

**OCD - HOBBS**  
**06/24/2020**  
**RECEIVED**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No.
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator <b>[373986]</b>		8. Lease Name and Well No. <b>[328507]</b>
3a. Address	3b. Phone No. (include area code)	9. API Well No. <b>30-025-47634</b>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface At proposed prod. zone		10. Field and Pool, or Exploratory <b>[17644]</b>
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish
16. No of acres in lease		13. State
17. Spacing Unit dedicated to this well		
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.		20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration
24. Attachments		

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

- |  |   |
|--|---|
| 1. Well plat certified by a registered surveyor.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature	Name (Printed/Typed)	Date
Title		
Approved by (Signature)	Name (Printed/Typed)	Date
Title	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.  
Conditions of approval, if any, are attached.

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

**GCP Rec 06/24/2020**

**APPROVED WITH CONDITIONS**

**Approval Date: 06/04/2020**

**KZ**  
**09/02/2020**

**Operator Certification**

*I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.*

**NAME:** Ryan DeLong**Signed on:** 08/21/2019**Title:** Regulatory Manager**Street Address:** 100 Throckmorton Street, Suite 1630**City:** Fort Worth**State:** TX**Zip:** 76102**Phone:** (817)852-6370**Email address:** rdelong@titusoil.com**Field Representative****Representative Name:** Tim Smith**Street Address:****City:****State:****Zip:****Phone:** (432)553-3931**Email address:** tsmith@titusoil.com

**APD ID:** 10400046207

**Submission Date:** 08/22/2019

Highlighted data reflects the most recent changes

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Section 1 - General

**APD ID:** 10400046207

**Tie to previous NOS?** N

**Submission Date:** 08/22/2019

**BLM Office:** CARLSBAD

**User:** Ryan DeLong

**Title:** Regulatory Manager

**Federal/Indian APD:** FED

**Is the first lease penetrated for production Federal or Indian?** FED

**Lease number:** NMLC0063228

**Lease Acres:** 1600

**Surface access agreement in place?**

**Allotted?**

**Reservation:**

**Agreement in place?** NO

**Federal or Indian agreement:**

**Agreement number:**

**Agreement name:**

**Keep application confidential?** Y

**Permitting Agent?** NO

**APD Operator:** TITUS OIL AND GAS PRODUCTION LLC

**Operator letter of designation:**

## Operator Info

**Operator Organization Name:** TITUS OIL AND GAS PRODUCTION LLC

**Operator Address:** 100 Throckmorton Street, Suite 1630

**Zip:** 76102

**Operator PO Box:**

**Operator City:** Fort Worth

**State:** TX

**Operator Phone:** (817)897-2134

**Operator Internet Address:** rdelong@titusoil.com

## Section 2 - Well Information

**Well in Master Development Plan?** NO

**Master Development Plan name:**

**Well in Master SUPO?** NO

**Master SUPO name:**

**Well in Master Drilling Plan?** NO

**Master Drilling Plan name:**

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Well API Number:**

**Field/Pool or Exploratory?** Field and Pool

**Field Name:** DIAMONDTAIL

**Pool Name:** BONE SPRING

**Is the proposed well in an area containing other mineral resources?** NATURAL GAS,OIL

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Describe other minerals:**

**Is the proposed well in a Helium production area?** N    **Use Existing Well Pad?** N    **New surface disturbance?**

**Type of Well Pad:** MULTIPLE WELL

**Multiple Well Pad Name:** Wild Salsa

**Number:** 1

**Well Class:** HORIZONTAL

**Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** EXPLORATORY (WILDCAT)

**Describe sub-type:**

**Distance to town:**

**Distance to nearest well:** 25 FT

**Distance to lease line:** 653 FT

**Reservoir well spacing assigned acres Measurement:** 600 Acres

**Well plat:** Wild\_Salsa\_24\_13\_Fed\_216H\_\_Survey\_Plat\_20190822144458.pdf

**Well work start Date:** 01/31/2020

**Duration:** 45 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NAVD88

**Survey number:**

**Reference Datum:** GROUND LEVEL

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	653	FNL	656	FEL	23S	32E	25	Tract A	32.2812097	-103.6219015	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063228	3722		
KOP Leg #1	43	FNL	332	FEL	23S	32E	25	Tract A	32.565804	-103.712213	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063228	-6595	10358	10317
PPP Leg #1	69	FSL	333	FEL	23S	32E	25	Tract A	32.2821969	-103.6208505	LEA	NEW MEXICO	NEW MEXICO	F	NMLC0063228	-6900	10695	10622

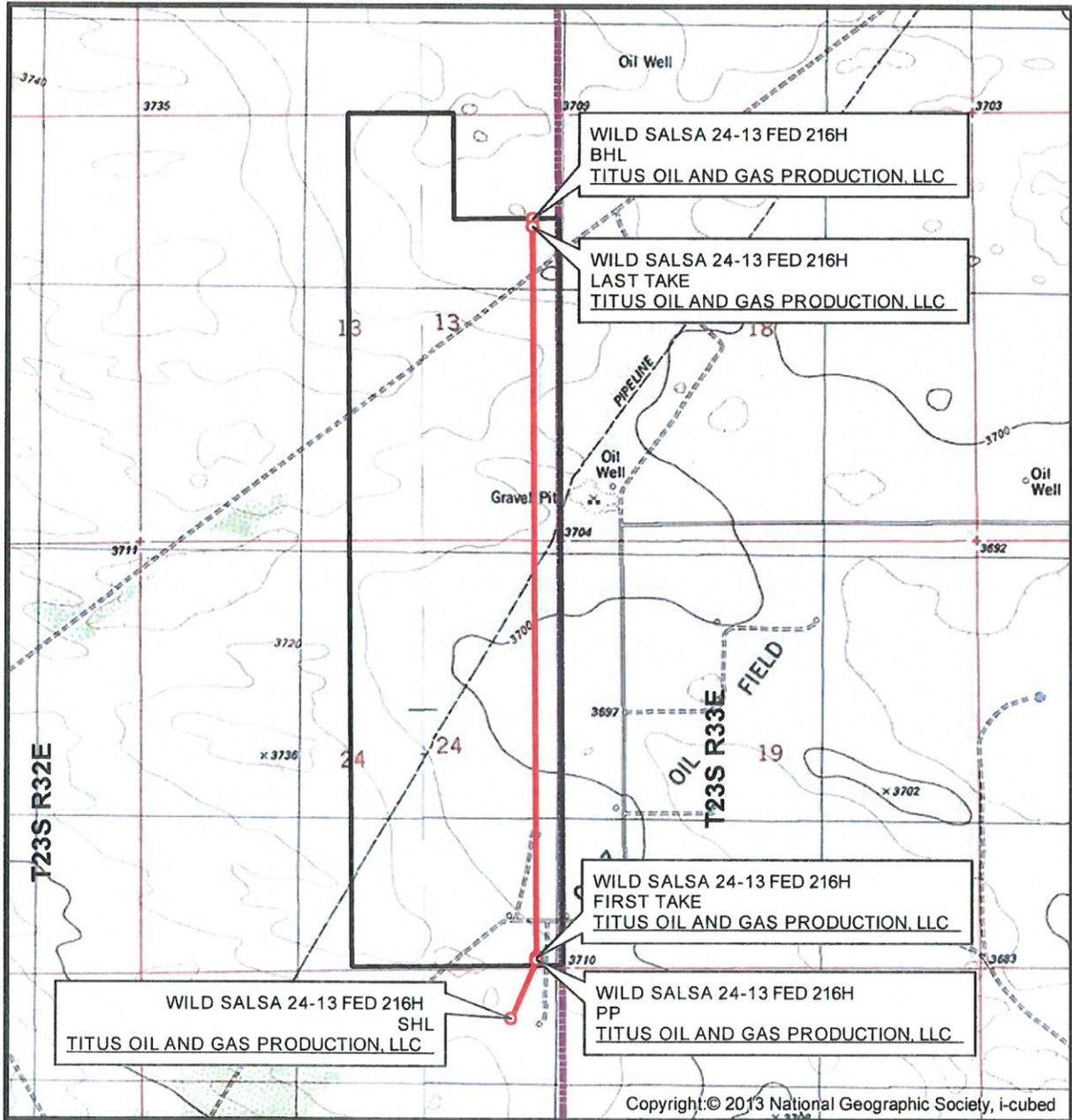
**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT Leg #1	131 8	FNL	330	FEL	23S	32E	13	Tract H	32.30841 56	- 103.6208 421	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 053634 4	- 710 2	199 20	108 24
BHL Leg #1	131 8	FNL	330	FEL	23S	32E	13	Tract H	32.30841 56	- 103.6208 421	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 053634 4	- 710 2	199 20	108 24

# LOCATION VERIFICATION 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 & 656' FEL  
 ELEVATION: 3722'  
 LEASE: WILD SALSA 24-13 FED  
 U.S.G.S. TOPOGRAPHIC MAP: TIP TOP WELLS, NM.

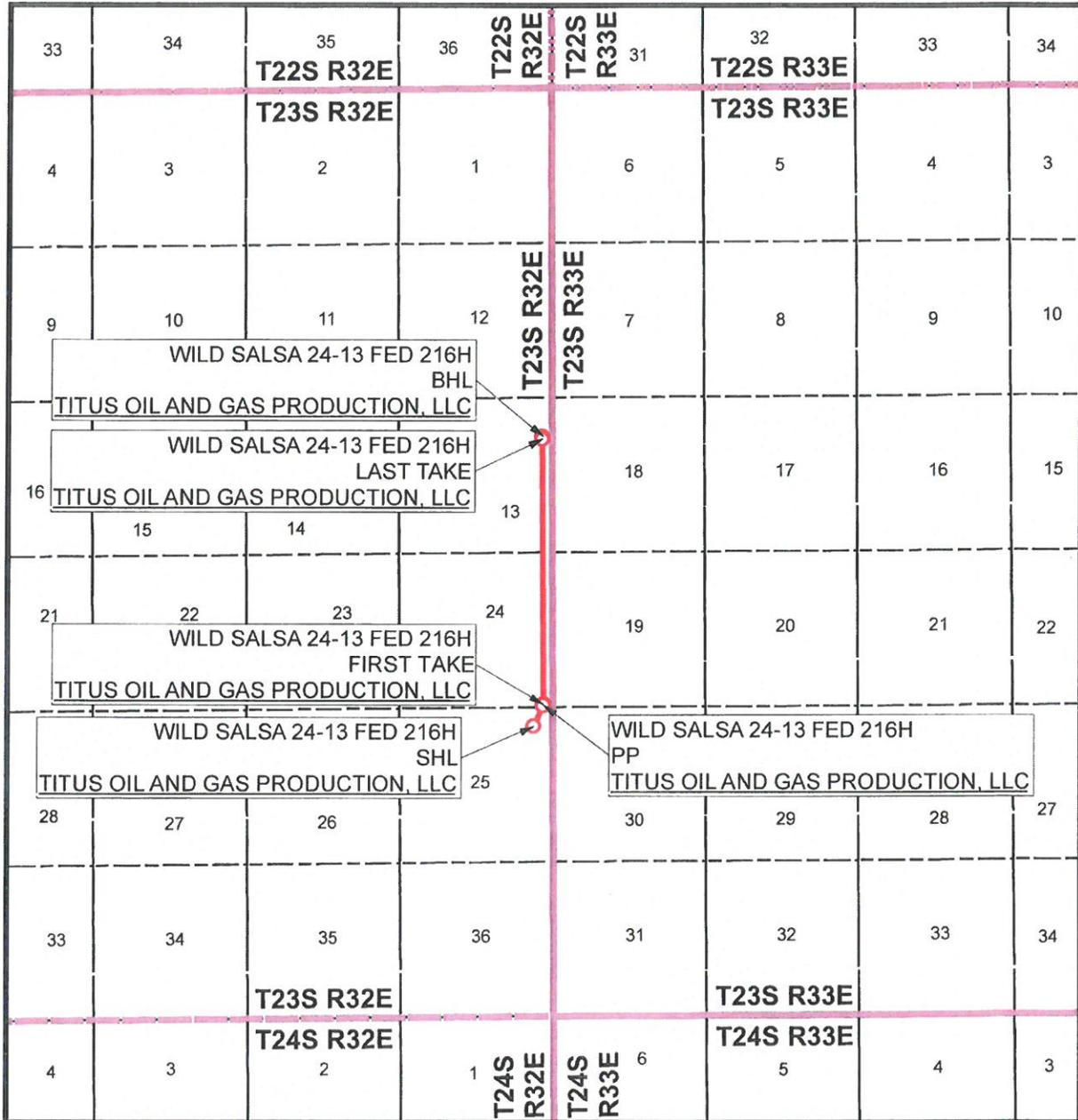
1" = 2,000'  
 CONTOUR INTERVAL = 10'



SHEET 2 OF 3

PREPARED BY:  
 R-SQUARED GLOBAL, LLC  
 1309 LOUISVILLE AVENUE, MONROE, LA 71201  
 318-323-6900 OFFICE  
 JOB No. R4009\_001\_P

# VICINITY MAP



SEC. 25 TWP. 23-S RGE. 32-E

1" = 1 MILE

SURVEY: N.M.P.M.

