Form 3160-3 FORM APPROVED OMB No. 1004-0137 (June 2015) Expires: January 31, 2018 **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. BUREAU OF LAND MANAGEMENT APPLICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name 7. If Unit or CA Agreement, Name and No. DRILL REENTER 1a. Type of work: 1b. Type of Well: Oil Well Gas Well Other 8. Lease Name and Well No. 1c. Type of Completion: Hydraulic Fracturing Single Zone Multiple Zone 2. Name of Operator 9. API Well No 30-025-53615 3a. Address 3b. Phone No. (include area code) 10. Field and Pool, or Exploratory 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface At proposed prod. zone 14. Distance in miles and direction from nearest town or post office\* 12. County or Parish 13. State 15. Distance from proposed\* 16. No of acres in lease 17. Spacing Unit dedicated to this well location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 18. Distance from proposed location\* 19. Proposed Depth 20. BLM/BIA Bond No. in file to nearest well, drilling, completed, applied for, on this lease, ft. 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 22. Approximate date work will start\* 23. Estimated duration 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable) 1. Well plat certified by a registered surveyor. 4. Bond to cover the operations unless covered by an existing bond on file (see 2. A Drilling Plan. Item 20 above) 3. A Surface Use Plan (if the location is on National Forest System Lands, the 5. Operator certification. 6. Such other site specific information and/or plans as may be requested by the SUPO must be filed with the appropriate Forest Service Office). 25. Signature Name (Printed/Typed) Date Title Approved by (Signature) Date Name (Printed/Typed) Title Office Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

APPROVED WITH CONDITIONS Released to Imaging: 9/27/2024 2:11:46 PM Approval Date: 03/07/2024

\*(Instructions on page 2)

#### **INSTRUCTIONS**

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

#### **NOTICES**

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 748-1283 Fax: (575) 748-9720
Phone: (575) 748-1283 Fax: (575) 748-9720

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

District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

UL or lot no.

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

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

AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	er 30_025_53	615 <sup>2</sup> Pool Code	<sup>3</sup> Pool Name		
<sup>1</sup> API Number 30-025-53615 <sup>2</sup> Pool Code 97900		RED HILLS;UPPER BONE SPRING SHALE			
<sup>4</sup> Property Code		<sup>5</sup> Pr	operty Name	<sup>6</sup> Well Number	
317615		PISTOL	ERO 15 FED	101H	
<sup>7</sup> OGRID No.		<sup>8</sup> O <sub>I</sub>	perator Name	<sup>9</sup> Elevation	
7377	EOG RESOURCES, INC.			3334'	
<sup>10</sup> Surface Location					

North/South line Feet from the

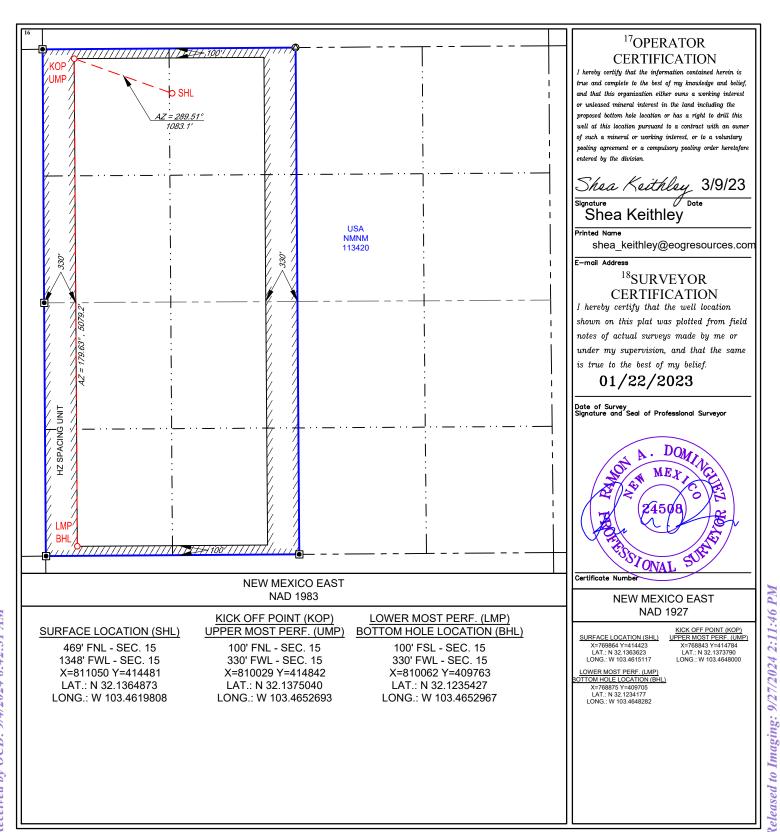
Lot Idn

С	15	25-S	34-E	_	469'	NORTH	1348'	WEST	LEA
<sup>11</sup> Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	15	25-S	34-E	_	100'	SOUTH	330'	WEST	LEA
<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or I	nfill 14Co	nsolidation Co	ode <sup>15</sup> Ord	er No.				
320									

Feet from the

East/West line

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



# State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

# NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

# Section 1 – Plan Description Effective May 25, 2021

I. Operator:	_EOG Resources, In	cOGRID	<b>7</b> 377		<b>Date:</b> 08	8/21/2024	4
II. Type: $\boxtimes$ Other.	Original   Amendn	nent due to $\square$ 19.15.	27.9.D(6)(a) NN	MAC □ 19.15.27.	9.D(6)(b) NM	AC 🗆	
If Other, please of	describe:						
	ovide the following in from a single well pac				wells proposed	to be dri	illed or proposed to
Well Name	e API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/L		Anticipated Produced Water BBL/D
PISTOLERO 15 FED 001H		C-15-25S-34E	451' FNL & 1358' FWL	+/- 1000	+/- 3500	+/- 3	000
V. Anticipated or proposed to b	IV. Central Delivery Point Name:PISTOLERO 15 FED CTB [See 19.15.27.9(D)(1) NMAC]  V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.						
Well Name	e API	Spud Date	TD Reached Date	Completion Commencement		al Flow k Date	First Production Date
PISTOLERO 15 FED 001F	I	10/01/24	10/26/24	12/1/24	01/1/2	25	01/15/25
VI. Separation Equipment:   Attach a complete description of how Operator will size separation equipment to optimize gas capture.  VII. Operational Practices:   Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.  VIII. Best Management Practices:   Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.							

# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

🗵 Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

## IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF	

## X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map.   Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural	gas gathering system [	□ will □ will	not have capacity t	o gather 1	100% of the	e anticipated	natural ga
production volume from the well	prior to the date of first	production.					

VIII I : Programme Outside of the control of the	'(1
	its existing well(s) connected to the same segment, or portion, of the
natural gas gathering system(s) described above will continue to m	neet anticipated increases in line pressure caused by the new well(s)

$\neg$	Attach On	arator's	nlan to	monoga	production	in rocnone	o to the inc	reased line r	roccuro
	Affach Ob	erator s	nian to	manage	production	in respons	se to the inc	reased line i	ressure

XIV. Confidentiality:   Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided	l in
Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific informat	ion
for which confidentiality is asserted and the basis for such assertion.	

(h)

(i)

# Section 3 - Certifications <u>Effective May 25, 2021</u>

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal: 🗵 Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or ☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following: Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or Venting and Flaring Plan. 

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including: power generation on lease; (a) **(b)** power generation for grid; (c) compression on lease; (d) liquids removal on lease; reinjection for underground storage; (e) **(f)** reinjection for temporary storage; **(g)** reinjection for enhanced oil recovery;

# **Section 4 - Notices**

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

other alternative beneficial uses approved by the division.

fuel cell production; and

- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- (b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: Kayla McConnell
Printed Name: KAYLA MCCONNELL
Title: Regulatory Specialist
E-mail Address: KAYLA_MCCONNELL@EOGRESOURCES.COM
Date: 08/21/2024
Phone: (432) 265-6804
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval:

## Natural Gas Management Plan Items VI-VIII

# VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment will be sized to provide adequate separation for anticipated rates.
- Adequate separation relates to retention time for Liquid Liquid separation and velocity for Gas-Liquid separation.
- Collection systems are appropriately sized to handle facility production rates on all (3) phases.
- Ancillary equipment and metering is selected to be serviced without flow interruptions or the need to release
  gas from the well.

# VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

#### **Drilling Operations**

- All flare stacks will be properly sized. The flare stacks will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared, unless there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety and the environment, at which point the gas will be vented.

#### **Completions/Recompletions Operations**

- New wells will not be flowed back until they are connected to a properly sized gathering system.
- The facility will be built/sized for maximum anticipated flowrates and pressures to minimize waste.
- For flowback operations, multiple stages of separation will be used as well as excess VRU and blowers to make sure waste is minimized off the storage tanks and facility.
- During initial flowback, the well stream will be routed to separation equipment.
- At an existing facility, when necessary, post separation natural gas will be flared until it meets pipeline specifications, at which point it will be turned into a collection system.
- At a new facility, post separation natural gas will be vented until storage tanks can safely function, at which point it will be flared until it meets pipeline spec.

#### **Production Operations**

- Weekly AVOs will be performed on all facilities.
- All flares will be equipped with auto-ignition systems and continuous pilot operations.
- After a well is stabilized from liquid unloading, the well will be turned back into the collection system.
- All plunger lift systems will be optimized to limit the amount of waste.
- All tanks will have automatic gauging equipment installed.
- Leaking thief hatches found during AVOs will be cleaned and properly re-sealed.

## Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Weekly AVOs will be performed on all wells and facilities that produce more than 60 Mcfd.

### Measurement & Estimation

- All volume that is flared and vented that is not measured will be estimated.
- All measurement equipment for flared volumes will conform to API 14.10.
- No meter bypasses with be installed.

• When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated.

# VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- During downhole well maintenance, EOG will use best management practices to vent as minimally as possible.
- Prior to the commencement of any maintenance, the tank or vessel will be isolated from the rest of the facilities.
- All valves upstream of the equipment will be closed and isolated.
- After equipment has been isolated, the equipment will be blown down to as low a pressure as possible into the collection system.
- If the equipment being maintained cannot be relieved into the collection system, it shall be released to a tank where the vapor can either be captured or combusted if possible.
- After downhole well maintenance, natural gas will be flared until it reaches pipeline specification.



## 1. GEOLOGIC NAME OF SURFACE FORMATION:

Permian

## 2. ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	889'
Tamarisk Anhydrite	962'
Top of Salt	1,268'
Base of Salt	5,090'
Lamar	5,351'
Bell Canyon	5,376'
Cherry Canyon	6,319'
Brushy Canyon	8,329'
Bone Spring Lime	9,326'
Leonard (Avalon) Shale	9,336'
1st Bone Spring Sand	10,318'
2nd Bone Spring Shale	10,531'
2nd Bone Spring Sand	10,837'
3rd Bone Spring Carb	11,359'
3rd Bone Spring Sand	11,967'
Wolfcamp	12,373'
TD	9,462'

# 3. ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0-400'	Fresh Water
Bell Canyon	5,376'	Oil
Cherry Canyon	6,319'	Oil
Brushy Canyon	8,329'	Oil
Leonard (Avalon) Shale	9,336'	Oil
1st Bone Spring Sand	10,318'	Oil
2nd Bone Spring Shale	10,531'	Oil
2nd Bone Spring Sand	10,837'	Oil

No other Formations are expected to give up oil, gas or fresh water in measurable quantities. Surface fresh water sands will be protected by setting 13-3/8" casing at 990' and circulating cement back to surface.



## 4. CASING PROGRAM

Hole	Interv	al MD	Interva	d TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
16"	0	990	0	990	13-3/8"	54.5#	J-55	STC
11"	0	4,126	0	4,000	9-5/8"	40#	J-55	LTC
11"	4,126	5,316	4,000	5,190	9-5/8"	40#	HCK-55	LTC
6-3/4"	0	14,504	0	9,462	5-1/2"	17#	HCP-110	LTC

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 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.

#### **Cementing Program:**

Center		ī	N	
	No.	Wt.	Yld	Slurry Description
Depth	Sacks	ppg	Ft3/sk	Sidily Description
990'	300	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello-
13-3/8"				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 @ 790')
5,190'	470	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @
9-5/8''				Surface)
	170	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 4152')
14,504'	330	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond
5-1/2''				(TOC @ 4690')
	390	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
				@ 9110')



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

Cement integrity tests will be performed immediately following plug bump.

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.

#### 5. MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL:

Variance is requested to use a co-flex line between the BOP and choke manifold (instead of using a 4" OD steel line).

The minimum blowout preventer equipment (BOPE) shown in Exhibit #1 will consist of a single ram, mud cross and double ram-type (10,000 psi WP) preventer and an annular preventer (5,000-psi WP). Both units will be hydraulically operated and the ram-type will be equipped with blind rams on bottom and drill pipe rams on top. All BOPE will be tested in accordance with Onshore Oil & Gas order No. 2.

EOG will utilize wing unions on BOPE connections that can be isolated from wellbore pressure through means of a choke. All wing unions will be rated to a pressure that meets or exceeds the pressure rating of the BOPE system.

Variance is requested to use a 5,000 psi annular BOP with the 10,000 psi BOP stack.

Before drilling out of the surface casing, the ram-type BOP and accessory equipment will be tested to 10,000/250 psig and the annular preventer to 5,000/250 psig.

Pipe rams and blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets.

A hydraulically operated choke will be installed prior to drilling out of the intermediate casing shoe.



## 6. TYPES AND CHARACTERISTICS OF THE PROPOSED MUD SYSTEM:

During this procedure we plan to use a Closed-Loop System and haul contents to the required disposal.

The applicable depths and properties of the drilling fluid systems are as follows:

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0 – 990'	Fresh - Gel	8.6-8.8	28-34	N/c
990' – 5,190'	Brine	8.6-8.8	28-34	N/c
4,990' – 14,504' Lateral	Oil Base	8.8-9.5	58-68	N/c - 6

An electronic pit volume totalizer (PVT) will be utilized on the circulating system, to monitor pit volume, flow rate, pump pressure and stroke rate.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

## 7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT:

- (A) A kelly cock will be kept in the drill string at all times.
- (B) A full opening drill pipe-stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- (C) H2S monitoring and detection equipment will be utilized from surface casing point to TD.

## 8. LOGGING, TESTING AND CORING PROGRAM:

- (A) Open-hole logs are not planned for this well.
- (B) GR–CCL will be run in cased hole during completions phase of operations.

# 9. ABNORMAL CONDITIONS, PRESSURES, TEMPERATURES AND POTENTIAL HAZARDS:

The estimated bottom-hole temperature (BHT) at TD is 165 degrees F with an estimated maximum bottom-hole pressure (BHP) at TD of 4,428 psig and a maximum anticipated surface pressure of 2,347 psig (based on 9.0 ppg MW). No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. Severe loss circulation is expected from 8,329' to intermediate casing point.



# 10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

The drilling operation should be finished in approximately one month. If the well is productive, an additional 60-90 days will be required for completion and testing before a decision is made to install permanent facilities.

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.

## 11. WELLHEAD & Offline Cementing:

A multi-bowl wellhead system will be utilized.

After running the 13-3/8" surface casing, a 13-3/8" BOP/BOPE system with a minimum working pressure of 10,000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10,000 psi pressure test. This pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The minimum working pressure of the BOP and related BOPE required for drilling below the surface casing shoe shall be 10,000 psi.

The multi-bowl wellhead will be installed by vendor's representative(s). A copy of the installation instructions for the Cactus Multi-Bowl WH system has been sent to the NM BLM office in Carlsbad, NM.

The wellhead will be installed by a third party welder while being monitored by WH vendor's representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. EOG Resources reserves the option to conduct BOPE testing during wait on cement periods provided a test plug is utilized.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi.

Casing strings will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1,500 psi, whichever is greater.



EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) 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 20 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- 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.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



## 12. 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.



469' FNL Proposed Wellbore A

KB: 3359' GL: 3334'

1348' FWL Section 15

T-25-S, R-34-E

API: 30-025-\*\*\*\*

**Bit Size: 16''** 

13-3/8", 54.5#, J-55, STC

@ 0' - 990'

Bit Size: 11"

9-5/8", 40.#, J-55, LTC

@ 0' - 4,000'

9-5/8", 40.#, HCK-55, LTC

@ 4,000' - 5,190'

Bit Size: 6-3/4"

5-1/2", 17.#, HCP-110, LTC

@ 0' - 14,504'

KOP: 9,102' MD, 8,984' TVD

EOC: 9,852' MD, 9,462' TVD

TOC: 4,690'

Lateral: 14,504' MD, 9,462' TVD

**Upper Most Perf:** 

100' FNL & 330' FWL Sec. 15

**Lower Most Perf:** 

100' FSL & 330' FWL Sec. 15

BH Location: 100' FSL & 330' FWL

Sec. 15, T-25-S, R-34-E

Bit Size: 6-3/4"



Well Name: Pistolero 15 Fed 101H

Location: SHL: 469' FNL & 1348' FWL, Section 15, T-25-S, R-34-E, Lea Co., N.M.

BHL: 100' FSL & 330' FWL, Section 15, T-25-S, R-34-E, Lea Co., N.M.

# **Casing Program B:**

Hole	Interv	al MD	Interva	l TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
13-1/2"	0	990	0	990	10-3/4"	40.5#	J-55	STC
9-7/8"	0	4,126	0	4,000	8-5/8"	32#	J-55	BTC-SC
9-7/8"	4,126	5,316	4,000	5,190	8-5/8"	32#	P110-EC	BTC-SC
6-3/4"	0	14,504	0	9,462	5-1/2"	17#	HCP-110	LTC

# **Cementing Program:**

	No.	Wt.	Yld	Sluvey Description
Depth	Sacks	ppg	Ft3/sk	Slurry Description
990'	340	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk
10-3/4''				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 @ 790')
5,190'	350	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC
8-5/8''				@ Surface)
	160	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 4,150')
14,504'	480	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond
5-1/2''				(TOC @ 4,690')
	410	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 @ 9110')



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

#### Wellhead & Offline Cementing:

EOG Resources Inc. (EOG) respectfully requests a variance from the minimum standards for well control equipment testing of Onshore Order No. 2 (item III.A.2.a.i) 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 30 days per Onshore Order No. 2.
- Function test BOP elements per Onshore Order No. 2.
- 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.
- See attached "EOG BLM Variance 3a -Offline Cement Intermediate Operational Procedure"



469'

**Proposed Wellbore B:** 

KB: 3359' GL: 3334'

1348'

**Section 15** 

T-25-S, R-34-E

API: 30-025-\*\*\*\*

Bit Size: 13-1/2" 10-3/4", 40.5#, J-55, STC @ 0' - 990' Bit Size: 9-7/8" 8-5/8", 32.#, J-55, BTC-SC @ 0' - 4,000' 8-5/8", 32.#, P110-EC, BTC-SC TOC: 4,690' @ 4,000' - 5,190' Lateral: 14,504' MD, 9,462' TVD **Upper Most Perf:** Bit Size: 6-3/4" 100' FNL & 330' FWL Sec. 15 5-1/2", 17.#, HCP-110, LTC **Lower Most Perf:** @ 0' - 14,504' 100' FSL & 330' FWL Sec. 15 BH Location: 100' FSL & 330' FWL Sec. 15 T-25-S R-34-E KOP: 9,102' MD, 8,984' TVD EOC: 9,852' MD, 9,462' TVD



# **Hydrogen Sulfide Plan Summary**

- A. All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
- **■** Well control equipment
  - a. Flare line 150' from wellhead to be ignited by flare gun.
  - b. Choke manifold with a remotely operated choke.
  - c. Mud/gas separator
- Protective equipment for essential personnel:
  - a. Breathing Apparatus:
    - i. Rescue Packs (SCBA) 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
    - ii. Work/Escape packs —4 packs shall be stored on the rig floor with sufficient air hose not to restrict work activity.
    - iii. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.
  - b. Auxiliary Rescue Equipment:
    - i. Stretcher
    - ii. Two OSHA full body harness
    - iii. 100 ft 5/8 inch OSHA approved rope
    - iv. 1-20# class ABC fire extinguisher

#### **■** H2S Detection and Monitoring Equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed. The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged. (Gas sample tubes will be stored in the safety trailer)

# **■** Visual Warning System:

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.



# ■ Mud Program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

## ■ Metallurgy:

All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

## **■** Communication:

Communication will be via cell phones and land lines where available.



