03/29/2023

Form 3160-5 (June 2019)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

5.	Lease	Serial	No.	NIN
5.	Lease	Serial	No.	NIN

BUR	EAU OF LAND MANAGEMENT		NMNM112935
Do not use this t	IOTICES AND REPORTS ON Viorm for proposals to drill or to Use Form 3160-3 (APD) for su	6. If Indian, Allottee or Tribe Name	
SUBMIT IN	TRIPLICATE - Other instructions on pag	7. If Unit of CA/Agreement, Name and/or No.	
1. Type of Well	_		9. Wall Name and No.
Oil Well Gas V	—		8. Well Name and No. ALMOST EDDY 30 FED COM/578
2. Name of Operator EOG RESOURG	CES INCORPORATED		9. API Well No. 30-025-51169
3a. Address 1111 BAGBY SKY LOB	BY 2, HOUSTON, TX 77(3b. Phone No.		10. Field and Pool or Exploratory Area
4. Location of Well (Footage, Sec., T., F.	(713) 651-70	00	WC-025 G-08 S253235G/LOWER BONE SPRING 11. Country or Parish, State
SEC 30/T25S/R32E/NMP	,M., or Survey Description)		LEA/NM
12. CHE	CK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE OF N	IOTICE, REPORT OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF	ACTION
✓ Notice of Intent		raulic Fracturing	Production (Start/Resume) Water Shut-Off Reclamation Well Integrity Recomplete Other
Subsequent Report		=	Recomplete
Final Abandonment Notice	Convert to Injection Plug	Back	Water Disposal
the Bond under which the work wil completion of the involved operation completed. Final Abandonment Notis ready for final inspection.)	I be perfonned or provide the Bond No. on sons. If the operation results in a multiple cortices must be filed only after all requirement	file with BLM/BIA. Requippletion or recompletion ts, including reclamation,	ed and true vertical depths of all pertinent markers and zones. Attachired subsequent reports must be filed within 30 days following in a new interval, a Form 3160-4 must be filed once testing has been have been completed and the operator has detennined that the site
EOG respectfully requests an the following changes:	amendment to our approved APD for th	is well to reflect	
Almost Eddy 30 Fed Com 578	H API #: 30-015-51169		
•	32-E, Sec 31, 100' FSL, 330' FWL, Lea (0' FSL, 550' FWL, Lea Co., N.M.	Co., NM,	
Update casing and cement pro	ogram to current design.		
14. I hereby certify that the foregoing is STAR HARRELL / Ph: (432) 848-9	true and correct. Name (Printed/Typed) 161	Regulatory Spe	cialist
Signature		Date	03/16/2023
	THE SPACE FOR FED	ERAL OR STATE	OFICE USE

ENGINEER KEITH P IMMATTY / Ph: (575) 988-4722 / Approved Title Date

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CARLSBAD

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

(Instructions on page 2)

Approved by

GENERAL INSTRUCTIONS

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law 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, are either shown below, will be issued by or may be obtained from the local Federal office.

SPECIFIC INSTRUCTIONS

Item 4 - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. 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 the 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., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-4.

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

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

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 Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

Additional Information

Location of Well

 $0. \ SHL: LOT \ 3 \ / \ 1903 \ FSL \ / \ 387 \ FWL \ / \ TWSP: 25S \ / \ RANGE: 32E \ / \ SECTION: 30 \ / \ LAT: 32.0992855 \ / \ LONG: -103.7218056 \ (\ TVD: 0 \ feet, \ MD: 0 \ feet \)$ $PPP: LOT \ 3 \ / \ 2537 \ FSL \ / \ 330 \ FWL \ / \ TWSP: 25S \ / \ RANGE: 32E \ / \ SECTION: 20 \ / \ LAT: 32.1010305 \ / \ LONG: -103.7219897 \ (\ TVD: 10820 \ feet, \ MD: 10873 \ feet \)$ $BHL: LOT \ 4 \ / \ 100 \ FSL \ / \ 330 \ FWL \ / \ TWSP: 25S \ / \ RANGE: 32E \ / \ SECTION: 31 \ / \ LAT: 32.0798197 \ / \ LONG: -103.7220016 \ (\ TVD: 11085 \ feet, \ MD: 18691 \ feet \)$