COUNTY: LEA

OPERATOR: TITUS OIL & GAS PRODUCTION, LLC

DESCRIPTION: 653' FNL & 656' FEL

ELEVATION: 3722'

LEASE: WILD SALSA 24-13 FED

U.S.G.S. TOPOGRAPHIC MAP: TIP TOP WELLS, NM.



SHEET 3 OF 3

PREPARED BY:  
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318-323-6900 OFFICE  
JOB No. R4009\_001\_P

**APD ID:** 10400046207

**Submission Date:** 08/22/2019

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**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	QUATERNARY	3721	0	0	ALLUVIUM	NONE	N
2	RUSTLER	2814	907	907	ANHYDRITE	USEABLE WATER	N
3	SALADO	2484	1237	1247	SALT	NONE	N
4	BASE OF SALT	-1096	4817	4817	SALT	NONE	N
5	LAMAR	-1361	5082	5082	LIMESTONE	NONE	N
6	DELAWARE	-1376	5097	5097	SILTSTONE, SHALE, SANDSTONE	NONE	N
7	BONE SPRING LIME	-5141	8862	8862	LIMESTONE	NATURAL GAS, OIL	N
8	BONE SPRING 1ST	-6281	10002	10002	SANDSTONE	NATURAL GAS, OIL	N
9	BONE SPRING 2ND	-6901	10622	10695	SANDSTONE	NATURAL GAS, OIL	N

## Section 2 - Blowout Prevention

**Pressure Rating (PSI):** 2M

**Rating Depth:** 5110

**Equipment:** 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.

**Requesting Variance?** YES

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See specs and hydrostatic test chart attached in part 8 as "Flex Hose Certifications."

**Testing Procedure:** 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.

**Choke Diagram Attachment:**

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

2M\_Choke\_Diagram\_20190821122623.pdf

**BOP Diagram Attachment:**

2M\_BOP\_Diagram\_20190821122629.pdf

**Pressure Rating (PSI):** 3M

**Rating Depth:** 10824

**Equipment:** 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.

**Requesting Variance?** YES

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**Testing Procedure:** 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.

**Choke Diagram Attachment:**

3M\_Choke\_Diagram\_20190821122650.pdf

**BOP Diagram Attachment:**

3M\_BOP\_Diagram\_20190821122655.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	935	0	935	3722	2787		J-55	54.5	ST&C	2.64	1.25	DRY	10.0 <sup>9</sup>	DRY	10.0 <sup>9</sup>
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5110	0	5110	3721	-1388		J-55	40	LT&C	1	1	DRY	2.54	DRY	2.54
3	PRODUCTION	8.75	5.5	NEW	API	N	0	19920	0	10824	3721	-7102		P-110	17	LT&C	1.41	2.53	DRY	2.42	DRY	2.42

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

### Casing Attachments

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**Casing ID:** 1                   **String Type:** SURFACE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing\_Assumptions\_\_shallow\_\_WILD\_SALSA\_20190821122929.pdf

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**Casing ID:** 2                   **String Type:** INTERMEDIATE

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Casing\_Assumptions\_\_shallow\_\_WILD\_SALSA\_20190821123026.pdf

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**Casing ID:** 3                   **String Type:** PRODUCTION

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

Tapered\_String\_Spec\_Wild\_Salsa\_24\_13\_Fed\_406H\_20190816102916.pdf

**Casing Design Assumptions and Worksheet(s):**

Casing\_Assumptions\_\_shallow\_\_WILD\_SALSA\_20190821123236.pdf

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## Section 4 - Cement

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MID	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	935	370	1.75	13.5	647.5	50	Class C	4% Gel, 1% CaCl2
SURFACE	Tail		0	935	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead		0	5110	990	2	12.7	1980	50	35:65:6 C Blend	N/A
INTERMEDIATE	Tail		0	5110	250	1.34	14.8	335	50	Class C	N/A
PRODUCTION	Lead		0	1992 0	800	2.5	11.9	2000	25	50:50:10 H Blend	N/A
PRODUCTION	Tail		0	1992 0	2440	1.24	14.4	3026	40	50:50:2 H Blend	N/A

### Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

**Description of the equipment for the circulating system in accordance with Onshore Order #2:**

**Diagram of the equipment for the circulating system in accordance with Onshore Order #2:**

**Describe what will be on location to control well or mitigate other conditions:** Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

**Describe the mud monitoring system utilized:** PVT/Pason/Visual Monitoring

### Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	935	WATER-BASED MUD	8.6	8.8							
935	5110	SALT SATURATED	8.6	8.8							
5110	1082 4	SALT SATURATED	8.6	9.4							

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

## Section 6 - Test, Logging, Coring

**List of production tests including testing procedures, equipment and safety measures:**

GR from TD to surface (horizontal well - vertical portion of hole). Logs run will be stated in the completion report and submitted to the BLM.

**List of open and cased hole logs run in the well:**

DIRECTIONAL SURVEY,

**Coring operation description for the well:**

N/A

## Section 7 - Pressure

**Anticipated Bottom Hole Pressure:** 5295

**Anticipated Surface Pressure:** 2913

**Anticipated Bottom Hole Temperature(F):** 165

**Anticipated abnormal pressures, temperatures, or potential geologic hazards?** NO

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Wild\_Salsa\_24\_13\_Fed\_216H\_20190821124127.pdf

## Section 8 - Other Information

**Proposed horizontal/directional/multi-lateral plan submission:**

Wild\_Salsa\_24\_13\_216H\_\_Plan\_1\_08\_15\_19\_AC\_Report\_20190821124150.pdf

Wild\_Salsa\_24\_13\_216H\_\_Plan\_1\_08\_15\_19\_20190821124155.pdf

**Other proposed operations facets description:**

- Flex Hose Certifications
- Gas Capture Plan
- Drilling Plan APD

**Other proposed operations facets attachment:**

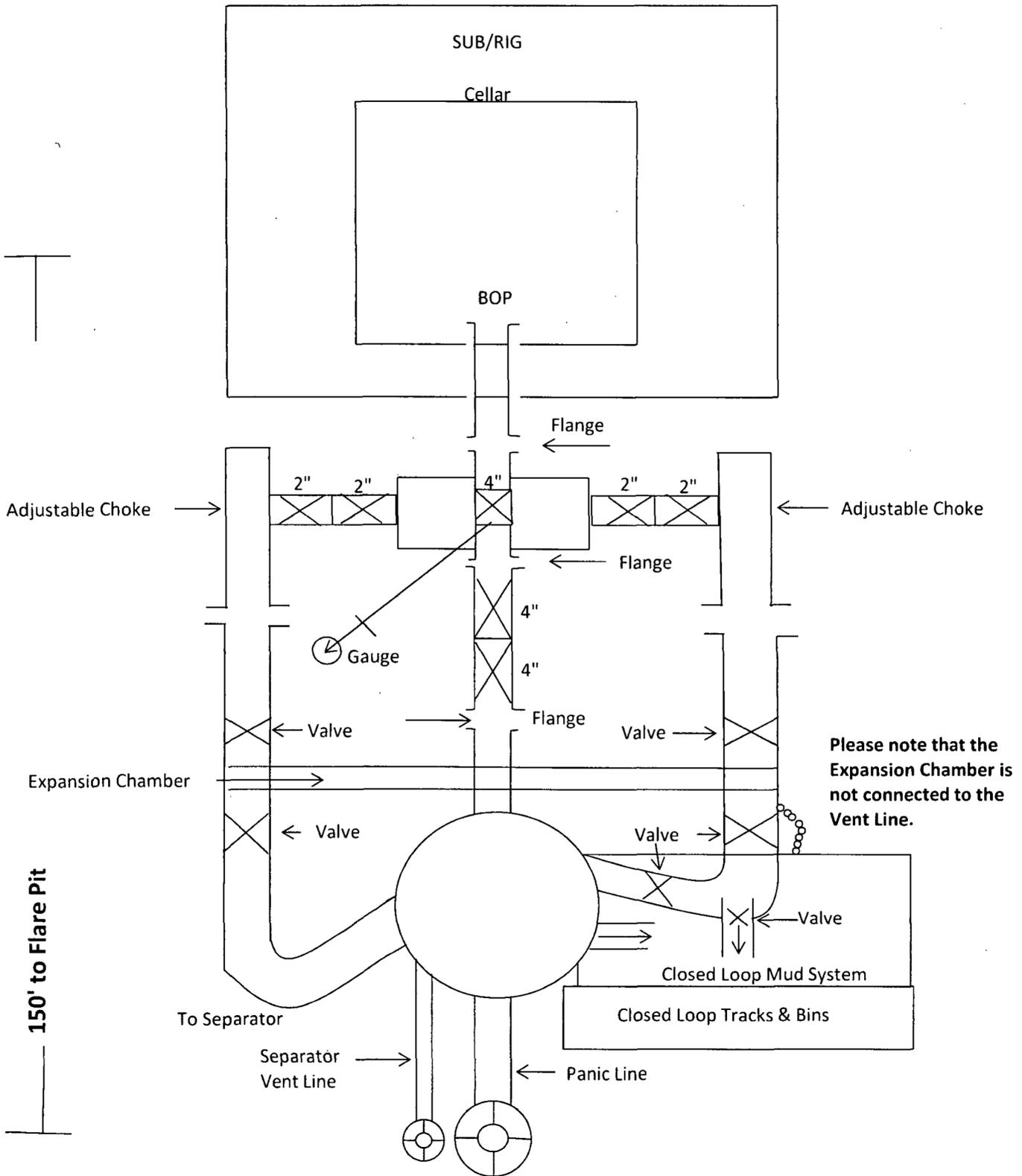
H\_P\_614\_Flex\_Hose\_Certs\_20190815152026.pdf

Wild\_Salsa\_24\_13\_Fed\_216H\_\_Drilling\_Plan\_20190821124236.pdf

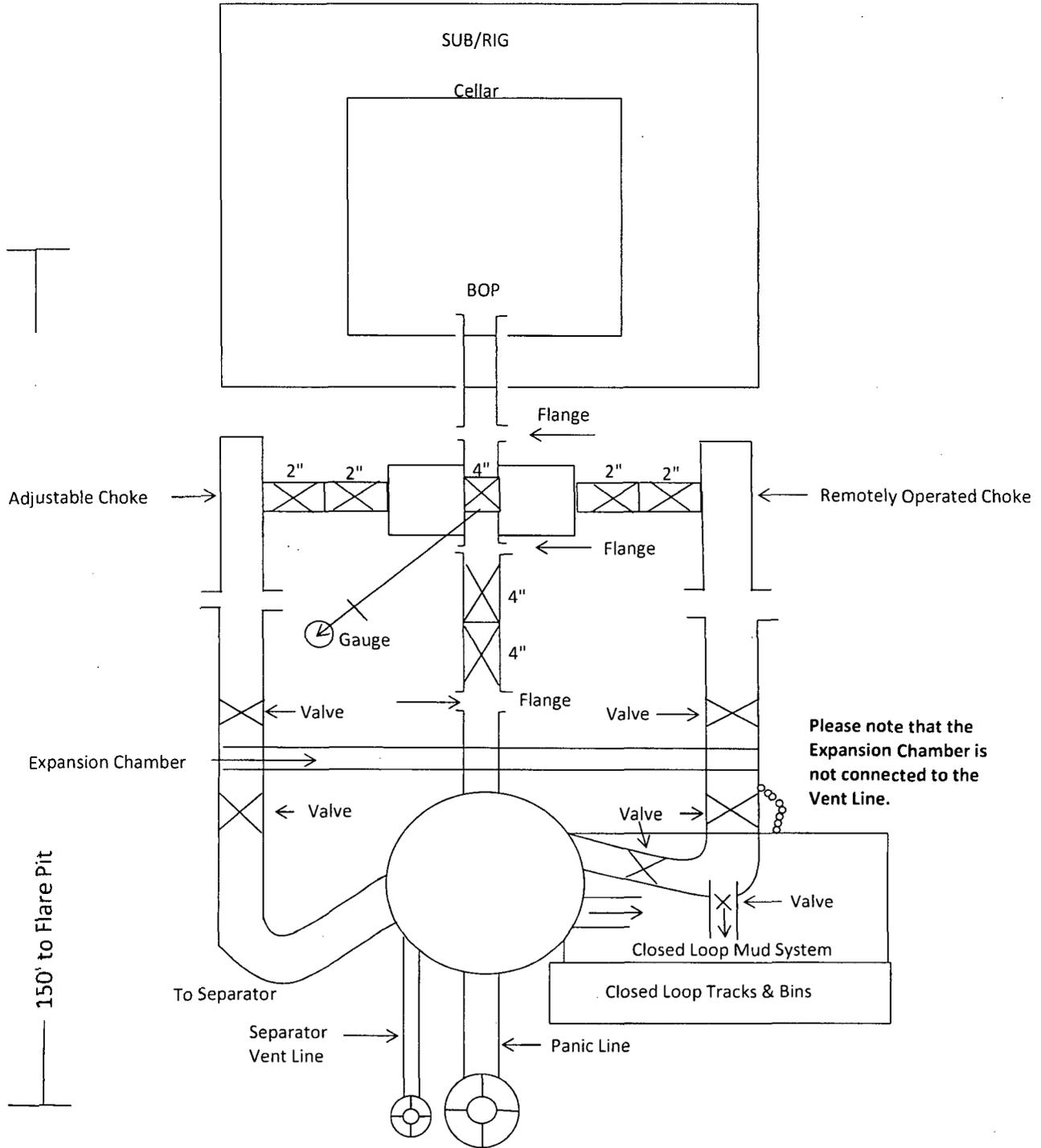
Gas\_Capture\_Plan\_V2\_WILD\_SALSA\_20190822133026.pdf

**Other Variance attachment:**

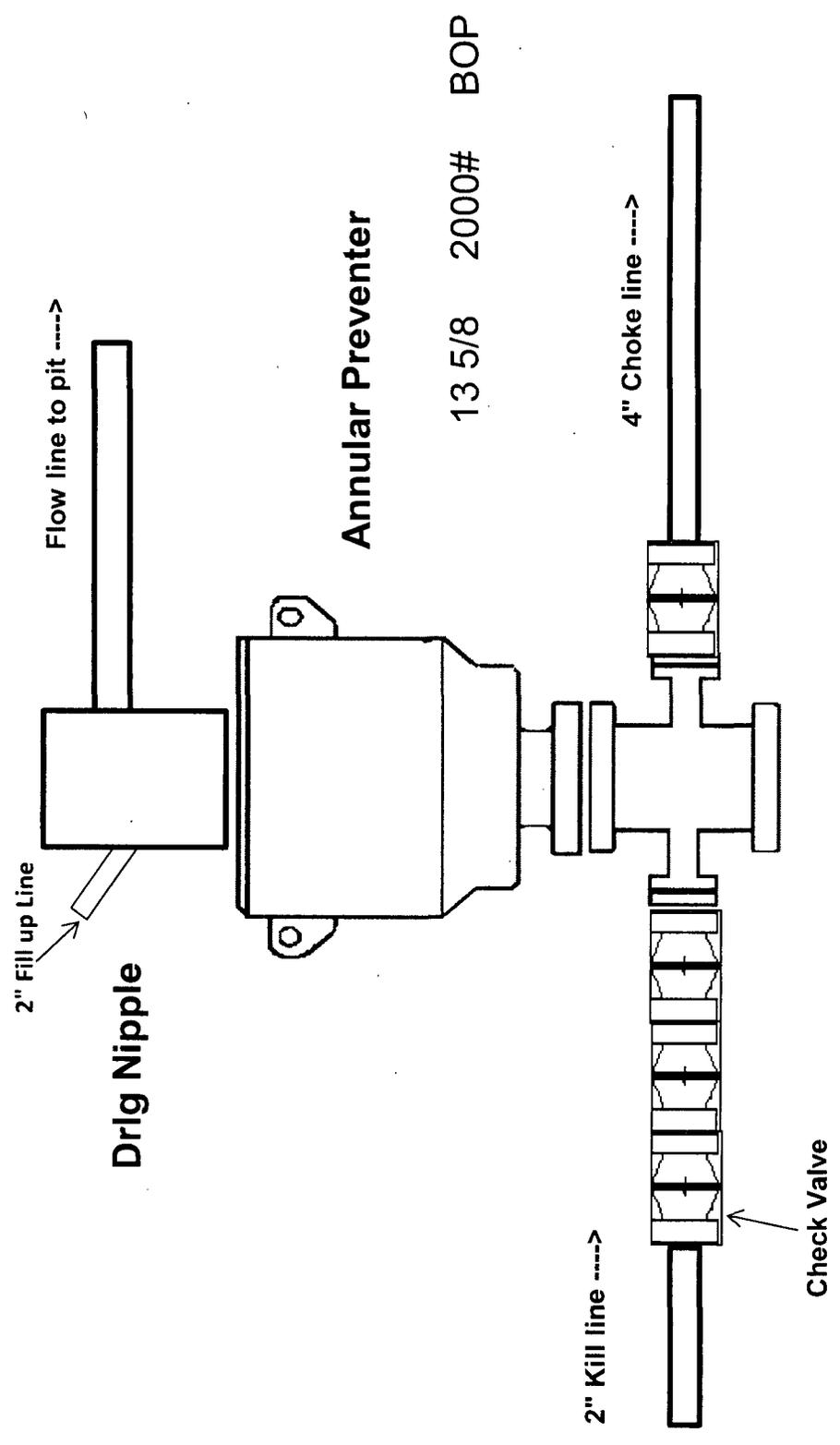
# 2M Choke Manifold Equipment



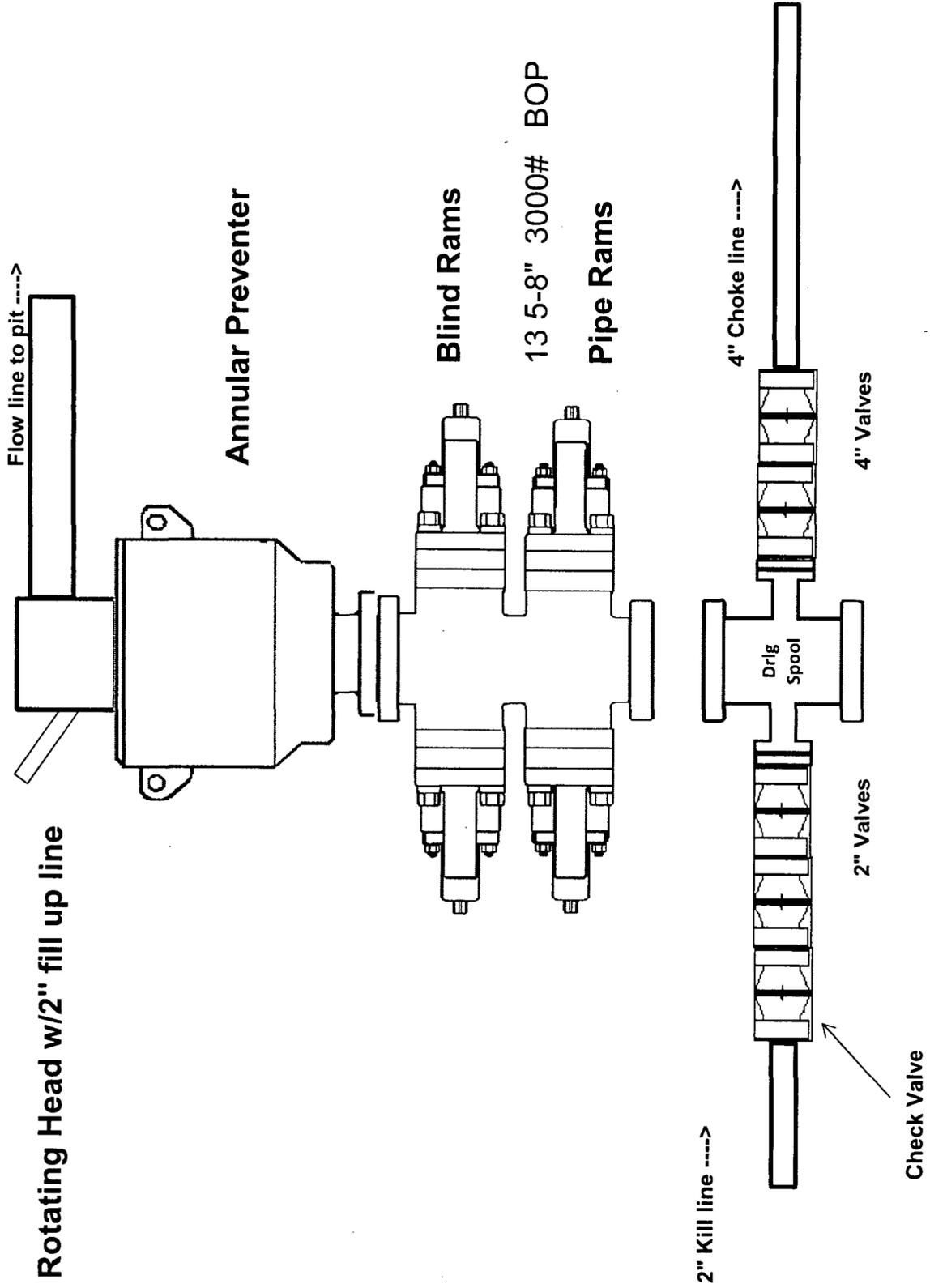
# 3M Choke Manifold Equipment



# 2,000 psi BOP Schematic



# 3,000 psi BOP Schematic



### Tapered String Spec – Wild Salsa 24-13 Fed 406H

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
	From	To								
13.5"	0	935	10.75"	45.5	J55	BTC	4.88	0.83	16.81	18.71
9.875"	0	11675	7.875"	29.7	L80HP	BTC	1.14	1.15	2.09	3.56
6.75"	0	11175	5.5"	23	P110	BTC	1.91	1.99	3.27	3.25
6.75"	11175	21,691	5"	18	P110	BTC	1.91	1.99	3.27	3.25
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

## **Wild Salsa Casing Assumptions – Titus Oil & Gas Production, LLC**

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

## **Wild Salsa Casing Assumptions – Titus Oil & Gas Production, LLC**

- Intermediate casing will be kept at least 1/3 full while running casing to mitigate collapse.
- Intermediate burst based on 0.7 frac gradient at the shoe with a Gas Gradient 0.1 psi/ft to surface.
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## **Wild Salsa Casing Assumptions – Titus Oil & Gas Production, LLC**

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

# **TITUS**

**Oil & Gas** LLC

## **TITUS Oil & Gas Production, LLC**

**100 Throckmorton Street**

**Suite 1630**

**Fort Worth, TX 76102**

## **Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

**Wild Salsa 24-13 Fed 216H**

**Sec-25 T-23S R-32E**

**653 FNL & 656' FEL**

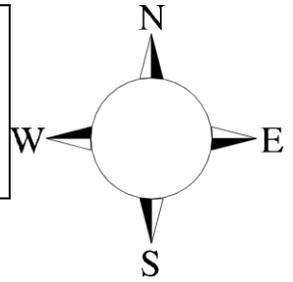
**LAT. = 32.28121' N (NAD83)**

**LONG = 103.621902' W**

**Lea County NM**

## Wild Salsa 24-13 Fed 216H

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm **ROE = 3000'** (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

**Assumed 100 ppm ROE = 3000'**

## 100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Emergency Procedures

In the event of a release of gas containing H<sub>2</sub>S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H<sub>2</sub>S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
  - Detection of H<sub>2</sub>S, and
  - Measures for protection against the gas,
  - Equipment used for protection and emergency response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

### **Characteristics of H<sub>2</sub>S and SO<sub>2</sub>**

<b>Common Name</b>	<b>Chemical Formula</b>	<b>Specific Gravity</b>	<b>Threshold Limit</b>	<b>Hazardous Limit</b>	<b>Lethal Concentration</b>
<b>Hydrogen Sulfide</b>	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
<b>Sulfur Dioxide</b>	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

### **Contacting Authorities**

Titus Oil & Gas personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Titus Oil & Gas Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)

# Hydrogen Sulfide Drilling Operation Plan

## I. HYDROGEN SULFIDE (H<sub>2</sub>S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H<sub>2</sub>S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H<sub>2</sub>S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H<sub>2</sub>S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H<sub>2</sub>S zone (within 3 days or 500 feet) and weekly H<sub>2</sub>S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H<sub>2</sub>S Drilling Operations Plan and the Public Protection Plan.

