

HOBBS OCD

JAN 09 2017

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

5. Lease Serial No. NMMN119759	
6. If Indian, Allottee or Tribe Name	
7. If Unit or CA Agreement, Name and No.	
8. Lease Name and Well No. (317287) BLUE JAY FEDERAL COM 2H	
9. API Well No. 30-025-43533	
10. Field and Pool, or Exploratory (97983) WC025 G-08 S203506 / BONE SPRING	
11. Sec., T. R. M. or Blk. and Survey or Area SEC 18 / T20S / R35E / NMP	
1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER	12. County or Parish LEA
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone	13. State NM
2. Name of Operator COG OPERATING LLC (229137)	14. Distance in miles and direction from nearest town or post office* 12 miles
3a. Address 600 West Illinois Ave Midland TX 79701	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 210 feet
3b. Phone No. (include area code) (432)683-7443	16. No. of acres in lease 320
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface TR SESE / 210 FSL / 660 FEL / LAT 32.566491 / LONG -103.490171 At proposed prod. zone TR NENE / 200 FNL / 330 FEL / LAT 32.579882 / LONG -103.489093	17. Spacing Unit dedicated to this well 160
14. Distance in miles and direction from nearest town or post office* 12 miles	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1650 feet
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 210 feet	19. Proposed Depth 11375 feet / 16242 feet
16. No. of acres in lease 320	20. BLM/BIA Bond No. on file FED: NMB000215
17. Spacing Unit dedicated to this well 160	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3685 feet
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1650 feet	22. Approximate date work will start* 11/15/2016
19. Proposed Depth 11375 feet / 16242 feet	23. Estimated duration 30 days
20. BLM/BIA Bond No. on file FED: NMB000215	24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Mayte Reyes / Ph: (575)748-6945	Date 10/07/2016
Title Regulatory Analyst		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) James Amos / Ph: (575)234-5927	Date 01/06/2017
Title Acting Assistant Field Manager		
Office HOBBS		

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

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01/09/17

Engineer Worksheet

Carlsbad Field Office

620 E. Greene St.

Carlsbad, NM 88220-6292

Tracking Number:	ATS-16-562	County:	Lea		
Company:	COG Operating LLC	Well Name and Number:	Blue Jay Federal Com-2H		
Surface Hole Location:	210°S & 660°E. SEC018 T020S, R035E	Bottom Hole Location:	200°N & 330°E. SEC018 T020S, R035E		
Lease Number:	NMNM119759	Prod Status:	Effective:		
Bond:	Statewide	Bond #:	NMB000215	Potash:	No
NOS Received:	YES	APD Received:	10-7-2016	10-Day LTR Sent:	
Acreage:		Orthodox:	No	COM Agr Required:	Yes

Deficiencies Noted:

Form 3160-3 Survey Plat Drilling Plan Surface Plan Bonding Original Signature Operator Cert Statement

Other Deficiencies:

Adjudication Comments:

GEO Report Completed 12-29-2016

Technical Checklist

Plat:	ok	Elevation:	3685		
Proposed Depth:	TVD: 11510	MD:	16242	Targeted Bone Formation:	Spring
Anticipated Water-Oil, Gas, Etc.:	Expected fresh water above 20 ft/ Oil-Gas: Cherry Canyon, Brushy Canyon, and Bone Spring				
Casing/Cement Program:	Okay / See COA for cement deficiency.				
Bottom Hole Mud Weight:	9.4	BHP:	5626.088	MASP:	3093.888
<input checked="" type="radio"/> Horizontal <input type="radio"/> Directional <input type="radio"/> Vertical <input type="checkbox"/> Re-entry					
Well Control Prog(BOP, ETC)	2M Annular tested to 2,000 psi after surface and 5M BOP after intermediate.			Mud Program:	Ok
Test-Log-Cores Program:	GR/CNL proposed.				
H2S or Other Hazards:	H2S no. Possibility of water flows in the Artesia Group, Salado, and Capitan Reef. Possibility of lost circulation in the Red Beds, Artesia Group, Rustler, Capitan Reef, and Delaware.				
Water Basin:	Capitan				
Casings to Witness:	<input checked="" type="checkbox"/> Surface <input checked="" type="checkbox"/> Intermediate <input type="checkbox"/> Production <input type="checkbox"/> CIT Required				
	<input type="checkbox"/> Other Witness				
Comments:	Witness surface and intermediate casing.				

Mustafa Haque 1-5-2017

Engineer

Date

Signature

Adjudication Date

Adjudicator Initials



APD ID: 10400006375	Submission Date: 10/07/2016	Highlight All Changes
Operator Name: COG OPERATING LLC	Federal/Indian APD: FED	
Well Name: BLUE JAY FEDERAL COM	Well Number: 2H	
Well Type: OIL WELL	Well Work Type: Drill	

Application

Section 1 - General

APD ID: 10400006375	Tie to previous NOS?	Submission Date: 10/07/2016
BLM Office: HOBBS	User: Mayte Reyes	Title: Regulatory Analyst
Federal/Indian APD: FED	Is the first lease penetrated for production Federal or Indian? FED	
Lease number: NMNM119759	Lease Acres: 320	
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 OPERATING LLC	
Operator letter of designation:		
Keep application confidential? YES		

Permitting Agent Information

Agent Address:	Zip:
Agent PO Box:	
Agent city:	State:
Agent Phone:	
Agent Internet Address:	

Operator Info

Operator Organization Name: COG OPERATING LLC	
Operator Address: 600 West Illinois Ave	Zip: 79701
Operator PO Box:	
Operator City: Midland	State: TX
Operator Phone: (432)683-7443	
Operator Internet Address: RODOM@CONCHO.COM	

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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: BLUE JAY FEDERAL COM

Well Number: 2H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: WC025 G-08
S203506

Pool Name: BONE SPRING

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

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: SINGLE WELL

Multiple Well Pad Name:

Number:

Well Class: HORIZONTAL

Number of Legs:

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 12 Miles

Distance to nearest well: 1650 FT

Distance to lease line: 210 FT

Reservoir well spacing assigned acres Measurement: 160 Acres

Well plat: COG Blue Jay 2H C-102_10-27-2016.pdf

Well work start Date: 11/15/2016

Duration: 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number:

STATE: NEW MEXICO

Meridian: NEW MEXICO PRINCIPAL **County:** LEA

Latitude: 32.566491

Longitude: -103.490171

SHL

Elevation: 3685

MD: 0

TVD: 0

Leg #: 1

Lease Type: FEDERAL

Lease #: NMNM119759

NS-Foot: 210

NS Indicator: FSL

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

	EW-Foot: 660	EW Indicator: FEL	
	Twsp: 20S	Range: 35E	Section: 18
	Aliquot:	Lot:	Tract: SESE
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.566491	Longitude: -103.490171	
KOP	Elevation: -7347	MD: 11032	TVD: 11032
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM119759	
	NS-Foot: 210	NS Indicator: FSL	
	EW-Foot: 660	EW Indicator: FEL	
	Twsp: 20S	Range: 35E	Section: 18
	Aliquot:	Lot:	Tract: SESE
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.566824	Longitude: -103.489099	
PPP	Elevation: -7765	MD: 11688	TVD: 11450
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM119759	
	NS-Foot: 330	NS Indicator: FSL	
	EW-Foot: 330	EW Indicator: FEL	
	Twsp: 20S	Range: 35E	Section: 18
	Aliquot:	Lot:	Tract: SESE
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.579524	Longitude: -103.489093	
EXIT	Elevation: -7690	MD: 16292	TVD: 11375
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM119759	
	NS-Foot: 330	NS Indicator: FNL	
	EW-Foot: 330	EW Indicator: FEL	
	Twsp: 20S	Range: 35E	Section: 18
	Aliquot:	Lot:	Tract: NENE
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.579882	Longitude: -103.489093	
BHL	Elevation: -7690	MD: 16242	TVD: 11375
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM119759	

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

NS-Foot: 200

NS Indicator: FNL

EW-Foot: 330

EW Indicator: FEL

Twsp: 20S

Range: 35E

Section: 18

Aliquot:

Lot:

Tract: NENE

Drilling Plan

Section 1 - Geologic Formations

ID: Surface formation

Name: UNKNOWN

Lithology(ies):

Elevation: 3685

True Vertical Depth: 0

Measured Depth: 0

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 1

Name: RUSTLER

Lithology(ies):

Elevation: 1943

True Vertical Depth: 1742

Measured Depth: 1742

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 2

Name: TOP OF SALT

Lithology(ies):

Elevation: 1852

True Vertical Depth: 1833

Measured Depth: 1833

Mineral Resource(s):

NONE

Is this a producing formation? N

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

ID: Formation 3

Name: BASE OF SALT

Lithology(ies):

Elevation: 328

True Vertical Depth: 3357

Measured Depth: 3357

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 4

Name: YATES

Lithology(ies):

Elevation: 35

True Vertical Depth: 3650

Measured Depth: 3650

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 5

Name: CAPITAN REEF

Lithology(ies):

Elevation: -405

True Vertical Depth: 4090

Measured Depth: 4090

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 6

Name: CHERRY CANYON

Lithology(ies):

Elevation: -1704

True Vertical Depth: 5389

Measured Depth: 5389

Mineral Resource(s):

NATURAL GAS

OIL

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Is this a producing formation? N

ID: Formation 7

Name: BRUSHY CANYON

Lithology(ies):

Elevation: -3043

True Vertical Depth: 6728

Measured Depth: 6728

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8

Name: BONE SPRING LIME

Lithology(ies):

Elevation: -4770

True Vertical Depth: 8455

Measured Depth: 8455

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9

Name: BONE SPRINGS UPPER SHAL

Lithology(ies):

Elevation: -4860

True Vertical Depth: 8545

Measured Depth: 8545

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 10

Name: BONE SPRING LOWER

Lithology(ies):

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Elevation: -5350

True Vertical Depth: 9035

Measured Depth: 9035

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 11

Name: BONE SPRING 1ST

Lithology(ies):

Elevation: -6080

True Vertical Depth: 9765

Measured Depth: 9765

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 12

Name: BONE SPRING 2ND

Lithology(ies):

Elevation: -6759

True Vertical Depth: 10444

Measured Depth: 10444

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 13

Name: BONE SPRING 3RD

Lithology(ies):

Elevation: -7765

True Vertical Depth: 11450

Measured Depth: 11688

Mineral Resource(s):

OIL

Is this a producing formation? Y

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Section 2 - Blowout Prevention

Pressure Rating (PSI): 2M

Rating Depth: 6000

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

Requesting Variance? NO

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 of the components installed will be functional and tested.

Choke Diagram Attachment:

COG Blue Jay 2H 2M Choke Schematic_12-05-2016.pdf

BOP Diagram Attachment:

COG Blue Jay 2H 2M BOP_12-05-2016.pdf

Pressure Rating (PSI): 5M

Rating Depth: 17000

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

Requesting Variance? NO

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 of the components installed will be functional and tested.

Choke Diagram Attachment:

COG Blue Jay 2H 5M Choke Schematic_12-05-2016.pdf

BOP Diagram Attachment:

COG Blue Jay 2H 5M BOP_12-05-2016.pdf

Section 3 - Casing

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

String Type: SURFACE

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7690

Bottom setting depth MD: 1820

Bottom setting depth TVD: 1820

Bottom setting depth MSL: -9510

Calculated casing length MD: 1820

Casing Size: 13.375

Other Size

Grade: J-55

Other Grade:

Weight: 54.5

Joint Type: STC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.36

Burst Design Safety Factor: 4.27

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 5.18

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 8.6

Casing Design Assumptions and Worksheet(s):

COG Blue Jay 2H Casing Assumptions_10-05-2016.pdf

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7690

Bottom setting depth MD: 5415

Bottom setting depth TVD: 5415

Bottom setting depth MSL: -13105

Calculated casing length MD: 5415

Casing Size: 9.625

Other Size

Grade: J-55

Other Grade:

Weight: 40

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.05

Burst Design Safety Factor: 0.89

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 2.4

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 2.91

Casing Design Assumptions and Worksheet(s):

COG Blue Jay 2H Casing Assumptions_10-05-2016.pdf

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

String Type: PRODUCTION

Other String Type:

Hole Size: 8.75

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -7690

Bottom setting depth MD: 16242

Bottom setting depth TVD: 11375

Bottom setting depth MSL: -19065

Calculated casing length MD: 16242

Casing Size: 5.5

Other Size

Grade: P-110

Other Grade:

Weight: 17

Joint Type: LTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.35

Burst Design Safety Factor: 2.41

Joint Tensile Design Safety Factor type: DRY

Joint Tensile Design Safety Factor: 2.3

Body Tensile Design Safety Factor type: DRY

Body Tensile Design Safety Factor: 2.82

Casing Design Assumptions and Worksheet(s):

COG Blue Jay 2H Casing Assumpt_10-27-2016.pdf

Section 4 - Cement

Casing String Type: SURFACE

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Stage Tool Depth:

Lead

Top MD of Segment: 0	Bottom MD Segment: 1820	Cement Type: C Blend 35:65:6
Additives: No additives	Quantity (sks): 2450	Yield (cu.ff./sk): 2
Density: 12.7	Volume (cu.ft.): 4900	Percent Excess: 50

Tail

Top MD of Segment: 0	Bottom MD Segment: 1820	Cement Type: C
Additives: 2% CaCl	Quantity (sks): 250	Yield (cu.ff./sk): 1.34
Density: 14.8	Volume (cu.ft.): 335	Percent Excess: 50

Casing String Type: INTERMEDIATE

Stage Tool Depth: 3970

Lead

Top MD of Segment: 0	Bottom MD Segment: 5415	Cement Type: C
Additives: 4% gel + 1% CaCl ₂	Quantity (sks): 710	Yield (cu.ff./sk): 2
Density: 12.7	Volume (cu.ft.): 1420	Percent Excess: 50

Tail

Top MD of Segment: 0	Bottom MD Segment: 5415	Cement Type: C
Additives: 2% CaCl	Quantity (sks): 200	Yield (cu.ff./sk): 1.35
Density: 14.8	Volume (cu.ft.): 270	Percent Excess: 50

Stage Tool Depth: 3970

Lead

Top MD of Segment: 0	Bottom MD Segment: 5415	Cement Type: C Blend 35:65:6
Additives: No additives	Quantity (sks): 210	Yield (cu.ff./sk): 1.98
Density: 12.7	Volume (cu.ft.): 415.8	Percent Excess: 50

Tail

Top MD of Segment: 0	Bottom MD Segment: 5415	Cement Type: C
Additives: 2% CaCl	Quantity (sks): 200	Yield (cu.ff./sk): 1.34
Density: 14.8	Volume (cu.ft.): 268	Percent Excess: 50

Casing String Type: PRODUCTION

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Stage Tool Depth:

Lead

Top MD of Segment: 0	Bottom MD Segment: 16242	Cement Type: H Blend 50:50:10
Additives: No additives	Quantity (sks): 920	Yield (cu.ff./sk): 2.5
Density: 11.9	Volume (cu.ft.): 2300	Percent Excess: 35

Tail

Top MD of Segment: 0	Bottom MD Segment: 16242	Cement Type: H Blend 50:50:2
Additives: No additives	Quantity (sks): 1520	Yield (cu.ff./sk): 1.24
Density: 14.4	Volume (cu.ft.): 1885	Percent Excess: 35

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 requirements will be kept on location at all times

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

Circulating Medium Table

Top Depth: 1820	Bottom Depth: 5415
Mud Type: SALT SATURATED	
Min Weight (lbs./gal.): 9.8	Max Weight (lbs./gal.): 10.2
Density (lbs/cu.ft.):	Gel Strength (lbs/100 sq.ft.):
PH:	Viscosity (CP):
Filtration (cc):	Salinity (ppm):
Additional Characteristics:	

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Top Depth: 5415

Bottom Depth: 16242

Mud Type: OTHER

Min Weight (lbs./gal.): 8.6

Max Weight (lbs./gal.): 9.4

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 0

Bottom Depth: 1820

Mud Type: OTHER

Min Weight (lbs./gal.): 8.6

Max Weight (lbs./gal.): 8.8

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP):

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

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:

CNL,GR

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5565

Anticipated Surface Pressure: 3046

Anticipated Bottom Hole Temperature(F): 170

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

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG Blue Jay 2H H2S Plan_10-07-2016.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG Blue Jay 2H Dir Plan_10-27-2016.pdf

Other proposed operations facets description:

None

Other proposed operations facets attachment:

COG Blue Jay 2H Wtr Info_10-27-2016.pdf

Other Variance attachment:

SUPO

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

COG-BLUE JAY FED COM 2H_10-03-2016.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

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 Blue Jay 2H Road Map_10-07-2016.pdf

New road type: RESOURCE

Length: 920 Feet

Width (ft.): 30

Max slope (%): 33

Max grade (%): 1

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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 good 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:

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: 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-BLUE JAY FED COM 2H EX WELL MAP_10-04-2016.pdf

Existing Wells description:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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 existing Blue Jay Federal #1H facility

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: INTERMEDIATE/PRODUCTION CASING

Water source type: OTHER

Describe type: Brine Water - Purchased from Salty Dog Brine Station
(phone 806-592-3331)

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: COMMERCIAL

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 30000

Source volume (acre-feet): 3.866793

Source volume (gal): 1260000

Water source use type: STIMULATION, SURFACE CASING

Water source type: OTHER

Describe type: Fresh water - purchased from S&S, Inc. (surface
owner)

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 350000

Source volume (acre-feet): 45.112583

Source volume (gal): 14700000

Water source and transportation map:

COG BLUE JAY 2H Fresh Wtr Source Map_10-07-2016.pdf

COG Blue Jay 2H Brine Water Source_10-07-2016.pdf

Water source comments: Fresh water will be furnished by S&S, Inc., surface owner, and will be purchased at the frac pond (delivery point). Brine water will be purchased from Salty Dog Brine Station and will be delivered by truck to location.

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

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 purchased from Patrick Sims or Danny Berry

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 containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **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 containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **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

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: YES

Ancillary Facilities attachment:

COG Blue Jay 2H GCP_10-27-2016.pdf

Comments: Gas Capture Plan attached

Section 9 - Well Site Layout

Well Site Layout Diagram:

COG Blue Jay 2H Well Site Layout_10-05-2016.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Drainage/Erosion control construction: Approximately 400' of straw waddles will be placed on the north side to reduce sediment impacts to fragile/sensitive soils.

Drainage/Erosion control reclamation: Remove waddles and reclaim the north side.

Wellpad long term disturbance (acres): 3.12

Wellpad short term disturbance (acres): 3.67

Access road long term disturbance (acres): 0.64

Access road short term disturbance (acres): 0.64

Pipeline long term disturbance (acres): 0.43044078

Pipeline short term disturbance (acres): 0.43044078

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 4.1904407

Total short term disturbance: 4.740441

Reconstruction method: Portions of the pad not needed for production operations will 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: North - 80'

Soil treatment: None

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

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	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

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Fee Owner: S&S Inc.

Fee Owner Address: PO Box 1046 Eunice NM 88231

Phone: (575)394-2948

Email:

Surface use plan certification: YES

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: As per Surface Use and Occupancy Agreement between COG Operating LLC and S&S, Inc., dated

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite completed on 09/14/2016 by Rand French (COG) and Jeff Robertson (BLM).

Other SUPO Attachment

PWD

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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:

Describe 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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

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:

Describe 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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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 mineral owner:

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?

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000215

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:

Operator Certification

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: 10/07/2016

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 W Main Street

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

City: Artesia

State: NM

Zip: 88210

Phone: (432)254-5556

Email address: rfrench@concho.com

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 25UAUB8F

CONFIDENTIAL

APD ID: 10400006375**Submission Date:** 10/07/2016**Operator Name:** COG OPERATING LLC**Well Name:** BLUE JAY FEDERAL COM**Well Number:** 2H**Well Type:** OIL WELL**Well Work Type:** Drill**Section 1 - Existing Roads****Will existing roads be used?** YES**Existing Road Map:**

COG-BLUE JAY FED COM 2H_10-03-2016.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT**Row(s) Exist?** NO**ROW ID(s)****ID:****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 Blue Jay 2H Road Map_10-07-2016.pdf

New road type: RESOURCE**Length:** 920 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 good 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:**

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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: 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-BLUE JAY FED COM 2H EX WELL MAP_10-04-2016.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 existing Blue Jay Federal #1H facility

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Water source use type: INTERMEDIATE/PRODUCTION CASING

Water source type: OTHER

Describe type: Brine Water - Purchased from Salty Dog Brine Station
(phone 806-592-3331)

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: COMMERCIAL

Water source transport method: TRUCKING

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 30000

Source volume (acre-feet): 3.866793

Source volume (gal): 1260000

Water source use type: STIMULATION, SURFACE CASING

Water source type: OTHER

Describe type: Fresh water - purchased from S&S, Inc. (surface owner)

Source latitude:

Source longitude:

Source datum:

Water source permit type: PRIVATE CONTRACT

Source land ownership: PRIVATE

Water source transport method: PIPELINE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 350000

Source volume (acre-feet): 45.112583

Source volume (gal): 14700000

Water source and transportation map:

COG BLUE JAY 2H Fresh Wtr Source Map_10-07-2016.pdf

COG Blue Jay 2H Brine Water Source_10-07-2016.pdf

Water source comments: Fresh water will be furnished by S&S, Inc., surface owner, and will be purchased at the frac pond (delivery point). Brine water will be purchased from Salty Dog Brine Station and will be delivered by truck to location.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Aquifer comments:

Aquifer documentation:

Well depth (ft):

Well casing type:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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 purchased from Patrick Sims or Danny Berry

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 containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

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

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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 containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **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

Cuttings area liner specifications and installation description

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: YES

Ancillary Facilities attachment:

COG Blue Jay 2H GCP_10-27-2016.pdf

Comments: Gas Capture Plan attached

Section 9 - Well Site Layout

Well Site Layout Diagram:

COG Blue Jay 2H Well Site Layout_10-05-2016.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

Drainage/Erosion control construction: Approximately 400' of straw waddles will be placed on the north side to reduce sediment impacts to fragile/sensitive soils.

Drainage/Erosion control reclamation: Remove waddles and reclaim the north side.

Wellpad long term disturbance (acres): 3.12

Wellpad short term disturbance (acres): 3.67

Access road long term disturbance (acres): 0.64

Access road short term disturbance (acres): 0.64

Pipeline long term disturbance (acres): 0.43044078

Pipeline short term disturbance (acres): 0.43044078

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 4.1904407

Total short term disturbance: 4.740441

Reconstruction method: Portions of the pad not needed for production operations will 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: North - 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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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:

PLS pounds per acre:

Proposed seeding season:

Seed Summary

Total pounds/Acre:

Seed Type	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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

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:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

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:

Operator Name: COG OPERATING LLC

Well Name: BLUE JAY FEDERAL COM

Well Number: 2H

Fee Owner: S&S Inc.

Fee Owner Address: PO Box 1046 Eunice NM 88231

Phone: (575)394-2948

Email:

Surface use plan certification: YES

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: As per Surface Use and Occupancy Agreement between COG Operating LLC and S&S, Inc., dated

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: Onsite completed on 09/14/2016 by Rand French (COG) and Jeff Robertson (BLM).

Other SUPO Attachment

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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:

Describe 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

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:

Describe 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 mineral owner:

Injection well type:

Injection well number:

Assigned injection well API number?

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Injection well name:

Injection well API number:

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:



Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB000215

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: