

State of Colorado
Oil and Gas Conservation Commission

1120 Lincoln Street, Suite 801, Denver, Colorado 80203 (303)894-2100 Fax:(303)894-2109



FOR OGCC USE ONLY

SITE INVESTIGATION AND REMEDIATION WORKPLAN

This form shall be submitted to the Director for approval prior to the initiation of site investigation and remediation activities. Form 27 is intended to be used whenever possible. Additional documentation will be required when large volumes of soil and groundwater have been impacted or involve large facilities with multiple source areas. See Rule 910. Attach as many pages as needed to fully describe the proposed work.

CAUSE OF CONDITION BEING INVESTIGATED AND REMEDIATED

☐ Spill or Release ☐ Plug & Abandon ☐ Central Facility Closure ☐ Site/Facility Closure ☒ Other (describe): Production Pit Closure

OGCC Employee:

☐ Spill ☐ Complaint
☐ Inspection ☐ NOAV

Tracking No:

OGCC Operator Number: 96850

Name of Operator: Williams Production RMT Company

Address: 1058 County Road 215

City: Parachute State: CO Zip: 81635

Contact Name and Telephone:

Michael J. Gardner

No: 970.263.2760

Fax: 970.263.5313

API Number: _____ County: Garfield

Facility Name: WGV 21-23-697 Facility Number: 335117

Well Name: _____ Well Number: _____

Location: (QtrQtr, Sec, Twp, Rng, Meridian): NENW, Sec 23, T6S, R97W, 6th PM Latitude: 39.512764 Longitude: -108.189639

TECHNICAL CONDITIONS

Type of Waste Causing Impact (crude oil, condensate, produced water, etc): No known impacts associated with production pit or other site facilities.

Site Conditions: Is location within a sensitive area (according to Rule 901e)? ☐ Y ☒ N If yes, attach evaluation.

Adjacent land use (cultivated, irrigated, dry land farming, industrial, residential, etc.): Non-crop rangeland, non-irrigated

Soil type, if not previously identified on Form 2A or Federal Surface Use Plan: Parachute-Rhone, 5 to 30% slopes

Potential receptors (water wells within 1/4 mi, surface waters, etc.): No potential receptors are located within 1/4 mile of the location of the pit. The nearest...permitted well

SEO Permit #233234 - is approx. 1530 ft (>1/4 mi.) to the north of subject location; McKay Gulch approx. 3000 ft (>1/4 mi.) to the north; and Unnamed creek approx. 2010 ft (>1/4 mi.) to the southwest.

Description of Impact (if previously provided, refer to that form or document):

Impacted Media (check):

- ☒ Soils
☐ Vegetation
☐ Groundwater
☐ Surface Water

Extent of Impact:

To be Determined

How Determined:

Field screening, visual observation, and collection of soil / soil gas samples according to approved Sampling and Analysis Plans (SAPs) (attached as Appendices I - III).

REMEDIALTION WORKPLAN

Describe initial action taken (if previously provided, refer to that form or document):

Previous investigations of the WGV 21-23 pad location have shown no evidence of hydrocarbon contamination resulting from any operations, activities, or equipment at this location. The COGCC has requested that Williams conduct additional, investigation of Williams' operations and equipment located in the area of the WGV 21-23 pad location. Specifically, the COGCC has requested that the following features be investigated: 1) An open (Enterprise) pipeline trench that runs parallel to, and below the WGV 21-23 pad; 2) The abandoned segment of the MV 6-14 pipeline; and 3) The pits, tanks, production equipment, and the gas tie-in line located on the WGV 21-23 pad. Details for the investigation of each of these features are included in three Sampling and Analysis Plans (Appendices I-III) that are attached to this Form 27.

Describe how source is to be removed:

No source has yet been identified. If any contaminated soils are found at any time during the investigation, these materials will be characterized in accordance with the SAPs attached to this document. The abandoned segment of the MV 6-14 pipeline will be excavated and removed. The remaining production pit at the WGV 21-23 pad will be closed in accordance with pit closure protocols as specified in Section 905 of the COGCC rules. The reserve pit (closed in August 2009) location will be trenced and characterized to determine if the former pit could have been a potential source of contamination. Any contaminated soils encountered will be excavated until specific clean-up criteria (910-1 standards) have been met.

Describe how remediation of existing impacts is to be accomplished, including removal and disposal at an injection well or licensed facility, land treatment on site, removal of impacted groundwater, insitu bioremediation, burning of oily vegetation, etc.:

Not yet determined; however, should contamination be encountered the following actions will be taken. The impacted area will be excavated and any contaminated soils will be disposed of in accordance with all applicable rules and regulations regarding solid waste. Field screening equipment and authoritative sampling will be used to guide the excavation to ensure compliance with Table 910-1 of the COGCC 900 series rule. The excavated material will be placed within a lined and bermed containment cell pending the following options. Remediation options may include on-site landfarming/bioremediation, in-situ remediation and/or disposal at an approved waste facility (i.e. Garfield County Landfill, Wray Gulch Landfill). Final disposition will be dependent upon identified contaminants, contaminant concentration, land availability, landowner approval and waste volume.