## II. HYDROGEN SULFIDE TRAINING

Note: All H<sub>2</sub>S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H<sub>2</sub>S.

## 1. Well Control Equipment

- A. Flare line
- B. Choke manifold – Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

## 2. Protective equipment for essential personnel:

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

## 3. H<sub>2</sub>S detection and monitoring equipment:

Portable H<sub>2</sub>S monitors positioned on location for best coverage and response. These units have warning lights which activate when H<sub>2</sub>S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- **Bell nipple**
- **Poosum Belly/Shale shaker**
- **Rig floor**
- **Choke manifold**
- **Cellar**

### Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

#### **4. Mud program:**

The mud program has been designed to minimize the volume of H<sub>2</sub>S circulated to surface. Proper mud weight, safe drilling practices and the use of H<sub>2</sub>S scavengers will minimize hazards when penetrating H<sub>2</sub>S bearing zones.

#### **5. Metallurgy:**

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H<sub>2</sub>S trim.
- B. All elastomers used for packing and seals shall be H<sub>2</sub>S trim.

#### **6. Communication:**

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

#### **7. Well testing:**

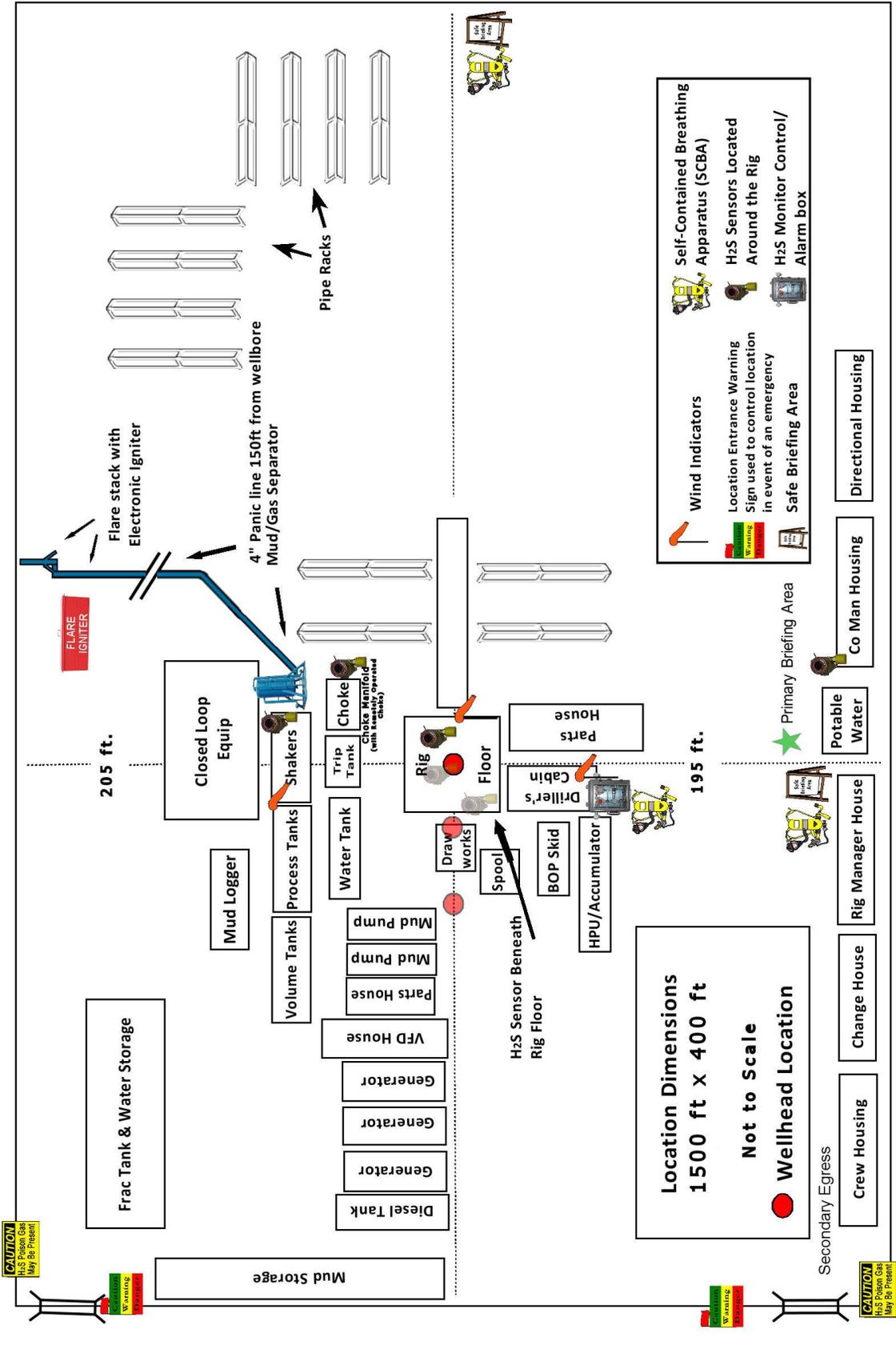
- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H<sub>2</sub>S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

<b><u>Titus Oil &amp; Gas Company Call List</u></b>		
Drilling Supervisor –		
Ryan DeLong - <b>Office</b> (817) 852-6370 <b>Mobile</b> (405) 664-5188		
<b><u>Agency Call List</u></b>		
<b><u>Lea County (575)</u></b>	<b>Hobbs</b>	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	<b>Ambulance</b>	<b>911</b>
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
	<b><u>Eddy County (575)</u></b>	<b>Carlsbad</b>
State Police		885-3137
City Police		885-2111
Sheriff's Office		887-7551
<b>Ambulance</b>		<b>911</b>
Fire Department		885-3125
LEPC (Local Emergency Planning Committee)		887-3798
US Bureau of Land Management		887-6544
NM Emergency Response Commission (Santa Fe)		(505) 476-9600
24 HR		(505) 827-9126
National Emergency Response Center		(800) 424-8802
National Pollution Control Center: Direct		(703) 872-6000
For Oil Spills		(800) 280-7118
<b>Emergency Services</b>		
Wild Well Control		(281) 784-4700
Cudd Pressure Control		915-699-0139 (915) 563-3356
Halliburton		(575) 746-2757
B. J. Services		(575) 746-3569
<b><u>Give GPS position:</u></b>	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - <a href="http://www.nhc.noaa.gov">www.nhc.noaa.gov</a>	

# Titus Oil & Gas Production - Well Pad

## Rig Location Layout

### Safety Equipment Location





**Azimuths to Grid North**  
 True North: -0.38°  
 Magnetic North: 6.22°

**Magnetic Field**  
 Strength: 47922.9nT  
 Dip Angle: 59.94°  
 Date: 8/15/2019  
 Model: MVHD



RKB @ 3748.50usft (Preliminary)  
 Ground Level: 3722.00

### WELL DETAILS

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	466765.98	761199.56	32° 16' 52.355248 N	103° 37' 18.845575 W

### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP - Wild Salsa 24-13 216H	10794.00	756.11	322.82	467522.09	761522.38	32° 16' 59.815912 N	103° 37' 15.026825 W
PP - Wild Salsa 24-13 216H	10794.00	556.12	324.10	467322.10	761523.66	32° 16' 57.836886 N	103° 37' 15.027388 W
LTP - Wild Salsa 24-13 216H	10823.67	9799.60	262.33	476565.58	761461.89	32° 18' 29.306895 N	103° 37' 15.031501 W
BHL - Wild Salsa 24-13 216H	10824.00	9899.60	261.66	476665.58	761461.22	32° 18' 30.296455 N	103° 37' 15.031563 W

### SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP, Begin 2.00°/100' Build
3	1850.05	7.00	27.97	1849.18	18.86	10.02	2.00	27.97	18.80	18.80	Hold 7.00° Inc at 27.97° Azm
4	7166.33	7.00	27.97	7125.82	591.14	313.98	0.00	0.00	589.04	589.04	Begin 2.00°/100' Drop
5	7516.38	0.00	0.00	7475.00	610.00	324.00	2.00	180.00	607.84	607.84	Begin Vertical Hold
6	10358.08	0.00	0.00	10316.70	610.00	324.00	0.00	0.00	607.84	607.84	KOP2, Begin 12.00°/100' Build
7	11106.46	89.81	359.62	10794.16	1085.84	320.81	12.00	359.62	1083.69	1083.69	LP, Hold 89.80° Inc at 359.62° Azm
8	19920.47	89.81	359.62	10824.00	9899.60	261.66	0.00	0.00	9897.65	9897.65	TD at 19920.47

Map System: US State Plane 1983  
 Datum: North American Datum 1983  
 Ellipsoid: GRS 1980  
 Zone Name: New Mexico Eastern Zone  
 Local Origin: Well 216H, Grid North  
 Latitude: 32° 16' 52.355248 N  
 Longitude: 103° 37' 18.845575 W  
 Grid East: 761199.56  
 Grid North: 466765.98  
 Scale Factor: 1.000