# **Emergency Assistance Telephone List**

Lea County Sheriff's Department	PUBLIC SAFETY:	911 or
Fire Department           Carlsbad         (575) 885-3125           Artesia         (575) 746-5050           Hospitals           Carlsbad         (575) 887-4121           Artesia         (575) 784-318           Hobbbs         (575) 392-1979           Dept. of Public Safety/Carlsbad         (575) 885-3281           Highway Department         (575) 885-3281           U.S. Department of Labor         (575) 887-314           Bureau of Land Management - Hobbs (Lea Co)         (575) 393-3612           PET On Call - Hobbs         (575) 706-2779           Bureau of Land Management - Carlsbad (Eddy Co)         (575) 234-5779           PET On Call - Carlsbad         (575) 706-2779           New Mexico Oil Conservation Division - Artesia         (575) 706-2779           New Mexico Oil Conservation Division - Artesia         (575) 626-0830           EOG Midland         (432) 230-4840           Blake Burney         (575) 626-0830           Tell Ducitt         (432) 230-4840           Blake Burney         (575) 626-0830           Telling Engineers         (432) 235-9789           Matt Day         (210) 294-3729           Drilling Managers         (210) 294-3729           Branchen Keener         (21	<b>Lea County Sheriff's Department</b>	(575) 396-3611
Carlsbad Artesia (575) 885-3125 Artesia (575) 746-5050     Hospitals   Carlsbad (575) 746-5050     Artesia (575) 748-3333     Hobbs (575) 748-3333     Hobbs (575) 748-3333     Hobbs (575) 748-9718     Highway Department (575) 885-3281     U.S. Department of Labor (575) 887-1174     Bureau of Land Management - Hobbs (Lea Co) (575) 887-1174     Bureau of Land Management - Hobbs (Lea Co) (575) 8706-2779     Bureau of Land Management - Carlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Carlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575) 706-2779     Bureau of Land Management - Garlsbad (Eddy Co) (575)	Corey Helton	
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Carlsbad         (575) 887-4121           Artesia         (575) 748-3333           Hobbs         (575) 748-3333           Dept. of Public Safety/Carlsbad         (575) 885-3281           Highway Department         (575) 885-3281           U.S. Department of Labor         (575) 887-1174           Bureau of Land Management - Hobbs (Lea Co)         (575) 706-2779           PET On Call - Hobbs         (575) 706-2779           PET On Call - Carlsbad (Eddy Co)         (575) 706-2779           PET On Call - Carlsbad (Eddy Co)         (575) 706-2779           New Mexico Oil Conservation Division - Artesia         (575) 706-2779           New Mexico Oil Conservation Division - Artesia         (575) 626-0830           EOG Resources, Inc.         (432) 230-4840           Blake Burney         (432) 230-4840           Drilling Consultants:         (432) 230-4840           Blake Burney         Drilling Engineers           Stephen Davis         (432) 235-9789           Matt Day         (210) 296-4456           Drilling Managers           Branden Keener         (210) 294-3729           Branden Keener         (210) 294-3729           Drilling Superintendents           Lance Hardy         (432) 215-8152           <	Artesia	(575) 746-5050
Artesia	Hospitals	
Hobbs	Carlsbad	(575) 887-4121
Dept. of Public Safety/Carlsbad         (575) 748-9718           Highway Department         (575) 885-3281           U.S. Department of Labor         (575) 887-1174           Bureau of Land Management - Hobbs (Lea Co)         (575) 393-3612           PET On Call - Hobbs         (575) 706-2779           Bureau of Land Management - Carlsbad (Eddy Co)         (575) 234-5972           PET On Call - Carlsbad         (575) 706-2779           New Mexico Oil Conservation Division - Artesia         (575) 626-0830           EOG Resources, Inc.         (432) 686-3600           EOG Midland         (432) 686-3600           Company Drilling Consultants:         (432) 230-4840           Blake Burney         Prilling Engineers           Stephen Davis         (432) 235-9789           Matt Day         (210) 294-3729           Drilling Managers         (210) 294-3729           Branden Keener         (210) 294-3729           Drilling Superintendents         (210) 294-3729           Lance Hardy         (432) 215-8152           Ryan Reynolds         (432) 215-8978           Steve Kelly         (210) 416-7894           H&P Drilling         (432) 563-5757           Nabors Drilling         (432) 363-8180           Patterson UTI         (432) 561-938	Artesia	(575) 748-3333
Highway Department       (575) 885-3281         U.S. Department of Labor       (575) 887-1174         Bureau of Land Management - Hobbs (Lea Co)       (575) 393-3612         PET On Call - Hobbs       (575) 706-2779         Bureau of Land Management - Carlsbad (Eddy Co)       (575) 234-5972         PET On Call - Carlsbad       (575) 706-2779         New Mexico Oil Conservation Division - Artesia       (575) 748-1283         Inspection Group South - Gilbert Gordero       (575) 626-0830         EOG Midland       (432) 686-3600         Company Drilling Consultants:       (432) 230-4840         Blake Burney       Test Dueitt         Brilling Engineers       (432) 235-9789         Stephen Davis       (432) 235-9789         Matt Day       (210) 294-4456         Drilling Managers       (210) 294-3729         Drilling Superintendents       (210) 294-3729         Eance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-8978         Steve Kelly       (210) 416-7894         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety	Hobbs	(575) 392-1979
U.S. Department of Labor       (575) 887-1174         Bureau of Land Management - Hobbs (Lea Co)       (575) 393-3612         PET On Call - Hobbs       (575) 706-2779         Bureau of Land Management - Carlsbad (Eddy Co)       (575) 234-5972         PET On Call - Carlsbad       (575) 706-2779         New Mexico Oil Conservation Division - Artesia       (575) 626-0830         Inspection Group South - Gilbert Gordero       (575) 626-0830         EOG Resources, Inc.       Total Carlsbad         EOG Midland       (432) 686-3600         Company Drilling Consultants:       432) 230-4840         Blake Burney       Total Carlsbad         Drilling Engineers       (432) 235-9789         Matt Day       (210) 296-4456         Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety	Dept. of Public Safety/Carlsbad	(575) 748-9718
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Inspection Group South - Gilbert Gordero		(575) 706-2779
EOG Resources, Inc.  EOG Midland (432) 686-3600  Company Drilling Consultants:  Jett Dueitt (432) 230-4840 Blake Burney  Drilling Engineers  Stephen Davis (432) 235-9789 Matt Day (210) 296-4456  Drilling Managers  Branden Keener (210) 294-3729  Drilling Superintendents  Lance Hardy (432) 215-8152 Ryan Reynolds (432) 215-5978 Steve Kelly (210) 416-7894  H&P Drilling  H&P Drilling  H&P Drilling (432) 563-5757  Nabors Drilling  Nabors Drilling (432) 363-8180  Patterson UTI  Patterson UTI (432) 561-9382  EOG Safety	New Mexico Oil Conservation Division - Artesia	(575) 748-1283
EOG Resources, Inc.  EOG Midland (432) 686-3600  Company Drilling Consultants:  Jett Dueitt (432) 230-4840 Blake Burney  Drilling Engineers  Stephen Davis (432) 235-9789 Matt Day (210) 296-4456  Drilling Managers  Branden Keener (210) 294-3729  Drilling Superintendents  Lance Hardy (432) 215-8152 Ryan Reynolds (432) 215-5978 Steve Kelly (210) 416-7894  H&P Drilling  H&P Drilling  H&P Drilling (432) 563-5757  Nabors Drilling  Nabors Drilling (432) 363-8180  Patterson UTI  Patterson UTI (432) 561-9382  EOG Safety	Inspection Group South - Gilbert Gordero	(575) 626-0830
Company Drilling Consultants:         Jett Dueitt       (432) 230-4840         Blake Burney       (432) 235-9789         Drilling Engineers       (210) 296-4456         Matt Day       (210) 296-4456         Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       EOG Safety		· ,
Jett Dueitt       (432) 230-4840         Blake Burney       Drilling Engineers         Stephen Davis       (432) 235-9789         Matt Day       (210) 296-4456         Drilling Managers       Branden Keener       (210) 294-3729         Drilling Superintendents       Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       Patterson UTI         Patterson UTI       (432) 561-9382         EOG Safety	EOG Midland	(432) 686-3600
Blake Burney   Drilling Engineers	Company Drilling Consultants:	
Drilling Engineers         Stephen Davis       (432) 235-9789         Matt Day       (210) 296-4456         Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382	Jett Dueitt	(432) 230-4840
Stephen Davis       (432) 235-9789         Matt Day       (210) 296-4456         Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382	Blake Burney	
Matt Day       (210) 296-4456         Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety	Drilling Engineers	
Drilling Managers         Branden Keener       (210) 294-3729         Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382	Stephen Davis	(432) 235-9789
Branden Keener       (210) 294-3729         Drilling Superintendents       (432) 215-8152         Lance Hardy       (432) 215-5978         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382	Matt Day	(210) 296-4456
Branden Keener       (210) 294-3729         Drilling Superintendents       (432) 215-8152         Lance Hardy       (432) 215-5978         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382		
Drilling Superintendents         Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       EOG Safety	0 0	
Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382	Branden Keener	(210) 294-3729
Lance Hardy       (432) 215-8152         Ryan Reynolds       (432) 215-5978         Steve Kelly       (210) 416-7894         H&P Drilling         H&P Drilling       (432) 563-5757         Nabors Drilling       (432) 363-8180         Patterson UTI       (432) 561-9382         EOG Safety       (432) 561-9382		
Ryan Reynolds Steve Kelly  (432) 215-5978 Steve Kelly  (210) 416-7894  H&P Drilling  H&P Drilling  (432) 563-5757  Nabors Drilling  Nabors Drilling  Nabors Drilling  Patterson UTI  Patterson UTI  Patterson UTI  (432) 561-9382  EOG Safety		(422) 215 9152
Steve Kelly  H&P Drilling  H&P Drilling  Wabors Drilling  Nabors Drilling  Nabors Drilling  Naterson UTI  Patterson UTI  Patterson UTI  Patterson UTI  Patterson UTI  Patterson UTI  Patterson UTI	·	` /
H&P Drilling  H&P Drilling  (432) 563-5757  Nabors Drilling  Nabors Drilling  Patterson UTI  Patterson UTI  Patterson UTI  Posterson UTI  Posterson UTI  Posterson UTI  Posterson UTI  Posterson UTI		
H&P Drilling Nabors Drilling Nabors Drilling Patterson UTI Patterson UTI Posterson UTI	Steve Keny	(210) 410-/894
Nabors Drilling Nabors Drilling Patterson UTI Patterson UTI EOG Safety  (432) 363-8180 (432) 561-9382	H&P Drilling	
Nabors Drilling Patterson UTI Patterson UTI EOG Safety  (432) 363-8180  (432) 561-9382	H&P Drilling	(432) 563-5757
Nabors Drilling Patterson UTI Patterson UTI EOG Safety  (432) 363-8180  (432) 561-9382	Nabors Drilling	
Patterson UTI Patterson UTI EOG Safety (432) 561-9382		(432) 363-8180
EOG Safety		
EOG Safety	Patterson UTI	(432) 561-9382
<u> </u>	EOG Safety	
	Brian Chandler (HSE Manager)	(817) 239-0251

Exhibit 4
EOG Resources
Pistolero 15 Fed #101H

# Well Site Diagram

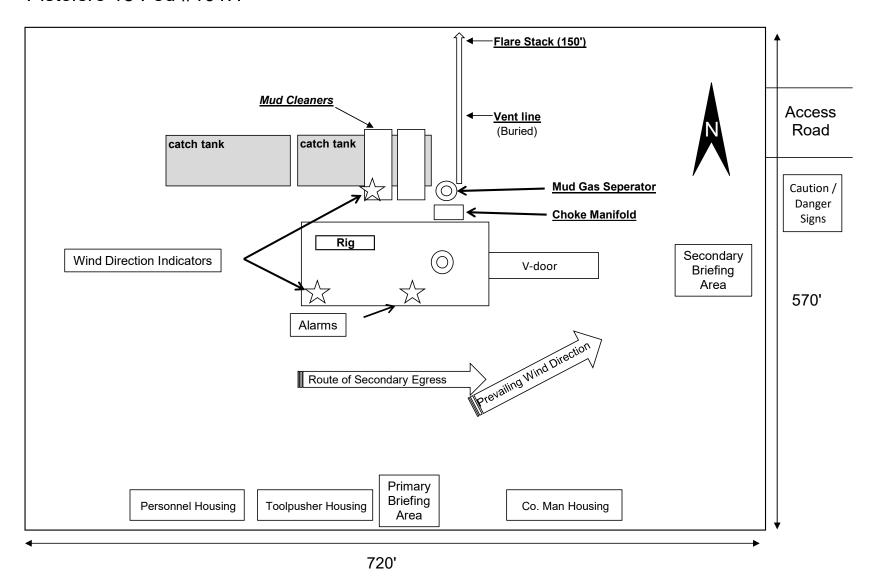
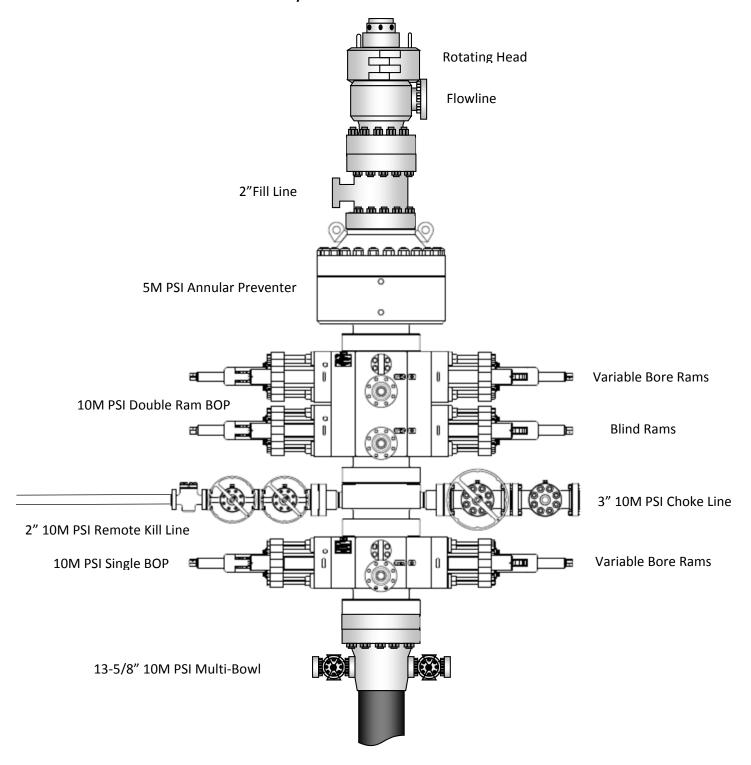
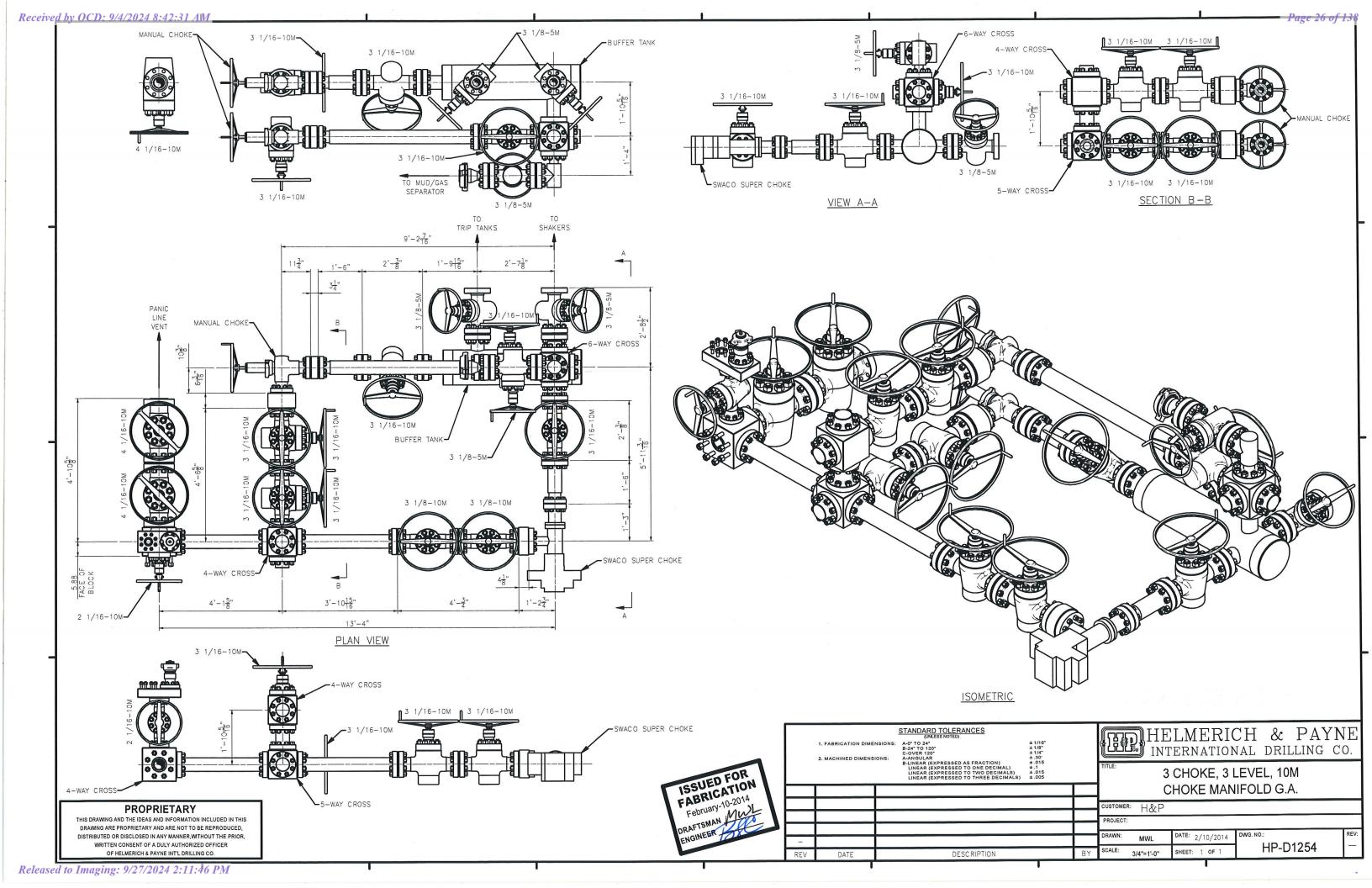


Exhibit 1
EOG Resources
13-5/8" 10M PSI BOP Stack







# API 5CT, 10th Ed. Connection Data Sheet

<b>O.D.</b> (in)	WEIGHT	(lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: Plain End:	32.00 31.13	0.352	J55	7.796	87.5

Material Properties (PE)						
Pipe						
Minimum Yield Strength:	55 ksi					
Maximum Yield Strength:	80 ksi					
Minimum Tensile Strength:	75 ksi					
Coupling						
Minimum Yield Strength:	55 ksi					
Maximum Yield Strength:	80 ksi					
Minimum Tensile Strength:	75 ksi					

Pipe Body Data (PE)						
Geomet	ry					
Nominal ID:	7.92 inch					
Nominal Area:	9.149 in <sup>2</sup>					
*Special/Alt. Drift:	7.875 inch					
Performance						
Pipe Body Yield Strength:	503 kips					
Collapse Resistance:	2,530 psi					
Internal Yield Pressure: (API Historical)	3,930 psi					

API Connectio					
Coupling OD: 9					
STC Perform	ance				
STC Internal Pressure:	3,930 p	si			
STC Joint Strength:	372 ki	ps			
LTC Perform	ance				
LTC Internal Pressure:	3,930 p	si			
LTC Joint Strength:	417 ki	ps			
SC-BTC Performance - Cplg OD = 9.125"					
BTC Internal Pressure:	3,930 p	si			
BTC Joint Strength:	503 ki	ps			

	API Connection Torque					
	5	STC Tor	que (ft-lb	s)		
Min:	2,793	Opti:	3,724	Max:	4,655	
	L	TC Tor	que (ft-lb	s)		
Min:	3,130	Opti:	4,174	Max:	5,217	
	_		(6) 11			
BTC Torque (ft-lbs)						
follo	w API guid	delines reg	garding pos	sitional ma	ake up	

\*Alt. Drift will be used unless API Drift is specified on order.

\*\*If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

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Rev 3, 7/30/2021 POSSIBILITY OF SUCH DAMAGES. 10/21/2022 15:24



# API 5CT, 10th Ed. Connection Data Sheet

<b>O.D.</b> (in)	WEIGHT	(lb/ft)	WALL (in)	GRADE	*API DRIFT (in)	RBW %
8.625	Nominal: Plain End:	32.00 31.13	0.352	P110EC	7.796	87.5

Material Properties (PE)							
Pipe							
Minimum Yield Strength:	125 ksi						
Maximum Yield Strength:	140 ksi						
Minimum Tensile Strength:	135 ksi						
Coupling							
Minimum Yield Strength:	125 ksi						
Maximum Yield Strength:	140 ksi						
Minimum Tensile Strength:	135 ksi						
TUO OITE/ORABE I	OMOTIVALIDA						

Pipe Body Data (PE)							
Geometry							
Nominal ID:	7.92 inch						
Nominal Area:	9.149 in <sup>2</sup>						
*Special/Alt. Drift:	7.875 inch						
Performance							
Pipe Body Yield Strength:	1,144 kips						
Collapse Resistance:	4,000 psi						
Internal Yield Pressure: (API Historical)	8,930 psi						

# THIS SIZE/GRADE IS NOT VALIDATED BY API TO HAVE AN API CONNECTION

API Connection Data Coupling OD: 9.625"								
STC Perfo	rmance							
STC Internal Pressure:	8,930	psi						
STC Joint Strength:	793	kips						
LTC Perfo	rmance							
LTC Internal Pressure:	8,930	psi						
LTC Joint Strength:	887	kips						
SC-BTC Performance - Cplg OD = 9.125"								
BTC Internal Pressure:	6,340	psi						
BTC Joint Strength:	1,120	kips						

	API Connection Torque					
	;	STC Tor	que (ft-lb	s)		
Min:	5,948	Opti:	7,930	Max:	9,913	
		LTC Tor	que (ft-lb	s)		
Min:	6,653	Opti:	8,870	Max:	11,088	
	1	DTC Tor	ous (ft lb	·0)		
BTC Torque (ft-lbs) follow API guidelines regarding positional make up						
ΤΟΙΙ	ow API gui	ideliries re	garding pos	пионаї та	іке ир	

\*Alt. Drift will be used unless API Drift is specified on order.

\*\*If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

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Rev 3, 7/30/2021 POSSIBILITY OF SUCH DAMAGES. 10/26/2022 14:52

# **Hose Inspection Report**

#### ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	<b>CBC Inspector</b>	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial
-------------------	-----------------------------

Hose Serial #	62429		Date of Manufacture	05/2012
Hose I.D.	3"		<b>Working Pressure</b>	10000PSI
Hose Type	Choke an	d Kill	Test Pressure	15000PSI
Manufacturing St	andard	API 16C		

#### **Connections**

End A: 3.1/16" 10KPsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
No damage	No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

**Conclusion:** Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62429 is suitable for continued service.

**Recommendations**: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 months (or during installation/removal)

Annual: In-situ pressure test

Initial 5 years service: Major inspection 2nd Major inspection: 8 / 10 years of service

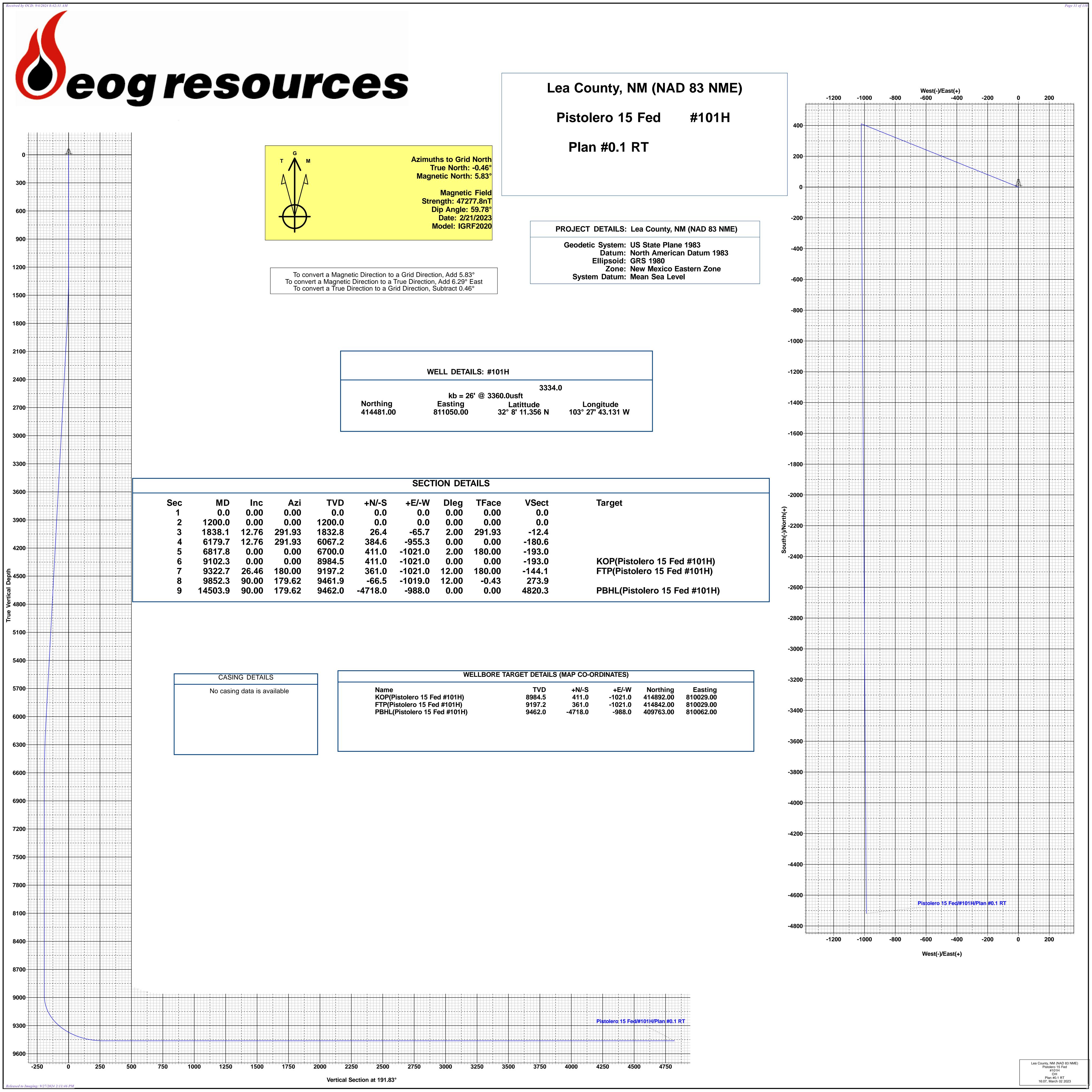
(Detailed description of test regime available upon request, ISS-059 Rev 04)

\*\*NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

**Issued By:** Alejandro Jaimes **Date:** 10/25/2016

Checked By: Jeremy Mckay Date: 10/25/2016

QF97





# **Midland**

Lea County, NM (NAD 83 NME) Pistolero 15 Fed #101H

OH

Plan: Plan #0.1 RT

# **Standard Planning Report**

02 March, 2023



#### **Planning Report**

Database: Company:

PEDM

Midland

Lea County, NM (NAD 83 NME)

Project: Site: Well:

Pistolero 15 Fed #101H

Wellbore: Design:

ОН Plan #0.1 RT **Local Co-ordinate Reference:** 

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well #101H

kb = 26' @ 3360.0usft kb = 26' @ 3360.0usft

Grid

Minimum Curvature

Project

Lea County, NM (NAD 83 NME)