REMEDIATION WORKPLAN (Cont.)

Tracking Number: _____
Name of Operator: _____
OGCC Operator No: _____
Received Date: _____
Well Name & No: _____
Facility Name & No: _____

OGCC Employee: _____

If groundwater has been impacted, describe proposed monitoring plan (# of wells or sample points, sampling schedule, analytical methods, etc.):

There are no known impacts to groundwater associated with the WGV 21-23 pad or the abandoned segment of the MV 6-14 pipeline. Should groundwater impacts be determined to exist, an appropriate and site specific monitoring / remediation plan will be developed and submitted to COGCC for approval.

Describe reclamation plan. Discuss existing and new grade recontouring; method and testing of compaction alleviation; and reseeding program, including location of new seed, seed mix and noxious weed prevention. Attach diagram or drawing. Use additional sheet for description if required.

Reclamation for each of the features discussed in this Work Plan will be as follows: 1) Enterprise Pipeline Trench: No specific reclamation by Williams will be required. Enterprise is responsible for the final reclamation of the open trench and Right-of-Way. 2) Abandoned Segment of the MV 6-14 Pipeline. The pipeline will be excavated from the Trail Ridge road Right-of-Way. The excavated pipe will be disposed/recycled as appropriate. The open excavation will be backfilled, and the road way will be restored to its previous condition; 3) WGV 21-23 Pad (including the production and reserve pits): Both pits will be reclaimed to the present grade of the location or to the approximate original contour of the landscape. Seeding of the disturbed area will be performed in accordance with its intended use. The seed mix will be prescribed by the landowner.

There are no known noxious weeds in the immediate area of the disturbance. A noxious weed survey is performed annually of the Trail Ridge field which includes this location. As a preventative measure, Williams seeds all disturbed areas as soon as practicable with temporary or sterile annual seed mixes to: 1) provide soil stability, and 2) to serve as a nurse or cover crop for desired species. Bare ground weed control treatment is a common practice by Williams and any identified noxious weed species will be spot treated for immediate eradication and prevention of encroachment and dispersal.

Attach samples and analytical results taken to verify remediation of impacts. Show locations of samples on an onsite schematic or drawing.

Is further site investigation required?

If yes, describe:

During the Fall of 2008 several soil borings were performed to bedrock below and downgradient from the WGV 21-23 pad, in which, results revealed no findings or indications that subsurface contamination is present. In addition, the pipeline right-of-way trench that runs parallel and below the WGV 21-23 pad has been opened on two separate occasions within the past year. On both occasions, the trench was thoroughly investigated for any evidence of hydrocarbon contamination. Results for all field screening (PID), soil sample collection, and visual observation have found no evidence of condensate, produced water, or any other fluids having been released from the WGV 21-23 location. Braden head measurements conducted by both COGCC and Williams operational personnel also substantiate the fact that the casing integrity is sound for both of the wells located at this location. Even though the results of all investigations conducted to date indicate that there is no contamination originating from the WGV 21-23 pad, COGCC has requested that Williams conduct additional sampling of the pits and tanks at the WGV 21-23 pad location, and the abandoned segment of the MV 6-14 pipeline.

Final disposition of E&P waste (landtreated and disposed onsite, name of licensed disposal facility, recycling, reuse, etc.):

In the event that small quantities of contaminated soils are encountered and excavated, the contaminated soils may be managed/treated on-site provided their volume is small enough, and hydrocarbon concentrations are within a reasonable range which lends themselves to on-site treatment in a timely manner. There is sufficient area on location to conduct landfarming with bio-remediation treatment, or possibly, in-situ remediation (if necessary). Any soils requiring treatment that, once treated, fall below the allowable concentrations and levels provided in Table 910-1 may be recycled and reused at Williams production sites as fill material.

In the event that large quantities of impacted soils are encountered and excavated, and/or the concentrations of impacted soils do not lend themselves to on-site treatment, the soils may be transported to, and disposed of at an approved off-site land fill (i.e., the West Garfield County Landfill (045-LFL-005; Parachute, CO) or the Wray Gulch Landfill (103-LFL-020; Meeker, CO)).

IMPLEMENTATION SCHEDULE

Date Site Investigation Began: Upon approval Date Site Investigation Completed: To be determined Date Remediation Plan Submitted: September 23, 2009
Remediation Start Date: To be determined Anticipated Completion Date: To be determined Actual Completion Date: TBD

I hereby certify that the statements made in this form are, to the best of my knowledge, true, correct, and complete.

Print Name: Michael J. Gardner

Signed: _____

Title: Principal Environmental SpecialistDate: September 23, 2009

OGCC Approved: _____ Title: _____ Date: _____