

Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD – HOBBS
12/01/2020
RECEIVED

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.

5. Lease Serial No.
NMLC063228

6. If Indian, Allottee or Tribe Name

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

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		8. Well Name and No. WILD SALSA FED COM 404H
2. Name of Operator TITUS OIL AND GAS PRODUCTION IE-Mail: rdelong@tutusoil.com		9. API Well No. 30-025-47640-00-X1
3a. Address 420 THROCKMORTON ST., SUITE 1150 FORT WORTH, TX 76102	3b. Phone No. (include area code) Ph: 817.852.6370	10. Field and Pool or Exploratory Area DIAMONDTAIL
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 25 T23S R32E Tract A 653FNL 1211FEL 32.281204 N Lat, 103.623695 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			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Hydraulic Fracturing	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Change to Original APD
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> 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.

Titus respectfully requests the following changes to the approved APD:

Well Number change from "405H" to "404H"

BHL change from 10' FNL & 990' FEL to 10' FNL & 1658' FEL, Sec 13, T23S R32E (See attached C-102/plat)

Equipment change to multi-bowl wellhead (see attached schematics)

Intermediate cement change from single stage to two-stage (see attached drilling plan)

Exception to WOC COA's (see attached email)

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #533709 verified by the BLM Well Information System For TITUS OIL AND GAS PRODUCTION L, sent to the Hobbs Committed to AFMSS for processing by DEBORAH HAM on 10/14/2020 (21DMH0009SE)	
Name (Printed/Typed) RYAN DELONG	Title REGULATORY MANAGER
Signature (Electronic Submission)	Date 10/13/2020

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>YOLANDA JIMENEZ</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>10/24/2020</u>
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 <u>Hobbs</u>

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 ****

Additional data for EC transaction #533709 that would not fit on the form

32. Additional remarks, continued

Attachments:

Updated C-102/Survey Plat

Updated Drilling Plan

7-5/8" L80 HC Performance Data Sheet

Multi-Bowl Wellhead Schematic

Updated Directional Plan

Updated Directional AC Report

Email from Tim Smith to Yolanda Jimenez

Revisions to Operator-Submitted EC Data for Sundry Notice #533709

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	APDCH NOI	APDCH NOI
Lease:	NMLC063228	NMLC063228
Agreement:		
Operator:	TITUS OIL&GAS PRODUCTION, LLC 420 THROCKMORTON STREET SUITE 1150 FORT WORTH, TX 76102 Ph: 817-852-6358	TITUS OIL AND GAS PRODUCTION L 420 THROCKMORTON ST., SUITE 1150 FORT WORTH, TX 76102 Ph: 8178526358
Admin Contact:	RYAN DELONG REGULATORY MANAGER E-Mail: rdelong@titusoil.com Ph: 817-852-6358	RYAN DELONG REGULATORY MANAGER E-Mail: rdelong@tutusoil.com Cell: 405.664.5188 Ph: 817.852.6370
Tech Contact:	RYAN DELONG REGULATORY MANAGER E-Mail: rdelong@titusoil.com Ph: 817-852-6358	RYAN DELONG REGULATORY MANAGER E-Mail: rdelong@tutusoil.com Cell: 405.664.5188 Ph: 817.852.6370
Location:		
State:	NM	NM
County:	LEA	LEA
Field/Pool:	DIAMONDTAIL; WOLFCAMP	DIAMONDTAIL
Well/Facility:	WILD SALSA 24-13 FED 405H Sec 25 T23S R32E Mer NMP 653FNL 1211FEL 32.281204 N Lat, 103.623697 W Lon	WILD SALSA FED COM 404H Sec 25 T23S R32E Tract A 653FNL 1211FEL 32.281204 N Lat, 103.623695 W Lon

25-23S-32E-A ATS-19-2748 Wild Salsa Fed Com 404H Lea NMLC0063228 Titus Oil & Gas Production LLC 13-22b
 8-19-2020 Yolanda Jimenez Sundry Update 10-24-2020

Wild Salsa Fed Com 404H

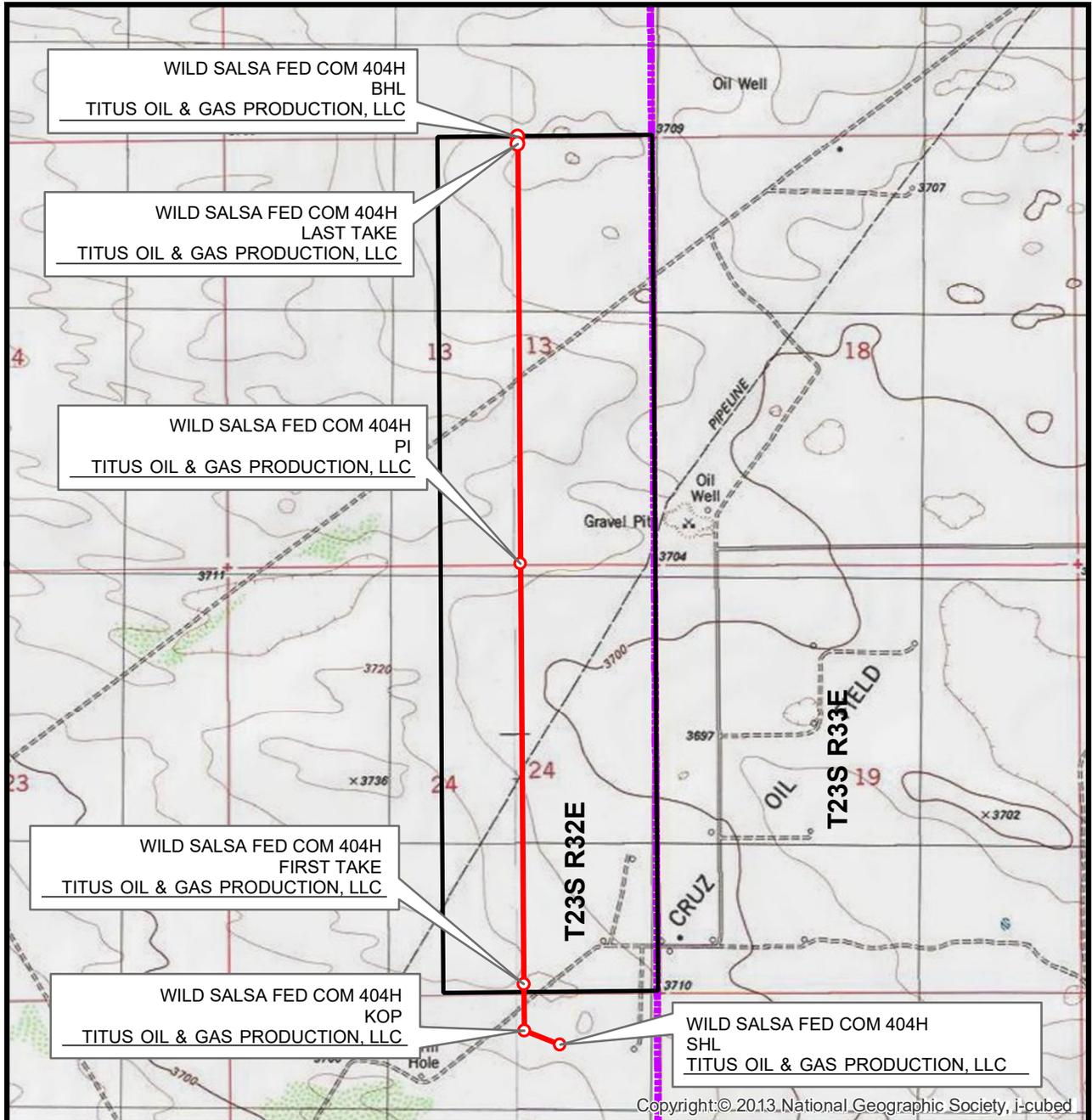
10 3/4	surface csg in a	13 1/2	inch hole.	Design Factors						Surface		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	45.50	J 55	BTC	11.73	3.41	0.66	1,340	6	1.24	6.58	60,970	
"B"			BTC				0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,500							Totals:	1,340			60,970	
Comparison of Proposed to Minimum Required Cement Volumes												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
13 1/2	0.3637	600	948	487	94	8.80	2888	3M			0.88	
Burst Frac Gradient(s) for Segment(s) A, B = , b All > 0.70, OK. Site plot (pipe racks S or E) as per O.D. Lill D & L not found.												

