Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM136226

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
LESLIE FED COM 201H

2. Name of Operator
MATADOR PRODUCTION COMPANY
Contact: TAMMY R LINK
E-Mail: tlink@matadorresources.com

9. API Well No.
30-025-44544-00-X1

3a. Address
5400 LBJ FREEWAY SUITE 1500
DALLAS, TX 75240

3b. Phone No. (include area code)
Ph: 575-627-2465

10. Field and Pool or Exploratory Area
DOGIE DRAW-DELAWARE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 27 T25S R35E SWSW 295FSL 1202FWL
32.123955 N Lat, 103.394211 W Lon

11. County or Parish, State
LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

BLM Bond No: NMB0001079
Surety Bond:RLB0015172

PCM 12/27/18

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Please see attached C-102 to revise the SHL and BHL of Matador's Leslie Fed Com #201H well:
SHL: From 295' FSL and 1202' FWL of Sec. 17, T25S, R35E to 295' FSL and 1132' FWL of Sec. 17, T25S, R35E
BHL: from 240' FNL and 450' FWL, Sec. 17, T25S, R35E, to 100' FNL and 450' FWL of Sec. 17, T25S, R35E, Both SHL and BHL have been moved within previously approved footprint.

HOBBS OCD

JAN 16 2019

RECEIVED

Please also see attached table for the following changes:
Adjusted Surface casing depth from 1000' to 950' due to new information on the Rustler top based on recent offset wells.

12/20/2018 Engineering review completed by m Hague

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #446650 verified by the BLM Well Information System
For MATADOR PRODUCTION COMPANY, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 12/07/2018 (19PP0556SE)

Name *(Printed/Typed)* TAMMY R LINK — Title PRODUCTION ANALYST

Signature (Electronic Submission) — Date 12/05/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By D. S. Walls — Title SPE — Date 12/27/18

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 CFO

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)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KZ

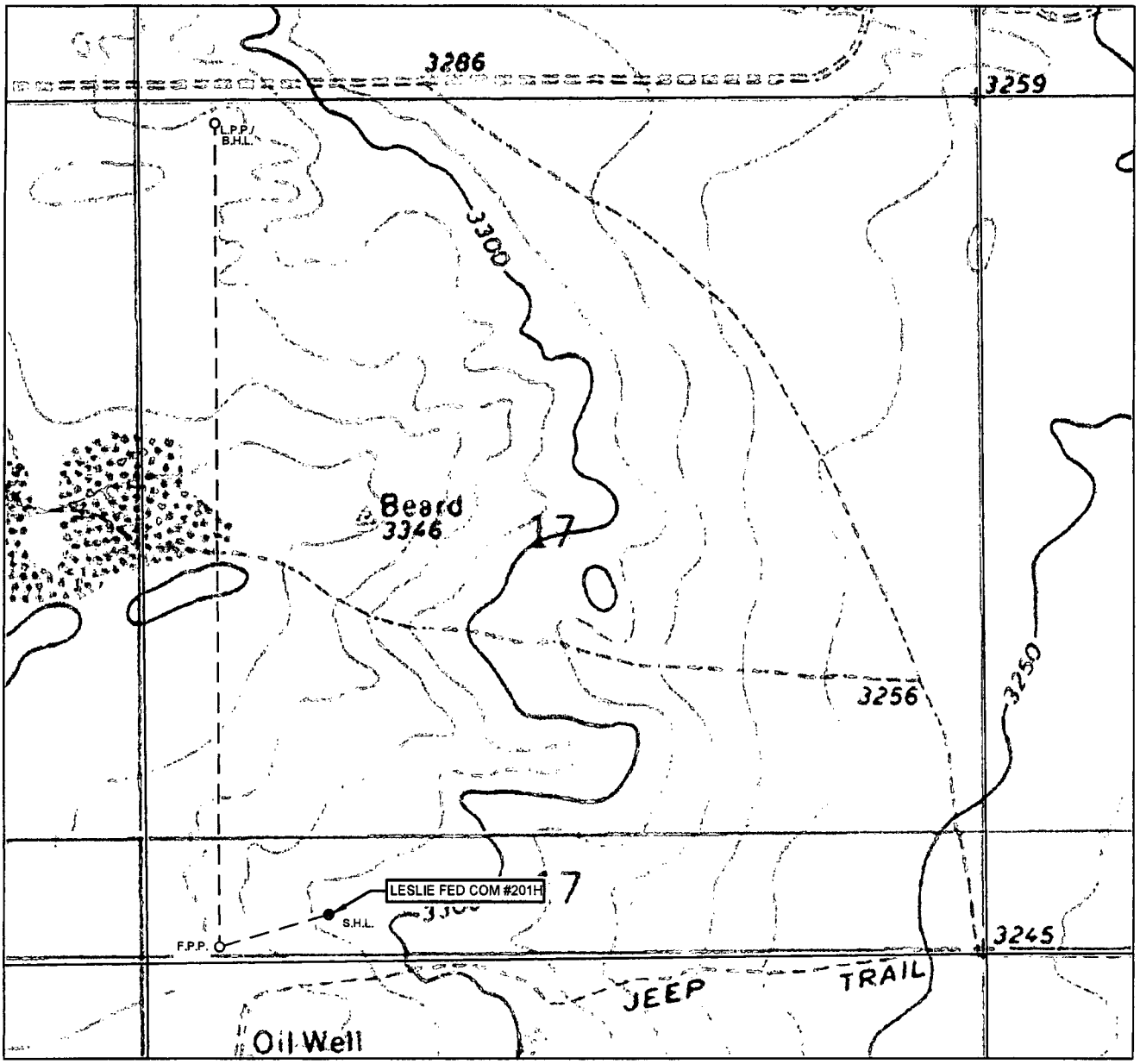
Additional data for EC transaction #446650 that would not fit on the form