Map System: Geo Datum:

Map Zone:

Well

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

System Datum:

Mean Sea Level

Pistolero 15 Fed Site

Site Position: From:

Мар

Northing: Easting:

414,055.00 usft 812,078.00 usft 13-3/16 "

Latitude: Longitude: 32° 8' 7.059 N

103° 27' 31.217 W

**Position Uncertainty:** 

0.0 usft

Slot Radius:

Northing:

Phase:

0.0

414,481.00 usft

Latitude:

32° 8' 11.356 N

**Position Uncertainty Grid Convergence:** 

**Well Position** 

+E/-W 0.0 usft 0.0 usft

0.0 usft

0.46

Easting: Wellhead Elevation: 811,050.00 usft usft Longitude: **Ground Level:**  103° 27' 43.131 W

3,334.0 usft

Wellbore

ОН

#101H

+N/-S

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	IGRF2020	2/21/2023	6.29	59.78	47,277.77760925	

Design

Audit Notes:

Version:

Vertical Section: Depth From (TVD) (usft)

Plan #0.1 RT

PLAN

+N/-S (usft)

0.0

Tie On Depth: +E/-W

(usft)

0.0

0.0

Direction (°) 191.83

Plan Survey Tool Program

Date 2/28/2023

**Depth From** (usft)

0.0

Depth To (usft)

14,503.9

Survey (Wellbore) Plan #0.1 RT (OH) **Tool Name** 

Remarks

EOG MWD+IFR1 MWD + IFR1

3/2/2023 4:04:06PM Page 2 COMPASS 5000.16 Build 100



#### **Planning Report**

Database: Company:

Project:

PEDM Midland

Lea County, NM (NAD 83 NME)

Site: Pistolero 15 Fed Well: #101H

Wellbore: OH
Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #101H

kb = 26' @ 3360.0usft kb = 26' @ 3360.0usft

Grid

Minimum Curvature

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	
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,838.1	12.76	291.93	1,832.8	26.4	-65.7	2.00	2.00	0.00	291.93	
6,179.7	12.76	291.93	6,067.2	384.6	-955.3	0.00	0.00	0.00	0.00	
6,817.8	0.00	0.00	6,700.0	411.0	-1,021.0	2.00	-2.00	0.00	180.00	
9,102.3	0.00	0.00	8,984.5	411.0	-1,021.0	0.00	0.00	0.00	0.00	KOP(Pistolero 15 Fed
9,322.7	26.46	180.00	9,197.2	361.0	-1,021.0	12.00	12.00	81.65	180.00	FTP(Pistolero 15 Fed
9,852.3	90.00	179.62	9,461.9	-66.5	-1,019.0	12.00	12.00	-0.07	-0.43	
14,503.9	90.00	179.62	9,462.0	-4,718.0	-988.0	0.00	0.00	0.00	0.00	PBHL(Pistolero 15 Fe



#### **Planning Report**

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

 Site:
 Pistolero 15 Fed

 Well:
 #101H

 Wellbore:
 OH

Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well #101H

kb = 26' @ 3360.0usft kb = 26' @ 3360.0usft

Grid

Minimum Curvature

esign:	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)	
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		0.0				0.00		
	0.00		800.0		0.0	0.0	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	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00	
1,300.0	2.00	291.93	1,300.0	0.7	-1.6	-0.3	2.00	2.00	0.00	
1,400.0	4.00	291.93	1,399.8	2.6	-6.5	-1.2	2.00	2.00	0.00	
1 500 0	6.00	204.02	1 400 E	5.9	-14.6	-2.8	2.00	2.00	0.00	
1,500.0	6.00	291.93	1,499.5					2.00	0.00	
1,600.0	8.00	291.93	1,598.7	10.4	-25.9	-4.9	2.00	2.00	0.00	
1,700.0	10.00	291.93	1,697.5	16.3	-40.4	-7.6	2.00	2.00	0.00	
1,800.0	12.00	291.93	1,795.6	23.4	-58.1	-11.0	2.00	2.00	0.00	
1,838.1	12.76	291.93	1,832.8	26.4	-65.7	-12.4	2.00	2.00	0.00	
1,900.0	12.76	291.93	1,893.2	31.5	-78.3	-14.8	0.00	0.00	0.00	
2,000.0	12.76	291.93	1,990.7	39.8	-98.8	-18.7	0.00	0.00	0.00	
2,100.0	12.76	291.93	2,088.3	48.0	-119.3	-22.6	0.00	0.00	0.00	
2,200.0	12.76	291.93	2,185.8	56.3	-139.8	-26.4	0.00	0.00	0.00	
2,300.0	12.76	291.93	2,283.3	64.5	-160.3	-30.3	0.00	0.00	0.00	
2,400.0	12.76	291.93	2,380.9	72.8	-180.8	-34.2	0.00	0.00	0.00	
2,500.0	12.76	291.93	2,478.4	81.0	-201.3	-38.1	0.00	0.00	0.00	
2,600.0	12.76	291.93	2,575.9	89.3	-221.8	-41.9	0.00	0.00	0.00	
2,700.0	12.76	291.93	2,673.4	97.5	-242.3	-45.8	0.00	0.00	0.00	
2,800.0	12.76	291.93	2,771.0	105.8	-262.8	-49.7	0.00	0.00	0.00	
2,000.0	12.70	291.93	2,771.0	105.0	-202.0	-43.1	0.00	0.00	0.00	
2,900.0	12.76	291.93	2,868.5	114.0	-283.3	-53.5	0.00	0.00	0.00	
3,000.0	12.76	291.93	2,966.0	122.3	-303.8	-57.4	0.00	0.00	0.00	
3,100.0	12.76	291.93	3,063.6	130.5	-324.2	-61.3	0.00	0.00	0.00	
							0.00			
3,200.0	12.76	291.93	3,161.1	138.8	-344.7	-65.2		0.00	0.00	
3,300.0	12.76	291.93	3,258.6	147.0	-365.2	-69.0	0.00	0.00	0.00	
3,400.0	12.76	291.93	3,356.2	155.3	-385.7	-72.9	0.00	0.00	0.00	
3,500.0	12.76	291.93	3,453.7	163.5	-406.2	-76.8	0.00	0.00	0.00	
3,600.0				171.8	-406.2 -426.7			0.00	0.00	
,	12.76	291.93	3,551.2			-80.7	0.00			
3,700.0	12.76	291.93	3,648.7	180.0	-447.2	-84.5	0.00	0.00	0.00	
3,800.0	12.76	291.93	3,746.3	188.3	-467.7	-88.4	0.00	0.00	0.00	
3,900.0	12.76	291.93	3,843.8	196.5	-488.2	-92.3	0.00	0.00	0.00	
4,000.0	12.76	291.93	3,941.3	204.8	-508.7	-96.2	0.00	0.00	0.00	
4,100.0	12.76	291.93	4,038.9	213.0	-529.2	-100.0	0.00	0.00	0.00	
4,200.0	12.76	291.93	4,136.4	221.3	-549.7	-103.9	0.00	0.00	0.00	
4,300.0	12.76	291.93	4,233.9	229.5	-570.2	-107.8	0.00	0.00	0.00	
4,400.0	12.76	291.93	4,331.4	237.8	-590.6	-111.7	0.00	0.00	0.00	
4,500.0	12.76	291.93	4,429.0	246.0	-611.1	-115.5	0.00	0.00	0.00	
4,600.0	12.76	291.93	4,526.5	254.3	-631.6	-119.4	0.00	0.00	0.00	
4,700.0	12.76	291.93	4,624.0	262.5	-652.1	-123.3	0.00	0.00	0.00	
4,800.0	12.76	291.93	4,721.6	270.8	-672.6	-127.1	0.00	0.00	0.00	
4,900.0	12.76	291.93	4,819.1	279.0	-693.1	-131.0	0.00	0.00	0.00	
5,000.0	12.76	291.93	4,916.6	287.3	-713.6	-134.9	0.00	0.00	0.00	
5,100.0	12.76	291.93	5,014.2	295.5	-734.1	-134.8	0.00	0.00	0.00	
5,200.0	12.76	291.93	5,111.7	303.8	-754.6	-142.6	0.00	0.00	0.00	

# eog resources

#### **Planning Report**

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

 Site:
 Pistolero 15 Fed

 Well:
 #101H

 Wellbore:
 OH

Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well #101H

kb = 26' @ 3360.0usft kb = 26' @ 3360.0usft

Grid

Minimum Curvature

esign:	Plan #0.1 RT								
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	12.76	291.93	5,209.2	312.0	-775.1	-146.5	0.00	0.00	0.00
5,400.0	12.76	291.93	5,306.7	320.3	-795.6	-150.4	0.00	0.00	0.00
5,500.0	12.76	291.93	5,404.3	328.5	-816.1	-154.3	0.00	0.00	0.00
5,600.0	12.76	291.93	5,501.8	336.8	-836.6	-158.1	0.00	0.00	0.00
5,700.0	12.76	291.93	5,599.3	345.0	-857.0	-162.0	0.00	0.00	0.00
5,800.0	12.76	291.93	5,696.9	353.3	-877.5	-165.9	0.00	0.00	0.00
5,900.0	12.76	291.93	5,794.4	361.5	-898.0	-169.8	0.00	0.00	0.00
6,000.0	12.76	291.93	5,891.9	369.7	-918.5	-173.6	0.00	0.00	0.00
6,100.0	12.76	291.93	5,989.4	378.0	-939.0	-177.5	0.00	0.00	0.00
6,179.7	12.76	291.93	6,067.2	384.6	-955.3	-180.6	0.00	0.00	0.00
6,200.0	12.36	291.93	6,087.0	386.2	-959.4	-181.4	2.00	-2.00	0.00
6,300.0	10.36	291.93	6,185.0	393.6	-977.7	-184.8	2.00	-2.00	0.00
6,400.0	8.36	291.93	6,283.7	399.6	-992.8	-187.7	2.00	-2.00	0.00
6,500.0	6.36	291.93	6,382.9	404.4	-1,004.7	-189.9	2.00	-2.00	0.00
6,600.0	4.36	291.93	6,482.4	407.9	-1,013.3	-191.6	2.00	-2.00	0.00
6,700.0	2.36	291.93	6,582.2	410.1	-1,018.8	-192.6	2.00	-2.00	0.00
6,800.0	0.36	291.93	6,682.2	411.0	-1,020.9	-193.0	2.00	-2.00	0.00
6,817.8	0.00	0.00	6,700.0	411.0	-1,021.0	-193.0	2.00	-2.00	0.00
6,900.0	0.00	0.00	6,782.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,882.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,100.0	0.00	0.00	6,982.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,082.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,182.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,282.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,382.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,482.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,582.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,682.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,782.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,000.0	0.00	0.00	7,882.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,100.0	0.00	0.00	7,982.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,082.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,182.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,282.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,382.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,482.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,582.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,682.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,782.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
9,000.0	0.00	0.00	8,882.2	411.0	-1,021.0	-193.0	0.00	0.00	0.00
9,102.3	0.00	0.00	8,984.5	411.0	-1,021.0	-193.0	0.00	0.00	0.00
9,125.0	2.73	180.00	9,007.2	410.5	-1,021.0	-192.5	12.00	12.00	0.00
9,150.0	5.73	180.00	9,032.1	408.6	-1,021.0	-190.7	12.00	12.00	0.00
9,175.0	8.73	180.00	9,056.9	405.5	-1,021.0	-187.6	12.00	12.00	0.00
9,200.0	11.73	180.00	9,081.5	401.0	-1,021.0	-183.3	12.00	12.00	0.00
9,225.0	14.73	180.00	9,105.9	395.3	-1,021.0	-177.7	12.00	12.00	0.00
9,250.0	17.73	180.00	9,129.9	388.3	-1,021.0	-170.8	12.00	12.00	0.00
9,275.0	20.73	180.00	9,153.5	380.1	-1,021.0	-162.8	12.00	12.00	0.00
9,300.0	23.73	180.00	9,176.6	370.6	-1,021.0	-153.5	12.00	12.00	0.00
9,322.7	26.46	180.00	9,197.2	361.0	-1,021.0	-144.1	12.00	12.00	0.00
9,325.0	26.73	180.00	9,199.2	360.0	-1,021.0	-143.1	12.00	12.00	-0.20
9,350.0	29.73	179.95	9,221.2	348.2	-1,021.0	-131.5	12.00	12.00	-0.18
9,375.0	32.73	179.91	9,242.6	335.2	-1,021.0	-118.8	12.00	12.00	-0.15
9,400.0	35.73	179.88	9,263.3	321.1	-1,021.0	-105.1	12.00	12.00	-0.13



#### **Planning Report**

Database: PEDM Company: Midland

Project: Lea County, NM (NAD 83 NME)

 Site:
 Pistolero 15 Fed

 Well:
 #101H

 Wellbore:
 OH

Wellbore: OH
Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well #101H

kb = 26' @ 3360.0usft kb = 26' @ 3360.0usft

Grid

Minimum Curvature

Design:	Plan #0.1 RT								
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)
9,425.0 9,450.0	38.73 41.73	179.85 179.83	9,283.2 9,302.3	306.0 289.9	-1,020.9 -1,020.9	-90.3 -74.5	12.00 12.00	12.00 12.00	-0.11 -0.10
9,475.0	44.73	179.81	9,320.5	272.8	-1,020.8	-57.7	12.00	12.00	-0.08
9,500.0	47.73	179.79	9,337.8	254.7	-1,020.8	-40.1	12.00	12.00	-0.08
9,525.0	50.73	179.77	9,354.1	235.8	-1,020.7	-21.6	12.00	12.00	-0.07
9,550.0 9,575.0	53.73 56.73	179.76 179.74	9,369.4 9,383.7	216.0 195.5	-1,020.6 -1,020.5	-2.2 17.8	12.00 12.00	12.00 12.00	-0.06 -0.06
9,600.0 9,625.0	59.73 62.73	179.73 179.72	9,396.8 9,408.9	174.2 152.3	-1,020.4 -1,020.3	38.6 60.0	12.00 12.00	12.00 12.00	-0.06 -0.05
9,650.0	65.73	179.72	9,419.7	129.8	-1,020.3	82.1	12.00	12.00	-0.05
9,675.0	68.73	179.69	9,429.4	106.8	-1,020.2	104.6	12.00	12.00	-0.05
9,700.0	71.73	179.68	9,437.9	83.2	-1,019.9	127.6	12.00	12.00	-0.04
9,725.0	74.73	179.67	9,445.1	59.3	-1,019.8	151.0	12.00	12.00	-0.04
9,750.0	77.73	179.66	9,451.0	35.0	-1,019.7	174.7	12.00	12.00	-0.04
9,775.0	80.73	179.65	9,455.7	10.5	-1,019.5	198.7	12.00	12.00	-0.04
9,800.0	83.73	179.64	9,459.1	-14.3	-1,019.4	222.9	12.00	12.00	-0.04
9,825.0	86.73	179.63	9,461.2	-39.2	-1,019.2	247.3	12.00	12.00	-0.04
9,852.3	90.00	179.62	9,461.9	-66.5	-1,019.0	273.9	12.00	12.00	-0.04
9,900.0	90.00	179.62	9,461.9	-114.2	-1,018.7	320.6	0.00	0.00	0.00
10,000.0	90.00	179.62	9,461.9	-214.2	-1,018.0	418.3	0.00	0.00	0.00
10,100.0	90.00	179.62	9,461.9	-314.2	-1,017.4	516.0	0.00	0.00	0.00
10,200.0	90.00	179.62	9,461.9	-414.2	-1,016.7	613.8	0.00	0.00	0.00
10,300.0	90.00	179.62	9,462.0	-514.2	-1,016.0	711.5	0.00	0.00	0.00
10,400.0 10,500.0	90.00 90.00	179.62 179.62	9,462.0 9,462.0	-614.2 -714.2	-1,015.4 -1,014.7	809.3 907.0	0.00 0.00	0.00 0.00	0.00 0.00
10,600.0	90.00	179.62	9,462.0	-7 14.2 -814.2	-1,014.7	1,004.7	0.00	0.00	0.00
10,700.0	90.00	179.62	9,462.0	-914.2	-1,013.4	1,102.5	0.00	0.00	0.00
10,800.0	90.00	179.62	9,462.0	-1,014.2	-1,012.7	1,200.2	0.00	0.00	0.00
10,900.0	90.00	179.62	9,462.0	-1,114.2	-1,012.0	1,297.9	0.00	0.00	0.00
11,000.0	90.00	179.62	9,462.0	-1,214.2	-1,011.4	1,395.7	0.00	0.00	0.00
11,100.0	90.00	179.62	9,462.0	-1,314.2	-1,010.7	1,493.4	0.00	0.00	0.00
11,200.0	90.00	179.62	9,462.0	-1,414.2	-1,010.0	1,591.2	0.00	0.00	0.00
11,300.0	90.00	179.62	9,462.0	-1,514.2	-1,009.4	1,688.9	0.00	0.00	0.00
11,400.0	90.00	179.62	9,462.0	-1,614.2	-1,008.7	1,786.6	0.00	0.00	0.00
11,500.0 11,600.0	90.00 90.00	179.62 179.62	9,462.0 9,462.0	-1,714.2 -1,814.2	-1,008.0 -1,007.4	1,884.4 1,982.1	0.00 0.00	0.00 0.00	0.00 0.00
11,700.0	90.00	179.62	9,462.0	-1,014.2 -1,914.2	-1,007.4	2,079.9	0.00	0.00	0.00
11,800.0	90.00	179.62	9,462.0	-2,014.1	-1,006.0	2,177.6	0.00	0.00	0.00
11,900.0	90.00	179.62	9,462.0	-2,114.1	-1,005.4	2,275.3	0.00	0.00	0.00
12,000.0	90.00	179.62	9,462.0	-2,214.1	-1,004.7	2,373.1	0.00	0.00	0.00
12,100.0	90.00	179.62	9,462.0	-2,314.1	-1,004.0	2,470.8	0.00	0.00	0.00
12,200.0	90.00	179.62	9,462.0	-2,414.1	-1,003.4	2,568.5	0.00	0.00	0.00
12,300.0	90.00	179.62	9,462.0	-2,514.1	-1,002.7	2,666.3	0.00	0.00	0.00
12,400.0	90.00	179.62	9,462.0	-2,614.1	-1,002.0	2,764.0	0.00	0.00	0.00
12,500.0	90.00	179.62	9,462.0	-2,714.1	-1,001.4	2,861.8	0.00	0.00	0.00
12,600.0 12,700.0	90.00 90.00	179.62 179.62	9,462.0 9,462.0	-2,814.1 -2,914.1	-1,000.7 -1,000.0	2,959.5 3,057.2	0.00 0.00	0.00 0.00	0.00 0.00
12,800.0	90.00	179.62	9,462.0	-3,014.1	-999.4	3,155.0	0.00	0.00	0.00
12,800.0	90.00	179.62	9,462.0	-3,014.1 -3,114.1	-998.7	3,155.0	0.00	0.00	0.00
13,000.0	90.00	179.62	9,462.0	-3,214.1	-998.0	3,350.4	0.00	0.00	0.00
13,100.0	90.00	179.62	9,462.0	-3,314.1	-997.4	3,448.2	0.00	0.00	0.00
13,200.0	90.00	179.62	9,462.0	-3,414.1	-996.7	3,545.9	0.00	0.00	0.00
13,300.0 13,400.0	90.00 90.00	179.62 179.62	9,462.0 9,462.0	-3,514.1 -3,614.1	-996.0 -995.4	3,643.7 3,741.4	0.00 0.00	0.00 0.00	0.00 0.00



#### **Planning Report**

Database: Company:

Project:

PEDM

Midland

Lea County, NM (NAD 83 NME)

Site: Pistolero 15 Fed

Well: #101H Wellbore: OH

Design: Plan #0.1 RT

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well #101H

kb = 26' @ 3360.0usft

kb = 26' @ 3360.0usft Grid

Minimum Curvature

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)
13,500.0	90.00	179.62	9,462.0	-3,714.1	-994.7	3,839.1	0.00	0.00	0.00
13,600.0	90.00	179.62	9,462.0	-3,814.1	-994.0	3,936.9	0.00	0.00	0.00
13,700.0	90.00	179.62	9,462.0	-3,914.1	-993.4	4,034.6	0.00	0.00	0.00
13,800.0	90.00	179.62	9,462.0	-4,014.1	-992.7	4,132.4	0.00	0.00	0.00
13,900.0	90.00	179.62	9,462.0	-4,114.1	-992.0	4,230.1	0.00	0.00	0.00
14,000.0	90.00	179.62	9,462.0	-4,214.1	-991.4	4,327.8	0.00	0.00	0.00
14,100.0	90.00	179.62	9,462.0	-4,314.1	-990.7	4,425.6	0.00	0.00	0.00
14,200.0	90.00	179.62	9,462.0	-4,414.1	-990.0	4,523.3	0.00	0.00	0.00
14,300.0	90.00	179.62	9,462.0	-4,514.1	-989.4	4,621.0	0.00	0.00	0.00
14,400.0	90.00	179.62	9,462.0	-4,614.1	-988.7	4,718.8	0.00	0.00	0.00
14,503.9	90.00	179.62	9,462.0	-4,718.0	-988.0	4,820.3	0.00	0.00	0.00

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(Pistolero 15 Fed # <sup>*</sup> - plan hits target cen - Point	0.00 ter	0.00	8,984.5	411.0	-1,021.0	414,892.00	810,029.00	32° 8′ 15.505 N	103° 27' 54.966 W
FTP(Pistolero 15 Fed #1 - plan hits target cen - Point	0.00 ter	0.00	9,197.2	361.0	-1,021.0	414,842.00	810,029.00	32° 8′ 15.010 N	103° 27' 54.971 W
PBHL(Pistolero 15 Fed # - plan hits target cen - Point	0.00 ter	0.00	9,462.0	-4,718.0	-988.0	409,763.00	810,062.00	32° 7' 24.750 N	103° 27' 55.063 W

New Search »

« Back to Previous List

USC Metric

6/8/2015 10:14:05 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	Ріре	втс	LTC	STC	
Outside Diameter	10.750	11.750	-	11.750	in.
Wall Thickness	0.350	-	-	-	in.
Inside Diameter	10.050	10.050	-	10.050	in.
Standard Drift	9.894	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	Pipe	втс	LTC	STC	
Minimum Collapse Pressure	1,580	1,580	-	1,580	psi
Minimum Internal Yield Pressure	3,130	3,130	-	3,130	psi
Minimum Pipe Body Yield Strength	629.00	-	-	-	1000 lbs
Joint Strength		700	-	420	1000 lbs
Reference Length	-	11,522	-	6,915	ft
Make-Up Data	Ріре	втс	LTC	STC	
Make-Up Loss		4.81	-	3.50	in.
Minimum Make-Up Torque	-	-	-	3,150	ft-lbs
Released to Imaging: 9/27/2024 2:11:46 PM Maximum Make-Up Torque		-	-	5,250	ft-lbs

# PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

 $\mathbf{COA}$ 

H2S	• Yes	□ No	
Potash	None	☐ Secretary	R-111-P
Cave/Karst Potential	• Low	☐ Medium	☐ High
Cave/Karst Potential	Critical		
Variance	O None	<b>○</b> Flex Hose	Other
Wellhead	Conventional	Multibowl	□ Both
Wellhead Variance	Diverter		
Other	□4 String	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Pilot Hole	☐ Open Annulus
Cementing	☐ Contingency	☐ EchoMeter	☐ Primary Cement
	Cement Squeeze		Squeeze
Special Requirements	☐ Water Disposal	$\square$ 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 Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

#### B. CASING

#### **Primary Casing Design:**

1. The 13-3/8 inch surface casing shall be set at approximately 990 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.

