




Leak Protection and Monitoring Plan Summary Black Diamond Oil Gathering System

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Introduction

Noble Midstream Services, LLC (NMS) operates several gathering systems owned by its affiliated companies in Weld County, Colorado and is committed to responsible and safe development and transportation of oil, natural gas, fresh water, and produced water. Safety is a responsibility shared by all. Our “No Harm” culture is not just a commitment to the safety of our workforce. It demonstrates our steadfast commitment to the safety of neighboring communities and to the protection of the environment.

We are committed to full compliance with safety regulations governing our operations. On the issue of potential leaks, we take a comprehensive approach that encompasses prevention, monitoring, detection and response activities.

This summary document outlines key ideas from the comprehensive Leak Protection and Monitoring Plan for the NMS Black Diamond Oil Gathering System, as called for under Colorado Oil and Gas Conservation Commission (COGCC) regulations for crude oil transfer lines. This plan has been prepared in accordance with good engineering practices to prevent system failures and mitigate impacts from potential leaks. This plan will be reviewed by NMS at least once per year to ensure it remains current and up-to-date. This review process may include updating contact names, phone numbers, and addresses as well as substantial program changes. This plan may also be amended to reflect advances in leak prevention and control technologies. The latest version of this plan is available for COGCC audits at Noble Midstream offices.

Regulatory Background

COGCC rule 1104.g.(1) provides:

All crude oil transfer line operators must prepare and file with the Director a leak protection and monitoring plan with their registration.

COGCC rule 1104.g.(2) provides:

All crude oil transfer line operators must develop and maintain a plan to coordinate the assessment of all inflow and outflow data. The plan must provide for the assessment of inflow and outflow data between the production facility operator, the crude oil transfer line operator, and the operator at the point or points of disposal, storage, or sale. Upon discovery of a material data discrepancy, the discovering party is to notify all other appropriate parties and take action to determine the cause. The crude oil transfer line operator is to retain a record of all material data discrepancies.

A crude oil transfer line (“COTL”) is defined at COGCC rule 100 series as:

“...a piping system or pipeline segment that is not regulated or subject to regulation by the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to 49 C.F.R. § 195 Subpart A, and that transfers crude oil, crude oil emulsion or condensate from more than one well site or production facility to a production facility with permanent storage capacity greater than 25,000 barrels of crude oil or condensate or a PHMSA gathering system.”

Therefore, NMS has prepared a Leak Protection and Monitoring Plan to comply with these COGCC requirements.

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Current Prevention Methodology

Our prevention methodology covers many aspects, including prevention steps in design, construction, and operation & maintenance, and includes these categories:

- Engineering design/design standards
- One Call participation
- Use of pipeline markers
- Public awareness
- Cathodic protection
- GIS/asset information
- Integrity management
- Risk mitigation
- Corrosion control
- Pipeline cleaning, also known as “pigging”
- Training

Our prevention methodology builds upon the underlying industry best practices and standards for pipe fabrication, construction and integrity testing before operation, as well as best practices and standards for pipeline maintenance to ensure upkeep of our assets. The methodology also draws upon specific Spill Prevention, Control and Countermeasure Plans (SPCC) required by the U.S. Environmental Protection Agency

Current Monitoring and Leak Detection Methodology

A comprehensive maintenance program uses a variety of tools to monitor the condition of the right of way and monitor the pipelines for integrity, including:

- Smart Pigging
- Aerial and/or land patrolling
- Continuous pressure monitoring
- Security
- Protection of assets
- Training
- Supervisory Monitoring and Data Acquisition (SMADA) Tool
- Leak Detection Software

Monitoring activities of the pipeline systems or through day to day operations by company personnel are an important step to identify unauthorized activities, indications of leaks, or deterioration of the system. In addition, NMS monitors pipelines 24 hours a day, 365 days per year through the SMADA tool. Our team of Milton and Lucerne Terminal operators and field operators ensure that the pipeline systems are running safely and efficiently.

The SMADA tool is used to monitor pipeline, LACT, and terminal operations by gathering pressure and flow data. and communicating to a Leak Detection System. The leak detection software and alarm management system are tied to a notification system for out-of-threshold values.

In the unlikely event of a leak, our operations personnel will provide a swift and effective response to ensure the safety of first responders, neighboring communities, employees and contractors, in addition to mitigating any environmental impacts.