Section Township

Range

Lot Idn

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-51169		² Pool Code 97903	³ Pool Name WC-025 G-08 S253235G; Lwr Bone Spring		
⁴ Property Code 330825			Operty Name ODY 30 FED COM	⁶ Well Number 578H	
⁷ OGRID No. 7377	*Operator Name EOG RESOURCES, INC. *Selevation 3341*				

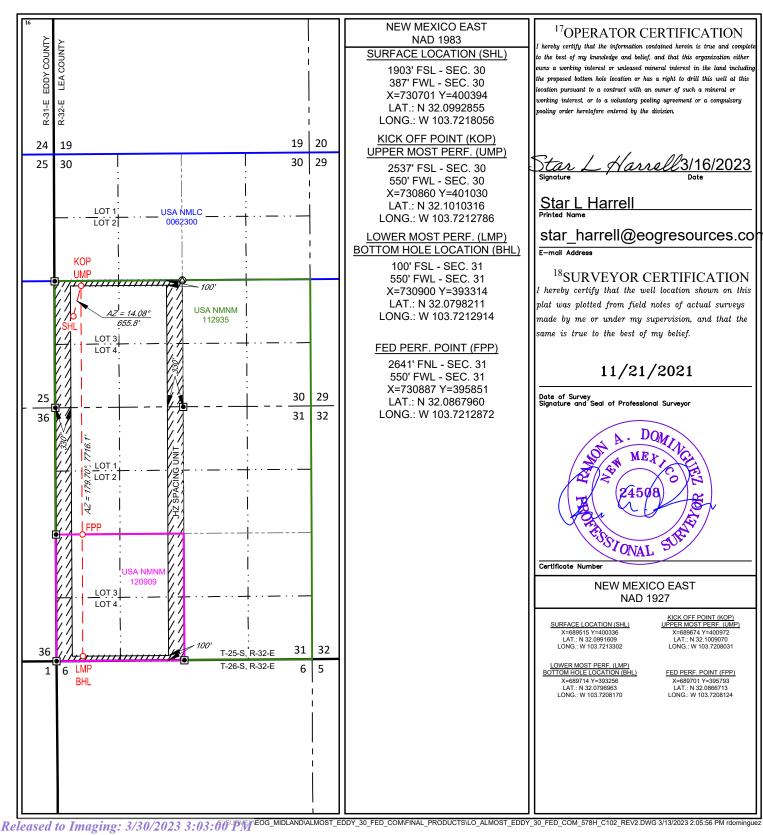
¹⁰Surface Location Feet from the North/South line

Feet from the

East/West line

3	30	25-S	32-E	1	1903'	SOUTH	387'	WEST	LEA
11Bottom 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
4	31	25-S	32-E	_	100'	SOUTH	550'	WEST	LEA
12Dedicated Acres	¹³ Joint or l	infill 14Cc	onsolidation Co	de ¹⁵ Ord	er No.				
480.22									

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.



Revised Permit Information 01/12/2023:

Well Name: Almost Eddy 30 Fed Com 578H

Location: SHL: 1903' FSL & 387' FWL, Section 30, T-25-S, R-32-E, Lea Co., N.M.

BHL: 100' FSL & 550' FWL, Section 31, T-25-S, R-32-E, Lea Co., N.M.

Casing Program A:

Hole	Interv	al MD	Interval TVD		Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
16"	0	1,170	0	1,170	13-3/8"	54.5#	J-55	STC
11"	0	4,049	0	4,000	9-5/8"	40#	J-55	LTC
11"	4,049	4,349	4,000	4,300	9-5/8"	40#	HCK-55	LTC
6-3/4"	0	18,708	0	11,100	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:

		Wt.	Yld	
				Slurry Description
Depth	No. Sacks	ppg	Ft3/sk	
1,170'	350	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk
				Cello-Flake (TOC @ Surface)
13-3/8''				
	100	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium
				Metasilicate (TOC @ 970')
4,300'	430	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC
9-5/8''				@ Surface)
	150	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 3,440')
18,708'	370	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3%
5-1/2''				Microbond (TOC @ 3,800')
	570	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 @ 10670')



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

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

Mud Program:

Depth (TVD)	Type	Type Weight (ppg)		Water Loss
0 – 1,170'	Fresh - Gel	8.6-8.8	28-34	N/c
1,170' – 4,300'	Brine	8.6-8.8	28-34	N/c
4,300' - 18,708'	Oil Base	8.8-9.5	58-68	N/c - 6

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 21 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"



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

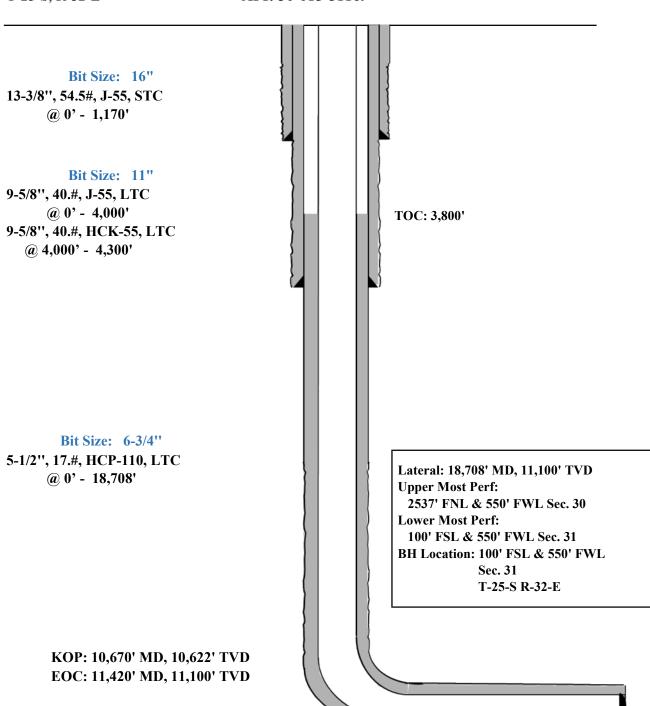
a conservative way to ensure the tubing stays clean from debris, plugging, and allows for fewer well interventions post offset completion. The deeper the tubulars are run into the curve, the higher the probability is that the tubing will become stuck in sand and or well debris as the well produces over 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.

1903' FSL Revised Wellbore A: KB: 3366' 387' FWL GL: 3341'

Section 30

T-25-S, R-32-E API: 30-015-51169





Almost Eddy 30 Fed Com 578H

Revised Permit Information 01/12/2023:

Well Name: Almost Eddy 30 Fed Com 578H

Location: SHL: 1903' FSL & 387' FWL, Section 30, T-25-S, R-32-E, Lea Co., N.M.

BHL: 100' FSL & 550' FWL, Section 31, T-25-S, R-32-E, Lea Co., N.M.

Casing Program B:

Hole	Interval MD		Interva	d TVD	Csg			
Size	From (ft)	To (ft)	From (ft)	To (ft)	OD	Weight	Grade	Conn
13-1/2"	0	1,170	0	1,170	10-3/4"	40.5#	J-55	STC
9-7/8"	0	4,049	0	4,000	8-5/8"	32#	J-55	BTC-SC
9-7/8"	4,049	4,349	4,000	4,300	8-5/8"	32#	P110-EC	BTC-SC
6-3/4"	0	18,708	0	11,100	5-1/2"	17#	HCP-110	LTC

Cementing Program:

Depth	No. Sacks	Wt.	Yld Ft3/sk	Slurry Description
1,170' 10-3/4''	380	13.5	1.73	Lead: Class C + 4.0% Bentonite Gel + 0.5% CaCl2 + 0.25 lb/sk Cello- Flake (TOC @ Surface)
	110	14.8	1.34	Tail: Class C + 0.6% FL-62 + 0.25 lb/sk Cello-Flake + 0.2% Sodium Metasilicate (TOC @ 970')
4,300' 8-5/8''	300	12.7	2.22	Lead: Class C + 10% NaCl + 6% Bentonite Gel + 3% MagOx (TOC @ Surface)
	140	14.8	1.32	Tail: Class C + 10% NaCL + 3% MagOx (TOC @ 3,440')
18,708' 5-1/2''	670	10.5	3.21	Lead: Class H + 0.4% Halad-344 + 0.35% HR-601 + 3% Microbond (TOC @ 3,800')
	590	13.2	1.52	Tail: Class H + 5% NEX-020 + 0.2% NAC-102 + 0.15% NAS-725 + 0.5% NFL-549 + 0.2% NFP-703 + 1% NBE-737 + 0.3% NRT-241 (TOC @ 10670')