- 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 9-5/8 inch intermediate casing shall be set at approximately 5,190 feet TVD.
  - Mud weight could brine up to 10.2ppg. Reviewed and OK
  - Keep casing full during run for collapse SF

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

#### **Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
- 3. The 5-1/2 inch production casing shall be set at approximately 14,504 feet. The minimum required fill of cement behind the 5-1/2 inch production casing is:

#### **Option 1 (Single Stage):**

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

#### **Alternative Design:**

- 1. The 10-3/4 inch surface casing shall be set at approximately 990 feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite, above the salt, and below usable fresh water) and cemented to the surface.
  - 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 8-5/8 inch intermediate casing shall be set at approximately 5,190 feet TVD. Mud weight could brine up to 10.2ppg. Reviewed and is OK. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:

#### **Option 1 (Single Stage):**

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
- 3. The 5-1/2 inch production casing shall be set at approximately 14,504 feet. The minimum required fill of cement behind the 5-1/2 inch production casing is:

#### **Option 1 (Single Stage):**

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

#### C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi. Variance is approved to use a 5000 (5M) Annular which shall be tested to 3500 (70% Working Pressure) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

#### D. SPECIAL REQUIREMENT (S)

#### (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
- Any well control event while drilling require notification to the BLM Petroleum Engineer (575-706-2779) prior to the commencement of any BOPE Break Testing operations.
- A full BOPE test is required prior to drilling the first deep intermediate hole section. If any subsequent hole interval is deeper than the first, a full BOPE test will be required. (200' TVD tolerance between intermediate shoes is allowable).
- The BLM is to be contacted (575-689-5981 Lea County) 4 hours prior to BOPE tests.
- As a minimum, a full BOPE test shall be performed at 21-day intervals.
- In the event any repairs or replacement of the BOPE is required, the BOPE shall test as per 43 CFR part 3170 Subpart 3172.
- If in the event break testing is not utilized, then a full BOPE test would be conducted.

#### **Offline Cementing**

Offline cementing OK for surface and intermediate intervals. Notify the BLM prior to the commencement of any offline cementing procedure.

#### **Casing Clearance:**

- Overlap OK
- Salt annular variance reviewed and OK.

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.

#### **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)

Page 4 of 9

- 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 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per **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 integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.
- B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in 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 43 CFR part 3170 Subpart 3172 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

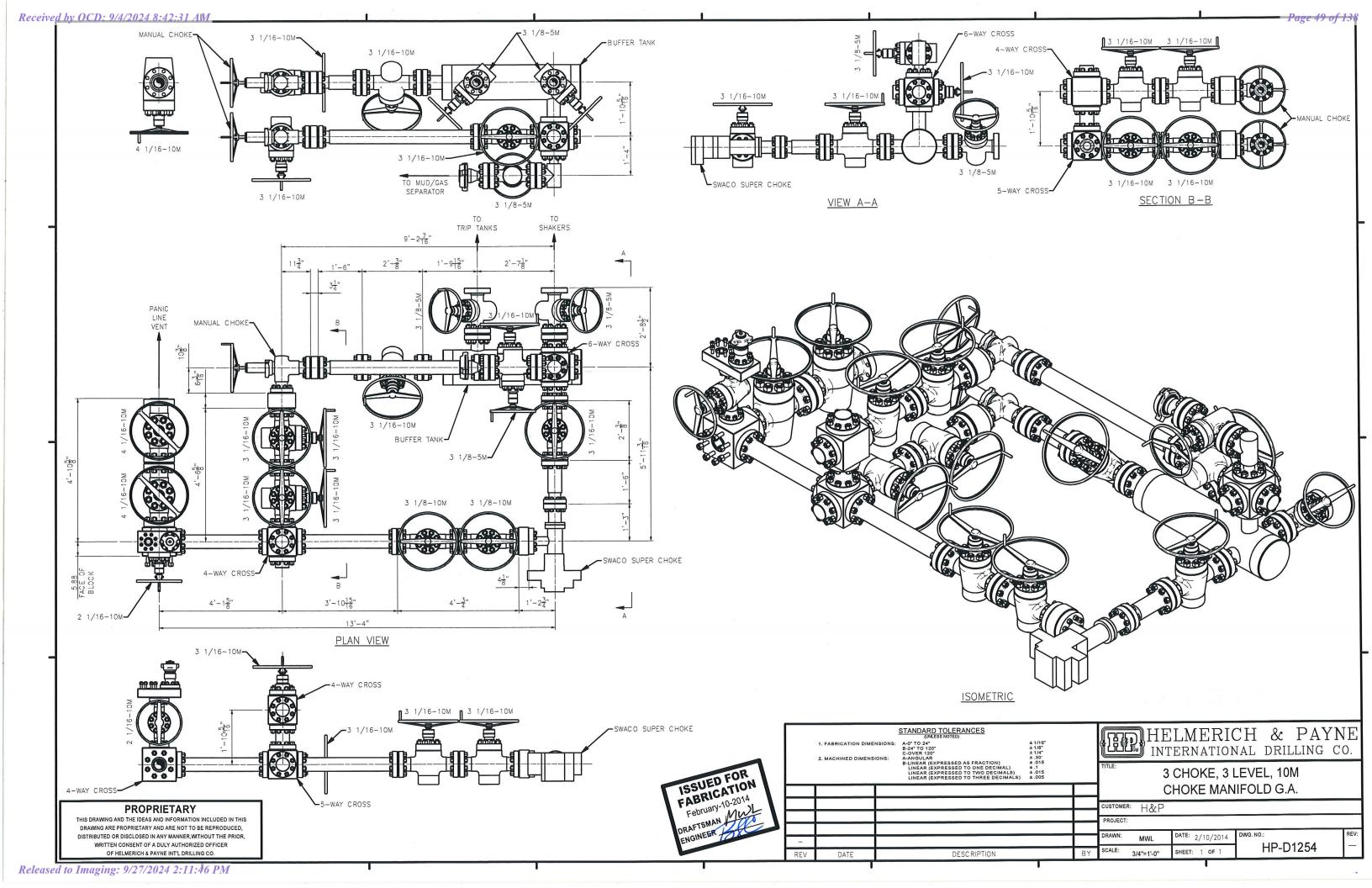
Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

#### 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.

**KPI** 3/6/2024



#### **Hose Inspection Report**

#### ContiTech Oil & Marine

Customer	Customer Reference #	CBC Reference #	<b>CBC Inspector</b>	Date of Inspection
H&P Drilling	740021604	COM906112	A. Jaimes	10/17/2016

Hose Manufacturer	Contitech Rubber Industrial
-------------------	-----------------------------

Hose Serial #	62429		Date of Manufacture	05/2012
Hose I.D.	3"		<b>Working Pressure</b>	10000PSI
Hose Type	Choke an	d Kill	Test Pressure	15000PSI
Manufacturing St	andard	API 16C		

#### **Connections**

End A: 3.1/16" 10KPsi API Spec 6A Type 6BX Flange	End B: 3.1/16" 10Kpsi API Spec 6A Type 6BX Flange
No damage	No damage
Material: Carbon Steel	Material: Carbon Steel
Seal Face: BX154	Seal Face: BX154
Length Before Hydro Test: 16'	Length After Hydro test: 16'

**Conclusion:** Hose #62429 passed the external inspection with no notable damages to the hose armor. Internal borescope of the hose showed no damage to the hose liner. Hose #62429 passed the hydrostatic pressure test by holding a pressure of 15,000PSI for 60 minutes. Hose #62429 is suitable for continued service.

**Recommendations**: In general the hose should be inspected on a regular on-going basis. The frequency and degree of the inspection should as a minimum follow these guidelines:

Visual inspection: Every 3 months (or during installation/removal)

Annual: In-situ pressure test

Initial 5 years service: Major inspection 2nd Major inspection: 8 / 10 years of service

(Detailed description of test regime available upon request, ISS-059 Rev 04)

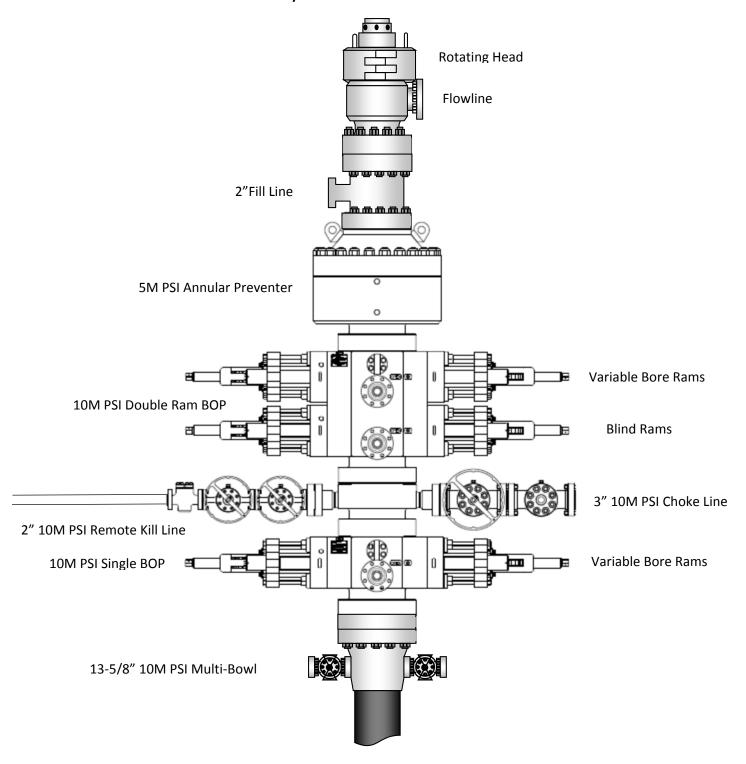
\*\*NOTE: There are a number of critical elements in the hose that cannot be thoroughly checked through standard inspection techniques. Away from dissecting the hose body, the best way to evaluate the condition of the hose is through review of the operating conditions recorded during the hose service life, in particular maximums and peak conditions.

**Issued By:** Alejandro Jaimes **Chec Date:** 10/25/2016

Checked By: Jeremy Mckay Date: 10/25/2016

**QF97** 

Exhibit 1
EOG Resources
13-5/8" 10M PSI BOP Stack



# 10,000 PSI BOP Annular Variance Request (EOG Variance 1c)

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

#### 1. Component and Preventer Compatibility Tables

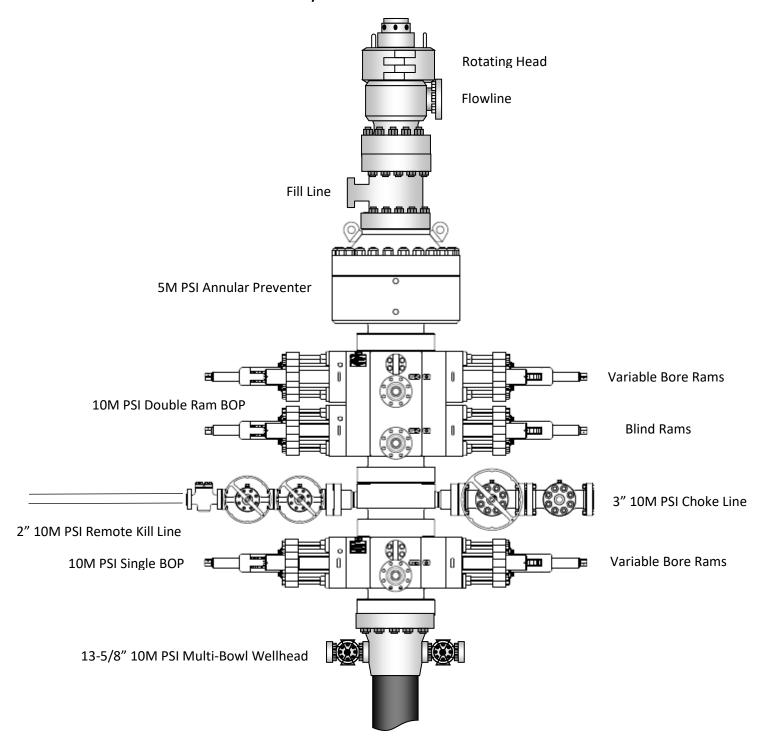
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

12-1/4" Intermediate Hole Section 10M psi requirement								
Component	OD	<b>Primary Preventer</b>	RWP	Alternate Preventer(s)	RWP			
Drillpipe	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
	4.500"			Lower 3.5 - 5.5" VBR	10M			
HWDP	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
	4.500"			Lower 3.5 - 5.5" VBR	10M			
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
				Lower 3.5 - 5.5" VBR	10M			
DCs and MWD tools	6.500" - 8.000"	Annular	5M	-	-			
Mud Motor	8.000" - 9.625"	Annular	5M	-	-			
1 <sup>st</sup> Intermediate casing	9.625"	Annular	5M	-	-			
Open-hole	-	Blind Rams	10M	-	-			

	8-3/4" Production Hole Section							
C		OM psi requirement	DVA/D	Alta wasta Busanta (a)	DIAID			
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP			
Drillpipe	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
	4.500"			Lower 3.5 - 5.5" VBR	10M			
HWDP	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
	4.500"			Lower 3.5 - 5.5" VBR	10M			
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M			
				Lower 3.5 - 5.5" VBR	10M			
DCs and MWD tools	6.500" - 8.000"	Annular	5M	-	-			
Mud Motor	6.750" - 8.000"	Annular	5M	-	-			
2 <sup>nd</sup> Intermediate casing	7.625"	Annular	5M	-	-			
Open-hole	-	Blind Rams	10M	-	-			

VBR = Variable Bore Ram

## EOG Resources 13-5/8" 10M PSI BOP Stack



#### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

#### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure While Running Production Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

#### General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

#### General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drillpipe thru the stack.
  - a. Perform flowcheck, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper variable bore rams.
  - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan

- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the upper variable bore rams.
  - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
  - c. If impossible to pick up high enough to pull the string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
  - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan



2/24/2022

#### **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**

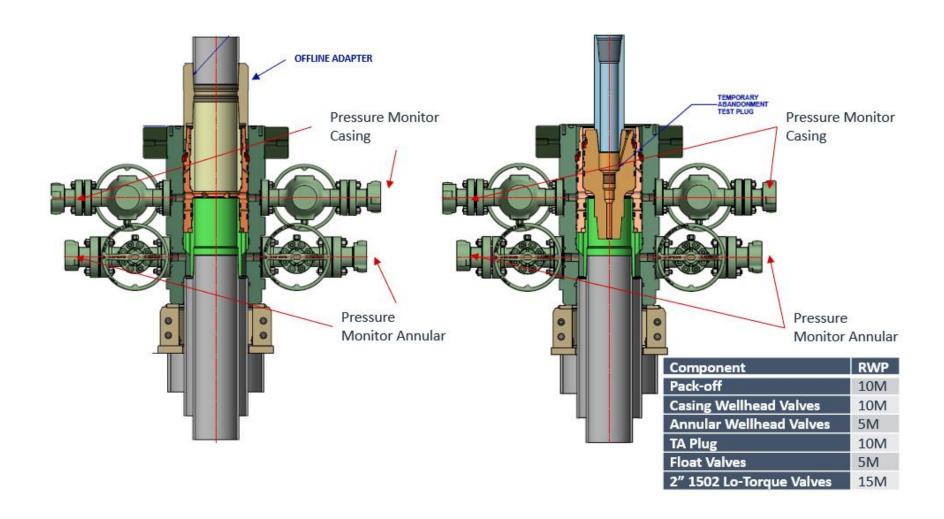
- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking 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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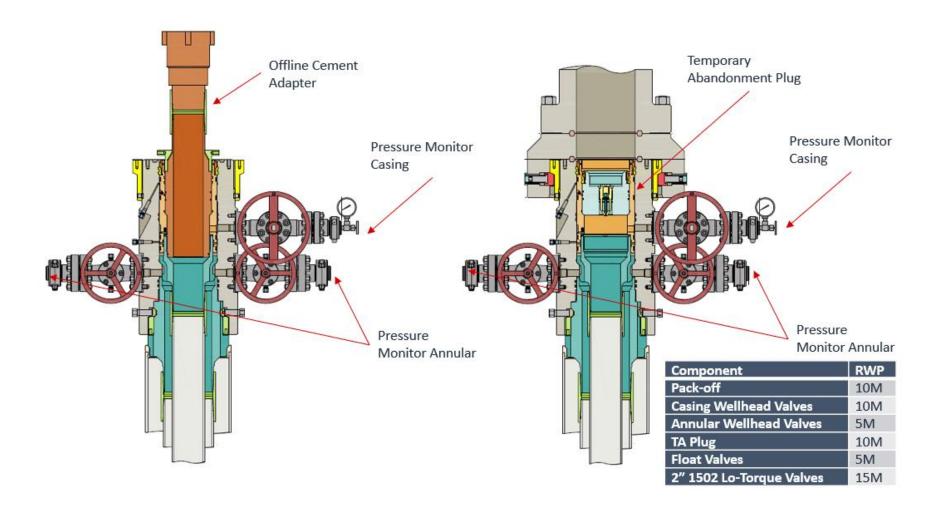
Figure 1: Cameron TA Plug and Offline Adapter Schematic





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Figure 2: Cactus TA Plug and Offline Adapter Schematic

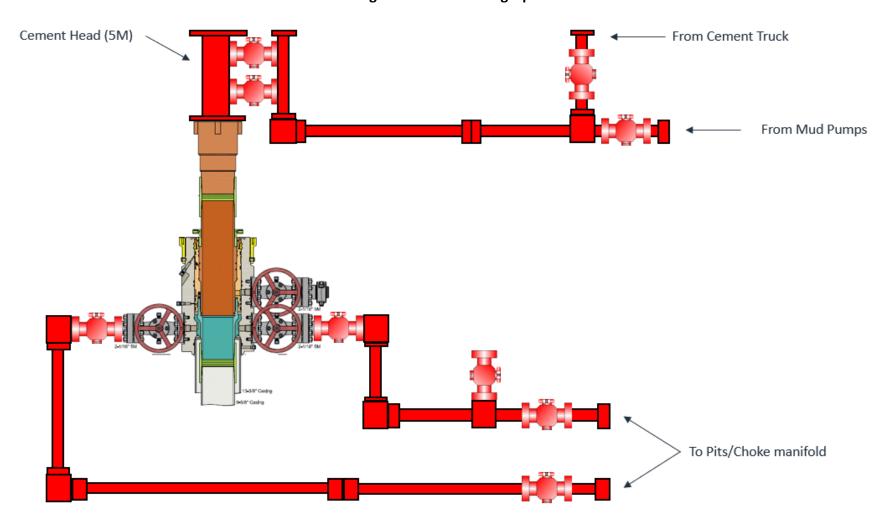


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Figure 3: Back Yard Rig Up



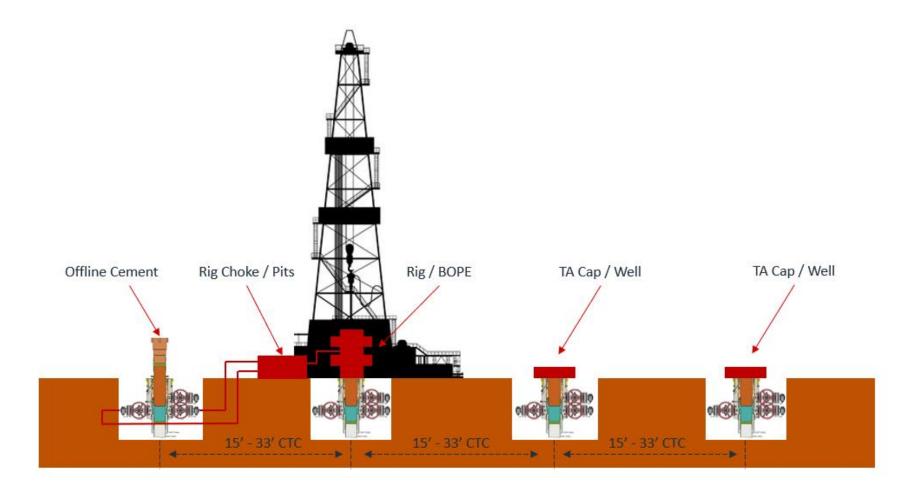
\*\*\* All Lines 10M rated working pressure

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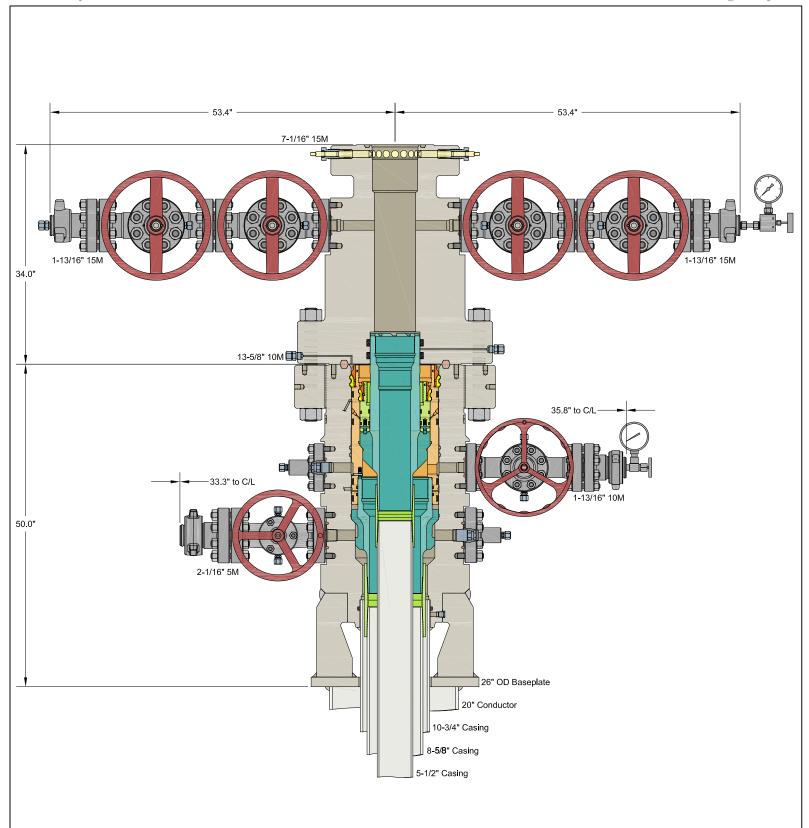


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Figure 4: Rig Placement Diagram



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ALL DIMENSIONS APPROXIMATE

## CACTUS WELLHEAD LLC

10-3/4" x 8-5/8" x 5-1/2" MBU-3T-SF-SOW Wellhead System With 8-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers And 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head

#### **EOG RESOURCES**

DRAWN DLE 14APR21
APPRV

DRAWING NO.

