Re-entry Multiple Completions



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Top Hat 19 State Well No. 1

AFE #_____

Objective – Re-entry Multiple Completions in the Legg; Atoka-Morrow.

API# 30-025-36595	Location - Lea Co Sec 19(K) - T21S - R33E
GL – 3789.5′	KB - 3810.5'
TD – 14,681' / TVD –	PBTD - 13559'

Casing	OD	WT/FT	Grade	Тор	Bottom	тос	80% Collapse (psi)	80% Burst (psi)
Surface	13-38″	54.5#	J-55	0	1373'	Surface		
Intermediate	9-5/8″	40#	J-55	0	5245′	Surface		
Production	7″	28#	N-80 & P-110	4730′	12,082'	4800'		

Volume Calculations: 7" 28# casing (0.0382 bbl/ft), 2-7/8 6.5# tubing (0.00579 bbl/ft), 2-7/8 x 5-1/2 (0.0152 bbl/ft)

Marker Joints: TBD

OFFSET WELLS WITHIN 1/4 MILE- NONE

Operator:	Well Name:	Sec-T-R:	Surf Loc:	Distance:	Frac Stg Proximity	Well Status

Completion Procedure

- 1) Reconnect to wellhead and install new wellheads.
- 2) Pick up 6-1/8" drill bit and drill out cement plugs inside the 7" casing thru the surface plug.
- 3) Drill through cement @ 1630'.
- 4) Drill through cement @ 5079'.
- 5) Drill through cement @ 7000'.
- 6) Drill through cement plugs to original TD @ 14681'.

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- 7) Circulate old drill mud out, displace the hole an clean up open hole in preparation to run
 - 4-1/2" casing liner.
- 8) Run 4-1/2" 13.5# P-110 casing liner and set at 11764' and tie to the existing liner.
- 9) Set 4-1/2" external casing packer (ECP).
- 10) Cut off 4-1/2'' casing and set slips in wellhead.
- 11) Rig down and move out. Prepare to complete well.









The blowout preventer assembly shall consist of one blind ram preventer and one pipe ram preventer, both hydrauilcally operated; a Shaffer Tool Works stripper; volves ; chokes and connections, as illustrated. If a topered dtill string is used, a raw preventer must be provided for each size of drill pipe. Cooling and tabing rams to fill the preventers are to be available as needed. The ram preventers may be two singles or a double type, if correct in size, the flonged outlets of the ram preventer may be used for each size onnecting to the 4-inch \$.D. shake flow illne and kill line. The substructure height shall be sufficient to install a containe blowar preventer.

Minimum operating equipment for the preventers shall be as follows: (1) Pump (g), driven by a continuous source of power, capable of closing all the pressure-operated devices simultaneously within _____seconds. The pump (g) is to be connected to a closed type hydroulic operating system. (2) <u>When requested</u>, accumulators with a precharge of nitragen of not less than 750 PSI and connected so as to receive a fluid charge from the above pump (s). With the charging pump (s) shut down, the pressure-aperated devices simultaneously within ______seconds; after closure, the remaining accumulators must be sufficient to close all the pressure-operated devices simultaneously within ______ seconds; after closure, the remaining accumulator must be sufficient to close all the pressure-operated devices simultaneously within ______ seconds; after closure, the remaining accumulator must be sufficient to close all the pressure-operated devices simultaneously within ______ seconds; after closure, the remaining accumulator must be more less than 1000 PSI with the remaining accumulator fluid volume at least ______percent of the original. (3) <u>When requested</u>, an additional sparse of power, remote and equivalent, is to be available to aperate the above pump (s); or there shall be an additional pump (s) operated by separate power and equil in performance casabilities.

The closing manifold shall have a separate control for each pressure-operated device. Controls are to be lebeled, with control handles indicating open and closed positions. A pressure reducer and regulator must be provided if a Hydril preventer is used. Gulf Legion No., 38 hydraetic all, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment.

The choke manifold, choke flow line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line and choke lines shall be constructed as straight as possible and without sharp bends. Easy and safe access is to be mointained to the choke manifold. All valves are to be selected for operation in the presence of all, gas, and chilling fluids. The choke flow line valve connected to the drilling spool and all ram type preventers must be equipped with stars betweed, universal joints if needed, and hand wheels which are to extend beyond the edge of the derick substructure. All other valves are to be equipped with handles,



Miniawa opencing optipaent for the proverses and hydradically quered values shall be a faileres (1)Multiple pumps, drives by a continuous source of power, capable of Fudd charging the bool occumulator values from the alongen puerty fund that the puerty and the puerty of the puerty and the puerty of the origin puerty of the puerty of the puerty of the puerty of the the the charging puerty that down, the prevents of the origin the down and the second data the puerty of the down and the down and the charge. With the charging puerty that down, the prevent fund values area of the prevent of the original. (1) White the down and the down and the second data the charge of the original. (1) White the the the maining occumulator puerty is the test of the prevent of the original. (1) White test of the original, an additional same of the second data of the prevent of the original. (1) White test of the original (1) White test of the power, names and equivalent, is to be coolidate to openes the down puerty of them that the provest of the original. (1) White test of the preverty names and equivalent, is to be coolidate to openes the down puerty of them that be additional puerty opened by sparse power and equivalent is to be coolidate to openes the down puerty of them that be additional puerty opened by appreting power and approximation of the original. (1) White regularity of them the down and a puerty of the original test of the original. (1) when regularity and the test of the original test or the test of the original. (1) White regularity are additional sparse of the original test of the prevent of the original. (1) White regularity are additional sparse of the original (1) white test of the original (1) white test of the original (1) the sparse of the original. (1) White regularity are additional test of the original (1) white test of the original (1) white test of the original (1) the test of the original

The closing monifold and manote closing manifold shall have a separate control for each pressure-operated device. Control we to be tabeled, with control handles indicating open and closed position. A pressive reducer and regulator must be provided for operating the third! preventer. <u>When requested</u>, a second pressure reducer sholl be evolvable to limit operating fluid pressure to ne preventen. Guit Legion No. 38 hydraville oil, an equivalent or better, is to be used as the fluid to operate the hydravito equipment.

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* To include denick floor mounted controls.

Amtex Energy, Inc.

Operating and Maintenance for a Closed Loop System

19.15.17.12 OPERATIONAL REQUIREMENTS:

- **A.** General specifications. An operator shall maintain and operate a pit, closed-loop system, below-grade tank or sump in accordance with the following requirements.
- (1) The operator shall operate and maintain a pit, closed-loop system, below-grade tank or sump to contain liquids and solids and maintain the integrity of the liner, liner system or secondary containment system, prevent contamination of fresh water and protect public health and the environment.

Operator shall operate and maintain a Closed Loop System.

(2) The operator shall recycle, reuse or reclaim or dispose of all drilling fluids in a manner, approved by division rules, that prevents the contamination of fresh water and protects public health and the environment.

Operator shall recycle, reuse or reclaim all drilling fluids used. Excess or unused fluid shall be disposed of at division approved facilities.

(3) The operator shall not discharge into or store any hazardous waste in a pit, closed-loop system, below-grade tank or sump.

Operator shall not knowingly discharge hazardous waste into the closed loop system.

(4) If any pit liner's integrity is compromised, or if any penetration of the liner occurs above the liquid's surface, then the operator shall notify the appropriate division district office within 48 hours of the discovery and repair the damage or replace the liner.

No Pit Liner. A Closed Loop System will be used.

(5) If a pit develops a leak, or if any penetration of the pit liner, below-grade tank liquid's surface, then the operator shall remove all liquid above the damage or leak line within 48 hours and repair the damage or replace the pit liner.

No Pit Liner. A Closed Loop System will be used. If a leak develops in any of the closed loop tanks, all liquids shall be removed from the effected tank within 48 hours and any damage shall be repaired prior to putting the tank back in service.

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(6) The operator shall operate and install a level measuring device in a lined pit containing fluids to monitor the level of the fluid surface, so that the operator may recognize unanticipated change in volume of fluids.

No pit. A Closed Loop System will be used. Excess fluid shall be removed appropriately from the catch tanks.

(7) The injection or withdrawal of liquids from a lined pit shall be accomplished through a header, diverter or other hardware that prevents damage to the liner by erosion, fluid jets or impact from installation and removal of hoses or pipes.

No pit. A Closed Loop System will be used. Excess fluid shall be removed appropriately from the catch tanks using a re-circulating pump or vacuum trucks.

(8) The operator shall operate and install a pit, below-grade tank or sump to prevent the collection of surface water run-on.

Operator shall berm or collect surface water run-on and dispose of it at a division approved facility.

(9) The operator shall install, or maintain on site, an oil absorbent boom or other device to contain and remove oil from a pit's surface.

Operator shall install a skimmer system on catch tanks, circulating tanks and over-flow tanks as need to collect oil.

Amtex Energy, Inc. Closed Loop Location Design Plan



NOT TO SCALE

Amtex Energy, Inc.

Closure Plan for Closed Loop Drilling System

1. METHODS OF HANDLING WASTE MATERIALS

- A. Drill cuttings shall be disposed of in steel cuttings bins (catch tanks) on the drilling pad (behind the steel mud tanks). The bin and cuttings shall be hauled to a division approved facility be an approved facility by an approved transporter. At the facility, the cuttings shall be removed from the bin and the bin shall be returned to the drilling site for reuse, moved to the next drilling site or returned to the provider.
- B. Remaining drilling fluids shall be hauled off be approved transports to a division approved disposal facility. Water produced during completion shall be put in storage tanks and disposed of at a division approved facility. Oil and condensate produced shall be put in a storage tank and sold or put in a sales pipeline.

2. RECLAMATION

A. Within 120 days after the drilling and completion of the well, the location area shall be reduced as determined by operator to minimum area necessary to safely and effectively operate the well. The reclaimed location area shall be restored to the condition that existed prior to oil and gas operations.