				FPE	VED	ATS-0	9-551	
	Form 3160-3		ULD-HUDDS			FORM APPROV		
	(Aprıl 2004)	UNITED STATE	6		2009 MS IDease S	OMB No 1004-01 Expires March 31,	2007	
		DEPARTMENT OF THE BUREAU OF LAND MAI	NAGEMENT			C-029509A	Name	
	APP	LICATION FOR PERMIT TO	DRILL OR REENTER		N/A	a, Anotee of Trute	, Manie	
	la. Type of work:	DRILL REENT	'ER		7 If Unit o N/A	r CA Agreement, N	lame and No	->
	lb. Type of Well. 🗸	Oil Well Gas Well Other	Single Zone Mu	ltiple Zone		ame and Well No. FEDERAL #45	2302	519>
	2. Name of Operator	COG Operating LLC	229177		9 API We 30-02	102	bra	
	3a Address 550 W. Te	xas, Suite 1300 Midland TX 79701	3b Phone No. (include area code) (432) 685-4385			l Pool, or Explorate jamar; Yeso, W	•	
` .		ort location clearly and in accordance with a	my state helightensRTHOD	0X		. M. or Blk and S		
-	At surface At proposed prod zon	135' FNL & 330' FEL, Unit A e	LOCATIO	N	Sec 2	I, T17S, R32E		
		rection from nearest town or post office* 2.5 miles south of Maljamar NM			12 County of Lea	or Parish	13. State NM	
	15 Distance from proposed location to nearest property or lease line, f	t	16 No of acres in lease 640	17. Spacu 40	ng Unit dedicate	ed to this well	1	
	(Also to nearest drug 'u 18 Distance from proposed to nearest well, drilling, applied for, on this leas	location*	19 Proposed Depth 7000'	20 BLM/	BIA Bond No. 000215	on file		
	21 Elevations (Show whe	ther DF, KDB, RT, GL, etc) 4012' GL	22 Approximate date work will s 09/30/2009	start*	23. Estimate			
	 Well plat certified by a r A Drilling Plan A Surface Use Plan (if 	accordance with the requirements of Onshe egistered surveyor. the location is on National Forest System in the appropriate Forest Service Office)	4 Bond to cover Item 20 above	r the operatio e). fication	ns unless cove	red by an existing		
	25. Signature	ha Alea i	authorized of Name (Printed/Typed)	ficer.	<u></u>	Date		
	Title Regulatory	Analyst	Robyn M. Odom			08	/24/2009	
	Approved by (Signature)	s/ Don Peterson	Name (Printed/Typed)			Date D	EC 1 1 2009	
	Title	FIELD MANAGER ot warrant or certify that the applicant hold	Office C/	RISB				~
	Application approval does r conduct operations thereon. Conditions of approval, if a		ds legal or equitable title to those rig		APPR	OVAL FOR	TWO NO CLON	dard
	Title 18 U.S.C. Section 1001 a States any false, fictitious or	f CONDITIONS OF AP			nake to any dep	artment or agency	of the Loca Non's	
	*(Instructions on page 2)	Approval for drilling unitl OCD Santa Fe a Dedication of Acreage	pprove Simultaneous e and Pool/Formatior	duce F		PROVALOT NOTO	TWO do sand	-
Rosv	well Controlled V	Vater Basin Per DCC) Rule 19.15.3	.D 4 < 8) TIONS OF AF	AL SUBJI	ECT TO	
	TTACHED F			, II	√°°, cŔi .√ND SF	AL REQUI	REMENTS IPULATION	S
CUNL	DITIONS OF A	APPROVAL			ATTACH	IED		

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	UNITED STATES DEPARTMENT OF THE II BUREAU OF LAND MANA	NTERIOR	eceivel		1 APPROVED NO 1004-0135 3: July 31, 2010
	Y NOTICES AND REPO			Lease Serial No.	
abandoned w	this form for proposals to vell. Use form 3160-3 (API	drill or to re-enter an D) for such proposals.)BBSOC	. If Indian, Allottee	or Tribe Name
	RIPLICATE - Other instruc				eement, Name and/or
1. Type of Well	•			Well Name and No).
2 Name of Operator				MC FEDERAL 4	5
CONCHO RESOURCES	Contact. E-Mail. rodom@co	ROBYN ODOM inchoresources.com	9	API Well No.	5-39 8 15
3a. Address 550 WEST TEXAS AVE, ST MIDLAND, TX 79701	E 1300	3b. Phone No. (include area co Ph: 432-685-4385	ode) I	0. Field and Pool, o MALJAMAR; Y	r Exploratory
4. Location of Well (Footage, Sec.	, T., R., M., or Survey Description)		1 County or Parish	, and State
Sec 21 T17S R32E 135FNL	. 330FEL			LEA COUNTY,	NM
12. CHECK AP	PROPRIATE BOX(ES) TO	INDICATE NATURE O	F NOTICE, REP	ORT, OR OTHE	R DATA
TYPE OF SUBMISSION		·····	OF ACTION		
Notice of Intent	□ Acidize	Deepen	Production	(Start/Resume)	Water Shut-C
Subsequent Report	□ Alter Casing	Fracture Treat	Reclamatio		U Well Integrit
—	Casing Repair	New Construction	Recomplet	e	Other
Final Abandonment Notice	Change Plans	Plug and Abandon	⁻ [–] [–] [–] [–] [–] [–] [–] [–]		
 Describe Proposed or Completed O If the proposal is to deepen direction 	Convert to Injection	Plug Back	🗖 Water Disp	osal	
following completion of the involve testing has been completed Final		a only ance an requirements, inc			
testing has been completed Final <i>i</i> determined that the site is ready for COG Operating respectfully Section II: FROM: V-DOOR EAST TO: V-DOOR SOUTH WES	requests permission to cha			are occir completed,	and the operator has
determined that the site is ready for COG Operating respectfully Section II: FROM: V-DOOR EAST TO: V-DOOR SOUTH WES	requests permission to char T	nge the Special Drilling Sti	pulations in		and the operator has
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OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

DISTRICT I 1625 N. FRENCH DR., HOBBS, NM 88240 State of New Mexico



Form C-102

Revised October 12, 2005

State Lease - 4 Copies Fee Lease - 3 Copies

State of New Mexico Energy, Minerels and Natural Resources Department DEC 14 2009

Form C-102 HOBBSOCD Revised October 12, 2005 OIL CONSERVATION DIVISION Submit to Appropriate District Office

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 86210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

WELL LOCATION AND ACREAGE DEDICATION PLAT

1220 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505 □ AMENDED REPORT API Number Pool Code Pool Name 30-025-39 . 44500 MALJAMAR; YESO, WEST **Property** Code Property Name Well Number 302519 MC FEDERAL 45 OGRID No. **Operator** Name Elevation 2291.37 COG OPERATING, LLC 4012

Surface Location

1		· · · · ·			r	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	A	21	17-S	32-E		135	NORTH	330	EAST	LEA

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre 40	s Joint o	r Infill Co	nsolidation (Code Ord	ler No.			1	

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

T		and the second of the second o
DETAIL	135' 330'	OPERATOR CERTIFICATION
4012.8' 4015.3' 4012.8' 4015.3' 4015.8' 4016.8' 4012.0' 4016.8' 4012.8' 4016.8' 4012.8' 4016.8' 4012.8' 4016.8' 4012.8' 4017.8' 4		I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. Signature
NG.=103.763415° W		SURVEYOR CERTIFICATION
		I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.
		Professional Surgeon Professional Surgeon B-19-09 Certificate No. GARY EIDSON 12641 RONALD J. EIDSON 3239



VICINITY MAP



SEC. <u>21</u> TWP. <u>17–S</u> RGE. <u>32–E</u> SURVEY______N.M.P.M.

 COUNTY
 LEA
 STATE
 NEW
 MEXICO

 DESCRIPTION
 135'
 FNL
 & 330'
 FEL

 ELEVATION
 4012'

 OPERATOR
 COG
 OPERATING, LLC

 LEASE
 MC
 FEDERAL

PROVIDING SURVEYING SERVICES SINCE 1946 JOHN WEST SURVEYING COMPANY 412 N. DAL PASO HOBBS, N.M. 88240 (575) 393–3117

LOCATION VERIFICATION MAP



SCALE: 1" = 2000"

SEC. <u>21</u> TWP. <u>17-S</u> RGE. <u>32-E</u> SURVEY N.M.P.M.

COUNTY LEA STATE NEW MEXICO

DESCRIPTION 135" FNL & 330" FEL

ELEVATION 4012"

OPERATOR COG OPERATING, LLC

ILEASE MIC FEDERAL

U.S.G.S. TOPOGRAPHIC MAP MALJAMAR, N.M.

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



DELORME



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MASTER DRILLING PROGRAM

1. Geologic Name of Surface Formation

Quaternary

2. Estimated Tops of Important Geologic Markers:

Surface
900'
1700'
2000'
2375'
2975'
3475'
3775'
5225'
5325'

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

Water Sand	150'	Fresh Water
Grayburg	3475'	Oil/Gas
San Andres	3775'	Oil/Gas
Glorietta	5225'	Oil/Gas
Yeso Group	5325'	Oil/Gas
1 400 010up	0020	Olli Ous

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to 650 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 2100 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.



4. Casing Program

.

Hole Size	See A Interval	OD Casing	Weight	Grade	Jt., Condition	burst/collapse/tension
17 1⁄2"	0-650'89	13 3/8"	48#	H-40orJ-55	ST&C/New	6.03/2.578/10.32
11"or12 ¼"	0-2100'	8 5/8"	24or32#	J-55	ST&C/New	1.85/1.241/4.78
7 7/8"	0-T.D.	5 1/2"	15.5or17#	J-55orL-80	LT&C/New	1.59/1.463/2.05

5. Cement Program

13 3/8" Surface Casing:

Class C, 4% Gel, 2% CaCl2, .25 pps CF, 350 sx lead, yield-1.98 + 200 sx tail, yield-1.32.

8 5/8" Intermediate Casing:

11" Hole:

Multi-Stage:

on hole conditions, 650'

yield - 1.32;

Single Stage: 50:50:10, 400 sx lead, yield-2.45 + Class C, 200 sx tail, yield-1.32, back to surface.

yield -1.32, back to surface. Multi stage tool to be set at approximately, depending

Stage 1: Class C, 400 sx, Stage 2: Class C, 200 sx,

See

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, TD - 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-pump in-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.

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:

SEA	DEPTH	TYPE	WEIGHT	VISCOSITY	WATERLOSS
	0-650'	Fresh Water	8.5	28	N.C.
	650-2100'	Brine	10	30	N.C.
	2100'-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 See 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 15 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 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 I.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.

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.

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 2way 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 AUTHORIZED PERSONNEL ONLY . BEARDS OR CONTACT LENSES NOT ALLOWED . HARD HATS REQUIRED . HARD HATS REQUIRED . SMOKING IN DESIGNATED AREAS ONLY . BE WIND CONSCIOUS AT ALL TIMES . 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

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating
LEASE NO.	LC029509A
WELL NAME & NO.:	45 MC Federal
SURFACE HOLE FOOTAGE:	135' FNL & 330' FEL
BOTTOM HOLE FOOTAGE.	FL& 'FL
LOCATION	Section 21, T. 17 S., R 32 E., NMPM
COUNTY:	Lea 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
\boxtimes	Archaeology, Paleontology, and Historical Sites
	Noxious Weeds
\bigtriangledown	Special Requirements

Special Requirements Lesser Prairie Chicken

Ground level abandoned hole marker

Cultural

Construction

Notification

Topsoil

Reserve Pit - Closed-loop mud system

Federal Mineral Material Pits

Well Pads

Roads

Road Section Diagram

Drilling

H2S Requirements-Onshore Order #6 Logging Requirements

Casing Depth Change

Production (Post Drilling)

- **Pipelines**

Reserve Pit Closure/Interim Reclamation Final Abandonment/Reclamation

Page 1 of 14

GENERAL PROVISIONS

I.

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.

SPECIAL REQUIREMENT(S)

V....

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, geophysical exploration other than 3-D operations, and 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 ft. from the source of the noise.

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. For more installation details, contact the Carlsbad Field Office at 575-234-5972

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EXHIBIT NO. 1

Date of Issue: 9/22/2009



Bureau of Land Management, Carlsbad Field Office 620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

BLM Report No. 09-5342

NOTICE OF STIPULATIONS

Historic properties in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

	A CONTRACT AND A CONTRACT
Name:	Permian Basin MOA MC Federal #45
- Hume.	1). A 3-day preconstruction call-in notification. Contact BLM Inspection and Enforcement at
	2. Professional archaeological monitoring. Contact your project archaeologist, or BLM's Cultural Resources Section at (575) 234-5917, 5967, or 5986, for assistance.
A. 🗋	These stipulations must be given to your monitor at least 5 days prior to the start of construction.
. B. 🚺	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
	3. Cultural site barrier fencing. (Your monitor will assist you).
A.	A temporary site protection barrier(s) shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
B.	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
	4. The archaeological monitor shall:
A. 🗌	Ensure that all site protection barriers are located as indicated on the attached map(s).
B. 🗔	Observe all ground-disturbing activities within 100 feet of cultural site no. LA as shown on the attached map.
č. 🗋	Ensure that all reroutes are adhered to avoid cultural site no.(s) LA
D.	Ensure the proposed is/are located as shown on the attached map(s).
E .	Submit a brief monitoring report within 30 days of completion of monitoring.
Required Other:	As per meeting with COG Isaac Coss on 9/21/2009 at the proposed drill hole location, it was stated by Isaac Coss that the rig well lay out can be adjusted to avoid the State registered site (No. 542) or LA 43,385. LA 43385 is an enclosed monument or maker stating that this location is the first productive well drilled in Lea County, New Mexico in 1926. The monument is located in Township 17 South, Range 32 East, Section21; 250 feet FNL and 250 FEL. If any portion of this pad is impacted by any type of activity the construction activity shall cease and COG shall pay all fines and damage assessments of the archaeological site

<u>Site Protection and Employee Education</u>: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance, contact BLM Cultural Resourcesi

Martin Stein (575) 234-5967 Bruce Boeke (575) 234-5917 George MacDonell (575)

234-2228

CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (575) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

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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

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The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C... RESERVE PITS

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call theCarlsbad Field Office at (575).234-5972.

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.

VI. DRILLING

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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
 - Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

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.

3. The record of the drilling rate along with the CAL/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 water and brine flows in the Salado and Artesia Group. Possible lost circulation in the Grayburg and San Andres formations.

1. The 13-3/8 inch surface casing shall be set at approximately 850 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.
- 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.

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:

Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding 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. Additional cement may be required as the excess calculated to a negative 37%.

- 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.

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:
- 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 calculated to a negative 35%.
- 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.
- 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.

PRESSURE CONTROL

C.

2.

- 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.
- 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.
- The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.
 - 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.

d. 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.

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.

DRILL STEM TEST.

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

CRW 120909

D.

PRODUCTION (POST DRILLING) VII.

WELL STRUCTURES & FACILITIES Α.

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

PIPELINES

B. STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the grant 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, <u>et seq</u>. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, <u>et seq</u>.) 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:

Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.

Activities of other parties including, but not limited to:

(1) Land clearing.

a.

b.

- (2) Earth-disturbing and earth-moving work.
- (3) Blasting.
- (4) Vandalism and sabotage.
 - 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. All construction and maintenance activity will be confined to the authorized right-ofway width of <u>25</u>______feet.

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.

(March 1989)

A.

VIII. INTERIM RECLAMATION & RESERVE PIT CLOSURE

INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting 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.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions 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 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.

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:

Species

lb/acre

くちか しとう 伝え ボリー ときした しんしん なんし ひたいがくしょうかい
Plains Bristlegrass 5lbs/A
Sand Bluestem 5lbs/A
Little Bluestem 3lbs/A
Big Bluestem 6lbs/A
Plains Coreopsis 2lbs/A
Sand Dropseed 11bs/A
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**Four-winged Saltbush
 * This can be used around well pads and other areas where caliche cannot be removed.

*Pounds of pure live seed:

Pounds of seed $\hat{\mathbf{x}}$ percent purity $\hat{\mathbf{x}}$ percent germination = pounds pure live seed

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.