SDT-3141

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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

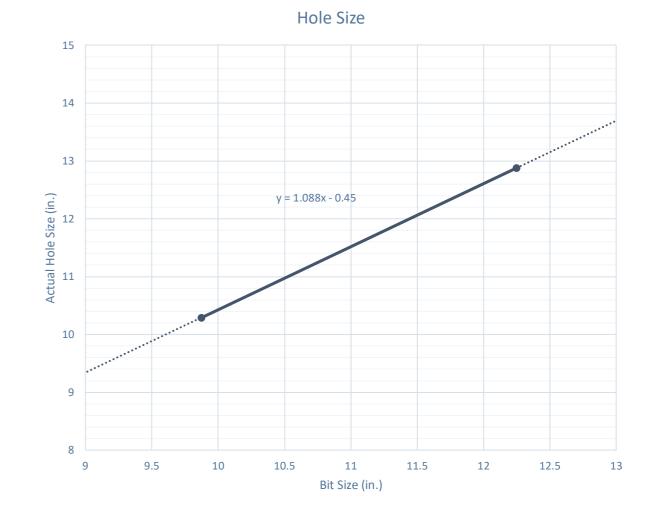
## **Volumetric Hole Size Calculation**

#### **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

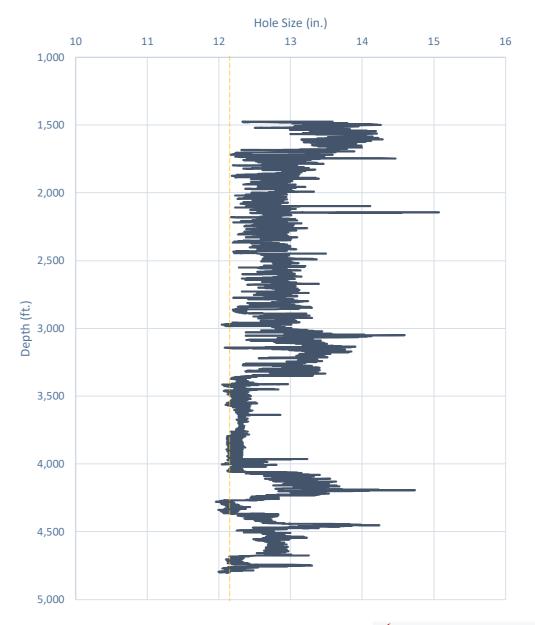


#### Modelo 10 Fed Com #501H

# 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

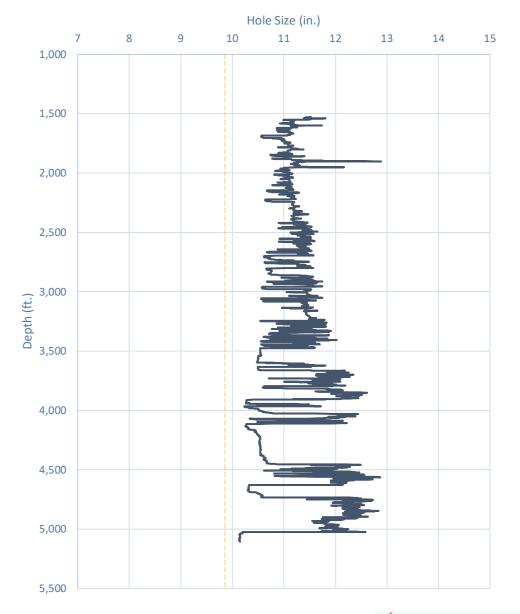


# Caliper Hole Size (9.875")

## **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

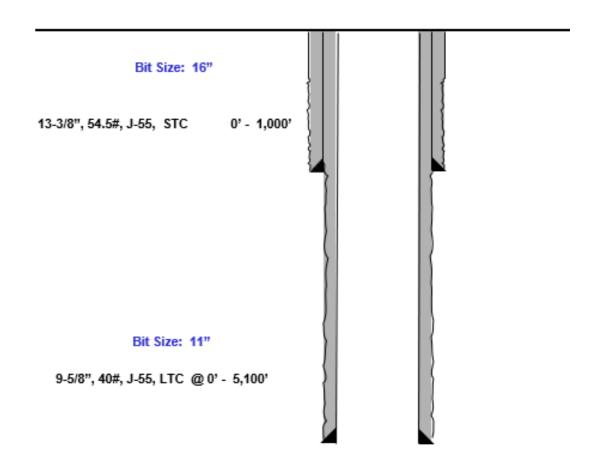
$$=\frac{11.52-9.625}{2}$$

• 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

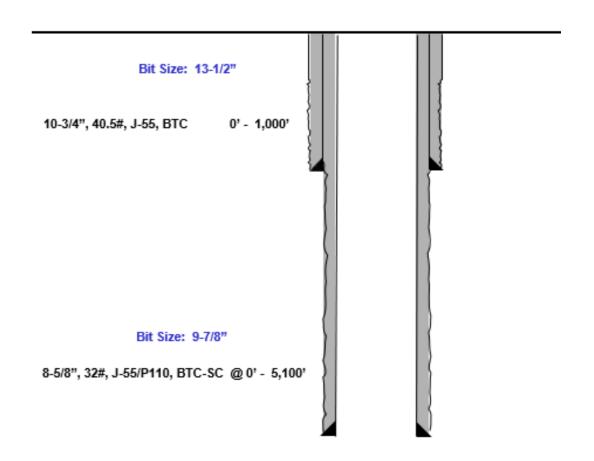
$$=\frac{10.295-8.625}{2}$$

• 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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# Index

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### **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 »



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	Pipe	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

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5,250

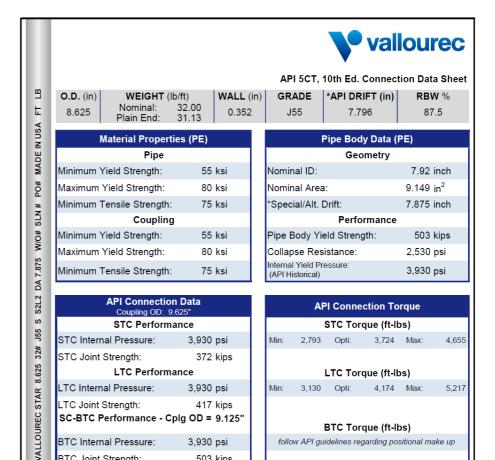
ft-lbs

### **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 LTC Ptpe STC **Mechanical Properties** Minimum Yield Strength 55,000 psi Maximum Yield Strengtl 80,000 Minimum Tensile Strength 75,000 psi BTC LTC Pipe STC 11.750 Outside Diamete 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. 40.50 Nominal Linear Weight, T&C lbs/ft 38.91 lbs/ft Plain End Weight Performance Ptpe BTC LTC STC 1.580 1,580 1,580 Minimum Collapse Pressure psi 3,130 Minimum Internal Yield Pressure 3.130 3.130 629.00 Minimum Pipe Body Yield Strength 1000 lbs 700 Joint Strength 420 1000 lbs Reference Length 11,522 6,915 BTC Make-Up Data Ptpe STC 4.81 Make-Up Loss 3.50 in. Minimum Make-Up Torque 3,150 ft-lbs



\*Alt. Drift will be used unless API Drift is specified on order.

\*\*If above API connections do not suit your needs, VAM® premium connections are available up to 100% of pipe body ratings.

SC-BTC Performance - Cplg OD = 9.125"

3,930 psi

503 kips

BTC Internal Pressure:

BTC Joint Strength:

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BTC Torque (ft-lbs)

follow API guidelines regarding positional make up

Maximum Make-Up Torque

See previously attached Drill Plan

### 10,000 PSI BOP Annular Variance Request (EOG Variance 1c)

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

### 1. Component and Preventer Compatibility Tables

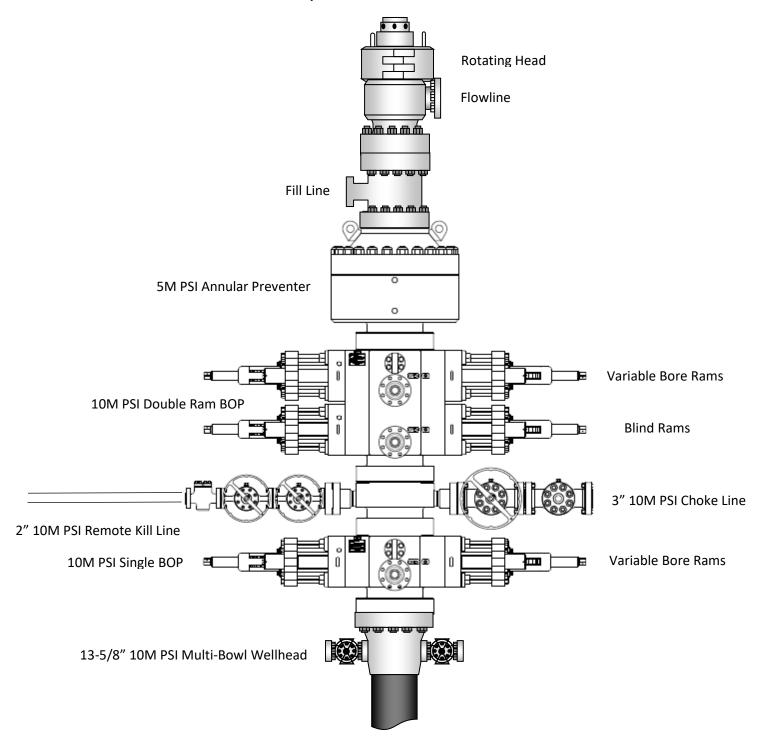
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

12-1/4" Intermediate Hole Section 10M psi requirement							
Component	OD	<b>Primary Preventer</b>	RWP	Alternate Preventer(s)	RWP		
Drillpipe	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
	4.500"			Lower 3.5 - 5.5" VBR	10M		
HWDP	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
	4.500"			Lower 3.5 - 5.5" VBR	10M		
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
DCs and MWD tools	6.500" - 8.000"	Annular	5M	-	-		
Mud Motor	8.000" - 9.625"	Annular	5M	-	-		
1 <sup>st</sup> Intermediate casing	9.625"	Annular	5M	-	-		
Open-hole	-	Blind Rams	10M	-	-		

8-3/4" Production Hole Section							
10M psi requirement							
Component	OD	Primary Preventer	RWP	Alternate Preventer(s)	RWP		
Drillpipe	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
	4.500"			Lower 3.5 - 5.5" VBR	10M		
HWDP	5.000" or	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
	4.500"			Lower 3.5 - 5.5" VBR	10M		
Jars	6.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
DCs and MWD tools	6.500" - 8.000"	Annular	5M	-	-		
Mud Motor	6.750" - 8.000"	Annular	5M	-	-		
2 <sup>nd</sup> Intermediate casing	7.625"	Annular	5M	-	-		
Open-hole	-	Blind Rams	10M	-	-		

VBR = Variable Bore Ram

### EOG Resources 13-5/8" 10M PSI BOP Stack



### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure While Running Production Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure With No Pipe In Hole (Open Hole)

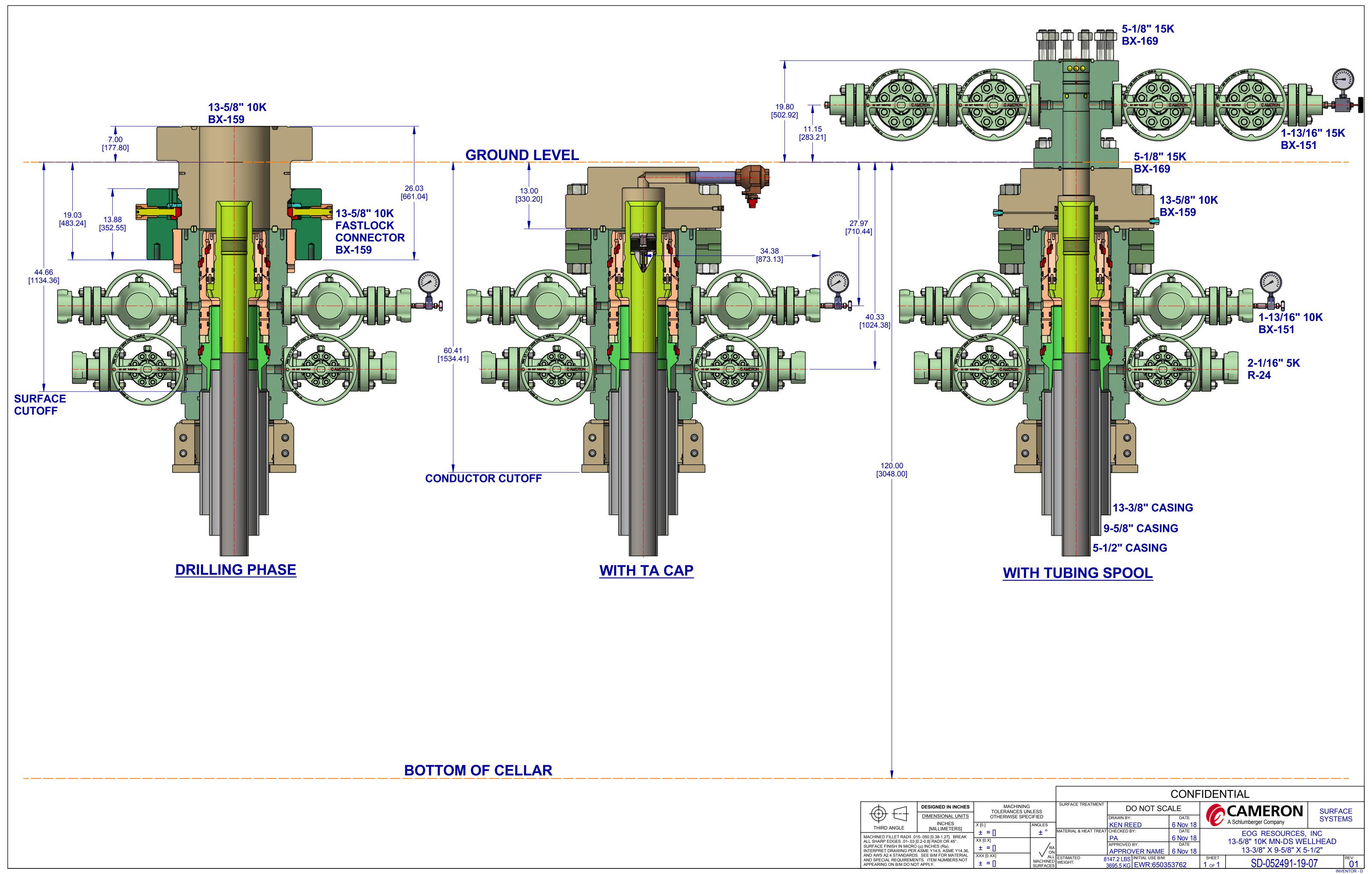
- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

### General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drillpipe thru the stack.
  - a. Perform flowcheck, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper variable bore rams.
  - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan

- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the upper variable bore rams.
  - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario.
  - c. If impossible to pick up high enough to pull the string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
  - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan

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### 10,000 PSI BOP Annular Variance Request

EOG Resources request a variance to use a 5000 psi annular BOP with a 10,000 psi BOP stack. The component and compatibility tables along with the general well control plans demonstrate how the 5000 psi annular BOP will be protected from pressures that exceed its rated working pressure (RWP). The pressure at which the control of the wellbore is transferred from the annular preventer to another available preventer will not exceed 3500 psi (70% of the RWP of the 5000 psi annular BOP).

### 1. Component and Preventer Compatibility Tables

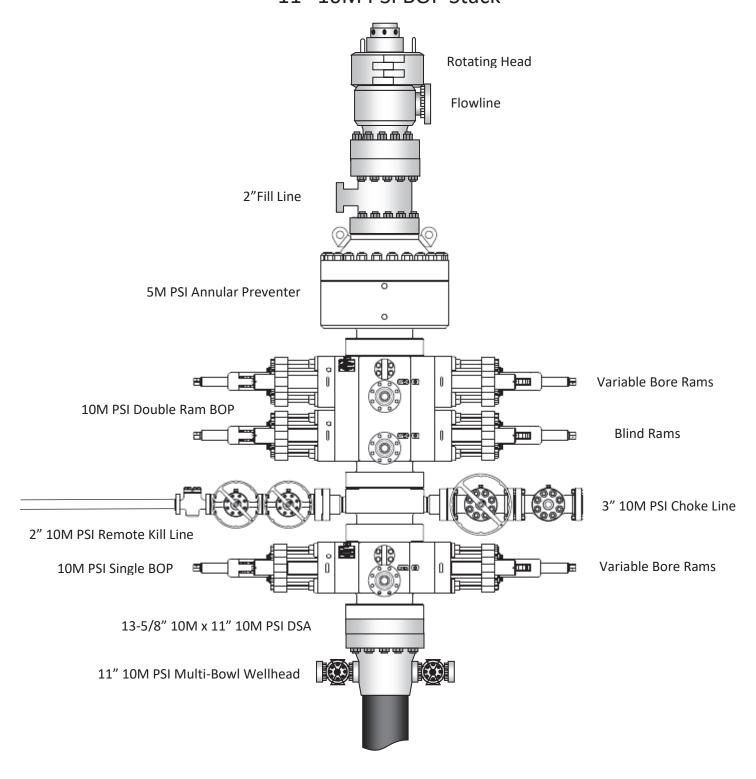
The tables below outlines the tubulars and the compatible preventers in use. This table, combined with the drilling fluid, documents that two barriers to flow will be maintained at all times.

9-7/8" & 8-3/4" Intermediate Hole Section  10M psi requirement							
Component OD Primary Preventer RWP Alternate Preventer(s) RW							
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
Jars	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
DCs and MWD tools	6.500 - 8.000"	Annular	5M	-	-		
Mud Motor	6.750 - 8.000"	Annular	5M	-	-		
Intermediate casing	7.625"	Annular	5M	-	-		
Open-hole	-	Blind Rams	10M	-	-		

6-3/4" Production Hole Section							
10M psi requirement							
Component	OD	<b>Primary Preventer</b>	RWP	Alternate Preventer(s)	RWP		
Drillpipe	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
HWDP	4.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
DCs and MWD tools	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
Mud Motor	4.750 – 5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
Mud Motor	5.500 – 5.750"	Annular	5M	-	-		
Production casing	5.500"	Annular	5M	Upper 3.5 - 5.5" VBR	10M		
				Lower 3.5 - 5.5" VBR	10M		
Open-hole	-	Blind Rams	10M	-	-		

VBR = Variable Bore Ram

## EOG Resources 11" 10M PSI BOP Stack



#### 2. Well Control Procedures

Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. At least one well control drill will be performed weekly per crew to demonstrate compliance with the procedure and well control plan. The well control drill will be recorded in the daily drilling log. The type of drill will be determined by the ongoing operations, but reasonable attempts will be made to vary the type of drill conducted (pit, trip, open hole, choke, etc.). This well control plan will be available for review by rig personnel in the EOG Resources drilling supervisor's office on location, and on the rig floor. All BOP equipment will be tested as per Onshore O&G Order No. 2 with the exception of the 5000 psi annular which will be tested to 100% of its RWP.

### General Procedure While Drilling

- 1. Sound alarm (alert crew)
- 2. Space out drill string
- 3. Shut down pumps (stop pumps and rotary)
- 4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure While Tripping

- 1. Sound alarm (alert crew)
- 2. Stab full opening safety valve and close
- 3. Space out drill string
- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure While Running Production Casing

- 1. Sound alarm (alert crew)
- 2. Stab crossover and full opening safety valve and close
- 3. Space out string

- 4. Shut-in (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
- 5. Confirm shut-in
- 6. Notify toolpusher/company representative
- 7. Read and record the following:
  - a. SIDPP and SICP
  - b. Pit gain
  - c. Time
- 8. Regroup and identify forward plan
- 9. If pressure has built or is anticipated during the kill to reach 70% or greater of the RWP of the annular preventer, confirm spacing and close the upper variable bore rams.

### General Procedure With No Pipe In Hole (Open Hole)

- 1. Sound alarm (alert crew)
- 2. Shut-in with blind rams. (HCR and choke will already be in the closed position.)
- 3. Confirm shut-in
- 4. Notify toolpusher/company representative
- 5. Read and record the following:
  - a. SICP
  - b. Pit gain
  - c. Time
- 6. Regroup and identify forward plan

### General Procedures While Pulling BHA thru Stack

- 1. PRIOR to pulling last joint of drillpipe thru the stack.
  - a. Perform flowcheck, if flowing:
  - b. Sound alarm (alert crew)
  - c. Stab full opening safety valve and close
  - d. Space out drill string with tool joint just beneath the upper variable bore rams.
  - e. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - f. Confirm shut-in
  - g. Notify toolpusher/company representative
  - h. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - i. Regroup and identify forward plan
- 2. With BHA in the stack and compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. Stab crossover and full opening safety valve and close
  - c. Space out drill string with upset just beneath the upper variable bore rams.
  - d. Shut-in using upper variable bore rams. (HCR and choke will already be in the closed position.)
  - e. Confirm shut-in
  - f. Notify toolpusher/company representative
  - g. Read and record the following:
    - i. SIDPP and SICP

- ii. Pit gain
- iii. Time
- h. Regroup and identify forward plan
- 3. With BHA in the stack and NO compatible ram preventer and pipe combo immediately available.
  - a. Sound alarm (alert crew)
  - b. If possible to pick up high enough, pull string clear of the stack and follow "Open Hole" scenario
  - c. If impossible to pick up high enough to pull the string clear of the stack:
  - d. Stab crossover, make up one joint/stand of drillpipe, and full opening safety valve and close
  - e. Space out drill string with tooljoint just beneath the upper variable bore ram.
  - f. Shut-in using upper variable bore ram. (HCR and choke will already be in the closed position.)
  - g. Confirm shut-in
  - h. Notify toolpusher/company representative
  - i. Read and record the following:
    - i. SIDPP and SICP
    - ii. Pit gain
    - iii. Time
  - j. Regroup and identify forward plan



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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**

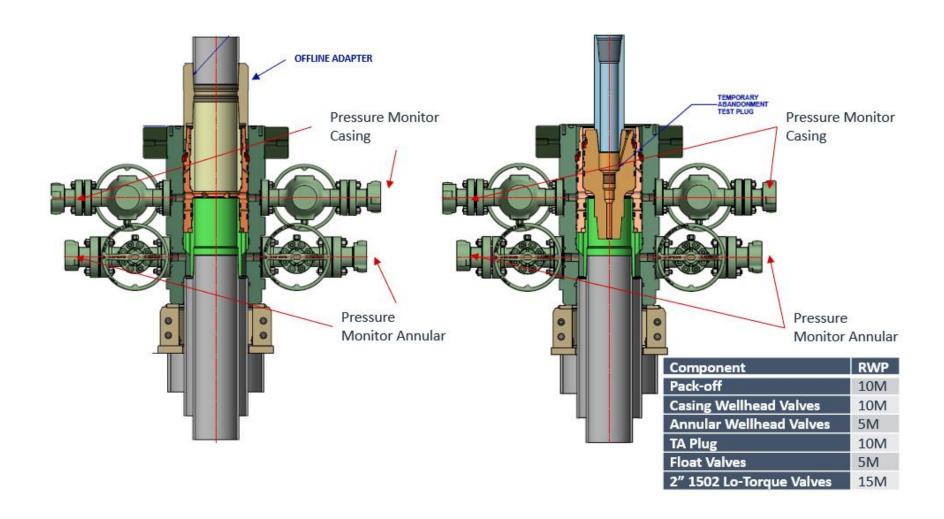
- 1. Sound alarm (alert crew).
- 2. Shut down pumps.
- 3. Shut-in Well (close valves to rig pits and open valve to rig choke line. Rig choke will already be in the closed position).
- 4. Confirm shut-in.
- 5. Notify tool pusher/company representative.
- 6. Open rig choke and begin pumping again taking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

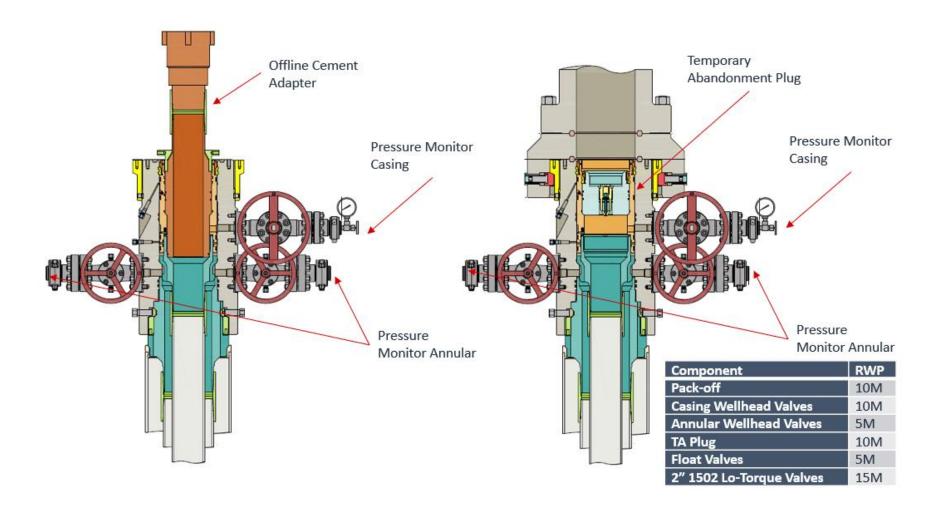
2/24/2022

Figure 1: Cameron TA Plug and Offline Adapter Schematic



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Figure 2: Cactus TA Plug and Offline Adapter Schematic

