



Operations Safety Management Program

Archer Field Oil and Gas Development Plan

This Operations Safety Management Program has been prepared by Chaco Energy Company (Chaco) for its Archer Field Oil and Gas Development Plan (OGDP) in Cheyenne County, Colorado. The Plan addresses the Energy & Carbon Management Commission (ECMC) requirement at Rule 304.c.(7) to prepare an Operations Safety Management Program consistent with Rule 602.d and guidance issued by ECMC (February 16, 2021). The Plan addresses the following locations:

Table 1. Locations

Location	Location ID	Qtr Qtr T12S R44W	Lat/Lon
Champlin 360 Amoco A #4	380504 (Re-entry)	NWSE Sec. 29	38.977390, -102.359945
Pelton 41-31 #1	380356 (Re-entry)	NENE Sec. 31	38.969823, -102.373764
Champlin Tank Pad	New	NWSW Sec. 29	38.977813, -102.369827
Pelton Tank Pad	New	NENE Sec. 31	38.970818, -102.372405

Chaco will re-enter and complete one previously plugged and abandoned conventional vertical well at each well pad location. Chaco will construct a separate tank pad for each well location.

The primary target is helium gas. Wells will also produce natural gas. Each location is on fee surface and will produce fee minerals.

Wells will be approximately 5,400 feet deep. Chaco will re-enter each well using a workover rig. Chaco will remove the well plug, run new production casing, and perforate the well. Chaco will use freshwater for well re-entry and recycled produced water for well completion. There will be no hydraulic fracturing, stimulation, or flowback.

1.0 Change Management

The Change Management Program is described below and in the attached checklist. The purpose of the Change Management Program is to provide for proper planning, execution, and documentation of changes to the Oil and Gas Locations. It is an organized process to guide changes to operations and equipment that will reduce risks, overlooked considerations, and unintended consequences.

Table 2. Change Management Program

Activity	Procedure
Procedure for Change Documentation	Changes to technology, equipment and procedures will be documented using (1) a change management review meeting between subject matter experts and the Operations Manager, and (2) a Change Management Checklist (attached).
Records Storage Location	Chaco will maintain records related to change management in its Denver, Colorado office.
Records Storage Duration	Chaco will maintain change management records for a minimum of 5 years.
Record Availability	Chaco will make records available for inspection within 14 days of a request for review.

Activity	Procedure
Record Updates	Chaco will review records at a minimum annually to ensure that information is up to date. Records will be added when necessary, such as parts replacement.
Basis and Purpose for Change	The Change Management Checklist will document the basis and purpose for a change.
Identifying Potential Impacts	The Change Management Checklist will be used to record potential impacts to public health, safety, welfare, and the environment resulting from the change, including beneficial impacts and impacts that may occur from not implementing the change.
Approval for Changes	The on-site operator is expected to be the primary source for recommendations on parts or configuration changes to well operations. Changes more significant than basic maintenance will be approved by the Chaco Operations Manager.
Permanent v. Temporary Change	Changes will be identified on the Change Management Checklist as permanent or temporary.
Duration for Temporary Changes	The duration for temporary changes will be identified on the Change Management Checklist for follow up.
Training	If a change results in new procedures, Chaco will train the site operator on the procedures. Training records will be maintained with the Change Management Checklist.

2.0 Pre-start Up Safety Review (PSSR)

The Pre-Start Up Safety Review is described here and in the attached checklist. The site operator and Operations Manager will review the list as part of facility readiness for well production. Review will include features that may represent a risk to the operator, public health, safety, or the environment. Findings will become part of the operator's records.

For pre-start up, the wellhead, associated tanks, valves, meters, and flowlines will be visually and manually inspected. The system components will be calibrated and function tested. They will be pressure tested where applicable to maximum manufacturer operating pressure for the specified duration.

3.0 Best Management Practices

The following best management practices will help to implement change management and the PSSR program:

Table 3. Best Management Practices

Best Management Practice
<ul style="list-style-type: none"> The operator will receive an orientation and training for operation, monitoring, and maintenance specific to the location.
<ul style="list-style-type: none"> Prior to operation, the Operations Manager will review site readiness with the operator. At each location, review will include equipment, pad maintenance, access road, flowlines, and site security. Potential for risk to public health, safety, welfare, or the environment will be discussed at that time. Discussion will identify whether adjustment is needed for resources, materials, or practices to minimize potential risks. Significant changes will be documented as part of change management for the location.

Best Management Practice
<ul style="list-style-type: none"> Contractors and vendors working on the location will be supervised by the operator when it is necessary to do so to maintain safe operations.
<ul style="list-style-type: none"> The operator will be responsible for recommendations to improve operation of the site to avoid impacts to public health, safety, welfare, and the environment. Significant changes will require approval from the Operations Manager.
<ul style="list-style-type: none"> Vendor sheets and invoices will be attached to the Change Management Checklist where needed to describe changes at the location.
<ul style="list-style-type: none"> Chaco's standard health and safety practices will be used to supplement the information provided in this Plan.

Attachments

- Change Management Checklist
- Pre-Start Up Safety Review Checklist

CHANGE MANAGEMENT CHECKLIST

LOCATION NAME:
ECMC LOCATION ID:
DATE CHANGE OCCURRED:

DESCRIPTION OF CHANGE (Technology, Equipment, Procedures):
BASIS AND PURPOSE OF CHANGE:
POTENTIAL IMPACTS (To public health, safety, welfare, the environment. Include beneficial impacts. Include impacts that may occur if the change is not implemented. Continue on the reverse, if necessary):

Check All That Apply

- The change is temporary. Specify duration: _____
- Updates are needed for training or inspection procedures. Specify: _____

- The change is documented. Specify documentation and location: _____

Employee Name / Title: _____
 Employee Signature: _____
 Date: _____

Approver Name / Title: _____
 Approver Signature: _____
 Date: _____

PRE-START UP SAFETY REVIEW CHECKLIST

LOCATION NAME:
ECMC LOCATION ID:
DATE OF PRE-START UP SAFETY REVIEW:

START UP IS (Circle One):	
New Operation	Modification To Existing

EQUIPMENT CHECK (Check All That Apply, Review Method, and Findings)

Visual Manual Calibration Function / Pressure Test

- Wellhead:
- Wellhead Valve:
- Pump Jack (if applicable):
- Meter:
- Tanks:
- Separator:
- Combustor:
- Secondary Containment:
- Flowline Weld to Steel Fitting:
- Flowline Above-ground:
- Flowline Below-ground:
- Signage Entrance:
- Signage Wellhead:
- Material Storage:
- Spill Response Material:
- Stormwater Controls:

Employee Name / Title: _____

Employee Signature: _____

Date: _____