Form 3160-5 (August, 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR

OCD Artesia

FORM APPROVED OMB No 1004-0137

BUREAU OF LAND MANAGEMENT					i	Expires July 31, 2	2010	
					5 Lease Serial No			
SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to re-enter an						NMNM102912 6. If Indian, Allottee, or Tribe Name		
		doned well. Use Form 316						
	SUBMIT IN	7 If Unit or CA Agreement Name and/or No						
1	Type of Well X Oil Well Gas Well	Other			8 Well Name a	and No		
2	Name of Operator				Almo	st Heroes 1 Fe	ederal #4H	
	COG Operating LLC				9 API Well No		· · · · · · · · · · · · · · · · · · ·	
3a	Address		3b Phone No (include	de area code)	722-1	15-26	17.97.	
	2208 W. Main Street Artesia, NM 88210	575-7	575-748-6940		$\frac{30-015-39292}{10 \text{ Field and Pool, or Exploratory Area}}$			
4		of Well (Footage, Sec , T , R , M , or Survey Description)		Lat.		ildcat; Bone S	Spring	
	375' FSL & 375' FWL, Unit	375' FSL & 375' FWL, Unit M (SWSW)		Long.		arish, State		
	Sec 1-T24S-R29E	····			Edd	ly	NM	
12	CHECK APPROPRIATE BOX	ATA						
	TYPE OF SUBMISSION	TYPE OF SUBMISSION TYPE OF ACTION						
	X Notice of Intent	Acidize	Deepen	Production (S	tart/ Resume)	Water Shu	t-off	
	1	Altering Casing	Fracture Treat	Reclamation		Well Integ	nty	
	Subsequent Report	Casing Repair	X New Construction	Recomplete		Other		
		. Change Plans	Plug and abandon	Temporarily A	bandon			
	Final Abandonment Notice	Convert to Injection	Plug back	Water Disposa	1			
13.	If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sand Attach the Bond under which the work will performed or provide the Bond No on file with the BLM/ BIA. Required subsequent reports shall be filed within 30 day 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 one testing has been completed Final Abandonment Notice shall be filed only after all requirements, including reclamantion, have been completed, and the operator had determined that the site is ready for final inspection.) COG Operating LLC respectfully requests permission to construct a road and pad for the development.							
	of the Almost Heroes 1 F Construction of local being approved coult	tion prior to APD d require		EATTACH		D 01/47		
	reclamation of locat that the APD is not a		Accepted for recor			CEIVE	D]	

<i>.</i>			
·		JUL 15 20	11
14 I hereby certify that the foregoing is true and correct.		ADT	ECIA
Name (Printed/ Typed)	·	NMOCD ART	ESIA
Rand French	Title Regulatory Coordinator		
Signature Julian Lond	Date 7/13/11		
THIS SPACE FOR FEL	DERAL OR STATE OFFICE USE		1 [[
Approved by	Title A	Date 🤭	13/14
Conditions of approval, if any are attached Approval of this notice does not warr	rant or		, ,
certify that the applicant holds legal or equitable title to those rights in the subject	t lease Office		
	hereon		
Title 19 II C C Coston 1001 AND Title 42 II C Coston 1212 males 4	C 111111111		C (1 17) 1

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 any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: COG Operating
LEASE NO.: NM102912
WELL NAME & NO.: 4H Almost Heroes 1 Federal
SURFACE HOLE FOOTAGE: 375' FSL & 375' FWL
BOTTOM HOLE FOOTAGE 330' FNL & 375' FWL
LOCATION: Section 1, T.24S., R.29E., NMPM
COUNTY: Eddy County, New Mexico

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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)

Access Road

The access road will exit the southeast corner of the Almost Heroes 1 Federal #4H well pad and travel east for 990 feet and then south for 970 feet connecting with the northeast corner of the Jest SWD #4 well pad.

The access road shall be applied for with a ROW. Analyzed in EA-11-909.

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 twenty (20) 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:

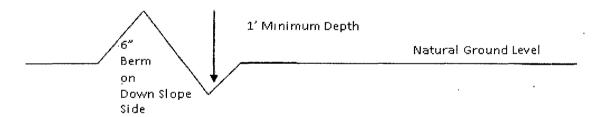
Standard Turnout – Plan View 14' ---- Centerline of Road Driving Surface 25' 10' 25'

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).

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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.

center line of roadway י10 ועכחועו shoolder-100' ransican
Internstible tumbers shall be constructed on
all single lane roads on all blind cornes with
additional runouts as needed to keep spacing
below 1000 feet. full ternout width Typical Turnout Plan height of fill of shoulder -2* cro... 3:1 obove 4' 2:1 The second second **Embankment Section** read CECIAR n pe 03 - 05 ft/ft earth surface 02 - 04 h/n aggregate seriace 02 - 03 ft/n Depth measured from the bottom of the disch Side Hill Section travel surface (slope 2 – 4%) (slope 2 - 475) **Typical Outsloped Section** Typical Inslope Section

Figure 1 – Cross Sections and Plans For Typical Road Sections

VII. WASTE MATERIAL AND FLUIDS

A. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

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

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).

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	1lbs/A

^{*}Pounds of pure live seed:

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