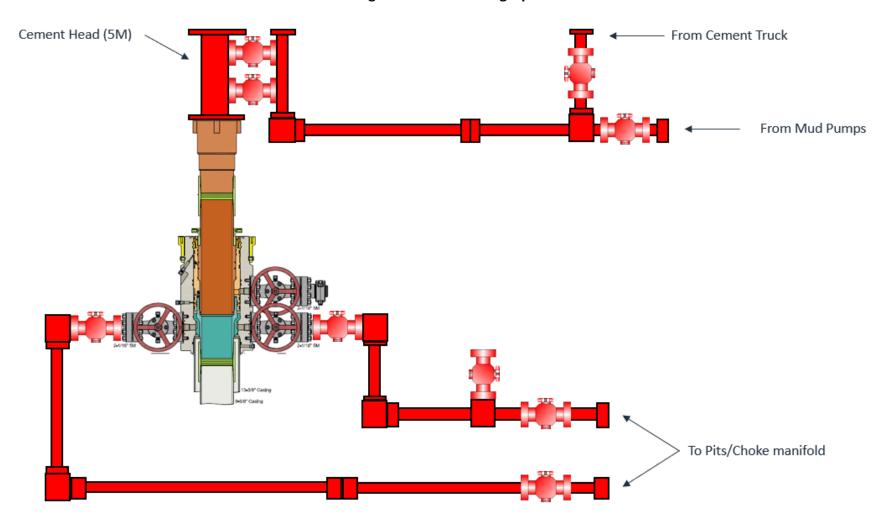


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Figure 3: Back Yard Rig Up



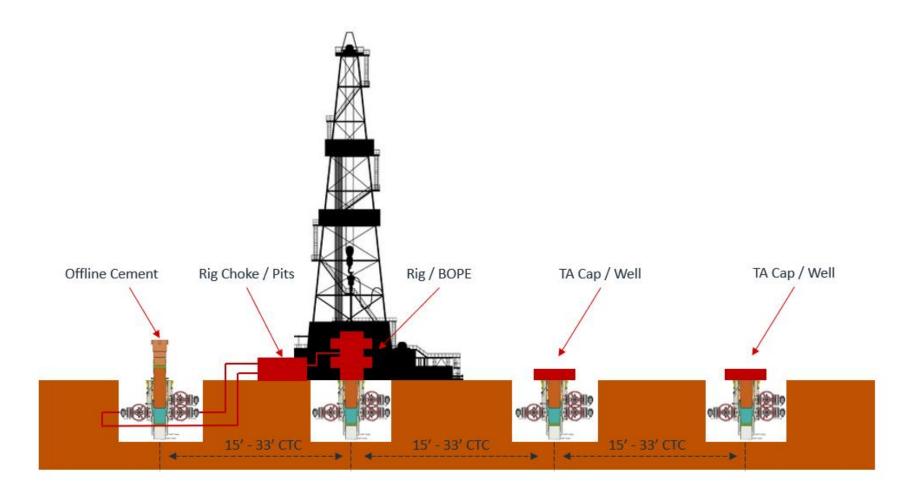
\*\*\* All Lines 10M rated working pressure

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Figure 4: Rig Placement Diagram



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

### SUPO Data Repoi

APD ID: 10400091091

Submission Date: 03/10/2023

**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED

Well Number: 101H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data reflects the most recent changes **Show Final Text** 

### **Section 1 - Existing Roads**

Will existing roads be used? YES

**Existing Road Map:** 

VIC\_20230309140350.pdf

**Existing Road Purpose: ACCESS** 

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

**New Road Map:** 

EP\_PISTOLERO\_15\_FED\_001H\_002H\_101H\_103H\_201H\_202H\_301H\_302H\_304H\_401H\_402H\_501H\_504H\_RDS\_STA

TE S 20230309122159.pdf

New road type: RESOURCE

Length: 740

Feet

Width (ft.): 30

Max slope (%): 2

Max grade (%): 6

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 24

New road access erosion control: Newly constructed or reconstructed roads will be constructed as outlined in the BLM " Gold Book " and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include diching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

New road access plan or profile prepared? N

Well Name: PISTOLERO 15 FED Well Number: 101H

New road access plan

Access road engineering design? N

Access road engineering design

Turnout? N

Access surfacing type: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: 6" compacted caliche

Access onsite topsoil source depth:

Offsite topsoil source description: 6

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information:

Number of access turnouts: Access turnout map:

### **Drainage Control**

New road drainage crossing: OTHER

Drainage Control comments: n/a

Road Drainage Control Structures (DCS) description: n/a

Road Drainage Control Structures (DCS) attachment:

### **Access Additional Attachments**

### **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

MILE\_RADIUS\_20230309140411.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: SECTION 15, TOWNSHIP 25-S, RANGE 34-E, N.M.P.M. LEA COUNTY, NEW MEXICO

**Production Facilities map:** 

EP\_PISTOLERO\_15\_FED\_001H\_002H\_101H\_103H\_201H\_202H\_301H\_302H\_304H\_401H\_402H\_501H\_504H\_RDS\_STATE\_S\_20230308074132.pdf

EP\_PISTOLERO\_15\_FED\_001\_101\_102\_201\_202\_301\_302\_401\_402\_501\_502\_FL\_IAL\_FOL\_S\_20230308074132.

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**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H

pdf

EP\_PISTOLERO\_15\_FED\_002H\_103H\_304H\_503H\_504H\_RD\_PRIVATE\_S\_20230308074132.pdf EP\_PISTOLERO\_15\_FED\_002\_103\_304\_503\_504\_FL\_IAL\_FOL\_S\_20230308074132.pdf

### Section 5 - Location and Types of Water Supply

### **Water Source Table**

Water source type: RECYCLED

Water source use type: OTHER

Describe use type: The source and location of the wat location will be drilled using a combination of water much program. (i) Water will be obtained from commercial wa to location by trucks using existing and proposed roads attached. (ii) Water may as be supplied from frac ponds temporary above ground surface lines a shown on the r 4-inch lay-flat lines and up to six 12-inch lay-flat lines fo freshwater. Freshwater is defined as containing less that Solids (TDS), exhibiting no petroleum sheen when stan mechanical processes that expose it to heavy metals or to utilize up to six 4-inch lay-flat and up to six 12-inch la transporting treated produced water being defined as th to a reusable form and may include mechanical and che Sources: EOG Resources, Inc., Resolute Frac Pond loc Range 33-E, Lea County, New Mexico. Treated Produc Resources, Inc., Gem Reuse Frac Pond located in Sect E, Lea County, New Mexico. Temporary surface lines w source location or multiple water source locations in the action and be temporarily laid above ground with minim line(s) shall be laid no more than 10 feet from the edge edge of bar/borrow ditch, road surface or two-track road landscape). A push off arm or other mechanism will be remain within the existing disturbance. Map or maps sh surface lines will be provided with the APD and will be in Assessment. Electronic map file (shape file or KMZ file) Environmental Assessment. Attached Water Map depic temporary above ground surface lines and maybe insta days). Temporary above ground surface lines shall sup completions operations.

Source latitude:

Source datum:

Water source permit type:

WATER RIGHT

Water source transport method:

**PIPELINE** 

**TRUCKING** 

Source land ownership: FEDERAL

Source longitude:

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**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H

Source transportation land ownership: FEDERAL

Water source volume (barrels): 1 Source volume (acre-feet): 0.00012889

Source volume (gal): 42

### Water source and transportation

Pistolero\_15\_Fed\_Water\_Map\_20240228064450.pdf

Water source comments:

New water well? N

### **New Water Well Info**

Well latitude: Well Longitude: Well datum:

Well target aquifer:

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

**Aquifer comments:** 

Aquifer documentation:

Well depth (ft): Well casing type:

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

New water well casing?

Used casing source:

Drilling method: Drill material:

Grout material: Grout depth:

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

Well Production type: Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

### **Section 6 - Construction Materials**

Using any construction materials: YES

Construction Materials description: Caliche will be supplied from pits shown on the attached caliche source map. Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by Flipping the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for Flipping a well location is as follows: \* -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat. -An area will be used within the proposed well site dimensions to excavate caliche. Subsoil will be removed and stockpiled within the surveyed well pad dimensions. -Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions. -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available). -Neither caliche, nor subsoil will be stock piled outside of the

Well Name: PISTOLERO 15 FED Well Number: 101H

well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat. \* In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

#### **Construction Materials source location**

Pistolero\_15\_Fed\_Caliche\_Map\_20240228064500.pdf

### **Section 7 - Methods for Handling**

Waste type: DRILLING

**Waste content description:** Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored onsite in frac tanks and disposed of at the time of rig down. Primary disposal location for EOGs NM operations is the North Delaware Basin Disposal facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

Amount of waste: 0 barrels

Waste disposal frequency: Daily

Safe containment description: STEEL TANKS

Safe containment attachment:

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

FACILITY

Disposal type description:

Disposal location description: North Delaware Basin Disposal facility in Jal, New Mexico

Waste type: SEWAGE

Waste content description: human waste

Amount of waste:

Waste disposal frequency: Weekly

Safe containment description: Human waste managed by third-party vendors. ROW construction waste contained in on-site portable toilets maintained by third party vendor. During drilling activities waste is managed by third party vendor utilizing onsite aerobic (treatment) wastewater management. Liquids treated through the aerobic system are transferred to via water line to CTBs for reuse by EOG. All solid waste remaining after treatment process are pumped into an enclosed waste transfer truck at the time of rig down and taken to one of the following disposal facilities by the third-party vendor: Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

#### Safe containmant attachment:

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

**FACILITY** 

Disposal type description:

**Disposal location description:** Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

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**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H

Waste type: SEWAGE

Waste content description: trash

Amount of waste:

Waste disposal frequency: Weekly

Safe containment description: Trash dumpsters are utilized to contain garbage onsite. Dumpsters are maintained by a

third-party vendor. All trash is hauled to Lee County, NM landfill.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: OTHER

**FACILITY** 

Disposal type description:

Disposal location description: Lee County, NM landfill

### **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

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

Reserve pit depth (ft.)

Reserve pit volume (cu. yd.)

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

Reserve pit liner

Reserve pit liner specifications and installation description

### **Cuttings Area**

**Cuttings Area being used? NO** 

Are you storing cuttings on location? Y

**Description of cuttings location** EOG utilizes a Closed Loop System, cuttings leave the rig and enter low/highwall cuttings bin. Cuttings are then transferred to trucks for transportation to a State of New Mexico approved disposal facility. Primary disposal location for EOGs NM operations is the North Delaware Basin Disposal Facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

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

**WCuttings** area liner

Cuttings area liner specifications and installation description

Well Name: PISTOLERO 15 FED Well Number: 101H

### **Section 8 - Ancillary**

Are you requesting any Ancillary Facilities?: N

**Ancillary Facilities** 

#### Comments:

### Section 9 - Well Site

### Well Site Layout Diagram:

PAD\_SITE\_20230309140439.pdf

WELL SITE 20230309140440.pdf

Pistolero\_15\_Fed\_101H\_Rig\_Layout\_20230309140457.pdf

Comments: Exhibit 2A-Wellsite, Exhibit 2B-Padsite, Exhibit 4-Rig Layout

### **Section 10 - Plans for Surface Reclamation**

Type of disturbance: New Surface Disturbance Multiple Well Pad Name: PISTOLERO 15 FED

Multiple Well Pad Number: 1H, 101H, 102H, 201H, 202H, 301H,

302H, 401H, 402, 501, 502

### Recontouring

RECLAMATION 20230309140513.pdf

**Drainage/Erosion control construction:** Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

**Drainage/Erosion control reclamation:** The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Well pad proposed disturbance Well pad interim reclamation (acres): 0 Well pad long term disturbance

(acres): 0

Road proposed disturbance (acres): 0 Road interim reclamation (acres): 0 Road long term disturbance (acres): 0

Powerline proposed disturbance Powerline interim reclamation (acres): Powerline long term disturbance

(acres): 0 (acres): 0

Pipeline proposed disturbance Pipeline interim reclamation (acres): 0 Pipeline long term disturbance

(acres): 0

Other proposed disturbance (acres): 0 Other interim reclamation (acres): 0 Other long term disturbance (acres): 0

Total proposed disturbance: 0 Total interim reclamation: 0 Total long term disturbance: 0

**Disturbance Comments:** All Interim and Final reclamation must be within 6 months. Interim must be within 6 months of completion and final within 6 months of abandonment plugging. Dual pad operations may alter timing.

**Reconstruction method:** In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads. Areas planned for interim reclamation will be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native

Well Name: PISTOLERO 15 FED Well Number: 101H

topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.

**Topsoil redistribution:** Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts and fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.

**Soil treatment:** Re-seed according to BLM standards. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

**Existing Vegetation at the well pad:** Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respreads evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils.

### **Existing Vegetation at the well pad**

**Existing Vegetation Community at the road:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

### **Existing Vegetation Community at the road**

**Existing Vegetation Community at the pipeline:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

### **Existing Vegetation Community at the pipeline**

**Existing Vegetation Community at other disturbances:** All disturbed areas, including roads, pipelines, pads, will be recontoured to the contour existing prior to the initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

### **Existing Vegetation Community at other disturbances**

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Well Name: PISTOLERO 15 FED Well Number: 101H

### Seed harvest description attachment:

Seed

**Seed Table** 

Seed Summary
Seed Type Pounds/Acre

Total pounds/Acre:

Seed reclamation

### **Operator Contact/Responsible Official**

First Name: Last Name:

Phone: Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

**Existing invasive species treatment** 

**Weed treatment plan description:** All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds. Weeds will be treated if found.

### Weed treatment plan

**Monitoring plan description:** Reclamation will be completed within 6 months of well plugging. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, erosion is controlled, and free of noxious weeds.

Monitoring plan

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

### **Section 11 - Surface Ownership**

Well Name: PISTOLERO 15 FED Well Number: 101H

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

**DOD Local Office:** 

**NPS Local Office:** 

State Local Office: NEW MEXICO

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

**USFS** Forest/Grassland:

**USFS Ranger District:** 

Section 12 - Other

Right of Way needed? N

Use APD as ROW?

ROW Type(s):

**ROW** 

SUPO Additional Information: An onsite meeting was conducted on 1/26/2023 See attached SUPO Plan.

Use a previously conducted onsite? N

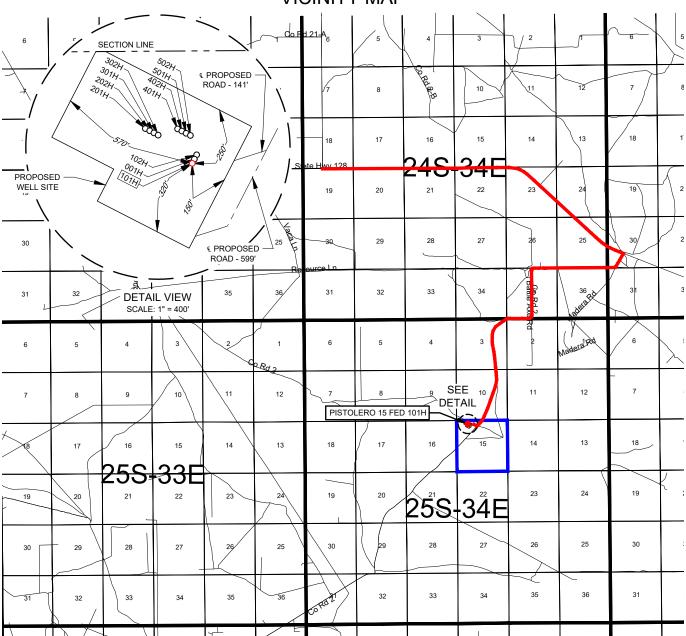
**Previous Onsite information:** 

**Other SUPO** 

L\_AND\_E\_20230309140531.pdf SUPO\_PISTOLERO\_15\_FED\_101H\_20230309140531.pdf

Well Name: PISTOLERO 15 FED Well Number: 101H

SUPO\_SEC\_7\_WASTE\_ATTACHMENT\_20240228064700.pdf



# eog resources, inc.

LEASE NAME & WELL NO.: PISTOLERO 15 FED 101H

 SECTION
 15
 TWP
 25-S
 RGE
 34-E
 SURVEY
 N.M.P.M.

 COUNTY
 LEA
 STATE
 NM

 DESCRIPTION
 469' FNL & 1348' FWL

#### **DISTANCE & DIRECTION**

FROM INT. OF DELAWARE BASIN RD NM-21, & NM-128 E, GO EAST ON NM-128 E ±6.4 MILES, THENCE SOUTHEAST (RIGHT) ON BATTLE AXE RD ±5.8 MILES, THENCE WEST (RIGHT) ON REYNOLDS BLVD ±0.1 MILES, THENCE SOUTHEAST (LEFT) ON A PROPOSED RD. ±599 FEET TO A POINT ±304 FEET SOUTH OF THE LOCATION.

THIS EASEMENT/SERVITUDE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFIED FOR THIS TRANSACTION ONLY.

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.





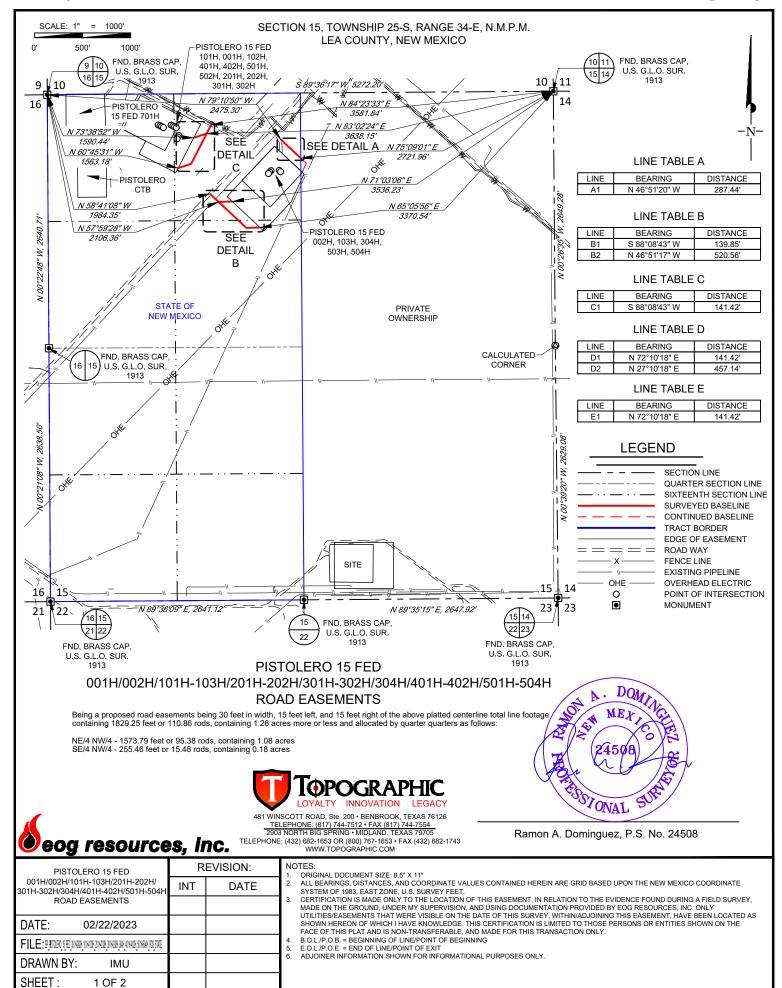
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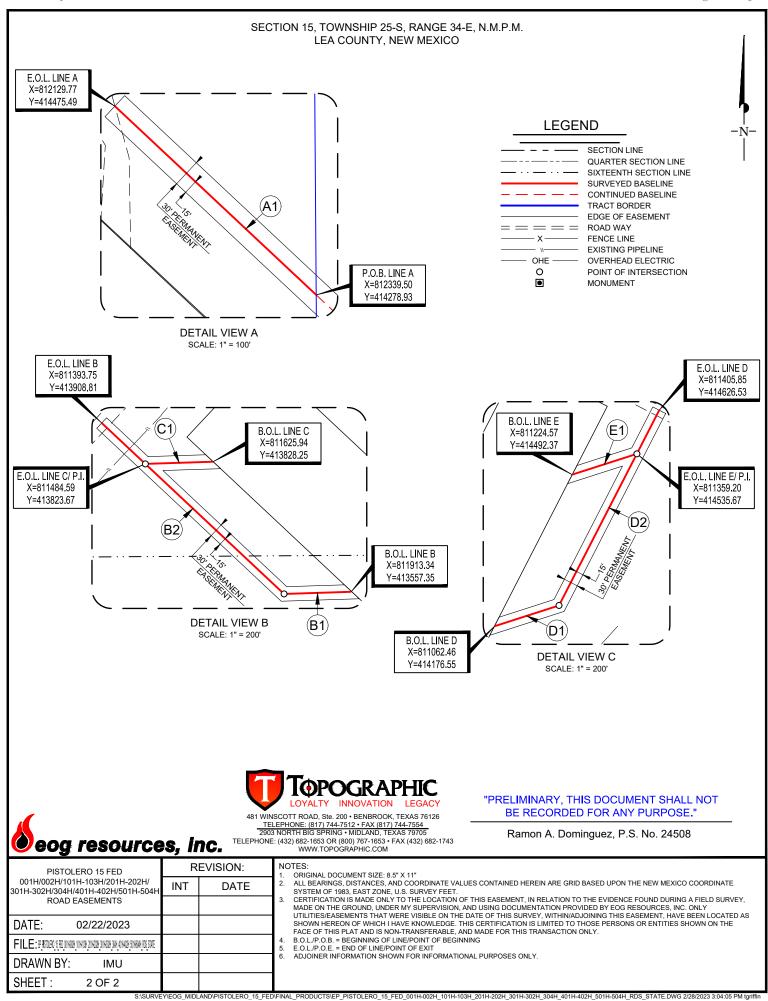
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554

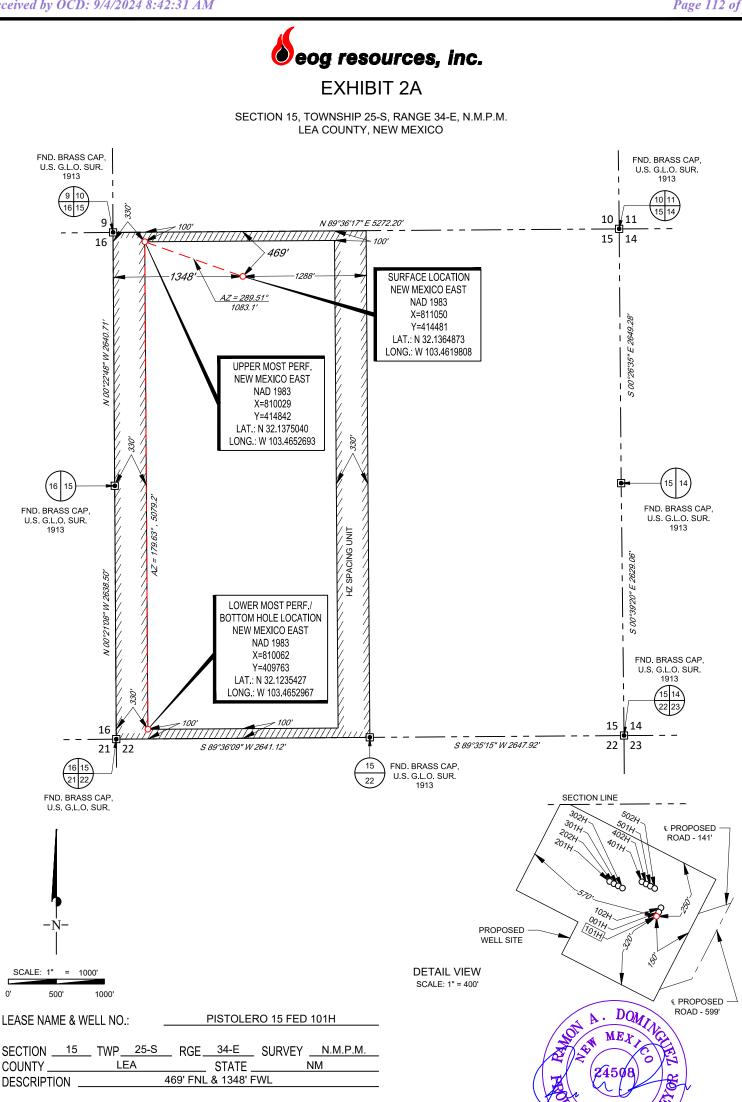
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TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743

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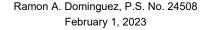




