	80.29	179.68	9,310.2	-184.9	132.5	187.9	12.00	12.00	0.10
9,550.0	83.29	179.70	9,324.7	-209.7	132.6	212.7	12.00	12.00	0.10
9,575.0	86.29	179.73	9,326.9	-234.6	132.8	237.6	12.00	12.00	0.09
9,600.0	89.29	179.75	9,327.9	-259.5	132.9	262.5	12.00	12.00	0.09
9,605.9	90.00	179.75	9,327.9	-265.4	132.9	268.4	12.00	12.00	0.09
9,700.0	90.00	179.75	9,327.9	-359.5	133.3	362.5	0.00	0.00	0.00
9,800.0	90.00	179.75	9,327.9	-459.5	133.7	462.5	0.00	0.00	0.00
9,900.0	90.00	179.75	9,327.9	-559.5	134.2	562.5	0.00	0.00	0.00
10,000.0	90.00	179.75	9,327.9	-659.5	134.6	662.5	0.00	0.00	0.00
10,100.0	90.00	179.75	9,327.9	-759.5	135.0	762.5	0.00	0.00	0.00
10,200.0	90.00	179.75	9,327.9	-859.5	135.4	862.4	0.00	0.00	0.00
10,300.0	90.00	179.75	9,327.9	-959.5	135.9	962.4	0.00	0.00	0.00
10,400.0	90.00	179.75	9,328.0	-1,059.5	136.3	1,062.4	0.00	0.00	0.00
10,500.0	90.00	179.75	9,328.0	-1,159.5	136.7	1,162.4	0.00	0.00	0.00
10,600.0	90.00	179.75	9,328.0	-1,259.5	137.2	1,262.4	0.00	0.00	0.00
10,700.0	90.00	179.75	9,328.0	-1,359.5	137.6	1,362.3	0.00	0.00	0.00
10,800.0	90.00	179.75	9,328.0	-1,459.5	138.0	1,462.3	0.00	0.00	0.00
10,900.0	90.00	179.75	9,328.0	-1,559.5	138.4	1,562.3	0.00	0.00	0.00
11,000.0	90.00	179.75	9,328.0	-1,659.5	138.9	1,662.3	0.00	0.00	0.00
11,100.0	90.00	179.75	9,328.0	-1,759.5	139.3	1,762.3	0.00	0.00	0.00
11,200.0	90.00	179.75	9,328.0	-1,859.5	139.7	1,862.3	0.00	0.00	0.00
11 200 0	90.00	170.75	0 220 0	1 050 5	140.2	1 062 2	0.00	0.00	0.00
11,300.0 11,400.0	90.00	179.75 179.75	9,328.0 9,328.0	-1,959.5 -2,059.5	140.2	1,962.2 2,062.2	0.00	0.00	0.00
11,500.0	90.00	179.75	9,328.0	-2,059.5 -2,159.5	141.0	2,162.2	0.00	0.00	0.00
11,600.0	90.00	179.75	9,328.0	-2,159.5	141.4	2,102.2	0.00	0.00	0.00
11,700.0	90.00	179.75	9,328.0	-2,359.5	141.9	2,362.2	0.00	0.00	0.00
						,			
11,729.5	90.00	179.75	9,328.0	-2,389.0	142.0	2,391.6	0.00	0.00	0.00
11,800.0	90.00	179.75 179.74	9,328.0 9,328.0	-2,459.5 2,550.5	142.3 142.8	2,462.2 2,562.1	0.01	0.00	-0.01
11,900.0 12,000.0	90.00 90.00	179.74 179.73	9,328.0 9,328.0	-2,559.5 -2,659.5	142.8 143.2	2,562.1 2,662.1	0.01 0.01	0.00 0.00	-0.01 -0.01
12,000.0	90.00	179.73	9,328.0	-2,059.5 -2,759.5	143.2	2,762.1	0.01	0.00	-0.01 -0.01
12,200.0	90.00	179.71	9,328.0	-2,859.5	144.2	2,862.1	0.01	0.00	-0.01
12,300.0	90.00	179.70	9,328.0	-2,959.5	144.7	2,962.1	0.01	0.00	-0.01
12,400.0	90.00	179.69	9,328.0	-3,059.5	145.2	3,062.1	0.01	0.00	-0.01
12,500.0	90.00	179.68	9,328.0	-3,159.5	145.8	3,162.0	0.01	0.00	-0.01
12,600.0	90.00	179.67	9,328.0	-3,259.5	146.3	3,262.0	0.01	0.00	-0.01
12,700.0	90.00	179.66	9,328.0	-3,359.5	146.9	3,362.0	0.01	0.00	-0.01
12,800.0	90.00	179.65	9,328.0	-3,459.5	147.5	3,462.0	0.01	0.00	-0.01
12,900.0	90.00	179.65	9,328.0	-3,559.5	148.1	3,562.0	0.01	0.00	-0.01
13,000.0	90.00	179.64	9,328.0	-3,659.5	148.8	3,662.0	0.01	0.00	-0.01
13,100.0	90.00	179.63	9,328.0	-3,759.5	149.4	3,762.0	0.01	0.00	-0.01
13,200.0	90.00	179.62	9,328.0	-3,859.5	150.1	3,861.9	0.01	0.00	-0.01
13,300.0	90.00	179.61	9,328.0	-3,959.5	150.7	3,961.9	0.01	0.00	-0.01