7 5/8	casing inside the	10 3/4		Design Factors						Int 1		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	29.70	L HP 80	BTC	2.09	1.14	1.34	11,668	1	2.53	2.15	346,540	
"B"							0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	11,668			346,540	
The cement volume(s) are intended to achieve a top of 0 ft from surface or a 1340 overlap.												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
9 7/8	0.2148	800	2181	2517	-13	9.00	4578	5M			0.69	
Class 'H' tail cmt yld > 1.20 MASP is within 10% of 5000psig, need exrta equip?												

5 1/2	casing inside the	7 5/8		Design Factors						Prod 1		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"	20.00	P 110	BTC	2.75	1.55	1.77	11,650	2	2.76	2.42	233,000	
"B"	18.00	P 110	BTC	∞	1.89	1.91	11,605	2	2.97	2.94	208,890	
w/8.4#/g mud, 30min Sfc Csg Test psig: 2,563							Totals:	23,255			441,890	
The cement volume(s) are intended to achieve a top of 11350 ft from surface or a 318 overlap.												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
6 3/4	0.0835	1650	2565	997	157	11.80					0.35	
Class 'C' tail cmt yld > 1.35												

#N/A	0	5 1/2		Design Factors						<Choose Casing>		
Segment	#/ft	Grade	Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weight	
"A"			0.00				0				0	
"B"			0.00				0				0	
w/8.4#/g mud, 30min Sfc Csg Test psig:							Totals:	0			0	
Cmt vol calc below includes this csg, TOC intended #N/A ft from surface or a #N/A overlap.												
Hole Size	Annular Volume	1 Stage Cmt Sx	1 Stage CuFt Cmt	Min Cu Ft	1 Stage % Excess	Drilling Mud Wt	Calc MASP	Req'd BOPE			Min Dist Hole-Cplg	
0		#N/A	#N/A	0	#N/A							
#N/A Capitan Reef est top XXXX.												

LOCATION VERIFICATION MAP



Copyright:© 2013.National Geographic Society, i-cubed

SEC. 25 TWP. 23-S RGE. 32-E
 SURVEY: N.M.P.M.
 COUNTY: LEA
 OPERATOR: TITUS OIL & GAS PRODUCTION, LLC
 DESCRIPTION: 653' FNL & 1211' FEL
 ELEVATION: 3720'
 LEASE: WILD SALSA FED COM
 U.S.G.S. TOPOGRAPHIC MAP: TIP TOP WELLS, NM.

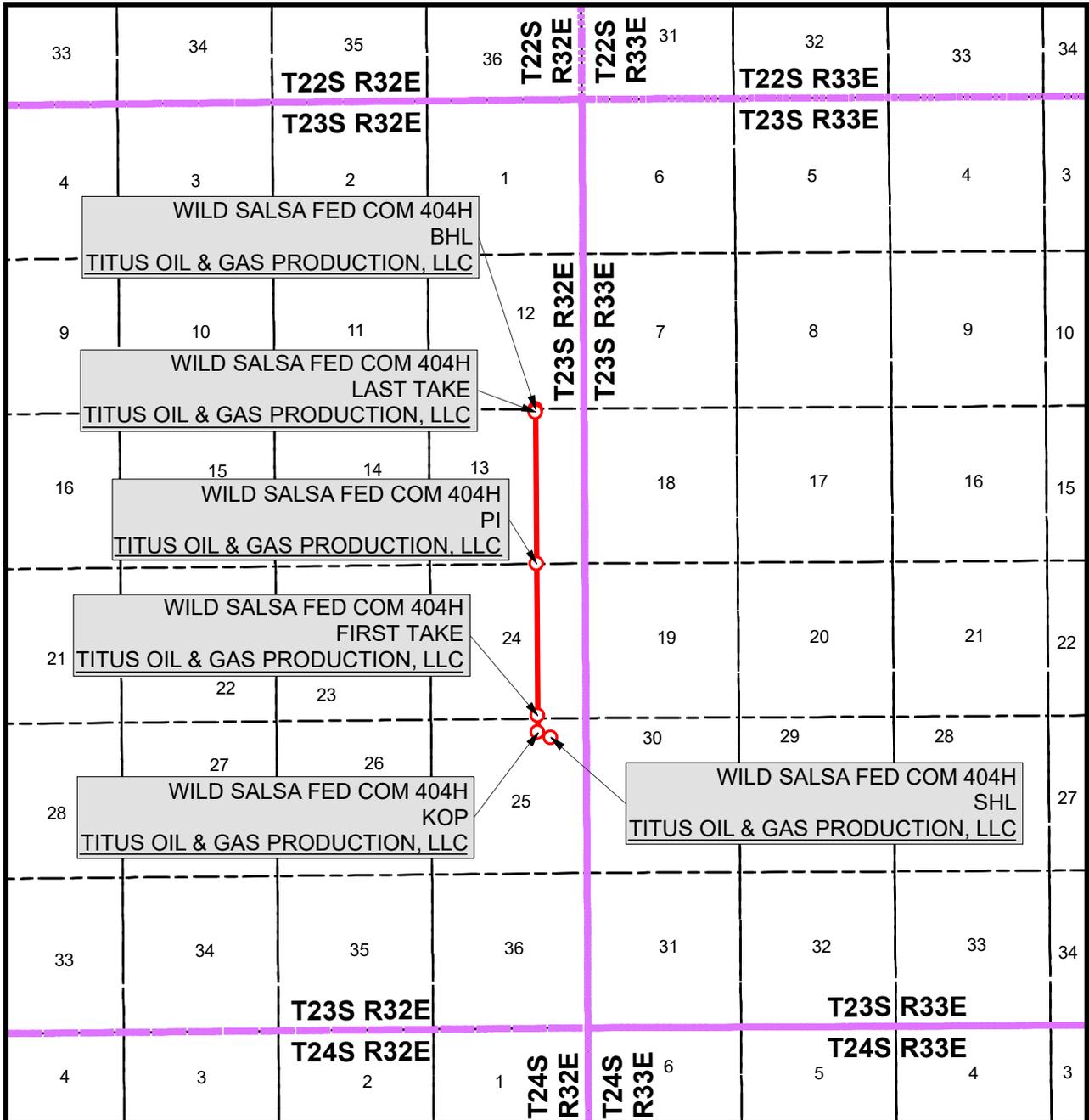
1" = 2,000'
 CONTOUR INTERVAL = 10'



SHEET 2 OF 3

PREPARED BY:
 R-SQUARED GLOBAL, LLC
 1309 LOUISVILLE AVENUE, MONROE, LA 71201
 318-323-6900 OFFICE
 JOB No. R4009_001_A

VICINITY MAP



SEC. 25 TWP. 23-S RGE. 32-E
 SURVEY: N.M.P.M.
 COUNTY: LEA
 OPERATOR: TITUS OIL & GAS PRODUCTION, LLC
 DESCRIPTION: 653' FNL & 1211' FEL
 ELEVATION: 3720'
 LEASE: WILD SALSA FED COM
 U.S.G.S. TOPOGRAPHIC MAP: TIP TOP WELLS, NM.

1" = 1 MILE



SHEET 3 OF 3

PREPARED BY:
 R-SQUARED GLOBAL, LLC
 1309 LOUISVILLE AVENUE, MONROE, LA 71201
 318-323-6900 OFFICE
 JOB No. R4009_001_A

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

1. Geologic Formations

TVD of target	12,373' EOL	Pilot hole depth	NA
MD at TD:	23,255'	Deepest expected fresh water:	400'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1315	Water	
Top of Salt	1350	Salt	
Base of Salt	4817	Salt	
Lamar	5015	Salt Water	
Delaware	5097	Salt Water	
Bone Spring Lime	8862	Oil/Gas	
1st Bone Spring	10002	Oil/Gas	
2nd Bone Spring	10622	Oil/Gas	
3rd Bone spring	11900	Oil/Gas	
Wolfcamp	12208	Oil/Gas	
Wolfcamp X Sand	12242	Oil/Gas	
Wolfcamp Y Sand	12296	Target Oil/Gas	
x	x	Not Penetrated	
x	x	Not Penetrated	

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body
	From	To							
13.5"	0	1340	10.75"	45.5	J55	BTC	3.41	0.82	11.73
9.875"	0	11850	7.625"	29.7	HCL80	BTC	1.19	1.08	2.06
6.75"	0	11650	5.5"	20	P110	BTC	1.91	1.99	3.27
6.75"	11650	23,255	5"	18	P110	BTC	1.91	1.99	3.27
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse. Surface burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface and All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

The 5" casing will be run back 200' into the intermediate casing to ensure the coupling OD clearance is greater than .422" for the cement bond tie in.