32. Additional remarks, continued

Adjusted Intermediate I casing depth from 5600' to 5500' due to new information on the Base of the salt from recent offset wells.
Adjusted Intermediate II casing from 7 5/8" to x 7" to 7 5/8" longstring and adjusted estimated setting depths.
Adjusted production hole size from 6 1/8" to 6 3/4" and the bottom production casing size from 4 1/2" 13.5# P-110/TXP to 5 1/2" 20# P-110 Eagle SFH. Spec sheet attached for 5 1/2" 20# Eagle SFH.
Adjusted cement volumes for all strings accordingly.

Please e-mail all questions to JD Harkrider, jharkrider@matadorresources.com

LOCATION & ELEVATION VERIFICATION MAP



Matador PRODUCTION COMPANY

LEASE NAME & WELL NO.: LESLIE FED COM #201H

SECTION 17 TWP 25-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM ELEVATION 3312'
DESCRIPTION 295' FSL & 1132' FWL

LATITUDE N 32.1239535 LONGITUDE W 103.3944360

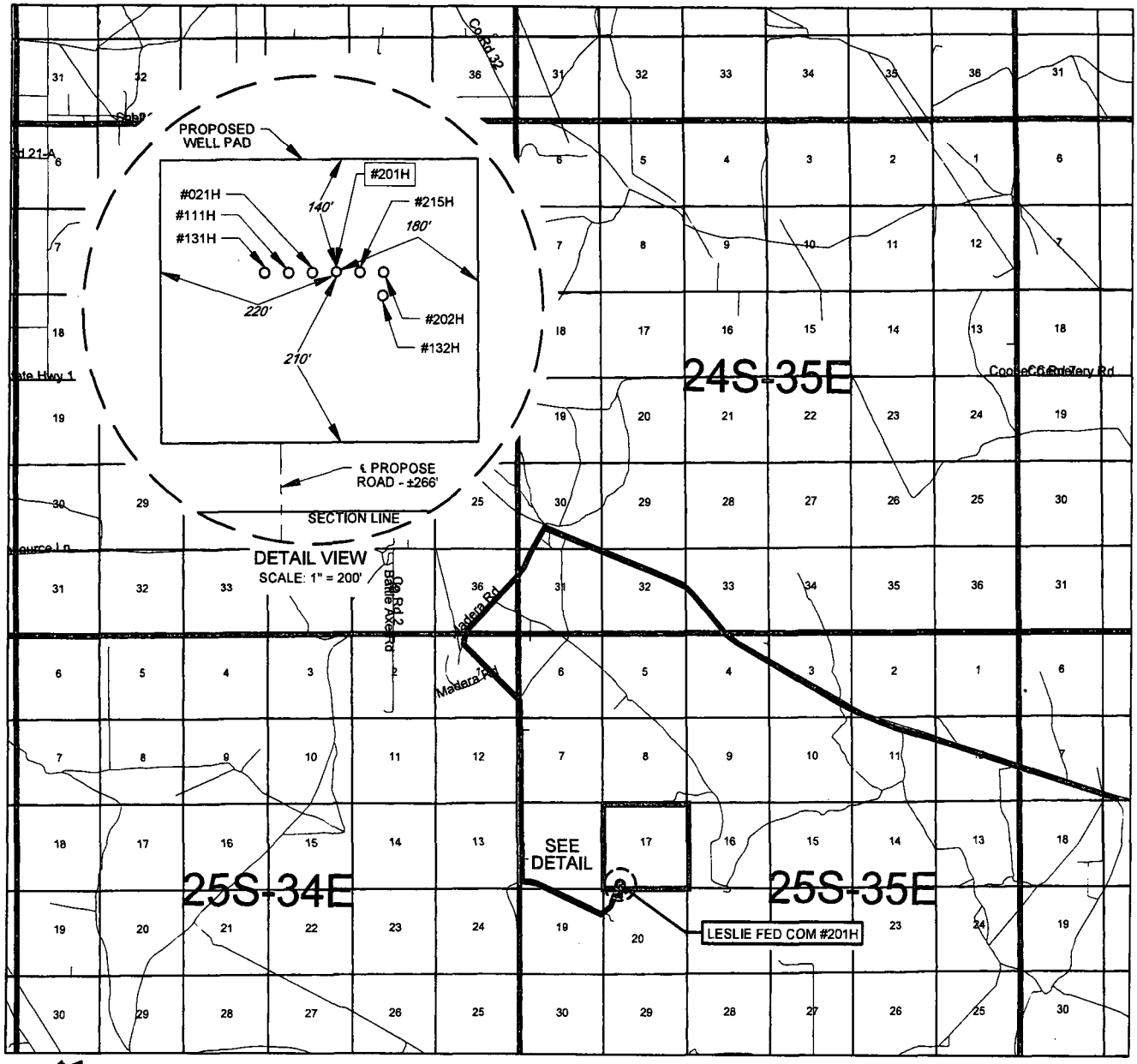
SCALE: 1" = 1000'
0' 500' 1000'

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 MATADOR PRODUCTION COMPANY. 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.

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY
1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
TELEPHONE: (817) 744-7512 • FAX (817) 744-7554
2903 NORTH BIG SPRING • MIDLAND, TEXAS 79705
TELEPHONE: (432) 682-1653 OR (800) 767-1653 • FAX (432) 682-1743
WWW.TOPOGRAPHIC.COM

VICINITY MAP



LEASE NAME & WELL NO.: LESLIE FED COM #201H

SECTION 17 TWP 25-S RGE 35-E SURVEY N.M.P.M.
COUNTY LEA STATE NM
DESCRIPTION 295' FSL & 1132' FWL

DISTANCE & DIRECTION

FROM INT. OF NM-128 W. & NM-205 N GO WEST ON NM-128 ±13.8 MILES, THENCE WEST (LEFT) ON BATTLE AXE RD. ±0.3 MILES, THENCE CONTINUE SOUTH ON MADERA RD. ±1.4 MILES, THENCE SOUTHEAST (LEFT) ON LEASE RD. ±3.1 MILES, THENCE EAST (LEFT) ±1.0 MILES, THENCE NORTHEAST (LEFT) ±0.4 MILES, THENCE NORTH(LEFT) ON A PROPOSED RD. ±266 FEET TO A POINT ±221 FEET SOUTHWEST OF THE LOCATION.

SCALE: 1" = 10000'

0' 5000' 10000'

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 MATADOR PRODUCTION COMPANY. 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.

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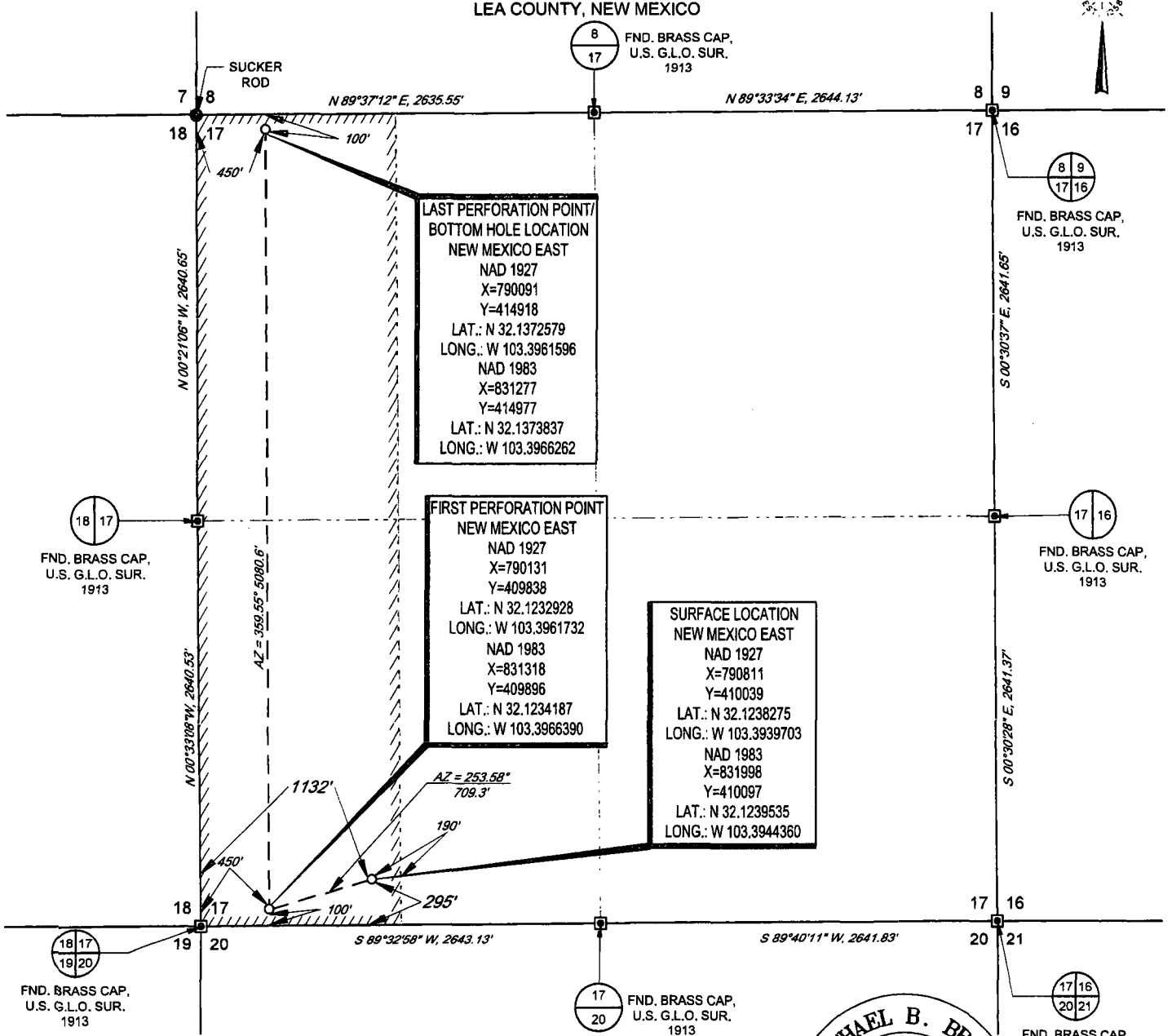
SCALE: 1" = 1000'

0' 500' 1000'

Matador PRODUCTION COMPANY

SECTION 17, TOWNSHIP 25-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEASE NAME & WELL NO.: LESLIE FED COM #201H

SECTION 17 TWP 25-S RGE 35-E SURVEY N.M.P.M.

COUNTY LEA STATE NM

DESCRIPTION 295' FSL & 1132' FWL

DISTANCE & DIRECTION

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AS OF THE DATE OF SURVEY, ALL ABOVE GROUND APPURTENANCES WITHIN 300' OF THE STAKED LOCATION ARE SHOWN HEREON.

MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329

DECEMBER 04, 2018

TOPOGRAPHIC
LOYALTY INNOVATION LEGACY

1400 EVERMAN PARKWAY, Ste. 146 • FT. WORTH, TEXAS 76140
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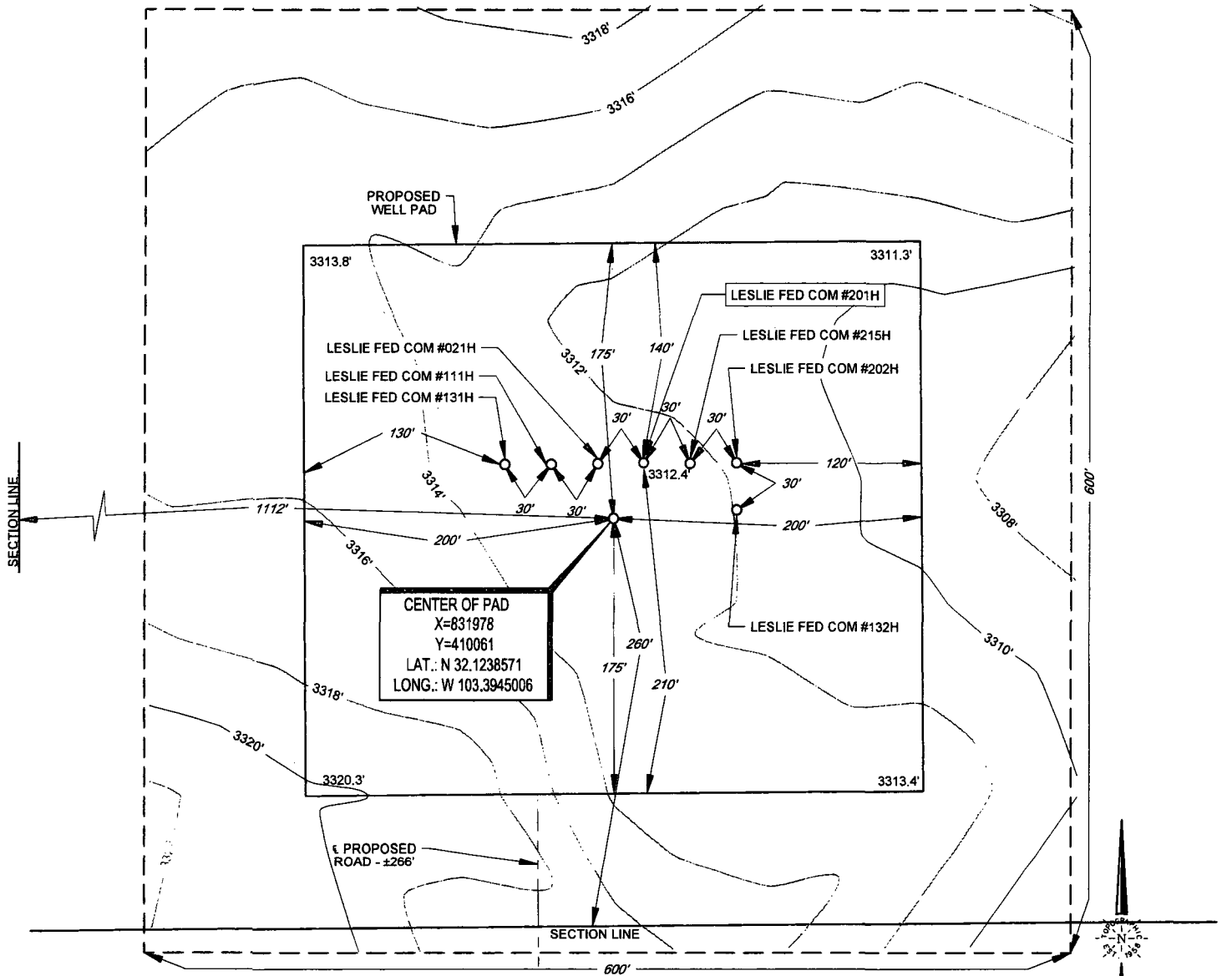
WWW.TOPOGRAPHIC.COM

SECTION 17, TOWNSHIP 25-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO

DETAIL VIEW
SCALE: 1" = 100'



LEASE NAME & WELL NO.: LESLIE FED COM #201H

#201H LATITUDE N 32.1239535 #201H LONGITUDE W 103.3944360

CENTER OF PAD IS 260' FSL & 1112' FWL

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

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 MATADOR PRODUCTION COMPANY. 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.

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WWW.TOPOGRAPHIC.COM

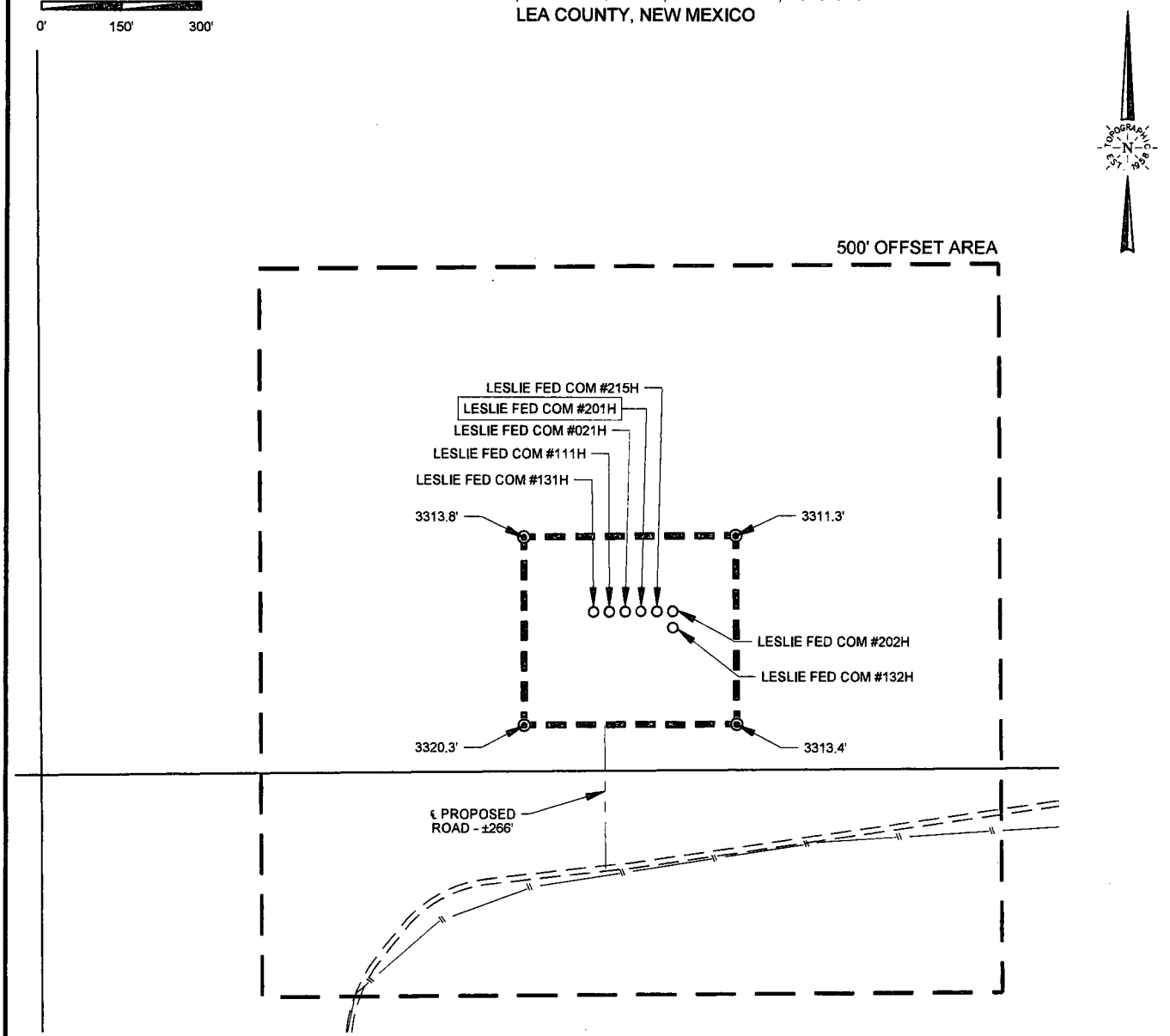
ORIGINAL DOCUMENT SIZE: 8.5" X 11"

S:\SURVEY\MATADOR_RESOURCES\LESLIE_17-25S-35E\FINAL_PRODUCTS\LO_LESLIE_FED_COM_201H_REV4.DWG 12/4/2018 2:24:47 PM cgafford

SCALE: 1" = 300'

0' 150' 300'

SECTION 17, TOWNSHIP 25-S, RANGE 35-E, N.M.P.M.
LEA COUNTY, NEW MEXICO



LEGEND

- PROPOSED SITE
- 500' PROXIMITY
- SURVEY/SECTION LINE
- EXISTING PIPELINE
- PROPOSED ROAD
- ROAD
- IRON ROD SET

Matador PRODUCTION COMPANY

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MICHAEL B. BROWN NEW MEXICO 18329 PROFESSIONAL SURVEYOR

Michael Blake Brown, P.S. No. 18329
DECEMBER 04, 2018

LESLIE FED COM #201H PROXIMITY MAP	REVISION:	
	A.V.F.	11/04/2016
	MML	01/26/2017
DATE: 09/26/16	MML	11/02/2017
FILE: LO_LESLIE_FED_COM_201H_REV4	JLS	12/04/2017
DRAWN BY: EAH		
SHEET: 7 OF 7		

NOTES:
1. ORIGINAL DOCUMENT SIZE: 8.5" X 11"
2. ALL BEARINGS, DISTANCES, AND COORDINATE VALUES CONTAINED HEREIN ARE GRID BASED UPON THE NEW MEXICO COORDINATE SYSTEM OF 1983, EAST ZONE, U.S. SURVEY FEET.
3. CERTIFICATION IS MADE ONLY TO THE LOCATION OF THIS EASEMENT, IN RELATION TO THE EVIDENCE FOUND DURING A FIELD SURVEY, MADE ON THE GROUND, UNDER MY SUPERVISION, AND USING DOCUMENTATION PROVIDED BY MATADOR PRODUCTION COMPANY. ONLY UTILITIES/EASEMENTS THAT WERE VISIBLE ON THE DATE OF THIS SURVEY, WITHIN/ADJOINING THIS EASEMENT, HAVE BEEN LOCATED AS SHOWN HEREON OF WHICH I HAVE KNOWLEDGE. THIS CERTIFICATION IS LIMITED TO THOSE PERSONS OR ENTITIES SHOWN ON THE FACE OF THIS PLAT AND IS NON-TRANSFERABLE, AND MADE FOR THIS TRANSACTION ONLY.

Formation Name	TVD	Bearing
Quaternary Fill	0	Water
Dewey Lake	389	Water
Rustler	909	Water
Salado	1431	Barren
Castile	3724	Barren
Base of Salt	5451	Barren
Bell Canyon	5474	Hydrocarbons
Cherry Canyon	6469	Hydrocarbons
Brushy Canyon	7917	Hydrocarbons
Bone Spring Lime	9254	Hydrocarbons
1st Bone Spring Carbonate	10323	Hydrocarbons
1st Bone Spring Sand	10397	Hydrocarbons
2nd Bone Spring Carbonate	10605	Hydrocarbons
2nd Bone Spring Sand	10994	Hydrocarbons
3rd Bone Spring Carbonate	11456	Hydrocarbons
3rd Bone Spring Sand	12111	Hydrocarbons
Wolfcamp A	12443	Hydrocarbons
Wolfcamp B	12818	Hydrocarbons
Strawn	14281	Hydrocarbons

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17-1/2"	8.30	28	NC	FW Spud Mud
Intermediate	12-1/4"	10.00	30-32	NC	Brine Water
Intermediate 2	8-3/4"	9.00	30-31	NC	FW/Cut Brine
Production	6-3/4"	12.00	50-60	<10	OBM

Name	Hole Size	Casing Size	Wt/Grade	Thread Collar	Setting Depth	Top Cement
Surface	17-1/2"	13-3/8" (new)	54.5# J-55	BTC	950	Surface
Intermediate	12-1/4"	9-5/8" (new)	40# J-55	BTC	5500	Surface
Intermediate 2	8-3/4"	7-5/8" (new)	29.7# P-110	BTC	5200	5200
		7-5/8" (new)	29.7# P110	HTFNR	12600	
Production	6-3/4"	5-1/2" (new)	20# P-110	BTC	12000	12300
		5-1/2" (new)	20# P-110	Eagle SFH	17242	

***5-1/2" SF will be Eagle SFH or like connection

Name	Type	Sacks	Yield	Weight	Blend
Surface	Lead	200	1.75	13.5	Class C + Bentonite + 2% CaCL2 + 3% NaCl + LCM
	Tail	700	1.35	14.8	Class C + 5% NaCl + LCM
TOC = 0'		100% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	500	1.94	12.8	Class C + Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	180	1.35	14.8	Class C + 5% NaCl + LCM
TOC = 0'		50% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface
Intermediate 2	Lead	315	2.79	11	Class C + Fluid Loss + Dispersant + Retarder + LCM
	Tail	110	1.46	13.2	Class C + Fluid Loss + Dispersant + Retarder + LCM
TOC = 5200'		35% Excess			1 every 4th jt from KOP to TOC; See requested variance
Production	Tail	375	1.23	14.2	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 12300'		10% Excess			See requested Variance

***All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.I.h

***Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.

***A variance is requested to wave the centralizer requirement for the 7-5/8" flush casing in the last 800' of 8-3/4" hole and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

U. S. Steel Tubular Products

5.500" 20.00lbs/ft (0.361" Wall) P110 HP USS-EAGLE SFH™

MECHANICAL PROPERTIES	Pipe	USS-EAGLE SFH™	
Minimum Yield Strength	125,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	130,000	--	psi
DIMENSIONS	**Pipe**	**USS-EAGLE SFH™**	
Outside Diameter	5.500	5.830	in.
Wall Thickness	0.361	--	in.
Inside Diameter	4.778	4.693	in.
Standard Drift	4.653	4.653	in.
Alternate Drift	--	4.653	in.
Nominal Linear Weight, T&C	20.00	--	lbs/ft
Plain End Weight	19.83	--	lbs/ft
SECTION AREA	**Pipe**	**USS-EAGLE SFH™**	
Critical Area	5.828	5.027	sq. in.
Joint Efficiency	--	86.3	%
PERFORMANCE	**Pipe**	**USS-EAGLE SFH™**	
Minimum Collapse Pressure	13,150	13,150	psi
External Pressure Leak Resistance	--	13,150	psi
Minimum Internal Yield Pressure	14,360	14,360	psi
Minimum Pipe Body Yield Strength	729,000	--	lbs
Joint Strength	--	628,000	lbs
Compression Rating	--	628,000	lbs
Reference Length	--	20,933	ft
Maximum Uniaxial Bend Rating	--	89.7	deg/100 ft
MAKE-UP DATA	**Pipe**	**USS-EAGLE SFH™**	
Make-Up Loss	--	5.92	in.
Minimum Make-Up Torque	--	14,200	ft-lbs
Maximum Make-Up Torque	--	16,800	ft-lbs
Maximum Operating Torque	--	25,700	ft-lbs

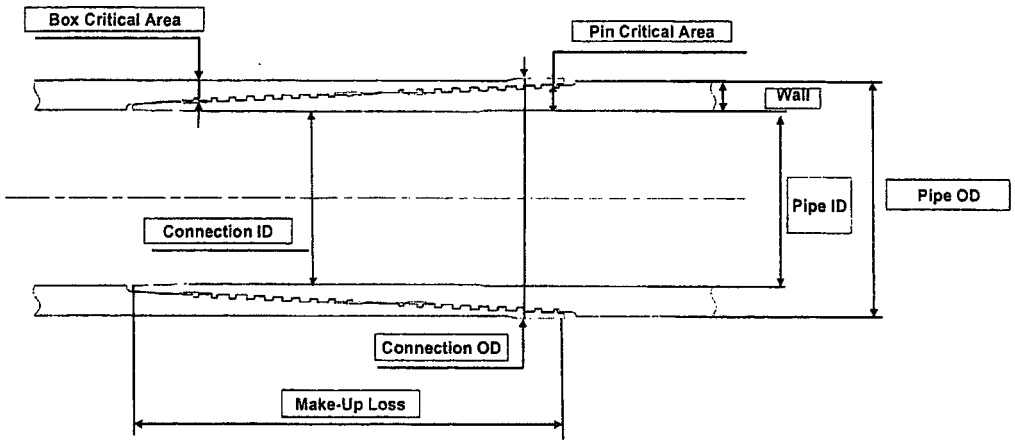
U. S. Steel Tubular Products
460 Wildwood Forest Drive, Suite 300S
Spring, Texas 77380

1-877-893-9461
connections@uss.com
www.usstubular.com

CONNECTION DATA SHEET (Imperial Units)

Connection: VAM® HTF-NR 7,625" 29,70# P110EC
Alternate Drift: 6,750"

Drawing: PD-101836P PD-101836B **Isolated connection**



OD	WEIGHT	WALL	GRADE	API DRIFT
7,625"	29,70 lb/ft	0,375"	P110EC	6,750"

PIPE BODY PROPERTIES:

Outside Diameter	*inch*	7,625
Internal Diameter	*inch*	6,875
Nominal Area	*sqin.*	8,541
Yield Strength	*klb*	1 068
Ultimate Strength	*klb*	1 153
MIYP	*psi*	10 760
Collapse Pressure	*psi*	5 670

CONNECTION PROPERTIES:

Connection OD (nom)	*inch*	7,701
Connection ID	*inch*	6,782
Coupling Length	*inch*	N/A
Make-up Loss	*inch*	4.657
Box critical area	*%PBYS*	58%
Pin critical area	*%PBYS*	67%
Yield Strength	*klb*	619
Ultimate strength	*klb*	669
Structural compression	*klb*	776
Compression with sealability	*klb*	371
MIYP	*psi*	10 760
Ext Pressure Resistance	*psi*	5 670
Regular Make-up Torque	*ft.lb*	
	Min	9 600
	Opt	11 300
	Max	13 000
Maximum Torque with Sealability	*ft.lb*	58 500
Maximum Torsional Value	*ft.lb*	73 000

vallourec

Designed by : X. MENCAGLIA

Reference: VRCC16-1177
Revision : 0
Date : July 19, 2016

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	MATADOR PRODUCTION COMPANY
LEASE NO.:	NMNM136226
WELL NAME & NO.:	201H – LESLIE FEDERAL COM
SURFACE HOLE FOOTAGE:	295'/S & 1132'/W
BOTTOM HOLE FOOTAGE	100'/N & 450'/W
LOCATION:	Section 17.,T25S., R.35E., NMP
COUNTY:	LEA County, New Mexico

Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP

All previous COAs still apply, except for the following:

A. CASING

1. The **13 3/8** inch surface casing shall be set at approximately **950** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

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

2. The minimum required fill of cement behind the **9 5/8** inch first intermediate casing is:
    - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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

3. The minimum required fill of cement behind the **7 5/8** inch second intermediate casing is:

    - Cement as proposed. Operator shall provide method of verification.

4. The minimum required fill of cement behind the **5 1/2** inch production casing is:

    - Cement as proposed. Operator shall provide method of verification.

MHH 12202018

GENERAL REQUIREMENTS

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

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

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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.

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.

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.