Form 3160-3 (June 2015) UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND NEW APPLICATION FOR PERMIT TO D		ECE MAR DOG OR I	NED 0 6 2020 CDAF	TE	31A	FORM OMB Ni Expires: Ja 5. Lease Serial No. NMNM138850 6. If Indian, Allotee	APPRO b. 1004-0 inuary 3 or Tribe	VED 0137 1, 2018 Name	
Ia. Type of work:       Image: Completion:       Image: Com	ER Cone [		Zone		<ol> <li>7. If Unit or CA Agr</li> <li>8. Lease Name and</li> <li>NAILED IT FED C</li> <li>235H</li> </ol>	Well No. OM 7.30	Name an	d No.	
<ol> <li>Name of Operator TAP ROCK OPERATING LLC         <ul> <li>3a. Address</li> <li>602 Park Point Drive Suite 200, Golden, CO 80401             </li> <li>4. Location of Well (<i>Report location clearly and in accordance w</i> At surface LOT 3 / 230 FSL / 1945 FWL / LAT 32.0007 At proposed prod. zone NESW / 2464 FSL / 1590 FWL /</li> </ul> </li> </ol>	3b. P (720) vith an 877 / LAT 3	Phone N ) 460-3 <i>ny State</i> LONG 32.0128	o. (include a. 316 requirements -103.83703 3355 / LONG	rea code *) 94 3 -103.	8381966	9. API Well No. <b>30 - 0</b> 10. Field and Pool, of PURPLE SAGE W 11. Sec., T. R. M. or SEC 36/T26S/R30	15- or Explor OLFCA Blk. and E/NMP	46 ratory MP/null I Survey	844
<ul> <li>14. Distance in miles and direction from nearest town or post offi 20 miles</li> <li>15. Distance from proposed* 230 feet location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> <li>18. Distance from proposed location* to nearest well, drilling, completed, 25 feet applied for, on this lease, ft.</li> <li>21. Elevations (Show whether DF, KDB, RT, GL, etc.)</li> </ul>	16. No of acres in lease 320 19. Proposed Depth 11851 feet / 16200 feet			rk will :	17. Spacin 289.2 20. BLM/ FED: NM start*	12. County or Parish     13. State       EDDY     NM       Ig Unit dedicated to this well       BIA Bond No. in file       B001443       23. Estimated duration			
3017 feet The following, completed in accordance with the requirements of (as applicable) 1. Well plat certified by a registered surveyor. 2. A Drilling Plan.	01/0 <sup>-</sup> 24.	1/2020 Attack	hments and Gas Ord 4. Bond to Item 20 a	er No. 1 cover th	, and the H	30 days lydraulic Fracturing r s unless covered by ar	ule per 4	3 CFR 31	62.3-3 file (see
3. A Surface Use Plan (if the location is on National Forest Syster SUPO must be filed with the appropriate Forest Service Office)     25. Signature     (Electronic Submission)     Title     President	n Lano).	Lands, the 5. Operator 6. Such oth BLM. Name (Printed/Typ Brian Wood / Ph:		certification. er site specific infor ed) (720) 460-3316		mation and/or plans as	may be r Date 10/21/2	equested	by the
Approved by (Signature) (Electronic Submission) Title Assistant Field Manager Lands & Minerals Application approval does not warrant or certify that the applican applicant to conduct operations thereon. Conditions of approval, if any, are attached.	t holds	Name (Printed/Typed) Cody Layton / Ph: (575 Office Carlsbad Field Office ds legal or equitable title to			234-5959 lose rights	in the subject lease w	Date 02/27/2	2020 Ild entitle	the
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, m of the United States any false, fictitious or fraudulent statements of	ake it or repr	a crime esentati	for any personne for any personne as to any	on knov matter	vingly and within its j	willfully to make to a urisdiction.	ny depai	tment or	agency



(Continued on page 2)

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\*(Instructions on page 2)

## 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.

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## **Additional Operator Remarks**

### Location of Well

0. SHL: LOT 3 / 230 FSL / 1945 FWL / TWSP: 26S / RANGE: 30E / SECTION: 36 / LAT: 32.0007877 / LONG: -103.8370394 (TVD: 0 feet, MD: 0 feet ) PPP: NENW / 820 FSL / 1590 FWL / TWSP: 26S / RANGE: 30E / SECTION: 36 / LAT: 32.002407 / LONG: -103.838179 (TVD: 11836 feet, MD: 12410 feet ) PPP: LOT 3 / 19 FSL / 1693 FWL / TWSP: 26S / RANGE: 30E / SECTION: 35 / LAT: 32.002099 / LONG: -103.8378523 (TVD: 10733 feet, MD: 10743 feet ) BHL: NESW / 2464 FSL / 1590 FWL / TWSP: 26S / RANGE: 30E / SECTION: 25 / LAT: 32.002099 / LONG: -103.8381966 (TVD: 11851 feet, MD: 16200 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.

#### PECOS DISTRICT SURFACE USE CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Tap Rock Operating	LLC
LEASE NO.:	NMNM138850	
COUNTY:	Lea	

# The following conditions of approval are only applicable to the portion of road residing in the SWSW quarter of Section 25, T26S, R30E.

See page two for the applicable wells and their legal descriptions.

#### TABLE OF CONTENTS

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
Cave/Karst
Construction
Notification
Federal Mineral Material Pits
Roads
Road Section Diagram

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			BHL								
	Well Name	ULSTR	Foo	tage	Coord	inates	ULSTR	Foo	tage	Coord	linates
	Nailed It Fed Com 201H	L4 36-26S-30E	330 FSL	279 FWL	32.0010601	-103.8424129	NWSW 25-26S-30E	2464 FSL	638 FWL	32.0128419	-103.8412680
	Nailed It Fed Com 205H	L4 36-26S-30E	330 FSL	304 FWL	32.0010602	103.8423323	NWSW 25-26S-30E	2464 FSL	1254 FWL	32.0128378	103.8392806
	Nailed It Fed Com 211H	L4 36-26S-30E	305 FSL	279 FWL	32.0009914	-103.8424129	NWSW 25-26S-30E	2464 FSL	331 FWL	32.0128440	-103.8422585
W2W2	Nailed It Fed Com 215H	L4 36-265-30E	305 FSL	304 FWL	32.0009915	-103.8423323	NWSW 25-265-30E	2464 FSL	.946 FWL	32.0128399	-103.8402743
Pad	Nailed It Fed Com 221H	L4 36-26S-30E	330 FSL	384 FWL	32.0010603	-103.8420742	NWSW 25-26S-30E	2464 FSL	331 FWL	32.0128440	-103.8422585
(Slot 1)	Nailed It Fed Com 225H	L4 36-26S-30E	330 FSL 🗼	434 FWL	32.0010604	-103.8419129	NWSW 25-26S-30E	2464 FSL	1170 FWL	32.0128384	-103.8395516
	Nailed It Fed Com 231H	L4 36-26S-30E	330 FSL	409 FWL	32.0010604	-103.8419936	NWSW 25-26S-30E	2464 FSL	750 FWL	32.0128412	-103.8409067
	Nailed It Fed Com 241H	L4 36-26S-30E	305 FSL	384 FWL	32.0009916	-103.8420742	NWSW 25-26S-30E	2464 FSL	331 FWL	32.0128440	-103.8422585
Ser .	Nailed It Fed Com 245H	L4 36-26S-30E	305 FSL	434 FWL	32.0009917	-103.8419129	NWSW 25-26S-30E	2464 FSL	1170 FWL	32.0128384	-103.8395516
	Nailed It Fed Com 202H	L3 36-26S-30E	230 FSL	1840 FWL	32.0007876	-103.8373781	NESW 25-26S-30E	2465 FSL	1870 FWL	32.0128336	-103.8372932
	Nailed It Fed Com 207H	L3 36-26S-30E	230 FSL	1865 FWL	32.0007876	-103.8372974	NESW 25-26S-30E	2465 FSL	2486 FWL	32.0128294	-103.8353058
	Nailed It Fed Com 212H	L3 36-26S-30E	205 FSL	1840 FWL	32.0007189	-103.8373780	NESW 25-26S-30E	2464 FSL	1562 FWL	32.0128357	-103.8382869
Dad Dad	Nailed It Fed Com 217H	L3 36-265-30E	205 FSL	1865 FWL	32.0007189	-103.8372974	NESW 25-26S-30E	2465 FSL	2178 FWL	32.0128315	-103.8362995
(Slot 7)	Nailed It Fed Com 222H	L3 36-26S-30E	230 FSL	1970 FWL	32.0007878	-103.8369587	NESW 25-26S-30E	2465 FSL	2010 FWL	32.0128327	-103.8368415
(3/00 2)	Nailed It Fed Com 232H	L3 36-26S-30E	205 FSL	1970 FWL	32.0007190	-103.8369587	NESW 25-26S-30E	2465 FSL	2430 FWL	32.0128298	-103.8354865
1	Nailed It Fed Com 235H	L3 36-26S-30E	230 FSL	1945 FWL	32.0007877	-103.8370394	NESW 25-26S-30E	2464 FSL	1590 FWL	32.0128355	-103.8381966
	Nailed It Fed Com 242H	L3 36-26S-30E	205 FSL	1945 FWL	32.0007190	-103.8370393	NESW 25-26S-30E	2465 FSL	2010 FWL	32.0128327	-103.8368415
	Nailed It Fed Com 203H	L2 36-26S-30E	701 FSL	2225 FEL	32.0020849	-103.8332991	NWSE 25-26S-30E	2465 FSL	2178)FEL	32.0128248	-103.8331593
Joyne Martin	Nailed It Fed Com 206H	L2 36-26S-30E		2200 FEL	32.0020849	-103.8332184	NWSE 25-26S-30E	2465 FSL	1562 FEL	32.0128206	-103.8311720
	Nailed It Fed Com 213H	L2 36-26S-30E	676 FSL	2225 FEL	32.0020162	103.8332990	NWSE 25-265-30E	2465 FSL	2486 FEL	32.0128269	*-103:8341530
W2E2	Nailed It Fed Com 216H	L2 36-26S-30E	676 FSL	2200 FEL	32.0020162	-103.8332184	NWSE 25-26S-30E	2465 FSL	1870 FEL	32.0128227	-103.8321657
Pad	Nailed It Fed Com 223H	L2 36-26S-30E	5.701 FSL	2120 FEL	32.0020850	103.8329603	NWSE 25-265-30E	2465 FSL .	: 2430 FEL 🕯	32.0128266	-103.8339724
(Slot 3)	Nailed It Fed Com 226H	L2 36-265-30E	701 FSL	2070 FEL	32.0020851	-103.8327990	NWSE 25-26S-30E	2465 FSL	1590 FEL	32.0128207	-103.8312623
(J.)	Nailed It Fed Com 233H	L2.36-265-30E	701 FSL	2095 FEL	32.0020851	-103.8328797	NWSE 25-265-30E	2465 FSL	2010 FEL	32.0128237	-103.8326173
	Nailed It Fed Com 243H	L2 36-26S-30E	676 FSL	2120 FEL	32.0020163	-103.8329603	NWSE 25-26S-30E	2465 FSL	2430 FEL	32.0128266	-103.8339724
	Nailed It Fed Com 246H *	L2 36-265-30E	676 FSL	2070 FEL	32.0020164	103.8327990	NWSE 25-26S-30E	~2465 FSL	1590 FEL	32.0128207	-103.8312623,
62.52	Nailed It Fed Com 204H	L1 36-26S-30E	766 FSL	588 FEL	32.0022660	-103.8280170	NESE 25-26S-30E	2466 FSL	946 FEL	32.0128162	-103.8291846
36.	Nailed It Fed Com 208H	L1 36-26S-30E 🗧	> 766 FSÊ	563 FEL	32.0022660	-103.8279364	NESE 25-26S-30E	2466 FSL		32.0128119	-103.8272004
	Nailed It Fed Com 214H	L1 36-26S-30E	741 FSL	588 FEL	32.0021972	-103.8280170	NESE 25-26S-30E	2465 FSL	1254 FEL	32.0128184	-103.8301783
E2E2	Nailed It Fed Com 218H 4	L1 36-265-30E	741.FSL	563 FÉL	32.0021973	-103.8279363	NESE 25-26S-30E	2466 FSL	638 FEL	32.0128141	-103.8281909
Pad (slot a)	Nailed It Fed Com 224H	L1 36-265-30E	766 FSL	668 FEL	32.0022659	-103.8282751	NESE 25-26S-30E	2466 FSL	750 FEL	32.0128149	-103.8285522
(5100.4)	Nailed It Fed Com 234H	L1 36-26S-30E	741 FSL	668 FEL	32.0021971	-103.8282750	NESE 25-26S-30E	2466 FSL	331 FEL	32.0128119	-103.8272004
2.4	Nailed It Fed Com 236H	L1 36-265-30E	766 F.SL	693 FEL	32.0022658	-103.8283557	NESE 25-26S-30E	2465 FSL	1170 FEL	32.0128178	-103.8299072
	Nailed It Fed Com 244H	L1 36-265-30E	741 FSL	693 FEL	32.0021971	-103.8283557.	NESE 25-265-30E	2466 FSL	- 750 FEL	32.0128149	-103.8285522

#### 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 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 made by the Authorized Officer after consulting with the holder.

#### OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See information below discussing NAGPRA.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

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

#### 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.

#### SPECIAL REQUIREMENT(S)

#### Cave/Karst:

#### Road Construction:

- Turnout ditches and drainage leadoffs will not be constructed in such a manner as to alter the natural flow of water into or out of cave or karst features.
- Special restoration stipulations or realignment may be required if subsurface features are discovered during construction.

#### CONSTRUCTION

#### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road. 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.

#### B. 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.

#### C. 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 twenty-five (25) 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.

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Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety 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

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 1 Minimum Depth Natural Ground Level Berm on Down Slope Side

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 %);

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#### 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: 400' + 100' = 200' lead-off ditch interval

#### 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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Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

#### 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 x percent purity x percent germination =  $p_{\text{ounds}}^{\downarrow}$  pure live seed

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## PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

ODED ATODIC MANTE	
OPERATOR'S NAME:	Tap Rock Operating LLC
WELL NAME & NO.:	Nailed It Fed Com 235H
SURFACE HOLE FOOTAGE:	230 FSL / 1840 FWL
<b>BOTTOM HOLE FOOTAGE</b>	2465 FSL / 1870 FWL
LOCATION:	Sec 36 / 26S / 30E / NMP
COUNTY:	Eddy County, New Mexico



TIOG			
H2S	C Yes	• No	
Potash	© None	O Secretary	<u>C P 111 D</u>
Cave/Karst Potential	C Low ·	<u>O</u> Medium	CILich
Cave/Karst Potential	C Critical		se High
Variance	C None	© Flex Hose	C Other
Wellhead	C Conventional	© Multibowl	C Both
Other	□4 String Area	Capitan Reef	
Other	Fluid Filled	Cement Squeeze	Dilat Hale
Special Requirements	Water Disposal	GOV	Phot Hole
special requirements	water Disposar	I ™ COM	Unit (

## A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

### **B. CASING**

- 1. The **13-3/8** inch surface casing shall be set at approximately 920 feet (a minimum of 70 feet (Eddy County) into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job will be a minimum of  $\underline{\mathbf{8}}$ hours or 500 pounds compressive strength, whichever is greater. (This is to

Page 1 of 7

include the lead cement)

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

# Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  - ✤ In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 3. The minimum required fill of cement behind the  $7^{1}_{1}5/8$  inch intermediate casing is:
  - Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
  - In <u>High Cave/Karst Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- 4. The minimum required fill of cement behind the  $5\frac{1}{1/2}$  inch production casing is:
  - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

## C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

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- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

## **D. SPECIAL REQUIREMENT (S)**

## **Communitization Agreement**

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. <u>When the Communitization Agreement number is known, it shall also be on the sign.</u>

## **GENERAL REQUIREMENTS**

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

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

### $\boxtimes$ Eddy County

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

### Lea County

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

### Page 3 of 7

- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
  - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
  - b. When the operator proposes to set surface casing with Spudder Rig
    - Notify the BLM when moving in and removing the Spudder Rig.
    - Notify the BLM when moving in the 2<sup>nd</sup> Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
    - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

### A. CASING

- Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- <u>Wait on cement (WOC) for Potash Areas:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least <u>24 hours</u>. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

Page 4 of 7

- <u>Wait on cement (WOC) for Water Basin:</u> After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least <u>8 hours</u>. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

### B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

Page 5 of 7
Approval Date: 02/27/2020

- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
  - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for

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the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

## C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

## D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

Page 7 of 7



#### U.S. Department of the Interior BUREAU OF LAND MANAGEMENT



## **Operator Certification**

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

NAME: Brian Wood	Signed on: 08/29/2019				
Title: President					
Street Address: 37 Verano Looo					
City: Santa Fe	State: NM	<b>Zip:</b> 87508			
Phone: (505)466-8120					
Email address: afmss@permits	vest.com				
Field Representativ	e				
Street Address:					
City:	State:	Zip:			
Phone: (505)466-8120					
Email address: afmss@permitsv					

## 

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Application Data Report

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02/28/2020

		1	
APD ID: 10400048006	Submiss	ion Date: 10/21/20	19 Highlighted data
Operator Name: TAP ROCK OPERATING LL	C		reflects the most
Well Name: NAILED IT FED COM	Well Nun	nber: 235H	Show Final Text
Well Type: CONVENTIONAL GAS WELL	Well Wor	k Type: Drill	
	·		
Section 1 - General			
APD ID: 10400048006	Tie to previous NOS?	N	Submission Date: 10/21/2019
BLM Office: CARLSBAD	User: Brian Wood	Title	e: President
Federal/Indian APD: FED	Is the first lease penet	rated for producti	on Federal or Indian? FED
Lease number: NMNM138850	Lease Acres: 320		
Surface access agreement in place?	Allotted?	Reservation:	
Agreement in place? NO	Federal or Indian agree	ement:	
Agreement number:			
Agreement name:			
Keep application confidential? N			
Permitting Agent? YES	APD Operator: TAP RC	CK OPERATING	LLC
Operator letter of designation:			
Operator Info			
Operator Organization Name: TAP ROCK OF	PERATING LLC		
Operator Address: 602 Park Point Drive Suite	≥ 200	7in: 90401	
Operator PO Box:		<b>2ip.</b> 00401	
Operator City: Golden State: C	O		
Operator Phone: (720)460-3316			
Operator Internet Address:			
Section 2 - Well Informati	on		
Well in Master Development Plan? NO	Master Devel	opment Plan nam	e:
Well in Master SUPO? NO	Master SUPO	name:	
Well in Master Drilling Plan? NO	Master Drillin	g Plan name:	
Well Name: NAILED IT FED COM	Well Number	: 235H	Well API Number:
Field/Pool or Exploratory? Field and Pool	Field Name:	PURPLE SAGE	Pool Name:
Is the proposed well in an area containing o	vvOLFCAMP ther mineral resources?	OTHER,NATURA	L GAS,OIL
	1		

Operator Name: TAP ROCK OPERATING LLC
Well Name: NAILED IT FED COM

Well Number: 235H

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Is the proposed well in an area containing other miner	al resources?	OTHER,NA	TURA	LG	AS,OIL				
Describe other minerals: Salt									
Is the proposed well in a Helium production area? N	Well Pad? I	N	Ne	ew surfa	ce dis	turba	nce?		
Type of Well Pad: MULTIPLE WELL Well Class: HORIZONTAL	Multiple Well It Fed Com Number of Le	Pad Name: gs: 1	Nailed	Nu	umber: S	ilot 2			
Well Work Type: Drill									
Well Type: CONVENTIONAL GAS WELL									
Describe Well Type:									
Well sub-Type: INFILL									
Describe sub-type:									
Distance to town: 20 Miles Distance to nea	arest well: 25 F	-T I	Distand	ce t	o lease I	ine: 2	30 FT		
Reservoir well spacing assigned acres Measurement:	289.2 Acres								
Well plat: Nailed_235H_C102_GCP_101119_201910	13103017.pdf								
Well work start Date: 01/01/2020	Duration: 30	DAYS							
Section 3 - Well Location Table								·	
	Vortical Datum								
Sumou number: 11401	Peference Datum								
	Reference Dat								
Wellbore NS-Foot NS Indicator EW Indicator Twsp Range Range Section Aliquot/Lot/Tract	Longitude	County State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL         230         FSL         194         FW         26S         30E         36         Lot         32.0007           Leg         5         L         5         L         3°         77           #1         1	78 - El 103.8370 Y 394	DD NEW MEXI CO	NEW MEXI CO	S	STATE	301 7	0	0	Y
KOP         19         FSL         169         FW         26S         30E         36         Lot         32.0002           Leg         3         L         3         L         3         99           #1         1 </td <td>20 - El 103.8378 Y 523</td> <td>DD NEW MEXI CO</td> <td>NEW MEXI CO</td> <td>S</td> <td>STATE</td> <td>- 824 5</td> <td>112 71</td> <td>112 62</td> <td>Y</td>	20 - El 103.8378 Y 523	DD NEW MEXI CO	NEW MEXI CO	S	STATE	- 824 5	112 71	112 62	Y
PPP         19         FSL         169         FW         26S         30E         35         Lot         32.0002           Leg         3         L         26S         30E         35         3         99           #1-1         -	20 - 103.8378 Y 523	DD NEW MEXI CO	NEW MEXI CO	S	STATE	- 771 6	107 43	107 33	Y

## Operator Name: TAP ROCK OPERATING LLC Well Name: NAILED IT FED COM

Well Number: 235H

Weilbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP	820	FSL	159	FW	26S	30E	36	Aliquot	32.00240	-	ÉDD	NEW	NEW	s	STATE	-	124	118	Y
Leg			0	L				NENW	7	103.8381	Ý	MEXI	MEXI			881	10	36	
#1-2										79		co	CO			9			
EXIT	246	FSL	159	FW	26S	30E	25	Aliquot	32.01283	-	EDD	NEW	NEW	F	NMNM	-	162	118	Y
Leg	4		0	L				NESW	55	103.8381	Y	MEXI	MEXI		138850	883	00	51	
#1										966		co	co			4			
BHL	246	FSL	159	FW	26S	30E	25	Aliquot	32.01283	-	EDD	NEW	NEW	F	NMNM	-	162	118	Y
Leg	4		0	L				NESW	55	103.8381	Ý	MEXI	MEXI		138850	883	00	51	
#1										966		со	со			4			

LOCATION & ELEVATION VERIFICATION MAP









# **FAFMSS**

#### U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

# Drilling Plan Data Report

02/28/2020

APD ID: 10400048006

Operator Name: TAP ROCK OPERATING LLC

Well Name: NAILED IT FED COM

Well Type: CONVENTIONAL GAS WELL

Submission Date: 10/21/2019

Well Number: 235H

Highlighted data reflects the most recent changes

Show Final Text

Well Work Type: Drill

## Section 1 - Geologic Formations

Formation			True Vertical	Measured			Producing
ID i	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	Formation
546484	QUATERNARY	3017	0	Ô	OTHER : None	NONE	N
546485	RUSTLER	2184	833	833	ANHYDRITE	OTHER : Salt	N
546486	SALADO	1634	1383	1383	SALT	OTHER : Salt	N
546487	BASE OF SALT	-406	3423	3425	SALT	OTHER : Salt	N
546488	LAMAR	-616	3633	3635	LIMESTONE	NONE	Ň
546489	BELL CANYON	-636	3653	3656	SANDSTONE	NATURAL GAS, OIL	N
546490	CHERRY CANYON	-1786	4803	4808	SANDSTONE	NATURAL GAS, OIL	N
546491	BRUSHY CANYON	-2736	5753	5759	SANDSTONE	NATURAL GAS, OIL	N
546492	BONE SPRING	-4486	7503	7513	LIMESTONE	NATURAL GAS, OIL	N
546493	BONE SPRING 1ST	-5431	8448	8457	SANDSTONE	NATURAL GAS, OIL	N
546494	BONE SPRING 2ND	-5781	8798	8807	SANDSTONE	NATURAL GAS, OIL	N
546495	BONE SPRING 3RD	-6666	9683	9693	SANDSTONE	NATURAL GAS, OIL	N
546496	WOLFCAMP	-7716	10733	10743	OTHER : Shale	NATURAL GAS, OIL	Y

## Section 2 - Blowout Prevention

Well Name: NAILED IT FED COM

Well Number: 235H

#### Pressure Rating (PSI): 5M

#### Rating Depth: 15000

**Equipment:** A 15,000 a 5,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.

Variance request: Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after drilling surface, 1st intermediate, and 2nd intermediate hole sections and cementing 2 nd intermediate casing, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Tap Rock requests a variance to run 7-5/8 BTC casing inside 9-5/8 BTC casing will be less than the 0.422 stand off regulation. Through conversations with BLM representatives, Tap Rock has received approval for this design as long as the 7-5/8 flush casing was run throughout the entire 300 cement tie back section between 9-5/8 and 7-5/8 casing. Tap Rock requests approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Tap Rock will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Tap Rock will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.

**Testing Procedure:** After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.

#### Choke Diagram Attachment:

Nailed\_Choke\_032918\_20190925124216.pdf

#### BOP Diagram Attachment:

BOP\_Diagram\_101619\_20191021102320.pdf

### **Section 3 - Casing**

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Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF

### Operator Name: TAP ROCK OPERATING LLC

Well Name: NAILED IT FED COM

#### Well Number: 235H

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Jaint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	920	0	920	3017	2097	920	J-55	54.5	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
2	INTERMED	8.75	7.625	NEW	API	N	0	3400	0	3397	3009	-380	3400	P- 110	29.7	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
3	INTERMED IATE	12.2 5	9.625	NEW	API	N	0	3700	0	3697	3009	-680	3700	J-55	40	BUTT	1.13	1.15	DRY	1.6	DRY	1.6
4	PRODUCTI ON	6.75	5.5	NEW	API	N	0	10950	0	10941	3009	-7924	10950	P- 110	20	OTHER - TXP	1.13	1.15	DRY	1.6	DRY	1.6
5	INTERMED IATE	8.75	7.625	NEW	API	Y	3400	11150	3397	11141	-379	-8124	7750	P- 110	29.7	OTHER - W- 513	1.13	1.15	DRY	1.6	DRY	1.6
6	PRODUCTI ON	6.75	5.0	NEW	API	Y	10950	16200	10941	11851	-7924	-8834	5250	P- 110	18	OTHER - W- 521	1.13	1.13	DRY	1.6	DRY	1.6

#### **Casing Attachments**

 Casing ID:
 1
 String Type: SURFACE

 Inspection Document:
 Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Nailed\_Casing\_Design\_Assumptions\_20190925124246.pdf

Operator Name: TAP ROCK OPERATING LLC	
Well Name: NAILED IT FED COM Well Num	ber: 235H
Casing Attachments	
Casing ID: 2 String Type:INTERMEDIATE	
Inspection Document:	
Spec Document:	
Tapered String Spec:	
Casing Design Assumptions and Worksheet(s):	
Nailed_Casing_Design_Assumptions_20190925124320.pdf	
Casing ID: 3 String Type: INTERMEDIATE	· · · · · · · · · · · · · · · · · · ·
Inspection Document:	
Shar Desuments	
Spec Document.	
Tapered String Spec:	
Casing Design Assumptions and Worksheet(s):	
Nailed_Casing_Design_Assumptions_20190925124300.pdf	
Casing ID: 4 String Type:PRODUCTION	
Inspection Document:	
Spec Document:	
Tapered String Spec:	
Casing Decign Accumptions and Westerhead(a)	
Valied Casing Design Assumptions and worksheet(s):	
Nailed_Casing_Design_Assumptions_20190925124426.pdf	

· · · · · · · · · · · · · · · · · · ·	
Operator Name: TAP ROCK OPERATING LLC Well Name: NAILED IT FED COM Well Numb	per: 235H
Casing Attachments	
Casing ID: 5 String Type: INTERMEDIATE	
Inspection Document:	
Spec Document:	
Tapered String Spec:	
Nailed_7.625in_W513_Casing_Spec_20190925124346.pdf	
Casing Design Assumptions and Worksheet(s):	
Nailed_Casing_Design_Assumptions_20190925124354.pdf	
Casing ID: 6 String Type: PRODUCTION	
Inspection Document:	
Spec Document:	
Tapered String Spec:	
Nailed_5in_W521_Casing_Spec_20190925124513.pdf	
Casing Design Assumptions and Worksheet(s):	
Nailed_Casing_Design_Assumptions_20190925124519.pdf	

Section	4 - Ce	emen	t									
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft		Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0		0	None	0
PRODUCTION	Tail		1065 0	1620 0	455	1.71	14.2	778		25	Class H	Fluid Loss + Dispersant + Retarder + LCM
INTERMEDIATE	Lead		0	0	0	0	0	0		0	None	None

PRODUCTION Lead 0 0 0 0 0 0	0 None None
-----------------------------	-------------

Well Name: NAILED IT FED COM

Well Number: 235H

				,		,		~	<u> </u>		
String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	552	426	1.8	13.5	767	100	Class C	None
SURFACE	Tail		552	920	379	1.35	14.8	511	100	Class C	5% NCI + LCM
INTERMEDIATE	Lead		0	2960	702	2.18	12.7	1529	65	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		2960	3700	287	1.33	14.8	382	65	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		3400	1015 0	319	2.87	11.5	916	35	ТХІ	Fluid Loss + Dispersant + Retarder + LCM
INTERMEDIATE	Tail		1015 0	1115 0	107	1.27	15	136	35	Class H	Fluid Loss + Dispersant + Retarder + LCM

Section 5 - Circulating Medium

**Circulating Medium Table** 

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

**Describe what will be on location to control well or mitigate other conditions:** All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions.

Describe the mud monitoring system utilized: Electronic Pason mud monitor system complying with Onshore Order 1 will be used.

·····							,				
Top Depth	Bottom Depth	Mud Type	Min Weight (Ibs/gal)	Max Weight (Ibs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	Н	Viscosity_(CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	920	OTHER : Fresh water spud mud	8.3	8.3							
920	3700	OTHER : Brine Water	10	10		1					
3700	1115 0	OTHER : Fresh water/cut brine	9	9							

# **Tap Rock Resources**

Eddy Co, NM Nailed It Fed Com 235H

OH

Plan: Plan #1

# **Standard Planning Report**

04 September, 2019

Project Eddy Co, NM	а с <mark>алемански болосо</mark> у та собеле таражана собеле на е у и ферерализа 1999 г. – Сантание Собеление и собеле с собеле с собеле на село с собеле собеле с собеле с собеле с собеле собе 1999 г. – Сантание Собеле с со		an and far far an	an - Marin a an
Map System:         US State Plane 1983           Geo Datum:         North American Datum 1           Map Zone:         New Mexico Eastern Zon	983 e	System Datum:	Mean Sea Level	
Site Nailed It Fed Com				
Site Position: From: Lat/Long Position Uncertainty: 2.0	Northing: Easting: usft Slot Radius:	364,379.32 us 695,207.24 us 13-3/16	ft Latitude: ft Longitude: " Grid Convergence:	32° 0' 2.836 N 103° 50' 13.051 W 0.26 °
Well 235H				
Well Position +N/-S -0.2	usft Northing:	364.37	9.17 usft Latitude:	32° 0' 2 836 N
+E/-W -25.0	usft Easting:	695,18	2.23 usft Longitude:	103° 50' 13.342 W
Position Uncertainty 2.0	usft Wellhead Elevation	n:	Ground Level:	3,017.0 usft
Wellbore OH				
Magnetics Model Name IGRF2015	Sample Date 9/3/2019	Declination (?) 6.8	Dip Angle (1) 2 59.79	Field Strength (nT) 47,553.71040080
Design Plan #1	ana (Analas ana)	teren and the second		and the second
Audit Notes:	<b></b>			
Version:	Phase: PL4	AN .	Tie On Depth: 0	.0
Vertical Section:	pth From (TVD)	+N/-S	≎+E/-W.	tion
	(usft)	(usft)	(usft) (*	)
	0.0	0.0	0.0 359	.69
Plan Survey Tool Program Date Depth From Depth To (usft) Survey (V	9/4/2019 Vellbore) T	ool Name	Remarks	
1 0.0 16,198.3 Plan #1 (	ОН) М	WD		
	M	WD - Standard		
		and the second of the second second and the second s	note lite an antifate a new collection of a collection of	and a shift of a second state of the
Measured Depth' Inclination Azimuth (usft) (°) (°)	Vertical Depth J+N/-S (usft) (usft)	Dogleg +E/-W Rate (usft) (°/100usf	Build Turn Rate Rate t) (°/100usft) (°/100usft)	TFO (°) Target :
Measured Depth Inclination Azimuth (usft) (°) (°) 0.0 0.00 0.00	Vertical Depth ++N/-S (usft) (usft) 0.0 0.0	Dogleg +E/-W Rate (usft) (*/100usf 0.0 0	Build         Turn           Rate         Rate           t)         (°/100úsft)         (°/100úsft)           .00         0.00         0.00	TFO (*) Target; 0.00
Measured.         Azimuth.           Depth         Inclination         Azimuth.           (usft)         (°)         (°)           0.0         0.00         0.00           1,900.0         0.00         0.00	Vertical Depth :+N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0	Dogleg +E/-W Rate (usft) (*/100usf 0.0 0. 0.0 0.	Build Turn Rate Rate t) (°/100usft) (°/100usft) .00 0.00 0.00 .00 0.00 0.00	TFO (*) Target. 0.00 0.00
Measured.         Azimuth.           Depth         Inclination         Azimuth.           (usft)         (°)         (°)           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00	Vertical Depth +N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 -4.6 7,273.6 200.7	Dogleg +E/-W Rate (usft) (°/100usf 0.0 0. 0.0 0. -5.5 1.	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           00         0.00         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00	TFO (*) Target 0.00 0.00 230.00 240
Measured         Azimuth           Depth*         Inclination         Azimuth           (vsft)         (°)         (°)           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00           7,516.7         0.00         0.00	Vertical Depth +N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 4.6 7,273.6 -206.7 7,506.8 211.3	Dogleg +E/-W Rate (usft) (*/100us 0.0 0. 0.0 0. -5.5 1. -246.3 0. -251.8	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00	TFO (*) Target: 0.00 0.00 230.00 0.00 140.00
Measured         Azimuth           Depth*         Inclination         Azimuth           (*)         (*)         (*)           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00           7,516.7         0.00         0.00           11 271.9         0.00         0.00	Vertical Depth +N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 -4.6 7,273.6 -206.7 7,506.8 -211.3 11.262.0 -211.3	Dogleg +E/-W Rate (usft) (*/100usf 0.0 0 0.0 0 -5.5 1 -246.3 0 -251.8 1	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00           00         0.00         0.00	TFO (*) Target: 0.00 0.00 230.00 0.00 180.00 0.00
Measured         Azimuth           Depth         Inclination         Azimuth           (usft)         (°)         (°)           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00           7,516.7         0.00         0.00           11,271.9         0.00         0.00           12,169.3         89.76         351.40	Vertical Depth :+N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 -4.6 7,273.6 -206.7 7,506.8 -211.3 11,262.0 -211.3 11,834.8 352.7	+E/-W Rate (usft) (*/100usf 0.0 0 0.0 0 -5.5 1 -246.3 0 -251.8 1 -251.8 0 -337 1 10	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           0.00         0.00         0.00           0.00         0.00         0.00           0.00         0.00         0.00           50         1.50         0.00           0.00         0.00         0.00           50         -1.50         0.00           00         0.00         0.00           00         0.00         0.00	TFO (*) Target: 0.00 0.00 230.00 0.00 180.00 0.00 351.40
Measured         Azimuth           Depth         Inclination         Azimuth           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00           7,516.7         0.00         0.00           11,271.9         0.00         0.00           12,169.3         89.76         351.40           12,445.6         89.76         359.69	Vertical Depth ++N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 -4.6 7,273.6 -206.7 7,506.8 -211.3 11,262.0 -211.3 11,834.8 352.7 11,836.0 628.0	Dogleg           +E/-W         Rate           (usft)         (*/100usf           0.0         0.0           0.0         0.0           -5.5         1           -246.3         0.           -251.8         1           -251.8         1           -337.1         10           -358.5         3	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           00         0.00         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00           50         1.50         0.00           50         -1.50         0.00           50         -1.50         0.00           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00	TFO (*) Target: 0.00 0.00 230.00 0.00 180.00 0.00 351.40 90.00
Measured.         Azimuth.           Depth         Inclination         Azimuth.           (usft)         (°)         (°)           0.0         0.00         0.00           1,900.0         0.00         0.00           2,133.3         3.50         230.00           7,283.3         3.50         230.00           7,516.7         0.00         0.00           11,271.9         0.00         0.00           12,169.3         89.76         351.40           12,445.6         89.76         359.69           16,068.7         89.76         359.69	Vertical Depth ++N/-S (usft) (usft) 0.0 0.0 1,900.0 0.0 2,133.2 -4.6 7,273.6 -206.7 7,506.8 -211.3 11,262.0 -211.3 11,834.8 352.7 11,836.0 628.0 11,851.0 4.251.1	Dogleg           +E/-W         Rate           (usft)         (*/100usf           0.0         0.0           0.0         0.0           -5.5         1           -246.3         0           -251.8         1           -251.8         1           -337.1         10           -358.5         3           -378.0         0	Build         Turn           Rate         Rate           t)         (°/100usft)         (°/100usft)           00         0.00         0.00           00         0.00         0.00           00         0.00         0.00           50         1.50         0.00           00         0.00         0.00           50         1.50         0.00           50         -1.50         0.00           00         0.00         0.00           00         0.00         0.00           00         0.00         3.00           00         0.00         0.00	TFO (*) Target: 0.00 0.00 230.00 0.00 180.00 0.00 351.40 90.00 0.00 LTP 235H

Planned Survey		ter i i i i i i i i i i i i i i i i i i i	an der sänder der sonder andere andere einer der sonder der sonder der sonder der sonder der sonder der sonder Einer der sonder der son						and the same and an address of
									t.
Measured			Vertical	and the second	72 Sec. 24	Vertical	Dogleg	Build	Turn
Depth Ir	nclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(usn),	(°) 🦾 🖓	(°)	(usft)	(usft)	v (usft) ↔	(usft)	: (°/100usft)	(°/100usft) (	(°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00 `
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
833.0	0.00	0.00	833.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler Anhydri	te		and the second			0.0	0.00	0.00	0.00
900.0	0.00	0.00	000.0			ti br®icknobb' . ∙	- 273 - COMBRIAN,	a chuir abh a' Abh a	
1.000.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	. 0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,383.0	0.00	0.00	1.383.0	0.0	0 0	0.0	0.00	0.00	0.00
Top Salt		ا ماماند ا مرجع ا ما ا	- x + - + x x x x x					0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.ģ	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 1.50		- <sup>1</sup> .4.5	20.000	a serie		a i a mara i i a mara a	n denser - andersten men a	inter antitan in the s	
2,000.0	1.50	230.00	2,000.0	-0.8	-1.0	-0.8	1.50	1.50	0.00
2,133,3	3.50	230.00	2,099.9	-3.4	-4.0	-3.3	1.50	1.50	0.00
Start 5150.0 hold	d at 2133.3 MD	)	2,100.2	-4.0	-0.0	-4.5 	1.50	1.50	0.00
0.000.0					. :				~~~.
2,200.0	3.50	230.00	2,199.7	-7.2	-8.6	-7.1	0.00	0.00	0.00
2,500.0	3.50	230.00	2,299.5	-11.1	-13.3	-11.0	0.00	0.00	0.00
2,500.0	3.50	230.00	2,355.4	-19.0	-22.6	-14.9	0.00	0.00	0.00
2,600.0	3.50	230.00	2,599.0	-22.9	-27.3	-22.7	0.00	0.00	0.00
2.700.0	3 50	230.00	2 698 8	-26.8	-32 0	26.6	0.00	0.00	0.00
2,800.0	3.50	230.00	2,798.6	-30.7	-36.6	-20.0	0.00	0.00	0.00
2,900.0	3.50	230.00	2,898.4	-34.7	-41.3	-34.4	0.00	0.00	0.00
3,000.0	3.50	230.00	2,998.2	-38.6	-46.0	-38.3	0.00	0.00	0.00
3,100.0	3.50	230.00	3,098.1	-42.5	-50.7	-42.2	0.00	0.00	0.00
3,200.0	3.50	230.00	3,197.9	-46.4	-55.3	-46.1	0.00	0.00	0.00
3,300.0	3.50	230.00	3,297.7	-50.4	-60.0	-50.0	0.00	0.00	0.00
3,400.0	3.50	230.00	3,397.5	-54.3	-64.7	-53.9	0.00	0.00	0.00
Base Salt	5.50	230.00	3,423.0	-55,3	-65.9	-54.9	0.00	0.00	0.00
3,500.0	3.50	230.00	3 497 3	-58.2	-69.4	-57.8	·	0.00	0.00
3 600 0	3 50	220.00	2,507,1	62.4	74.0	07.0	0.00	0.00	0.00
3.630.9	3.50	230.00	3,597.1	-62.1	-74.0	-61.7	0.00	0.00	0.00
Delaware Mount	ain Gp		0,020.0	00.0	10.0	-02.5	0.00	0.00	0.00
3,635.9	3.50	230.00	3,633.0	-63.5	-75.7	-63.1	0.00	0.00	0.00
Lamar									••••
3,656.0	3.50	230.00	3,653.0	-64.3	-76.7	-63.9	0.00	0.00	0.00
Bell Canyon									
3,671.0	3.50	230.00	3,668.0	-64.9	-77.4	-64.5	0.00	0.00	0.00
Ramsey Sand									
3,700.0	3.50	230.00	3,696.9	-66.1	-78.7	-65.6	0.00	0.00	0.00
3,800.0	3.50	230.00	3,796.7	-70.0	-83.4	-69.5	0.00	0.00	0.00
3,900.0	3.50	230.00	3,896.6	-73.9	-88.1	-73.4	0.00	0.00	0.00
4,000.0 & 100.0	3.50 3.50	230.00	3,996.4	-//.8	-92.8	-77.3	0.00	0.00	0.00
4,100.0	5.50	230.00	4,030.2	-01.0	-97.4	-01.2	0.00	0.00	0.00
4,200.0	3.50	230.00	4,196.0	-85.7	-102. 1	-85.1	0.00	0.00	0.00
4,300.0 4 400 0	3.5U 3.50	230.00	4,295.8	-89.6	-106.8	-89.0	0.00	0.00	0.00
4,500.0	3.50	230.00	4,090.0 4 495 A	-93.5 _97 5	-111.5	-92.9	0.00	0.00	0.00
4,600.0	3.50	230.00	4,595.3	-101.4	-120.8	-90.0	0.00	0.00	0.00
4 700 0	3 50	230.00	1 606 1	105.2	125 5	104.0	0.00	0.00	0.00
4.800.0	3.50	230.00	4,090.1 4 794 9	-105.3	-125.5 -130 p	-104.6	0.00	0.00	0.00
			.,	100.2	- 100.2	-100.0	0.00	0.00	0.00

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Moneurod			Montional		n i				
Depth	Inclination	Azimuth	Depth	+N/-S	+ELW	Section	Dogleg	Build	Turn Rate
(usft)	(°)	(°)	(úsft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
4 808 1	3.50	230.00	4 803 0	-109 5	-130.5	109.9	0.00	0.00	0.00
Cherry Canyo	on	200.00	4,000.0	-105.5	-130.5	-100.0	0.00	0.00	0.00
4,900.0	3.50	230.00	4,894.7	-113.1	-134.8	-112.4	0.00	0.00	0.00
5,000.0	3.50	230.00	4,994.5	-117.1	-139.5	-116.3	0.00	0.00	0.00
5,100.0	3.50	230.00	5,094.3	-121.0	-144.2	-120.2	0.00	0.00	0.00
5,200.0	3.50	230.00	5,194.1	-124.9	-148.9	-124.1	0.00	0.00	0.00
5,300.0	3.50	230.00	5,293.9	-128.8	-153.5	-128.0	0.00	0.00	0.00
5,400.0	3.50	230.00	5,393.8	-132.8	-158.2	-131.9	0.00	0.00	0.00
5,000.0	2.00	200.00	5,400.0	-130.7	-102.5	-135.8	0.00	0.00	0.00
5,000.0	3.50	230.00	5,593.4	-140.6	-167.6	-139.7	0.00	0.00	0.00
5,759.9	3.50	230.00	5,753.0	-146.9	-175.1	-145.9	0.00	0.00	0.00
Brushy Cany	on	الي من يونغ الم المراجع المراجع المراجع المراجع	All and the second	and the second	Sec. 8-12	st with works	0.00		0.00
5,800.0	3.50	230.00	5,793.0	-148.5	-176.9	-147.5	0.00	0.00	0.00
5,900.0	3.50	230.00	5,892.8	-152.4	-181.6	-151.4	0.00	0.00	0.00
6,000.0	3.50	230.00	5,992.6	-156.3	-186.3	-155.3	0.00	0.00	0.00
6,100.0	3.50	230.00	6,092.5	-160.2	-191.0	-159.2	0.00	0.00	0.00
6,200.0	3.50	230.00	6,192.3	-164.2	-195.6	-163.1	0.00	0.00	0.00
6 400 0	3.50 3.50	230.00 230.00	0,292.1 6 391 0	-168.1 -172.0	-200.3	-167.0 -170.0	0.00	0.00	0.00
6,500.0	0.00	200.00	0.404 7	-172.0	-205.0	-170.9	0.00	0.00	0.00
6,500.0	3.50	230.00	6,491.7 6 501 5	-175.9	-209.7	-174.8	0.00	0.00	0.00
6,700.0	3.50	230.00	6.691.3	-183.8	-214.3	-182.6	0,00	0.00	0.00
6,800.0	3.50	230.00	6,791.2	-187.7	-223.7	-186.5	0.00	0.00	0.00
6,900.0	3.50	230.00	6,891.0	-191.6	-228.4	-190.4	0.00	0.00	0.00
7,000.0	3.50	230.00	6,990.8	-195.6	-233.1	-194.3	0.00	0.00	0.00
7,100.0	3.50	230.00	7,090.6	-199.5	-237.7	-198.2	0.00	0.00	0.00
7,200.0	3.50	230.00	7,190.4	-203.4	-242.4	-202.1	0.00	0.00	0.00
7,283.3	3.50	230.00	7,273.6	-206.7	-246.3	-205.3	0.00	0.00	0.00
7 300 0	3 25	230.00	7 290 2	-207 3	-247 1	-206.0	1.50	1 50	0.00
7,400,0	4.75	200.00	7,200.2	207.0	-2-11.1	-200.0	1.50	-1.50	0.00
7,400.0	1.75	230.00	7,390.1	-210.1	-250.4	-208.7	1.50	-1.50	0.00
7,512.9	0.06	230.00	7,503.0	-211.2	-251.7	-209.9	1.50	-1.50	0.00
Bone Spring	Lime	· · · · ·		بىر					
7,516.7	0.00	0.00	7,506.8	-211.3	-251.8	-209.9	1.50	-1.50	0.00
Start 3755.2 h	old at 7516.7 MD	l. İs	· · · · ·	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	AND AND SA	. A survey of the second			2
7,600.0	0.00	0.00	7,590.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
7,632.9	0.00	0.00	7,623.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
Upper Avalon	· .				·		· •		
7,700.0	0.00	0.00	7,690.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,790.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,990.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8 017 9	0.00	0.00	8 008 0	-211 3	-251 B	-209 9	0.00	0.00	0.00
Middle Avalor	1	0.00	0,000.0	211.0	201.0	-200.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,090.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,190.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,242.9	0.00	0.00	8,233.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
Lower Avalon 8 300 0	0.00	0.00	8 200 1	-211.2	-251.0	200.0	0.00	0.00	0.00
0,000.0	0.00	0.00	0,200.1	-211.5	-231.0	-209.9	0.00	0.00	0.00
8,400.0 8,457 9	0.00	0.00	8,390.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
1st Bone Spri	ng Sand	0.00	0,440.0	-211.3	-251.0	-209.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,490,1	-211.3	-251 8	-209 9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,590.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,690.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,790.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
8,807.9	0.00	0.00	8,798.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
2nd Bone Spr	ing Carb								
8,900.0	0.00	0.00	8,890.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
9,000.0	0.00	0.00	0,990.1 9.083.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
2nd Bone Spr	ing Sand	0.00	2,000.0	211.0	201.0	-203.3	0.00	0.00	0.00
0.400.0	0.00	0.00	0.000.4	044.0	05.1	~~~ ~		•	
9,100.0	0.00	0.00	3,090.1	-211.3	-251.8	-209.9	0.00	0.00	0.00

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Planned Survey	e Bereicher Schweizer auf eine Bereicher son						- A. A. C. M. AND MICH. 1997 (1997)	and a second	
San San					State State	1.1.1		Sec. S. Da	See Star Star
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth incli	nation. 🔅 🗚	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Ratè	Rate
(usit)	() <u>- 2000</u>	()	-(usπ)	(usft)	(usft)	(usft)	<pre>(*/100usft) </pre>	(*/100usft)	(°/100usft)
9,200.0	0.00	0.00	9,190.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,290.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,390.1 9,490.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
0,000.0	0.00	0.00	0,400.1	-211.5	-231.0	-209.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,590.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
3rd Bone Spring C	o.oo	0.00	9,003.0	-211.3	-251.6	-209.9	0.00	. 0.00	0.00
9,700.0	0.00	0.00	9,690,1	-211.3	-251.8	-209.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,790.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,890.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,990.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,090.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,200.0	0.00	0.00	10,190.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,290.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
3rd Bone Spring St	o.o. hne	0.00	10,343.0	-211.3	-251.0	-209.9	0.00	0.00	0.00
ord Done Opring Or	ano	and a start						<sup>و</sup> میں ا	
10,400.0	0.00	0.00	10,390.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,490.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,652.9	0.00	0.00	10,643.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
3rd BS W Sand	t dt.	ريديمومير د. ريف در د. ار	· · · · ·	1.474	]				
10,700.0	0.00	0.00	10,690.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10.742.9	0.00	0.00	10,733.0	-211 3	-251.8	-209 9	0.00	0.00	0.00
Wolfcamp A X Sand	1 MARCHINE				- /	200.0			0.00
10,800.0	0.00	0.00	10,790.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,872.9	0.00	0.00	10,863.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
Wolfcamp A Y Sand	1								
10,900.0	0.00	0.00	10,890.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
10,962.9	0.00	0.00	10,953.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
woncamp A Lower	- 16 Marine Standard Charles	n in tetteri rini addata'a .	the	alational and a	-7 - 1		an a	See	alandari an
11,000.0	0.00	0.00	10,990.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
11,100.0	0.00	0.00	11,090.1	-211.3	-251.8	-209.9	0.00	0.00	0.00
Wolfcamp B	0.00	•	11,140.0	-211.5	-251.0	-209.9	0.00	0.00	0.00
11 200 0	0.00	0.00	11 190 1	-211.3	-251.8	-209 9	0.00	0.00	0.00
11,271.9	0.00	0.00	11,262.0	-211.3	-251.8	-209.9	0.00	0.00	0.00
Start Build 10.00	4 No	all and a second	$= \frac{1}{2} $	an dia				· · · · · · · · · · · · · · · · · · ·	
11 300 0	2 81	351 40	11 290 1	-210.6	-251 9	-209.2	10.00	10.00	0.00
11,350.0	7.81	351.40	11,339.9	-206.0	-252.6	-203.2	10.00	10.00	0.00
11,400.0	12.81	351.40	11,389.0	-197.1	-253.9	-195.8	10.00	10.00	0.00
11,450.0	17.82	351.40	11,437.2	-184.1	-255.9	-182.7	10.00	10.00	0.00
11,500.0	22.82	351.40	11,484.1	-166.9	-258.5	-165.5	10.00	10.00	0.00
11,509.7	23.78	351.40	11,493.0	-163.2	-259.0	-161.8	10.00	10.00	0.00
Wolfcamp B1									•
11,550.0	27.82	351.40	11,529.3	-145.8	-261.7	-144.4	10.00	10.00	0.00
11,650.0	37.82	351.40	11,613.2	-92.3	-269.8	-119.4	10.00	10.00	0.00
11,700.0	42.82	351.40	11,651.3	-60.3	-274.6	-58.8	10.00	10.00	0.00
11,750.0	47.82	351.40	11.686.5	-25.2	-279.9	-23.6	10.00	10.00	0.00
11,775.2	50.34	351.40	11,703.0	-6.3	-282.B	-4.8	10.00	10.00	0.00
Wolfcamp C									
11,800.0	52.82	351.40	11,718.4	12.9	-285.7	14.4	10.00	10.00	0.00
11,850.0	57.83	351.40	11,746.8	53.5	-291.B	55.1	10.00	10.00	0.00
11,900.0	02.03	351.40	11,771.6	96.5	-298.3	98.1	10.00	10.00	0.00
11,935.8	66.41	351.40	11,786.9	128.4	-303.1	130.1	10.00	10.00	0.00
FTP_235H	67.90	054 10	44 700 5						0.07
11,950.0	01.03 72.83	351.40 351.40	11,792.5 11 809 3	141.4 187 0	-305.1	143.0 180.6	10.00	10.00	0.00
12,050.0	77.83	351.40	11,821.9	235.7	-312.1	237.5	10.00	10.00	0.00
12,100.0	82.83	351.40	11,830.3	284.4	-326.7	286.2	10.00	10.00	0.00
12,150.0	87.83	351 40	11 834 4	333.7	-334 2	335 5	10.00	10.00	0.00
12,169.3	89.76	351.40	11,834.8	352.7	-337 1	354.6	10.00	10.00	0.00
Start DLS 3.00 TFO	90.00	-	, <del>-</del>					• •	
12,200.0	89.76	352.32	11,834.9	383.2	-341, <sup>1</sup> 4	385.0	3.00	0.00	3.00
12,300.0	89.76	355.32	11,835.3	482.6	-352.2	484.5	3.00	0.00	3.00

Plann	ed Survey		R. Lard Collin		and the state of the	200 AR		C.a.A. Standarder		
	Measured			Vortical					Action of the	
	Depth	Inclination	Azimuth	Depth	+Ň/-S	+E/-W	Section	Dogleg Rate	Build Rate	Turn Rate
	(μsπ)	(°)	· (°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	12,400.0	89.76	358.32	11,835.8	582.4	-357.7	584.3	3.00	0.00	3.00
	Start 3623.1	bold at 12445.6 M	359.69 ND	11,836.0	628.0	-358.5	630.0	3.00	0.00	3.00
	12,500.0	89.76	359.69	11,836,2	682.4	-358 8	684.3	0.00	0.00	0.00
	12,600.0	89.76	359.69	11,836.6	782.4	-359.3	784.3	0.00	0.00	0.00
	12,700.0	89.76	359,69	11,837.0	882.4	-359.9	884.3	0.00	0.00	0.00
	12,800.0	89.76	359.69	11,837.4	982.4	-360.4	984.3	0.00	0.00	0.00
	12,900.0	89.76	359.69	11,837.8	1,082.4	-360.9	1,084.3	0.00	0.00	0.00
	13,000.0	89.76	359.69	11,838.3	1,182.4	-361.5	1,184.3	0.00	0.00	0.00
	13,100.0	89.76	359.69	11,838.7	1,282.4	-362.0	1,284.3	0.00	0.00	0.00
	13,200.0	89.76	359.69	11,839.1	1,382.4	-362.6	1,384.3	0.00	0.00	0.00
	10,000.0	00.70	559.09	11,039.5	1,402.4	-363.1	1,484.3	0.00	0.00	0.00
	13,400.0	89.76	359.69	11,839.9	1,582.4	-363.6	1,584.3	0.00	0.00	0.00
	13,500.0	89.76	359.69	11,840.3	1,682.4	-364.2	1,684.3	0.00	0.00	0.00
	13,000.0	09.70	359.69	11,840:7	1,782.4	-364.7	1,784.3	0.00	0.00	0.00
	13,800,0	89.76	359.69	11,841.2	1,882.4	-365.3	1,884.3	0.00	0.00	0.00
	10,000.0	00.70	000.00	11,041.0	1,902.4	-365.8	1,984.3	0.00	0.00	0.00
	13,900.0	89.76	359.69	11,842.0	2,082.4	-366.3	2,084.3	0.00	0.00	0.00
	14,000.0	89.76	359.69	11,842.4	2,182.4	-366.9	2,184.3	0.00	0.00	0.00
	14,100.0	89.76	359.69	11,842.8	2,282.4	-367.4	2,284.3	0.00	0.00	0.00
	14,200.0	89.76 89.76	359.69	11,843.2	2,382.4	-367.9	2,384.3	0.00	0.00	0.00
	14,000.0	03.70	555.05	11,043.7	2,402.4	-368.5	2,484.3	0.00	0.00	0.00
	14,400.0	89.76	359.69	11,844.1	2,582.4	-369.0	2,584.3	0.00	0.00	0.00
	14,500.0	89.76	359.69	11,844.5	2,682.4	-369.6	2,684.3	0.00	0.00	0.00
	14,600.0	89.76	359.69	11,844.9	2,782.4	-370.1	2,784.3	0.00	0.00	0.00
	14,700.0	89.76	359.69	11,845.3	2,882.4	-370.6	2,884.3	0.00	0.00	0.00
	14,600.0	89.76	359.69	11,845.7	2,982.4	-371.2	2,984.3	0.00	0.00	0.00
	14,900.0	89.76	359,69	11,846.1	3,082.3	-371.7	3,084.3	0.00	0.00	0.00
	15,000.0	89.76	359.69	11,846.6	3,182.3	-372.3	3,184.3	0.00	0.00	0.00
	15,100.0	89.76	359.69	11,847.0	3,282.3	-372.8	3,284.3	0.00	0.00	0.00
	15,200.0	89.76 89.76	359.69	11,847.4	3,382.3	-373.3	3,384.3	0.00	0.00	0.00
	10,000.0	09.70	339.69	11,047.0	3,482.3	-373,9	3,484.3	0.00	0.00	0.00
	15,400.0	89.76	359.69	11,848.2	3,582.3	-374.4	3,584.3	0.00	0.00	0.00
	15,500.0	89.76	359.69	11,848.6	3,682.3	-375.0	3,684.3	0.00	0.00	0.00
	15,600.0	89.76	359.69	11,849.1	3,782.3	-375.5	3,784.3	0.00	0.00	0.00
	15,700.0	89.76	359.69	11,849.5	3,882.3	-376.0	3,884.3	0.00	0.00	0.00
	15,800.0	09.76	359.69	11,849.9	3,982.3	-376.6	3,984.3	0.00	0.00	0.00
	15,900.0	89.76	359.69	11,850.3	4,082.3	-377.1	4,084.3	0.00	0:00	0.00
	16,000.0	89.76	359.69	11,850.7	4,182.3	-377.6	4,184.3	0.00	0.00	0.00
	16,068.7	89.76	359.69	11,851.0	4,251.1	-378.0	4,253.0	0.00	0.00	0.00
	Start 130.0 h	iold at 16068.7 ME	D - LTP_235H			I		Contraction of the second s		
	16,100.0	89.76	359.69	11,851.1	4,282.3	-378.2	4,284.3	0.00	0.00	0.00
	TD of 16409	09.70	359.69	11,851.5	4,381.0	-378.7	4,383.0	0.00	0.00	0.00
	1D at 16198.	7 - PBHL_235H						10 10		
	ante anterna anterna a	a augustus in the second of the second second								
Design	Targets		an de la compañía de	e. Vernet samet addition of the second s	er nær i Statiska ett	eleft i de le contra l'hitti de la contra de l			2011/11/1. a. a	n Deine The station of a William Station of the proceeding of the station of the
A	and the second second	and the second	and the second			Sector Sector	1	1957	State of the second second	and the second second
[arget	Name		Se Strat		and a second	819 - Carlos - Carlos	and the second s	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	Standing and the	No. No. of the
- hit	/miss target	Dip Angle	Dip Dir. T\	/D. +N/-S	+E/-W	Northi	ng East	ing 👘	and the second second	
- Sh	ape	(°)	(°) (us	sft) (usft)	(usft)	(usft	) 🦛 🦛 (us	ft)	l atitude	1 ongitude
·ΤΠ Ο/	0.511	······································	in an	anne e transmana	nen ille nanisme i Stiller - nigi St	and a stand of the second s				Longitude
- pl - P - P	asH lan misses targe oint	0.00 et center by 77.2u	0.00 11, sft at 11935.8us	835.0 98 ft MD (11786.9 T	3.2 -355. VD, 128.4 N, -	4 364, 303.1 E)	477.36 694	1,826.83	32° 0' 3.824 N	103° 50' 17.464 W
.TP_23 - pl - P	85H Ian hits target ce oint	0.00 enter	0.00 11,	851.0 4,251	l.1 -378.	0 368,	630.23 694	l,804.21	32° 0' 44.922 N	103° 50' 17.506 W
PBHL_	235H lan misses targe	0.00 et center by 0.1usf	0.00 11,4 ft at 16198.7usf	851.5 4,381 1 MD (11851.5 TV	i.0 -378. /D, 4381.0 N, -	8 368, 378.7 E)	760.20 694	,803.43	32° 0' 46.208 N	103° 50' 17.508 W
- F										

Formations	(c) Stars and an and a star br>A star and a st A star and a star A star and a st A star and a star	99999999999999999999999999999999999999
Measured Vertical Depth Depth (usft) (usft)	Name	Dip Dip Direction Lithology (*)
833.0 83	.0 Rustler Anhydrite	an a
1,383.0 1,38	.0 Top Salt	
3,425.6 3,42	.0 Base Salt	
3,630.9 3,62	.0 Delaware Mountain Gp	
3,635.9 3,63	.0 Lamar	
3,656.0 3,65	.0 Bell Canyon	
3,671.0 3,66	.0 Ramsey Sand	
4,808.1 4,80	.0 Cherry Canyon	
5,759.9 5,75	.0 Brushy Canyon	
7,512.9 7,50	.0 Bone Spring Lime	
7,632.9 7,62	.0 Upper Avalon	
8,017.9 8,00	.0 Middle Avalon	
8,242.9 8,23	.0 Lower Avalon	
8,457.9 8,44	.0 1st Bone Spring Sand	
8,807.9 8,79	.0 2nd Bone Spring Carb	
9,092.9 9,08	.0 2nd Bone Spring Sand	
9,692.9 9,68	.0 3rd Bone Spring Carb	
10,352.9 10,34	.0 3rd Bone Spring Sand	
10,652.9 10,64	.0 3rd BS W Sand	
10,742.9 10,73	.0 Wolfcamp A X Sand	
10,872.9 10,86	.0 Wolfcamp A Y Sand	
10,962.9 10,95	.0 Wolfcamp A Lower	
11,157.9 11,14	.0 Wolfcamp B	
11,509.7 11,49	.0 Wolfcamp B1	
11,775.2 11,70	.0 Wolfcamp C	

Plan Annotations		an an ann an	and the second	and a second
Measured	Vertical	Local Co	oordinates	
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,900.	0 1,900.0	0.0	0.0	Start Build 1.50
2,133.	3 2,133.2	-4.6	-5.5	Start 5150.0 hold at 2133.3 MD
7,283.:	3 7,273.6	-206.7	-246.3	Start Drop -1.50
7,516.	7 7,506.8	-211.3	-251.8	Start 3755.2 hold at 7516.7 MD
11,271.5	9 11,262.0	-211.3	-251.8	Start Build 10.00
12,169.3	3 11,834.8	352.7	-337.1	Start DLS 3.00 TFO 90.00
12,445.0	6 11,836.0	628.0	-358.5	Start 3623.1 hold at 12445.6 MD
16,068.	7 11,851.0	4,251.1	-378.0	Start 130.0 hold at 16068.7 MD
16,198.	7 11,851.5	4,381.0	-378.7	TD at 16198.7

# **Ontinental** 3

## Hydrostatic Test Certificate

			ContiTech
Certificate Number 938562	COM Or 938562	rder Reference	Customer/Name/& Address
Customer Purchase Order	No: 7400433	386	1434 SOUTH BOULDER AVE TULSA, OK 74119
Project: H	IOW		USA
Test Center Addres	8	Accepted by/COM Inspection	Accepted by Client Inspection
ContiTech Oil & Marine Corp 11535 Brittmoore Park Drive Houston, TX 77041 USA	Signed: Date:	Roger Suarez	

We certify that the goods detailed hereon have been inspected as described below by our Quality Management System, and to the best of our knowledge are found to conform the requirements of the above referenced purchase order as issued to ContiTech Oil & Marine

Corporation.

A ADD ADD DOD ADD ADD ADD ADD ADD ADD AD	CONCERNING A CONTRACTOR OF A CONTRA						
ltem	Part No:	Description	Qnty	Serial Number	Work. Press.	Test Press.	Test Time (minutes)
20		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	ì	53631	10,000 psi	15,000 psi	60
30		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	54500	10,000 psi	15,000 psi	60
40		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	56838	10,000 psi	15,000 psi	60
50		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 h OAL	1	56489	10,000 psl	15,000 psi	60 <sup>`</sup>
60		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	61475	10,000 psi	15,000 psi	60
80		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60197	10,000 psi	15,000 psi	60
90		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	39474	10,000 psi	15,000 psi	60
100		RECERTIFICATION - 3" ID 10K Choke and Kill Hose x 35 ft OAL	1	60887	10,000 psi	15,000 psi	60



Elevation above Sea Level: 3017'

#### **DRILLING PROGRAM**

#### 1. Estimated Tops

Formation	TVD	MD	Lithologies	Bearing
Quaternary Deposits	0	0	Şurface	None
Rustler Anhydrite	833	833		Salt
Salado	1383	1383	Salt	Salt
Base Salt	3423	3425		Salt
Lamar	3633	3635	Limestone	None
Bell Canyon	3653	3656	Sandstone	Hydrocarbons
Cherry Canyon	4803	4808	Sandstone	Hydrocarbons
Brushy Canyon	5753	5759	Sandstone	Hydrocarbons
· Bone Spring	7503	7513	Limestone	Hydrocarbons
1st Bone Spring	8448	8457	Sandstone	Hydrocarbons
2nd Bone Spring	8798	8807	Sandstone	Hydrocarbons
3rd Bone Spring	9683	9693	Sandstone	Hydrocarbons
Wolfcamp	10733	10743	Shale	Hydrocarbons
КОР	11262	11271	Sandstone	Hydrocarbons
TD	11851	16200	Shale	Hydrocarbons

#### 2. Notable Zones

Wolfcamp is the target formation.

#### 3. Pressure Control

Pressure Control Equipment (See Schematics):

A 15,000', 5,000 psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A top drive check valve and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. The wellhead will be a multi-bowl speed head.



#### BOP Test procedure will be as follows:

After surface casing is set and the BOP is nippled up, the BOP pressure tests will be made with a third party tester to 250 psi low, 5000 psi high, and the annular preventer will be tested to 2,500 psi. The BOP will be tested in this manner after nipple-up if any break of the stack occurs.

#### Variance Requests:

Tap Rock requests a variance to run a multi-bowl speed head for setting the Intermediate 1, Intermediate 2, and Production Strings. Tap Rock requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Tap Rock requests a variance to have the option of batch drilling this well with other wells on the same pad. In the event that this well is batch drilled, after drilling surface, 1<sup>st</sup> intermediate, and 2<sup>nd</sup> intermediate hole sections and cementing 2<sup>nd</sup> intermediate casing, a 10M dry hole cap with bleed off valve will be installed. The rig will then walk to another well on the pad. When the rig returns to this well and BOPs are installed, the operator will perform a full BOP test. Tap Rock requests a variance to run 7-5/8" BTC casing inside 9-5/8" BTC casing will be less than the 0.422" stand off regulation. Through conversations with BLM representatives, Tap Rock has received approval for this design as long as the 7-5/8" flush casing was run throughout the entire 300' cement tie back section between 9-5/8" and 7-5/8" casing.

Tap Rock requests approval to possibly utilize a spudder rig to drill and set casing for the surface interval on this well. The spudder rig will be possibly utilized in order to reduce cost and save time. The wellhead will be installed and tested as soon as the surface casing is cut off per the existing COAs. A blind flange with the same pressure rating as the wellhead will be installed on the well. Once the spudder rig is removed, Tap Rock will secure the wellhead area by placing a guard rail around the cellar. Pressure will be monitored and a means for intervention will be maintained while the drilling rig is not over the well. Spudder rig operations are expected to take 2-3 days per well. Three wells on the pad will have surface casing set by the spudder rig as a part of this operation. The BLM will be notified 24 hours prior to commencing spudder rig operations. Within 90 days of the departure of the spudder rig, drilling operations will recommence on these wells. This rig will have a BOP stack equal or greater to the pressure rating required in the COAs. The BLM will be notified 24 hours before the larger rig moves on the pre-set wells. Tap Rock will have supervision on the spudder rig to ensure compliance with all BLM and NMOCD regulations.



#### 4. Casing & Cement

All Casing will be new.

Section	Hole Size	<b>Casing Size</b>	Standard	Tapered	Top MD	Bottom MD	Top TV	'D	BTM TVD	Grade	Weight	Thread	Collapse	Burst	Tension
Surface	17 1/2	13 3/8	API	No	0	920	0		920	J-55	54.5	BUTT	1.13	1.15	1.6
1st Intermediate	12 1/4	9 5/8	API	No	0	3700	0		3697	J-55	40	BUTT	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	API	No	0	3400	0 }		3397	P-110	29.7	Βυπ	1.13	1.15	1.6
2nd Intermediate	8 3/4	7 5/8	NON API	Yes	3400	11150	3397		11141	P-110	29.7	W-513	1.13	1.15	1.6
Production	6 3/4	5 1/2	NON API	No	Ö	10950	0		10941	P-110	20	ТХР	1.13	1.15	1.6
Production	6 3/4	5	NON API	Yes	10950	16200	10941		11851	P-110	18	W-521	1.13	1.15	1.6
														• • • • • •	

Name	Туре	Top MD	Sacks	Yield	Cu. Ft	Weight	Excess	Cement	Additives
Surface	Lead	0	426	1.8	767	13.5	100%	С	None
Surrace	Tail	552	379	1.35	511	14.8	100%	C	5% NCI + LCM
1st Intermediate	Lead	0	702	2.18	1529	12.7	65%	С	Bentonite + 1% CaCL2 + 8% NaCl + LCM
Ist interinediate	Tail	2960	287	1.33	382	14.8	65%	С	5% NaCl + LCM
2nd Intermediate	Lead	3400	319	2.87	916	11.5	35%	TXI	Fluid Loss + Dispersant + Retarder + LCM
Zha mtermediate	Tail	10150	107	1.27	136	15	. 35%	Н	Fluid Loss + Dispersant + Retarder + LCM
Production	Tail	10650	455	1.71	778	14.2	25%	Н	Fluid Loss + Dispersant + Retarder + LCM

#### 5. Mud Program

Name	Тор	Bottom	Туре	Mud Weight	Visc	Fluid Loss
Surface	0	920	FW Spud Mud	8.30	28	NC
Intermediate	920	3700	Brine Water	10.00	30-32	NC
Intermediate 2	3700	11150	FW/Cut Brine	9.00	30-32	NC
Production	11150	16200	Oil Base Mud	13.00	15-20	<10

Electronic Pason mud monitor system complying with Onshore Order 1 will be used. All necessary mud products (e. g., barite, cedar bark) for weight addition and fluid loss control will always be on site. Mud program is subject to change due to hole conditions. A closed loop system will be used.

#### 6. Cores, Tests, & Logs

- Electric Logging Program: No open-hole logs are planned at this time for the pilot hole.
- GR will be collected while drilling through the MWD tools from 9.625" casing shoe to TD.
- A 2-person mud logging program will be used from 9 625" casing shoe to TD.
- No DSTs or cores are planned at this time.
- CBL w/ CCL from as far as gravity will let it fall to TOC.



#### 7. Down Hole Conditions

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is  $\approx$ 8,000 psi. Expected bottom hole temperature is  $\approx$ 175° F

Tap Rock does not anticipate that there will be enough H2S from the surface to the Wolfcamp formations to meet the BLM's Onshore Order 6 requirements for the submission of an "H2S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Tap Rock has an H2S safety package on all wells and an "H2S Drilling Operations Plan" is attached. Adequate flare lines will be installed off the mud/gas separator where gas may be safely flared. All personnel will be familiar with all aspects of safe operation of equipment being used.

#### 8. Other Information

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 30 days. If production casing is run an additional 60 days will be required to complete and construct surface facilities.

# **WAFMSS**

COM IN S		SIIPO Data Poport
U.S. Department of the Interior BUREAU OF LAND MANAGEMENT		
APD ID: 10400048006	Submission Date: 10/21/20	D19 Highlighted data
Operator Name: TAP ROCK OPERATING LLC		reflects the most
Well Name: NAILED IT FED COM	Well Number: 235H	Show Final Text
Well Type: CONVENTIONAL GAS WELL	Well Work Type: Drill	
		)
Section 1 - Existing Roads		
Will existing roads be used? YES		
Existing Road Map:		
Nailed_Existing_Roads_Map_012220_202002051	10426.pdf	
Existing Road Purpose: ACCESS	Row(s) E	xist? NO
ROW ID(s)		
ID:		
Do the existing roads need to be improved? NC	)	
Existing Road Improvement Description:		
Existing Road Improvement Attachment:		
Section 2 - New or Reconstru	cted Access Roads	
Will new roads be needed? YES		
New Road Map:		
Nailed_New_Roads_Map_Plats_011720_2020020	5110502.pdf	
New road type: LOCAL		
Length: 4553.52 Feet	Width (ft.): 30	
Max slope (%): 0	Max grade (%): 1	
Army Corp of Engineers (ACOE) permit required	<b>I?</b> N	
ACOE Permit Number(s):		
New road travel width: 24		
New road access erosion control: Crowned and c	litched	
New road access plan or profile prepared? N		
New road access plan attachment:		
Access road engineering design? N		
Access road engineering design attachment:		

Well Name: NAILED IT FED COM

#### Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: Grader

Access other construction information: Pipelines that are crossed will be padded.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

## 💫 🦾 Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and ditched

Road Drainage Control Structures (DCS) description: None

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Nailed\_Slot2\_well\_Map\_v1\_082119\_20200205110650.pdf

## Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

**Production Facilities description:** Production facilities will be located off-pad, on separate central tank battery (CTB) sites. The W2 Facility will service the W2W2 and E2W2 well pads while the E2 Facility will service the W2E2 and E2E2 well pads. The W2 facility (400 x 400) will be built 30 north of the W2W2 well pad. Topsoil will be piled north of the CTB. Flare and/or CBU will be set on the northwest corner while the tank battery and process equipment (e.g. separators, heater-treaters) will be on the east side of the CTB. The E2 facility (400 x 400) will be built 60 north of the E2E2 well pad. Topsoil will be piled north of the CTB. Flare and/or CBU will be set on the northwest corner while the northwest corner while the tank battery and process equipment (e.g. separators, heater-treaters) will be on the vest side of the CTB. Tap Rock will install 2,989.44 of 4 buried steel flowlines from the well pads to the two (2) CTBs. There is no powerline planned at this time. **Production Facilities map:** 

Nailed\_Production\_Facilities\_011720\_20200205110724.pdf

Operator Name: TAP ROCK OPER Well Name: NAILED IT FED COM	ATING LLC Well	Number: 235H
Section 5 - Location a	and Types of Water Su	
Water Source Ta	ble	
Water source type: GW WELL		
Water source use type:	SURFACE CASING	
	STIMULATION	
	DUST CONTROL	
	INTERMEDIATE/PRODUC CASING	TION
Source latitude:		Source longitude:
Source datum:		
Water source permit type:	WATER WELL	
Water source transport method:	TRUCKING	
Source land ownership: PRIVAT	E	
	· · · · · · · · · · · · · · · · · · ·	
Source transportation land own	ership: PRIVATE	
Source transportation land own Water source volume (barrels):	ership: PRIVATE 16000	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000	ership: PRIVATE 16000	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000	ership: PRIVATE 16000	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 	ership: PRIVATE 16000 nap:	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m lailed_H2O_Source_Map_20200205	ership: PRIVATE 16000 hap: 5110815.pdf	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Nailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou lew water well? N	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads.
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m lailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou lew water well? N New Water Well	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Vailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou Vater water well? N New Water Well Well latitude:	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude:	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads. Well datum:
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Nailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou lew water well? N New Water Well Well latitude: Well latitude:	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude:	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads. Well datum:
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m lailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou lew water well? N New Water Well Well latitude: Well latitude: Est. depth to top of aquifer(ft):	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude: Est thicknes	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads. Well datum:
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Nailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou lew water well? N New Water Well Well latitude: Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments:	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude: Est thicknes	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads. Well datum:
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Nailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou New Water Well I water well? N New Water Well Well latitude: Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation:	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude: Est thicknes	Source volume (acre-feet): 2.06228954 ting pond on private land in NW Section 3, Texas & Il pads. Well datum:
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Vailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou New Water well? N New Water Well Well latitude: Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Vell depth (ft):	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude: Est thicknes Well casing ty	Source volume (acre-feet): 2.06228954
Source transportation land own Water source volume (barrels): Source volume (gal): 672000 Vater source and transportation m Vailed_H2O_Source_Map_20200205 Vater source comments: Fresh wat Pacific Railroad Block 56, Loving Cou New water well? N New Water Well Well latitude: Well latitude: Well target aquifer: Est. depth to top of aquifer(ft): Aquifer comments: Aquifer documentation: Vell depth (ft): Vell casing outside diameter (in.):	ership: PRIVATE 16000 hap: 5110815.pdf ter will be trucked from an exist unty, Texas to each of the 4 we Info Well Longitude: Est thicknes Well casing ty Well casing in	Source volume (acre-feet): 2.06228954         ting pond on private land in NW Section 3, Texas & Il pads.         Well datum:         ss of aquifer:         pe:         side diameter (in.):

Operator Name: TAP ROCK OPERATING LLC

Well Name: NAILED IT FED COM

Well Number: 235H

Drilling method:	Drill material:	
Grout material:	Grout depth:	
Casing length (ft.):	Casing top depth	(ft.):
Well Production type:	Completion Metho	d:
Water well additional information:		
State appropriation permit:		
Additional information attachment:	:	
Section 6 - Construct	tion Materials	
Using any construction materials: `	YES	
Construction Materials description will be stockpiled on a side of the well caliche pits on private land in SENW Construction Materials source loca	: NM One Call (811) will be notified pads. Closed loop mud system wi Section 12, Texas & Pacific Railroa tion attachment:	before construction starts. Top 6 of soil and brush I be used. Caliche will be hauled from existing d Block 57, Loving County, Texas.
Nailed_Construction_Materials_2020	J205110845.pdf	
Section 7 - Methods for	Handling waste	· ·
Waste type: DRILLING		
Waste content description: Drill cut	tings, mud, salts, and other chemic	als
Amount of waste: 550 ban	rels	
Waste disposal frequency : Daily		
Safe containment description: Stee	I mud tanks	
Safe containmant attachment:		
Waste disposal type: HAUL TO CON FACILITY Disposal type description: Fee Fee	MMERCIAL <b>Disposal location</b> Fed - SUPO not required	ownership: PRIVATE
<b>Disposal location description:</b> Mud LP at Orla, Texas. (Texas Railroad Co	tanks will be hauled to a state app ommission permit number STF-010	roved disposal site, e. g., Petro Waste Environmental )1, P012234, P012236.)
Waste type: GARBAGE		
Waste content description: Trash		
Amount of waste: 10 barr	rels	
Waste disposal frequency : Daily		
Safe containment description: Porta	able trash cage	
Safe containmant attachment:		
Waste disposal type: OTHER	Disposal location	ownership: OTHER
Disposal type description: Public		

.

Operator Name: TAP ROCK OPERATING LLC	
Well Name: NAILED IT FED COM Well Number	r: 235H
	· · · · · · · · · · · · · · · · · · ·
Disposal location description: Eddy County landfill	
Waste content description: Plack and grow water	
Amount of wasto: 5	
Waste disposal frequency : Daily	
Safe containment description: Plastic holding tanks and shomical tailet	
Safe containment description. Plastic holding tanks and chemical toilets	
Waste disposal type: OTHER Disposal location own	ambin: OTHER
Disposal type description: Public	
Disposal location description: Carlsbad wastewater treatment plant	
Reserve Pit	
Reserve Pit being used? NO	
Temporary disposal of produced water into reserve pit? NO	
Reserve pit length (ft.) Reserve pit width (ft.)	
Reserve pit depth (ft.) Reserve pit volu	ume (cu. yd.)
Is at least 50% of the reserve pit in cut?	
Reserve pit liner	
Reserve pit liner specifications and installation description	
Cuttings Area	
Cuttings Area being used? NO	
Are you storing cuttings on location? Y	
Description of cuttings location Steel tanks on pad	
Cuttings area length (ft.) Cuttings area	width (ft.)
Cuttings area depth (ft.) Cuttings area	volume (cu. yd.)
Is at least 50% of the cuttings area in cut?	
WCuttings area liner	
Cuttings area liner specifications and installation description	

Operator Name: TAP ROCK OPERATING LLC

Well Name: NAILED IT FED COM

Well Number: 235H

## Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Nailed\_Slot2\_Well\_Site\_Layout\_101119\_20200205111147.pdf

Comments:

## Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: Nailed It Fed Com

## Multiple Well Pad Number: Slot 2

#### Recontouring attachment:

Nailed\_Slot2\_Interim\_Rec\_010320\_20200205111238.pdf

Nailed\_Recontour\_plats\_All\_Pads\_20200205111320.pdf

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance (acres): 19.28 Road proposed disturbance (acres): 3.14 Powerline proposed disturbance (acres): 0 Pipeline proposed disturbance (acres): 2.06 Other proposed disturbance (acres): 8.08 Total proposed disturbance: 32.56	Well pad interim reclamation (acre 1.84 Road interim reclamation (acres): ( Powerline interim reclamation (acres): 0 Pipeline interim reclamation (acres): 2.06 Other interim reclamation (acres): Total interim reclamation: 3.90000000000004	<ul> <li>s): Well pad long term disturbance (acres): 17.44</li> <li>D Road long term disturbance (acres): 3.14</li> <li>es): Powerline long term disturbance (acres): 0</li> <li>pipeline long term disturbance (acres): 0</li> <li>Other long term disturbance (acres): 8.08</li> <li>Total long term disturbance: 28.6600000000004</li> </ul>
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#### **Disturbance Comments:**

**Reconstruction method:** Interim reclamation will be completed within 6 months of completing the last well on the pad. Interim reclamation will consist of shrinking the 4 well pads by removing caliche and reclaiming portions of each pad. Disturbed areas will be contoured to match pre-construction grades.

**Topsoil redistribution:** Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the landowners requirements. Stockpiled topsoil will be retained on one edge of each well pad. This soil will be used to cover the remainder of the pads when the wells are plugged and the pads reclaimed. Once the last well is plugged, the rest of the pad and associated roads will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Operator Name: TAP ROCK OPERATING LLC Well Name: NAILED IT FED COM

#### Well Number: 235H

Soil treatment: None

Existing Vegetation at the well pad: Mesquite and/or Creosote bush Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Mesquite and/or Creosote bush Existing Vegetation Community at the road attachment: Existing Vegetation Community at the pipeline: Mesquite and/or Creosote bush

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Mesquite and/or Creosote bush

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed reclamation attachment:

Seed Type

Operator Contact/Responsible Official Contact Info

Pounds/Acre

First Name:

Last Name:

Phone:

Email:

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: To BLM standards

Weed treatment plan attachment:

Monitoring plan description: To BLM standards

Monitoring plan attachment:

Success standards: To BLM satisfaction

Pit closure description: No pit

Pit closure attachment:

## Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

COE Local Office:

**DOD Local Office:** 

**NPS Local Office:** 

State Local Office: SANTA FE

Military Local Office:

**USFWS Local Office:** 

**Other Local Office:** 

**USFS Region:** 

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: TAP ROCK OPERATING LLC

Well Name: NAILED IT FED COM

Well Number: 235H

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

**BIA Local Office:** 

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: SANTA FE

Military Local Office:

**USFWS** Local Office:

Other Local Office:

**USFS Region:** 

**USFS Forest/Grassland:** 

#### **USFS Ranger District:**

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

DOD Local Office:

NPS Local Office:

State Local Office: SANTA FE

**Military Local Office:** 

**USFWS Local Office:** 

**Other Local Office:** 

**USFS Region:** 

USFS Forest/Grassland:

#### USFS Ranger District:

Operator Name: TAP ROCK OPERATING LLC	
Well Name: NAILED IT FED COM	Well Number: 235H
Disturbance type: PIDELINE	
Describe:	
Surface Owner: STATE GOVERNMENT	
Other surface owner description:	
BIA Local Office:	
BOR Local Office:	
COE Local Office:	
DOD Local Office:	
NPS Local Office:	
State Local Office: SANTA FE	
Military Local Office:	
USFWS Local Office:	
Other Local Office:	
USFS Region:	
USFS Forest/Grassland:	USFS Ranger District:
Disturbance type: OTHER	
Describe: Central Tank Battery	
Surface Owner: STATE GOVERNMENT	
Other surface owner description:	
BIA Local Office:	
State Local Office: SANTA FE	
Wintary Local Office:	
USFS Region:	
USES FORESUGRASSIAND:	USES Kanger District:

Well Number: 235H	
Use APD as ROW?	
	Well Number: 235H Use APD as ROW?

SUPO Additional Information: All well pads will be on New Mexico State Lands. Only a small ~50 segment of road will be constructed on BLM lands.

Use a previously conducted onsite? N

**Previous Onsite information:** 

# Other SUPO Attachment

Nailed\_SUPO\_20200205111535.pdf



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Section

036

Nailed II Project

## Tap Rock Operating, LLC

Nailed It Fed Com Plan of Development Map

Sec. 36, Township 26S, Range 30E Eddy County, New Mexico





NAD 1983 New Mexico State Plane East FIPS 3001 Feet

PERMITS WEST

Prepared by Permits West, Inc., August 28, 2019 for Tap Rock Operating, LLC