Additive	Purpose
Bentonite Gel	Lightweight/Lost circulation prevention
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MagOx	Expansive agent
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Halad-9	Fluid loss control
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 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"

Seog resourcesAlmost Eddy 30 Fed Com 578H

1903'

Revised Wellbore B:

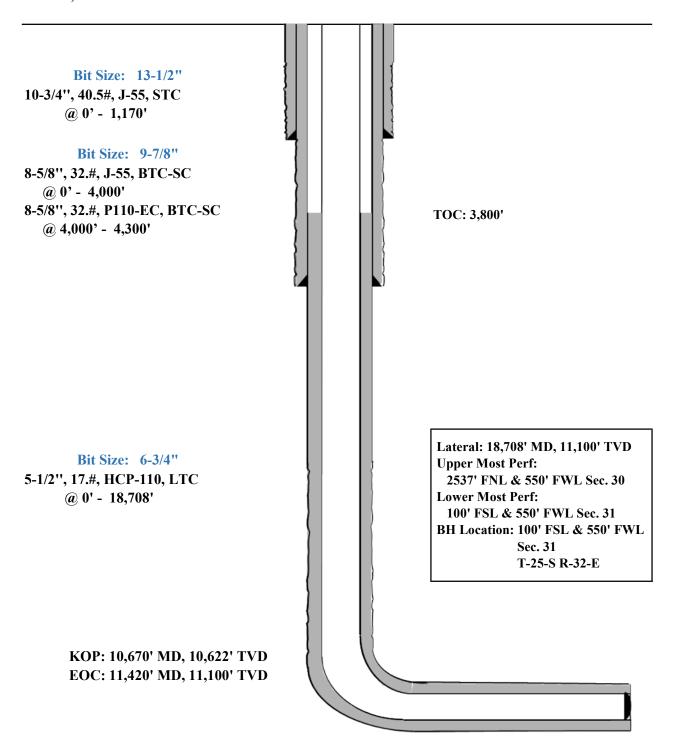
KB: 3366' GL: 3341'

387'

Section 30

T-25-S, R-32-E

API: 30-015-51169





GEOLOGIC NAME OF SURFACE FORMATION:

Permian

ESTIMATED TOPS OF IMPORTANT GEOLOGICAL MARKERS:

Rustler	1,063'
Tamarisk Anhydrite	1,149'
Top of Salt	1,412'
Base of Salt	4,197'
Lamar	4,404'
Bell Canyon	4,429'
Cherry Canyon	5,416'
Brushy Canyon	6,891'
Bone Spring Lime	8,457'
Leonard (Avalon) Shale	8,563'
1st Bone Spring Sand	9,419'
2nd Bone Spring Shale	9,562'
2nd Bone Spring Sand	10,064'
3rd Bone Spring Carb	10,687'
3rd Bone Spring Sand	11,336'
TD	11,100'

ESTIMATED DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Upper Permian Sands	0- 400'	Fresh Water
Bell Canyon	4,429'	Oil
Cherry Canyon	5,416'	Oil
Brushy Canyon	6,891'	Oil
Leonard (Avalon) Shale	8,563'	Oil
1st Bone Spring Sand	9,419'	Oil
2nd Bone Spring Shale	9,562'	Oil
2nd Bone Spring Sand	10,064'	Oil



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.



