OCD-ARTESIA

Form 3160-3

FORM APPROVED

(71)4112001)	The state of the s								
UNITED STATES DEPARTMENT OF THE IN BUREAU OF LAND MANAG			5 Lease Serial No. NMNM-9812	0					
APPLICATION FOR PERMIT TO DE	-		6 If Indian, Allotec or Tribe Name						
			N/A 7 If Unit or CA Agreement, Name and No						
Ia. Type of work. ✓ DRILL REENTER			NMNM - 710		na No				
Ib. Type of Well Gas Well Other	Single Zone Multip	ple Zone	8 Lease Name and SKELLY UN		3056				
2 Name of Operator COG Operating LLC (229/3	77)		9 API Well No. 30-015- 37	7980					
3a Address 550 W. Texas Ave., Suite 1300 Midland, TX 79701 3b	Phone No (include area code) 432-685-4385		10 Field and Pool, or Fren; Gloriet	Exploratory ta-Yese 2677	0)				
4. Location of Well (Report location clearly and in accordance with any St	\ '		11. Sec, TRM or I	31k and Survey (or Area				
At surface SHL: 632' FNL & 2455' FWL (Unit At proposed prod zone BHL: 990' FNL & 2310' FWL, Unit			Sec 14 T17S	R31E					
14 Distance in miles and direction from nearest town or post office*		12 County or Parish	13	State					
9 miles East of Loco Hills, NN			EDDY		NM_				
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) 632'	No of acres in lease 17 Spacing Unit dedicated to th			well					
	9 Proposed Depth	Proposed Depth 20 BLM/BIA Bond No. on file							
to nearest well, drilling, completed, applied for, on this lease, ft 650'	6800		NMB000215						
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3924' GL	2 Approximate date work will sta 08/31/2010	rt*	23 Estimated duration 15 days						
-	24. Attachments								
The following, completed in accordance with the requirements of Onshore C	Oil and Gas Order No 1, shall be a	ttached to th	s form,						
Well plat certified by a registered surveyor A Drilling Plan	4 Bond to cover the ltem 20 above)	he operation	ns unless covered by an	existing bond o	on file (sec				
3 A Surface Use Plan (if the location is on National Forest System Lar SUPO shall be filed with the appropriate Forest Service Office)		specific info	rmation and/or plans as	s may be require	ed by the				
25 Signature	Name (Printed/Typed) Robyn M. Odom			Date 05/12/20	10				
fille Regulatory Analyst					4, 2				
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)			Date JUN	2 9 201				
Title FIELD MANAGER	Office	C	ARLSBAD FIELD	OFFICE	,				
Application approval does not warrant or certify that the applicant holds le	gal or equitable title to those right	ts in the subj	ectlease which would e	entitle the applica	ant to				

conduct operations thereon. Conditions of approval, if any, are attached

APPROVAL FOR TWO YEARS

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

*(Instructions on page 2)

Roswell Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico Energy, Minerals and Natural Resources Department

DISTRICT II 1302 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

Form C-102 Revised October 12, 2005 Submit to Appropriate District Office State Lease - 4 Coptes Fee Lease - 3 Copies

DISTRICT III 1000 RIO BRAZOS RD., AZTEC, NM 87410 11885 SOUTH ST. FRANCIS DR. Santa Fe, New Mexico 87505

DISTRICT IV

WELL LOCATION AND ACREAGE DEDICATION PLAT 11885 S ST FRANCIS DR SANTA FF NM 87505

□ AMENDED REPORT

API Number	Pool Code Pool		lame		
30-015-37980	26770	FREN; GLORIETA-YESO			
Property Code	Property Name	Well Number			
305607	SKELLY UNIT				
OGRID No.	Operator Name	:	Elevation		
229137	COG OPERATII	NG, LLC	3924'		

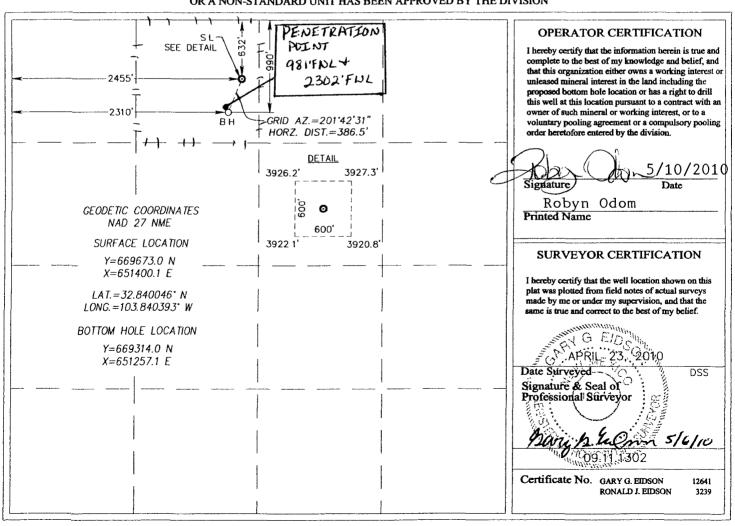
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	14	17-S	31-E		632	NORTH	2455	WEST	EDDY

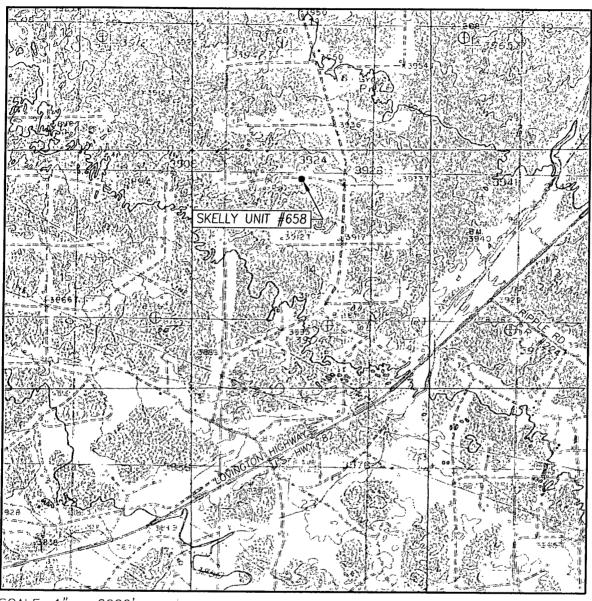
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Section Township		Lot Idn	Feet from the North/South line		Feet from the	East/West line	County
С	14	14 17-S		31-E 990 NORTH		NORTH	2310 WEST		EDDY
Dedicated Acres 40	Joint or Infill		Consolidation Coo	le Ord	ler No.				

