

**FORM
INSP**Rev
X/15**State of Colorado
Oil and Gas Conservation Commission**1120 Lincoln Street, Suite 801, Denver, Colorado 80203
Phone: (303) 894-2100 Fax: (303) 894-2109

Inspection Date:

10/28/2016

Submitted Date:

12/05/2016

Document Number:

682501476**FIELD INSPECTION FORM**
 Loc ID 406198 Inspector Name: Trujillo, Aaron On-Site Inspection ☐ 2A Doc Num:
Operator Information:OGCC Operator Number: 53790Name of Operator: MARKUS PRODUCTION, INCAddress: 39 FAIRWAY LANECity: LITTLETON State: CO Zip: 80123**Status Summary:**

- ☒ THIS IS A FOLLOW UP INSPECTION
- ☒ FOLLOW UP INSPECTION REQUIRED
- ☐ NO FOLLOW UP INSPECTION REQUIRED

Findings:7 Number of Comments1 Number of Corrective Actions☒ Corrective Action Response Requested**Contact Information:**

Contact Name	Phone	Email	Comment
		mark@markusproduction.com	
Arthur, Denise		denise.arthur@state.co.us	

Inspected Facilities:

Facility ID	Type	Status	Status Date	Well Class	API Num	Facility Name	Insp Status
240189	WELL	PA	07/15/1998	GW	123-07977	STATE PWEC 2-36	PA

General Comment:

This is a final reclamation and stormwater inspection. Any corrective actions from previous inspections that have not been addressed are still applicable. Original inspection date 10/28/2016. Submission of this inspection report delayed due to the need for internal discussion with COGCC, and discussions with the operator.

Reclamation - Storm Water - Pit**Interim Reclamation:**

Date Interim Reclamation Started: _____ Date Interim Reclamation Completed: _____

Land Use: _____

Comment: _____

1002 SITE PREPARATION AND STABILIZATION

1002a. FENCING _____

Comment _____

Corrective Action _____

Date _____

1002b. SOIL REMOVAL AND
SEGREGATION _____

Comment _____

Corrective Action _____

Date _____

1002c. PROTECTION OF SOILS _____

Comment _____

Corrective Action _____

Date _____

1002E. SURFACE DISTURBANCE MINIMIZATION _____

Comment _____

Corrective Action _____

Date _____

1003a. Waste and Debris removed? _____

Comment _____

Corrective Action _____

Date _____

Unused or unneeded equipment onsite? _____

Comment _____

Corrective Action _____

Date _____

Pit, cellars, rat holes and other bores closed? _____

Comment _____

Corrective Action _____

Date _____

Guy line anchors marked? _____

Comment _____

Corrective Action _____

Date _____

1003b. Area no longer in use? _____ Production areas stabilized ? _____

1003c. Compacted areas have been cross ripped? _____

1003d. Drilling pit closed? _____ Subsidence over on drill pit? _____

Cuttings management: _____

1003e. Areas no longer needed for drilling or subsequent operations for have been re-vegetated to 80% of pre-existing? _____

Production areas have been stabilized? _____ Segregated soils have been replaced? _____

RESTORATION AND REVEGETATIONCropland

Top soil replaced _____ Recontoured _____ Perennial forage re-established _____

Non-Cropland

Top soil replaced _____ Recontoured _____ 80% Revegetation _____

1003e. INTERIM VEGETATION TRANSECT

TRANSECT RESULTS OF DISTURBED AREA% _____

TRANSECT RESULTS OF REFERENCE AREA% _____

TOTAL % OF DESIRABLE VEGETATION COVER _____

VEGETATIVE COVER _____

1003 f. Weeds Noxious weeds? _____

Comment _____

Corrective Action _____ Date _____

Overall Interim Reclamation

Final Reclamation/ Abandoned Location:

Date Final Reclamation Started: _____ Date Final Reclamation Completed: _____

Final Land Use: _____

Reminder: _____

Comment: _____

Well plugged _____ Pit mouse/rat holes, cellars backfilled _____

Debris removed _____ No disturbance /Location never built _____

Access Roads _____ Regraded _____ Contoured _____ Culverts removed _____

Gravel removed _____

Location and associated production facilities reclaimed _____ Locations, facilities, roads, recontoured _____

Compaction alleviation _____ Dust and erosion control _____

Non cropland: Revegetated 80% _____ Cropland: perennial forage _____

Weeds present _____ Subsidence _____

1004.d. FINAL VEGETATION TRANSECT

TRANSECT RESULTS OF DISTURBED AREA% _____

TRANSECT RESULTS OF REFERENCE AREA% _____

TOTAL % OF DESIRABLE VEGETATION COVER _____

VEGETATIVE COVER _____

Comment:

	This location does not meet reclamation regulations; insufficient vegetative cover. Transects were conducted indicating vegetation is not 80% of the surrounding reference area. Refer to inspection Doc. 682501133 for more details regarding the well location. This inspection report includes additional findings that are to be included with the reclamation; Pit and battery locations to the south and southeast of the well location have not achieved a uniform vegetative cover, see figures 24 - 54 in the attached photo document. Erosion evident on the west end of the well location, see figures 16 - 20 in the attached photo document.	
Corrective Action:	Provide a detailed schedule and timeline of all anticipated reclamation activities (i.e. soil sampling, reclamation/remediation planning, contractor work, etc...) for the pit, battery and well locations. Submit this schedule attached to a form 4 by 12/30/2016. See "COGCC Comments" for additional corrective actions and corrective action dates.	Date 12/30/2016
Overall Final Reclamation	Fail	Well Release on Active Location <input type="checkbox"/> Multi-Well Location <input type="checkbox"/>

COGCC Comments

Comment	User	Date
Previous inspection (FIR Doc #682501133) did not include the pit and battery locations. These areas will need to be included in addition to the reclamation of the well location.	trujilloam	12/05/2016
Due to a historic salt kill on the location, it is advised that the operator take soil samples from the bare areas of the locations to identify if salt concerns remain	trujilloam	12/05/2016
Though the CA date has been extended to 4/30/2017. Reclamation Specialist Trujillo advises that the operator seeds the location (weather permitting) by late February/Early March. Planting during this time period will allow the seed opportunity to first take advantage of any soil moisture that has accumulated during the winter, and give any cool season species additional time to germinate and establish.	trujilloam	12/05/2016
CORRECTIVE ACTION: Due to potential soil concerns on the well/battery/pit locations, and after verbal communications w/ Markus Production, this inspection report is extending the CA date of 11/15/2016 (from inspection doc #682501133) to 4/30/2017.	trujilloam	12/05/2016
Repair and stabilize erosion. Establish vegetation with total perennial, non-invasive uniform plant cover of at least eighty (80) percent of pre-disturbance or reference area levels. Use a seed mixture that matches the adjacent pastureland or a seed mixture requested by the landowner. Ensure erosion controls are implemented to stabilize the seeded soil, and continue to monitor and manage this site until Final Reclamation has passed. Revegetation activities shall be complete no later than 4/30/2017.		
After verbal communication, COGCC has been made aware that some work has already began, including the removal of trash and debris found on location.	trujilloam	12/05/2016

Attached Documents

You can go to COGCC Images (<https://cogcc.state.co.us/weblink/>) and search by document number:

Document Num	Description	URL
682501477	Inspection Photos	http://ogccweblink.state.co.us/DownloadDocumentPDF.aspx?DocumentId=4018864