2/24/2022

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



2/24/2022

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

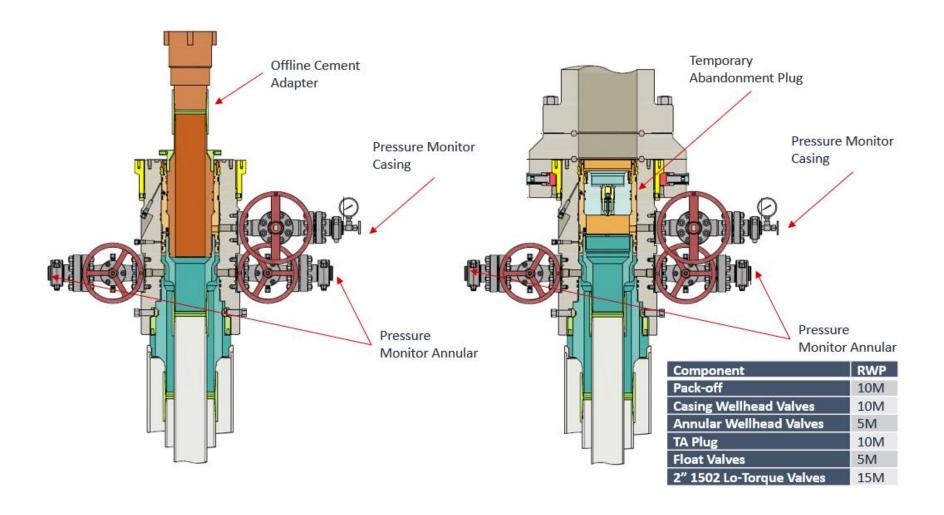
2/24/2022

Figure 1: Cameron TA Plug and Offline Adapter Schematic



2/24/2022

Figure 2: Cactus TA Plug and Offline Adapter Schematic

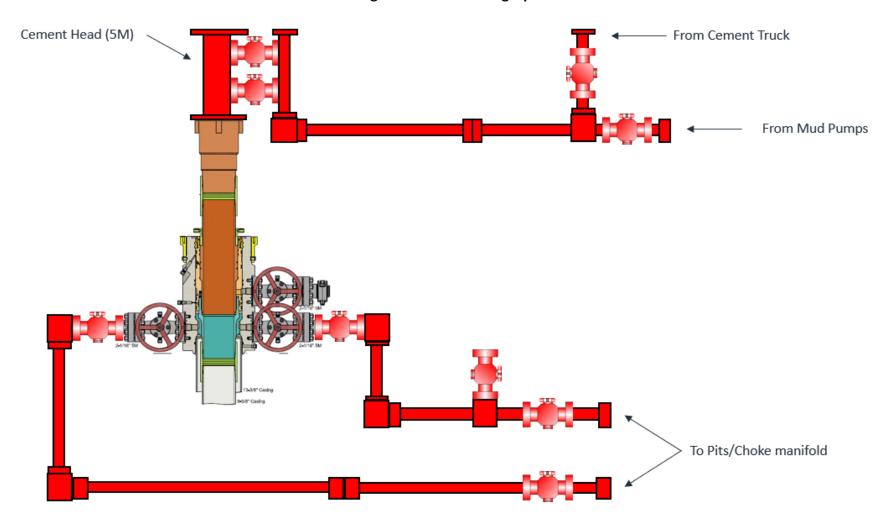


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2/24/2022

Figure 3: Back Yard Rig Up



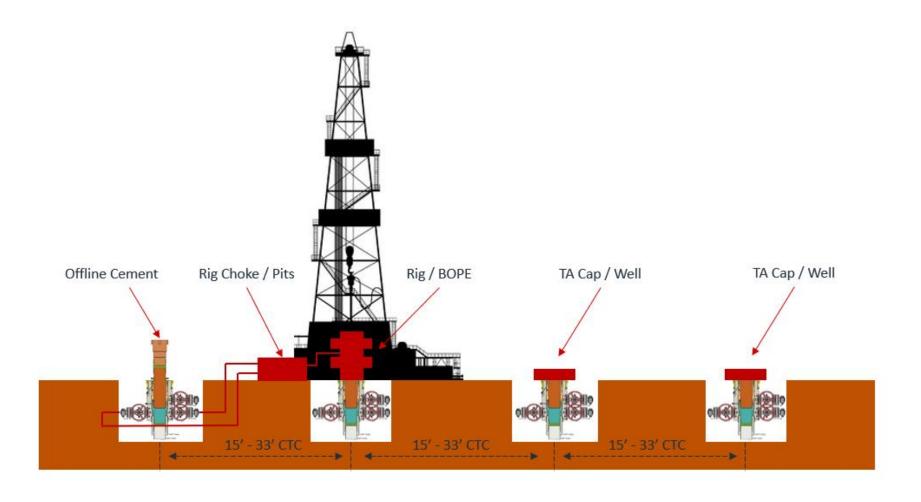
*** All Lines 10M rated working pressure

