Received by OCD: 12/10/2020 5:06:46 PM

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Form 3160-3 (June 2015)	UNITED STATES		DCD – HOBBS 12/01/2020 RECEIVED	OMB N Expires: J	APPROVED (o. 1004-0137 anuary 31, 2018
	DEPARTMENT OF THE IN BUREAU OF LAND MANA	-	Г	5. Lease Serial No.	
APPLIC	CATION FOR PERMIT TO D	_		6. If Indian, Allotee	or Tribe Name
1a. Type of work:		EENTER		7. If Unit or CA Ag	reement, Name and No.
1b. Type of Well:1c. Type of Completion:		her ngle Zone [Multiple Zone	8. Lease Name and	Well No. [329744]
2. Name of Operator	[27200/]			9. API Well No. 3	30-025-48141
3a. Address	[373986]		Io. (include area code)	10. Field and Pool,	or Exploratory [96672]
<u></u>		20. 1 1010	(
 Location of Well (Repo At surface 	rt location clearly and in accordance w	vith any State	requirements.*)	11. Sec., T. R. M. o	r Blk. and Survey or Area
At proposed prod. zon	e				
14. Distance in miles and o	lirection from nearest town or post offic	ce*		12. County or Paris	h 13. State
15. Distance from propose location to nearest property or lease line, ; (Also to nearest drig, u	ft.	16. No of ac	cres in lease 17. S	Spacing Unit dedicated to	his well
18. Distance from propose to nearest well, drilling applied for, on this leas	ed location* g, completed,	19. Propose	d Depth 20. F	BLM/BIA Bond No. in file	:
21. Elevations (Show whet	her DF, KDB, RT, GL, etc.)	22. Approxi	mate date work will start*	23. Estimated durat	ion
		24. Attac	chments		
The following, completed (as applicable)	in accordance with the requirements of	Onshore Oil	and Gas Order No. 1, and	the Hydraulic Fracturing	rule per 43 CFR 3162.3-3
	egistered surveyor. ne location is on National Forest Syster h the appropriate Forest Service Office		Item 20 above). 5. Operator certification.		n existing bond on file (see s may be requested by the
25. Signature		Name	(Printed/Typed)		Date
Title		I			<u>.</u>
Approved by (Signature)		Name	(Printed/Typed)		Date
Title		Office	;		
Application approval does applicant to conduct opera Conditions of approval, if		t holds legal	or equitable title to those r	ights in the subject lease w	hich would entitle the
	01 and Title 43 U.S.C. Section 1212, m lse, fictitious or fraudulent statements of				any department or agency
GCP Rec 1	2/01/2020		TH CONDITION	is K	Z 10912020
SL	ANDRO	VED WI	TH COMPLEX		
(Continued on page 2	APTIN APTIN			*(In	structions on page 2)





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INSTRUCTIONS

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

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

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

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

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

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

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

NOTICES

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

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

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

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

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

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

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

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

Additional Operator Remarks

Location of Well

0. SHL: TR E / 1828 FNL / 632 FWL / TWSP: 26S / RANGE: 35E / SECTION: 29 / LAT: 32.0165066 / LONG: -103.395892 (TVD: 0 feet, MD: 0 feet) PPP: LOT 4 / 0 FNL / 331 FWL / TWSP: 26S / RANGE: 35E / SECTION: 32 / LAT: 32.007006 / LONG: -103.396851 (TVD: 10549 feet, MD: 13300 feet) PPP: TR L / 2642 FSL / 331 FWL / TWSP: 26S / RANGE: 35E / SECTION: 29 / LAT: 32.014269 / LONG: -103.396861 (TVD: 10515 feet, MD: 10700 feet) BHL: LOT 4 / 10 FSL / 330 FWL / TWSP: 26S / RANGE: 35E / SECTION: 32 / LAT: 32.0003194 / LONG: -103.3968424 (TVD: 10550 feet, MD: 15769 feet)

BLM Point of Contact

Name: TYLER HILL Title: LIE Phone: (575) 234-5972 Email: tjhill@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

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PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL		
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 111H	
SURFACE HOLE FOOTAGE:	1828'/N & 632'/W	
BOTTOM HOLE FOOTAGE	10'/S & 330'/W	
LOCATION:	Section 29, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 201H	
SURFACE HOLE FOOTAGE:	1828'/N & 707'/W	
BOTTOM HOLE FOOTAGE	10'/S & 989'/W	
LOCATION:	Section 29, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 321H	
SURFACE HOLE FOOTAGE:	1828'/N & 657'/W	
BOTTOM HOLE FOOTAGE	10'/S & 330'/W	
LOCATION:	Section 29, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 431H	
SURFACE HOLE FOOTAGE:	1828'/N & 682'/W	
BOTTOM HOLE FOOTAGE	10'/S & 989'/W	
LOCATION:	Section 29, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 032H	
SURFACE HOLE FOOTAGE:	353'/S & 2077'/W	
BOTTOM HOLE FOOTAGE	10'/S & 1650'/W	
LOCATION:	Section 20, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 112H	
SURFACE HOLE FOOTAGE:	353'/S & 2107'/W	
BOTTOM HOLE FOOTAGE	10'/S & 1650'/W	
LOCATION:	Section 20, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 122H	
SURFACE HOLE FOOTAGE:	353'/S & 2137'/W	
BOTTOM HOLE FOOTAGE	10'/S & 2308'/W	
LOCATION:	Section 20, T.26 S., R.35 E., NMP	
COUNTY:	Lea County, New Mexico	

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OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 322H
SURFACE HOLE FOOTAGE:	579'/S & 2077'/W
BOTTOM HOLE FOOTAGE	10'/S & 1650'/W
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 032H
SURFACE HOLE FOOTAGE:	353'/S & 2077'/W
BOTTOM HOLE FOOTAGE	10'/S & 1650'/W
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 432H
SURFACE HOLE FOOTAGE:	579'/S & 2137'/W
BOTTOM HOLE FOOTAGE	10'/S & 2308'/W
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 512H
SURFACE HOLE FOOTAGE:	579'/S & 2107'/W
BOTTOM HOLE FOOTAGE	10'/S & 1850'/W
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 123H
SURFACE HOLE FOOTAGE:	355'/S & 1927'/E
BOTTOM HOLE FOOTAGE	10'/S & 1650'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 203H
SURFACE HOLE FOOTAGE:	355'/S & 1957'/E
BOTTOM HOLE FOOTAGE	10'/S & 2308'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 323H
SURFACE HOLE FOOTAGE:	581'/S & 1912'/E
BOTTOM HOLE FOOTAGE	10'/S & 1650'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 403H
SURFACE HOLE FOOTAGE:	581'/S & 1972'/E
BOTTOM HOLE FOOTAGE	10'/S & 2308'/E
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LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 513H
SURFACE HOLE FOOTAGE:	581'/S & 1942'/E
BOTTOM HOLE FOOTAGE	10'/S & 1870'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 034H
SURFACE HOLE FOOTAGE:	332'/S & 590'/E
BOTTOM HOLE FOOTAGE	10'/S & 330'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 114H
SURFACE HOLE FOOTAGE:	332'/S & 650'/E
BOTTOM HOLE FOOTAGE	10'/S & 989'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
	TITUS OIL AND GAS PRODUCTION LLC
OPERATOR'S NAME:	
WELL NAME & NO.:	EL CAMPEON SOUTH FED 204H
SURFACE HOLE FOOTAGE: BOTTOM HOLE FOOTAGE	332'/S & 620'/E 10'/S & 330'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 404H
SURFACE HOLE FOOTAGE:	558'/S & 590'/E
BOTTOM HOLE FOOTAGE	10'/S & 330'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 434H
SURFACE HOLE FOOTAGE:	558'/S & 650'/E
BOTTOM HOLE FOOTAGE	10'/S & 989'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico
OPERATOR'S NAME:	TITUS OIL AND GAS PRODUCTION LLC
WELL NAME & NO.:	EL CAMPEON SOUTH FED 514H
SURFACE HOLE FOOTAGE:	558'/S & 620'/E
BOTTOM HOLE FOOTAGE	10'/S & 530'/E
LOCATION:	Section 20, T.26 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Lesser Prairie-Chicken Timing Stipulations
Ground-level Abandoned Well Marker
Sundry Application for Production Corridor
Hydrology
Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
Production (Post Drilling)
Well Structures & Facilities
Electric Lines
Interim Reclamation
Final Abandonment & Reclamation

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I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Sundry Notice for Production Corridor

A sundry notice will be filed for infrastructure falling within the analyzed production corridor. The corridor was analyzed without specifications of infrastructure. Any pipelines, flowlines, lift lines, or other oil and gas infrastructure will be applied for in a sundry notice and will need to be approved separately before construction.