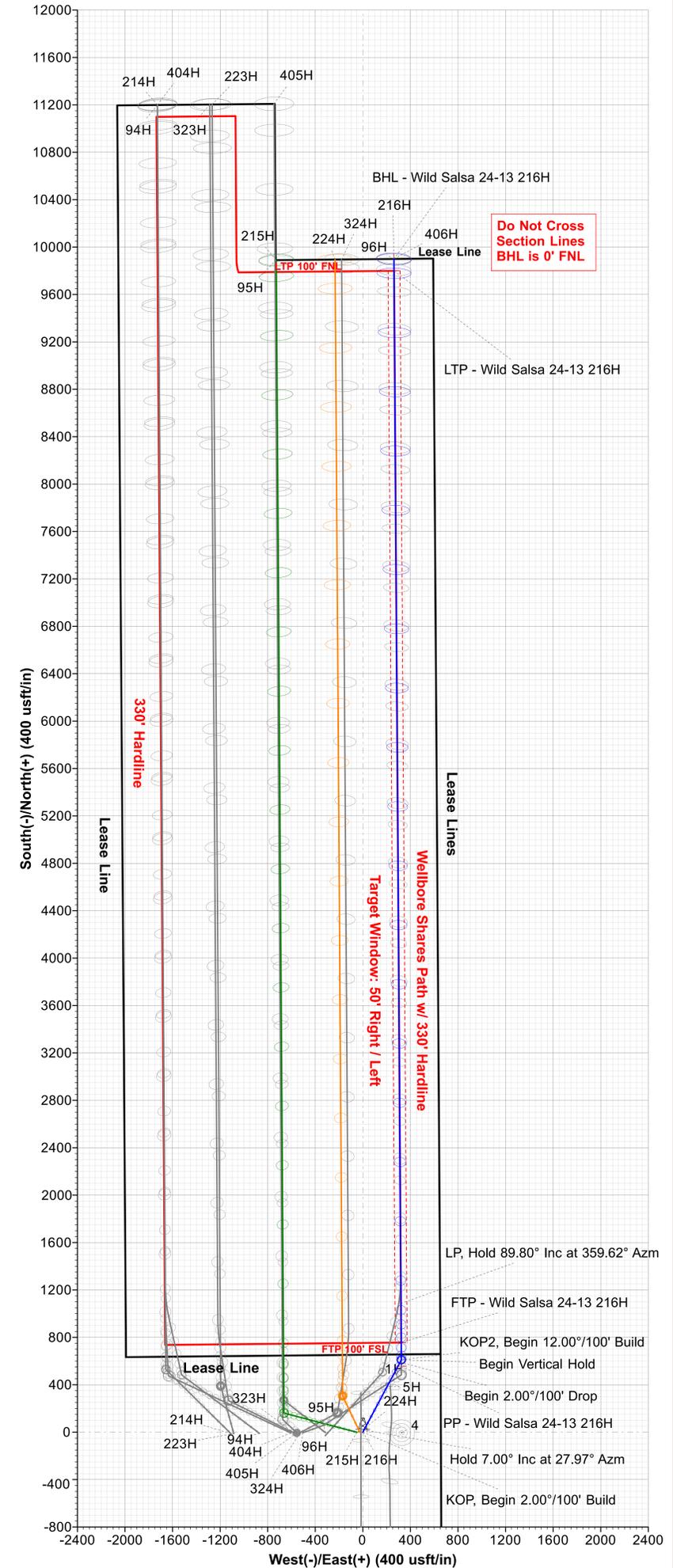
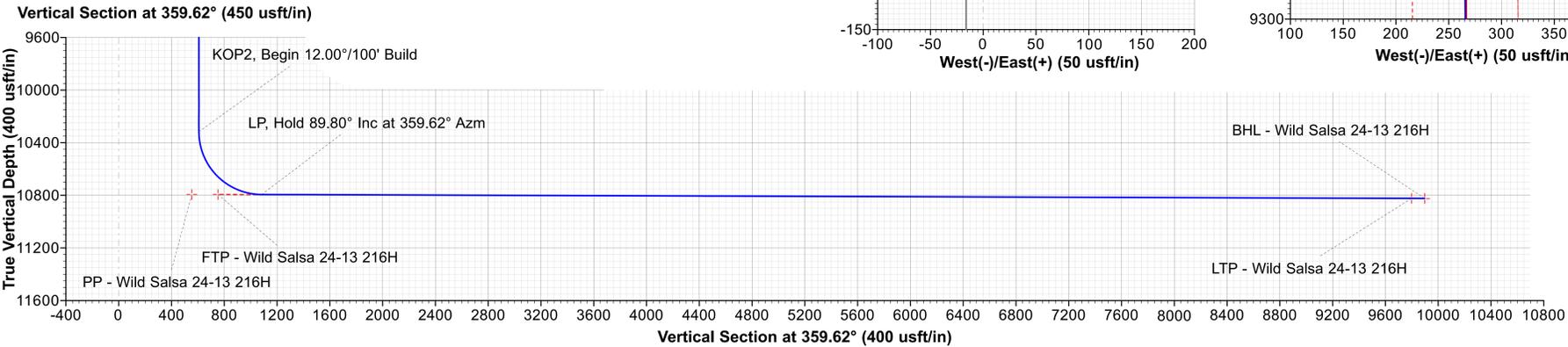
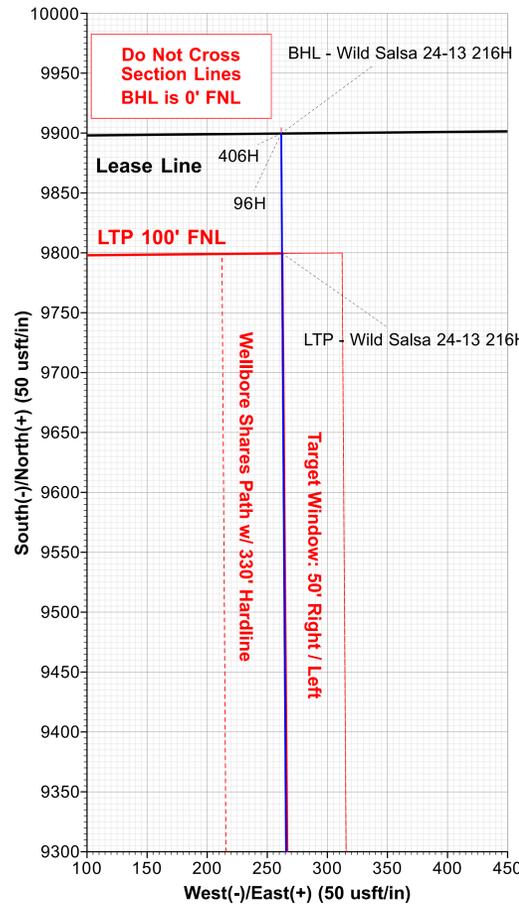
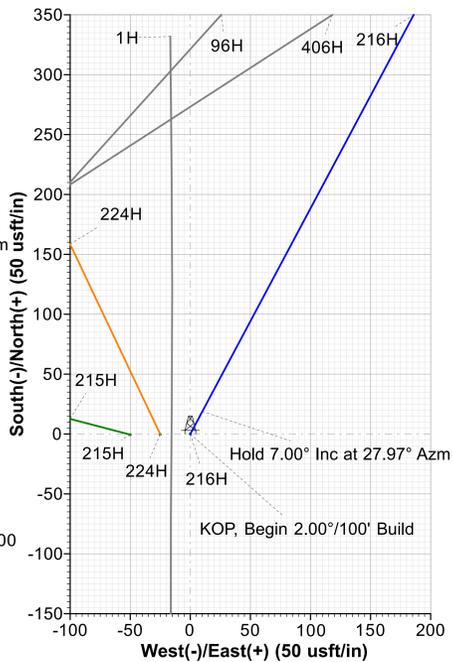
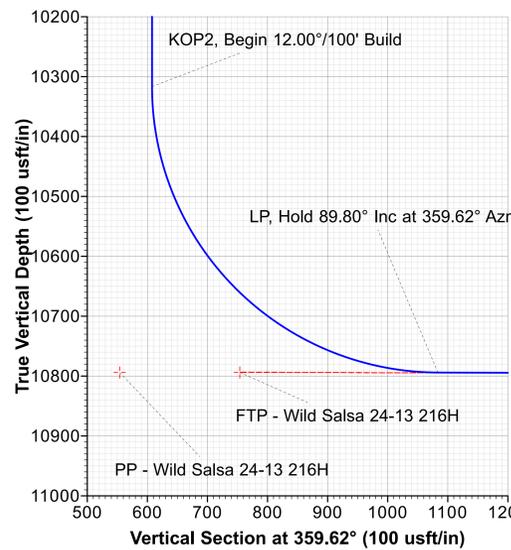
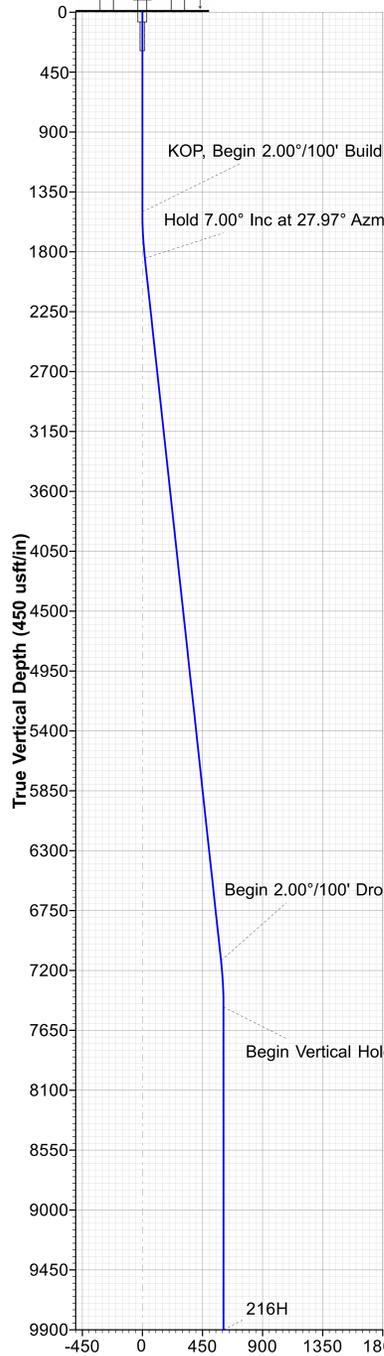
FORMATION TOP DETAILS  
 No formation data is available

Geomagnetic Model: MVHD  
 Sample Date: 15-Aug-19  
 Magnetic Declination: 6.60°  
 Dip Angle from Horizontal: 59.94°  
 Magnetic Field Strength: 47922.91550077nT

To convert a Magnetic Direction to a Grid Direction, Add 6.22°  
 To convert a Magnetic Direction to a True Direction, Add 6.60° East  
 To convert a True Direction to a Grid Direction, Subtract 0.38°

### LEGEND

- 404H, OH, Plan 3 08-15-19 V0
- 223H, OH, Plan 2 08-15-19 V0
- 95H, OH, Plan 1 08-15-19 V0
- 405H, OH, Plan 1 08-15-19 V0
- 5H, OH, Surveys V0
- 4, OH, Surveys V0
- 96H, OH, Plan 1 08-15-19 V0
- 324H, OH, Plan 1 08-15-19 V0
- 215H, OH, Plan 1 08-15-19 V0
- 1H, OH, Surveys (Cactus 104) V0
- 94H, OH, Plan 1 08-15-19 V0
- 406H, OH, Plan 1 08-15-19 V0
- 224H, OH, Plan 2 08-15-19 V0
- 214H, OH, Plan 1 08-15-19 V0
- 323H, OH, Plan 1 08-15-19 V0
- Plan 1 08-15-19





**PHOENIX**  
TECHNOLOGY SERVICES

# **Titus Oil & Gas Production, LLC**

**Lea County, NM - (NAD83 NME)**

**Wild Salsa 24-13**

**216H**

**OH**

**Plan: Plan 1 08-15-19**

## **Standard Planning Report**

**15 August, 2019**

**TITUS**  
OIL GAS LLC

<b>Database:</b>	USA Compass	<b>Local Co-ordinate Reference:</b>	Well 216H
<b>Company:</b>	Titus Oil & Gas Production, LLC	<b>TVD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Project:</b>	Lea County, NM - (NAD83 NME)	<b>MD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Site:</b>	Wild Salsa 24-13	<b>North Reference:</b>	Grid
<b>Well:</b>	216H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1 08-15-19		

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

<b>Site</b>	Wild Salsa 24-13				
<b>Site Position:</b>		<b>Northing:</b>	466,759.47 usft	<b>Latitude:</b>	32° 16' 52.363056 N
<b>From:</b>	Lat/Long	<b>Easting:</b>	760,096.73 usft	<b>Longitude:</b>	103° 37' 31.692000 W
<b>Position Uncertainty:</b>	1.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.38 °

<b>Well</b>	216H					
<b>Well Position</b>	<b>+N/-S</b>	6.51 usft	<b>Northing:</b>	466,765.98 usft	<b>Latitude:</b>	32° 16' 52.355248 N
	<b>+E/-W</b>	1,102.83 usft	<b>Easting:</b>	761,199.56 usft	<b>Longitude:</b>	103° 37' 18.845575 W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	3,722.00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	MVHD	8/15/2019	6.60	59.94	47,922.91550077

<b>Design</b>	Plan 1 08-15-19			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	359.62

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/15/2019		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>
1	0.00	19,920.13 Plan 1 08-15-19 (OH)	MWD+HRGM	
			OWSG MWD + HRGM	

<b>Plan Sections</b>										
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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,850.05	7.00	27.97	1,849.18	18.86	10.02	2.00	2.00	0.00	27.97	
7,166.33	7.00	27.97	7,125.82	591.14	313.98	0.00	0.00	0.00	0.00	
7,516.38	0.00	0.00	7,475.00	610.00	324.00	2.00	-2.00	0.00	180.00	
10,358.08	0.00	0.00	10,316.70	610.00	324.00	0.00	0.00	0.00	0.00	
11,106.46	89.81	359.62	10,794.16	1,085.84	320.81	12.00	12.00	-0.05	359.62	
19,920.47	89.81	359.62	10,824.00	9,899.60	261.66	0.00	0.00	0.00	0.00	BHL - Wild Salsa 24-1