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	350	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl ₂
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl ₂
Int Stg 1	500	10.3	3.6	22.95	16	TXI Lightweight Blend
	300	15.0	1.27	5.72	8	Tail: Class H
Int Stg 2	800	12.7	2.0	11.16	16	TXI Lightweight Blend
	100	14.8	1.33	6.33	8	Tail: Class H
Prod	350	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	1300	14.2	1.3	6.2	19	Tail: 50:50:2 Class H Blend

Operator will utilize a DVT/ECP on the 7.625" Intermediate casing to pump a 2-stage cement job.

The DVT/ECP will be place +/- 5,000' near the Lamar in gauge competent formation.

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results

Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0'	50%
1 st Intermediate	0'	50%
Production	11,350'	35% OH in Lateral (KOP to EOL)

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
9-7/8"	13-5/8"	3M	Annular	x	3000 psi
			Blind Ram		3M
			Pipe Ram		
			Double Ram		
			Other*		
6-3/4"	13-5/8"	5M	Annular	x	50% testing pressure
			Blind Ram	x	5M
			VBR Ram	x	
			VBR Ram	x	
			Other*		

See attached 5M Annular Variance Well Control plan for Titus Oil & Gas Production, LLC.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Nova N-Gauge	8.4 - 9	28-34	N/C
7-5/8" Int shoe	Lateral TD	OBM	10.8 - 11.8	35-45	<20

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

Titus Oil & Gas Production, LLC - Wild Salsa Fed Com 404H

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7595 psi at 12373' TVD
Abnormal Temperature	NO 180 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
N	Is casing pre-set?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	Multibowl Schematic



PERFORMANCE DATA SHEET

WHERE CUSTOMERS COME FIRST – ALWAYS

Revision 1.0 Dated 7/28/2020

7 5/8" 29.70# High Collapse L80 with Buttress Threads

DIMENSIONAL DATA

Casing OD	7.625 in.	Pipe Grade	HC L80
Coupling OD	8.500 in.	Coupling Grade	L80
Pipe Gauge	.375 in.	T&C WPF	29.70 lb/ft
Drift Diameter	6.750 in.	PE WPF	29.06 lb/ft

MECHANICAL DATA

Pipe Yield	80,000 psi	Collapse Pressure	6,620 psi
Pipe Tensile	95,000 psi	Internal Yield Pressure	6,890 psi
Coupling Yield	80,000 psi	PE Body Yield	683,000 lbs
Coupling Tensile	95,000 psi	Pipe Hydrostatic Test	6,300 psi

CONNECTION DATA

Thread Name	Buttress	Coupling Thread Fracture	1,177,000 lbs
Leak @ E1 Or E7 Plane	12,680 psi	Pipe Thread Fracture	721,000 lbs

LEGAL NOTICE

ALL MATERIAL CONTAINED IN THIS PUBLICATION IS FOR GENERAL INFORMATION ONLY. THIS MATERIAL SHOULD NOT THEREFORE, BE USED OR RELIED UPON FOR ANY SPECIFIC APPLICATION WITHOUT INDEPENDENT COMPETENT PROFESSIONAL EXAMINATION AND VERIFICATION OF ITS ACCURACY, SUITABILITY AND APPLICABILITY. ANY ONE MAKING USE OF THIS MATERIAL DOES SO AT THEIR OWN RISK AND ASSUMES ANY AND ALL LIABILITY RESULTING FROM SUCH USE. BOOMERANG TUBE, LLC DISCLAIMS ANY AND ALL EXPRESSED OR IMPLIED WARRANTIES OF FITNESS FOR ANY GENERAL OR PARTICULAR APPLICATION. TORQUE VALUES ARE CALCULATED ESTIMATES BASED ON API RP 5C1 AND SHOULD NOT BE CONSTRUED AS THE FINAL MAKE UP AUTHORITY AT THE WELLSITE.

Titus Oil & Gas Production, LLC
 Project: Lea County, NM (NAD83-NME)
 Site: A05_Wild Salsa
 Well: Wild Salsa Fed Com 404H
 Wellbore: #404H
 Plan: ADP - Rev1

WELL DETAILS: Wild Salsa Fed Com 404H

Northing	Easting	Latitude	Longitude	Slot
466760.22	760644.71	32.28120406	-103.62369694	404H



Azimuths to Grid North
 True North: -0.38°
 Magnetic North: 6.29°
 Magnetic Field
 Strength: 47603.9snT
 Dip Angle: 59.97°
 Date: 8/26/2020
 Model: IGRF2020

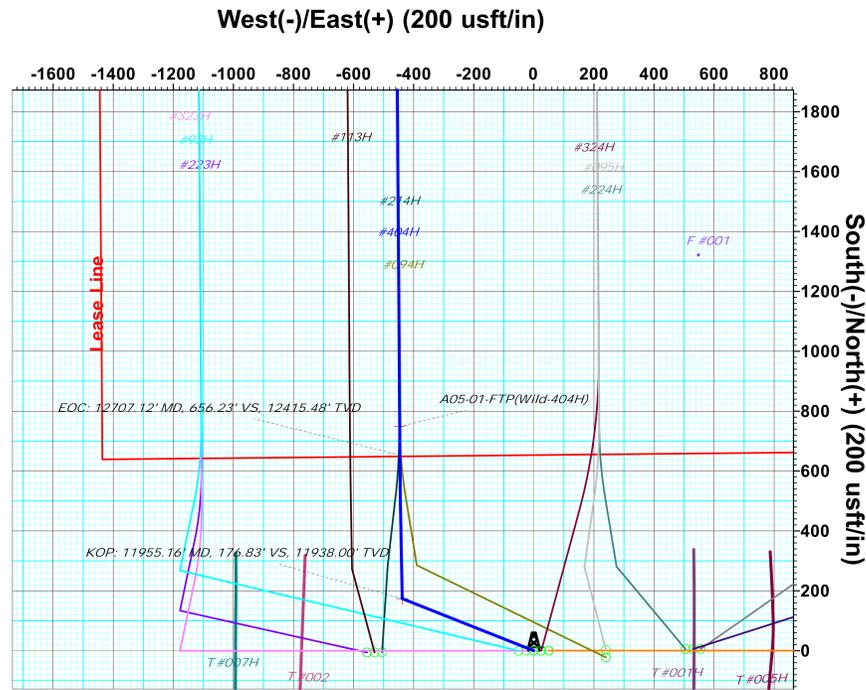
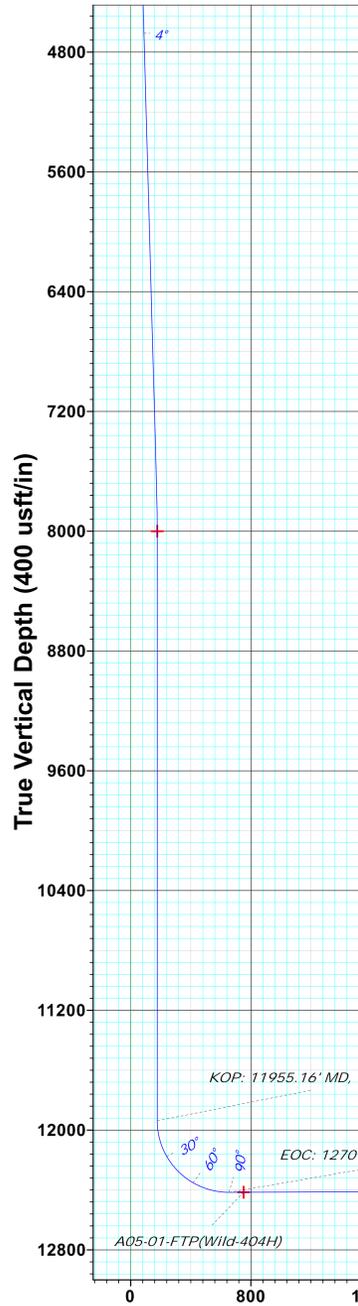
PROJECT DETAILS: Lea County, NM (NAD83-NME)
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level
 Local North: Grid
 Grid Convergence: 0.38° West
 KB Elevation: KB @ 3745.00usft
 Elevation: 3720.00

Section Details

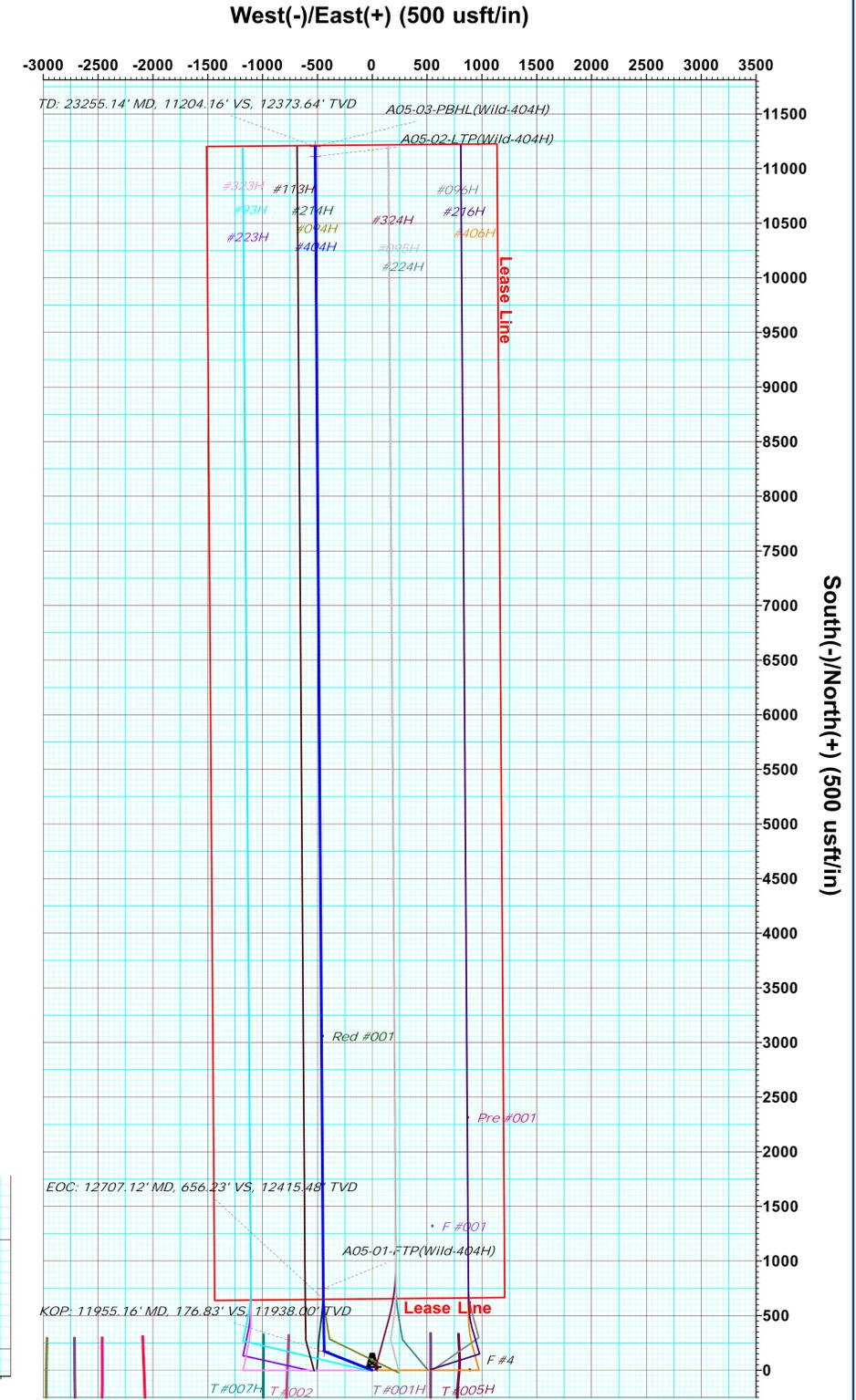
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	1350.00	0.00	0.00	1350.00	0.00	0.00	0.00	0.00	0.00
3	1632.22	4.23	291.64	1631.96	3.84	-9.69	1.50	291.64	3.91
4	7734.95	4.23	291.64	7718.04	169.93	-428.43	0.00	0.00	172.92
5	8017.16	0.00	0.00	8000.00	173.78	-438.12	1.50	180.00	176.83
6	11955.16	0.00	0.00	11938.00	173.78	-438.12	0.00	0.00	176.83
7	12455.16	60.00	359.60	12351.50	412.47	-442.70	12.00	358.90	415.55
8	12707.12	90.23	359.60	12415.48	653.13	-445.76	12.00	1.38	656.22
9	23165.14	90.23	359.60	12374.00	11110.81	-519.60	0.00	0.00	11114.17
10	23255.14	90.23	359.60	12373.64	11200.81	-520.24	0.00	0.00	11204.17

DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting
A05-00-EON(Wild-L4-C)	173.78	-438.12	466934.00	760206.59
A05-03-PBHL(Wild-404H)	11200.81	-520.23	477961.03	760124.48
A05-02-LTP(Wild-404H)	11110.81	-519.60	477871.03	760125.11
A05-01-FTP(Wild-404H)	748.70	-446.99	467508.92	760197.72



Vertical Section at 359.60° (400 usft/in)





Titus Oil & Gas Production, LLC

Lea County, NM (NAD83-NME)

A05_Wild Salsa

Wild Salsa Fed Com 404H - Slot 404H

#404H

Plan: ADP - Rev1

Standard Planning Report

14 September, 2020



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

Project	Lea County, NM (NAD83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	A05_Wild Salsa				
Site Position:	Northing:	466,757.00 usft	Latitude:	32.28120093	
From: Map	Easting:	760,329.60 usft	Longitude:	-103.62471658	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.38 °

Well	Wild Salsa Fed Com 404H - Slot 404H					
Well Position	+N/-S	3.22 usft	Northing:	466,760.22 usft	Latitude:	32.28120406
	+E/-W	315.11 usft	Easting:	760,644.71 usft	Longitude:	-103.62369694
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,720.00 usft

Wellbore	#404H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	8/26/2020	6.67	59.97	47,603.88447583

Design	ADP - Rev1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.60

Plan Survey Tool Program	Date	9/14/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	23,255.15 ADP - Rev1 (#404H)	MWD+IFR1+SAG+MS OWSG MWD + IFR1 + Sag + M	



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,632.22	4.23	291.64	1,631.96	3.84	-9.69	1.50	1.50	0.00	291.64	
7,734.95	4.23	291.64	7,718.04	169.93	-428.43	0.00	0.00	0.00	0.00	
8,017.16	0.00	0.01	8,000.00	173.78	-438.12	1.50	-1.50	0.00	180.00	A05-00-EON(Wild-L4-
11,955.16	0.00	0.01	11,938.00	173.78	-438.12	0.00	0.00	0.00	0.01	
12,455.16	60.00	358.90	12,351.50	412.47	-442.70	12.00	12.00	0.00	358.90	
12,707.12	90.23	359.60	12,415.48	653.13	-445.76	12.00	12.00	0.28	1.38	
23,165.14	90.23	359.60	12,374.00	11,110.81	-519.60	0.00	0.00	0.00	0.00	A05-02-LTP(Wild-404
23,255.15	90.23	359.60	12,373.64	11,200.81	-520.24	0.00	0.00	0.00	0.00	A05-03-PBHL(Wild-40