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2/24/2022

Figure 4: Rig Placement Diagram



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eog resources Lea County, NM (NAD 83 NME) Almost Eddy 30 Fed Com #578H 600-**Plan #.02 Azimuths to Grid North** True North: -0.32° Magnetic North: 6.14° **Magnetic Field** Strength: 47284.8nT Dip Angle: 59.73° Date: 8/12/2022 Model: IGRF2020 PROJECT DETAILS: Lea County, NM (NAD 83 NME) 1050-**Geodetic System: US State Plane 1983 Datum: North American Datum 1983** Ellipsoid: GRS 1980 1400-**Zone: New Mexico Eastern Zone** To convert a Magnetic Direction to a Grid Direction, Add 6.14° To convert a Magnetic Direction to a True Direction, Add 6.47° East To convert a True Direction to a Grid Direction, Subtract 0.32° System Datum: Mean Sea Level -1200 -1500-**WELL DETAILS: #578H** -1800 2800-3341.0 kb @ 3366.0usft Northing **Easting** Latittude Longitude -2100 103° 43' 18.498 W 400394.00 730701.00 32° 5′ 57.431 N 3500 -2400 -2700 SECTION DETAILS 4200-TVD +N/-S +E/-W **VSect Target** Sec Azi Dleg **TFace** 0.00 0.00 0.00 0.00 0.00 0.00 1400.0 0.00 ₹-3300-1793.3 13.05 26.3 13.05 -26.1 1792.1 6544.9 659.7 152.9 0.00 0.00 -655.2 13.05 6498.9 4900-0.00 159.0 2.00 -681.3 6938.2 0.00 6891.0 686.0 180.00 KOP (Almost Eddy 30 Fed Com #578H) 159.0 0.00 10669.7 10622.5 686.0 0.00 -681.3 FTP (Almost Eddy 30 Fed Com #578H) 10890. 180.00 10835.2 636.0 159.0 12.00 180.00 -631.3 u 5250-208.5 160.6 -204.0 -0.34 -4543.0 0.00 4546.4 FEDPP (Almost Eddy 30 Fed Com #578H) 186.0 PBHL (Almost Eddy 30 Fed Com #578H) -7080.0 199.0 7082.8 -4200 5950⁻ -4500 WELLBORE TARGET DETAILS (MAP CO-ORDINATES) CASING DETAILS -4800 Northing **Easting** No casing data is available KOP (Almost Eddy 30 Fed Com #578H) 10622.5 401080.00 730860.00 FTP (Almost Eddy 30 Fed Com #578H) 10835.2 401030.00 730860.00 FEDPP (Almost Eddy 30 Fed Com #578H) 11100.0 -4543.0 395851.00 730887.00 -5100 PBHL (Almost Eddy 30 Fed Com #578H) 11100.0 -7080.0 393314.00 730900.00 -5400 -5700 -6000 8400--6300 9100-Almost Eddy 30 Fed Com/#578H/Plan #.02 9450--7200 West(-)/East(+) 10500--|-|- |- |- |- |- |-Lea County, NM (NAD 83 NME) Almost Eddy 30 Fed Com Plan #.02 Vertical Section at 178.39° 13:41, March 14 2023 Released to Imaging: 3/30/2023 3:03:00 PM