<b>Database:</b>	USA Compass	<b>Local Co-ordinate Reference:</b>	Well 216H
<b>Company:</b>	Titus Oil & Gas Production, LLC	<b>TVD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Project:</b>	Lea County, NM - (NAD83 NME)	<b>MD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Site:</b>	Wild Salsa 24-13	<b>North Reference:</b>	Grid
<b>Well:</b>	216H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1 08-15-19		

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
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP, Begin 2.00°/100' Build</b>										
1,600.00	2.00	27.97	1,599.98	1.54	0.82	1.54	2.00	2.00	0.00	0.00
1,700.00	4.00	27.97	1,699.84	6.16	3.27	6.14	2.00	2.00	0.00	0.00
1,800.00	6.00	27.97	1,799.45	13.86	7.36	13.81	2.00	2.00	0.00	0.00
1,850.05	7.00	27.97	1,849.18	18.86	10.02	18.80	2.00	2.00	0.00	0.00
<b>Hold 7.00° Inc at 27.97° Azm</b>										
1,900.00	7.00	27.97	1,898.76	24.24	12.88	24.15	0.00	0.00	0.00	0.00
2,000.00	7.00	27.97	1,998.01	35.01	18.59	34.88	0.00	0.00	0.00	0.00
2,100.00	7.00	27.97	2,097.27	45.77	24.31	45.61	0.00	0.00	0.00	0.00
2,200.00	7.00	27.97	2,196.52	56.53	30.03	56.33	0.00	0.00	0.00	0.00
2,300.00	7.00	27.97	2,295.77	67.30	35.75	67.06	0.00	0.00	0.00	0.00
2,400.00	7.00	27.97	2,395.03	78.06	41.46	77.79	0.00	0.00	0.00	0.00
2,500.00	7.00	27.97	2,494.28	88.83	47.18	88.51	0.00	0.00	0.00	0.00
2,600.00	7.00	27.97	2,593.54	99.59	52.90	99.24	0.00	0.00	0.00	0.00
2,700.00	7.00	27.97	2,692.79	110.36	58.62	109.97	0.00	0.00	0.00	0.00
2,800.00	7.00	27.97	2,792.05	121.12	64.33	120.69	0.00	0.00	0.00	0.00
2,900.00	7.00	27.97	2,891.30	131.89	70.05	131.42	0.00	0.00	0.00	0.00
3,000.00	7.00	27.97	2,990.56	142.65	75.77	142.14	0.00	0.00	0.00	0.00
3,100.00	7.00	27.97	3,089.81	153.42	81.49	152.87	0.00	0.00	0.00	0.00
3,200.00	7.00	27.97	3,189.06	164.18	87.20	163.60	0.00	0.00	0.00	0.00
3,300.00	7.00	27.97	3,288.32	174.94	92.92	174.32	0.00	0.00	0.00	0.00
3,400.00	7.00	27.97	3,387.57	185.71	98.64	185.05	0.00	0.00	0.00	0.00
3,500.00	7.00	27.97	3,486.83	196.47	104.36	195.78	0.00	0.00	0.00	0.00
3,600.00	7.00	27.97	3,586.08	207.24	110.07	206.50	0.00	0.00	0.00	0.00
3,700.00	7.00	27.97	3,685.34	218.00	115.79	217.23	0.00	0.00	0.00	0.00
3,800.00	7.00	27.97	3,784.59	228.77	121.51	227.96	0.00	0.00	0.00	0.00
3,900.00	7.00	27.97	3,883.85	239.53	127.23	238.68	0.00	0.00	0.00	0.00
4,000.00	7.00	27.97	3,983.10	250.30	132.94	249.41	0.00	0.00	0.00	0.00
4,100.00	7.00	27.97	4,082.35	261.06	138.66	260.13	0.00	0.00	0.00	0.00
4,200.00	7.00	27.97	4,181.61	271.82	144.38	270.86	0.00	0.00	0.00	0.00
4,300.00	7.00	27.97	4,280.86	282.59	150.10	281.59	0.00	0.00	0.00	0.00
4,400.00	7.00	27.97	4,380.12	293.35	155.81	292.31	0.00	0.00	0.00	0.00
4,500.00	7.00	27.97	4,479.37	304.12	161.53	303.04	0.00	0.00	0.00	0.00
4,600.00	7.00	27.97	4,578.63	314.88	167.25	313.77	0.00	0.00	0.00	0.00
4,700.00	7.00	27.97	4,677.88	325.65	172.97	324.49	0.00	0.00	0.00	0.00
4,800.00	7.00	27.97	4,777.13	336.41	178.68	335.22	0.00	0.00	0.00	0.00
4,900.00	7.00	27.97	4,876.39	347.18	184.40	345.95	0.00	0.00	0.00	0.00
5,000.00	7.00	27.97	4,975.64	357.94	190.12	356.67	0.00	0.00	0.00	0.00
5,100.00	7.00	27.97	5,074.90	368.71	195.84	367.40	0.00	0.00	0.00	0.00
5,200.00	7.00	27.97	5,174.15	379.47	201.55	378.12	0.00	0.00	0.00	0.00
5,300.00	7.00	27.97	5,273.41	390.23	207.27	388.85	0.00	0.00	0.00	0.00
5,400.00	7.00	27.97	5,372.66	401.00	212.99	399.58	0.00	0.00	0.00	0.00
5,500.00	7.00	27.97	5,471.92	411.76	218.71	410.30	0.00	0.00	0.00	0.00
5,600.00	7.00	27.97	5,571.17	422.53	224.42	421.03	0.00	0.00	0.00	0.00
5,700.00	7.00	27.97	5,670.42	433.29	230.14	431.76	0.00	0.00	0.00	0.00
5,800.00	7.00	27.97	5,769.68	444.06	235.86	442.48	0.00	0.00	0.00	0.00
5,900.00	7.00	27.97	5,868.93	454.82	241.58	453.21	0.00	0.00	0.00	0.00
6,000.00	7.00	27.97	5,968.19	465.59	247.29	463.94	0.00	0.00	0.00	0.00
6,100.00	7.00	27.97	6,067.44	476.35	253.01	474.66	0.00	0.00	0.00	0.00
6,200.00	7.00	27.97	6,166.70	487.12	258.73	485.39	0.00	0.00	0.00	0.00
6,300.00	7.00	27.97	6,265.95	497.88	264.45	496.12	0.00	0.00	0.00	0.00

<b>Database:</b>	USA Compass	<b>Local Co-ordinate Reference:</b>	Well 216H
<b>Company:</b>	Titus Oil & Gas Production, LLC	<b>TVD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Project:</b>	Lea County, NM - (NAD83 NME)	<b>MD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Site:</b>	Wild Salsa 24-13	<b>North Reference:</b>	Grid
<b>Well:</b>	216H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1 08-15-19		

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)
6,400.00	7.00	27.97	6,365.21	508.64	270.17	506.84	0.00	0.00	0.00
6,500.00	7.00	27.97	6,464.46	519.41	275.88	517.57	0.00	0.00	0.00
6,600.00	7.00	27.97	6,563.71	530.17	281.60	528.29	0.00	0.00	0.00
6,700.00	7.00	27.97	6,662.97	540.94	287.32	539.02	0.00	0.00	0.00
6,800.00	7.00	27.97	6,762.22	551.70	293.04	549.75	0.00	0.00	0.00
6,900.00	7.00	27.97	6,861.48	562.47	298.75	560.47	0.00	0.00	0.00
7,000.00	7.00	27.97	6,960.73	573.23	304.47	571.20	0.00	0.00	0.00
7,100.00	7.00	27.97	7,059.99	584.00	310.19	581.93	0.00	0.00	0.00
7,166.33	7.00	27.97	7,125.82	591.14	313.98	589.04	0.00	0.00	0.00
<b>Begin 2.00°/100' Drop</b>									
7,200.00	6.33	27.97	7,159.26	594.59	315.81	592.48	2.00	-2.00	0.00
7,300.00	4.33	27.97	7,258.83	602.79	320.17	600.65	2.00	-2.00	0.00
7,400.00	2.33	27.97	7,358.65	607.91	322.89	605.76	2.00	-2.00	0.00
7,500.00	0.33	27.97	7,458.62	609.96	323.98	607.80	2.00	-2.00	0.00
7,516.38	0.00	0.00	7,475.00	610.00	324.00	607.84	2.00	-2.00	0.00
<b>Begin Vertical Hold</b>									
10,358.08	0.00	0.00	10,316.70	610.00	324.00	607.84	0.00	0.00	0.00
<b>KOP2, Begin 12.00°/100' Build</b>									
10,400.00	5.03	359.62	10,358.57	611.84	323.99	609.68	12.00	12.00	0.00
10,500.00	17.03	359.62	10,456.54	630.94	323.86	628.78	12.00	12.00	0.00
10,600.00	29.03	359.62	10,548.40	669.99	323.60	667.83	12.00	12.00	0.00
10,700.00	41.03	359.62	10,630.14	727.28	323.21	725.12	12.00	12.00	0.00
10,800.00	53.03	359.62	10,698.17	800.32	322.72	798.16	12.00	12.00	0.00
10,900.00	65.03	359.62	10,749.54	885.90	322.15	883.75	12.00	12.00	0.00
11,000.00	77.03	359.62	10,781.98	980.30	321.52	978.14	12.00	12.00	0.00
11,100.00	89.03	359.62	10,794.10	1,079.38	320.85	1,077.22	12.00	12.00	0.00
11,106.46	89.81	359.62	10,794.16	1,085.83	320.81	1,083.68	12.00	12.00	0.00
<b>LP, Hold 89.80° Inc at 359.62° Azm</b>									
11,200.00	89.81	359.62	10,794.48	1,179.37	320.18	1,177.22	0.00	0.00	0.00
11,300.00	89.81	359.62	10,794.82	1,279.37	319.51	1,277.22	0.00	0.00	0.00
11,400.00	89.81	359.62	10,795.16	1,379.37	318.84	1,377.22	0.00	0.00	0.00
11,500.00	89.81	359.62	10,795.49	1,479.36	318.17	1,477.22	0.00	0.00	0.00
11,600.00	89.81	359.62	10,795.83	1,579.36	317.49	1,577.22	0.00	0.00	0.00
11,700.00	89.81	359.62	10,796.17	1,679.36	316.82	1,677.22	0.00	0.00	0.00
11,800.00	89.81	359.62	10,796.51	1,779.36	316.15	1,777.22	0.00	0.00	0.00
11,900.00	89.81	359.62	10,796.85	1,879.35	315.48	1,877.22	0.00	0.00	0.00
12,000.00	89.81	359.62	10,797.19	1,979.35	314.81	1,977.22	0.00	0.00	0.00
12,100.00	89.81	359.62	10,797.53	2,079.35	314.14	2,077.22	0.00	0.00	0.00
12,200.00	89.81	359.62	10,797.86	2,179.34	313.47	2,177.22	0.00	0.00	0.00
12,300.00	89.81	359.62	10,798.20	2,279.34	312.80	2,277.22	0.00	0.00	0.00
12,400.00	89.81	359.62	10,798.54	2,379.34	312.13	2,377.22	0.00	0.00	0.00
12,500.00	89.81	359.62	10,798.88	2,479.34	311.46	2,477.22	0.00	0.00	0.00
12,600.00	89.81	359.62	10,799.22	2,579.33	310.78	2,577.21	0.00	0.00	0.00
12,700.00	89.81	359.62	10,799.56	2,679.33	310.11	2,677.21	0.00	0.00	0.00
12,800.00	89.81	359.62	10,799.90	2,779.33	309.44	2,777.21	0.00	0.00	0.00
12,900.00	89.81	359.62	10,800.23	2,879.32	308.77	2,877.21	0.00	0.00	0.00
13,000.00	89.81	359.62	10,800.57	2,979.32	308.10	2,977.21	0.00	0.00	0.00
13,100.00	89.81	359.62	10,800.91	3,079.32	307.43	3,077.21	0.00	0.00	0.00
13,200.00	89.81	359.62	10,801.25	3,179.32	306.76	3,177.21	0.00	0.00	0.00
13,300.00	89.81	359.62	10,801.59	3,279.31	306.09	3,277.21	0.00	0.00	0.00
13,400.00	89.81	359.62	10,801.93	3,379.31	305.42	3,377.21	0.00	0.00	0.00
13,500.00	89.81	359.62	10,802.27	3,479.31	304.74	3,477.21	0.00	0.00	0.00
13,600.00	89.81	359.62	10,802.60	3,579.30	304.07	3,577.21	0.00	0.00	0.00