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,350.00	0.00	0.00	1,350.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.75	291.64	1,400.00	0.12	-0.30	0.12	1.50	1.50	0.00	0.00
1,500.00	2.25	291.64	1,499.96	1.09	-2.74	1.10	1.50	1.50	0.00	0.00
1,600.00	3.75	291.64	1,599.82	3.02	-7.60	3.07	1.50	1.50	0.00	0.00
1,632.22	4.23	291.64	1,631.96	3.84	-9.69	3.91	1.50	1.50	0.00	0.00
1,700.00	4.23	291.64	1,699.56	5.69	-14.34	5.79	0.00	0.00	0.00	0.00
1,800.00	4.23	291.64	1,799.29	8.41	-21.20	8.56	0.00	0.00	0.00	0.00
1,900.00	4.23	291.64	1,899.01	11.13	-28.06	11.33	0.00	0.00	0.00	0.00
2,000.00	4.23	291.64	1,998.74	13.85	-34.92	14.10	0.00	0.00	0.00	0.00
2,100.00	4.23	291.64	2,098.47	16.57	-41.78	16.86	0.00	0.00	0.00	0.00
2,200.00	4.23	291.64	2,198.19	19.30	-48.65	19.63	0.00	0.00	0.00	0.00
2,300.00	4.23	291.64	2,297.92	22.02	-55.51	22.40	0.00	0.00	0.00	0.00
2,400.00	4.23	291.64	2,397.65	24.74	-62.37	25.17	0.00	0.00	0.00	0.00
2,500.00	4.23	291.64	2,497.38	27.46	-69.23	27.94	0.00	0.00	0.00	0.00
2,600.00	4.23	291.64	2,597.10	30.18	-76.09	30.71	0.00	0.00	0.00	0.00
2,700.00	4.23	291.64	2,696.83	32.90	-82.95	33.48	0.00	0.00	0.00	0.00
2,800.00	4.23	291.64	2,796.56	35.62	-89.82	36.25	0.00	0.00	0.00	0.00
2,900.00	4.23	291.64	2,896.28	38.35	-96.68	39.02	0.00	0.00	0.00	0.00
3,000.00	4.23	291.64	2,996.01	41.07	-103.54	41.79	0.00	0.00	0.00	0.00
3,100.00	4.23	291.64	3,095.74	43.79	-110.40	44.56	0.00	0.00	0.00	0.00
3,200.00	4.23	291.64	3,195.47	46.51	-117.26	47.33	0.00	0.00	0.00	0.00
3,300.00	4.23	291.64	3,295.19	49.23	-124.12	50.10	0.00	0.00	0.00	0.00
3,400.00	4.23	291.64	3,394.92	51.95	-130.99	52.87	0.00	0.00	0.00	0.00
3,500.00	4.23	291.64	3,494.65	54.68	-137.85	55.64	0.00	0.00	0.00	0.00
3,600.00	4.23	291.64	3,594.37	57.40	-144.71	58.41	0.00	0.00	0.00	0.00
3,700.00	4.23	291.64	3,694.10	60.12	-151.57	61.18	0.00	0.00	0.00	0.00
3,800.00	4.23	291.64	3,793.83	62.84	-158.43	63.95	0.00	0.00	0.00	0.00
3,900.00	4.23	291.64	3,893.56	65.56	-165.29	66.71	0.00	0.00	0.00	0.00
4,000.00	4.23	291.64	3,993.28	68.28	-172.16	69.48	0.00	0.00	0.00	0.00
4,100.00	4.23	291.64	4,093.01	71.01	-179.02	72.25	0.00	0.00	0.00	0.00
4,200.00	4.23	291.64	4,192.74	73.73	-185.88	75.02	0.00	0.00	0.00	0.00
4,300.00	4.23	291.64	4,292.47	76.45	-192.74	77.79	0.00	0.00	0.00	0.00
4,400.00	4.23	291.64	4,392.19	79.17	-199.60	80.56	0.00	0.00	0.00	0.00
4,500.00	4.23	291.64	4,491.92	81.89	-206.46	83.33	0.00	0.00	0.00	0.00
4,600.00	4.23	291.64	4,591.65	84.61	-213.32	86.10	0.00	0.00	0.00	0.00
4,700.00	4.23	291.64	4,691.37	87.34	-220.19	88.87	0.00	0.00	0.00	0.00
4,800.00	4.23	291.64	4,791.10	90.06	-227.05	91.64	0.00	0.00	0.00	0.00
4,900.00	4.23	291.64	4,890.83	92.78	-233.91	94.41	0.00	0.00	0.00	0.00
5,000.00	4.23	291.64	4,990.56	95.50	-240.77	97.18	0.00	0.00	0.00	0.00
5,100.00	4.23	291.64	5,090.28	98.22	-247.63	99.95	0.00	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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)
5,200.00	4.23	291.64	5,190.01	100.94	-254.49	102.72	0.00	0.00	0.00
5,300.00	4.23	291.64	5,289.74	103.66	-261.36	105.49	0.00	0.00	0.00
5,400.00	4.23	291.64	5,389.46	106.39	-268.22	108.26	0.00	0.00	0.00
5,500.00	4.23	291.64	5,489.19	109.11	-275.08	111.03	0.00	0.00	0.00
5,600.00	4.23	291.64	5,588.92	111.83	-281.94	113.80	0.00	0.00	0.00
5,700.00	4.23	291.64	5,688.65	114.55	-288.80	116.56	0.00	0.00	0.00
5,800.00	4.23	291.64	5,788.37	117.27	-295.66	119.33	0.00	0.00	0.00
5,900.00	4.23	291.64	5,888.10	119.99	-302.53	122.10	0.00	0.00	0.00
6,000.00	4.23	291.64	5,987.83	122.72	-309.39	124.87	0.00	0.00	0.00
6,100.00	4.23	291.64	6,087.55	125.44	-316.25	127.64	0.00	0.00	0.00
6,200.00	4.23	291.64	6,187.28	128.16	-323.11	130.41	0.00	0.00	0.00
6,300.00	4.23	291.64	6,287.01	130.88	-329.97	133.18	0.00	0.00	0.00
6,400.00	4.23	291.64	6,386.74	133.60	-336.83	135.95	0.00	0.00	0.00
6,500.00	4.23	291.64	6,486.46	136.32	-343.70	138.72	0.00	0.00	0.00
6,600.00	4.23	291.64	6,586.19	139.05	-350.56	141.49	0.00	0.00	0.00
6,700.00	4.23	291.64	6,685.92	141.77	-357.42	144.26	0.00	0.00	0.00
6,800.00	4.23	291.64	6,785.64	144.49	-364.28	147.03	0.00	0.00	0.00
6,900.00	4.23	291.64	6,885.37	147.21	-371.14	149.80	0.00	0.00	0.00
7,000.00	4.23	291.64	6,985.10	149.93	-378.00	152.57	0.00	0.00	0.00
7,100.00	4.23	291.64	7,084.83	152.65	-384.87	155.34	0.00	0.00	0.00
7,200.00	4.23	291.64	7,184.55	155.38	-391.73	158.11	0.00	0.00	0.00
7,300.00	4.23	291.64	7,284.28	158.10	-398.59	160.88	0.00	0.00	0.00
7,400.00	4.23	291.64	7,384.01	160.82	-405.45	163.65	0.00	0.00	0.00
7,500.00	4.23	291.64	7,483.74	163.54	-412.31	166.41	0.00	0.00	0.00
7,600.00	4.23	291.64	7,583.46	166.26	-419.17	169.18	0.00	0.00	0.00
7,700.00	4.23	291.64	7,683.19	168.98	-426.04	171.95	0.00	0.00	0.00
7,734.95	4.23	291.64	7,718.04	169.93	-428.43	172.92	0.00	0.00	0.00
7,800.00	3.26	291.64	7,782.95	171.50	-432.38	174.52	1.50	-1.50	0.00
7,900.00	1.76	291.64	7,882.86	173.11	-436.45	176.16	1.50	-1.50	0.00
8,000.00	0.26	291.64	7,982.84	173.76	-438.08	176.82	1.50	-1.50	0.00
8,017.16	0.00	0.01	8,000.00	173.78	-438.12	176.83	1.50	-1.50	0.00
A05-00-EON(Wild-L4-C)									
8,100.00	0.00	0.00	8,082.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,200.00	0.00	0.00	8,182.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,300.00	0.00	0.00	8,282.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,400.00	0.00	0.00	8,382.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,500.00	0.00	0.00	8,482.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,600.00	0.00	0.00	8,582.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,700.00	0.00	0.00	8,682.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,800.00	0.00	0.00	8,782.84	173.78	-438.12	176.83	0.00	0.00	0.00
8,900.00	0.00	0.00	8,882.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,000.00	0.00	0.00	8,982.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,100.00	0.00	0.00	9,082.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,200.00	0.00	0.00	9,182.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,300.00	0.00	0.00	9,282.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,400.00	0.00	0.00	9,382.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,500.00	0.00	0.00	9,482.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,600.00	0.00	0.00	9,582.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,700.00	0.00	0.00	9,682.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,800.00	0.00	0.00	9,782.84	173.78	-438.12	176.83	0.00	0.00	0.00
9,900.00	0.00	0.00	9,882.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,000.00	0.00	0.00	9,982.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,100.00	0.00	0.00	10,082.84	173.78	-438.12	176.83	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,200.00	0.00	0.00	10,182.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,300.00	0.00	0.00	10,282.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,400.00	0.00	0.00	10,382.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,500.00	0.00	0.00	10,482.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,600.00	0.00	0.00	10,582.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,700.00	0.00	0.00	10,682.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,800.00	0.00	0.00	10,782.84	173.78	-438.12	176.83	0.00	0.00	0.00
10,900.00	0.00	0.00	10,882.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,000.00	0.00	0.00	10,982.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,100.00	0.00	0.00	11,082.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,200.00	0.00	0.00	11,182.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,300.00	0.00	0.00	11,282.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,400.00	0.00	0.00	11,382.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,500.00	0.00	0.00	11,482.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,600.00	0.00	0.00	11,582.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,700.00	0.00	0.00	11,682.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,800.00	0.00	0.00	11,782.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,900.00	0.00	0.00	11,882.84	173.78	-438.12	176.83	0.00	0.00	0.00
11,955.16	0.00	0.00	11,938.00	173.78	-438.12	176.83	0.00	0.00	0.00
KOP: 11955.16' MD, 176.83' VS, 11938.00' TVD									
11,975.00	2.38	358.90	11,957.83	174.19	-438.13	177.24	12.00	12.00	0.00
12,000.00	5.38	358.90	11,982.77	175.88	-438.16	178.93	12.00	12.00	0.00
12,025.00	8.38	358.90	12,007.59	178.87	-438.22	181.93	12.00	12.00	0.00
12,050.00	11.38	358.90	12,032.22	183.16	-438.30	186.22	12.00	12.00	0.00
12,075.00	14.38	358.90	12,056.58	188.73	-438.41	191.79	12.00	12.00	0.00
12,100.00	17.38	358.90	12,080.63	195.57	-438.54	198.63	12.00	12.00	0.00
12,125.00	20.38	358.90	12,104.28	203.66	-438.69	206.72	12.00	12.00	0.00
12,150.00	23.38	358.90	12,127.48	212.97	-438.87	216.03	12.00	12.00	0.00
12,175.00	26.38	358.90	12,150.15	223.49	-439.07	226.55	12.00	12.00	0.00
12,200.00	29.38	358.90	12,172.25	235.18	-439.30	238.24	12.00	12.00	0.00
12,225.00	32.38	358.90	12,193.70	248.00	-439.55	251.07	12.00	12.00	0.00
12,250.00	35.38	358.90	12,214.45	261.94	-439.81	265.00	12.00	12.00	0.00
12,275.00	38.38	358.90	12,234.45	276.94	-440.10	280.00	12.00	12.00	0.00
12,300.00	41.38	358.90	12,253.63	292.96	-440.41	296.03	12.00	12.00	0.00
12,325.00	44.38	358.90	12,271.95	309.97	-440.73	313.04	12.00	12.00	0.00
12,350.00	47.38	358.90	12,289.35	327.91	-441.08	330.98	12.00	12.00	0.00
12,375.00	50.38	358.90	12,305.79	346.74	-441.44	349.81	12.00	12.00	0.00
12,400.00	53.38	358.90	12,321.22	366.40	-441.82	369.47	12.00	12.00	0.00
12,425.00	56.38	358.90	12,335.60	386.84	-442.21	389.92	12.00	12.00	0.00
12,450.00	59.38	358.90	12,348.89	408.01	-442.62	411.09	12.00	12.00	0.00
12,455.16	60.00	358.90	12,351.50	412.47	-442.70	415.55	12.00	12.00	0.00
12,475.00	62.38	358.96	12,361.06	429.84	-443.03	432.93	12.00	12.00	0.33
12,500.00	65.38	359.04	12,372.06	452.28	-443.42	455.37	12.00	12.00	0.31
12,525.00	68.38	359.12	12,381.88	475.27	-443.79	478.36	12.00	12.00	0.30
12,550.00	71.38	359.19	12,390.48	498.74	-444.13	501.83	12.00	12.00	0.28
12,575.00	74.38	359.26	12,397.84	522.63	-444.46	525.72	12.00	12.00	0.27
12,600.00	77.38	359.32	12,403.94	546.87	-444.76	549.96	12.00	12.00	0.27
12,625.00	80.38	359.39	12,408.76	571.39	-445.03	574.48	12.00	12.00	0.26
12,650.00	83.37	359.45	12,412.29	596.14	-445.28	599.23	12.00	12.00	0.26
12,675.00	86.37	359.51	12,414.53	621.03	-445.51	624.13	12.00	12.00	0.25
12,700.00	89.37	359.58	12,415.45	646.01	-445.71	649.11	12.00	12.00	0.25
12,707.12	90.23	359.60	12,415.48	653.13	-445.76	656.23	11.99	11.99	0.25
EOC: 12707.12' MD, 656.23' VS, 12415.48' TVD									
12,800.00	90.23	359.60	12,415.11	746.01	-446.41	749.11	0.00	0.00	0.00



