District I 1625 N. French Dr., Hobbs, District II 1301 W. Grand Avenue, Art District III 1000 Rio Brazos Road, Azteo	esia, NM 88210	Energy Minerals a Dep Oil Conser	New Mexico nd Natural Resources artment vation Division	Form C-144 CLEZ 21-Jul-08 For closed-loop systems that only use above ground steel tanks or haul off bins and purpose to implement waste removal for closure, submit to the appropriate
District IV 1220 S. St. Francis Dr., Santa	i Fe, NM 87505		n St. Francis Dr. e, NM 87505	NMOCD District Office.
			it or Closure Plan Ap	plication
(th				nent waste removal for closure)
	Type of			Closure
<i>closed-loop system that o</i> Please be advised that appro	nly use above ground steel ta oval of this request does not r	nks or haul-off bins and p elieve the operator of liab	ropose to implement waste ility should operations result	For any application request other than for a removal for closure, please submit a Form C-144. in pollution of surface water, ground water or the wernment authority's rules, regulations or ordinances.
Operator	Apache Co	rporation	OGRID#	873
Address:	. 303	<b>B</b> Veterans Airpark	Lane, Ste 3000, Mid	land, TX 79705
Facility or Well Name:			Empire Abo Unit K #	19
API Number:	30-015-0069	6	OCD Permit Number:	# 214207
U/L or Qtr/Qtr	J Section	1 Township	18S Range	27E County: Les Eddy
Center of Proposed Desig	n: Latitude		Longitude	NAD: 1927 1983
Surface Owner:	Federal State	Private	Tribal Trust or Indi	an Allotment
Operation: Drilling a Above Ground Steel T 3. Signs: Subsection C of 19.15	anks or	Drilling (Applies to activiti Haul-off Bins	es which require prior appro	val of a permit or notice of intent)  P&A
Signed in compliance v	providing Operator's name, si vith 19.15.3.103 NMAC			
Instructions; Each of the for attached.	lowing items must be attache used upon the appropriate req Maintenance Plan - based upo	ed to the application. Please uirements of 19.15.17.11 n the appropriate require	<b>ase indicate, by a check mar</b> NMAC ments of 19.15.17.12 NMAC	k in the box, that the documents are 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved (	Dperating and Maintenance Pl	an API Number:		
Instructions: Please identify facilities are required. Disposal Facility Name: Disposal Facility Name:	Sundance Controlled Re	e disposal of liquids, drilli Services ecovery Inc.	ng fluids and drill cuttings. Disposal Facility Disposal Facility	Use attachment if more than two Permit Number:NM-01-0003
Yes (If yes, please pr Required for impacted areas Soil Backfill and Cove Re-vegetation Plan -	ovide the information below) which will not be used for futu- er Design Specifications base based upon the appropriate r n - based upon the appropriat	No we service and operations ed upon the appropriate re- requirements of Subsection	: equirements of Subsection ⊢ n I of 19.15.17.13. NMAC	of 19.15.17.13 NMAC
" Inorator Analisation Co-	tification			
. ,	mation submitted with this ap			· •
Name (Print)	Guinn I		_ Title:	Reclamation Foreman
Signature: e-mail address:	guinn.burks@ap	achecorn com	Date: Telephone	4/1/2013 432-556-9143
	<sup>8</sup> uuurnauva@ah			432-330-3243
	form (* 144 (172	Oil Conten	ation Division	Page 1 of 2

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7.	,	_					
OCD Approval:	Permit Application (including closure plan)	Closure Plan (only)					
OCD Representative Sigr	nature: NQQQ		Approval Date: 4/15/2013				
Title:	JE Epewise	OCD P	Permit Number: <u>214207</u>				
8.							
<b>Closure Report (required within 60 days of closure completion):</b> Subsection K of 19.15.17.13. NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.							
	Closure Completion Date:						
	g Waste Removal Closure For Closed-loop Syste the facility or facilities for where the liquids, drilling ;						
Disposal Facility Name:		Disposal fac	Disposal facility Permit Number:				
Disposal Facility Name:		Disposal fac	Disposal facility Permit Number:				
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?							
Yes (If yes), pl	ease demonstrate compliance to the items below)	No					
Required for impacted areas	which will not be used for future service and operation	s:					
Site Reclamation (Photo Documentation)							
Soil Backfilling and Cover Installation							
Re-vegetation Application Rates and Seeding Technique							
10.							
Operator Closure Certific							
, ,	mation and attachments submitted with this closure r						
and belief. I also certify that	the closure complies with all applicable closure require	ements and conditions sp	pecified in the approved closure plan.				
Name (Print)	Guinn Burks	Title:	Reclamation Foreman				
Signature:		Date:					
e-mail address:	guinn.burks@apachecorp.com	Telephone:	432-556-9143				

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## CLOSED LOOP SYSTEM DESIGN, OPERATION, MAINTENANCE, AND CLOSURE PLAN FOR PLUGGING AND ABANDONDMENT OPERATIONS

This document is intended to provide design requirements as well as operating, maintenance and closure instructions for closed-loop (plugging fluids) systems, ensuring compliance with the New Mexico Title 19, Chapter 15, Part 17 rules and regulations. Plugging units operating for Apache Corporation in New Mexico shall be rigged up with a closed-loop system consistent with this design and should be operated, maintained, and closed in a manner consistent with this document.

## **DESIGN**

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The closed-loop system shall be designed and constructed to ensure the confinement of oil, gas, or water and to prevent uncontrolled releases.

The steel tank(s) shall be a minimum of 90 barrels and constructed and in a condition such that no leaks or uncontrolled release would be expected. The tank(s) shall be placed to receive all of the fluid as it returns from the well bore and entry from the flow line shall be such that splash is minimized. The tank(s) shall be connected with steel lines where applicable from the wellhead to the tank. It shall have a separate off load valve to which a vacuum truck can be attached for unloading.

The steel tanks(s) shall comply with any applicable requirements specified in 19.15.17 NMAC. Additionally, the appropriate well signs shall be in place to comply with 19.15.17 NMAC.

## **OPERATION and MAINTENANCE**

The closed-loop system shall be operated and maintained at all times in such a manner as to prevent contamination of fresh water and protect the public health and the environment. While Apache Corporation relies on various third party vendors to provide, operate and maintain the closed-loop system, in the end it is the Apache Corp on-site representative who must take responsibility for the effective operation of the system. At the end of the plugging activities, all return fluids should be disposed of in a licensed disposal facility in New Mexico.

Know which and approved disposal facility is closest to your location and verify that they are capable and prepared to receive the fluids from your well. Track all loads sent during the plugging of the well and up to the time the rig is moved off of the location.

Current approved facilities are;

Controlled Recovery Inc.	(877) 505-4274
Sundance Incorporated	(575) 394-2511

Ensure that the closed-loop system meets the design criteria listed above and is properly installed and fully functional prior to commencing any operations which require circulation.

Inspect the active system tanks at least every tour to ensure no fluid is leaking onto the location. Check any valves and interconnecting pipes for leaks. Correct any leaks as soon as possible upon detection. Monitor and know the fluid level in the containment tank and call for a vacuum truck with enough lead time to allow for delays. Ensure that the truck driver knows which approved disposal he will be transporting the fluid to for off loading.

Make every effort to operate and maintain the closed-loop system in a manner that puts no fluid or well bore discharges in contact with the location or surrounding area.

In the event of a spill over five (5) barrels, take immediate action to contain the spill and make the following notifications;

EHS Apache Hotline (800) 874-3262 NMOCD District Office In the event of oil reaching water, include the following notification;

Environmental Protection Agency (EPA) National Response Center

## **CLOSURE**

Upon completion of plugging the well, all connecting lines will be drained into the tank and all remaining fluid in the tank will be removed by a vacuum truck and taken to an approved facility for disposal. All equipment will then be removed so location remediation can begin.

Prepared by

<u>Guinn Burks</u>

Guinn Burks Reclamation Foreman Apache Corporation