Database: Company:

Project:

PEDM

Midland

Lea County, NM (NAD 83 NME)

Site: Modelo 10 Fed Com

Well: #211H Wellbore: OH

Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft

kb = 26' @ 3664.0usft Grid

y									
nned 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	90.00	179.60	9,328.0	-4,059.5	151.4	4,061.9	0.01	0.00	-0.01
13,500.0	90.00	179.59	9,328.0	-4,159.5	152.1	4,161.9	0.01	0.00	-0.01
13,600.0	90.00	179.58	9,328.0	-4,259.5	152.9	4,261.9	0.01	0.00	-0.01
13,700.0	90.00	179.57	9,328.0	-4,359.5	153.6	4,361.9	0.01	0.00	-0.01
13,800.0	90.00	179.56	9,328.0	-4,459.5	154.3	4,461.9	0.01	0.00	-0.01
13,900.0	90.00	179.55	9,328.0	-4,559.5	155.1	4,561.8	0.01	0.00	-0.01
14,000.0	90.00	179.54	9,328.0	-4,659.5	155.9	4,661.8	0.01	0.00	-0.01
14,100.0	90.00	179.53	9,328.0	-4,759.5	156.7	4,761.8	0.01	0.00	-0.01
14,200.0	90.00	179.52	9,328.0	-4,859.5	157.5	4,861.8	0.01	0.00	-0.01
14,300.0	90.00	179.52	9,328.0	-4,959.5	158.4	4,961.8	0.01	0.00	-0.01
14,373.5	90.00	179.51	9,328.0	-5,033.0	159.0	5,035.3	0.01	0.00	-0.01
14,400.0	90.00	179.51	9,328.0	-5,059.5	159.2	5,061.8	0.01	0.00	0.01
14,500.0	90.00	179.52	9,328.0	-5,159.5	160.1	5,161.8	0.01	0.00	0.01
14,600.0	90.00	179.53	9,328.0	-5,259.5	160.9	5,261.8	0.01	0.00	0.01
14,700.0	90.00	179.54	9,328.0	-5,359.5	161.7	5,361.8	0.01	0.00	0.01
14,800.0	90.00	179.55	9,328.0	-5,459.5	162.5	5,461.7	0.01	0.00	0.01
14,900.0	90.00	179.56	9,328.0	-5,559.4	163.3	5,561.7	0.01	0.00	0.01
15,000.0	90.00	179.57	9,328.0	-5,659.4	164.0	5,661.7	0.01	0.00	0.01
15,100.0	90.00	179.58	9,328.0	-5,759.4	164.8	5,761.7	0.01	0.00	0.01
15,200.0	90.00	179.59	9,328.0	-5,859.4	165.5	5,861.7	0.01	0.00	0.01
15,300.0	90.00	179.60	9,328.0	-5,959.4	166.2	5,961.7	0.01	0.00	0.01
15,400.0	90.00	179.61	9,328.0	-6,059.4	166.9	6,061.7	0.01	0.00	0.01
15,500.0	90.00	179.62	9,328.0	-6,159.4	167.5	6,161.7	0.01	0.00	0.01
15,600.0	90.00	179.63	9,328.0	-6,259.4	168.2	6,261.6	0.01	0.00	0.01
15,700.0	90.00	179.64	9,328.0	-6,359.4	168.8	6,361.6	0.01	0.00	0.01
15,800.0	90.00	179.65	9,328.0	-6,459.4	169.4	6,461.6	0.01	0.00	0.01
15,900.0	90.00	179.67	9,328.0	-6,559.4	170.0	6,561.6	0.01	0.00	0.01
16,000.0	90.00	179.68	9,328.0	-6,659.4	170.6	6,661.6	0.01	0.00	0.01
16,100.0	90.00	179.69	9,328.0	-6,759.4	171.1	6,761.6	0.01	0.00	0.01
16,200.0	90.00	179.70	9,328.0	-6,859.4	171.7	6,861.6	0.01	0.00	0.01
16,300.0	90.00	179.71	9,328.0	-6,959.4	172.2	6,961.5	0.01	0.00	0.01
16,400.0	90.00	179.72	9,328.0	-7,059.4	172.7	7,061.5	0.01	0.00	0.01
16,500.0	90.00	179.73	9,328.0	-7,159.4	173.2	7,161.5	0.01	0.00	0.01
16,600.0	90.00	179.74	9,328.0	-7,259.4	173.7	7,261.5	0.01	0.00	0.01
16,700.0	90.00	179.75	9,328.0	-7,359.4	174.1	7,361.5	0.01	0.00	0.01
16,800.0	90.00	179.76	9,328.0	-7,459.4	174.5	7,461.5	0.01	0.00	0.01
16,900.0	90.00	179.77	9,328.0	-7,559.4	175.0	7,561.4	0.01	0.00	0.01
16,910.6	90.00	179.77	9,328.0	-7,570.0	175.0	7,572.0	0.01	0.00	0.01



Database: PEDM

Company: Midland
Project: Lea County, NM (NAD 83 NME)

Site: Modelo 10 Fed Com

 Well:
 #211H

 Wellbore:
 OH

 Design:
 Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #211H

kb = 26' @ 3664.0usft kb = 26' @ 3664.0usft

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(Modelo 10 Fed Co - plan hits target cent - Point	0.00 er	0.00	8,850.5	212.0	128.0	451,437.00	751,060.00	32° 14' 21.320 N	103° 39' 18.082 W
FTP(Modelo 10 Fed Cor - plan hits target cent - Point	0.00 er	0.01	9,063.2	162.0	129.0	451,387.00	751,061.00	32° 14' 20.825 N	103° 39' 18.074 W
Fed Perf 1(Modelo 10 Fe - plan hits target cent - Point	0.00 er	0.00	9,328.0	-2,389.0	142.0	448,836.00	751,074.00	32° 13' 55.582 N	103° 39' 18.110 W
PBHL(Modelo 10 Fed Co - plan hits target centous - Point	0.00 er	0.00	9,328.0	-7,570.0	175.0	443,655.00	751,107.00	32° 13' 4.312 N	103° 39' 18.106 W
Fed Perf 2(Modelo 10 Fe - plan hits target cent - Point	0.00 er	0.00	9,328.0	-5,033.0	159.0	446,192.00	751,091.00	32° 13' 29.417 N	103° 39' 18.106 W



T M

Azimuths to Grid North
True North: -0.36°
Magnetic North: 5.97°

Magnetic Field Strength: 47263.9nT Dip Angle: 59.83° Date: 8/25/2023 Model: IGRF2020

To convert a Magnetic Direction to a Grid Direction, Add 5.97°
To convert a Magnetic Direction to a True Direction, Add 6.33° East
To convert a True Direction to a Grid Direction, Subtract 0.36°

Lea County, NM (NAD 83 NME)

Modelo 10 Fed Com #211H

Plan #0.1 RT

PROJECT DETAILS: Lea 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: #211H

3638.0

kb = 26' @ 3664.0usft
Northing Easting Latittude

 Northing
 Easting
 Latittude
 Longitude

 451225.00
 750932.00
 32° 14' 19.230 N
 103° 39' 19.587 W

						S	ECTION	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	1208.0	0.00	0.00	1208.0	0.0	0.0	0.00	0.00	0.0	
3	1334.6	2.53	31.12	1334.6	2.4	1.4	2.00	31.12	-2.4	
4	6811.8	2.53	31.12	6806.4	209.6	126.6	0.00	0.00	-206.6	
5	6938.4	0.00	0.00	6933.0	212.0	128.0	2.00	180.00	-209.0	
6	8855.9	0.00	0.00	8850.5	212.0	128.0	0.00	0.00	-209.0	KOP(Modelo 10 Fed Com #211H)
7	9076.4	26.46	178.85	9063.2	162.0	129.0	12.00	178.85	-159.0	FTP(Modelo 10 Fed Com #211H)
8	9605.9	90.00	179.75	9327.9	-265.4	132.9	12.00	1.01	268.4	
9	11729.5	90.00	179.75	9328.0	-2389.0	142.0	0.00	0.00	2391.6	Fed Perf 1(Modelo 10 Fed Com #211H)
10	14373.5	90.00	179.51	9328.0	-5033.0	159.0	0.01	-89.02	5035.3	Fed Perf 2(Modelo 10 Fed Com #211H)
11	16910.6	90.00	179.77	9328.0	-7570.0	175.0	0.01	90.93	7572.0	PBHL(Modelo 10 Fed Com #211H)

CASING DETAILS

No casing data is available

2450

WELLBORE TARGET DETAILS (MAP CO-ORDINATES) +N/-S Northing **Easting** KOP(Modelo 10 Fed Com #211H) 8850.5 212.0 451437.00 751060.00 FTP(Modelo 10 Fed Com #211H) 9063.2 162.0 451387.00 751061.00 Fed Perf 1(Modelo 10 Fed Com #211H) 9328.0 -2389.0 448836.00 751074.00 Fed Perf 2(Modelo 10 Fed Com #211H) -5033.0 9328.0 751091.00 PBHL(Modelo 10 Fed Com #211H) -7570.0 9328.0 443655.00 751107.00

5950

7000

300 -2400 ÷-3600--4500 **-5100** -5400 -5700 -6300 -7200 -7500

West(-)/East(+)

Vertical Section at 178.68°

9300

|-|-*|*-|-++-

350

2700-

4200

6900-

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

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District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

CONDITIONS

Action 267270

CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	267270
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	10/27/2023