**DISTANCE & DIRECTION** 

FROM INT. OF DELAWARE BASIN RD NM-21, & NM-128 E, GO EAST ON NM-128 E ±6.4 MILES, THENCE SOUTHEAST (RIGHT) ON BATTLE AXE RD ±5.8 MILES, THENCE WEST (RIGHT) ON REYNOLDS BLVD ±0.1 MILES, THENCE SOUTHEAST (LEFT) ON A PROPOSED RD. ±599 FEET TO A POINT ±304 FEET SOUTH OF THE LOCATION

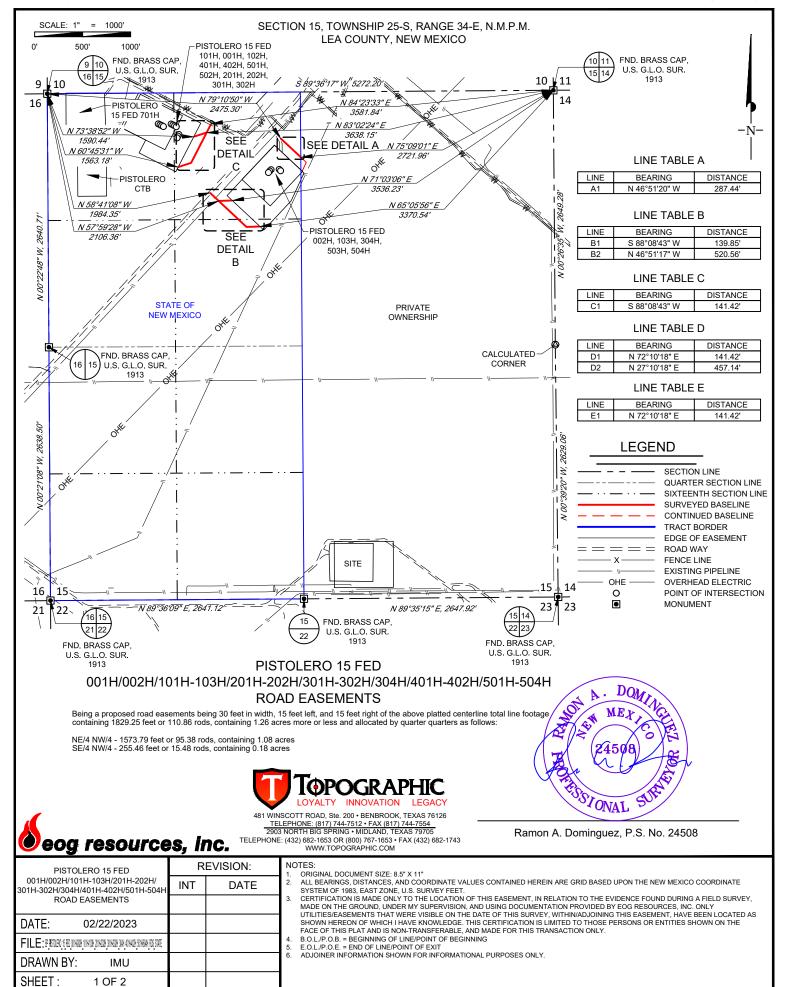
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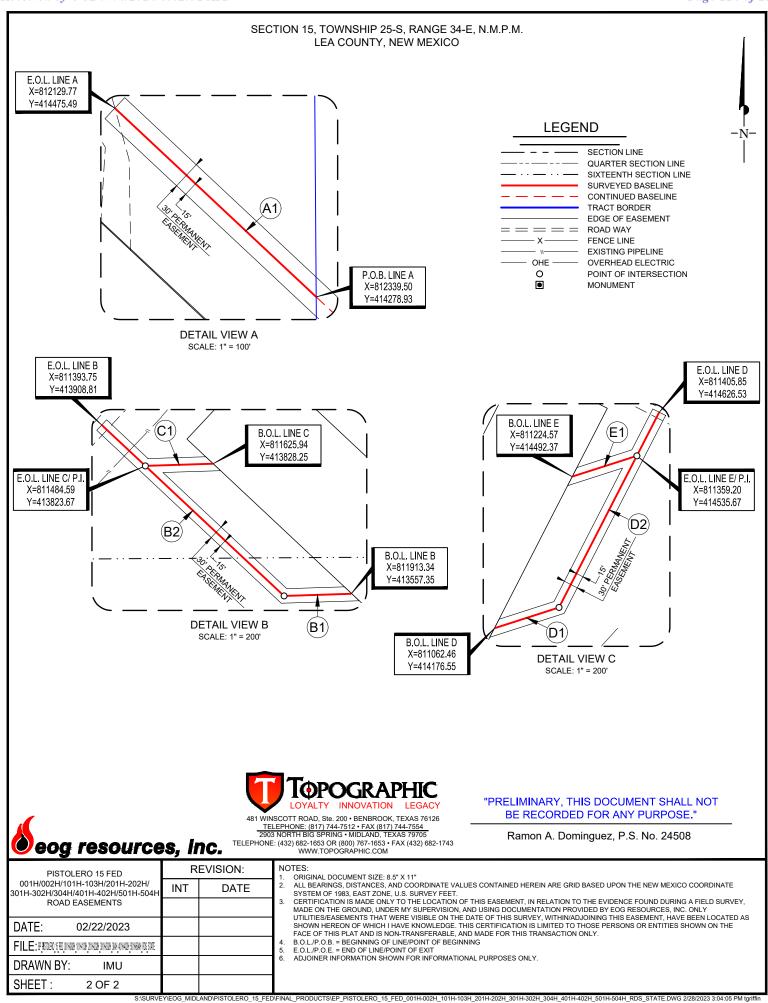


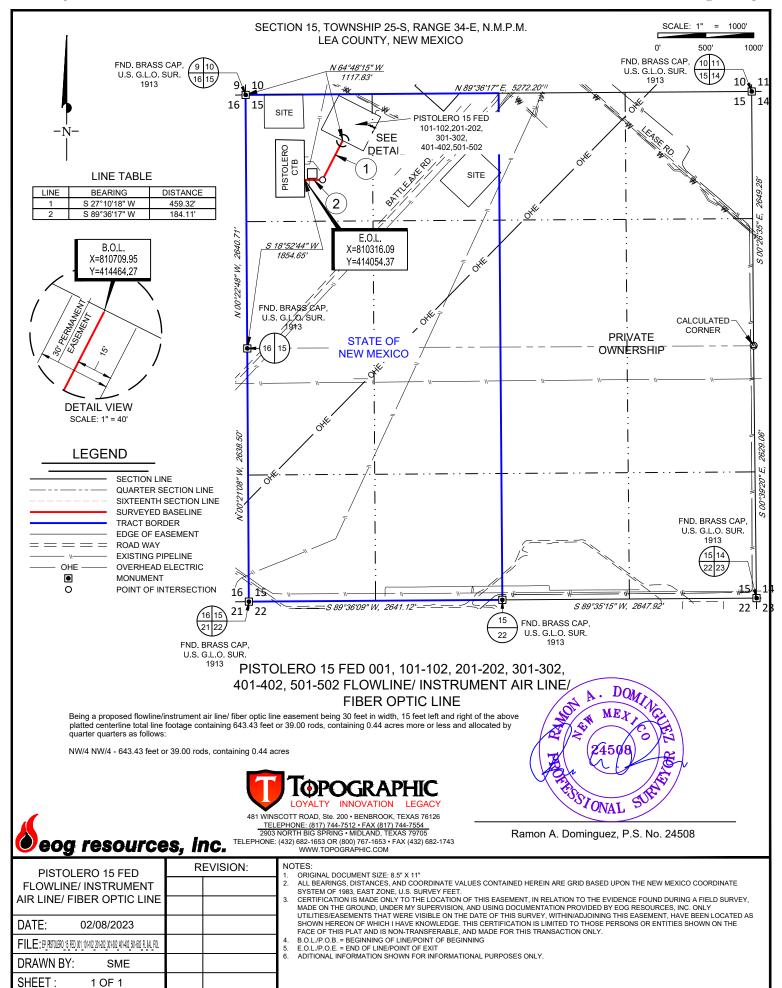
SYONAL



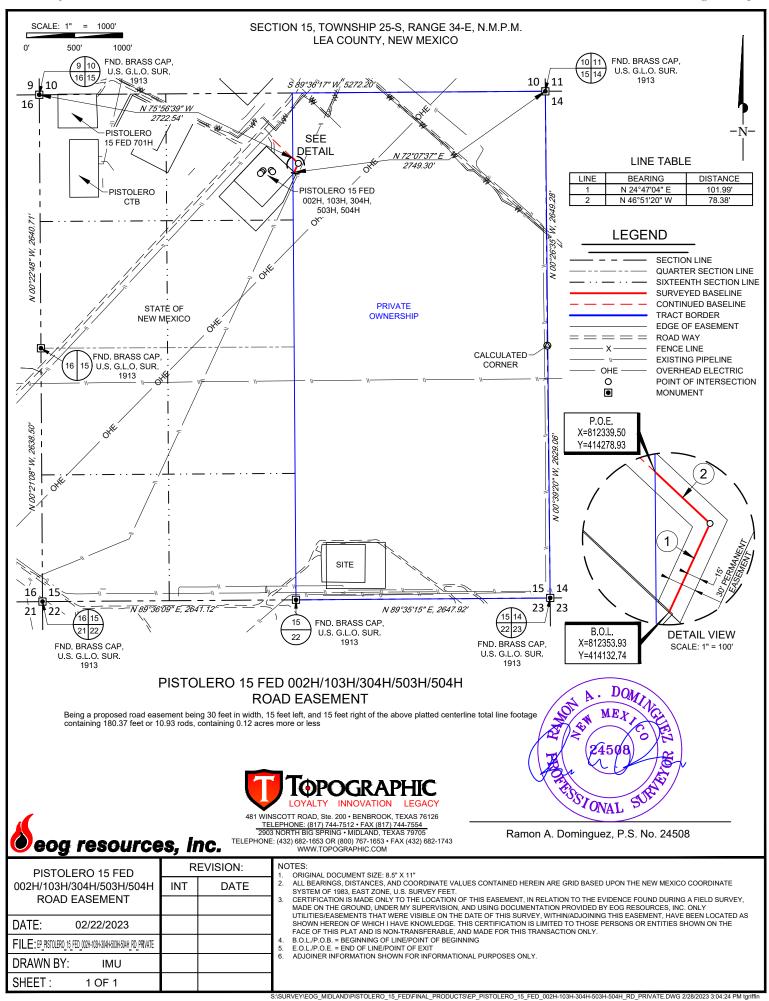
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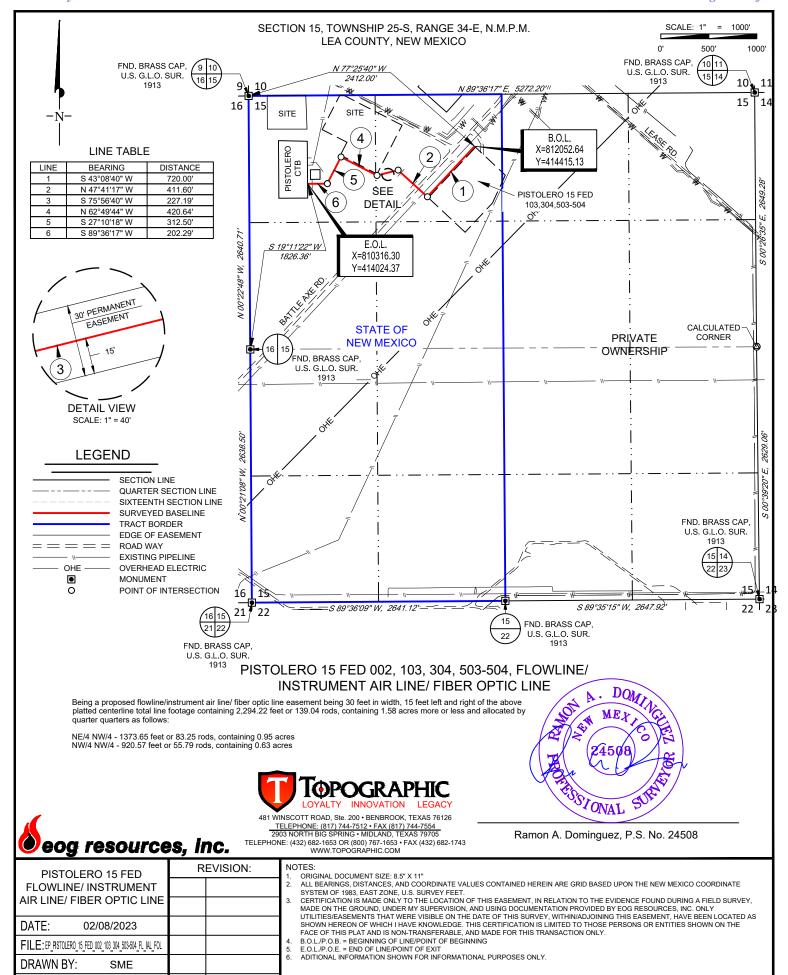






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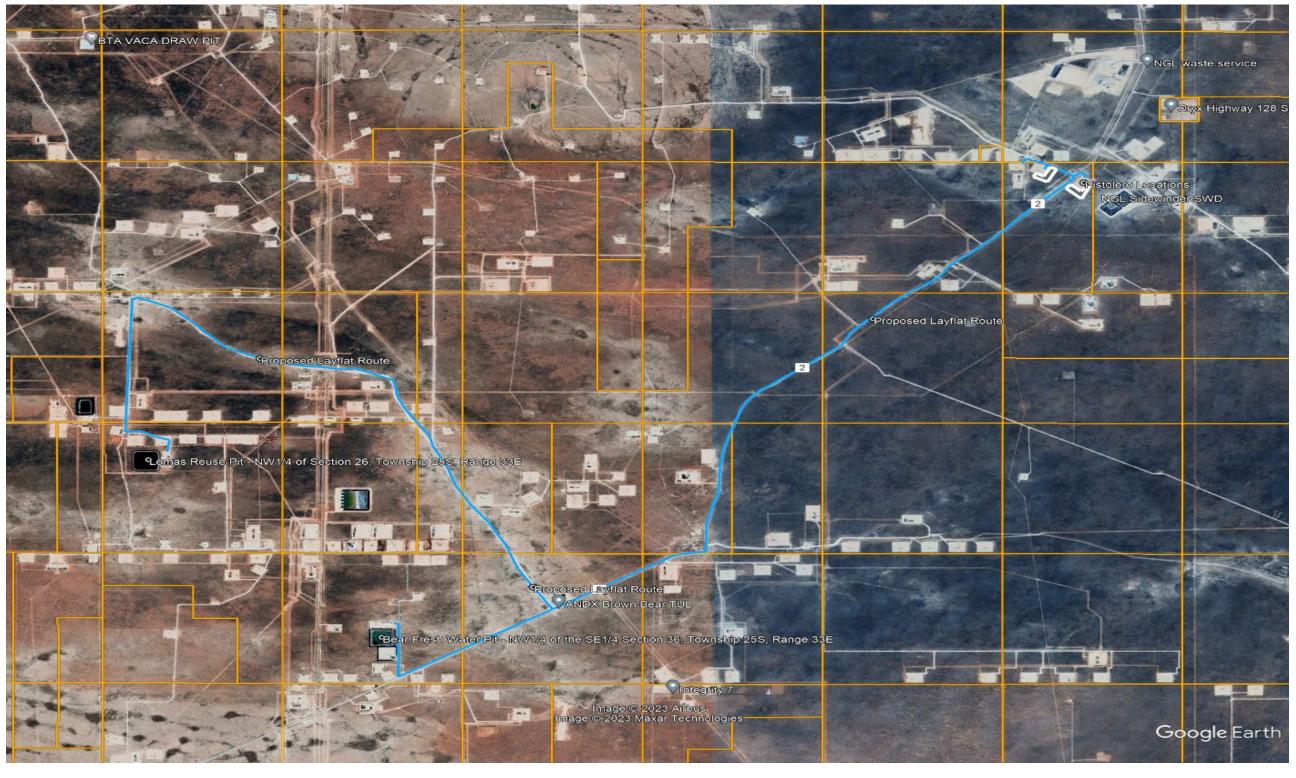
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Page 118 of 138

## Pistolero 15 Fed Water Map



Freshwater Source: Bear Pit - Section 36, Township 25S, Range 33E, Lea County, New Mexico (NWSE/NESW Lots 10 and 11). EOG will lay up to eight (12-inch) layflat lines in blue following the existing lease road as our proposed above-ground pipeline "LayFlat" route. From the Bear Pit, head South 0.50 miles to CR 2, turn left on CR 2 "Battle Axe Road" for 8.10 miles, turn left, and head west to the existing lease to the Pistolero Leasehold.

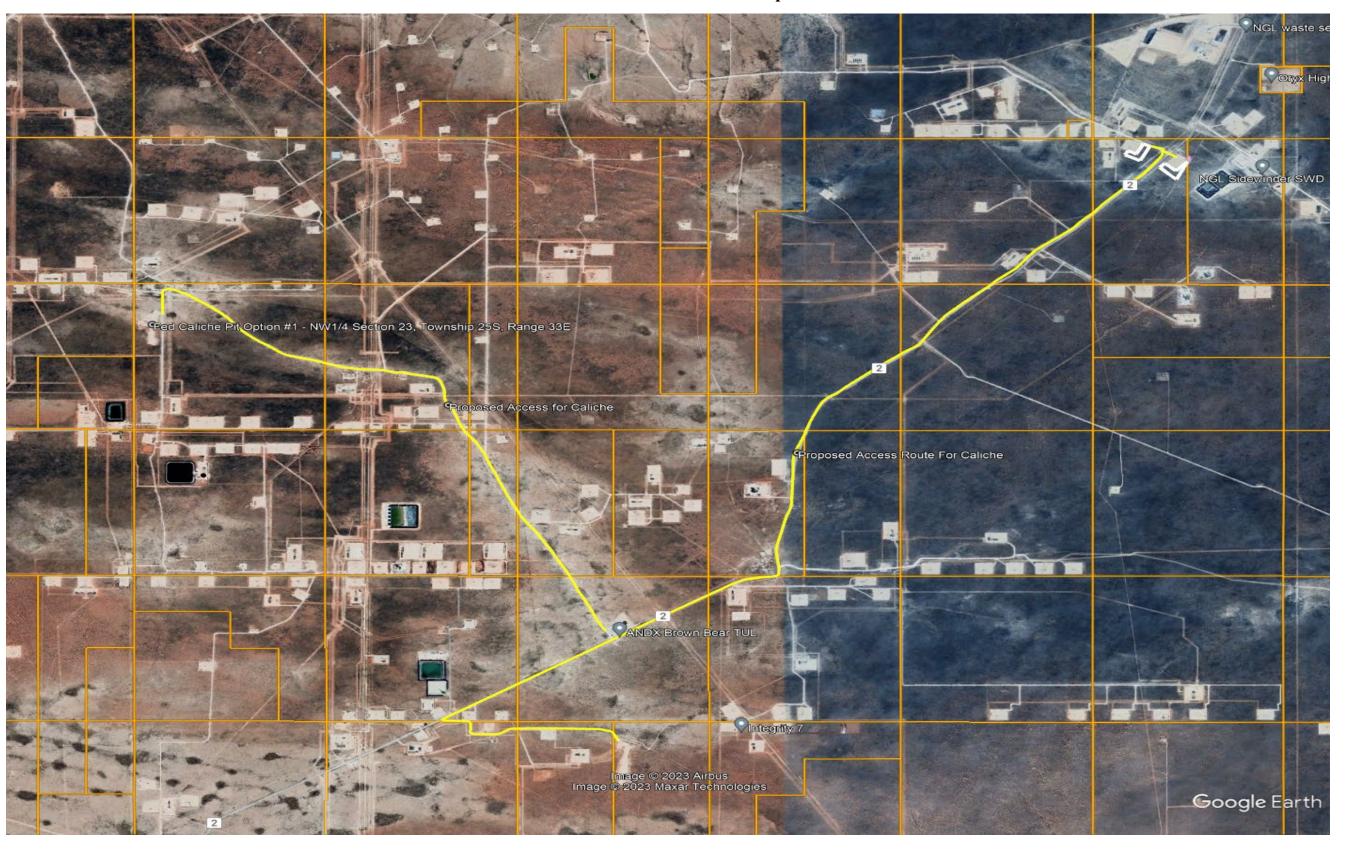
Treated Produced Water Source: Lomas Reuse Pit, Section 26, Township 25S, Range 33E, Lea County, New Mexico (NW4 in lots 3, 4, 5, and 6). EOG will lay up to eight (12-inch) layflat lines in blue following the existing lease road as our proposed above-ground pipeline "Layflat" route. From the Lomas Pit, head North for 1 mile, turn right, run east-south-east for 4.15 miles, left turn heading NE on CR 2 "Battle Axe Road" for 8.10 miles, turn left, head west to the existing lease to the Pistolero Leasehold.

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Page 119 of 138

## Pistolero 15 Fed Caliche Map

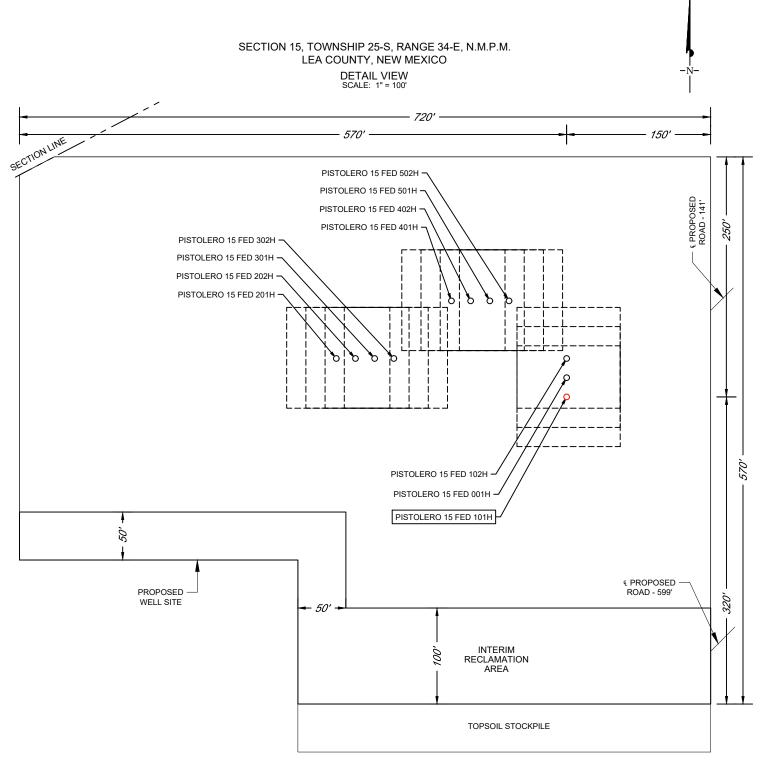


Caliche Option #1 – Fed pit located in the NW1/4 of Section 23, Township 25S, Range 33E, Lea County, New Mexico. EOG will use the existing lease road in yellow to access the Pistolero 15 Fed Locations. From the caliche pit, head north for 0.05 miles, turn right, run east-south-east for 4.15 miles, left turn heading NE on CR 2 "Battle Axe Road" for 8.10 miles, turn left, head west to the existing lease to the Pistolero Leasehold.

Caliche Option #2 – Intrepid pit located in the W1/2 of NE1/4 of Section 5, Township 26S, Range 34E, Lea County, New Mexico. EOG will use the existing lease road in yellow to access the Pistolero 15 Fed Locations. From the caliche pit, head west for 1.05 miles, turn right, head northeast on CR 2 "Battle Axe Road" for 8.10 miles, turn left, and head west to the existing lease to the Pitchblende Leasehold.

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#### RECLAMATION AND FACILITY DIAGRAM - PRODUCTION FACILITIES DIAGRAM



LEASE NAME & WELL NO.: \_\_\_\_\_

101H LATITUDE \_\_\_\_ N 32.1364873 \_\_\_\_

PISTOLERO 15 FED 101H

101H LONGITUDE W 103.4619808

#### EXHIBIT 3 eog resources, inc. SECTION 15, TOWNSHIP 25-S, RANGE 34-E, N.M.P.M. LEA COUNTY, NEW MEXICO SunExpl. Pilichtork Xpior Res Yat BHI Meridian ... PICATORA DE EOG Res J 18 2016 Fed TD 15 564 10 15027 (From) MRC Permion-115 17 (President Chapter al Chesapeake 9-2-2014 P/813900 15139 Paul Page, Jr. <sup>V</sup>4 M I Morgon Bryon, Est etal E Robert Moore, MI ind) 1 MILE RADIUS U. S. R. Maden -10 -11--Energen Res Pure Re (Allar Ce OGRES 4 3-2016 Tenneco Smith Featherstone-92621 TO 5490 MA 8-10-64Gary Neiwer etal, M. I. Featherstone - 9 26 2016 1. 7 28501 Judith? 113419 eker \$ 16Q 🗠 Yates Witten, et al.) Kareri Neisler & Emma L. ١ eđ Drig.Co.etal 5. 1.2013 | 110353 10099 M U.S., 1 **③** Hardman, Mi Ú.S., MI MTMcClMT McCloy(5) McCloy(5) (ctes Petsmital 2 | 2015 113420 26000 EOG Res So'west Petr Ld Sowest Petr Ld Diamond Fed EOG Besc. 3.24-2013(N/Z) 9/27-2013 1 2011 V 7686 06 Z R Uuncan 201 ee PISTOLERO 15 FED 101H | 5 FC | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10400 | 10-18-2015 Stone cgn veling-Fεd) Jayelina Inland Vitle J(P/Ł 5 13 2016 # J Bares, Jr etal M.I EUG RES. Joly St Com TO 98US D/A1 27 40U one Pet ) veima) 115, 825 5 m. () (sc) 6 ka Disc) 112750 5 pr Disc Ether Chiem, 13 M.14 JH 15 16 Yates Pet. etal ИHL EOG Res. 1 2011 94107 1699 X12 50 14000 5 R Brown, M. J. Empire Gos AM U.S., MI 115 111 ਰੂਜ਼ਿ-ਸ਼ਰਵ LM.P./ote, S MT MCC/64(5) State MCCIOU(5) M.TBHL D.B.Gon-D.E. Gonzales les Zales 5-1 2019 5-1-2019 F455 EOG Res. φ<sup>2</sup>, 122624 Yates Drlg 122625 130 ∞ 12 | 2004 94109 50 💇 5 - 1 - 201 110353 100 <u>9</u> Enron 17900 Javelina Fed TD 12750 U.S., MI US... M.T. McClc -23 21 Continental Ethel Nolan-Fed 25. EOG Res. EOG Res. 104 12 1 2004 TO 5600 D/A 3-19-56 12 1 2004 94111 9411C 0 48C 20 680 9 U.S. U. 3 U.S. LEASE NAME & WELL NO :: PISTOLERO 15 FED 101H N 32.1364873 W 103.4619808 101H LATITUDE\_ 101H LONGITUDE SCALE: NTS

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.

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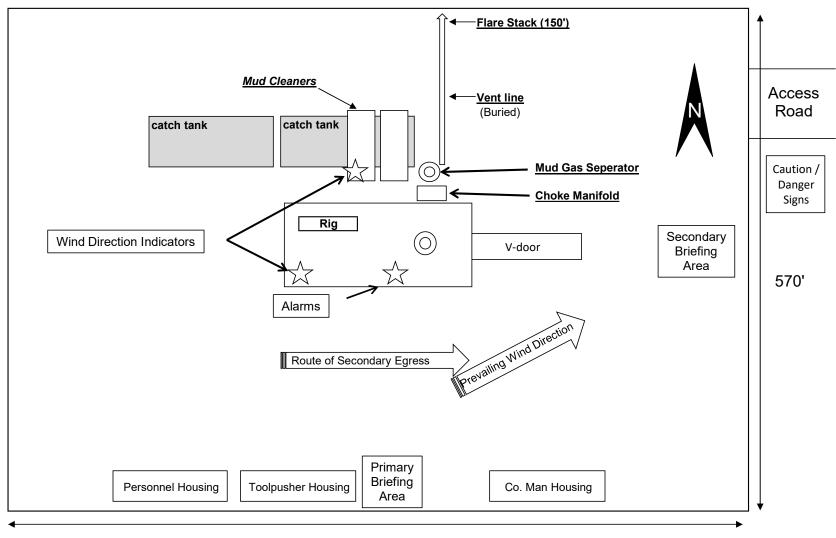
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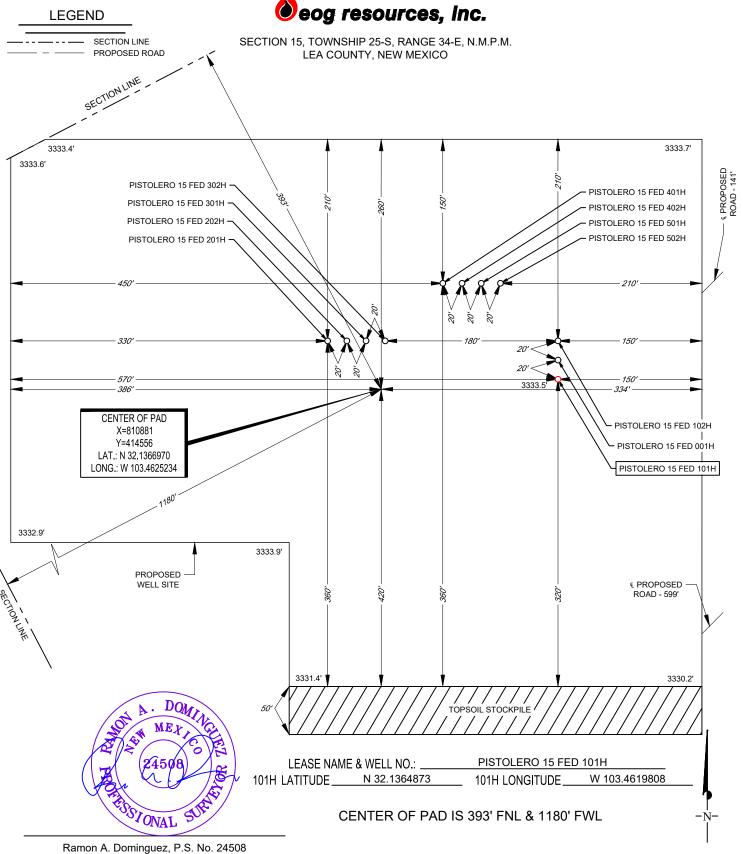
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Exhibit 4
EOG Resources
Pistolero 15 Fed #101H

## Well Site Diagram





February 1, 2023

ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREON ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET. ELEVATIONS USED ARE NAVD88, OBTAINED THROUGH AN OPUS SOLUTION.

ARE NAVDBB, OBTAINED THROUGH AN OPUS SOLUTION.

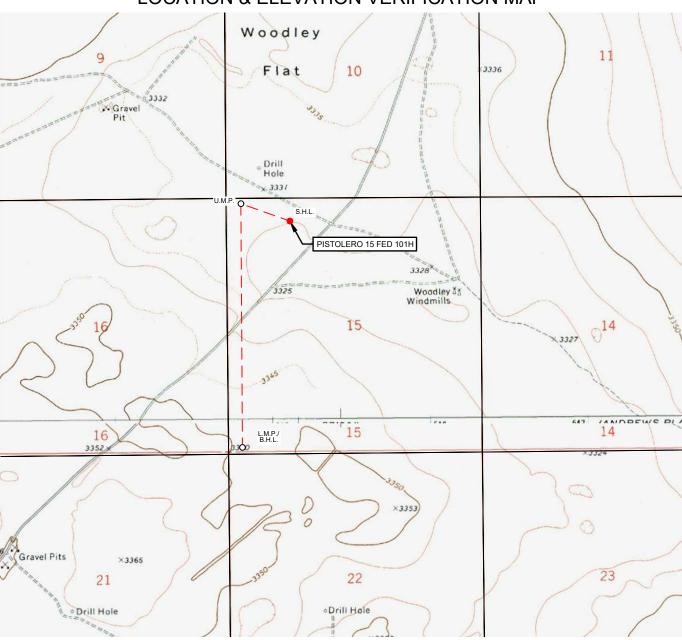
THIS PROPOSED PAD SITE LOCATION SHOWN HEREON HAS BEEN SURVEYED ON THE GROUND UNDER MY SUPERVISION AND PREPARED ACCORDING TO THE EVIDENCE FOUND AT THE TIME OF SURVEY, AND DATA PROVIDED BY EOG RESOURCES, INC. ONLY THE DATA SHOWN ABOVE IS BEING CERTIFIED TO, ALL OTHER INFORMATION WAS INTENTIONALLY OMITTED. THIS PLAT IS ONLY INTENDED TO BE USED FOR A PERMIT AND IS NOT A BOUNDARY SURVEY. THIS CERTIFICATION IS MADE AND LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE. THIS SURVEY IS CERTIFICATION TO THIS TRANSACTION ONLY.

ORIGINAL DOCUMENT SIZE: 8.5" X 11"



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## **LOCATION & ELEVATION VERIFICATION MAP**



eog resources, inc.

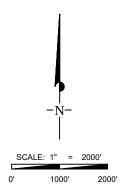
LEASE NAME & WELL NO.: PISTOLERO 15 FED 101H

 SECTION
 15
 TWP
 25-S
 RGE
 34-E
 SURVEY
 N.M.P.M.

 COUNTY
 LEA
 STATE
 NM
 ELEVATION
 3334'

 DESCRIPTION
 469' FNL & 1348' FWL

LATITUDE \_\_\_\_\_N 32.1364873 \_\_\_\_ LONGITUDE \_\_\_\_\_ W 103.4619808



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SHL: 469 FNL & 1358 FWL, Section: 15, T.25S., R.34E. BHL: 100 FSL & 330 FWL, Section: 15, T.25S., R.34E.

## **Surface Use Plan of Operations**

#### Introduction

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what was submitted in this surface use plan. If any other surface disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be acquired prior to any new surface disturbance.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soils storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are disturbed or knocked down, they will be replaced before construction proceeds.

If terms and conditions are attached to the approved APD and amend any of the proposed actions in this surface use plan, we will adhere to the terms and conditions.

## 1. Existing Roads

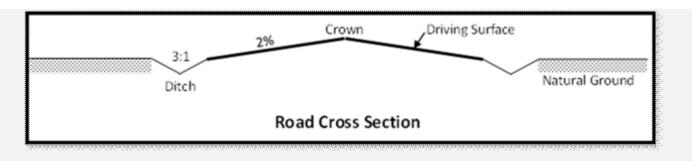
- a. The existing access road route to the proposed project is depicted on PISTOLERO 15 FED 101H VICINITY. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of this surface use plan..
- b. The existing access road route to the proposed project does not cross lease or unit boundaries, so a BLM right-of-way grant will not be acquired for this proposed road route.
- c. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
- d. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

#### 2. New or Reconstructed Access Roads

- a. An access road will be needed for this proposed project. See the survey plat for the location of the access road.
- b. The length of access road needed to be constructed for this proposed project is about 740 feet.
- c. The maximum driving width of the access road will be 30 feet. The maximum width of surface disturbance when constructing the access road will not exceed 25 feet. All areas outside of the driving surface will be revegetated.
- d. The access road will be constructed with 6 inches of compacted CALICHE.
- e. When the road travels on fairly level ground, the road will be crowned and ditched with a 2% slope from the tip of the road crown to the edge of the driving surface. The ditches will be 3 feet wide with 3:1 slopes. See Road Cross Section diagram below.

Page 1 of 7

SHL: 469 FNL & 1358 FWL, Section: 15, T.25S., R.34E. BHL: 100 FSL & 330 FWL, Section: 15, T.25S., R.34E.



- f. The access road will be constructed with a ditch on each side of the road.
- g. The maximum grade for the access road will be 6 percent.
- h. No turnouts will be constructed on the proposed access road.
- i. No cattleguards will be installed for this proposed access road.
- j. Since the proposed access road crosses lease boundaries, a right-of-way will be required for this access road. A right-of-way grant will be applied for through the BLM. The access road will not be constructed until an approved BLM right-of-way grant is acquired.
- k. An appropriately sized culvert will be installed where drainages cross the access road. The culvert(s) will be no less than 18 inches in diameter and covered with no less than 12 inches of surfacing material. Each culvert will be marked with reflectors attached to T-Posts on both sides of the road. The uphill and downhill opening of the culvert will have rip-rap (cobble stone) extending 3 feet out and 12 inches deep to slow water flow entering and exiting the culvert. Standards in the BLM Gold Book will be used. The culvert will be maintained in its original condition throughout the life of the road. See survey plat for location of culvert(s).
- 1. No low water crossings will be constructed for the access road.
- m. Since the access road is on level ground, no lead-off ditches will be constructed for the proposed access road.
- n. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management, will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.

## 3. Location of Existing Wells

- a. PISTOLERO 15 FED 101H RADIUS of the APD depicts all known wells within a one mile radius of the proposed well.
- b. There is no other information regarding wells within a one mile radius.

## 4. Location of Existing and/or Proposed Production Facilities

- a. All permanent, lasting more than 6 months, above ground structures including but not limited to pumpjacks, storage tanks, barrels, pipeline risers, meter housing, etc. that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.
- b. If any type of production facilities are located on the well pad, they will be strategically placed to allow for maximum interim reclamation, recontouring, and revegetation of the well location.
- c. Production from the proposed well will be transported to the production facility named PISTOLERO 15 FED

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CTB. The location of the facility is as follows: NESW.

- d. A pipeline to transport production will be installed from the proposed well to the existing production facility.
  - i. We plan to install a 6 inch buried FLEXSTEEL pipeline from the proposed well to the offsite production facility. The proposed length of the pipeline will be 6431 feet. The working pressure of the pipeline will be about 1440 psi. A 30 feet wide work area will be needed to install the buried pipeline. In areas where blading is allowed, topsoil will be stockpiled and separated from the excavated trench mineral material. Final reclamation procedures will match the procedures in Plans for Surface Reclamation. When the excavated soil is backfilled, it will be compacted to prevent subsidence. No berm over the pipeline will be evident.
  - ii. PISTOLERO 15 FED INFRASTRUCTURE depicts the proposed production pipeline route from the well to the existing production facility.
  - iii. The proposed pipeline does not cross lease boundaries, so a right of way grant will not need to be acquired from the BLM.

If any plans change regarding the production facility or other infrastructure (pipeline, electric line, etc.), we will submit a sundry notice or right of way (if applicable) prior to installation or construction.

## **Electric Line(s)**

a. No electric line will be applied for with this APD.

## 5. Location and Types of Water

a. The source and location of the water supply are as follows: The source and location of the water supply are as follows: This location will be drilled using a combination of water mud systems as outlined in the drilling program (i) Water will be obtained from commercial water stations in the area and hauled to the location by trucks using existing and proposed roads as depicted on the road map attached (ii) Water may be supplied from frac ponds and transported to the location by temporary above ground surface lines a shown on the map EOG plans to utilize up to six 4 inch polyethylene or layflat lines and up to six 12 inch layflat lines to transport fresh water Freshwater is defined as containing less than 10\_000 mg\_I Total Dissolved Solids (TDS)\_ exhibiting no petroleum sheen when standing\_ and not previously used in mechanical processes that expose it to heavy metals or other potential toxins

EOG plans to utilize up to six 4 inch polyethylene or layflat lines and up to six 12 inch layflat lines to transport treated produced water is defined as the reconditioning of produced water to a reusable form and may include mechanical and chemical processes

Bear Fresh Water Pit Section 36 Township 25 South and Range 33 East

Klondike Reuse Pit\_ Section 32\_ Township 24 South\_ and Range 34 East

Temporary surface lines would originate from a single or multiple water source locations in the surrounding area of the proposed action and be temporarily laid above ground with minimal disturbance

Temporary surface line(s) shall be laid no more than 10 feet from the edge of the existing disturbance (ie\_ edge of bar\_borrow ditch\_ road surface or two track road\_ or other man made addition to the landscape) A push off arm or another mechanism will be used All vehicle equipment will remain within the existing disturbance Map or maps showing the locations of the temporary surface lines will be provided with the APD and included in the Environmental Assessment An electronic map file (shape file or KMZ file) shall be submitted with the Environmental Assessment.

b. PISTOLERO 15 FED COM WATER AND CALICHE depicts the proposed route for a 12 inch LAYFLAT AND POLYLINES temporary (<90 days) water pipeline supplying water for drilling operations.

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## 6. Construction Material

a. Caliche will be supplied from pits shown on the attached caliche source map.

Caliche utilized for the drilling pad will be obtained either from an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "Flipping" the well location. A mineral material permit will be obtained from BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "Flipping" a well location is as follows:

\* 🗌

- -An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the well site diagram/survey plat.
- -An area will be used within the proposed well site dimensions to excavate caliche.

Subsoil will be removed and stockpiled within the surveyed well pad dimensions.

- -Once caliche/surfacing mineral is found, the mineral material will be excavated and stockpiled within the approved drilling pad dimensions.
- -Then, subsoil will be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).
- -Neither caliche nor subsoil will be stockpiled outside the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

\* 🗌

If no caliche is found onsite, caliche will be hauled in from a BLM-approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired before obtaining mineral material from BLM pits or federal land.

## 7. Methods for Handling Waste

- a. Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- b. Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- c. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.
- d. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- e. The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

## 8. Ancillary Facilities

a. No ancillary facilities will be needed for this proposed project.

## 9. Well Site Layout

- a. The following information is presented in the well site survey plat or diagram:
  - i. reasonable scale (near 1":50')
  - ii. well pad dimensions

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- iii. well pad orientation
- iv. drilling rig components
- v. proposed access road
- vi. elevations of all points
- vii. topsoil stockpile
- viii. reserve pit location/dimensions if applicable
- ix. other disturbances needed (flare pit, stinger, frac farm pad, etc.)
- x. existing structures within the 600' x 600' archaeoligical surveyed area (pipelines, electric lines, well pads, etc
- b. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.
- c. The submitted survey plat does depict all the necessary information required by Onshore Order No. 1.
- d. Topsoil Salvaging
  - i. Grass, forbs, and small woody vegetation, such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and respread evenly on the site following topsoil respreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material, will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

#### 10. Plans for Surface Reclamation

#### **Reclamation Objectives**

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

v.Interim reclamation will be performed on the well site after the well is drilled and completed. PISTOLERO 15 FED 101H RECLAMATION depicts the location and dimensions of the planned interim reclamation for the well site.

#### **Interim Reclamation Procedures (If performed)**

1. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and

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maintained free of, all materials, trash, and equipment not required for production.

- 2. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- 3. The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be recontoured to the above ratios during interim reclamation.
- 4. Topsoil will be evenly respread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- 5. Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- 6. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

#### Final Reclamation (well pad, buried pipelines, etc.)

- 1. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- 2. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- 3. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
- 4. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting in order to break the soil crust and create seed germination micro-sites.
- 5. Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.
- 6. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.
- 7. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not redisturbed, and that erosion is controlled.

## 11. Surface Ownership

a. The surface ownership of the proposed project is STATE.

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## 12. Other Information

a. An onsite meeting was conducted on 1/26/2023

We plan to use (6) 12-inch lay flat hoses to transport water and (6) 4-inch polylines or layflay for drilling and frac operations.

Regulatory will list all proposed pipelines.

The well will be produced using gas lift as the artificial lift method.

Produced water will be transported via pipeline to the EOG produced water gathering system.

## 13. Maps and Diagrams

PISTOLERO 15 FED 101H VICINITY - Existing Road

PISTOLERO 15 FED 101H RADIUS - Wells Within One Mile

PISTOLERO 15 FED INFRASTRUCTURE - Production Pipeline

PISTOLERO 15 FED WATER AND CALICHE - Drilling Water Pipeline

PISTOLERO 15 FED 101H RECLAMATION - Interim Reclamation

EOG Resources, Inc.

#### Surface Use Plan of Operations Section 7 Methods for Handling Waste Attachment

Human waste managed by third-party vendors. ROW construction waste contained in on-site portable toilets maintained by third party vendor. During drilling activities waste is managed by third party vendor utilizing onsite aerobic (treatment) wastewater management. Liquids treated through the aerobic system are transferred to via water line to CTBs for reuse by EOG. All solid waste remaining after treatment process are pumped into an enclosed waste transfer truck at the time of rig down and taken to one of the following disposal facilities by the third-party vendor: Qual Run Services LLC (a Licensed Waste Management Service Facility in Reeves County, Texas) or ReUse OilField Services (a Licensed Waste Management Facility in Mentone, TX)

Trash dumpsters are utilized to contain garbage onsite. Dumpsters are maintained by a third-party vendor. All trash is hauled to Lee County, NM landfill.

EOG utilizes a Closed Loop System, cuttings leave the rig and enter low/highwall cuttings bin. Cuttings are then transferred to trucks for transportation to a State of New Mexico approved disposal facility. Primary disposal location for EOG's NM operations is the North Delaware Basin Disposal Facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.

Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored onsite in frac tanks and disposed of at the time of rig down. Primary disposal location for EOG's NM operations is the North Delaware Basin Disposal facility in Jal, New Mexico which is a privately owned commercial facility. Some EOG locations within New Mexico may require transportation of cuttings to other licensed commercial disposal facilities based on geographic location.



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

PWD Data Report
08/27/2024

PWD disturbance (acres):

**APD ID:** 10400091091 **Submission Date:** 03/10/2023

**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H
Well Type: OIL WELL Well Work Type: Drill

#### **Section 1 - General**

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

#### **Section 2 - Lined**

Would you like to utilize Lined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner:

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit

Pit liner description:

Pit liner manufacturers

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule

Lined pit reclamation description:

Lined pit reclamation

Leak detection system description:

Leak detection system

**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H

**Lined pit Monitor description:** 

**Lined pit Monitor** 

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information

#### **Section 3 - Unlined**

Would you like to utilize Unlined Pit PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule

Unlined pit reclamation description:

Unlined pit reclamation

Unlined pit Monitor description:

**Unlined pit Monitor** 

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

Beneficial use user

Estimated depth of the shallowest aquifer (feet):

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

TDS lab results:

Geologic and hydrologic

State

**Unlined Produced Water Pit Estimated** 

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

**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED Well Number: 101H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

**Additional bond information** 

Section 4 -

Would you like to utilize Injection PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: Injection well name:

Assigned injection well API number? Injection well API number:

Injection well new surface disturbance (acres):

**Minerals protection information:** 

**Mineral protection** 

**Underground Injection Control (UIC) Permit?** 

**UIC Permit** 

Section 5 - Surface

Would you like to utilize Surface Discharge PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

**Surface Discharge NPDES Permit?** 

**Surface Discharge NPDES Permit attachment:** 

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 -

Would you like to utilize Other PWD options? N

**Produced Water Disposal (PWD) Location:** 

PWD surface owner: PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: EOG RESOURCES INCORPORATED

Well Name: PISTOLERO 15 FED Well Number: 101H

Other PWD type description:

Other PWD type

Have other regulatory requirements been met?

Other regulatory requirements



U.S. Department of the Interior **BUREAU OF LAND MANAGEMENT**  **Bond Info Data** 08/27/2024

APD ID: 10400091091

**Submission Date:** 03/10/2023

**Operator Name: EOG RESOURCES INCORPORATED** 

Well Name: PISTOLERO 15 FED

Well Number: 101H

Well Type: OIL WELL Well Work Type: Drill Highlighted data reflects the most recent changes

**Show Final Text** 

## **Bond**

Federal/Indian APD: FED

**BLM Bond number:** 

**BIA Bond number:** 

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

**BLM** reclamation bond number:

Forest Service reclamation bond number:

**Forest Service reclamation bond** 

**Reclamation bond number:** 

**Reclamation bond amount:** 

**Reclamation bond rider amount:** 

Additional reclamation bond information

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

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

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

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 380366

#### **CONDITIONS**

Operator:	OGRID:
EOG RESOURCES INC	7377
5509 Champions Drive	Action Number:
Midland, TX 79706	380366
	Action Type:
	[C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

#### CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/27/2024
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/27/2024
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/27/2024
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	9/27/2024
pkautz	If cement does not circulate on any string, a CBL is required for that string of casing	9/27/2024