<b>Database:</b>	USA Compass	<b>Local Co-ordinate Reference:</b>	Well 216H
<b>Company:</b>	Titus Oil & Gas Production, LLC	<b>TVD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Project:</b>	Lea County, NM - (NAD83 NME)	<b>MD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Site:</b>	Wild Salsa 24-13	<b>North Reference:</b>	Grid
<b>Well:</b>	216H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1 08-15-19		

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)	
13,700.00	89.81	359.62	10,802.94	3,679.30	303.40	3,677.21	0.00	0.00	0.00	
13,800.00	89.81	359.62	10,803.28	3,779.30	302.73	3,777.21	0.00	0.00	0.00	
13,900.00	89.81	359.62	10,803.62	3,879.30	302.06	3,877.21	0.00	0.00	0.00	
14,000.00	89.81	359.62	10,803.96	3,979.29	301.39	3,977.21	0.00	0.00	0.00	
14,100.00	89.81	359.62	10,804.30	4,079.29	300.72	4,077.21	0.00	0.00	0.00	
14,200.00	89.81	359.62	10,804.63	4,179.29	300.05	4,177.21	0.00	0.00	0.00	
14,300.00	89.81	359.62	10,804.97	4,279.28	299.38	4,277.21	0.00	0.00	0.00	
14,400.00	89.81	359.62	10,805.31	4,379.28	298.71	4,377.20	0.00	0.00	0.00	
14,500.00	89.81	359.62	10,805.65	4,479.28	298.03	4,477.20	0.00	0.00	0.00	
14,600.00	89.81	359.62	10,805.99	4,579.28	297.36	4,577.20	0.00	0.00	0.00	
14,700.00	89.81	359.62	10,806.33	4,679.27	296.69	4,677.20	0.00	0.00	0.00	
14,800.00	89.81	359.62	10,806.67	4,779.27	296.02	4,777.20	0.00	0.00	0.00	
14,900.00	89.81	359.62	10,807.00	4,879.27	295.35	4,877.20	0.00	0.00	0.00	
15,000.00	89.81	359.62	10,807.34	4,979.26	294.68	4,977.20	0.00	0.00	0.00	
15,100.00	89.81	359.62	10,807.68	5,079.26	294.01	5,077.20	0.00	0.00	0.00	
15,200.00	89.81	359.62	10,808.02	5,179.26	293.34	5,177.20	0.00	0.00	0.00	
15,300.00	89.81	359.62	10,808.36	5,279.26	292.67	5,277.20	0.00	0.00	0.00	
15,400.00	89.81	359.62	10,808.70	5,379.25	291.99	5,377.20	0.00	0.00	0.00	
15,500.00	89.81	359.62	10,809.04	5,479.25	291.32	5,477.20	0.00	0.00	0.00	
15,600.00	89.81	359.62	10,809.37	5,579.25	290.65	5,577.20	0.00	0.00	0.00	
15,700.00	89.81	359.62	10,809.71	5,679.25	289.98	5,677.20	0.00	0.00	0.00	
15,800.00	89.81	359.62	10,810.05	5,779.24	289.31	5,777.20	0.00	0.00	0.00	
15,900.00	89.81	359.62	10,810.39	5,879.24	288.64	5,877.20	0.00	0.00	0.00	
16,000.00	89.81	359.62	10,810.73	5,979.24	287.97	5,977.20	0.00	0.00	0.00	
16,100.00	89.81	359.62	10,811.07	6,079.23	287.30	6,077.19	0.00	0.00	0.00	
16,200.00	89.81	359.62	10,811.41	6,179.23	286.63	6,177.19	0.00	0.00	0.00	
16,300.00	89.81	359.62	10,811.74	6,279.23	285.96	6,277.19	0.00	0.00	0.00	
16,400.00	89.81	359.62	10,812.08	6,379.23	285.28	6,377.19	0.00	0.00	0.00	
16,500.00	89.81	359.62	10,812.42	6,479.22	284.61	6,477.19	0.00	0.00	0.00	
16,600.00	89.81	359.62	10,812.76	6,579.22	283.94	6,577.19	0.00	0.00	0.00	
16,700.00	89.81	359.62	10,813.10	6,679.22	283.27	6,677.19	0.00	0.00	0.00	
16,800.00	89.81	359.62	10,813.44	6,779.21	282.60	6,777.19	0.00	0.00	0.00	
16,900.00	89.81	359.62	10,813.78	6,879.21	281.93	6,877.19	0.00	0.00	0.00	
17,000.00	89.81	359.62	10,814.11	6,979.21	281.26	6,977.19	0.00	0.00	0.00	
17,100.00	89.81	359.62	10,814.45	7,079.21	280.59	7,077.19	0.00	0.00	0.00	
17,200.00	89.81	359.62	10,814.79	7,179.20	279.92	7,177.19	0.00	0.00	0.00	
17,300.00	89.81	359.62	10,815.13	7,279.20	279.24	7,277.19	0.00	0.00	0.00	
17,400.00	89.81	359.62	10,815.47	7,379.20	278.57	7,377.19	0.00	0.00	0.00	
17,500.00	89.81	359.62	10,815.81	7,479.19	277.90	7,477.19	0.00	0.00	0.00	
17,600.00	89.81	359.62	10,816.14	7,579.19	277.23	7,577.19	0.00	0.00	0.00	
17,700.00	89.81	359.62	10,816.48	7,679.19	276.56	7,677.19	0.00	0.00	0.00	
17,800.00	89.81	359.62	10,816.82	7,779.19	275.89	7,777.19	0.00	0.00	0.00	
17,900.00	89.81	359.62	10,817.16	7,879.18	275.22	7,877.18	0.00	0.00	0.00	
18,000.00	89.81	359.62	10,817.50	7,979.18	274.55	7,977.18	0.00	0.00	0.00	
18,100.00	89.81	359.62	10,817.84	8,079.18	273.88	8,077.18	0.00	0.00	0.00	
18,200.00	89.81	359.62	10,818.18	8,179.17	273.21	8,177.18	0.00	0.00	0.00	
18,300.00	89.81	359.62	10,818.51	8,279.17	272.53	8,277.18	0.00	0.00	0.00	
18,400.00	89.81	359.62	10,818.85	8,379.17	271.86	8,377.18	0.00	0.00	0.00	
18,500.00	89.81	359.62	10,819.19	8,479.17	271.19	8,477.18	0.00	0.00	0.00	
18,600.00	89.81	359.62	10,819.53	8,579.16	270.52	8,577.18	0.00	0.00	0.00	
18,700.00	89.81	359.62	10,819.87	8,679.16	269.85	8,677.18	0.00	0.00	0.00	
18,800.00	89.81	359.62	10,820.21	8,779.16	269.18	8,777.18	0.00	0.00	0.00	
18,900.00	89.81	359.62	10,820.55	8,879.15	268.51	8,877.18	0.00	0.00	0.00	
19,000.00	89.81	359.62	10,820.88	8,979.15	267.84	8,977.18	0.00	0.00	0.00	

<b>Database:</b>	USA Compass	<b>Local Co-ordinate Reference:</b>	Well 216H
<b>Company:</b>	Titus Oil & Gas Production, LLC	<b>TVD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Project:</b>	Lea County, NM - (NAD83 NME)	<b>MD Reference:</b>	RKB @ 3748.50usft (Preliminary)
<b>Site:</b>	Wild Salsa 24-13	<b>North Reference:</b>	Grid
<b>Well:</b>	216H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan 1 08-15-19		

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)
19,100.00	89.81	359.62	10,821.22	9,079.15	267.17	9,077.18	0.00	0.00	0.00
19,200.00	89.81	359.62	10,821.56	9,179.15	266.49	9,177.18	0.00	0.00	0.00
19,300.00	89.81	359.62	10,821.90	9,279.14	265.82	9,277.18	0.00	0.00	0.00
19,400.00	89.81	359.62	10,822.24	9,379.14	265.15	9,377.18	0.00	0.00	0.00
19,500.00	89.81	359.62	10,822.58	9,479.14	264.48	9,477.18	0.00	0.00	0.00
19,600.00	89.81	359.62	10,822.92	9,579.14	263.81	9,577.17	0.00	0.00	0.00
19,700.00	89.81	359.62	10,823.25	9,679.13	263.14	9,677.17	0.00	0.00	0.00
19,800.00	89.81	359.62	10,823.59	9,779.13	262.47	9,777.17	0.00	0.00	0.00
19,900.00	89.81	359.62	10,823.93	9,879.13	261.80	9,877.17	0.00	0.00	0.00
19,920.47	89.81	359.62	10,824.00	9,899.60	261.66	9,897.64	0.00	0.00	0.00
<b>TD at 19920.47</b>									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Wild Salsa 24-13 : - hit/miss target - Shape - Point	0.00	0.00	10,794.00	756.11	322.82	467,522.09	761,522.38	32° 16' 59.815912 N	103° 37' 15.026825 W
- plan misses target center by 103.86usft at 10811.43usft MD (10704.93 TVD, 809.53 N, 322.66 E)									
PP - Wild Salsa 24-13 2 : - hit/miss target - Shape - Point	0.00	0.00	10,794.00	556.12	324.10	467,322.10	761,523.66	32° 16' 57.836886 N	103° 37' 15.027388 W
- plan misses target center by 236.96usft at 10700.00usft MD (10630.14 TVD, 727.28 N, 323.21 E)									
LTP - Wild Salsa 24-13 2 : - hit/miss target - Shape - Point	0.19	359.62	10,823.67	9,799.60	262.33	476,565.58	761,461.89	32° 18' 29.306895 N	103° 37' 15.031501 W
- plan misses target center by 0.01usft at 19820.47usft MD (10823.66 TVD, 9799.60 N, 262.33 E) - Rectangle (sides W100.00 H9,043.72 D0.00)									
BHL - Wild Salsa 24-13 : - hit/miss target - Shape - Point	0.00	0.00	10,824.00	9,899.60	261.66	476,665.58	761,461.22	32° 18' 30.296455 N	103° 37' 15.031563 W
- plan hits target center									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,500.00	1,500.00	0.00	0.00	KOP, Begin 2.00°/100' Build
1,850.05	1,849.18	18.86	10.02	Hold 7.00° Inc at 27.97° Azm
7,166.33	7,125.82	591.14	313.98	Begin 2.00°/100' Drop
7,516.38	7,475.00	610.00	324.00	Begin Vertical Hold
10,358.08	10,316.70	610.00	324.00	KOP2, Begin 12.00°/100' Build
11,106.46	10,794.16	1,085.83	320.81	LP, Hold 89.80° Inc at 359.62° Azm
19,920.47	10,824.00	9,899.60	261.66	TD at 19920.47

# Titus Oil & Gas Production, LLC - Wild Salsa 24-13 Fed 216H

## 1. Geologic Formations

TVD of target	10,824' EOL	Pilot hole depth	NA
MD at TD:	19,920'	Deepest expected fresh water:	400'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	907	Water	
Top of Salt	1237	Salt	
Base of Salt	4817	Salt	
Lamar	5082	Salt Water	
Delaware	5097	Salt Water	
Bone Spring Lime	8862	Oil/Gas	
Leonard	9065	Oil/Gas	
1st Bone Spring Sand	10002	Oil/Gas	
2nd Bone Spring Sand	10622	Target Oil/Gas	
3rd Bone Spring Sand	11900	Not Penetrated	
Wolfcamp	12208	Not Penetrated	
X	X	Not Penetrated	
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 Tension
	From	To							
17.5"	0	935	13.375"	54.5	J55	STC	2.64	1.25	10.09
12.25"	0	5110	9.625"	40	J55	LTC	0.95	0.94	2.54
8.75"	0	19,920	5.5"	17	P110	LTC	1.41	2.53	2.42
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.  
 Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.  
 All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

**Titus Oil & Gas Production, LLC - Wild Salsa 24-13 Fed 216H**

	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
<b>Is well located within Capitan Reef?</b>	
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary?	
<b>Is well located in SOPA but not in R-111-P?</b>	
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	N
<b>Is well located in R-111-P and SOPA?</b>	
If yes, are the first three strings cemented to surface?	N
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
<b>Is well located in high Cave/Karst?</b>	
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
<b>Is well located in critical Cave/Karst?</b>	
If yes, are there three strings cemented to surface?	N

**Titus Oil & Gas Production, LLC - Wild Salsa 24-13 Fed 216H**

**3. Cementing Program**

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H <sub>2</sub> O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	370	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl <sub>2</sub>
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl <sub>2</sub>
Inter.	990	12.7	2.0	9.6	16	Lead: 35:65:6 C Blend
	250	14.8	1.34	6.34	8	Tail: Class C
5.5 Prod	800	11.9	2.5	19	72	Lead: 50:50:10 H Blend
	2440	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

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 <sup>st</sup> Intermediate	0'	50%
Production	4,610'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
---	--

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	x	Tested to:
12-1/4"	13-5/8"	2M	Annular	x	2000 psi
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram	x	
			Pipe Ram	x	
			Double Ram		
			Other*		

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. See attached schematics.

X	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?
N	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 24-13 Fed 216H**

**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	Saturated Brine	10 - 10.2	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 9.4	28-34	N/C

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.
Y	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	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	5295 psi at 10824' TVD
Abnormal Temperature	NO 165 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

**APD ID:** 10400046207

**Submission Date:** 08/22/2019

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Section 1 - General

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

## Section 2 - Lined Pits

**Would you like to utilize Lined Pit PWD options?** N

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Lined pit PWD on or off channel:**

**Lined pit PWD discharge volume (bbl/day):**

**Lined pit specifications:**

**Pit liner description:**

**Pit liner manufacturers information:**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal permit:**

**Lined pit precipitated solids disposal schedule:**

**Lined pit precipitated solids disposal schedule attachment:**

**Lined pit reclamation description:**

**Lined pit reclamation attachment:**

**Leak detection system description:**

**Leak detection system attachment:**

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Lined pit Monitor description:**

**Lined pit Monitor attachment:**

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

**Is the reclamation bond a rider under the BLM bond?**

**Lined pit bond number:**

**Lined pit bond amount:**

**Additional bond information attachment:**

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

**Would you like to utilize Unlined Pit PWD options?** N

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

**PWD disturbance (acres):**

**PWD surface owner:**

**Unlined pit PWD on or off channel:**

**Unlined pit PWD discharge volume (bbl/day):**

**Unlined pit specifications:**

**Precipitated solids disposal:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal permit:**

**Unlined pit precipitated solids disposal schedule:**

**Unlined pit precipitated solids disposal schedule attachment:**

**Unlined pit reclamation description:**

**Unlined pit reclamation attachment:**

**Unlined pit Monitor description:**

**Unlined pit Monitor attachment:**

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

**Beneficial use user confirmation:**

**Estimated depth of the shallowest aquifer (feet):**

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

**TDS lab results:**

**Geologic and hydrologic evidence:**

**State authorization:**

**Unlined Produced Water Pit Estimated percolation:**

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

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Is the reclamation bond a rider under the BLM bond?**

**Unlined pit bond number:**

**Unlined pit bond amount:**

**Additional bond information attachment:**

#### Section 4 - Injection

**Would you like to utilize Injection PWD options?** N

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Injection PWD discharge volume (bbl/day):**

**Injection well mineral owner:**

**Injection well type:**

**Injection well number:**

**Injection well name:**

**Assigned injection well API number?**

**Injection well API number:**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

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

**UIC Permit attachment:**

#### Section 5 - Surface Discharge

**Would you like to utilize Surface Discharge PWD options?** N

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Surface discharge PWD discharge volume (bbl/day):**

**Surface Discharge NPDES Permit?**

**Surface Discharge NPDES Permit attachment:**

**Surface Discharge site facilities information:**

**Surface discharge site facilities map:**

#### Section 6 - Other

**Would you like to utilize Other PWD options?** N

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

**PWD surface owner:**

**PWD disturbance (acres):**

**Other PWD discharge volume (bbl/day):**

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

**Other PWD type description:**

**Other PWD type attachment:**

**Have other regulatory requirements been met?**

**Other regulatory requirements attachment:**



**APD ID:** 10400046207

**Submission Date:** 08/22/2019

Highlighted data  
reflects the most  
recent changes

**Operator Name:** TITUS OIL AND GAS PRODUCTION LLC

**Well Name:** WILD SALSA 24-13 FED

**Well Number:** 216H

[Show Final Text](#)

**Well Type:** OIL WELL

**Well Work Type:** Drill

## Bond Information

**Federal/Indian APD:** FED

**BLM Bond number:** NMB001532

**BIA Bond number:**

**Do you have a reclamation bond?** NO

**Is the reclamation bond a rider under the BLM bond?**

**Is the reclamation bond BLM or Forest Service?**

**BLM reclamation bond number:**

**Forest Service reclamation bond number:**

**Forest Service reclamation bond attachment:**

**Reclamation bond number:**

**Reclamation bond amount:**

**Reclamation bond rider amount:**

**Additional reclamation bond information attachment:**

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  
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number		<sup>2</sup> Pool Code 17644		<sup>3</sup> Pool Name DIAMONDTAIL; BONE SPRING	
<sup>4</sup> Property Code 328507		<sup>5</sup> Property Name WILD SALSA 24-13 FED			<sup>6</sup> Well Number 216H
<sup>7</sup> OGRID No. 373986		<sup>8</sup> Operator Name TITUS OIL & GAS PRODUCTION, LLC			<sup>9</sup> Elevation 3722'

<sup>10</sup> Surface Location

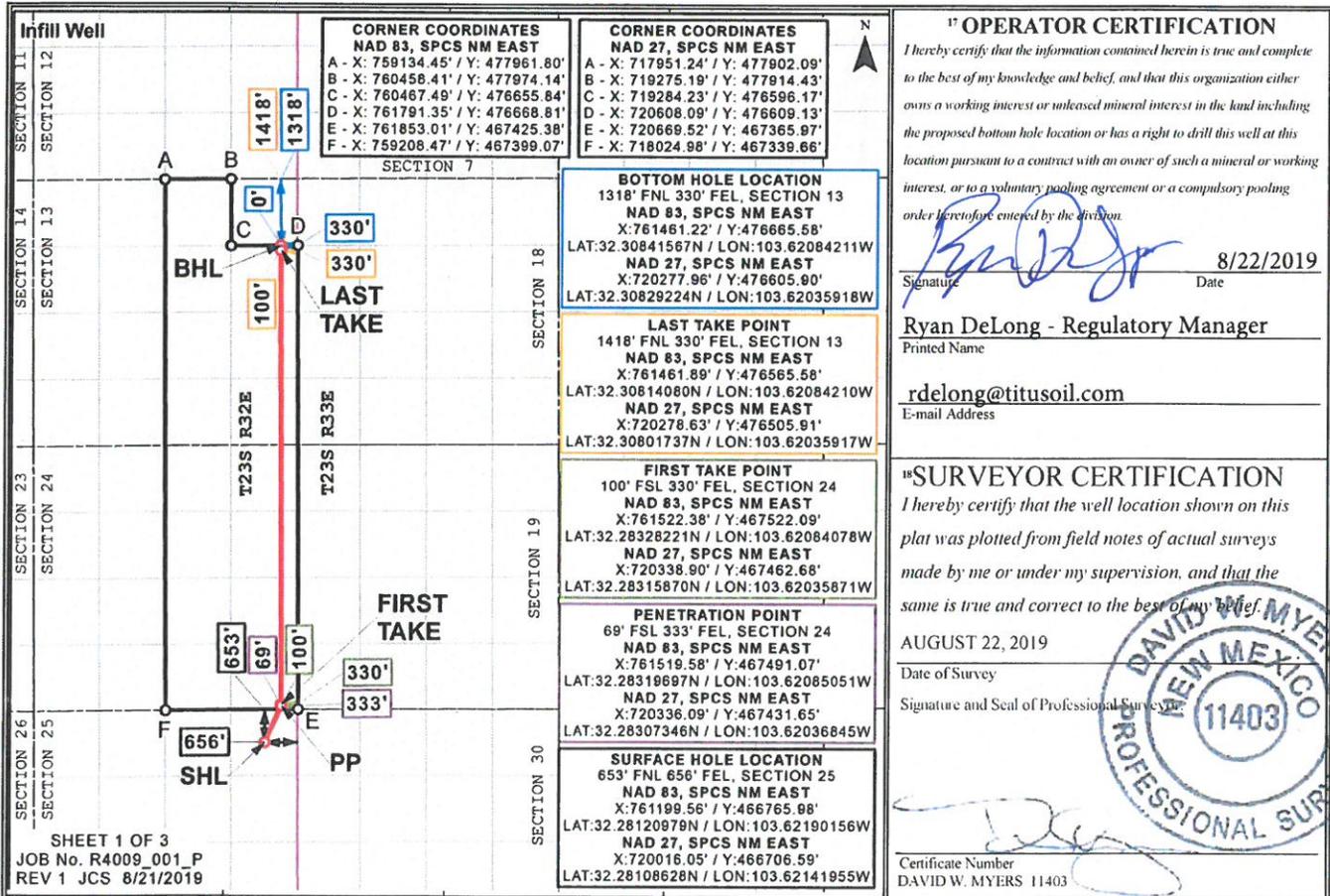
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	25	23S	32E		653	NORTH	656	EAST	LEA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	13	23S	32E		1318	NORTH	330	EAST	LEA

<sup>12</sup> Dedicated Acres 600.0	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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.



Distances/areas relative to NAD 83 Combined Scale Factor: 0.99996450 Convergence: 00°22'48.65002"

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Original  
to Appropriate  
District Office

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

**OCD - HOBBS**  
**06/24/2020**  
**RECEIVED**

**GAS CAPTURE PLAN**

Date: 8/21/2019

Original Operator & OGRID No.: 373986  
 Amended - Reason for Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

**Well(s)/Production Facility – Name of facility**

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Wild Salsa 24-13 Fed 323H		Sec 25, T23S, R32E	653' FNL & 1236' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 324H		Sec 25, T23S, R32E	653' FNL & 1186' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 404H		Sec 25, T23S, R32E	653' FNL & 1261' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 405H		Sec 25, T23S, R32E	653' FNL & 1211' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 406H		Sec 25, T23S, R32E	653' FNL & 1161' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 214H		Sec 25, T23S, R32E	653' FNL & 1766' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 215H		Sec 25, T23S, R32E	653' FNL & 706' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 216H <b>30-025-47634</b>		Sec 25, T23S, R32E	653' FNL & 656' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 223H		Sec 25, T23S, R32E	653' FNL & 1741' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 224H		Sec 25, T23S, R32E	653' FNL & 681' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 094H		Sec 25, T23S, R32E	653' FNL & 1526' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 095H		Sec 25, T23S, R32E	653' FNL & 971' FEL	4024	None Planned	Wild Salsa CTB will be utilized
Wild Salsa 24-13 Fed 096H		Sec 25, T23S, R32E	678' FNL & 971' FEL	4024	None Planned	Wild Salsa CTB will be utilized

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, where a gas transporter system is in place. The gas produced from production facility is dedicated to Lucid and is connected to a Lucid high pressure gathering system located in Lea County, New Mexico. Titus provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Titus and Lucid have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at a Lucid's Red Hills Plant located in Sec 13, T24S, R33E near Jal, NM. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

## **Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the well(s) start flowing through the production facilities, unless there are operational issues on Lucid's system at that time. Based on current information, it is Titus's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be flared rather than sold on a temporary basis.

## **Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines