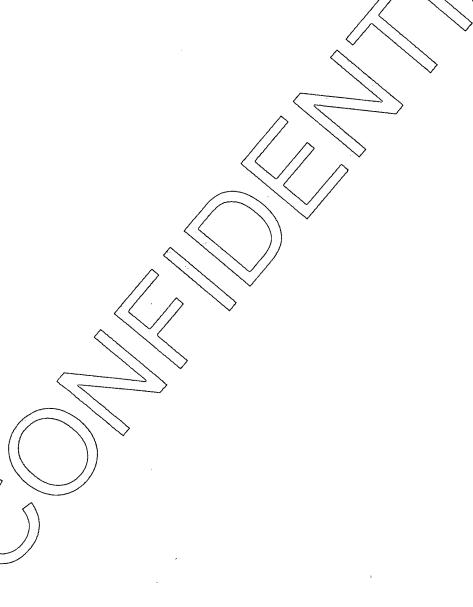
OCD Hobbs FORM APPROVED OMB No. 1004-0137 Expires October 31, 2014 5. Lease Serial No. MENT OF THE INTERIOR NMNM120907 REAU OF LAND MANAGEMENT ABJUICATION FOR PERMIT TO DRILL OR REENTER 6. If Indian, Allotee or Tribe Name CA Agreement, Name and No **✓** DRILL REENTER la. Type of work: (8. Lease Name and Well No. Oil Well Gas Well Other ✓ Single Zone Multiple Zone EIDER FEDERAL 107H lb. Type of Well: Name of Operator 9. API Well-No. 217955 COG PRODUCTION LLC 3b. Phone No. (include area code) 3a. Address 10. Field and Pool, or Explorator 2208 West Main Street Artesia NM 88210 (575)748-6940 WILDCAT / BONE SPRING Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T. R. M. or Blk. and Survey or Area At surface SESE / 650 FSL / 375 FEL / LAT 32.168633 / LONG -103.638132 SEC 35 / T24S / R32E / NMP At proposed prod. zone NESE / 2410 FSL / 990 FEL / LAT 32.187989 / LONG -103.640089 13. State 12. County or Parish 14. Distance in miles and direction from nearest town or post office. LEA NM 22 miles 17. Spacing Unit dedicated to this well Distance from proposed\* 16. No. of acres in lea 15. location to nearest property or lease line, ft.
(Also to nearest drig. unit line, if any) Distance from proposed location\* to nearest well, drilling, completed, 460 feet applied for, on this lease, ft. 20. BLM/BIA Bond No. on file 19 Proposed Depth FED: NMB000860 9303 feet / 1,6808 feet Elevations (Show whether DF, KDB, RT, GL, etc.) 22 Approximate date work will start\* 23. Estimated duration 3551 feet 02/01/2017 30 days 24. Attachments The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form: 1. Well plat certified by a registered surveyor Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). 2. A Drilling Plan. 5. Operator certification 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the 25. Signature Name (Printed/Typed) Mayte Reyes / Ph: (575)748-6945 10/17/2017 (Electronic-Submission) Title Regulatory Anályst Name (Printed/Typed) Approved by (Signature) Cody Layton / Ph: (575)234-5959 05/22/2018 (Electronic Submission) Office Supervisor Multiple Resources CARLSBAD Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. K2/06/tb Continued on page 2)
Sec 50 5/4/18 Instructions on page 2) Must be in compliance with NMOCD Rule 5.9 prior to placing well on roval Date: 05/22/2018 production

# **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.





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

# Application Data Report

APD ID: 10400023470

Submission Date: 10/17/2017

Highlighted data reflects the most

recent changes

Well Name: EIDER FEDERAL

Well Number: 107H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

**Operator Name: COG PRODUCTION LLC** 

APD ID:

10400023470

Tie to previous NOS?

Submission Date: 10/17/2017

**BLM Office: CARLSBAD** 

**User:** Mayte Reyes

Title: Regulatory Analyst

Federal/Indian APD: FED

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

Lease number: NMNM120907

Lease Acres: 1840

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

**Permitting Agent? NO** 

**APD Operator: COG PRODUCTION LLC** 

Operator letter of designation:

**Operator Info** 

**Operator Organization Name: COG PRODUCTION LLC** 

Operator Address: 2208 West Main Street

**Zip:** 88210

**Operator PO Box:** 

**Operator City: Artesia** 

State: NM

**Operator Phone:** (575)748-6940

Operator Internet Address: mreyes1@concho.com

**Section 2 - Well Information** 

Well in Master Development Plan? NO

Mater Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: EIDER FEDERAL

Well Number: 107H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WILDCAT

Pool Name: BONE SPRING

Is the proposed well in an area containing other mineral resources? USEABLE WATER

Well Name: EIDER FEDERAL Well Number: 107H

Describe other minerals:

Is the proposed well in a Helium production area? N Use Existing Well Pad? NO New surface disturbance?

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name: EIDER Number: 107H, 108H, 307H,

Well Class: HORIZONTAL

EDERAL 207H, 401H, 601H

Number of Legs: 1

Well Work Type: Drill
Well Type: OIL WELL

Describe Well Type: Well sub-Type: INFILL

Describe sub-type:

Distance to town: 22 Miles

Distance to nearest well: 460 FT

Distance to lease line: 375 FT

Reservoir well spacing assigned acres Measurement: 240 Acres

Well plat:

COG\_Eider\_107H\_C102\_20171017092244.pdf

Well work start Date: 02/01/2017

**Duration: 30 DAYS** 

#### **Section 3 - Well Location Table**

Survey Type: RECTANGULAR

**Describe Survey Type:** 

Datum: NAD83

Vertical Datum: NAVD88

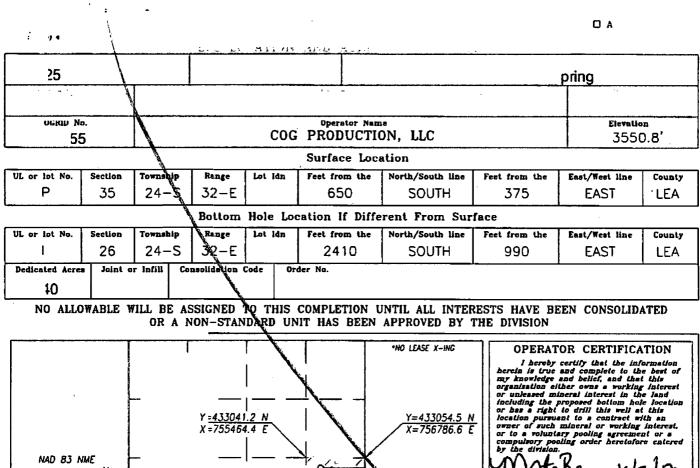
#### Survey number:

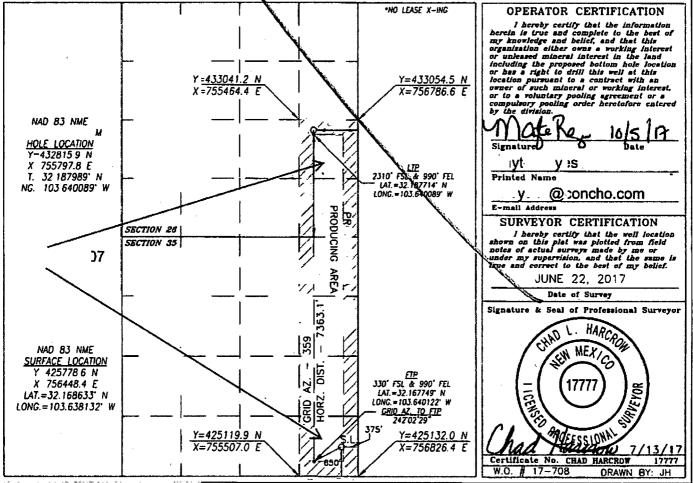
·	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	650	FSL	375	FEL	24S	32E	35	Aliquot SESE	32.16863 3	- 103.6381 32	LEA	l	NEW MEXI CO	F	NMNM 120907	355 1	0	0
KOP Leg #1	650	FSL	375	FEL	248	32E	35	Aliquot SESE	32.16863 3	- 103.6381 32	LEA	1	NEW MEXI CO	F	NMNM 120907	355 1	0	0
PPP Leg #1	330	FSL	990	FEL	24S	32E	35	Aliquot SESE	32.16774 9	- 103.6401 22		1	NEW MEXI CO	F	NMNM 120907	- 154 9		510 0

Well Name: EIDER FEDERAL

Well Number: 107H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
EXIT	231	FSL	990	FEL	24S	32E	26	Aliquot	32.18771	-	LEA	1	—	F	NMNM	-	167	930
Leg	0	ļ						NESE	4	103.6400		MEXI	MEXI		120907	575	07	3
#1										89		co	СО			2		
BHL	241	FSL	990	FEL	248	32E	26	Aliquot	32.18798	-	LEA	NEW	NEW	F	NMNM	-	168	930
Leg	0							NESE	9	103.6400		MEXI	MEXI		120907	575	80	3
#1										89		co	co			2		







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

# Drilling Plan Data Report

05/22/2018

APD ID: 10400023470

Submission Date: 10/17/2017

Highlighted data reflects the most

recent changes

Operator Name: COG PRODUCTION LLC

Well Name: EIDER FEDERAL

Well Number: 107H

**Show Final Text** 

Well Type: OIL WELL

Well Work Type: Drill

# **Section 1 - Geologic Formations**

Formation	100		True Vertical	Measured	P.S.		Producing
l ID	Formation Name	Elevation	Depth	Depth	Lithologies	Mineral Resources	
1	QUATERNARY	3551	0	0		NONE	No
2	RUSTLER	2546	1005	1005		NONE	No
3	TOP SALT	2213	1338	1338		NONE	No
4	BASE OF SALT	-1121	4672	4672		NONE	No
5	LAMAR	-1349	4900	4900	·	NONE	No
6	BELL CANYON	-1390	4941	4941		NONE	No
7	CHERRY CANYON	-2299	5850	5850		NATURAL GAS,OIL	No
8	BRUSHY CANYON	-3679	7230	7230	SCHIST	NATURAL GAS,OIL	No
9	BONE SPRING LIME	-5321	8872	8872		NATURAL GAS,OIL	No
10	UPPER AVALON SHALE	-5659	9210	9210		NATURAL GAS,OIL	Yes
11		-5831	9382	9382		NATURAL GAS,OIL	No

## **Section 2 - Blowout Prevention**

Pressure Rating (PSI): 2M

Rating Depth: 4925

**Equipment:** Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

**Requesting Variance? YES** 

**Variance request:** A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Well Name: EIDER FEDERAL Well Number: 107H

#### **Choke Diagram Attachment:**

COG\_Eider\_107H\_2M\_Choke\_20171017095135.pdf

#### **BOP Diagram Attachment:**

COG\_Eider\_107H\_2M\_BOP\_20171017095141.pdf

COG\_Eider\_107H\_Flex\_Hose\_20171017095149.pdf

Pressure Rating (PSI): 3M

Rating Depth: 9303

**Equipment:** Annular, Blind Ram, Pipe Ram. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold.

**Testing Procedure:** BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

#### **Choke Diagram Attachment:**

COG\_Eider\_107H\_3M\_Choke\_20171017095219.pdf

#### **BOP Diagram Attachment:**

COG\_Eider\_107H\_3M\_BOP\_20171017095225.pdf

 $COG\_Eider\_107H\_Flex\_Hose\_20171017095233.pdf$ 

# Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	Ν	0	1030	0	1030			1030	J-55	54.5	STC	2.4	1.25	DRY	9.16	DRY	9.16
	INTERMED IATE	12.2 5	9.625	NEW	API	Y	0	4925	0	4925			4925	L-80	40	LTC	1.19	1.61	DRY	5.73	DRY	5.73
1	PRODUCTI ON	8.75	5.5	NEW	API	N	0	16808	0	16808			16808	P- 110	17	LTC	1.66	2.98	DRY	2.81	DRY	2.81

#### Casing Attachments

**Operator Name: COG PRODUCTION LLC** Well Name: EIDER FEDERAL Well Number: 107H **Casing Attachments** Casing ID: 1 String Type: SURFACE **Inspection Document: Spec Document: Tapered String Spec:** Casing Design Assumptions and Worksheet(s): COG\_Eider\_107H\_Casing\_Prog-20171017095337.pdf Casing ID: 2 String Type: INTERMEDIATE **Inspection Document: Spec Document: Tapered String Spec:** COG\_Eider\_107H\_Casing\_Prog\_20171017095345.pdf Casing Design Assumptions and Worksheet(s): COG\_Eider\_107H\_Casing\_Prog\_20171017095352.pdf Casing ID: 3 String Type: PRODUCTION **Inspection Document: Spec Document: Tapered String Spec:** 

Casing Design Assumptions and Worksheet(s):

COG\_Eider\_107H\_Casing\_Prog\_20171017095514.pdf

**Section 4 - Cement** 

Well Name: EIDER FEDERAL Well Number: 107H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1030	430	1.75	13.5	752	50	Class C	4% Gel + 1% CaCl2
SURFACE	Tail			1030	250	1.34	14.8	335	50	Class C	2% CaCl2
INTERMEDIATE	Lead		1030	4925	940	2	12.7	1880	50	Lead: 35:65:6 C Blend	As needed.
INTERMEDIATE	Tail			4925	250	1.34	14.8	335	50	Tail: Class C	2% CaC12
PRODUCTION	Lead		4925	1680 8	610	2.5	11.9	1525	25	Lead: 50:50:10 H Blend	As needed.
PRODUCTION	Tail			1680 8	2040	1.24	14.4	2529	25	Tail: 50:50:2 Class H Blend	As needed.

# **Section 5 - Circulating Medium**

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

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

## **Circulating Medium Table**

	Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	НА	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
,	1030	4925	OTHER : Saturated Brine	. 10	10.1							Saturated Brine
	4925	1680 8	OTHER : Cut Brine	8.6	9.3							Cut Brine
	0	1030	OTHER : FW Gel	8.6	8.8				·			FW Gel

Well Name: EIDER FEDERAL

Well Number: 107H

# Section 6 - Test, Logging, Coring

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

None planned.

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

OTH

Other log type(s):

CNL/GR

Coring operation description for the well:

None planned.

#### Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4500

**Anticipated Surface Pressure: 2453.34** 

Anticipated Bottom Hole Temperature(F): 150

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG\_Eider\_107H\_H2S\_Plan\_20171017095848.pdf COG\_Eider\_107H\_H2S\_Schematic\_20171017095856.pdf

#### Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

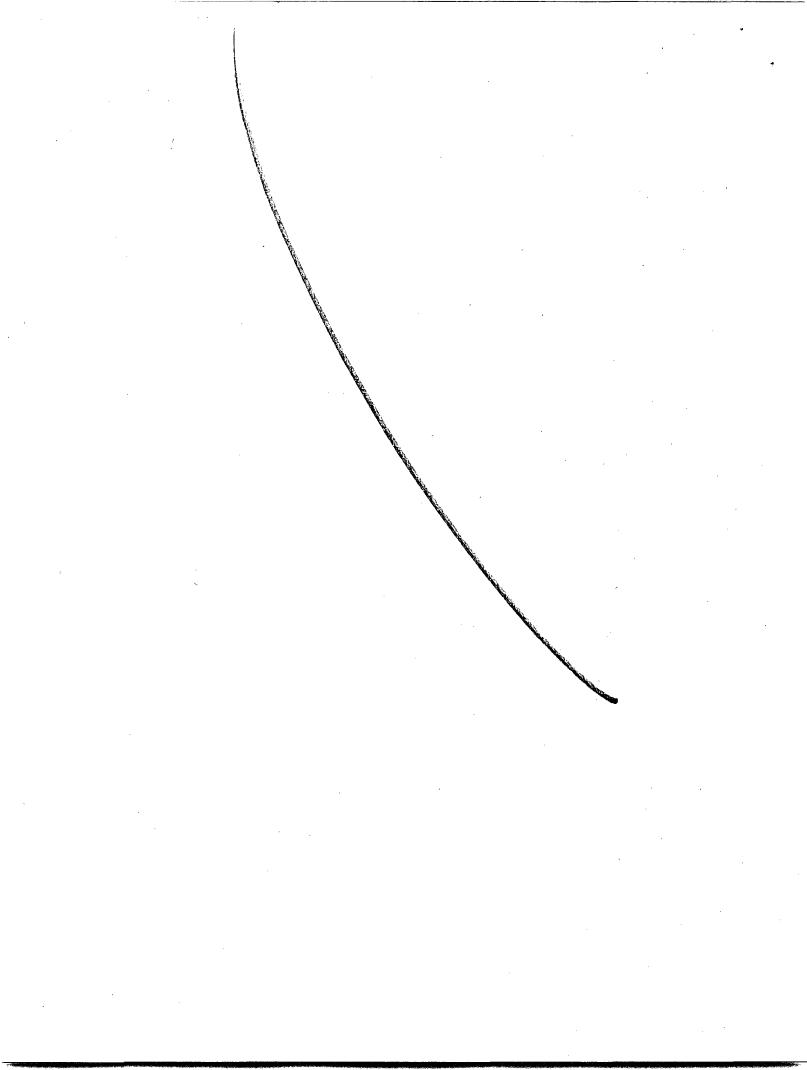
COG\_Eider\_107H\_AC\_Report\_20171017095910.pdf COG\_Eider\_107H\_Direct\_Plan\_20171017095917.pdf

Other proposed operations facets description:

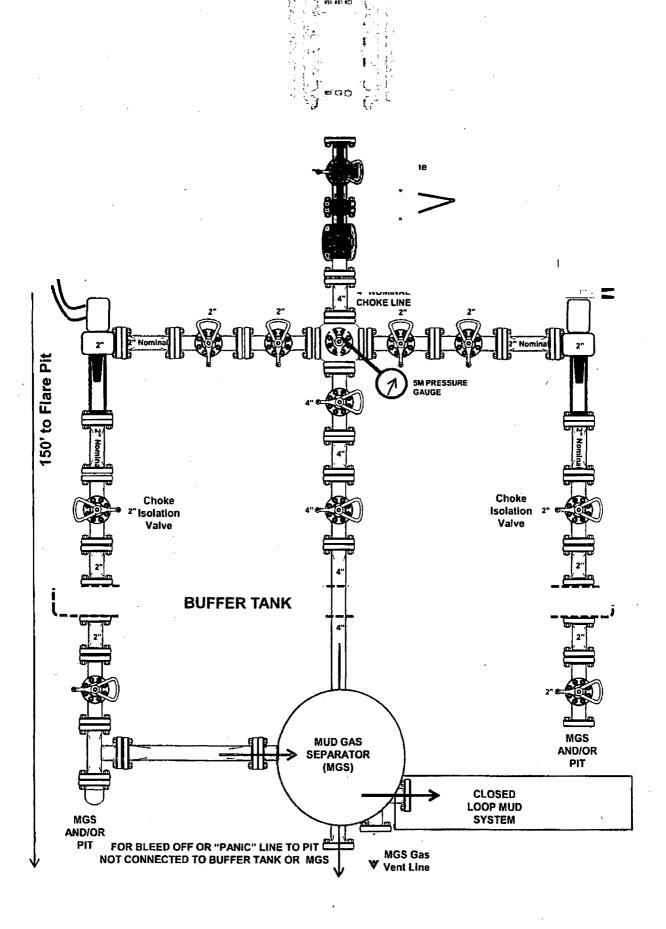
Other proposed operations facets attachment:

COG\_Eider\_107H\_Drill\_Prog\_20171017095926.pdf

Other Variance attachment:



# **CLOSED LOOP)**

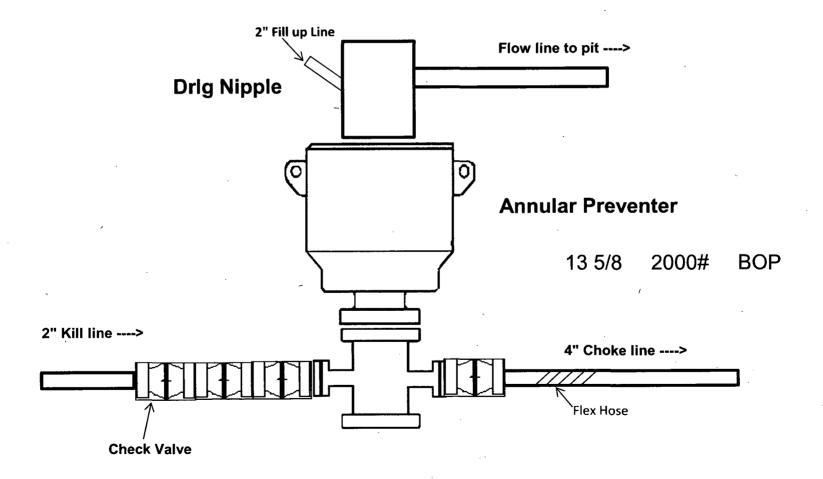


MGS Gas Vent Line

AND/OR

FOR BLEED OFF OR "PANIC" LINE TO PIT ON TO CONNECTED TO BUFFER TANK OR MGS

# 2,000 psi BOP Schematic





## **Quality Control Department**

**Control Report Dated** 

6/27/2017

# COFLEXIP® Products and Solutions FLEXIBLE PIPE TEST CERTIFICATE

Customer

OFS CANADA INC

Line Number

L16883

Line Serial Number

L16883-201

Part Number

076 60414 05 05

Application

3" X 30' 10K CHOKE / KILL LINE

COFLEXIP® Products Division certifies that the results of the test and controls performed on the above mentioned flexible pipe is as follows:

internal Diameter	3	inches
Length	30.46	feet
Working Pressure	10000	psi
Test Pressure	15000	psi
As per attached recorder chart	4	hours

1/M- 6-28-/7

THIRD PARTY INSPECTION FIRM OR CUSTOMER REPRESENTATIVE

**Test Duration** 

DQAC 1124 Rev 4 17 Apr 17

Date Printed:

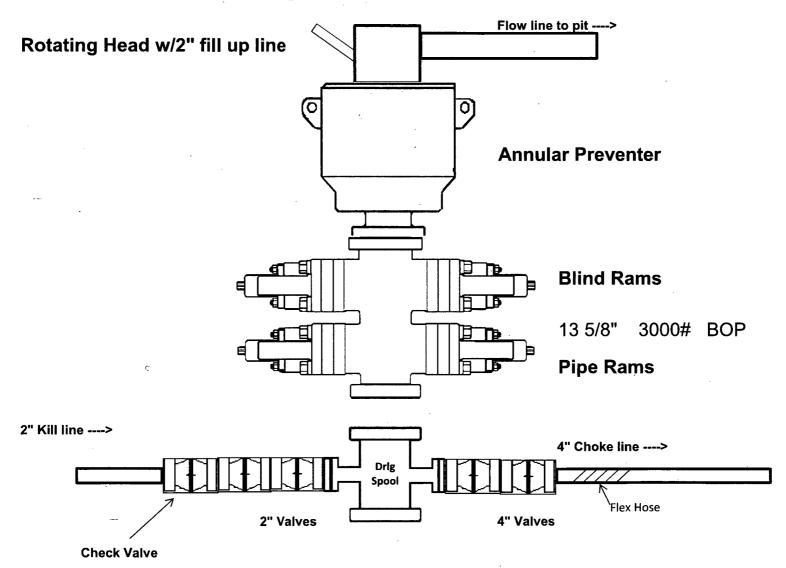
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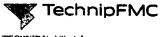
# **Test Configuration 12 Zone**

Line S/N 1.16863-200	Technician
110003-201	IUAN
QC Information Input	
QC Insp	Third Party
ABEL	BV
Witness?	Test Procedure
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# 3,000 psi BOP Schematic





TECHNIP Umbilicals Inc.
COFLEXIP® Products and
Solutions

#### **Quality Control Department**

**Control Report Dated** 

6/27/2017

# **COFLEXIP® Products and Solutions FLEXIBLE PIPE TEST CERTIFICATE**

Customer

OFS CANADA INC

Line Number

L16883

Line Serial Number

L16883-201

Part Number

076 60414 05 05

Application

3" X 30' 10K CHOKE / KILL LINE

COFLEXIP® Products Division certifies that the results of the test and controls performed on the above mentioned flexible pipe is as follows:

Internal Diameter	3	inches
Length	30.46	feet
Working Pressure	10000	psi
Test Pressure	15000	psi
As per attached recorder chart Test Duration	4	hours

TU-INC. QUALITY CONTROL

THIRD PARTY INSPECTION FIRM OR CUSTOMER REPRESENTATIVE

DQAC 1124 Rev 4 17 Apr

Date Printed:

6/28/2017 8:56:23 AM

# **Test Configuration 12 Zone**

Line S/N	Technician
U 6863-201	JUAN
C Information Input	
QC Irsp	Third Party
ABEL	BV
Witness?	Test Procedure
Yes .	SEC 01.60
Special Instructions	

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Hole Size	C From	asing.	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Bursti	SF. ∍Tension
17.5"	0	1030	13.375"	54.5	J55	STC	2.40	1.25	9.16
12.25"	0	4000	9.625"	40	J55	LTC	1.22	1.11	3.25
12.25"	4000	4925	9.625"	40	L80	LTC	1.19	1.61	5.73
8.75"	0	16,808	5.5"	17	P110	LTC	1.66	2.98	2.81
			BLM	Minimun	n Safety	Factor	1.125	1	1.6 Dry 1.8 Wet

Hole Size	C. From	asing,	<u>  USU. SI</u>	ze\ !	Weight (lbs)	Grade	Conn.	SF. Collapse	*SF Burst	SF; Tension
17.5"	0	1030	13.375	13.375"		J55	STC	2.40	1.25	9.16
12.25"	0	4000	9.625"		40	J55	LTC	1.22	1.11	3.25
12.25"	4000	4925	9.625	9.625"		L80	LTC	1.19	1.61	5.73
8.75"	. 0	16,808	5.5"	5.5"		P110	LTC	1.66	2.98	2.81
	BLM Minimum Safe				n Safety	Factor	1.125	1	1.6 Dry 1.8 Wet	

Hole Size	Ca From	asing.	Csg. Size	Weight (lbs)	Grade	Conn.	· SF Collapse	SF Burst	SF Tension
. 17.5"	0	1030	13.375"	54.5	J55	STC	2.40	1.25	9.16
12.25"	0	4000	9.625"	40	J55	LTC	1.22	1.11	3.25
12.25"	4000	4925	9.625"	40	L80	LTC	1.19	1.61	5.73
8.75"	0	16,808	5.5"	17	P110	LTC	1.66	2.98	2.81
,	·		BLM	l Minimun	n Safety	/ Factor	1.125	1	1.6 Dry 1.8 Wet

Hole Size	ழ் ∳ € From	asing :	Çsg. S	ze.	Weight (lbs)	Grade	Conn.	SF Collapse	, SF Burst	SF Tension
17.5"	0	1030	13.37	5"	54.5	J55	STC	2.40	1.25	9.16
12.25"	0	4000	9.625"		40	J55	LTC	1.22	1.11	3.25
12.25"	4000	4925	9.625"		40	L80	LTC	1.19	1.61	5.73
8.75"	0	16,808	5.5"	5.5"		P110	LTC	1.66	2.98	2.81
				BLM Minimum Safety Fact			Factor	1.125	1	1.6 Dry 1.8 Wet

	Yor N t
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Υ
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef? Is well within the designated 4 string boundary?	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
	(A. 1 / A. 1 / A. 1
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
	Mark Park
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# 3. Cementing Program

Casing	#Sks	Wt. lb/ gal	Yid ft8/ sack	H₂0 gal/sk	500# Comp. Strength (hours)	= Slurry Description = ***;
Surf.	430	13.5	1.75	9	12	Lead: Class C + 4% Gel + 1% CaCl2
Suri.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	940	12.7	2.0	9.6	16	Lead: 35:65:6 C Blend
mier.	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl
5.5 Prod	610	11.9	2.5	19	72	Lead: 50:50:10 H Blend
3.3 F100	2040	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC:	%Excess #
Surface	0'	50%
1 <sup>st</sup> Intermediate	0'	50%
Production	3,500'	25% OH in Lateral (KOP to EOL) – 40% OH in Vertical

### 4. Pressure Control Equipment

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

BOR installed and tested before drilling which hole?*	Size?	Min: Required WP	E Ty	pe	×	Tested to:
			Ann	ular	Х	2000 psi
			Blind	Ram		
12-1/4"	13-5/8"	2M	Pipe	Ram		2M
			Double	e Ram		
			Other*			
·			Annular		×	50% testing pressure
8-3/4"	13-5/8"	3M	Blind Ram		х	
			Pipe Ram		Х	3M
			Double Ram			SIVI
			Other*			

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2.
×	On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
	N Are anchors required by manufacturer?
N	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

# 5. Mud Program

	Depth	Type	::Weight	Viscosity	Water Loss
From	To.		(ppg) -		
0	Surf. Shoe	FW Gel	8.6 - 8.8	28-34	N/C
Surf csg	9-5/8" Int shoe	Saturated Brine	10 - 10.1	28-34	N/C
9-5/8" Int shoe	Lateral TD	Cut Brine	8.6 - 9.3	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

NAME A SOURCE OF A	D) (T/D 0 6 1 4 4 14 1
What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
Trible trib be deed to the children and to be game of hand.	i i i i de ci i i i cada i i i i ci i i i g

# 6. Logging and Testing Procedures

Logging, Coring and Testing.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
Y	No Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

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

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	4500 psi at 9303' TVD
Abnormal Temperature	NO 150 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.

N	H2S is present	 	
Y	H2S Plan attached	•	

## 8. Other Facets of Operation

Y	ls it a walking operation?
N	Is casing pre-set?

×	H2S Plan.
x BOP & Choke Schematics.	
<b>x</b> .	Directional Plan



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

SUPO Data Report
05/22/2018

APD ID: 10400023470

Well Type: OIL WELL

Submission Date: 10/17/2017

Highlighted data reflects the most

Operator Name: COG PRODUCTION LLC

Well Number: 107H

recent changes

Well Name: EIDER FEDERAL

Well Work Type: Drill

**Show Final Text** 

-----

# Section 1 - Existing Roads

Will existing roads be used? YES

**Existing Road Map:** 

COG Eider 107H Existing Road 20171017095940.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? YES

ROW ID(s)

ID: NM132549

Do the existing roads need to be improved? NO

**Existing Road Improvement Description:** 

**Existing Road Improvement Attachment:** 

# **Section 2 - New or Reconstructed Access Roads**

Will new roads be needed? YES

**New Road Map:** 

COG\_Eider\_107H\_Maps\_Plats\_20171017100235.pdf

New road type: RESOURCE

Length: 723.2

Feet

Width (ft.): 30

Max slope (%): 33

Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

**New road access erosion control:** Water will be diverted where necessary to avoid ponding, prevent erosion, maintain food drainage, and to be consistent with local drainage patterns.

New road access plan or profile prepared? NO

New road access plan attachment:

Access road engineering design? NO

Access road engineering design attachment:

Well Name: EIDER FEDERAL

Well Number: 107H

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: Blading

Access other construction information: No turnouts are planned. Re-routing access road around proposed well location.

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

#### **Drainage Control**

New road drainage crossing: CULVERT, OTHER

Drainage Control comments: None necessary.

Road Drainage Control Structures (DCS) description: None needed.

Road Drainage Control Structures (DCS) attachment:

#### **Access Additional Attachments**

Additional Attachment(s):

# **Section 3 - Location of Existing Wells**

**Existing Wells Map?** YES

Attach Well map:

COG\_Eider\_107H\_1\_Mile\_Data\_20171017100246.pdf

**Existing Wells description:** 

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

#### Submit or defer a Proposed Production Facilities plan? DEFER

**Estimated Production Facilities description:** Production will be sent to the proposed Eider CTB 2, A surface flow line of approximately 131.8' of 3" steel pipe carrying oil, gas and water under a maximum pressure of 125 psi will follow the road to the facility at the Eider CTB 2 location. We plan to install a 4" surface polyethylene pipe transporting Gas Lift Gas from the Eider CTB 2 to the Eider Federal 107H. The surface Gas Lift Gas pipe of approximately 131.8' under a maximum pressure of 125 psi will be installed no farther than 10 feet from the edge of the road.

Well Name: EIDER FEDERAL

Well Number: 107H

# Section 5 - Location and Types of Water Supply

#### **Water Source Table**

Water source use type: ICE PAD CONSTRUCTION &

MAINTENANCE, STIMULATION, SURFACE CASING

Describe type: Fresh Water

Source latitude:

Source datum:

Water source permit type: PRIVATE CONTRACT, PRIVATE

CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE, PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 337500 Source volume (acre-feet): 43.50142

Source volume (gal): 14175000

Water source use type: INTERMEDIATE/PRODUCTION CASING Water

Water source type: OTHER

Water source type: OTHER

Source longitude:

Describe type: Brine Water

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT, PRIVATE

CONTRACT

Source land ownership: COMMERCIAL

Water source transport method: TRUCKING, TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 22500 Source volume (acre-feet): 2.9000947

Source volume (gal): 945000

#### Water source and transportation map:

COG\_Eider\_107H\_Brine\_H2O\_20171017100724.pdf COG\_Eider\_107H\_Fresh\_H2O\_20171017100736.pdf

Water source comments: The fresh water will be obtained from Mark McCloy water well located in Section 33, T24S, R33E, or from Rock House Ranch (575) 885-4195, Brine water will be purchased from Mesquite Services (575) 887-4847. No water well will be drilled on the location.

New water well? NO

#### **New Water Well Info**

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Well Name: EIDER FEDERAL

Well Number: 107H

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

**Aquifer comments:** 

Aquifer documentation:

Well depth (ft):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

**Drilling method:** 

**Drill material:** 

**Grout material:** 

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

**Well Production type:** 

**Completion Method:** 

Water well additional information:

State appropriation permit:

Additional information attachment:

#### **Section 6 - Construction Materials**

Construction Materials description: Caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from Mack Chase caliche pit located in Section 20, T24S, R33E. (575) 748-1288.

**Construction Materials source location attachment:** 

# **Section 7 - Methods for Handling Waste**

Waste type: SEWAGE

Waste content description: Human waste and gray water.

Amount of waste: 1000

gallons

Waste disposal frequency: One Time Only

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal

facility.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL

**Disposal location ownership: PRIVATE** 

**FACILITY** 

Disposal type description:

Disposal location description: Trucked to an approved disposal facility.

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil land water while drilling and completion operations.

Amount of waste: 6000

barrels

Waste disposal frequency: One Time Only

Safe containment description: All drilling waste will be stored safely and disposed of properly.

Well Name: EIDER FEDERAL

Well Number: 107H

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

Disposal location description: Trucked to an approved disposal facility.

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations,

Amount of waste: 500

pounds

Waste disposal frequency: One Time Only

Safe containment description: Garbage and trash produced during drilling and completion operations will be collected in a

trash container and disposed of properly at a state approved disposal facility.

Safe containment attachment:

Waste disposal type: HAUL TO COMMERCIAL Disposal location ownership: COMMERCIAL

**FACILITY** 

Disposal type description:

Disposal location description: Trucked to an approved disposal facility.

#### **Reserve Pit**

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.)

Reserve pit width (ft.)

Reserve pit depth (ft.)

Reserve pit volume (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? YES

Description of cuttings location Roll off cutting containers on tracks.

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

Well Name: EIDER FEDERAL

Well Number: 107H

Cuttings area liner specifications and installation description

# **Section 8 - Ancillary Facilities**

Are you requesting any Ancillary Facilities?: YES

**Ancillary Facilities attachment:** 

COG\_Eider\_107H\_GCP\_20171017112925.pdf

Comments: GCP Attached.

# Section 9 - Well Site Layout

#### Well Site Layout Diagram:

COG Eider 107H CTB Flowlines 20171017112904.pdf

COG Eider 107H Prod Facility 20171017112937.pdf

COG\_Eider\_CTB\_2\_20171017112946.pdf

Comments: Production will be sent to the proposed Eider CTB 2, A surface flow line of approximately 131/8' of 3" steel pipe carrying oil, gas and water under a maximum pressure of 125 psi will follow the road to the facility at the Eider CTB 2 location. We plan to install a 4" surface polyethylene pipe transporting Gas Lift Gas from the Eider CTB 2 to the Eider Federal 107H. The surface Gas Lift Gas pipe of approximately 131.8' under a maximum pressure of 125 psi will be installed no farther than 10 feet from the edge of the road.

#### **Section 10 - Plans for Surface Reclamation**

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: EIDER FEDERAL

Multiple Well Pad Number: 107H, 108H, 307H, 207H, 401H, 601H

#### Recontouring attachment:

Drainage/Erosion control construction: If needed, immediately following pad construction approximately 400' of straw waddles will be placed on the west side of the location, 200' of straw waddles will be placed on the northwest side of the location, and 200' of straw waddles will be placed on the southwest side of the location to reduce sediment impacts to fragile/sensitive soils.

Drainage/Erosion control reclamation: N/A

Well pad proposed disturbance

(acres):

Road proposed disturbance (acres):

Powerline proposed disturbance

(acres):

Pipeline proposed disturbance

(acres):

Other proposed disturbance (acres):

Total proposed disturbance:

Well pad interim reclamation (acres): Well pad long term disturbance

Powerline interim reclamation (acres):

Pipeline interim reclamation (acres):

0.3987888

Other interim reclamation (acres): 0

Total interim reclamation: 5.168789

(acres): 3.21

Road interim reclamation (acres): 0.23 Road long term disturbance (acres):

Powerline long term disturbance

(acres):

Pipeline long term disturbance

(acres): 0.3987888

Other long term disturbance (acres): 0

Total long term disturbance:

3.8387887

#### **Disturbance Comments:**

Well Name: EIDER FEDERAL Well Number: 107H

**Reconstruction method:** Portions of the pad not needed for production operationswill be re-contoured to its original state as much as possible. The caliche that is removed will be reused. The stockpiled topsoil will be spread out over reclaimed area and reseeded with BLM approved seed mixture

Topsoil redistribution: South 80'. East 80'

Soil treatment: None

Existing Vegetation at the well pad: Shinnery Oak/Mesquite grassland.

**Existing Vegetation at the well pad attachment:** 

Existing Vegetation Community at the road: Shinnery Oak/Mesquite grassland.

**Existing Vegetation Community at the road attachment:** 

Existing Vegetation Community at the pipeline: Shinnery Oak/Mesquite grassland.

**Existing Vegetation Community at the pipeline attachment:** 

Existing Vegetation Community at other disturbances: N/A

**Existing Vegetation Community at other disturbances attachment:** 

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

# Seed Management

#### Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

Well Name: EIDER FEDERAL

Well Number: 107H

PLS pounds per acre:

Proposed seeding season:

**Seed Summary** 

**Seed Type** 

Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

## **Operator Contact/Responsible Official Contact Info**

First Name: Rand

Last Name: French

Phone: (432)254-5556

Email: rfrench@concho.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

COG\_Eider\_107H\_Closed\_Loop\_20171017101212.pdf

# Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

**BIA Local Office:** 

**BOR Local Office:** 

**COE Local Office:** 

Well Name: EIDER FEDERAL

Well Number: 107H

**DOD Local Office:** 

**NPS Local Office:** 

**State Local Office:** 

Military Local Office:

**USFWS Local Office:** 

**Other Local Office:** 

**USFS** Region:

**USFS Forest/Grassland:** 

**USFS Ranger District:** 

**Section 12 - Other Information** 

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

**ROW Applications** 

**SUPO Additional Information:** COG respectfully requests approval to build a 1000' x 1000' Gadwall 35 Federal Frac Pond 2 to serve this well and any other well within a two mile radius. The proposed frac pond is to be located in Section 35, T24S, R32E. Plats are attached.

Use a previously conducted onsite? YES

**Previous Onsite information:** Onsite conpleted on 8/22/2017 by Rand French (COG); Gerald Herrera (COG); and Jeff Robertson (BLM).

#### **Other SUPO Attachment**

COG\_Gadwall\_Frac\_Pond\_2\_20171017065148.pdf COG\_Eider\_107H\_Certification\_20171017101232.pdf

#### **ERATOR CERTIFICATION**

under my direct supervision, have inspected the drill site and I am familiar with the conditions that presently exist; that I nd Federal laws applicable to this operation; that the statements to the best of my knowledge, true and correct; and that the work proposed herein will be performed in conformity with this APD ditions under which it is approved. I also certify that I, or COG ple for the operations conducted under this application. These provisions of 18 U.S.C. 1001 for the filing of false statements.

2300

of SEPTEMBER , 2017.

Mot Rex

/es

Artesia, NM 88210

ve signatory): Rand French
-mail: rfrench@concho.com



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

# PWD Data Report 05/22/2018

#### Section 1 - General

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

### **Section 2 - Lined Pits**

Would you like to utilize Lined Pit PWD options? NO

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

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

## Section 3 - Unlined Pits

Injection well mineral owner:

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location: PWD surface owner: PWD disturbance (acres): Unlined pit PWD on or off channel: Unlined pit PWD discharge volume (bbl/day): Unlined pit specifications: Precipitated solids disposal: Decribe precipitated solids disposal: Precipitated solids disposal permit: Unlined pit precipitated solids disposal schedule: Unlined pit precipitated solids disposal schedule attachment: Unlined pit reclamation description: Unlined pit reclamation attachment: Unlined pit Monitor description: Unlined pit Monitor attachment: Do you propose to put the produced water to beneficial use? Beneficial use user confirmation: Estimated depth of the shallowest aquifer (feet): Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected? TDS lab results: Geologic and hydrologic evidence: State authorization: **Unlined Produced Water Pit Estimated percolation:** Unlined pit: do you have a reclamation bond for the pit? Is the reclamation bond a rider under the BLM bond? Unlined pit bond number: Unlined pit bond amount: Additional bond information attachment: Section 4 - Injection Would you like to utilize Injection PWD options? NO **Produced Water Disposal (PWD) Location:** PWD surface owner: PWD disturbance (acres): Injection PWD discharge volume (bbl/day):

Injection well type:	
Injection well number:	Injection well name:
Assigned injection well API number?	Injection well API number:
Injection well new surface disturbance (acres):	
Minerals protection information:	
Mineral protection attachment:	
Underground Injection Control (UIC) Permit?	
UIC Permit attachment:	
Section 5 - Surface Discharge	
Would you like to utilize Surface Discharge PWD options? NO	
Produced Water Disposal (PWD) Location:	
PWD surface owner:	PWD disturbance (acres):
Surface discharge PWD discharge volume (bbl/day):	
Surface Discharge NPDES Permit?	
Surface Discharge NPDES Permit attachment:	
Surface Discharge site facilities information:	
Surface discharge site facilities map:	
Section 6 - Other	,
Would you like to utilize Other PWD options? NO	
Produced Water Disposal (PWD) Location:	•
PWD surface owner:	PWD disturbance (acres):
Other PWD discharge volume (bbl/day):	
Other PWD type description:	
Other PWD type attachment:	
Have other regulatory requirements been met?	
Other regulatory requirements attachment:	
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**Bond Info Data Report** 

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

# **Bond Information**

Federal/Indian APD: FED

**BLM Bond number: NMB000860** 

**BIA** Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

**BLM reclamation bond number:** 

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

**Reclamation bond amount:** 

Reclamation bond rider amount:

Additional reclamation bond information attachment:



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

# © erator Certification Data Report 05/22/2018

# **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: Mayte Reyes

Signed on: 10/17/2017

Title: Regulatory Analyst

Street Address: 2208 W Main Street

City: Artesia

State: NM

**Zip:** 88210

Phone: (575)748-6945

Email address: Mreyes1@concho.com

#### Field Representative

Representative Name: Rand French

Street Address: 2208 West Main Street

City: Artesia

State: NM

**Zip:** 88210

Phone: (575)748-6940

Email address: rfrench@concho.com