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: MALJAMAR, N.M. - 10'

SEC. 14 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 632' FNL & 2455' FWL

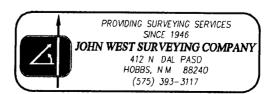
ELEVATION 3924'

OPERATOR COG OPERATING, INC.

LEASE SKELLY UNIT

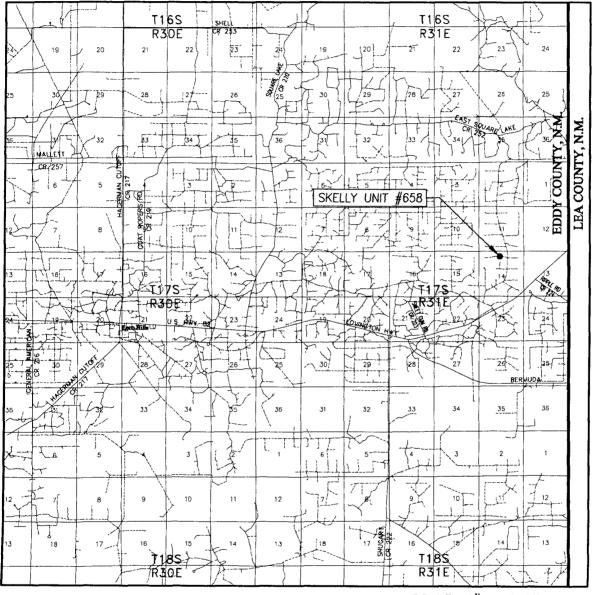
U.S.G.S. TOPOGRAPHIC MAP

MALJAMAR, N.M.



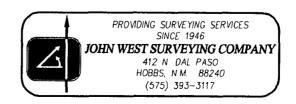


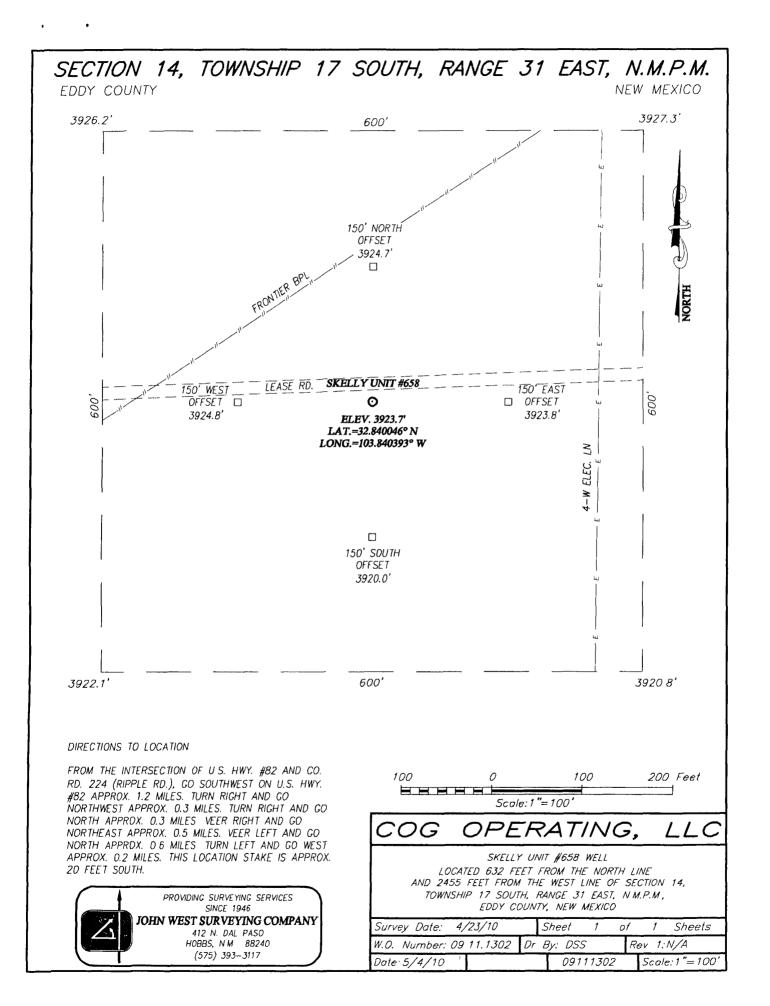
VICINITY MAP

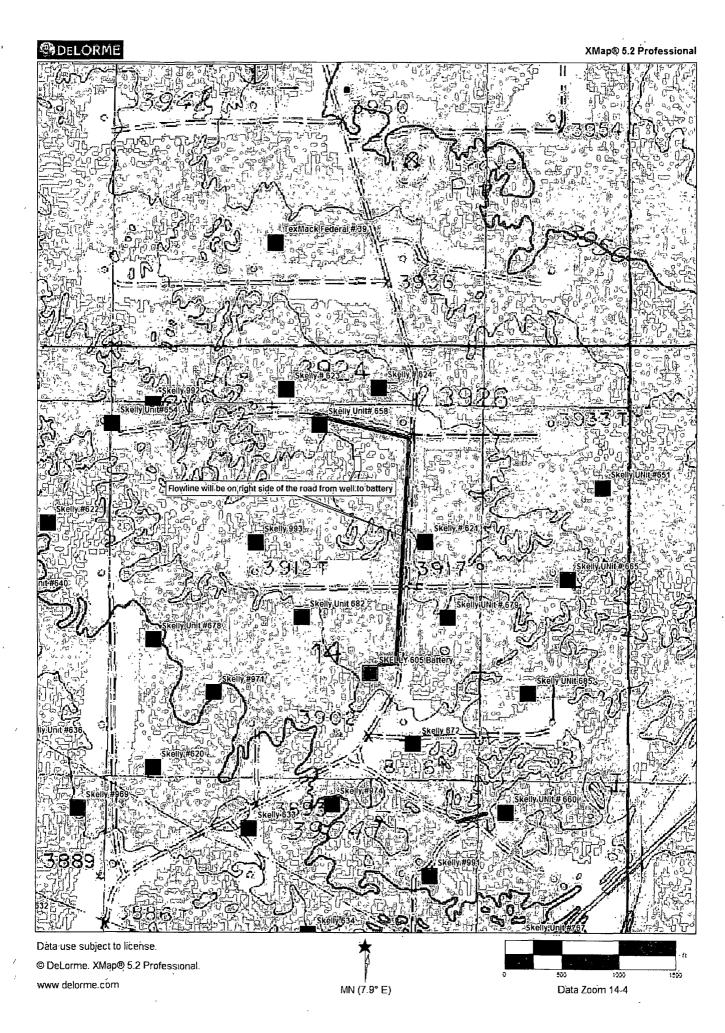


SCALE: 1" = 2 MILES

SEC. 14	_ IWP1_	7-5 R	GE. <u>3</u>	1 – E				
SURVEY N.M.P.M.								
COUNTY_E	DDY	_STATE	NEW	ME	XICO			
DESCRIPTIO)N_632'	FNL &	<u> 245</u>	5'	FWL			
ELEVATION_		392	24'	·				
OPERATOR_	COG	OPER/	ATING,	LL	<u>c</u>			
LEASE	SK	FILY	THAI					







MASTER DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Quaternary	Surface
Top of Salt	560'
Base of Salt	1150'
Yates	1770'
Seven Rivers	2100'
Queen	2715'
Grayburg	3100'
San Andres	3450'
Glorietta	4950'
Yeso Group	4995'

3. Estimated Depths of Anticipated Fresh Water, Oil and Gas

Water Sand	150'	Fresh Water
Grayburg	3100'	Oil/Gas
San Andres	3450'	Oil/Gas
Glorieta	4950'	Oil/Gas
Yeso Group	4995'	Oil/Gas

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 450' and circulating cement back to the surface will protect the surface fresh water sand. The Salt Section will be protected by setting 8 5/8" casing to 1800' and circulating cement, in a single or multi-stage job and/or with an ECP, back to the surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them. This will be achieved by cementing, with a single or multi-stage job, the 5 1/2" production casing back 200' into the intermediate casing, to be run at TD. If wellbore conditions arise that require immediate action and/or a change to this program, COG Operating LLC personnel will always react to protect the wellbore and/or the environment.

See COA

4: **Casing Program**

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	Hole Size	Interval		Weight	Grade	Jt., Condition	Jt.	burst/collapse/tension
ſ	17 ½"	العاما 10-45 ₀ -0	13 3/8"	48#	H-40orJ-55	New	ST&C	8.71/3.724/14.91
.[11"or127⁄4"	0-1800'	8 5/8"	24or32#	J-55	New	ST&C	2.91/1.46/5.65
	7 7/8"	0-T.D.	5 1/2"	15.5 or17#	J-55orL80	New	LT&C	1.71/1.574/2.20

5. **Cement Program**

13 3/8" Surface Casing:

Class C, 500 sx, yield 1.32, back to surface

8 5/8" Intermediate Casing:

11" Hole:

Single Stage: 50:50:10, 350 sx lead, yield-2.45 + Class C, 200 sx tail, yield-1.32, back

to surface.

Multi-Stage: Stage 1: Class C, 350 sx, yield-1.32. Stage 2: 50:50:10, 200 sx, yield-2.45, back to surface. Multi stage tool to be set at approximately, depending on

hole conditions, 450'

5 1/2" Production Casing:

Single Stage: 35:65:6, 500 sx Lead, yield-2.05 + 50:50:2, 400 sx Tail, yield-1.37, to 200' minimum tie back to intermediate casing.

Multi-Stage: Stage 1: 50:50:2, 400 sx, yield - 1.37; Stage 2: 35:65:6, 500 sx, yield - 2.05, to 200' minimum tie back to intermediate casing. Multi stage tool to be set at approximately, depending on hole

conditions, FD - 2000'.

6. Minimum Specifications for Pressure Control

The blowout preventer equipment (BOP) shown in Exhibit #9 will consist of a double ram-type (2000 psi WP) preventer. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on the bottom. The BOP will be nippled up on the 13 3/8" surface casing with BOP equipment and tested together to 1000 psi by rig pumpin one test. The BOP will then be nippled up on the 8 5/8" intermediate casing and tested by a third party to 2000 psi and used continuously until total depth is reached. All BOP's and accessory equipment will be tested to 2000 psi before drilling out of the intermediate casing. 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 (Exhibit #10) will include a Kelly cock and floor safety valve, choke lines and a choke manifold (Exhibit #11) with a 2000 psi WP rating.

See Con

7. Types and Characteristics of the Proposed Mud System

The well will be drilled to TD with a combination of brine, cut brine and polymer mud system. The applicable depths and properties of this system are as follows:



DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS	
0-450'	Fresh Water	8.5	28	N.C.	
450-1800'	Brine	10	30	N.C.	
1800'-TD	Cut Brine	8.7-9.1	29	N.C.	

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

8. Auxiliary Well Control and Monitoring Equipment

- A. Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

9. Logging, Testing and Coring Program Sec COA

- A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log and will be run from TD to 8 5/8" casing shoe.
- B. Drill Stem test is not anticipated.
- C. No conventional coring is anticipated.
- D. Further testing procedures will be determined after the 5 ½" production casing has been cemented at TD, based on drill shows and log evaluation.

10. Abnormal Conditions, Pressure, Temperatures and Potential Hazards

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 110 degrees and the estimated maximum bottom hold pressure is 2300 psig. Measurable gas volumes or Hydrogen Sulfide levels have not been encountered during drilling operations in this area, although a Hydrogen Sulfide Drilling Operation Plan is attached to this program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations

Road and location work will not begin until approval has been received from the BLM. As this is a Master Drilling plan, please refer to the Form 3160-3 for the anticipated start date. Once commenced, drilling operations should be finished in approximately 12 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.



COG Operating LLC

Eddy County, NM (NAN27 NME) Skelly Unit #658 Skelly Unit #658

OH

Plan: Plan #1 - 7-7/8" Hole SHL = 632' FNL & 2455' FWL BHL = 980' FNL & 2300' FWL Top of Paddock = 980' FNL & 2300' FWL @ 5220' TVD

Standard Planning Report

18 May, 2010







Detabase: EDM 5000.1 Single User Db Company: COG Operating LLC

Eddy County, NM (NAN27 NME) Project:

Site: Well: Skelly Unit #658 Skelly Unit #658

OH. Wellbore:

Design: Plan #1 - 7-7/8" Hole

Local Co-ordinate Reference: Site Skelly Unit #658
TVD Reference: GL Elev @ 3924 00ft
MD.Reference: GL Elev @ 3924 00ft

North Reference: Survey Calculation Method:

Minimum Curvature

Project Section (Name of April 1997)

Map System: US State Plane 1927 (Exact solution)

NAD 1927 (NADCON CONUS) Geo Datum:

New Mexico East 3001 Map Zone:

System Datum:

Site Skelly Unit #658

669,673 00 ft Latitude: Site Position: Northing: 32° 50' 24 165 N 651,400 10 ft Longitude: From: Map Easting: 103° 50' 25 415 W 0 " Grid Convergence: Position Uncertainty: 0 00 ft Slot Radius: 0.27 °

Well Skelly Unit #658 +N/-S Well Position 0 00 ft Northing: 669,673.00 ft Latitude: 32° 50' 24 165 N +F/-W 0 00 ft 651,400 10 ft 103° 50' 25 415 W Easting: Longitude: 0 00 ft **Position Uncertainty** Wellhead Elevation: Ground Level: 3,924 00 ft

(Wellbore) Model Name Sample Date Declination Dip Angle (۱۹) (۱۹) Field Strength 2010/05/18 49,094

[Design | Plan #1 - 7-7/8" Hole Audit Notes: Version: Phase: Tie On Depth: Vertical Section: +E/-W Direction Depth From (TVD) (ft) (ft): (e) 203 67

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Scientific Brilling Planning Report Planning Report



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PBHL-SU #65	8									



Scientific Brilling Planning Report Planning Report



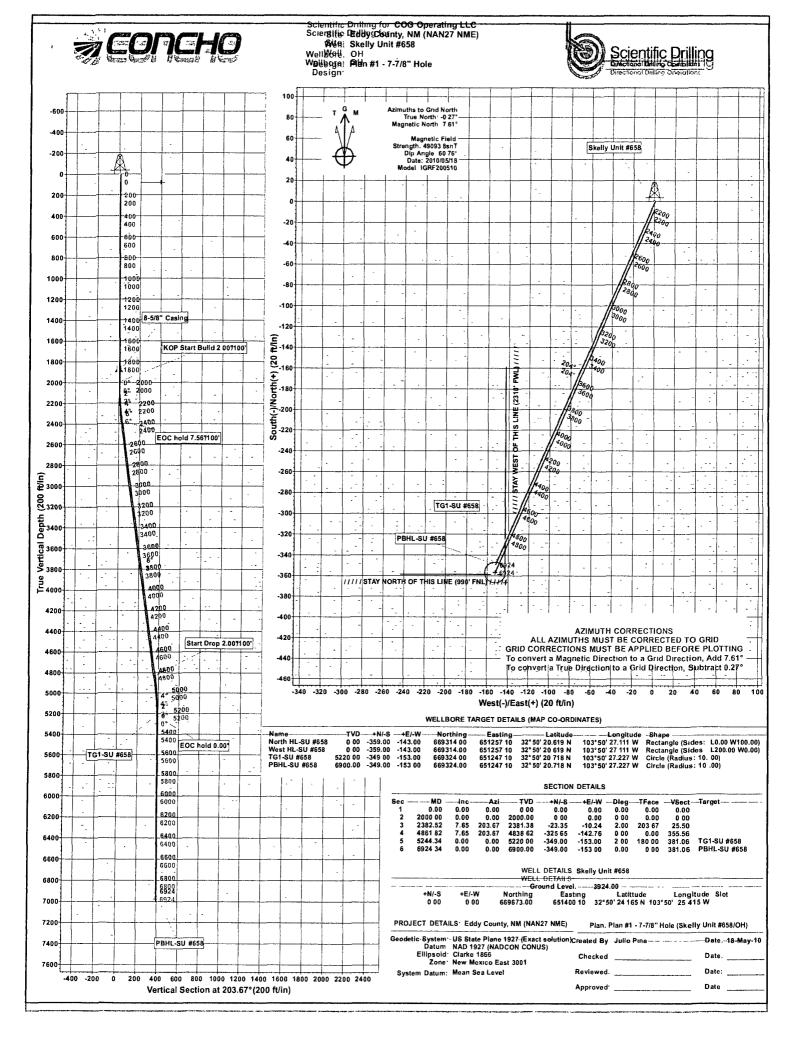
Database: EDM 5000 1 Single User Db Company: COG Operating LLC Eddy County, NM (NAN27 NME) Site: Skelly Unit #658
Well: Skelly Unit #658
Wellbore: OH
Design: Plan #1 - 7-7/8" Hole

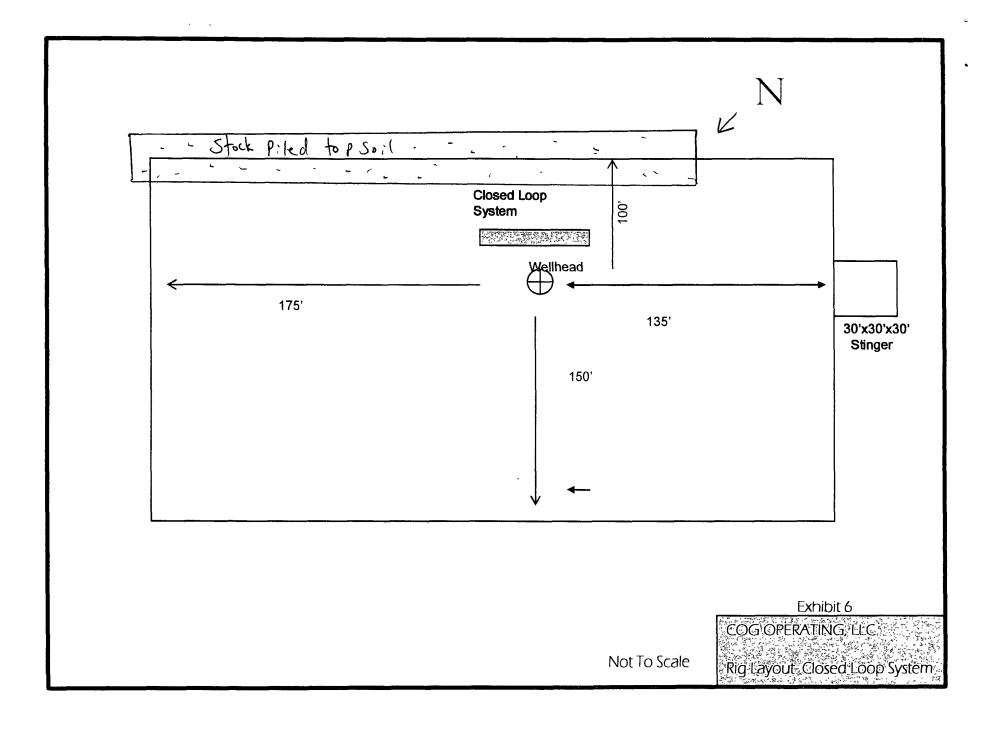
Local Co-ordinate Reference: Site Skelly Unit #658
TVD Reference: GL Elev @ 3924 00ft
MD Reference: GL Elev @ 3924 00ft
North Reference: Grid
Survey Calculation Method: Minimum Curvature

						/			
Design Targets Target Name hit/miss target Dip Shape	1 1 2 2 3 4 5 5 5 5 5 5	p Dir.	TVD	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting	Latitude	Longitude
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North HL-SU #658 - plan misses target center - Rectangle (sides W100 0			0 00 t MD (0 00 T\	-359 00 VD, 0 00 N , 0	-143 00 00 E)	669,314 00	651,257 10	32° 50' 20 619 N	103° 50' 27 111 W
TG1-SU #658 - plan hits target center - Circle (radius 10 00)	0 00	0 00	5,220 00	-349 00	-153 00	669,324 00	651,247 10	32° 50′ 20 718 N	103° 50' 27.227 W
PBHL-SU #658 - plan hits target center - Circle (radius 10 00)	0 00	0 00	6,900 00	-349 00	-153 00	669,324 00	651,247 10	32° 50' 20 718 N	103° 50' 27 227 W

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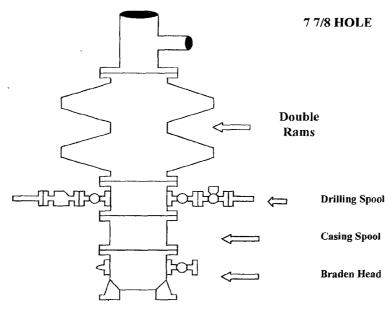
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5,244 34	5,220 00	-349 00	-153 00	EOC hold 0 00°
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COG Operating LLC

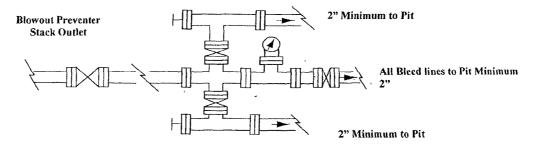
Exhibit #9 BOPE and Choke Schematic



Minimum 4" Nominal choke and kill lines

Choke Manifold Requirement (2000 psi WP) No Annular Required

Adiustable Choke

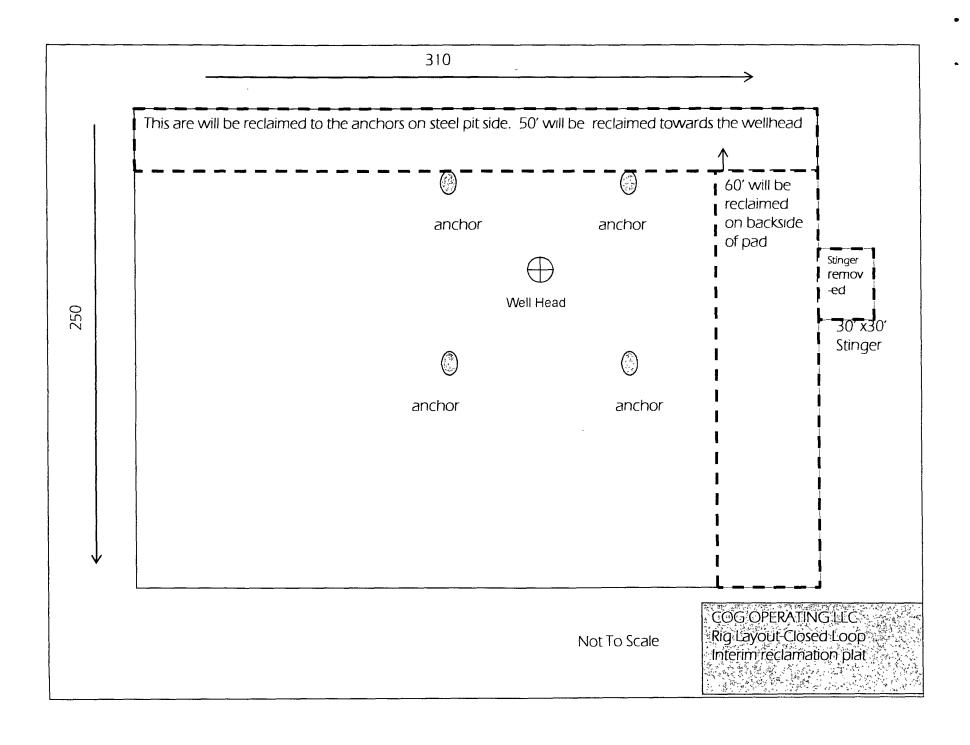


Adjustable Choke (or Positive)

NOTES REGARDING THE BLOWOUT PREVENTERS Master Drilling Plan Eddy County, New Mexico

- 1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum 1.D. equal to preventer bore.
- 2. Wear ring to be properly installed in head.
- 3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
- 4. All fittings to be flanged.
- 5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
- 6. All choke and fill lines to be securely anchored especially ends of choke lines.
- 7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
- 8. Kelly cock on Kelly.
- 9. Extension wrenches and hands wheels to be properly installed.
- 10. Blow out preventer control to be located as close to driller's position as feasible.
- 11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Blowout Preventers Page 2



COG Operating LLC

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards an characteristics of hydrogen sulfide (H2S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H2S detectors alarms warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H2S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H2S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. The concentrations of H2S of wells in this area from surface to TD are low enough that a contingency plan is not required.

H2S Plan

II. H2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

1. Well Control Equipment:

- A. Flare line.
- B. Choke manifold.
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

A. Mark II Survive air 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

A. 1 portable H2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (Exhibit #8).
- B. Caution/Danger signs (Exhibit #7) shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

A. The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices, and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

- A. Radio communications in company vehicles including cellular telephone and 2-way radio.
- B. Land line (telephone) communication at Office.

8. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

EXHIBIT #7

WARNING YOU ARE ENTERING AN H2S

AUTHORIZED PERSONNEL ONLY

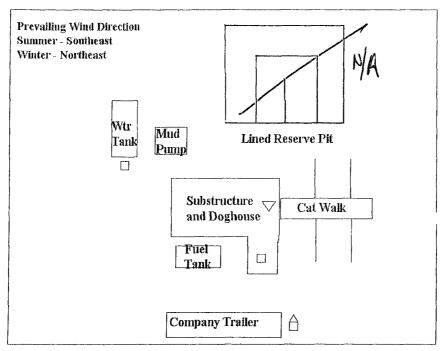
- 1. BEARDS OR CONTACT LENSES NOT ALLOWED
- 2. HARD HATS REQUIRED
- 3. SMOKING IN DESIGNATED AREAS ONLY
- 4. BE WIND CONSCIOUS AT ALL TIMES
- 5. CHECK WITH COG OPERATING FOREMAN AT

COG OPERATING LLC 1-432-683-7443 1-575-746-2010

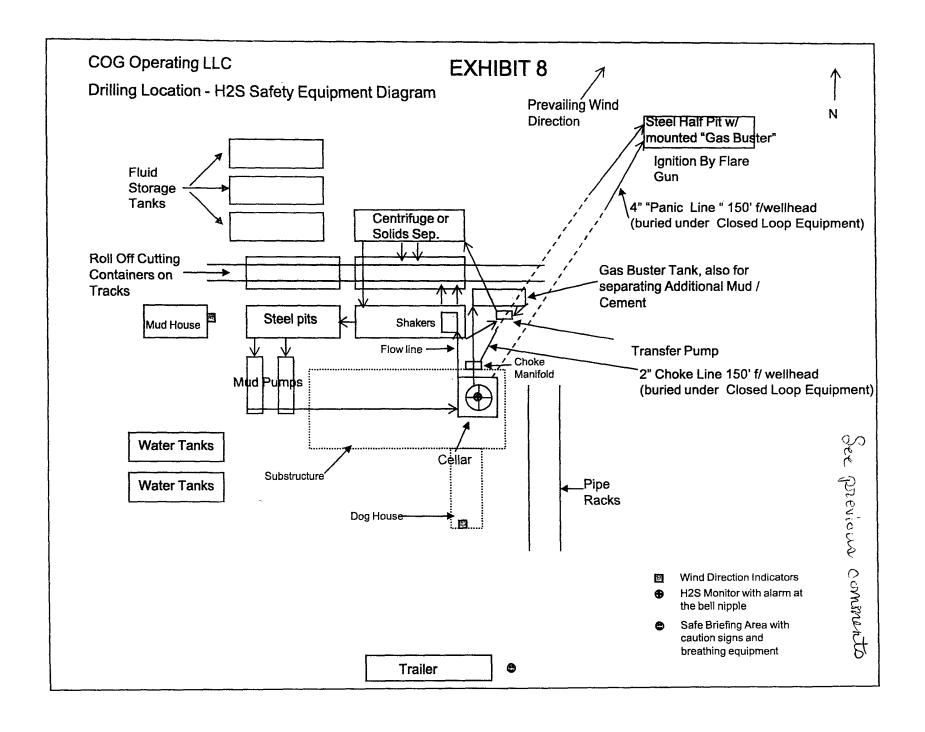
EDDY COUNTY EMERGENCY NUMBERS
ARTESIA FIRE DEPT. 575-746-5050
ARTESIA POLICE DEPT. 575-746-5000
EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS
HOBBS FIRE DEPT. 575-397-9308
HOBBS POLICE DEPT. 575-397-9285
LEA CO. SHERIFF DEPT. 575-396-1196

DRILLING LOCATION H2S SAFETY EQUIPMENT Exhibit # 8



- H2S Monitors with alarms at the hell nipple
- Wind Direction Indicators
- Safe Briefing areas with caution signs and breathing equipment min 150 feet from



SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit #1. It was staked by John West Engineering, Hobbs, NM.
- B. All roads to the location are shown in the topographic map Exhibit #2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary.
- C. Directions to Location: From the intersection US Highway 82 and Co. Rd. 224 (Ripple Road), Go Southwest on US Highway 82 apprx 1.2 miles. Turn Right and Go Northwest apprx 0.3 mile. Turn Right & Go North apprx 0.3 mile. Turn Right & Go North apprx 0.5 mile. Veer Left & Go North apprx 0.6 mile. Turn Left & Go Westa pprx 0.2 mile. This location stake is apprx 20 feet North. See Vicinity Map, Exhibit #3.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease. Roads will be maintained according to specifications in section 2A of this Surface Use and Operating Plan.

2. Proposed Access Road:

Exhibit #4 shows that 0' of new access road will be required for this location. If any road is required it will be constructed as follows:

- A. The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.

E. Surfacing material will consist of native caliche. Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM caliche pit.

3. Location of Existing Well:

Exhibit #5 shows all existing wells within a one-mile radius of this well.

As shown on this plat there are numerous wells producing from the San Andres and Yeso formations.

4. Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does operate a production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) Production will be sent to the Skelly 605 Federal tank battery located in Section 14. The facility location is shown in Exhibit #5.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional 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 a BLM approved caliche pit. Any additional construction materials will be purchased from contractors.
 - Proposed flow lines, will follow an archaeologically approved route to the Skelly 605 Federal tank battery located in Section 14. The facility location is shown in Exhibit #5.
 - 5) The flowline will be SDR 7 3" poly line laid on the surface and will be approximately 2800' in length.
 - 6) It will be necessary to run electric power if this well is productive. Power will be provided by CVE and they will submit a separate plan and ROW for service to the well location.
 - 7) If the well is productive, rehabilitation plans will include the following:
 - a) The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

5. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown in Exhibit #2. If a commercial fresh water source is nearby, fast line may be laid along existing road ROW's and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: The primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well sight. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu. Yards is max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- A. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- B. An approximate 120' X 120' area is used within the proposed well site to remove caliche.
- C. Subsoil is removed and piled along side the 120' by 120' area within the pad site.
- D. When caliche is found, material will be stock piled within the pad site to build the location and road.
- E. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- F. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche or subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in attached plat.

In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit.

7. Methods of Handling Water Disposal:

- Α. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to an NMOCD approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.

- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Engineering, is shown in Exhibit #4. Dimensions of the pad and pits are shown on Exhibit #6. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. Exhibit #6 also shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be recontoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete. Pad will be approx. 200'X250' when reclaimed.

B. Final Reclamation: Upon plugging and abandoning the well, All caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be reseeded with a BLM approved mixture and revegitated as per BLM orders.

11.Surface Ownership:

- A. The surface is owned by the U.S. Government and is administered by the Bureau of Land Management. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The surface tenant for this site is Charles Martin, P.O. Box 706, Artesia NM 88211.
- C. The proposed road routes and surface location will be restored as directed by the BLM

12.Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Southern New Mexico Archaeological Services, Inc. P.O. Box 1, Bent New Mexico, 88314, phone # 505-671-4797 and the results will be forwarded to your office in the near future. Otherwise, COG will be participating in the Permian Basin MOA Program.

13. Bond Coverage:

Bond Coverage is Nationwide Bond # 000215

14. Lessee's and Operator's Representative:

(432) 631-9762 (cell)

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

John Coffman, Erick Nelson.

Drilling Superintendent Division Operations Manager

COG Operating LLC COG Operating LLC

550 W. Texas, Suite 1300 550 W. Texas, Suite 1300

Midland, TX 79701 Midland, TX 79701

Phone (432) 683-7443 (office) Phone (505) 746-2210 (office)

(432) 238-7591 (cell)

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements make 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 COG Operating, LLC, 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. Executed this 12th day of May, 2010.

Signed:

Printed Name: Carl Bird

Position: Drilling Engineer

Address: 550 W. Texas, Suite 1300, Midland, Texas 79701

al bird

Telephone: (432) 683-7443

Field Representative (if not above signatory): Same

E-mail: cbird@conchoresources.com

Form 3160-5 (April 2004)

BLM-CARLSBAD FIELD OFF

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED OM B No 1004-0137 Expires: March 31, 2007

5. Lease Serial No.

VARIOUS SUNDRY NOTICES AND REPORTS ON WELLS 6. If Indian, Allottee or Tribe Name Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals. 7. If Unit or CA/Agreement, Name and/or No. SUBMIT IN TRIPLICATE- Other instructions on reverse side. Öil Well 🗆 🗀 **7** Gas Well □□ 8. Well Name and No. VARIOUS 2. Name of Operator COG Operating LLC API Well No. VARIOUS 3a Address 3b. Phone No. (include area code) 550 W. Texas Ave., Suite 1300 Midland, TX 79701 432-685-4340 10. Field and Pool, or Exploratory Area VARIOUS 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 11. County or Parish, State VARIOUS VARIOUS 12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION TYPE OF ACTION Acidize Production (Start/Resume) Water Shut-Off Deepen Notice of Intent Alter Casing Fracture Treat Reclamation Well Integrity Other Amend attached Casing Repair New Construction Recomplete ___ Subsequent Report list of APD's Change Plans Plug and Abandon Temporarily Abandon Final Abandonment Notice Convert to Injection Plug Back 13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.) Regarding the attached list of APD's and locations, please be advised that: COG Operating LLC will purchase onsite caliche from the BLM to be purchased at the current rate set by the BLM. The topsoil will be stockpiled and used during interim reclamation. In the event that onsite caliche is not available, COG will purchase caliche from a BLM caliche pit at the current rate set by the BLM. In the event that there is no BLM caliche pit within five miles of the location, COG will obtain caliche from a state or private pit. ORIGINAL SUNDRIES TO: Bureau of Land Management in Carlsbad and Roswell, NM time if process aftered 14. I hereby certify that the foregoing is true and correct Name (Printed/Typed) Phyllis Edwards Title Regulatory Analyst 12/10/200 Date THIS SPACE FOR FEDERAL OR STATE OFFICE USE Approved by Conditions of approval, if any, are attached. Approval of this notice does not warrant or

(Instructions on page 2)

certify that the applicant holds legal or equitable title to those rights in the subject lease

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 States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

which would entitle the applicant to conduct operations thereon.

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PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: COG OPERATING, LLC
LEASE NO.: NM98120
WELL NAME & NO.: SKELLY UNIT #658
SURFACE HOLE FOOTAGE: 632' FNL & 2455' FWL
BOTTOM HOLE FOOTAGE 990' FNL & 2310' FWL
LOCATION: Section 14, T. 17 S., R 31 E., NMPM
COUNTY: Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

General Provisions
Permit Expiration
Archaeology, Paleontology, and Historical Sites
Noxious Weeds
Special Requirements
Lesser Prairie-Chicken Timing Stipulations
Ground-level Abandoned Well Marker
Commercial Well Determination
Unit Plan of Development
⊠ Construction
Notification
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads
Road Section Diagram
☑ Drilling ○
H2S Requirement-Onshore Order #6
Logging Requirements
Casing Depth Change
☑ Production (Post Drilling)
Well Structures & Facilities
Pipelines
Interim Reclamation
X Final Abandonment & Reclamation

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

<u>Ground-level Abandoned Well Marker to avoid raptor perching</u>: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Commercial Well Determination

Well is outside of NMNM - 71030C participating area. A commercial well determination will need to be submitted.

Plan of Development

Sub-operator is to submit a Unit Plan of Development (UPOD) annually to the Unit operator for submission to the BLM. Guidelines for UPOD are available upon request at the BLM Carlsbad Field Office.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future

field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

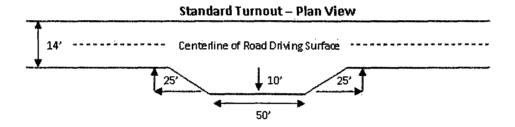
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

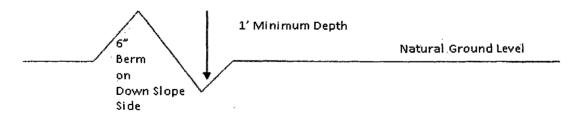


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be

determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope:
$$\frac{400'}{4\%}$$
 + 100' = 200' lead-off ditch interval

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

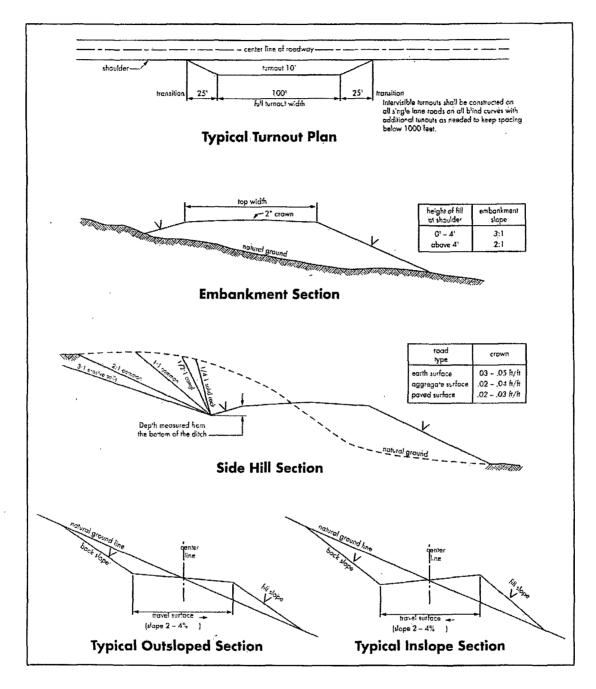
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 - Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

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

- 1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Grayburg formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible lost circulation in the Grayburg and San Andres formations. Possible water and brine flows in the Salado and Artesia Group.

- 1. The 13-3/8 inch surface casing shall be set at approximately 665 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. Fresh water mud to be used to setting depth.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
 - □ Cement to surface. If cement does not circulate see B.1.a, c-d above. This casing is to be set in the Tansill formation at approximately 1,870.

If used, DV tool is to be set 50 feet below previous casing shoe. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a.	First stage to DV tool, cement shall:

\boxtimes	Cement to circulate.	If cement does	not circulate,	contact the	appropriate
	BLM office before p	roceeding with	second stage	cement job.	

- b. Second stage above DV tool, cement shall:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Centralizers required on directional segment, must be type for directional service and minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

DV tool option: Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

- a. First stage to DV tool, cement shall:
- □ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Additional cement may be required as the excess cement calculates to be -38%.
- b. Second stage above DV tool, cement shall:
- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
 - a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

- 3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period. In addition, for the potash area, no tests are to be initiated prior to 24 hours (R-111-P regulations). Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.
 - b. The tests shall be done by an independent service company utilizing a test plug.
 - c. The results of the test shall be reported to the appropriate BLM office.
 - d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
 - e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
 - f. Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 062910

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

- 1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
- 2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
- 3. The holder agrees to indemnify the United States against any liability arising from the

release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

- 4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:
- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

- 6. The authorized right-of-way width will be <u>25</u> feet. 14 feet of the right-of-way width will consist of existing disturbance (existing lease roads) and the remaining 11 feet will consist of area adjacent to the disturbance. All construction and maintenance activity will be confined to existing roads.
- 7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.
- 8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.
- 9. The pipeline shall be buried with a minimum of <u>24</u> inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.
- 10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.
- 11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.
- 12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.
- 13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.
- 14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>		
Plains Bristlegrass	5lbs/A		
Sand Bluestem	5lbs/A		
Little Bluestem	3lbs/A		
Big Bluestem	6lbs/A		
Plains Coreopsis	2lbs/A		
Sand Dropseed	11bs/A		

^{**}Four-winged Saltbush

Pounds of seed x percent purity x percent germination = pounds pure live seed

⁵lbs/A

^{*} This can be used around well pads and other areas where caliche cannot be removed.

^{*}Pounds of pure live seed:



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

Lease Serial No.

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

NMNM107369 / 6. If Indian, Allottee or Tribe Name

		-,		`		
SUBMIT IN TRIE	PLICATE - Other instruc	tions on rev	erse sid	le.	7. If Unit or CA/Agree	ement, Name and/or No.
I. Type of Well Gas Well ☐ Other				8. Well Name and No. COOKSEY 26 FE	DERAL COM 1H /	
2. Name of Operator CHESAPEAKE OPERATING,	Contact: INC. E-Mail: linda.good	LINDA GOOI @chk.com)	-	9. API Well No. 30-015-37916	·
3a. Address P.O. BOX 18496 OKLAHOMA CITY, OK 73154-0496 3b. Phone N Ph: 405-9				area code)	10. Field and Pool, or WILDCAT	Exploratory
4. Location of Well (Footage, Sec., T.	., R., M., or Survey Description	7)			11. County or Parish,	and State
Sec 23 T25S R27E SWSE 15	ÓFSL 2330FEL				EDDY COUNTY	′, NM
12. CHECK APPR	ROPRIATE BOX(ES) TO	DINDICATE	NATUI	RE OF NOTICE	E, REPORT, OR OTHE	R DATA
TYPE OF SUBMISSION				TYPE OF ACTIO	N	
Notice of Intent	□ Acidize	□ Dee	pen.	□ Pro	duction (Start/Resume)	☐ Water Shut-Off
<u> </u>	☐ Alter Casing	□ Frac	ture Trea	t 🗖 Red	clamation	☐ Well Integrity
☐ Subsequent Report	☐ Casing Repair	□ New	Constru	ction 🗖 Rec	complete	Other
Final Abandonment Notice	Change Plans	□ Plug	and Aba	ndon □ Ter	nporarily Abandon	Change to Original PD
	Convert to Injection	□ Plug	g Back	□ Wa	ter Disposal	
testing has been completed. Final Abdetermined that the site is ready for final CHESAPEAKE, RESPECTFUTHE SAME SIZE AS THE LATATTACHMENT: CACTUS RIG	inal inspection.) LLY, REQUESTS, PERM ISHAW #6. PLEASE AP	MISSION TO (CHANGE	ETHE RIG. TH	E NEW RIG CACTUS#	
14 Thereby certify that the foregoing is	true and correct					
	Electronic Submission #	88693 verifie KE OPERATIN	by the E G, INC.,	BLM Well Informa sent to the Carls	ation System bad	
Name (Printed/Typed) LINDA GC	OOD		Title	SR. REGULATO	ORY COMPLIANCE SP	EC
Signature (Electronic S	Submission)	;	Date	06/29/2010		
^	THIS SPACE FO	OR FEDERA	L OR S	TATE OFFICE	USE	
Approved By			Title	AFV	U	Date 11 kg
Conditions of approval, if any, are attached certify that the applicant holds legal or equivalent would entitle the applicant to conduction.	itable title to those rights in the	s not warrant or e subject lease	Office	CARLSBA	AD FIELD OFFI	CE

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.

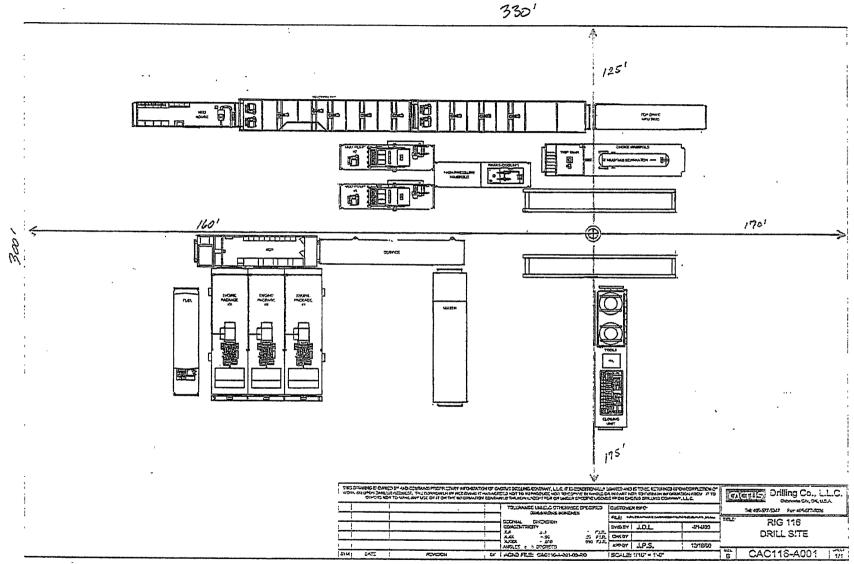


EXHIBIT D