Energy Minerals and Natural Resources Oil CONSERVATION   Energy Minerals and Natural Resources Oil CONSERVATION   ARTESIA DISTRICT   District of the set o	District 1 <sup>74</sup> 1&25 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-4720 District 11				State of New Mexico Energy Minerals and Natural Resources							
Determine and Advices Mutrice Determines Determi	BII S. First St., Arte			÷		ONSERV						
Matrix No. Sams Fr. PMB 253 3   Santa Fe, NM 87505   RECEIVED   APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE <sup>0</sup> Operating LLC 2208 West Main Street Artesia, NM 88210 <sup>1</sup> Property Code <sup>1</sup> Surface Location <sup>1</sup> Surface Location <sup>1</sup> Surface Location <sup>1</sup> UL - Lot Section Township   228 <sup>1</sup> Range   Lot Idn   Feet from <sup>1</sup> Surface Location <sup>1</sup> Vort Township   228 <sup>1</sup> Proposed Bottom Hole Location <sup>1</sup> Proposed Bottom Hole Location <sup>1</sup> Prool Information <sup>1</sup> Prool Information <sup>1</sup> Pool Code <sup>1</sup> Pool Code <sup>1</sup> Surface <sup>1</sup> ConterName <sup>1</sup> Genand Level Elevation   308.14 <sup>1</sup> Genand Level Elevation   308.14 <sup>1</sup> Genand Level Elevation <sup>1</sup> Work Type <sup>11</sup> Weil Type <sup>11</sup> Weil Type <sup>11</sup> Genand Commarks and Comment Program <sup>11</sup> Genand Level Elevation <sup>11</sup> Surface to meanest surface water <sup>12</sup> State <sup>12</sup> ConterName <sup>12</sup> State Casing State Casing Wesh Will <sup>11</sup> Proposed Casing and Cemeent Program <sup>12</sup> State Casing State Casing State <sup>12</sup> Proposed Casing and Cemeent Program <sup>12</sup> State Casing State Casing State <sup>12</sup> State State Casing State Casing WeshWill   Stating Contervent Estimated TOC <sup>12</sup> State Casing State Casing State Casing WeshWill   Stating Contervent Estimated TOC <sup>12</sup> State Casing State Casing State Casing WeshWill <sup>12</sup> State State Casing WeshWill <sup>12</sup> State State Ca	District III			5								
RECEIVED     APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE     'Operator Name and Address     COG Operating LLC     200 West Main Street     Artesia, NM 88210     * Property Code   220137     307 3.6.9   * Well None     * UL - Lot   Section   Township     28E   Lot Main   Feet from   E/W Line     * Property Code   * Property Name   Well None     W   19   265   South   Feet From   E/W Line   Country     Mult - Lot   Section   Township   Range   Lot Idin   Feet from   E/W Line   Country     4   19   ZoS   ZoE   N S Line   Feet From   E/W Line   Country     Mult - Lot   Section   Township   Range   Lot Idin   Feet from   E/W Line   Country     4   19   ZoS   ZoB   N S Line   Feet From   E/W Line   Country     19   ZoB   Range   Lot Idin   Feet from   E/W Line   Country  <		78 Fax: (105) .	334-6179		••				DEC	; 1 Z 2018	5	
APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE     'Operator Name and Address     COG Operating LLC     2008 West Main Sureet     Artesia, NM 88210     'Property Code     'Property Name     West Main Sureet     Address Sureet     'Surface Location     Will Number     Out of the section     Vill Information     I' Will Net Section     Not Name     Pool Name		•		Santa Fe, NM 87505					R	-CEIVED		
* Operator Name and Address   * OGRED Number     COG Operating LLC   220137     2010   * Property Code     * Property Code   * Property Name     * Sturface Location   * Well No     * UL - Lot   Section   Township     265   286   Lot Idn     * Proposed Bottom Hole Location   * Stine   Feet From     UL - Lot   Section   Township   Range     265   286   County   East     UL - Lot   Section   Township   Range   Lot Idn     285   286   Lot Idn   Feet from   E/W Line   County     4   19   265   286   North   660'   East   Eddy     * Pool Information   Pool Name   98220   98220   98220     * Multiple   1' Work Type   1' Coule Rotary   State   3081.4'   3081.4'     * Well Type   0il   Proposed Depth   1' State Rotary   308			NEODE	PEDMIT T	ז וופח מ	TED DE	FDEN D			DA ZONE		
2208 West Main Street Artesia, NM 88210     30-0/5-130     Springer Artesia, NM 88210     * Property Code     * Way South State Com     * Way South State Com     30-0/5-130     * Property Code     * Surface Location     * Way South State Com     * Surface Location     * Wull No     * Surface Location     * Proposed Bottom Hole Location     * Proof Information     * Pool Information   Pool Name   Pool Code     * Pool Information     * Pool Name   Pool Code   State   308.4'     * Well   Oil   * Proposed Depth   * Country   State   308.4'     * Count Level Elevation     * State   308.4'     * Well   Oil   * State   * State   * Spod Date  <	AFFLIC					IER, DE	EFEN, F	LUGDACI				
* Property Code   * Property Name   * Well No     308 269   *   702H     * UL - Lot   Section   Township   Range   Lot Idn   Feet From   E/W Line   County     31   265   28E   265'   South   660'   East   Eddy     * Proposed Bottom Hole Location   NS Line   Feet From   E/W Line   County     4   19   26S   28E   200'   North   660'   East   Eddy     * Proposed Bottom Hole Location   North   Feet From   E/W Line   County   Eddy     4   19   26S   28E   Lot Idn   Feet from   NS Line   Feet From   E/W Line   County     4   19   26S   28E   Lot Idn   Peel form   North   660'   East   Eddy     * Pool Information     Numbe   702H   '' Coble Rotary   '' Lase Type   '' Ground Level Elevation   3081.4'     New Well   0il   '' Coble Rotary   State   3081.4'   3181.4'   3200'   3081.4'   3200'   3081.4'			:	2208 West Ma	ain Street			30	2 API Numbe			
308 269     * Surface Location     UL - Lot   Section   Township   Range   Lot Idn   Feet from   EW Line   County     31   265   28E   Lot Idn   Feet from   Eddy   Eddy     * Proposed Bottom Hole Location   NS Line   Feet from   EW Line   County     A   19   265   28E   Lot Idn   Feet from   NS Line   Feet From   Eddy     W   Section   Township   Range   Lot Idn   Feet from   EW Line   County     4   19   265   28E   Lot Idn   Feet from   NS Line   Feet From   Eddy     *   Pool Information   *   Pool Code   98220     Additional Well Information <sup>11</sup> Work Type <sup>12</sup> Well Type <sup>12</sup> Coble/Rotary   State   3081.4' <sup>14</sup> Work Type <sup>12</sup> Well Type <sup>12</sup> Coble/Rotary   State   3081.4'   3081.4' <sup>14</sup> Work Type <sup>12</sup> Broposed Depth <sup>14</sup> Formation <sup>14</sup> Contractor <sup>35</sup> Spud Date   120302018     Depth to Ground w	- * Propert	y Code				me				Well No		
VIL - Lot   Section   Township   Range   Lot Idn   Feet from   N'S Line   Feet From   E/W Line   County     31   26S   28E   Lot Idn   Feet from   265'   South   660'   East   Eddy     * Proposed Bottom Hole Location     UL - Lot   Section   Township   Range   Lot Idn   Feet from   N'S Line   Feet From   E/W Line   County     A   19   26S   28E   Lot Idn   Feet from   N'S Line   N'S Line   County   Eddy     North   200'   North   660'   East   Eddy     Prool Information     Pool Name   Pool Code     Purple Sage: Wolfcamp   10	308	269			Way	com				/02H		
5   31   265   28E   265'   South   660'   East   Eddy     * Proposed Bottom Hole Location     UL - Lot   Section   Township   Range   Lot Idn   Feet from   N'S Line   Feet From   E/W Line   Country     A   19   265   28E   Lot Idn   Feet from   North   660'   East   Eddy     * Pool Information     Pool Name   Pool Name     Purple Sage: Wolfcamp   Pool Name   Pool Code   98220     Additional Well Information <sup>11</sup> Work Type <sup>12</sup> Well Type <sup>12</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>13</sup> Ground Level Elevation     New Well   0il <sup>13</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>13</sup> Ground Level Elevation     New Well   10i <sup>14</sup> Formation <sup>15</sup> Contractor <sup>26</sup> Spud Date     2/1737   Wolfcamp <sup>16</sup> Contractor <sup>26</sup> Spud Date <sup>21/20/201 B</sup> Distance from nearest fresh water well     Distance to nearest surface water     We will be using a closed-loop system in Blue of lined pits <t< td=""><td></td><td></td><td></td><td></td><td>ation</td><td></td><td></td><td></td><td></td></t<>					ation							
Image: Contract of the contract of the content of	UL - Lot Section Township			Range					Feet From	E/W Line	County	
UL - Loi   Section   Township   Range 285   Lot Idn   Feet from 200'   N'S Line North   Feet from 660'   E/W Line East   Country Eddy     * Pool Information     * Pool Information     Pool Name   Pool Code 98220     Pool Name   Pool Code 98220     Additional Well Information     1' Work Type   1' Well Type   1' Coble/Rotary   1' Lease Type   1'' Ground Level Elevation 3081.4'     New Well     1'' Work Type   1'' Well Type   1'' Coble/Rotary   1'' Lease Type   1'' Ground Level Elevation 3081.4'     1'' Work Type   1'' Proposed Depth   1'' Formation   1'' Contractor   3''' Spud Date 12/30/2018     1'' Multiple   1'' Proposed Depth   1'' Formation   1'' Contractor   3''' Spud Date 12/30/2018     Depth to Ground water   Distance from nearest fresh water well   Distance to nearest surface water     X'' We will be using a closed-loop system in lieu of lined plts   1'' Proposed Casing and Cement Program   Estimated TOC     Surface   17.5   13.375   54.5   500'   400   10''''''''''''''''''''''''''''''''''	M_ <u></u>	5 31 26S						South		East	Eddy	
A   19   265   28E   200'   North   660'   East   Eddy     * Pool Information     Pool Name   Pool Code     Pool Sage: Wolfcamp   Pool Name   Pool Code   98220     Additional Well Information     1' Work Type   12 Weil Type   12 Weil Type   13 Ground Level Elevation     New Well   Oil   10 Cable/Rotary   14 Lease Type   15 Ground Level Elevation     New Well   Oil   10 Cable/Rotary   14 Lease Type   15 Ground Level Elevation     New Well   Oil   11 Cable/Rotary   14 Lease Type   15 Ground Level Elevation     New Well   Oil   11 Cable/Rotary   14 Lease Type   15 Ground Level Elevation     New Well   0il   11 Cable/Rotary   14 Lease Type   13 OB1.4'     16 Multiple   17 Proposed Depth   14 Ground Level Elevation   3081.4'     N   21737'   Wolfcamp   Distance to nearest surface water     IDepth to Ground water   Distance from nearest fresh water well   Distance to nearest surface water     N Proposed Casing and Cement Program <td colsp<="" td=""><td>UL-Lot</td><td colspan="2"></td><td></td><td></td><td></td><td>n N</td><td>SLine</td><td>Feet From</td><td>E/W Line</td><td>County</td></td>	<td>UL-Lot</td> <td colspan="2"></td> <td></td> <td></td> <td></td> <td>n N</td> <td>SLine</td> <td>Feet From</td> <td>E/W Line</td> <td>County</td>	UL-Lot						n N	SLine	Feet From	E/W Line	County
Pool Name   Pool Name     Purple Sage: Wolfcamp   Pool Code   98220     Additional Well Information <sup>11</sup> Work Type <sup>12</sup> Weil Type <sup>13</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>13</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>19</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>19</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>19</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>19</sup> Cable/Rotary <sup>14</sup> Cable/Rotary <sup>14</sup> Lease Type <sup>15</sup> Ground Level Elevation     New Well   Oil <sup>18</sup> Formation <sup>19</sup> Contractor <sup>30</sup> Spud Date <sup>30</sup> Spud Date     N   21737?   Wolfcamp   Distance to nearest surface water     Ø We will be using a closed-loop system in licu of lined plts <sup>10</sup> Proposed Casing and Cement Program <sup>11</sup> Proposed Casing Size   Casing Weight/ft   Setting Depth   Sacks of Cement   Estimated TOC     Surface   17.5			-						East	•		
98220     Additional Well Information     1' Well Type   1' Cable/Rotary   1' Lease Type   1' Ground Level Elevation     New Well   Oil   '' Cable/Rotary   '' Lease Type   '' Ground Level Elevation     New Well   Oil   '' Cable/Rotary   '' Lease Type   '' Ground Level Elevation     New Well   Oil   '' Contractor   '' Spud Date     N   2/1737'   Wolfcamp   '' Contractor   '' Spud Date     Depth to Ground water   Distance from nearest fresh water well   Distance to nearest surface water     We will be using a closed-loop system in lieu of lined pits   '' Proposed Casing and Cement Program     '' Proposed Casing Size   Casing Weight/ft   Setting Depth   Sacks of Cement   Estimated TOC     Surface   17.5   13.375   54.5   500'   400   Intervent	L.,		<u> </u>			ation		·····				
Image: New Well 12 Weil Type 12 Cable/Rotary 14 Lease Type 13 Ground Level Elevation   New Well 0il 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   16 Multiple 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   16 Multiple 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   17 Depth to Ground water Distance from nearest fresh water well Distance to nearest surface water   17 We will be using a closed-loop system in like of lined pits 11 Proposed Casing and Cement Program   18 We will be using a closed-loop system in Size Casing Weight/ft Setting Depth Sacks of Cement   17 Type Hole Size Casing Size Casing Weight/ft Setting Depth Sacks of Cement   17.5 13.375 54.5 500' 400 10 Formation	Purple Sage: Wolf			Pool								
Image: New Well 12 Weil Type 12 Cable/Rotary 14 Lease Type 13 Ground Level Elevation   New Well 0il 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   16 Multiple 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   16 Multiple 17 Proposed Depth 18 Formation 19 Contractor 3081.4'   17 Depth to Ground water Distance from nearest fresh water well Distance to nearest surface water   17 We will be using a closed-loop system in like of lined pits 11 Proposed Casing and Cement Program   18 We will be using a closed-loop system in Size Casing Weight/ft Setting Depth Sacks of Cement   17 Type Hole Size Casing Size Casing Weight/ft Setting Depth Sacks of Cement   17.5 13.375 54.5 500' 400 10 Formation					Addition	al Well In	formation					
<sup>16</sup> Multiple <sup>17</sup> Proposed Depth <sup>14</sup> Formation <sup>15</sup> Contractor <sup>30</sup> Spud Date   N 21737 Wolfcamp 1* Contractor 30 Spud Date   Depth to Ground water Distance from nearest fresh water well Distance to nearest surface water   We will be using a closed-loop system in licu of lined pits 31 Proposed Casing and Cement Program   Type Hole Size Casing Size Casing Weight/ft Setting Depth Sacks of Cement Estimated TOC   Surface 17.5 13.375 54.5 500* 400 400		<sup>11</sup> Work Type <sup>12</sup> Well Type <sup>13</sup> Cable/R										
Depth to Ground water Distance from nearest fresh water well Distance to nearest surface water   We will be using a closed-loop system in lice of lined pits 21. Proposed Casing and Cement Program   Type Hole Size Casing Size Casing Weight/ft Setting Depth Sacks of Cement Estimated TOC   Surface 17.5 13.375 54.5 500' 400 400	<sup>16</sup> Mut	tiple		17 Proposed Depth				19	-	<sup>30</sup> Spud Date		
<sup>21</sup> Proposed Casing and Cement Program   Type Hole Size Casing Size Casing Weight/ft Setting Depth Sacks of Cement Estimated TOC   Surface 17.5 13.375 54.5 500' 400 100'		l		ince from nearest				to nearest surfa				
Type     Hole Size     Casing Size     Casing Weight/ft     Setting Depth     Sacks of Cement     Estimated TOC       Surface     17.5     13.375     54.5     500'     400     100'	We will be us	sing a close	ed-loop system			sing and (	Cement Pr	ogram	l			
	Турс								Sacks of C	Cement	Estimated TOC	
Intrind 12.25 9.625 40 8750' 1975	Surface	54.5	54,5		00.	400	, , ,					
	Intrmd	.25	9.625	40		87	/50`	197	5			
Production 8.5 5.5 17 21737 3900 8000'	Production	8.	.5	5.5	17		21	737'	390	0	8000'	
Casing/Cement Program: Additional Comments												
Plan to drill a 17-1/2" hole to 500' with Fresh Water into the Rustler to cover FW water depth. Run 13-3/8", 54.5# J-55 casing and cement to surface. 1st Intermediate - Drill 12-1/4" hole to 8750' with Brine, and run 9-5/8", 8750' of 40# N/L80 and cement to surface ir one stage. Drill an 8-1/2" curve and lateral with Oil Based Mud (OBM) to approximately 21,737' MD. Run 5-1/2" 17# P110 casing to TE and cement in one stage bringing cement up to 8000' in one stage.	cement to su one stage.	l st Interme I-1/2" curve	idiate - Drill 1: and lateral v	2-1/4" hole to with Oil Based	n Brine, and	1 run 9-5/8"	, 8750' of 40#	N/L80 and	cement to surface in			
<sup>21</sup> Proposed Blowout Prevention Program			22	Proposed Blo	evention Pr	ogram						
Type Working Pressure Test Pressure Manufacturer								· · · · · · · · · · · · · · · · · · ·				
Annular 5000 5000 Cameron	Annular 5000						5000			Cameron		
<sup>23.</sup> I hereby certify that the information given above is true and complete to the OIL CONSERVATION DIVISION best of my knowledge and belief.				n given above is t	true and complete	e to the	<u></u>	OILC	ONSERVA		SION	
I further certify that I have complied with 19.15.14.9 (A) NMAC and/or	l further certi 19.15.14.9 (B)	I further certify that I have complied with 19.15.14.9 (A) NMAC A and/or 19.15.14.9 (B) NMAC A, if applicable					Approved By: Saymond W. Jodaag					
Printed name: Mayte Reyes Title: Geolog.3t.	Printed name:							Caymond M. Dodang Tille: Geolog.3t.				
Title: Regulatory Analyst Approved Date: 12-14-18 Expiration Date: 12-14-20	Title: Regula	ntory Analy	/st					Approved Date: 12-14-18 Expiration Date: 12-14-20			12-14-20	
E-mail Address: mreyes1@concho.com	E-mail Addres	s: mreyes l	@concho.co	m								
Date: 12/12/2018 Phone: 575-748-6945 Conditions of Approval Attached							Conditions of Approval Attached					

## Information for State APD for Way South State Com 702H

12.11.18

Proposed Depth 21,737' MD.

**Proposed Casing and Cement Program** 

ТҮРЕ	HOLE SIZE	CASING SIZE	CASING WT.	SETTING DEPTH	SACKS OF CEMENT	ESTIMATED TOC
SURF	17.5	13.375	54.5	500	400	0
INT 1	12.25	9.625	40	8750	1975	0
PROD	8.50	5.5	17	21,737	3900	8000

## Casing/Cement Program: Additional Comments

Plan to drill a 17-1/2" hole to 500' with Fresh Water into the Rustler to cover FW water depth. Run 13-3/8", 54.5# J-55 casing and cement to surface.

1<sup>st</sup> Intermediate - Drill 12-1/4" hole to 8750' with Brine, and run 9-5/8", 8750' of 40# N/L80 and cement to surface in one stage.

Drill an 8-1/2" curve and lateral with Oil Based Mud (OBM) to approximately 21,737' MD. Run 5-1/2" 17# P110 casing to TD and cement in one stage bringing cement up to 8000' in one stage.

## PROPOSED BLOWOUT PREVENTION PROGRAM

12.25" Intermediate Section

On 13-3/8" Surface Casing, Install 3000 psi casing head, NU 13-5/8" Cameron BOP. Test annular and casing to 1500 psi and other BOP equipment to 3000 psi.

8.75" Production Section

On 9-5/8" Intermediate Casing, Install 5000 psi casing spool, NU 13-5/8" Cameron BOP. Test casing to 1500 psi. Test annular to 2500 psi and other BOP equipment to 5000 psi.

Thanks,

Alex