Hydrology:

The entire well pad(s) will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects

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within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility. The berm would be maintained through the life of the wells and after interim reclamation has been completed.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion. *Received by OCD: 12/10/2020 5:06:46 PM*

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VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

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Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

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Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: $\underline{400'}_{4\%} + 100' = 200'$ lead-off ditch interval $\underline{4\%}$

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

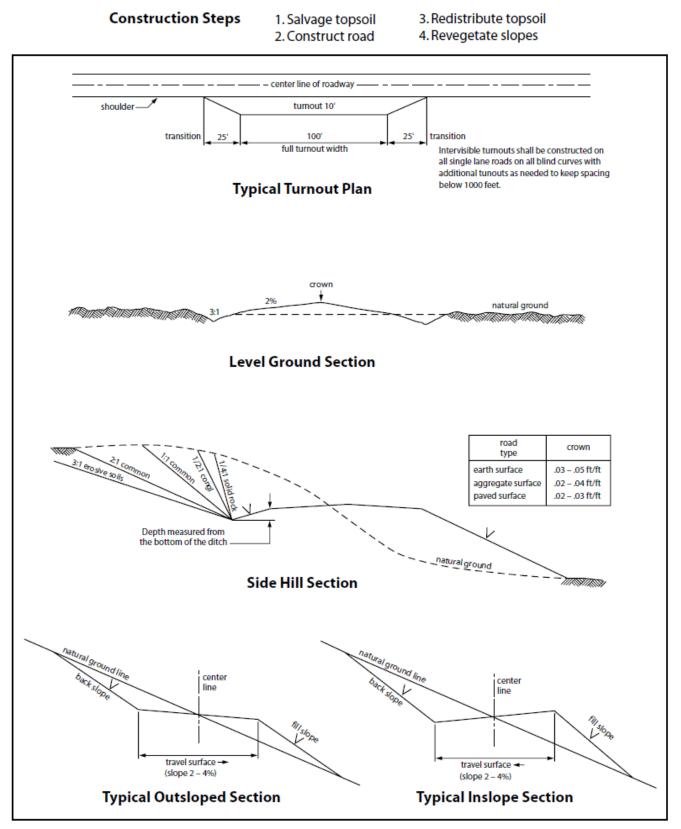
Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

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VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

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Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, <u>Shale Green</u> from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. OIL AND GAS RELATED SITES

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statues.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976, as amended (15 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act, Section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42

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U.S.C. 9601, et. seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et. seq.) on the right-of-way (unless the release or threatened release is wholly unrelated to the right-of-way holder's activity on the right-of-way). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.

6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)

7. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.

8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of

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evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site and access roads must undergo "final" reclamation so that the character and productivity of the land are restored. Earthwork for final reclamation must be completed within six (6) months of the abandonment of the site. All pads and facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact. After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately <u>6</u> inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

() seed mixture 1	() seed mixture 3
(X) seed mixture 2	() seed mixture 4
() seed mixture 2/LPC	() Aplomado Falcon Mixture

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil

conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. <u>Use a maximum netting mesh size of 1 ½ inches.</u>

17. Open-Vent Exhaust Stack Exclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

Hydrology Stipulations:

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.

Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain $1\frac{1}{2}$ times the content of the largest tank.

Wildlife Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

Range Stipulations:

Cattleguards

Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease

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operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement

Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 <u>et seq</u>. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the

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Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

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10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Wildlife Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	l <u>b/acre</u>
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed \mathbf{x} percent purity \mathbf{x} percent germination = pounds pure live seed

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TITUS Oil & Gas Production, LLC

100 Throckmorton Street Suite 1630 Fort Worth, TX 76102

Hydrogen Sulfide (H₂S) Contingency Plan

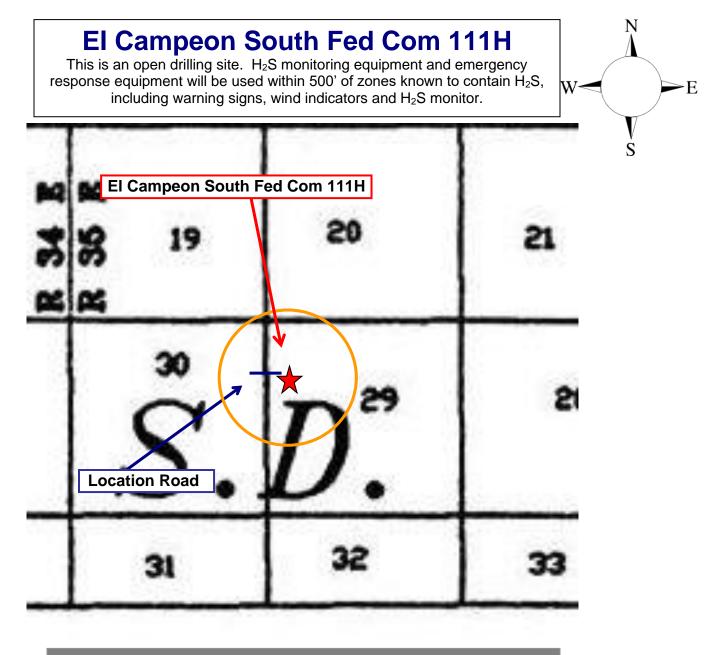
For

El Campeon South Fed Com 111H

Sec-29 T-26S R-35E 1828 FNL & 632' FWL LAT. = 32.01650665' N (NAD83) LONG = 103.39589201' W

Lea County NM

Titus Oil & Gas Cont. Plan - Page 1



Assumed 100 ppm ROE = 3000' (Radius of Exposure) 100 ppm H2S 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. <u>There are no homes or buildings in or near the ROE</u>.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, 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 H₂S 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 $H_2\bar{S}$, and
 - \circ $\,$ 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 (SO₂). 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

Common	Chemical	Specific	Threshold	Hazardous	Lethal
Name	Formula	Gravity	Limit	Limit	Concentration
Hydrogen Sulfide	H₂S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur	SO ₂	2.21	2 000	N/A	1000 ppm
Dioxide	302	Air = 1	2 ppm	IN/A	

Characteristics of H₂S and SO₂

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 (H₂S) 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 (H₂S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H₂S 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 H₂S 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 H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H_2S 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_2S .

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. H₂S detection and monitoring equipment:

Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights which activate when H₂S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
 Possum 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 H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

5. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H₂S trim.
- B. All elastomers used for packing and seals shall be H₂S 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 H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Titus Oil & Gas Company Call List

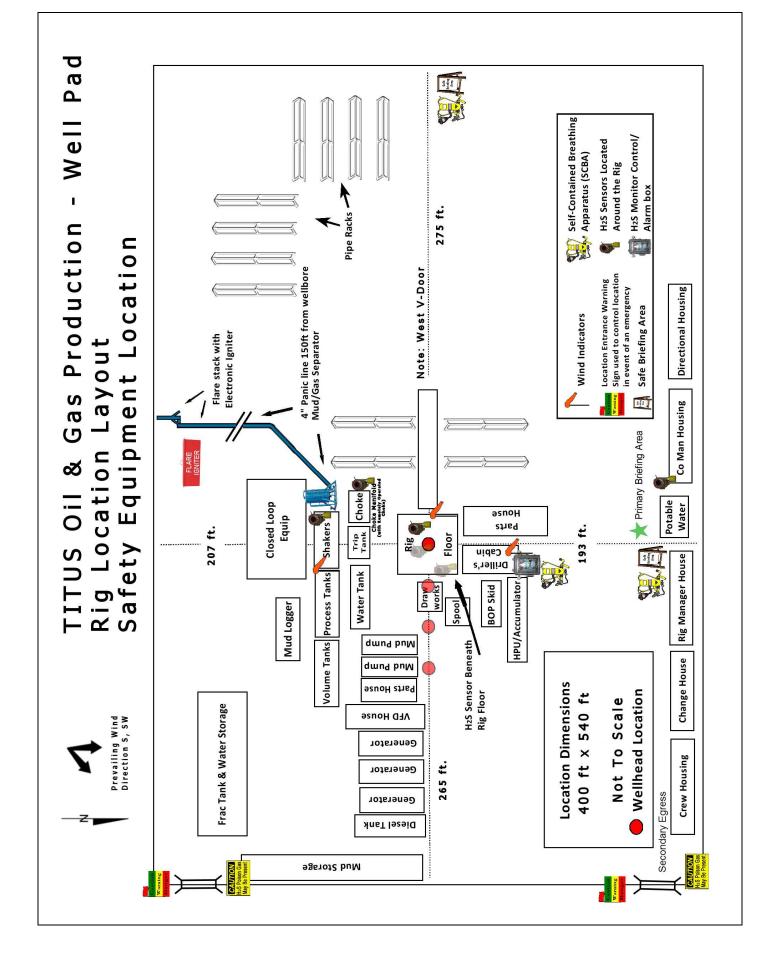
Drilling Supervisor –	
Ryan DeLong -	

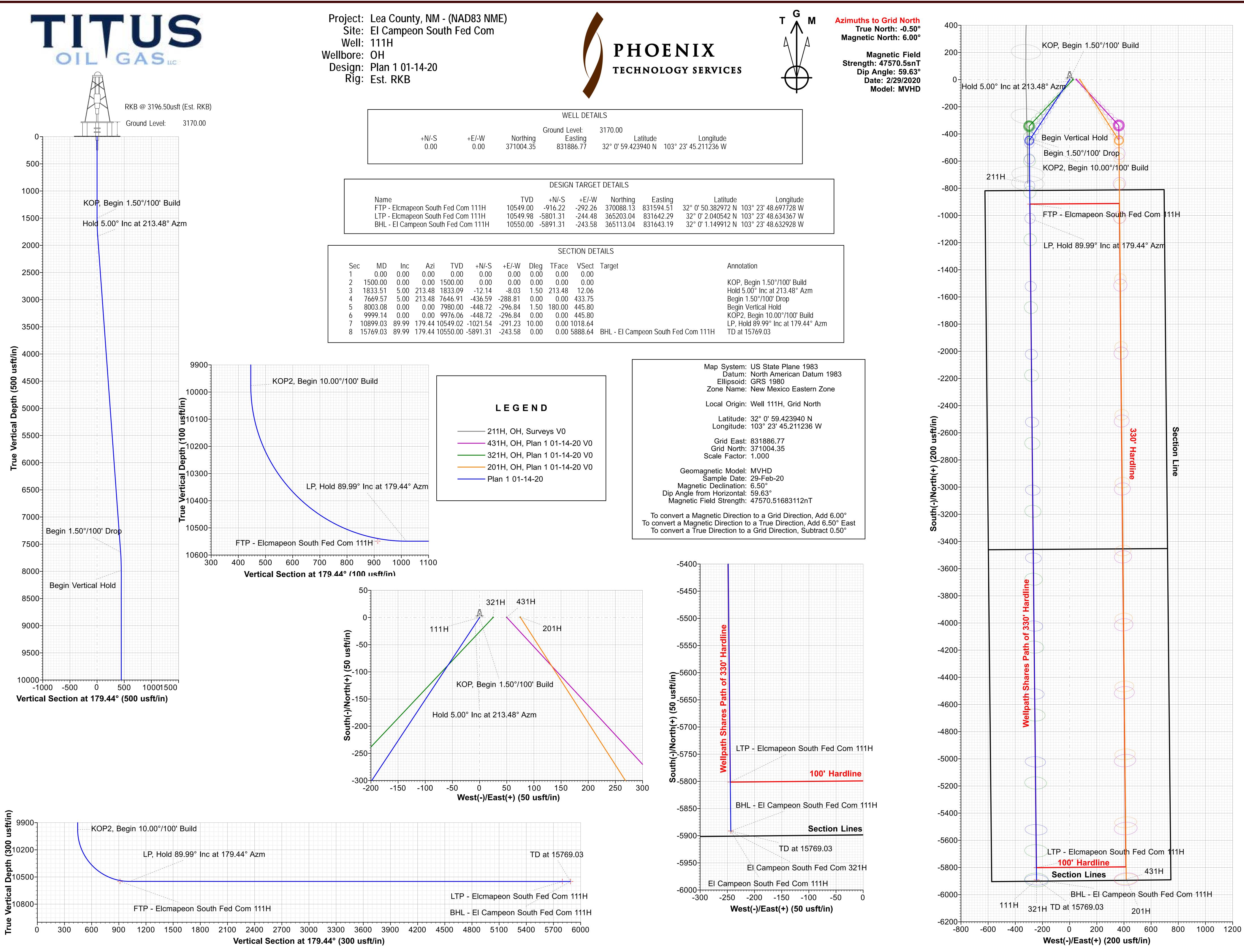
ng - Office (817) 852-6370 Mobile (405) 664-5188

Agency	Call List	
<u>Lea</u>	Hobbs	
<u>County</u>	Lea County Communication Authority	393-3981
<u>(575)</u>	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	911
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
Eddy	Carlsbad	
County	State Police	885-3137
(575)	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	911
	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
	Emergency Services	
	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
Give	Native Air – Emergency Helicopter – Hobbs	(575) 392-6429
GPS	Flight For Life - Lubbock, TX	(806) 743-9911
position:	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 - www.nhc.noaa.gov	