Received by OCD: 3/29/2023 12:31:46 PM



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

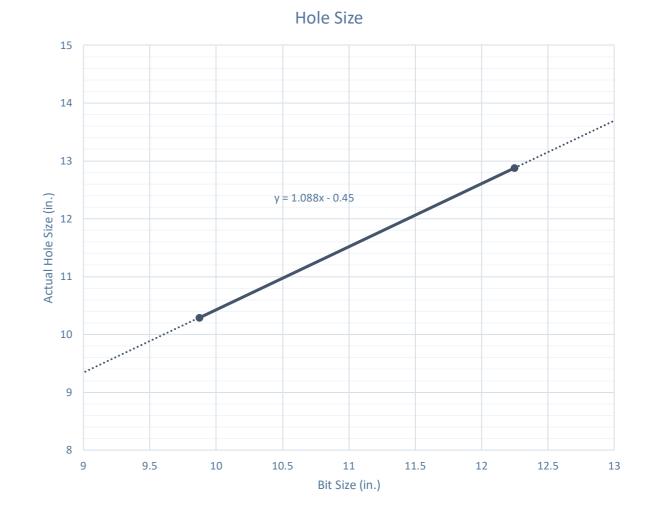
Volumetric Hole Size Calculation

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

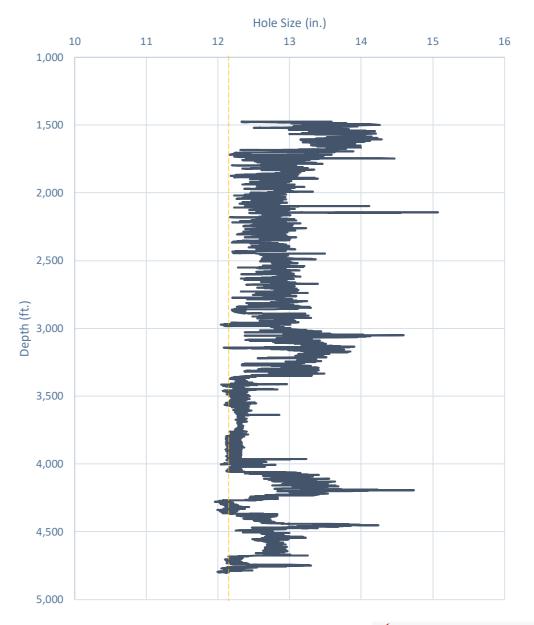


Modelo 10 Fed Com #501H

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

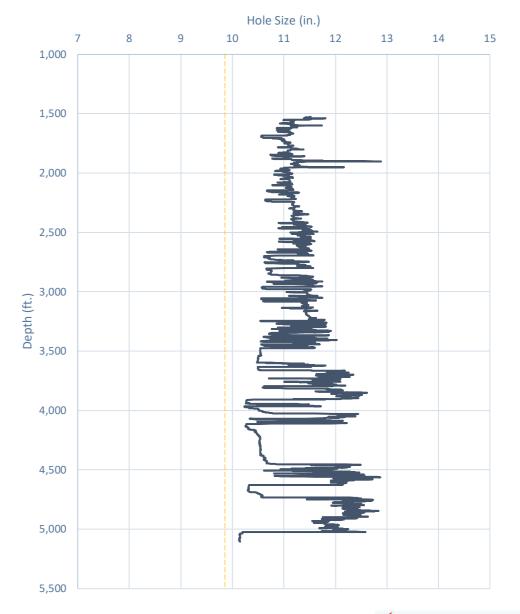


Caliper Hole Size (9.875")