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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)	
12,802.70	90.23	359.60	12,415.10	748.70	-446.43	751.80	0.00	0.00	0.00	
A05-01-FTP(Wild-404H)										
12,900.00	90.23	359.60	12,414.71	846.00	-447.12	849.11	0.00	0.00	0.00	
13,000.00	90.23	359.60	12,414.32	946.00	-447.83	949.10	0.00	0.00	0.00	
13,100.00	90.23	359.60	12,413.92	1,046.00	-448.53	1,049.10	0.00	0.00	0.00	
13,200.00	90.23	359.60	12,413.52	1,145.99	-449.24	1,149.10	0.00	0.00	0.00	
13,300.00	90.23	359.60	12,413.13	1,245.99	-449.94	1,249.10	0.00	0.00	0.00	
13,400.00	90.23	359.60	12,412.73	1,345.99	-450.65	1,349.10	0.00	0.00	0.00	
13,500.00	90.23	359.60	12,412.33	1,445.99	-451.36	1,449.10	0.00	0.00	0.00	
13,600.00	90.23	359.60	12,411.94	1,545.98	-452.06	1,549.10	0.00	0.00	0.00	
13,700.00	90.23	359.60	12,411.54	1,645.98	-452.77	1,649.10	0.00	0.00	0.00	
13,800.00	90.23	359.60	12,411.14	1,745.98	-453.47	1,749.10	0.00	0.00	0.00	
13,900.00	90.23	359.60	12,410.75	1,845.97	-454.18	1,849.10	0.00	0.00	0.00	
14,000.00	90.23	359.60	12,410.35	1,945.97	-454.89	1,949.10	0.00	0.00	0.00	
14,100.00	90.23	359.60	12,409.95	2,045.97	-455.59	2,049.10	0.00	0.00	0.00	
14,200.00	90.23	359.60	12,409.56	2,145.96	-456.30	2,149.10	0.00	0.00	0.00	
14,300.00	90.23	359.60	12,409.16	2,245.96	-457.01	2,249.09	0.00	0.00	0.00	
14,400.00	90.23	359.60	12,408.76	2,345.96	-457.71	2,349.09	0.00	0.00	0.00	
14,500.00	90.23	359.60	12,408.37	2,445.95	-458.42	2,449.09	0.00	0.00	0.00	
14,600.00	90.23	359.60	12,407.97	2,545.95	-459.12	2,549.09	0.00	0.00	0.00	
14,700.00	90.23	359.60	12,407.57	2,645.95	-459.83	2,649.09	0.00	0.00	0.00	
14,800.00	90.23	359.60	12,407.18	2,745.94	-460.54	2,749.09	0.00	0.00	0.00	
14,900.00	90.23	359.60	12,406.78	2,845.94	-461.24	2,849.09	0.00	0.00	0.00	
15,000.00	90.23	359.60	12,406.38	2,945.94	-461.95	2,949.09	0.00	0.00	0.00	
15,100.00	90.23	359.60	12,405.99	3,045.93	-462.65	3,049.09	0.00	0.00	0.00	
15,200.00	90.23	359.60	12,405.59	3,145.93	-463.36	3,149.09	0.00	0.00	0.00	
15,300.00	90.23	359.60	12,405.19	3,245.93	-464.07	3,249.09	0.00	0.00	0.00	
15,400.00	90.23	359.60	12,404.80	3,345.92	-464.77	3,349.09	0.00	0.00	0.00	
15,500.00	90.23	359.60	12,404.40	3,445.92	-465.48	3,449.09	0.00	0.00	0.00	
15,600.00	90.23	359.60	12,404.00	3,545.92	-466.18	3,549.08	0.00	0.00	0.00	
15,700.00	90.23	359.60	12,403.61	3,645.91	-466.89	3,649.08	0.00	0.00	0.00	
15,800.00	90.23	359.60	12,403.21	3,745.91	-467.60	3,749.08	0.00	0.00	0.00	
15,900.00	90.23	359.60	12,402.81	3,845.91	-468.30	3,849.08	0.00	0.00	0.00	
16,000.00	90.23	359.60	12,402.42	3,945.90	-469.01	3,949.08	0.00	0.00	0.00	
16,100.00	90.23	359.60	12,402.02	4,045.90	-469.71	4,049.08	0.00	0.00	0.00	
16,200.00	90.23	359.60	12,401.62	4,145.90	-470.42	4,149.08	0.00	0.00	0.00	
16,300.00	90.23	359.60	12,401.23	4,245.89	-471.13	4,249.08	0.00	0.00	0.00	
16,400.00	90.23	359.60	12,400.83	4,345.89	-471.83	4,349.08	0.00	0.00	0.00	
16,500.00	90.23	359.60	12,400.43	4,445.89	-472.54	4,449.08	0.00	0.00	0.00	
16,600.00	90.23	359.60	12,400.04	4,545.88	-473.24	4,549.08	0.00	0.00	0.00	
16,700.00	90.23	359.60	12,399.64	4,645.88	-473.95	4,649.08	0.00	0.00	0.00	
16,800.00	90.23	359.60	12,399.24	4,745.88	-474.66	4,749.07	0.00	0.00	0.00	
16,900.00	90.23	359.60	12,398.85	4,845.87	-475.36	4,849.07	0.00	0.00	0.00	
17,000.00	90.23	359.60	12,398.45	4,945.87	-476.07	4,949.07	0.00	0.00	0.00	
17,100.00	90.23	359.60	12,398.06	5,045.87	-476.78	5,049.07	0.00	0.00	0.00	
17,200.00	90.23	359.60	12,397.66	5,145.86	-477.48	5,149.07	0.00	0.00	0.00	
17,300.00	90.23	359.60	12,397.26	5,245.86	-478.19	5,249.07	0.00	0.00	0.00	
17,400.00	90.23	359.60	12,396.87	5,345.86	-478.89	5,349.07	0.00	0.00	0.00	
17,500.00	90.23	359.60	12,396.47	5,445.85	-479.60	5,449.07	0.00	0.00	0.00	
17,600.00	90.23	359.60	12,396.07	5,545.85	-480.31	5,549.07	0.00	0.00	0.00	
17,700.00	90.23	359.60	12,395.68	5,645.85	-481.01	5,649.07	0.00	0.00	0.00	
17,800.00	90.23	359.60	12,395.28	5,745.84	-481.72	5,749.07	0.00	0.00	0.00	
17,900.00	90.23	359.60	12,394.88	5,845.84	-482.42	5,849.07	0.00	0.00	0.00	



