Sundry Print Reports 04/30/2021

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

Well Name: GOONCH FED COM 04 Well Location: T23S / R28E / SEC 4 / County or Parish/State: EDDY /

SWSW / 32.3301615 / -104.0977888

Well Number: 221H Type of Well: CONVENTIONAL GAS Allottee or Tribe Name:

WELL

Lease Number: NMNM018038, Unit or CA Name: Unit or CA Number:

NMNM18038

US Well Number: 3001546613 Well Status: Drilling Well Operator: NOVO OIL AND GAS

NORTHERN DELA

Notice of Intent

Type of Submission: Notice of Intent

Type of Action Other

Date Sundry Submitted: 03/26/2021 Time Sundry Submitted: 01:01

Date proposed operation will begin: 04/23/2021

Procedure Description: Novo Oil & Gas Northern Delaware, LLC respectfully request the following changes to the APD: Change the SHL to 1,080' FSL & 1,055' FWL, from the previously approved location of 1,100' FSL & 980' FWL, Sec. 4, T23S, R28E. There will not be any additional or new surface disturbance as a result of the proposed SHL change. Change the BHL to 130' FNL & 330' FWL, from the previously approved location of 130' FNL & 980' FWL, Sec. 4-T23S, R28E. Change Intermediate Casing size to 8-5/8" from previously approved 9-5/8". See attachments for technical details.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

NOVO_Goonch_Fed_Com_04_221_plot_Plan_2_20210326130114.pdf

NOVO_Goonch_Fed_Com_04_221_Plan_2_20210326130108.xlsx

 $NOVO_Goonch_Fed_Com_04_221_Plan_2_20210326130101.pdf$

 $NOVO_Goonch_Fed_Com_04_221_AC_Report_Plan_2_20210326130056.pdf$

 $5.500_20_P110EC_DWC_C_IS_PLUS_20210326130048.pdf$

 $8.625_32.00_P110HSCY_TLW_20210326130042.pdf$

GOONCH_FED_COM_04_221H_v._2_20210326130036.pdf

Drill_Plan_3S_5K_GOONCH_FED_COM_04_221H_032621_20210326130027.pdf

ed by OCD: 5/10/2021 10:25:13 AM ell Name: GOONCH FED COM 04

Well Location: T23S / R28E / SEC 4 /

SWSW / 32.3301615 / -104.0977888

County or Parish/State: EDDY/

Well Number: 221H

Type of Well: CONVENTIONAL GAS

WELL

Allottee or Tribe Name:

Lease Number: NMNM018038,

NMNM18038

Unit or CA Name:

Unit or CA Number:

US Well Number: 3001546613

Well Status: Drilling Well

Operator: NOVO OIL AND GAS

NORTHERN DELA

Goonch_04_221H_Changes_to_APD_Request_v._2_20210326130018.pdf

Conditions of Approval

Additional Reviews

Goonch_FED_COM_04_221H_APD_CHANGE_SUNDRY_Drilling_COAs_20210329102400.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: JUSTIN CARTER Signed on: MAR 26, 2021 01:01 PM

Name: NOVO OIL AND GAS NORTHERN DELA

Title: Landman

Street Address: 1001 West Wilshire Boulevard Suite 206

City: Oklahoma City State: OK

Phone: (405) 286-3375

Email address: JCARTER@NOVOOG.COM

Field Representative

Representative Name:

Street Address:

City: State: Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234 BLM POC Email Address: cwalls@blm.gov

Disposition: Approved Disposition Date: 03/29/2021

Signature: Chris Walls

Page 2 of 2

<u>District I</u>
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II

District II District III

1000 Rio Brazos Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 <u>District IV</u>

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462 State of New Mexico

Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1,
2011
Submit one copy to appropriate
District Office

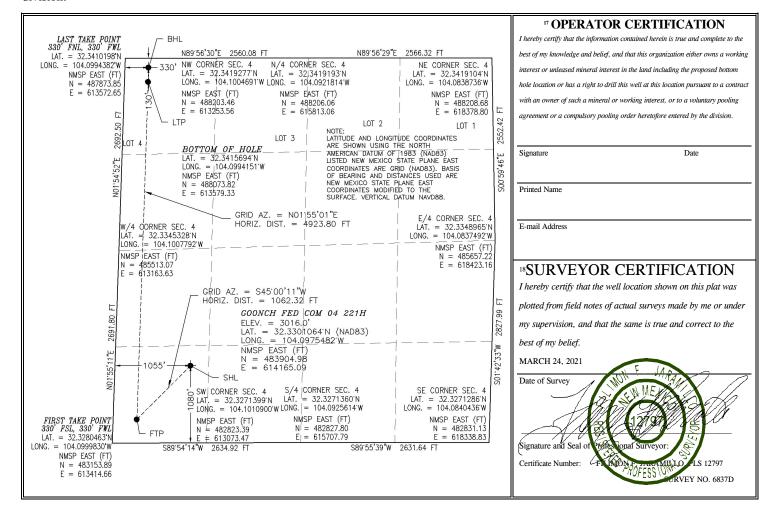
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

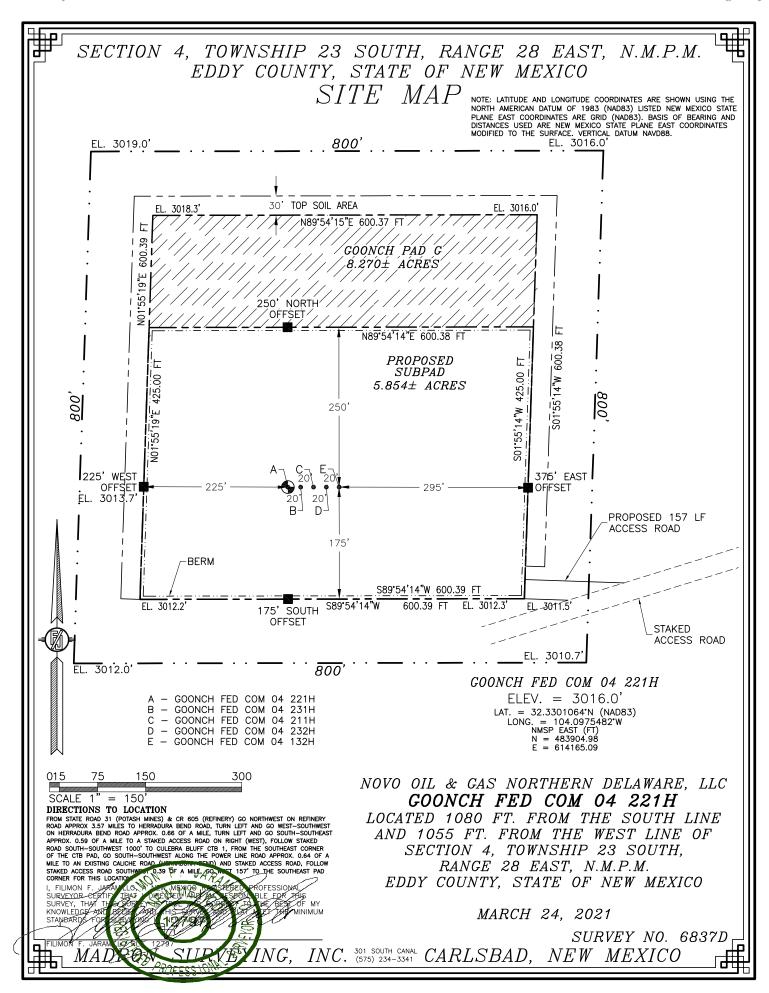
¹ API Number		² Pool Code ³ Pool Name		
		Purple Sage Wolfcamp		
⁴ Property Code		⁵ Property Name		⁶ Well Number
GOONCE			H FED COM 04	221H
⁷ OGRID No.		8 O _I	perator Name	⁹ Elevation
372920		NOVO OIL & GAS NO	3016.0	

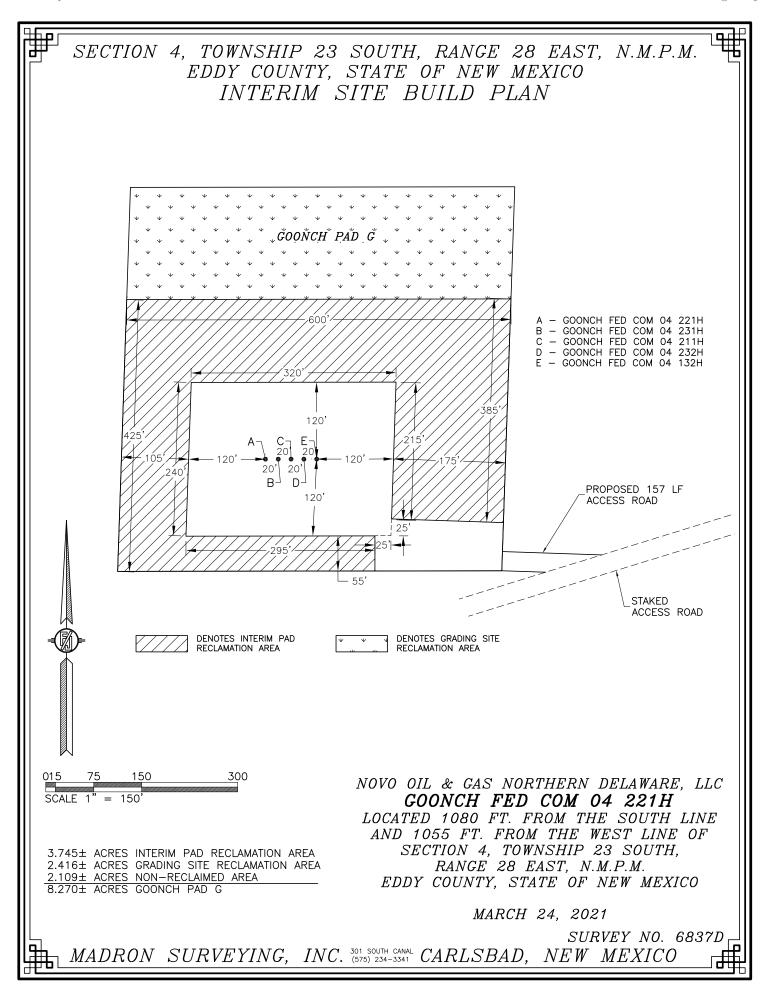
	[™] Surface Location								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	4	23 S	28 E		1080	SOUTH	1055	WEST	EDDY
	¹¹ Bottom Hole Location If Different From Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	4	23 S	28 E	4	130	NORTH	330	WEST	EDDY
12 Dedicated Acre	s ¹³ Joint	or Infill 14	Consolidation	n Code			15 Order No.	1	

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

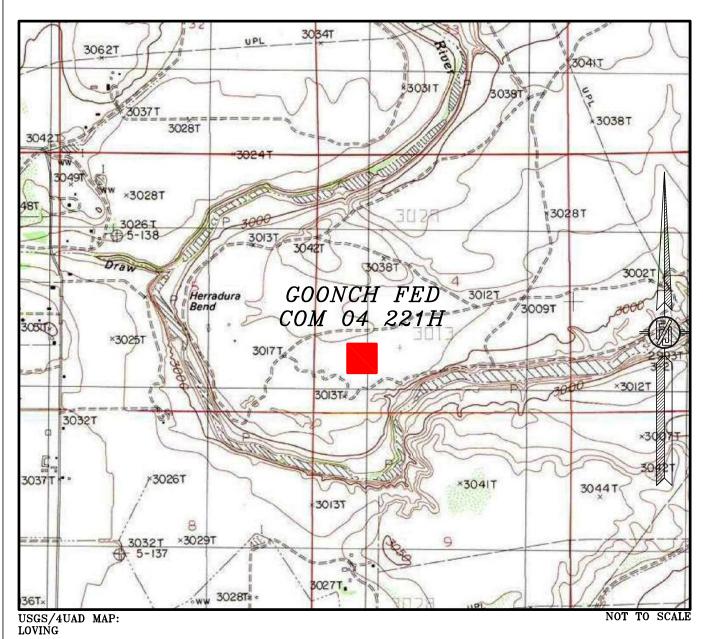


Intent	t [As Drill	ed										
API#													
Ope	rator Nar	ne:	1			Property	Name:						Well Number
NOVO OIL & GAS NORTHERN DELAWARE, LLC					RE, LLC	G	ONC	H FEC	сом)4			221H
Kick C	Off Point (KOP)											
UL M	Section 4	Township 23S	Range 28E	Lot	Feet 1080	From SOL	N/S JTH	Feet 105	55 F	rom E/V NEST	٧	County EDDY	
Latitu		01064		<u>!</u>	Longitu	104.09	7548	32				NAD 83	
UL	ake Poin	Township	Range	Lot	Feet	From		Feet	F	rom E/V	V	County	
M Latitu	4 ide	235	28Ē		330 Longitu	de	ЛН	330) \			EDDÝ NAD	
	32.328	0463				104.0999830 83							
Last T	ake Point	t (LTP)											
UL	Section 4	Township 23S	Range 28E	Lot 4	Feet 330	From N/S NORTH	Feet	t 0	From E/\ WEST	V Cor	unt	y Y	
Latitu		410198			Longitu	104.0994382 NAD				νD	83		
		defining w nfill well?	ell for the	e Horizo	ontal Spa	cing Unit?]				
	ng Unit.	olease prov	vide API i	f availa	able, Ope	erator Nan	ne and	d well	number	for De	efir	ning well	for Horizontal
Ope	rator Nar	ne:	<u> </u>			Property	 Name:	:					Well Number
													KZ 06/29/2018





SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



NOVO OIL & GAS NORTHERN DELAWARE, LLC

GOONCH FED COM 04 221H

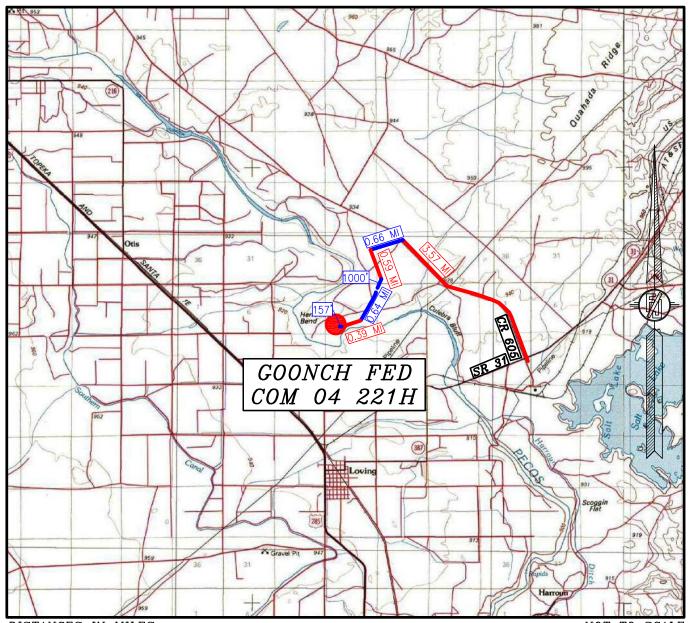
LOCATED 1080 FT. FROM THE SOUTH LINE
AND 1055 FT. FROM THE WEST LINE OF
SECTION 4, TOWNSHIP 23 SOUTH,
RANGE 28 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 24, 2021

SURVEY NO. 6837D

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO VICINITY MAP



DISTANCES IN MILES

FROM STATE ROAD 31 (POTASH MINES) & CR 605 (REFINERY) GO NORTHWEST ON REFINERY ROAD APPROX 3.57 MILES TO HERRADURA BEND ROAD, TURN LEFT AND GO WEST—SOUTHWEST ON HERRADURA BEND ROAD APPROX. 0.66 OF A MILE, TURN LEFT AND GO SOUTH—SOUTHEAST APPROX.

0.59 OF A MILE TO A STAKED ACCESS ROAD ON RIGHT (WEST), FOLLOW

0.39 OF A MILE TO A STARED ACCESS ROAD ON RIGHT (WEST), FOLLOW STAKED ROAD SOUTH—SOUTHWEST 1000' TO CULEBRA BLUFF CTB 1, FROM THE SOUTHEAST CORNER OF THE CTB PAD, GO SOUTH—SOUTHWEST ALONG THE POWER LINE ROAD APPROX. 0.64 OF A MILE TO AN EXISTING CALICHE ROAD (HERRADURA BEND) AND STAKED ACCESS ROAD, FOLLOW STAKED ACCESS ROAD SOUTHWEST 0.39 OF A MILE, GO WEST 157' TO THE SOUTHEAST PAD CORNER FOR THIS LOCATION.

DIRECTIONS TO LOCATION

NOT TO SCALE

NOVO OIL & GAS NORTHERN DELAWARE, LLC

GOONCH FED COM 04 221H

LOCATED 1080 FT. FROM THE SOUTH LINE AND 1055 FT. FROM THE WEST LINE OF SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

MARCH 24, 2021

SURVEY NO. 6837D

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO AERIAL PHOTO



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH MARCH 2016

NOVO OIL & GAS NORTHERN DELAWARE, LLC GOONCH FED COM 04 221H

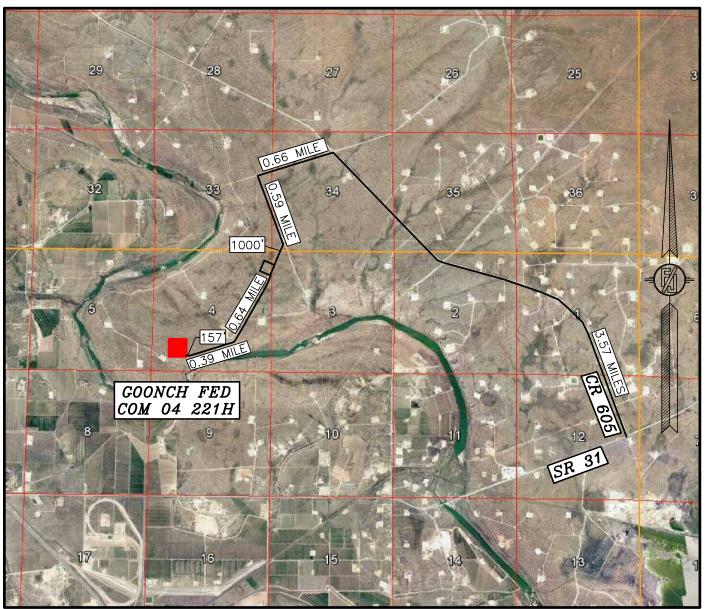
LOCATED 1080 FT. FROM THE SOUTH LINE AND 1055 FT. FROM THE WEST LINE OF SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

MARCH 24, 2021

SURVEY NO. 6837D

 $MADRON \quad SURVEYING, \quad INC. \quad {\tiny 501 SOUTH \ CARLSBAD}, \quad NEW \quad MEXICO$

SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO ACCESS AERIAL ROUTE MAP



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH MARCH 2016

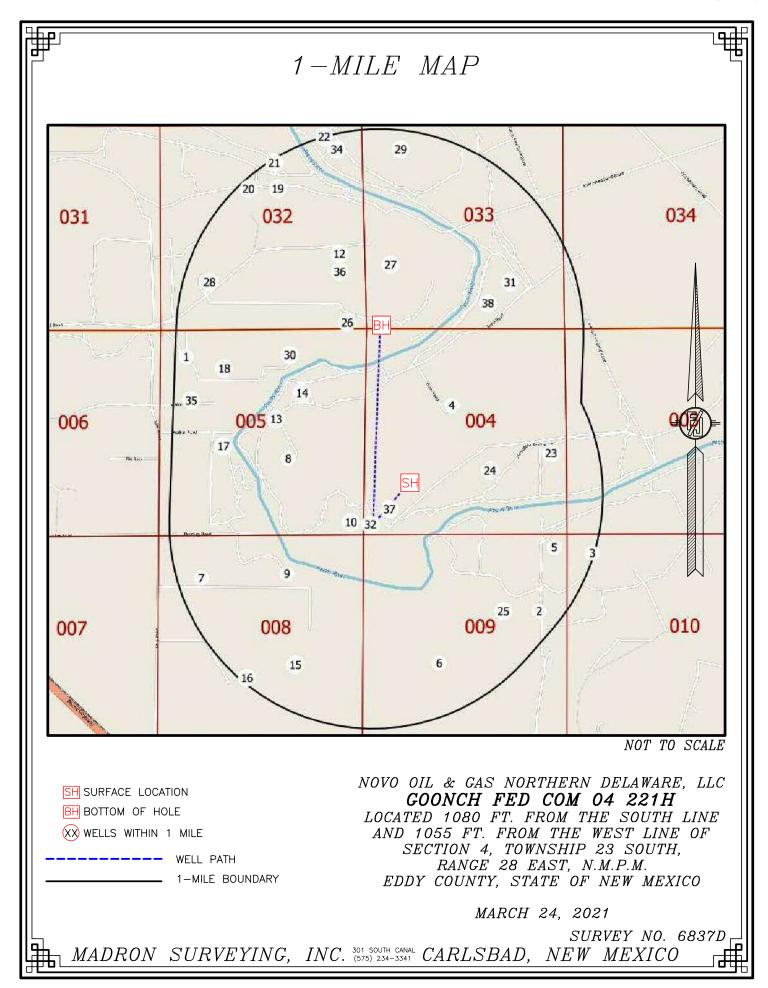
NOVO OIL & GAS NORTHERN DELAWARE, LLC GOONCH FED COM 04 221H

LOCATED 1080 FT. FROM THE SOUTH LINE AND 1055 FT. FROM THE WEST LINE OF SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

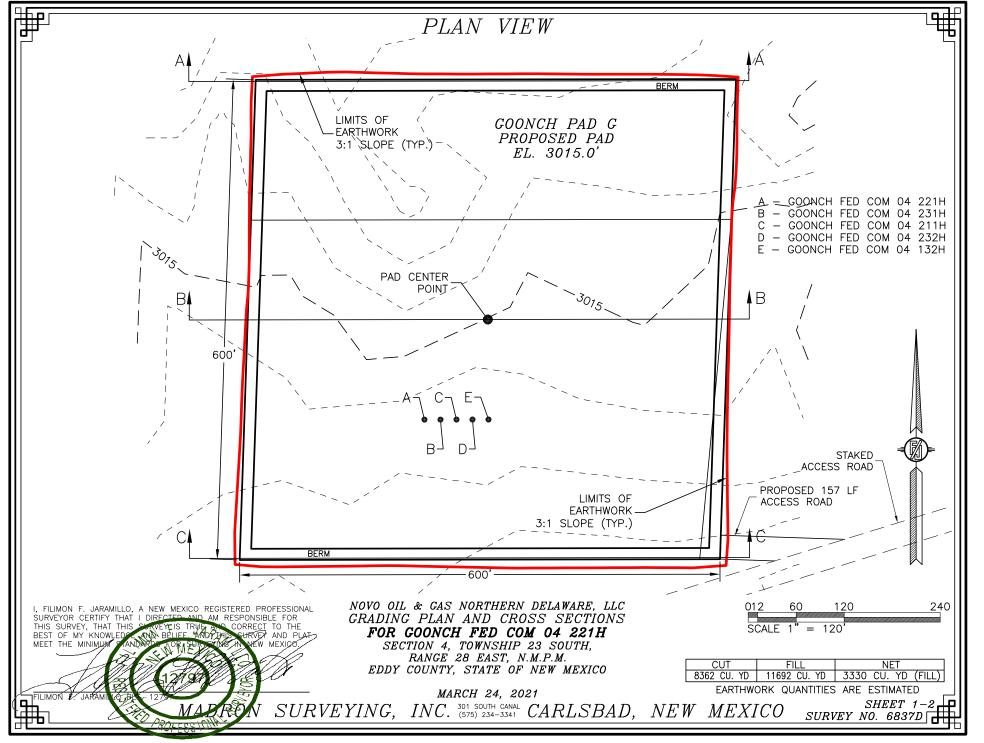
MARCH 24, 2021

SURVEY NO. 6837D

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

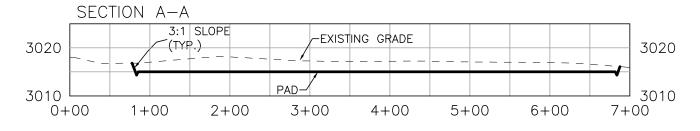


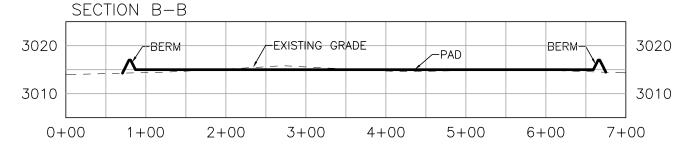
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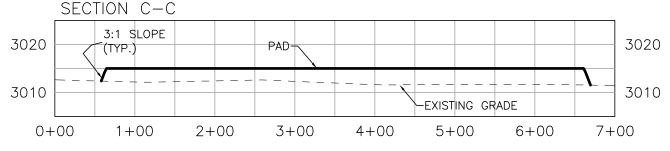


Received by OCD: 5/10/2021 10:25:13 AM

CROSS SECTIONS







I, FILIMON F. JARAMILLO, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I DIRECTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY BY CORRECT TO THE BEST OF MY KNOWLEDG. AND BELLIFE AND THIS SURVEY AND PLATMET THE MINIMUM PANDARD FOR SURVEY WE MEXICO.

NOVO OIL & GAS NORTHERN DELAWARE, LLC GRADING PLAN AND CROSS SECTIONS FOR GOONCH FED COM 04 221H SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO

OUT	Eu .	NET
CUI	FILL	NET
8362 CU. YD	11692 CU. YD	3330 CU. YD (FILL)
EARTHW	ORK QUANTITIES	ARE ESTIMATED

120

SCALE 1" = 120' - 1" = 20' VER

60

012

MARCH 24, 2021

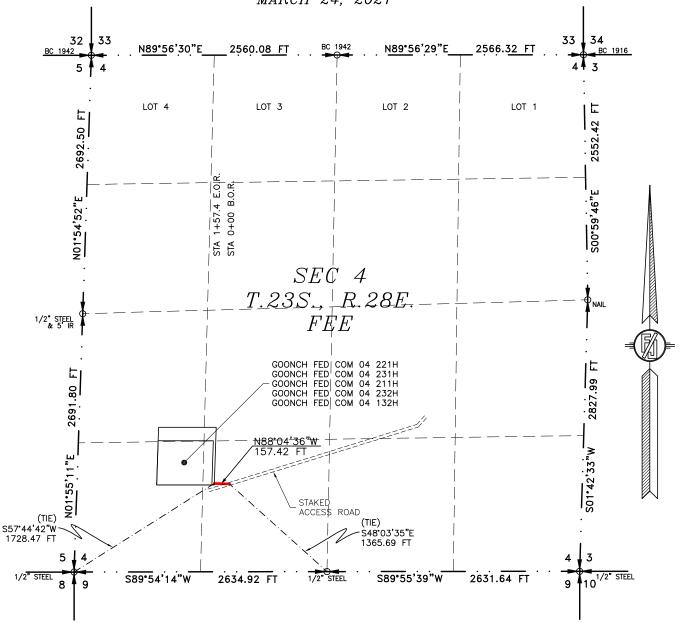
SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SHEET 2-2 SURVEY NO. 6837D

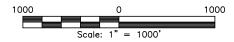
ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH FED COM 04 221H, 231H, 211H, 232H, 132H

NOVO OIL & GAS NORTHERN DELAWARE, LLC CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO MARCH 24, 2021



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING,

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,



MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 Phone (575) 234-3341

SURVEY NO. 6837D NEW MEXICO ⊢1

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ACCESS ROAD PLAT

ACCESS ROAD TO THE GOONCH FED COM 04 221H, 231H, 211H, 232H, 132H

NOVO OIL & GAS NORTHERN DELAWARE, LLC CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO MARCH 24, 2021

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING FEE LAND IN SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SW/4 OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S48'03'35"E, A DISTANCE OF 1365.69 FEET;

THENCE N88'04'36"W A DISTANCE OF 157.42 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHWEST CORNER OF SAID SECTION 4, TOWNSHIP 23 SOUTH, RANGE 28 EAST, N.M.P.M. BEARS S57'44'42"W, A DISTANCE OF 1728.47 FEET;

SAID STRIP OF LAND BEING 157.42 FEET OR 9.54 RODS IN LENGTH, CONTAINING 0.108 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SW/4 157.42 L.F. 9.54 RODS 0.108 ACRES

SURVEYOR CERTIFICATE

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING,

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO THIS F24 JAPAN F-MARCH 2021

ME

127 JAPAN F-MARCH 2021

MA

30

CAR

INC. 301 SOURCE ARABOTO LS. 2797

INC. (575) 233 SSC CAR

SCAR LAND TAD. NE

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO 88220 Phone (575) 234-3341

SURVEY NO. 6837D NEW MEXICO -F

Released to Imaging: 5/12/2021 3:21:16 PM

Goonch Fed Com 04 221H

CHANGE TO PLANS

Move Surface Hole Location

From: 1,100' FSL & 980' FWL, Section 4, T-23-S, R-28-E, SWSW

To: 1,080' FSL & 1,055' FWL, Section 4, T-23-S, R-28-E, SWSW

Moved on the same pad site and there will be no new surface disturbance.

Move Bottom Hole Location

From: 130' FNL & 980' FWL, Section 4, T-23-S, R-28-E, NWNW

To: 130' FNL & 330' FWL, Section 4, T-23-S, R-28-E, NWNW

Casing Substitution

Hole Size: 9-7/8", Casing: 8-5/8", 32 ppf, P-110, TLW to be set at 8,739' TMD.

Design Safety Factors: Burst 5.95, Collapse 1.51, Tension 3.41 (Casing Specification Sheet is attached)

Hole Size: 7-7/8", Casing: 5-1/2", 20 ppf, P-110, DWC/C IS+ to be set at 15,589' TMD.

Design Safety Factors: Burst 1.25, Collapse 3.85, Tension 2.80 (Casing Specification Sheet is attached)

<u>Single Stage Cement Job for 8-5/8" Intermediate Casing String (TOC = Surface)</u>

Lead: 583 Sacks; 2,108.8 cu. ft.; 100% excess; 3.58 cu.ft./sx; 10 ppg; Class C + retarder + LCM + beads; 900 psi 24-hour compressive strength.

Tail: 130 Sacks; 180.7 cu. ft; 50% excess; 1.39 cu.ft./sx; 13.80 ppg; Class C + retarder + LCM; 1,200 psi 24-hour compressive strength.

<u>Singe Stage Cement Job for 5-1/2" Production Casing String (TOC = Surface)</u>

Lead: 669 Sacks; 1,418.6 cu. ft.; 20% excess; 2.12 cu.ft./sx; 12 ppg; Class C + retarder; 1,200 psi 24-hour compressive strength.

Tail: 1,378 Sacks; 2,191 cu. ft; 20% excess; 1.59 cu.ft./sx; 13.20 ppg; Class C + retarder; 1,200 psi 24-hour compressive strength.

PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME: | NOVO OIL AND GAS

WELL NAME & NO.: | GOONCH FED COM 04 221H

SURFACE HOLE FOOTAGE: 1080'/S & 1055'/W BOTTOM HOLE FOOTAGE 130'/N & 330'/W

LOCATION: Section 4, T.23 S., R.28 E., NMPM

COUNTY: | **EDDY County, New Mexico**

COA

H2S	• Yes	O No	
Potash	None	Secretary	© R-111-P
Cave/Karst Potential	O Low	• Medium	O High
Cave/Karst Potential	Critical		
Variance	O None	Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Other	☐4 String Area	☐ Capitan Reef	□WIPP
Other	☐ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	□ Unit

All previous COAs still apply, except for the following:

A. CASING

- 1. The 13-3/8 inch surface casing shall be set at approximately 594 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 between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept at least 1/3 fluid filled to meet the OO#2 collapse requirement.

- 2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing, which shall be set at **8,900** ft, is:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
 - ❖ In Medium Cave/Karst Areas 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 5-1/2 inch production casing is:
 - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

B. 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.
 - 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.

C. SPECIAL REQUIREMENT (S)

Communitization Agreement

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

JJP03292021

GENERAL REQUIREMENTS

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

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)
 - Eddy County
 Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).

- b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing 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.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.

- b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- c. Manufacturer representative shall install the test plug for the initial BOP test.
- d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
- e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
 - c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall

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

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COMMENTS

Action 27534

COMMENTS

Operator:			OGRID:	Action Number:	Action Type:
NOVO O	IL & GAS NORTHERN DELAWA	1001 West Wilshire Blvd	372920	27534	C-103A
Suite 206	Oklahoma City, OK73116				

Created By	Comment	Comment Date
kpickford	KP GEO Review 5/12/2021	05/12/2021

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CONDITIONS

Action 27534

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
NOVO O	IL & GAS NORTHERN DELAWA	1001 West Wilshire Blvd	372920	27534	C-103A
Suite 206	Oklahoma City, OK73116				

OCD Reviewer	Condition
kpickford	Adhere to previous NMOCD Conditions of Approval