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

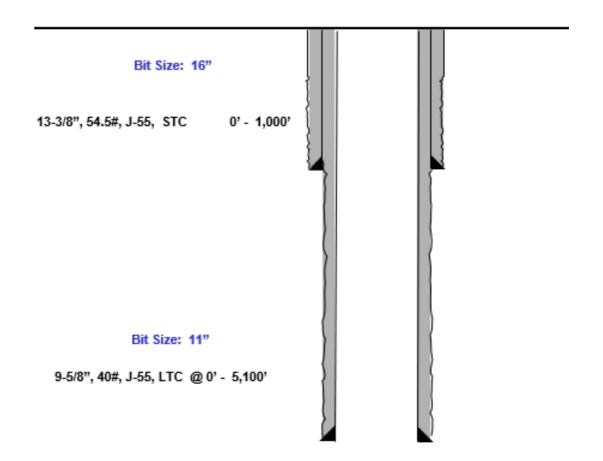
$$=\frac{11.52-9.625}{2}$$

• 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

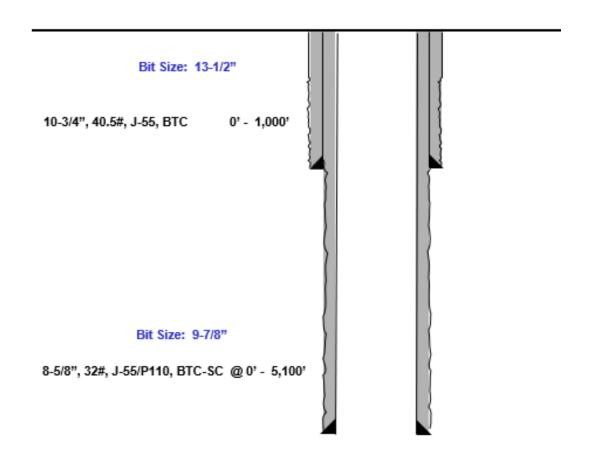
$$=\frac{10.295-8.625}{2}$$

• 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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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 »

USC	Metric

« Back to Previous List

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

Nom. Pipe Body Area

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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 STC Ptpe Mechanical Properties Minimum Yield Strength 55,000 psi Maximum Yield Strength 80,000 Minimum Tensile Strength 75,000 psi BTC LTC STC Pipe 11.750 Outside Diameter 10.750 11.750 Wall Thickness 0.350 Inside Diameter 10.050 10.050 10.050 Standard Drift 9.894 9.894 in. Alternate Drift in. Nominal Linear Weight, T&C 40.50 lbs/ft Plain End Weight 38.91 lbs/ft Performance Ptpe BTC STC Minimum Collapse Pressure psi Minimum Internal Yield Pressure 3,130 3,130 3.130 Minimum Pipe Body Yield Strength 629.00 1000 lbs 700 420 Joint Strength 1000 lbs Reference Length 11,522 6,915 Make-Up Data BTC STC Ptpe 4.81 Make-Up Loss 3.50 in. Minimum Make-Up Torque 3,150 ft-lbs

П							V	val	loui	rec
ш					AP	и 5 СТ ,	10th Ed.	Connect	ion Dat	a Sheet
A FT LB	O.D. (in) 8.625 WEIGHT (It Nominal: Plain End:	o/ft) 32.00 31.13	WALL (,		ADE 55	* API DR 7.7	` '		N % 7.5
MADE IN USA	Material Properti	es (PE)				l	Pipe Bod	y Data (I	PE)	
DE	Pipe						Geo	metry		
_	Minimum Yield Strength:	55	ksi		Nomi	nal ID:			7.92	inch
#0d	Maximum Yield Strength:	80	ksi		Nomir	nal Area	a:		9.149	in ²
#	Minimum Tensile Strength:	75	ksi		*Spec	ial/Alt. [Drift:		7.875 inch	
SLN	Coupling				Performanc			rmance		
#0/M	Minimum Yield Strength:	55	ksi		Pipe Body Yield Strength:			503	kips	
	Maximum Yield Strength:	80	ksi		'			2,530	psi	
DA 7.875	Minimum Tensile Strength:	75	ksi	Internal Yield Pressure: (API Historical)			3,930	3,930 psi		
	451.0	-								
S2L2	API Connection Coupling OD: 9.			API Connection Torque						
S	STC Performa	ınce		STC Torque (ft-lbs)				os)		
# 155	STC Internal Pressure:	3,930	psi		Min:	2,793	Opti:	3,724	Max:	4,655
32#	STC Joint Strength:	372	kips							
8.625	LTC Performa	ince					LTC Tor	que (ft-lk	os)	
	LTC Internal Pressure:	3,930			Min:	3,130	Opti:	4,174	Max:	5,217
C ST	LTC Joint Strength: SC-BTC Performance - C		kips							
URE	SC-BTC Performance - Cp	ng OD =	9.125				BTC Tor	que (ft-ll	os)	
VALLOUREC STAR	BTC Internal Pressure:	3,930	psi		follo	ow API gu	iidelines reg	garding po	sitional ma	ake up
A A	BTC Joint Strength:	503	kips							
							ed on order.			
	**If above API connecti	ons do not	suit your n 100% of				m connecti	ons are av	ailable up	to

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Maximum Make-Up Torque

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

CONDITIONS

Action 201928

CONDITIONS

Operator:	OGRID:
EOG RESOURCES INC	7377
P.O. Box 2267	Action Number:
Midland, TX 79702	201928
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By		Condition Date
pkautz	None	3/30/2023