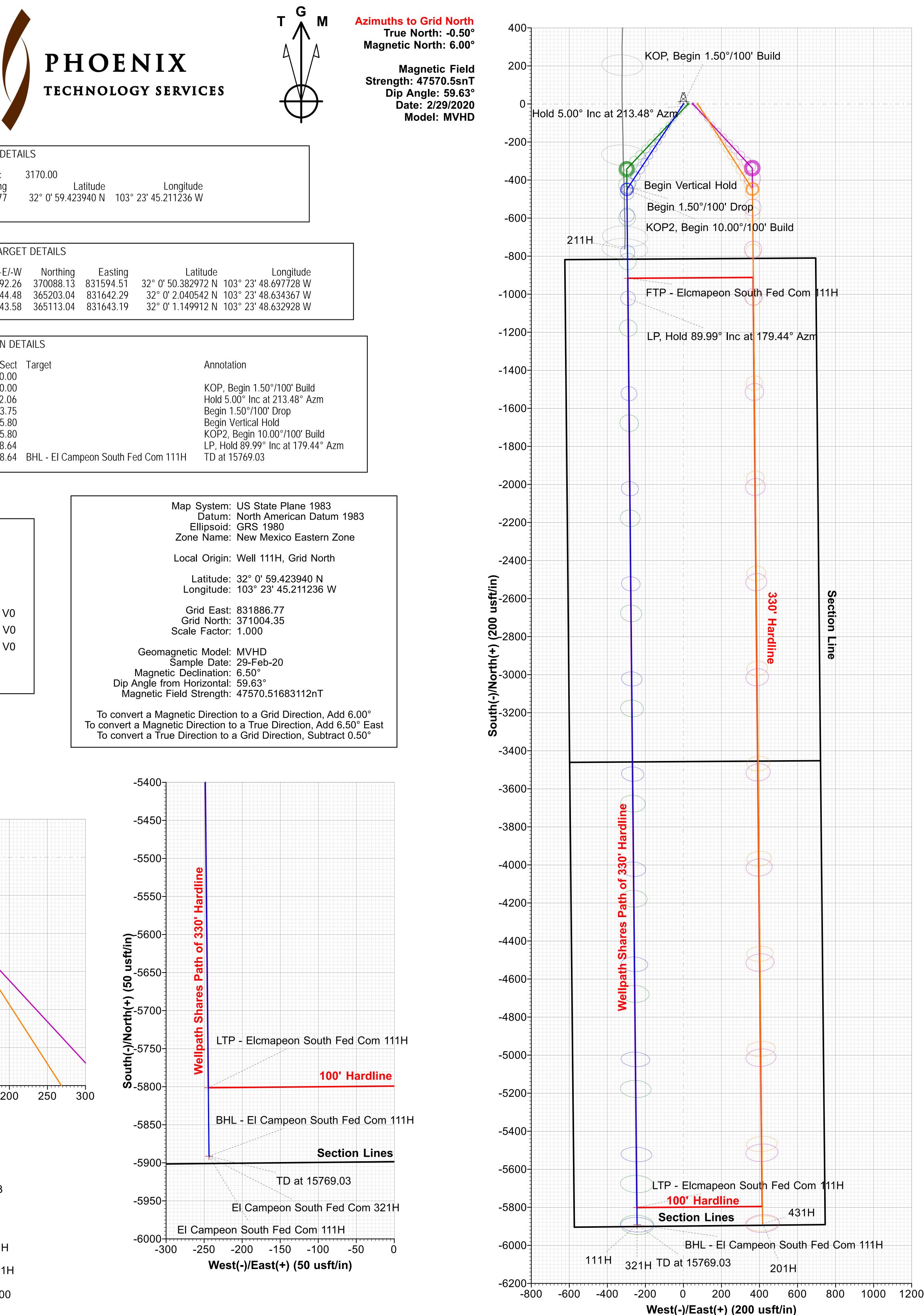


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Lea County, NM - (NAD83 NME)
El Campeon South Fed Com
111H
OH
Plan 1 01-14-20
Est. RKB



							WELL DETAILS						
			+N/-S 0.00			+E/-W 0.00		Northing 371004.35		evel: asting 386.77	3170.00 Latitude 32° 0' 59.423940 N		
DESIGN TARGET DET									T DETAILS				
	Name FTP - Elcmapeon South Fed Com 111H LTP - Elcmapeon South Fed Com 111H BHL - El Campeon South Fed Com 111H					T 10549 10549 10550	.98 -	+N/-S -916.22 5801.31 5891.31	+E/-W -292.26 -244.48 -243.58	370088.13 365203.04	Ea 8315 8316 8316		
SECTION DETA										TAILS			
	Sec 1 2 3 4 5 6 7 8	c MD 0.00 1500.00 1833.51 7669.57 8003.08 9999.14 10899.03 15769.03	Inc 0.00 0.00 5.00 5.00 0.00 0.00 89.99 89.99	213.48 213.48 0.00 0.00 179.44		-436.59 -448.72	+E/-W 0.00 0.00 -8.03 -288.81 -296.84 -296.84 -291.23 -243.58	Dleg 0.00 0.00 1.50 0.00 1.50 0.00	y TFace 0 0.00 0 0.00 213.48 0 0.00 180.00 0 0.00 0 0.00	VSect 0.00 0.00 12.06 433.75 445.80	Target BHL - El Carr	npeon S	

Date: 8:22, January 14 2020





Titus Oil & Gas Production, LLC

Lea County, NM - (NAD83 NME) El Campeon South Fed Com 111H

OH

Plan: Plan 1 01-14-20

Standard Planning Report

14 January, 2020



Received by OCD: 12/10/2020 5:06:46 PM



Planning Report



PHOENIX TECHNOLOGY SERVICES

Database: Company: Project: Site: Well: Wellbore: Design:	Titus C Lea Co El Can 111H OH	ompass Dil & Gas Produ Dunty, NM - (N/ npeon South Fr 01-14-20	AD83 NME)		TVD Refer MD Refere North Ref	ence:		Well 111H RKB @ 3196.56 RKB @ 3196.56 Grid Minimum Curva	0usft (Est. RKE	
Project	Lea Cou	unty, NM - (NA	D83 NME)							
Map System: Geo Datum: Map Zone:	North Am	Plane 1983 Ierican Datum Lico Eastern Zo			System Dat	tum:	M	ean Sea Level		
Site	El Cam	peon South Fe	d Com							
Site Position: From: Position Uncertainty	Map :		Northin Easting Susft Slot Ra	g:		,004.35 usft ,886.77 usft 13-3/16 "	Latitude: Longitude: Grid Converç	jence:		32° 0' 59.423940 N 103° 23' 45.211236 W 0.50 °
Well	111H									
Well Position	+N/-S	0.0	0 usft No	rthing:		371,004.35	usft Lat	itude:		32° 0' 59.423940 N
Position Uncertainty	+E/-W			sting: Ilhead Elevat	ion:	831,886.77		ngitude: ound Level:		103° 23' 45.211236 W 3,170.00 usft
Wellbore	OH									
Magnetics	Мо	del Name	Sample	Date	Declina (°)	tion	Dip A (-		Strength 1T)
		MVHD	:	2/29/2020	()	6.50	(59.63	•	570.51683112
Design	Plan 1 (01-14-20								
Audit Notes: Version:			Phase	: P	PLAN	Tie	On Depth:		0.00	
Vertical Section:		П	epth From (TV		+N/-S		/-W	Dir	rection	
Vertical Occurrin.		5	(usft)	2)	(usft)		sft)	0	(°)	
			0.00		0.00	0.	00	1	79.44	
Plan Survey Tool Pro Depth From (usft) 1 0.00	Depth (usf		1/13/2020 (Wellbore) 01-14-20 (OH)		Tool Name MWD+HDGM ⁺ OWSG Rev.2	+MS MWD + HDGN	Remarks 1 +			
Plan Sections										
-	nation (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00 1,500.00 1,833.51	0.00 0.00 5.00	0.00 0.00 213.48	0.00 1,500.00 1,833.09	0.00 0.00 -12.14	0.00 0.00 -8.03	0.00 0.00 1.50	0.00 0.00 1.50	0.00 0.00 0.00	0.00 0.00 213.48	
7,669.57 8,003.08 9,999.14	5.00 0.00 0.00	213.48 0.00 0.00	7,646.91 7,980.00 9,976.06	-436.59 -448.72 -448.72	-288.81 -296.84 -296.84	0.00 1.50 0.00	0.00 -1.50 0.00	0.00 0.00 0.00	0.00 180.00 0.00	
10,899.03 15,769.03	89.99 89.99	179.44 179.44	10,549.02 10,550.00	-1,021.54 -5,891.31	-291.23 -243.58	10.00 0.00	10.00 0.00	0.00 0.00	0.00 0.00	BHL - El Campeon Sc



Planning Report





Database:	USA Compass	Local Co-ordinate Reference:	Well 111H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	RKB @ 3196.50usft (Est. RKB)
Project:	Lea County, NM - (NAD83 NME)	MD Reference:	RKB @ 3196.50usft (Est. RKB)
Site:	El Campeon South Fed Com	North Reference:	Grid
Well:	111H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 01-14-20		

Planned Survey

0.00 1,500.00 KOP, Begin 1.50°/100 1,600.00 1,700.00 1,800.00 1,833.51 Hold 5.00° Inc at 213. 1,900.00 2,000.00 2,100.00 2,200.00 2,300.00 2,400.00 2,500.00 2,600.00 2,600.00 2,700.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,300.00 3,300.00 3,500.00 3,600.00 3,700.00 3,800.00 3,700.00 3,800.00 3,700.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 5,000.00 5,300.00 5,300.00 5,300.00 5,300.00 5,500.00	1.50 3.00 4.50 5.00	0.00 0.00 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48	0.00 1,500.00 1,599.99 1,699.91 1,799.69 1,833.09 1,899.32 1,899.32 1,998.94 2,098.56 2,198.18 2,297.80 2,397.42 2,497.04 2,596.66 2,696.28	0.00 0.00 -1.09 -4.37 -9.82 -12.14 -16.97 -24.24 -31.52 -38.79 -46.06 -53.34 -60.61	0.00 0.00 -0.72 -2.89 -6.50 -8.03 -11.23 -16.04 -20.85 -25.66 -30.47 -35.28	0.00 0.00 1.08 4.34 9.76 12.06 16.86 24.09 31.31 38.54	0.00 0.00 1.50 1.50 1.50 0.00 0.00 0.00	0.00 0.00 1.50 1.50 1.50 1.50 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
KOP, Begin 1.50°/100 1,600.00 1,700.00 1,800.00 1,833.51 Hold 5.00° Inc at 213. 1,900.00 2,000.00 2,100.00 2,300.00 2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 2,900.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 4,000.00 4,000.00 4,000.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,000.00 5,000.00 5,000.00 5,000.00	0' Build 1.50 3.00 4.50 5.00	213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48	1,599.99 1,699.91 1,799.69 1,833.09 1,833.09 1,889.32 1,988.94 2,098.56 2,198.18 2,297.80 2,397.42 2,497.04 2,596.66	-1.09 -4.37 -9.82 -12.14 -16.97 -24.24 -31.52 -38.79 -46.06 -53.34	-0.72 -2.89 -6.50 -8.03 -11.23 -16.04 -20.85 -25.66 -30.47	1.08 4.34 9.76 12.06 16.86 24.09 31.31 38.54	1.50 1.50 1.50 1.50 0.00 0.00 0.00	1.50 1.50 1.50 1.50 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
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1,600.00 1,700.00 1,800.00 1,833.51 Hold 5.00° Inc at 213. 1,900.00 2,000.00 2,000.00 2,200.00 2,300.00 2,400.00 2,500.00 2,600.00 2,600.00 2,600.00 2,900.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 3,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 4,000.00 5,	1.50 3.00 4.50 5.00 5.00 5.00 5.00 5.00 5.00 5	213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48	1,699.91 1,799.69 1,833.09 1,833.09 1,889.32 1,988.94 2,098.56 2,198.18 2,297.80 2,397.42 2,497.04 2,596.66	-4.37 -9.82 -12.14 -16.97 -24.24 -31.52 -38.79 -46.06 -53.34	-2.89 -6.50 -8.03 -11.23 -16.04 -20.85 -25.66 -30.47	4.34 9.76 12.06 16.86 24.09 31.31 38.54	1.50 1.50 0.00 0.00 0.00	1.50 1.50 1.50 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00 0.00
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Hold 5.00° Inc at 213. 1,900.00 2,000.00 2,100.00 2,200.00 2,200.00 2,300.00 2,500.00 2,600.00 2,600.00 2,700.00 2,800.00 3,000.00 3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,000.00 4,100.00 4,500.00 4,500.00 4,500.00 4,500.00 4,500.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	48° Azm 5.00	213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48	1,899.32 1,998.94 2,098.56 2,198.18 2,297.80 2,397.42 2,497.04 2,596.66	-16.97 -24.24 -31.52 -38.79 -46.06 -53.34	-11.23 -16.04 -20.85 -25.66 -30.47	16.86 24.09 31.31 38.54	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
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2,200.00 2,300.00 2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 3,000.00 3,000.00 3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,600.00 4,000.00 4,000.00 4,200.00 4,500.00 4,500.00 4,600.00 4,600.00 4,600.00 4,500.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	213.48 213.48 213.48 213.48 213.48 213.48 213.48 213.48	2,198.18 2,297.80 2,397.42 2,497.04 2,596.66	-38.79 -46.06 -53.34	-25.66 -30.47	38.54			
2,300.00 2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 3,000.00 3,000.00 3,100.00 3,200.00 3,400.00 3,500.00 3,600.00 3,600.00 4,000.00 4,000.00 4,200.00 4,500.00 4,500.00 4,600.00 4,600.00 4,600.00 4,600.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00 5.00 5.00 5.00 5.00	213.48 213.48 213.48 213.48 213.48 213.48 213.48	2,297.80 2,397.42 2,497.04 2,596.66	-46.06 -53.34	-30.47		0.00	0.00	
2,400.00 2,500.00 2,600.00 2,700.00 2,800.00 2,900.00 3,000.00 3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,600.00 4,000.00 4,000.00 4,100.00 4,200.00 4,300.00 4,500.00 4,500.00 4,600.00 4,700.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00 5.00 5.00 5.00	213.48 213.48 213.48 213.48 213.48 213.48	2,397.42 2,497.04 2,596.66	-53.34					
2,500.00 2,600.00 2,700.00 2,900.00 3,000.00 3,100.00 3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,600.00 4,000.00 4,000.00 4,200.00 4,300.00 4,500.00 4,500.00 4,600.00 4,600.00 4,600.00 4,500.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00 5.00 5.00 5.00	213.48 213.48 213.48 213.48	2,497.04 2,596.66		25 20	45.76	0.00	0.00	0.00
2,600.00 2,700.00 2,800.00 3,000.00 3,100.00 3,200.00 3,200.00 3,300.00 3,500.00 3,600.00 3,600.00 3,600.00 4,000.00 4,000.00 4,200.00 4,500.00 4,500.00 4,500.00 4,600.00 4,600.00 4,500.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00 5.00	213.48 213.48 213.48	2,596.66	-60.61		52.99	0.00	0.00	0.00
2,700.00 2,800.00 2,900.00 3,000.00 3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,600.00 3,800.00 3,800.00 4,000.00 4,000.00 4,200.00 4,300.00 4,600.00 4,600.00 4,600.00 4,600.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00 5.00	213.48 213.48			-40.09	60.21	0.00	0.00	0.00
2,800.00 2,900.00 3,000.00 3,100.00 3,200.00 3,200.00 3,400.00 3,500.00 3,500.00 3,600.00 3,700.00 4,000.00 4,000.00 4,100.00 4,200.00 4,200.00 4,500.00 4,500.00 4,500.00 4,500.00 4,500.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00 5.00	213.48	2,696.28	-67.88	-44.90	67.44	0.00	0.00	0.00
2,900.00 3,000.00 3,100.00 3,200.00 3,200.00 3,400.00 3,500.00 3,600.00 3,600.00 3,600.00 4,000.00 4,000.00 4,100.00 4,200.00 4,200.00 4,500.00 4,600.00 4,600.00 4,600.00 4,600.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00 5.00		,	-75.16	-49.72	74.67	0.00	0.00	0.00
3,000.00 3,100.00 3,200.00 3,200.00 3,400.00 3,500.00 3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,200.00 4,200.00 4,500.00 4,600.00 4,600.00 4,600.00 4,600.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00	040 40	2,795.89	-82.43	-54.53	81.89	0.00	0.00	0.00
3,100.00 3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,100.00 4,200.00 4,300.00 4,600.00 4,600.00 4,600.00 4,600.00 4,600.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00		213.48	2,895.51	-89.70	-59.34	89.12	0.00	0.00	0.00
3,200.00 3,300.00 3,400.00 3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,100.00 4,200.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	2,995.13	-96.97	-64.15	96.34	0.00	0.00	0.00
3,300.00 3,400.00 3,500.00 3,500.00 3,700.00 3,800.00 4,000.00 4,100.00 4,200.00 4,200.00 4,200.00 4,200.00 4,400.00 4,500.00 4,600.00 4,700.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00		213.48	3,094.75	-104.25	-68.96	103.57	0.00	0.00	0.00
3,400.00 3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,100.00 4,200.00 4,200.00 4,300.00 4,600.00 4,600.00 4,600.00 4,600.00 4,800.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,194.37	-111.52	-73.77	110.79	0.00	0.00	0.00
3,500.00 3,600.00 3,700.00 3,800.00 4,000.00 4,000.00 4,100.00 4,200.00 4,200.00 4,200.00 4,400.00 4,500.00 4,600.00 4,600.00 4,700.00 5,000.00 5,000.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,293.99	-118.79	-78.58	118.02	0.00	0.00	0.00
3,600.00 3,700.00 3,800.00 4,000.00 4,100.00 4,200.00 4,200.00 4,200.00 4,400.00 4,500.00 4,600.00 4,600.00 4,700.00 5,000.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,393.61	-126.07	-83.39	125.24	0.00	0.00	0.00
3,700.00 3,800.00 3,900.00 4,000.00 4,100.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,493.23	-133.34	-88.20	132.47	0.00	0.00	0.00
3,800.00 3,900.00 4,000.00 4,100.00 4,200.00 4,300.00 4,400.00 4,600.00 4,600.00 4,700.00 4,800.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,592.85	-140.61	-93.02	139.70	0.00	0.00	0.00
3,900.00 4,000.00 4,100.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,692.47	-147.88	-97.83	146.92	0.00	0.00	0.00
3,900.00 4,000.00 4,100.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,792.09	-155.16	-102.64	154.15	0.00	0.00	0.00
4,100.00 4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,891.70	-162.43	-107.45	161.37	0.00	0.00	0.00
4,200.00 4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	3,991.32	-169.70	-112.26	168.60	0.00	0.00	0.00
4,300.00 4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,090.94	-176.98	-117.07	175.82	0.00	0.00	0.00
4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,190.56	-184.25	-121.88	183.05	0.00	0.00	0.00
4,400.00 4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,290.18	-191.52	-126.69	190.27	0.00	0.00	0.00
4,500.00 4,600.00 4,700.00 4,800.00 4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,389.80	-198.80	-131.50	197.50	0.00	0.00	0.00
4,600.00 4,700.00 4,800.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,489.42	-206.07	-136.32	204.73	0.00	0.00	0.00
4,700.00 4,800.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,589.04	-213.34	-141.13	211.95	0.00	0.00	0.00
4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,688.66	-220.61	-145.94	219.18	0.00	0.00	0.00
4,900.00 5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,788.28	-227.89	-150.75	226.40	0.00	0.00	0.00
5,000.00 5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,887.90	-235.16	-155.56	233.63	0.00	0.00	0.00
5,100.00 5,200.00 5,300.00 5,400.00	5.00	213.48	4,987.51	-242.43	-160.37	240.85	0.00	0.00	0.00
5,200.00 5,300.00 5,400.00	5.00	213.48	5,087.13	-249.71	-165.18	248.08	0.00	0.00	0.00
5,400.00	5.00	213.48	5,186.75	-256.98	-169.99	255.31	0.00	0.00	0.00
5,400.00	5.00	213.48	5,286.37	-264.25	-174.80	262.53	0.00	0.00	0.00
	5.00	213.48	5,385.99	-271.52	-179.62	269.76	0.00	0.00	0.00
	5.00	213.48	5,485.61	-278.80	-184.43	276.98	0.00	0.00	0.00
5,600.00	5.00	213.48	5,585.23	-286.07	-189.24	284.21	0.00	0.00	0.00
5,700.00	5.00	213.48	5,684.85	-293.34	-194.05	291.43	0.00	0.00	0.00
5,800.00		213.48	5,784.47	-300.62	-198.86	298.66	0.00	0.00	0.00
5,900.00		213.48	5,884.09	-307.89	-203.67	305.88	0.00	0.00	0.00
6,000.00	5.00 5.00	213.48	5,983.70	-315.16	-208.48	313.11	0.00	0.00	0.00
6,100.00	5.00	213.48	6,083.32	-322.44	-213.29	320.34	0.00	0.00	0.00
6,200.00	5.00 5.00	213.48	6,182.94	-329.71	-218.10	327.56	0.00	0.00	0.00
6,300.00	5.00 5.00 5.00		6,282.56	-336.98	-222.92	334.79	0.00	0.00	0.00



Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well 111H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	RKB @ 3196.50usft (Est. RKB)
Project:	Lea County, NM - (NAD83 NME)	MD Reference:	RKB @ 3196.50usft (Est. RKB)
Site:	El Campeon South Fed Com	North Reference:	Grid
Well:	111H	Survey Calculation Method:	Minimum Curvature
Wellbore:	ОН		
Design:	Plan 1 01-14-20		

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	5.00	213.48	6,382.18	-344.25	-227.73	342.01	0.00	0.00	0.00
6,500.00	5.00	213.48	6,481.80	-351.53	-232.54	349.24	0.00	0.00	0.00
6,600.00	5.00	213.48	6,581.42	-358.80	-237.35	356.46	0.00	0.00	0.00
6,700.00	5.00	213.48	6,681.04	-366.07	-242.16	363.69	0.00	0.00	0.00
0,700.00	5.00	210.40	0,001.04	-300.07	-2-2.10	505.03	0.00	0.00	0.00
6,800.00	5.00	213.48	6,780.66	-373.35	-246.97	370.91	0.00	0.00	0.00
6,900.00	5.00	213.48	6,880.28	-380.62	-251.78	378.14	0.00	0.00	0.00
7,000.00	5.00	213.48	6,979.90	-387.89	-256.59	385.37	0.00	0.00	0.00
7,100.00	5.00	213.48	7,079.51	-395.16	-261.41	392.59	0.00	0.00	0.00
7,200.00	5.00	213.48	7,179.13	-402.44	-266.22	399.82	0.00	0.00	0.00
7,300.00	5.00	213.48	7,278.75	-409.71	-271.03	407.04	0.00	0.00	0.00
7,400.00	5.00	213.48	7,378.37	-416.98	-275.84	414.27	0.00	0.00	0.00
7,500.00	5.00	213.48	7,477.99	-424.26	-280.65	421.49	0.00	0.00	0.00
7,600.00	5.00	213.48	7,577.61	-431.53	-285.46	428.72	0.00	0.00	0.00
7,669.57	5.00	213.48	7,646.91	-436.59	-288.81	433.75	0.00	0.00	0.00
Begin 1.50°/			,						
-	ioo biop								
7,700.00	4.55	213.48	7,677.24	-438.70	-290.21	435.84	1.50	-1.50	0.00
7,800.00	3.05	213.48	7,777.02	-444.22	-293.86	441.33	1.50	-1.50	0.00
7,900.00	1.55	213.48	7,876.93	-447.56	-296.07	444.65	1.50	-1.50	0.00
8,000.00	0.05	213.48	7.976.92	-448.72	-296.83	445.80	1.50	-1.50	0.00
8,003.08	0.00	0.00	7,980.00	-448.72	-296.84	445.80	1.50	-1.50	4,758.50
Begin Vertic		0.00	.,	. 10.12	200.0 F	. 10.00	1.00	1.00	.,. 55.66
Begin vertica									
9,999.14	0.00	0.00	9,976.06	-448.72	-296.84	445.80	0.00	0.00	0.00
KOP2, Begin	10.00°/100' Bui	ld							
10,000.00	0.09	179.44	9,976.92	-448.73	-296.84	445.80	10.00	10.00	0.00
10,100.00	10.09	179.44	10,076.40	-457.58	-296.75	454.66	10.00	10.00	0.00
10,200.00	20.09	179.44	10,172.83	-483.57	-296.49	480.65	10.00	10.00	0.00
10,300.00	30.09	179.44	10,263.28	-525.91	-296.08	522.99	10.00	10.00	0.00
10,400.00	40.09	179.44	10,345.01	-583.32	-295.52	580.40	10.00	10.00	0.00
10,500.00	50.09	179.44	10,415.53	-654.04	-294.83	651.13	10.00	10.00	0.00
10,600.00	60.09	179.44	10,472.69	-735.93	-294.03	733.02	10.00	10.00	0.00
10,700.00	70.09	179.44	10,514.76	-826.51	-293.14	823.60	10.00	10.00	0.00
10,800.00	80.09	179.44	10,540.47	-923.01	-292.19	920.11	10.00	10.00	0.00
10,899.03	89.99	179.44	10,549.02	-1,021.54	-291.23	1,018.64	10.00	10.00	0.00
	99° Inc at 179.44								
10,900.00	89.99	179.44	10,549.02	-1,022.51	-291.22	1,019.62	0.00	0.00	0.00
11,000.00	89.99	179.44	10,549.04	-1,122.51	-290.24	1,119.62	0.00	0.00	0.00
11,100.00	89.99	179.44	10,549.06	-1,222.50	-289.26	1,219.62	0.00	0.00	0.00
11,200.00	89.99	179.44	10,549.08	-1,322.50	-288.29	1,319.62	0.00	0.00	0.00
,									
11,300.00	89.99	179.44	10,549.10	-1,422.49	-287.31	1,419.62	0.00	0.00	0.00
11,400.00	89.99	179.44	10,549.12	-1,522.49	-286.33	1,519.62	0.00	0.00	0.00
11,500.00	89.99	179.44	10,549.14	-1,622.48	-285.35	1,619.62	0.00	0.00	0.00
11,600.00	89.99	179.44	10,549.16	-1,722.48	-284.37	1,719.62	0.00	0.00	0.00
11,700.00	89.99	179.44	10,549.18	-1,822.47	-283.39	1,819.62	0.00	0.00	0.00
11,800.00	89.99	179.44	10,549.20	-1,922.47	-282.41	1,919.62	0.00	0.00	0.00
11,900.00	89.99	179.44	10,549.20	-2,022.46	-281.44	2,019.62	0.00	0.00	0.00
,									
12,000.00	89.99	179.44	10,549.24	-2,122.46	-280.46	2,119.62	0.00	0.00	0.00
12,100.00	89.99	179.44	10,549.26	-2,222.46	-279.48	2,219.62	0.00	0.00	0.00
12,200.00	89.99	179.44	10,549.28	-2,322.45	-278.50	2,319.62	0.00	0.00	0.00
12,300.00	89.99	179.44	10,549.30	-2,422.45	-277.52	2,419.62	0.00	0.00	0.00
12,400.00	89.99	179.44	10,549.32	-2,522.44	-276.54	2,519.62	0.00	0.00	0.00
12,500.00	89.99	179.44	10,549.34	-2,622.44	-275.56	2,619.62	0.00	0.00	0.00
12,600.00	89.99	179.44	10,549.36	-2,722.43	-274.59	2,019.02	0.00	0.00	0.00
12,000.00	09.99								
12,700.00	89.99	179.44	10,549.38	-2,822.43	-273.61	2,819.62	0.00	0.00	0.00



Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well 111H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	RKB @ 3196.50usft (Est. RKB)
Project:	Lea County, NM - (NAD83 NME)	MD Reference:	RKB @ 3196.50usft (Est. RKB)
Site:	El Campeon South Fed Com	North Reference:	Grid
Well:	111H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 01-14-20		

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)
12,800.00	89.99	179.44	10,549.40	-2,922.42	-272.63	2,919.62	0.00	0.00	0.00
12,900.00	89.99	179.44	10,549.42	-3,022.42	-271.65	3,019.62	0.00	0.00	0.00
13,000.00	89.99	179.44	10,549.44	-3,122.41	-270.67	3,119.62	0.00	0.00	0.00
13,100.00	89.99	179.44	10,549.46	-3,222.41	-269.69	3,219.62	0.00	0.00	0.00
13,200.00	89.99	179.44	10,549.48	-3,322.40	-268.72	3,319.62	0.00	0.00	0.00
13,300.00	89.99	179.44	10,549.50	-3,422.40	-267.74	3,419.62	0.00	0.00	0.00
13,400.00	89.99	179.44	10,549.52	-3,522.39	-266.76	3,519.62	0.00	0.00	0.00
13,500.00	89.99	179.44	10,549.54	-3,622.39	-265.78	3,619.62	0.00	0.00	0.00
13,600.00	89.99	179.44	10,549.56	-3,722.38	-264.80	3,719.62	0.00	0.00	0.00
13,700.00	89.99	179.44	10,549.58	-3,822.38	-263.82	3,819.62	0.00	0.00	0.00
13,800.00	89.99	179.44	10,549.60	-3,922.37	-262.84	3,919.62	0.00	0.00	0.00
13,900.00	89.99	179.44	10,549.62	-4,022.37	-261.87	4,019.62	0.00	0.00	0.00
14,000.00	89.99	179.44	10,549.64	-4,122.36	-260.89	4,119.62	0.00	0.00	0.00
14,100.00	89.99	179.44	10,549.66	-4,222.36	-259.91	4,219.62	0.00	0.00	0.00
14,200.00	89.99	179.44	10,549.68	-4,322.35	-258.93	4,319.62	0.00	0.00	0.00
14,300.00	89.99	179.44	10,549.70	-4,422.35	-257.95	4,419.62	0.00	0.00	0.00
14,400.00	89.99	179.44	10,549.73	-4,522.35	-256.97	4,519.62	0.00	0.00	0.00
14,500.00	89.99	179.44	10,549.75	-4,622.34	-255.99	4,619.62	0.00	0.00	0.00
14,600.00	89.99	179.44	10,549.77	-4,722.34	-255.02	4,719.62	0.00	0.00	0.00
14,700.00	89.99	179.44	10,549.79	-4,822.33	-254.04	4,819.62	0.00	0.00	0.00
14,800.00	89.99	179.44	10,549.81	-4,922.33	-253.06	4,919.62	0.00	0.00	0.00
14,900.00	89.99	179.44	10,549.83	-5,022.32	-252.08	5,019.62	0.00	0.00	0.00
15,000.00	89.99	179.44	10,549.85	-5,122.32	-251.10	5,119.62	0.00	0.00	0.00
15,100.00	89.99	179.44	10,549.87	-5,222.31	-250.12	5,219.62	0.00	0.00	0.00
15,200.00	89.99	179.44	10,549.89	-5,322.31	-249.15	5,319.62	0.00	0.00	0.00
15,300.00	89.99	179.44	10,549.91	-5,422.30	-248.17	5,419.62	0.00	0.00	0.00
15,400.00	89.99	179.44	10,549.93	-5,522.30	-247.19	5,519.62	0.00	0.00	0.00
15,500.00	89.99	179.44	10,549.95	-5,622.29	-246.21	5,619.62	0.00	0.00	0.00
15,600.00	89.99	179.44	10,549.97	-5,722.29	-245.23	5,719.62	0.00	0.00	0.00
15,700.00	89.99	179.44	10,549.99	-5,822.28	-244.25	5,819.62	0.00	0.00	0.00
15,769.03	89.99	179.44	10,550.00	-5,891.31	-243.58	5,888.64	0.00	0.00	0.00
TD at 15769.0	03								

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP - Elcmapeon South - plan misses target - Point	0.00 center by 9.63		10,549.00 5.63usft MD	-916.22 (10539.70 TV	-292.26 D, -918.71 N,	370,088.13 -292.24 E)	831,594.51	32° 0' 50.382972 N	103° 23' 48.697728 W
LTP - Elcmapeon South - plan misses target - Point	0.00 center by 0.02		10,549.98 9.02usft MD	-5,801.31 (10549.98 TV	-244.48 ′D, -5801.31 N	365,203.04 I, -244.46 E)	831,642.29	32° 0' 2.040542 N	103° 23' 48.634367 W
BHL - El Campeon Soutl - plan hits target cer - Point		0.00	10,550.00	-5,891.31	-243.58	365,113.04	831,643.19	32° 0' 1.149912 N	103° 23' 48.632928 W

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Planning Report



Database:	USA Compass	Local Co-ordinate Reference:	Well 111H
Company:	Titus Oil & Gas Production, LLC	TVD Reference:	RKB @ 3196.50usft (Est. RKB)
Project:	Lea County, NM - (NAD83 NME)	MD Reference:	RKB @ 3196.50usft (Est. RKB)
Site:	El Campeon South Fed Com	North Reference:	Grid
Well:	111H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 01-14-20		

Plan Annotations

Measur	ed Vertic	al Local	Coordinates	
Depti (usft)			+E/-W (usft)	Comment
1,50	0.00 1,50	0.00 0.00	0.0	0 KOP, Begin 1.50°/100' Build
1,83	8.51 1,83	3.09 -12.14	-8.0	3 Hold 5.00° Inc at 213.48° Azm
7,66	0.57 7,64	6.91 -436.59	-288.8	1 Begin 1.50°/100' Drop
8,003	8.08 7,98	0.00 -448.72	-296.84	4 Begin Vertical Hold
9,99	9,97	6.06 -448.72	-296.84	4 KOP2, Begin 10.00°/100' Build
10,89	0.03 10,54	9.02 -1,021.54	-291.2	3 LP, Hold 89.99° Inc at 179.44° Azm
15,76	0.03 10,55	0.00 -5,891.31	-243.5	8 TD at 15769.03

Titus Oil & Gas Production, LLC - El Campeon South Fed Com 111H

1. Geologic Formations

TVD of target	10,550' EOL	Pilot hole depth	NA
MD at TD:	15,769'	Deepest expected fresh water:	250'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	1035	Water	
Top of Salt	1542	Salt	
Base of Salt	5034	Salt	
Lamar	5340	Salt Water	
Bell Canyon	5375	Salt Water	
Cherry Canyon	6480	Oil/Gas	
Brushy Canyon	7831	Oil/Gas	
Bone Spring Lime	9241	Oil/Gas	
Leonard	9290	Oil/Gas	
1st Bone Spring Sand	10474	Target Oil/Gas	
2nd Bone Spring Sand	11028	Not Penetrated	
3rd Bone Spring Sand	12118	Not Penetrated	
Wolfcamp	12497	Not Penetrated	
	0 0	Not Penetrated	

2. Casing Program

Hole Size	Casing From	g Interval To	Csg. Si	ze	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17.5"	0	1060	13.375	5"	54.5	J55	STC	2.33	1.19	8.90
12.25"	0	5365	9.625	"	40	J55	LTC	1.05	0.96	2.42
8.75"	0	15,769	5.5"		17	P110	LTC	1.45	2.59	2.48
				BLI	M Minimu	m Safet	y 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

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Titus Oil & Gas Production, LLC - El Campeon South Fed Com 111H

	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?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	YId ft3/ sack	H₂0 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	440	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
Sull.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	1040	12.7	2.0	9.6	16	Lead: 35:65:6 C Blend
IIILEI.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl
5.5 Prod	720	11.9	2.5	19	72	Lead: 50:50:10 H Blend
5.5 PIOU	1460	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 st Intermediate	0'	50%
Production	4,865'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical

4. Pressure Control Equipment

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

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

	Formation integrity test will be performed per Onshore Order #2.		
х	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.		
A variance is requested for the use of a flexible choke line from the BOP to Choke Manifol Y 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.		

5. Mud Program

	Depth	Туре	Weight	Viscosity	Water Loss	
From	То	туре	(ppg)	VISCOSILY	Water Loss	
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.
Ν	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

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

Titus Oil & Gas Production, LLC - El Campeon South Fed Com 111H

7. Drilling Conditions

Condition	Specify what type and where?		
BH Pressure at deepest TVD	5160 psi at 10550' TVD		
Abnormal Temperature	NO 160 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?

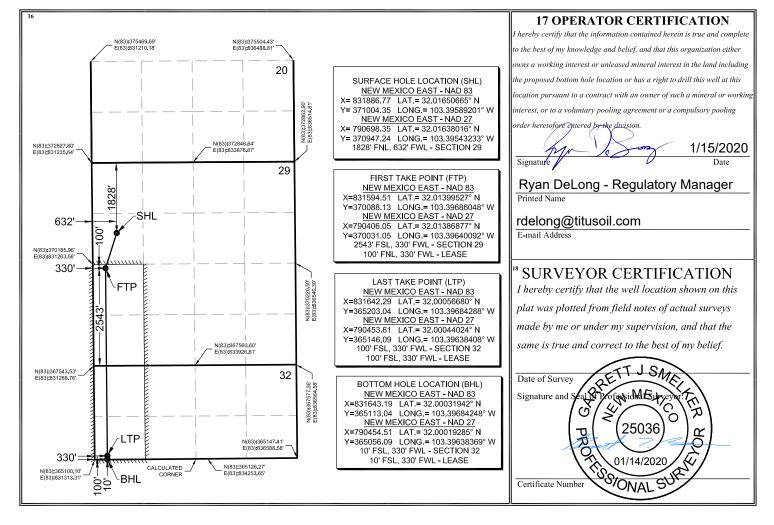
x	H2S Plan.
х	BOP & Choke Schematics.
х	Directional Plan

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ceived by OC	D: 12/10	/2020 5:06	:46 PM							Page 4
District I 1625 N. French Dr., H. Phone: (575) 393-6161 District II 811 S. First St., Artesie Phone: (575) 748-1283 District III 1000 Rio Brazos Road Phone: (505) 334-6178 District IV 1220 S. St. Francis Dr. Phone: (505) 476-3460	Fax: (575) 392 , NM 88210 Fax: (575) 744 , Aztec, NM 87 Fax: (505) 334 , Santa Fe, NM	3-0720 8-9720 410 4-6170 87505	OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505 RECEIVED							Form C-10 sed August 1, 20 copy to appropria District Offic ENDED REPOR
		W	ELL LO	JCATIO	N AND AC	REAGE DEDI	CATION PL	.AT		
1 30-025-4	API Number 8141	r		2 Pool Cod 96672						
4 Property 329744	Code			I		5 Property Name 6 Well Number PEON SOUTH FED COM 111H				
7 OGRID 373986		8 Operator Name 9 Elevation TITUS OIL & GAS PRODUCTION LLC 3170'			9 Elevation 3170'					
					¹⁰ Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/W	est line	County
Е	29	26-S	35 - E		1828'	NORTH	632'	WE	ST	LEA
		· · ·	11 Bc	ttom Ho	le Location	If Different Fro	om Surface			
UL or lot no.	Section	Township	Range			North/South line	Feet from the	East/W	est line	County
4	32	26-S	35 - E	35-E 10' SOUTH 330'				WE	ST	LEA
12 Dedicated Acre 153 ∋ 76	.86	or Infill 14 Co	onsolidation	n Code 15 O	rder No.		·			

f 53

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.



Intent As Drilled		
API # 30-025-48141		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitu	de				Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitu	de				Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude Longitude						NAD			

Is this well the defining well for the Horizontal Spacing Unit?	

Is this well an infill well?

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210	State of New Mexico Energy, Minerals and Natural Resources Depa	submit Original to Appropriate District Office
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505	Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	OCD – HOBBS 12/01/2020 RECEIVED
Date: 1/17/2020	GAS CAPTURE PLAN	

🖂 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, recomplete 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 – El Campeon CTB 20

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

Well Name	API	Well Location (ULSTR)	Footages	Expecte d	Flared or Vented	Comments
eem mm	-025-48141	Sec 29, T26S, R35E	632' FWL	MCF/D		El Campeon CTB 20 will be utilized
El Campeon South Fed Com 201H		Sec 29, T268, R35E	707' FEL			El Campeon CTB 20 will be utilized
El Campeon South Fed Com 321H		Sec 29, T26S, R35E	657' FWL			El Campeon CTB 20 will be utilized
El Campeon South Fed Com 431H		Sec 29, T26S, R35E	682' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 032H		Sec 20, T26S, R35E	2077' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 112H		Sec 20, T26S, R35E	2107' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 122H		Sec 20, T26S, R35E	2137' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 322H		Sec 20, T26S, R35E	2077' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 432H		Sec 20, T26S, R35E	2137' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 512H		Sec 20, T26S, R35E	2107' FWL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 123H		Sec 20, T26S, R35E	1927' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 203H		Sec 20, T26S, R35E	1957' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 323H		Sec 20, T26S, R35E	1912' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 403H		Sec 20, T26S, R35E	1972' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 513H		Sec 20, T26S, R35E	1942' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 034H		Sec 20, T26S, R35E	590' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 114H		Sec 20, T26S, R35E	650' FEL			El Campeon CTB 20 will be utilized
El Campeon Fed Com 204H		Sec 20, T26S, R35E	620' FEL			El Campeon CTB 20 will be utilized
El Campeon South 404H		Sec 20, T26S,	558' FSL &			El Campeon CTB 20

	R35E	590' FEL	will be utilized
El Campeon South 514H	Sec 20, T26S,	558' FSL &	El Campeon CTB 20
_	R35E	620' FEL	will be utilized

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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 low 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
 - o Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

District I 1625 N. French Dr., Hobbs, NM 88240

District II

Phone:(575) 393-6161 Fax:(575) 393-0720

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

District III 1000 Rio Brazos Rd., Aztec, NM 87410 CONDITIONS

Action 11787

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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

Phone:(505) 334-6178 Fax:(505) 334-6170 <u>District IV</u> 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

CONDITIONS OF APPROVAL

Operator:				OGRID:	Action Number:	Action Type:
	TITUS OIL & GAS PRODUCTION, LL	420 Throckmorton St, Ste 1150	Fort Worth, TX76012	373986	11787	FORM 3160-3
OCD	Condition					
Reviewer						
pkautz	Will require a directional survey with the C-104					
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and					
	shall immediately set in cement the water prote	ection string				
pkautz	Oil base muds are not to be used until freshwater zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be					
	contained in a steel closed loop system.					