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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)	
18,000.00	90.23	359.60	12,394.49	5,945.84	-483.13	5,949.07	0.00	0.00	0.00	
18,100.00	90.23	359.60	12,394.09	6,045.83	-483.84	6,049.06	0.00	0.00	0.00	
18,200.00	90.23	359.60	12,393.69	6,145.83	-484.54	6,149.06	0.00	0.00	0.00	
18,300.00	90.23	359.60	12,393.30	6,245.83	-485.25	6,249.06	0.00	0.00	0.00	
18,400.00	90.23	359.60	12,392.90	6,345.82	-485.95	6,349.06	0.00	0.00	0.00	
18,500.00	90.23	359.60	12,392.50	6,445.82	-486.66	6,449.06	0.00	0.00	0.00	
18,600.00	90.23	359.60	12,392.11	6,545.82	-487.37	6,549.06	0.00	0.00	0.00	
18,700.00	90.23	359.60	12,391.71	6,645.81	-488.07	6,649.06	0.00	0.00	0.00	
18,800.00	90.23	359.60	12,391.31	6,745.81	-488.78	6,749.06	0.00	0.00	0.00	
18,900.00	90.23	359.60	12,390.92	6,845.81	-489.48	6,849.06	0.00	0.00	0.00	
19,000.00	90.23	359.60	12,390.52	6,945.80	-490.19	6,949.06	0.00	0.00	0.00	
19,100.00	90.23	359.60	12,390.12	7,045.80	-490.90	7,049.06	0.00	0.00	0.00	
19,200.00	90.23	359.60	12,389.73	7,145.80	-491.60	7,149.06	0.00	0.00	0.00	
19,300.00	90.23	359.60	12,389.33	7,245.80	-492.31	7,249.06	0.00	0.00	0.00	
19,400.00	90.23	359.60	12,388.93	7,345.79	-493.02	7,349.05	0.00	0.00	0.00	
19,500.00	90.23	359.60	12,388.54	7,445.79	-493.72	7,449.05	0.00	0.00	0.00	
19,600.00	90.23	359.60	12,388.14	7,545.79	-494.43	7,549.05	0.00	0.00	0.00	
19,700.00	90.23	359.60	12,387.74	7,645.78	-495.13	7,649.05	0.00	0.00	0.00	
19,800.00	90.23	359.60	12,387.35	7,745.78	-495.84	7,749.05	0.00	0.00	0.00	
19,900.00	90.23	359.60	12,386.95	7,845.78	-496.55	7,849.05	0.00	0.00	0.00	
20,000.00	90.23	359.60	12,386.55	7,945.77	-497.25	7,949.05	0.00	0.00	0.00	
20,100.00	90.23	359.60	12,386.16	8,045.77	-497.96	8,049.05	0.00	0.00	0.00	
20,200.00	90.23	359.60	12,385.76	8,145.77	-498.66	8,149.05	0.00	0.00	0.00	
20,300.00	90.23	359.60	12,385.36	8,245.76	-499.37	8,249.05	0.00	0.00	0.00	
20,400.00	90.23	359.60	12,384.97	8,345.76	-500.08	8,349.05	0.00	0.00	0.00	
20,500.00	90.23	359.60	12,384.57	8,445.76	-500.78	8,449.05	0.00	0.00	0.00	
20,600.00	90.23	359.60	12,384.17	8,545.75	-501.49	8,549.05	0.00	0.00	0.00	
20,700.00	90.23	359.60	12,383.78	8,645.75	-502.19	8,649.04	0.00	0.00	0.00	
20,800.00	90.23	359.60	12,383.38	8,745.75	-502.90	8,749.04	0.00	0.00	0.00	
20,900.00	90.23	359.60	12,382.98	8,845.74	-503.61	8,849.04	0.00	0.00	0.00	
21,000.00	90.23	359.60	12,382.59	8,945.74	-504.31	8,949.04	0.00	0.00	0.00	
21,100.00	90.23	359.60	12,382.19	9,045.74	-505.02	9,049.04	0.00	0.00	0.00	
21,200.00	90.23	359.60	12,381.79	9,145.73	-505.72	9,149.04	0.00	0.00	0.00	
21,300.00	90.23	359.60	12,381.40	9,245.73	-506.43	9,249.04	0.00	0.00	0.00	
21,400.00	90.23	359.60	12,381.00	9,345.73	-507.14	9,349.04	0.00	0.00	0.00	
21,500.00	90.23	359.60	12,380.60	9,445.72	-507.84	9,449.04	0.00	0.00	0.00	
21,600.00	90.23	359.60	12,380.21	9,545.72	-508.55	9,549.04	0.00	0.00	0.00	
21,700.00	90.23	359.60	12,379.81	9,645.72	-509.25	9,649.04	0.00	0.00	0.00	
21,800.00	90.23	359.60	12,379.41	9,745.71	-509.96	9,749.04	0.00	0.00	0.00	
21,900.00	90.23	359.60	12,379.02	9,845.71	-510.67	9,849.03	0.00	0.00	0.00	
22,000.00	90.23	359.60	12,378.62	9,945.71	-511.37	9,949.03	0.00	0.00	0.00	
22,100.00	90.23	359.60	12,378.22	10,045.70	-512.08	10,049.03	0.00	0.00	0.00	
22,200.00	90.23	359.60	12,377.83	10,145.70	-512.79	10,149.03	0.00	0.00	0.00	
22,300.00	90.23	359.60	12,377.43	10,245.70	-513.49	10,249.03	0.00	0.00	0.00	
22,400.00	90.23	359.60	12,377.03	10,345.69	-514.20	10,349.03	0.00	0.00	0.00	
22,500.00	90.23	359.60	12,376.64	10,445.69	-514.90	10,449.03	0.00	0.00	0.00	
22,600.00	90.23	359.60	12,376.24	10,545.69	-515.61	10,549.03	0.00	0.00	0.00	
22,700.00	90.23	359.60	12,375.85	10,645.68	-516.32	10,649.03	0.00	0.00	0.00	
22,800.00	90.23	359.60	12,375.45	10,745.68	-517.02	10,749.03	0.00	0.00	0.00	
22,900.00	90.23	359.60	12,375.05	10,845.68	-517.73	10,849.03	0.00	0.00	0.00	
23,000.00	90.23	359.60	12,374.66	10,945.67	-518.43	10,949.03	0.00	0.00	0.00	
23,100.00	90.23	359.60	12,374.26	11,045.67	-519.14	11,049.03	0.00	0.00	0.00	
23,165.14	90.23	359.60	12,374.00	11,110.81	-519.60	11,114.17	0.00	0.00	0.00	

A05-02-LTP(Wild-404H)



Planning Report

Database:	EDM 5000.14 Single User Db	Local Co-ordinate Reference:	Well Wild Salsa Fed Com 404H - Slot 404H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	KB @ 3745.00usft
Project:	Lea County, NM (NAD83-NME)	MD Reference:	KB @ 3745.00usft
Site:	A05_Wild Salsa	North Reference:	Grid
Well:	Wild Salsa Fed Com 404H	Survey Calculation Method:	Minimum Curvature
Wellbore:	#404H		
Design:	ADP - Rev1		

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)	
23,200.00	90.23	359.60	12,373.86	11,145.67	-519.85	11,149.02	0.00	0.00	0.00	
23,255.14	90.23	359.60	12,373.64	11,200.81	-520.24	11,204.16	0.00	0.00	0.00	
TD: 23255.14' MD, 11204.16' VS, 12373.64' TVD - A05-03-PBHL(Wild-404H)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
A05-00-EON(Wild-L4-C) - hit/miss target - Shape - Point	0.00	0.01	8,000.00	173.78	-438.12	466,934.00	760,206.59	32.28168967	-103.62511081	
A05-03-PBHL(Wild-404H) - plan misses target center by 0.01usft at 23255.14usft MD (12373.64 TVD, 11200.81 N, -520.24 E) - Point	0.00	0.00	12,373.64	11,200.81	-520.23	477,961.03	760,124.48	32.31200078	-103.62514084	
A05-02-LTP(Wild-404H) - plan hits target center - Point	0.00	0.00	12,374.00	11,110.81	-519.60	477,871.03	760,125.11	32.31175339	-103.62514073	
A05-01-FTP(Wild-404H) - plan misses target center by 0.57usft at 12802.70usft MD (12415.10 TVD, 748.70 N, -446.43 E) - Point	0.00	0.00	12,415.00	748.70	-446.99	467,508.92	760,197.72	32.28327011	-103.62512723	

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
11,955.16	11,938.00	173.78	-438.12	KOP: 11955.16' MD, 176.83' VS, 11938.00' TVD	
12,707.12	12,415.48	653.13	-445.76	EOC: 12707.12' MD, 656.23' VS, 12415.48' TVD	
23,255.14	12,373.64	11,200.81	-520.24	TD: 23255.14' MD, 11204.16' VS, 12373.64' TVD	

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Titus Oil and Gas Production LLC
LEASE NO.:	NMNM063228
WELL NAME & NO.:	Wild Salsa Federal Com 404H
SURFACE HOLE FOOTAGE:	653'/N & 1211'/E
BOTTOM HOLE FOOTAGE:	10'/N & 1658'/E
LOCATION:	Section 25, T.23 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	<input checked="" type="radio"/> Yes	<input type="radio"/> No	
Potash	<input checked="" type="radio"/> None	<input type="radio"/> Secretary	<input type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Cave/Karst Potential	<input type="radio"/> Critical		
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input checked="" type="radio"/> Multibowl	<input type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input type="checkbox"/> Fluid Filled	<input type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Cruz / Delaware** Formation. 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

1. The **10-3/4 inch** surface casing shall be set at approximately **1,340 feet** (a minimum of **25 feet (Lea County)**) 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.
2. The minimum required fill of cement behind the **7-5/8 inch** intermediate casing and shall be set at approximately **11,668 feet** is:

Option 1:

- Cement to surface. If cement does not circulate see B.1.a, c-d above.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
 - b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
3. The minimum required fill of cement behind the **5-1/2 inch** production casing with a tie-back into the previous casing at approximately **11,350 feet** is:
- 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 **3000 (3M) psi**.
3. 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 intermediate casing shoe shall be **5000 (5M) psi**.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

Eddy County

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 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 integrity 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 Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), 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 plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 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 Onshore Order No. 2.

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.

YJ (10/24/2020)

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 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

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
OCD - HOBBS
12/01/2020
RECEIVED AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-47640	² Pool Code 98177	³ Pool Name WC-025 G-09 S22332A; UPR WOLFCAMP
⁴ Property Code 328507	⁵ Property Name WILD SALSA FED COM	
⁷ OGRID No. 373986	⁸ Operator Name TITUS OIL & GAS PRODUCTION, LLC	⁶ Well Number 404H
		⁹ Elevation 3720'

¹⁰ Surface Location

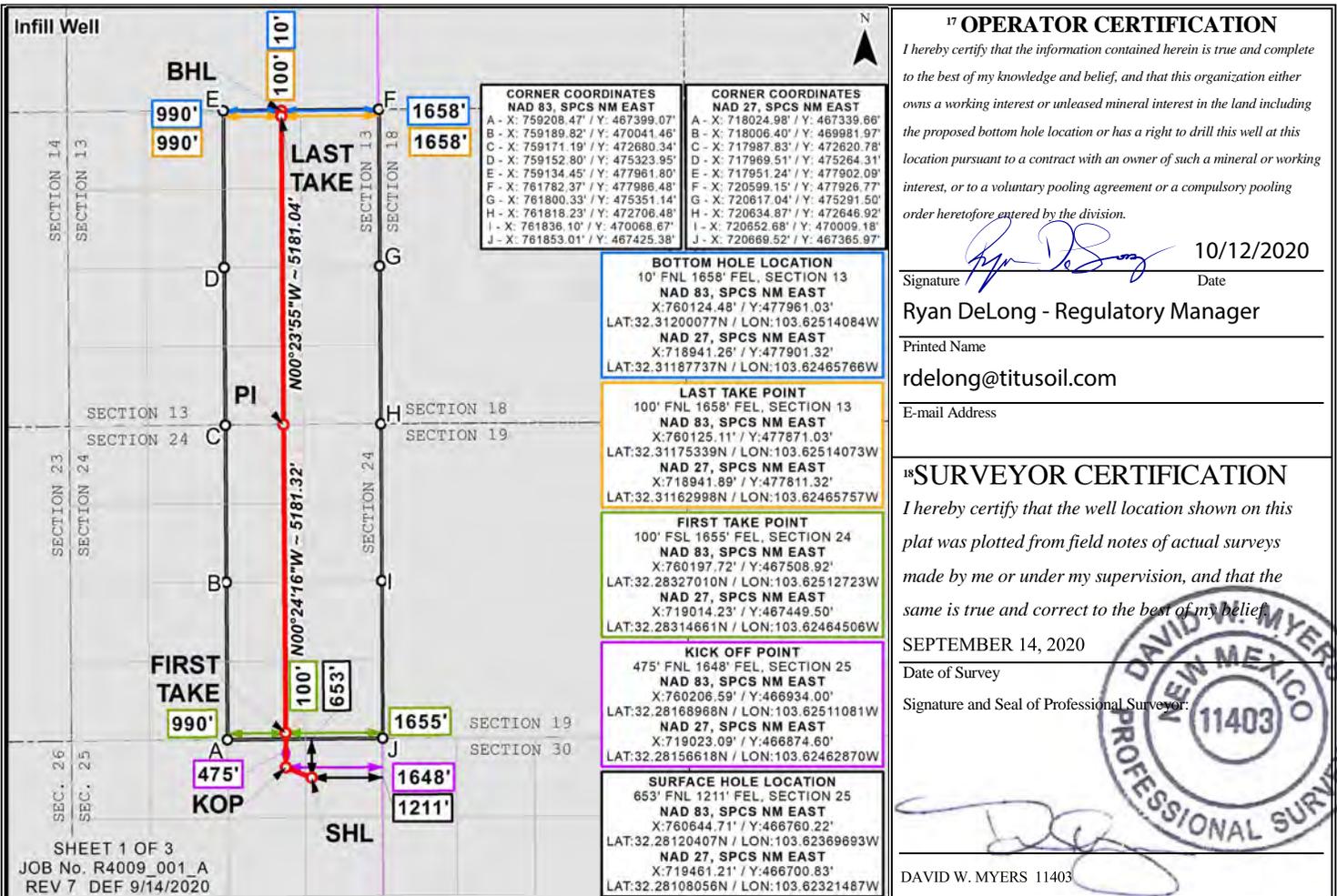
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	25	23S	32E		653	NORTH	1211	EAST	LEA

¹¹ 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
B	13	23S	32E		10	NORTH	1658	EAST	LEA

¹² Dedicated Acres 640.0	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.



17 OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
Signature: *Ryan DeLong* Date: 10/12/2020
Printed Name: Ryan DeLong - Regulatory Manager
E-mail Address: rdelong@titusoil.com

18 SURVEYOR CERTIFICATION
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
Date of Survey: SEPTEMBER 14, 2020
Signature and Seal of Professional Surveyor: *David W. Myers*
DAVID W. MYERS 11403

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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 11980

CONDITIONS OF APPROVAL

Operator:	TITUS OIL & GAS PRODUCTION, LL	420 Throckmorton St, Ste 1150	Fort Worth, TX76012	OGRID:	373986	Action Number:	11980	Action Type:	C-103A
OCD Reviewer	pkautz								
	Condition								
	None								