



**Frontier Field Services, LLC
Gathering System Operations Plan
NMAC 19.15.28 – Natural Gas Gathering Systems**

**Prepared For:
New Mexico Energy, Minerals and Natural Resources Department
Oil Conservation Division**

August 23, 2021



Table of Contents

1.0	Company Overview
2.0	Gathering System Overview
3.0	Operational Practices to Minimize Waste of Natural Gas
3.1	Pipeline Inspection
3.1.1	Weekly AVO's
3.1.2	Right of Way Patrols
3.1.3	Ariel Surveys
3.2	Cathodic Protection
3.3	Corrosion Control & Chemical Treatment
3.4	Pipeline Liquids Management - Pigging
3.5	Pipeline Testing
3.6	Pipeline Maintenance
4.0	Compressor Station Operations
4.1	Depressurization
4.2	Dehydration
4.3	Storage Tanks
4.4	Instrument Air
5.0	Pipeline Release & Reporting Policy
5.1	Scheduled Maintenance
5.2	Unscheduled Maintenance
5.3	Emergencies & Emergency Response
5.4	Internal Release Reporting
5.5	Administrative Agency Reporting

Figures

Figure-1 Frontier Field Services, LLC – Gathering System Overview

Tables

Table-1 Frontier Field Services, LLC – Gathering System Pipeline Attributes

Appendices

Appendix 1



1.0 Company Overview

Frontier Field Services, LLC (FFS) is a wholly owned operating subsidiary of Durango Midstream LLC (DMS) located in The Woodlands, Texas. DMS is a privately held company formed between midstream industry veterans and Morgan Stanley Energy Partners (MSEP) in November of 2017. DMS acquired the FFS assets from AKA Energy Group, LLC (AKA) of Durango, Colorado on March 1, 2019.

2.0 Gathering System Overview

The FFS gathering system includes approximately 875 miles of gas gathering pipelines, one cryogenic gas processing plant, and 10 active compressor stations. Since the acquisition, FFS has expanded the gathering system by adding one additional compressor station in April of 2021. The purpose of the gathering system is to collect, compress, treat, and process associated gas from producer wells located within the system. The associated gas from the entire gathering system is processed at FFS's Maljamar Gas Plant. An overview of gathering system facilities and pipelines is listed below and depicted in Figure 1:

Facility or Pipeline	Facility or Line Type	Status	Service	Distance Miles
Anderson Ranch CS	Compressor Station	Inactive	NA	NA
BKU CS	Compressor Station	Active	Sour	NA
Caviness Ranch CS	Compressor Station	Active	Sour	NA
Cedar Lake CS	Compressor Station	Active	Sour	NA
Chavez CS	Compressor Station	Inactive	NA	NA
Coyote CS	Compressor Station	Active	Sour	NA
Empire Abo CS	Compressor Station	Active	Sour	NA
Fade Away Ridge CS	Compressor Station	Active	Sweet	NA
Lobo CS	Compressor Station	Active	Sour	NA
Loco Hills CS	Compressor Station	Active	Sour	NA
Lusk CS	Compressor Station	Active	Sour	NA
Maljamar GP	Gas Plant	Active	Sour	NA
Kemnitz CS	Compressor Station	Active	Sour	NA
Skelly CS	Compressor Station	Active	Sour	NA
High Pressure Gathering	Gathering	Active	Sour	126.13
Low Pressure Gathering	Gathering	Active	Sour	724.67
High Pressure Gathering	Gathering	Active	Sweet	9.53
Low Pressure Gathering	Gathering	Active	Sweet	14.98

Figure 1 - Frontier Field Services, LLC - Gathering System Overview

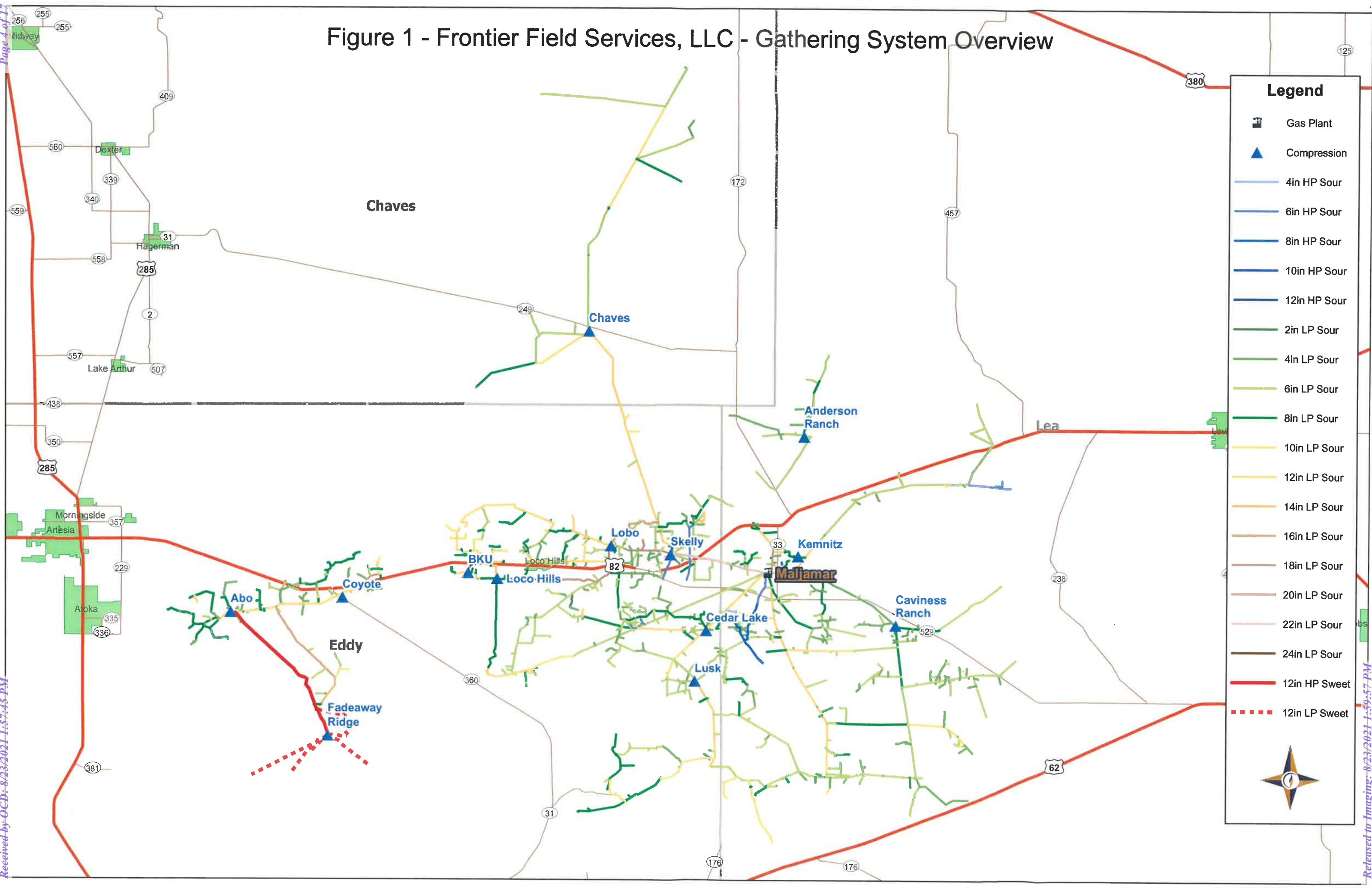




Table-1
Frontier Field Services, LLC Gathering System Pipeline Attributes

Pipeline Type	Pipeline Size Inches	Pipeline Material of Const.	Pipeline Service Pressure (PSIG)	Pipeline Service Sweet / Sour	Distance Miles
Gathering	2	Steel	LP	Sour	0.65
Gathering	2	Poly	LP	Sour	1.03
Gathering	3	Steel	LP	Sour	1.22
Gathering	3	Poly	LP	Sour	7.5
Gathering	4	Steel	LP	Sour	26.4
Gathering	4	Poly	LP	Sour	78.01
Gathering	4	Steel	HP	Sour	1.79
Gathering	6	Steel	LP	Sour	129.44
Gathering	6	Poly	LP	Sour	172.01
Gathering	6	Steel	HP	Sour	33.72
Gathering	8	Steel	LP	Sour	45.83
Gathering	8	Poly	LP	Sour	67.75
Gathering	8	Steel	HP	Sour	31.24
Gathering	8	Poly	HP	Sour	0.47
Gathering	10	Steel	LP	Sour	37.14
Gathering	10	Poly	LP	Sour	41.92
Gathering	10	Steel	HP	Sour	18.76
Gathering	12	Steel	LP	Sour	30.02
Gathering	12	Poly	LP	Sour	43.54
Gathering	12	Poly	HP	Sour	0.8
Gathering	12	Steel	HP	Sour	39.35
Gathering	12	Poly	LP	Sweet	14.98
Gathering	12	Steel	HP	Sweet	9.53
Gathering	14	Steel	LP	Sour	0.4
Gathering	14	Poly	LP	Sour	2.66
Gathering	16	Steel	LP	Sour	0.44
Gathering	16	Poly	LP	Sour	13.21
Gathering	18	Steel	LP	Sour	5.6
Gathering	18	Poly	LP	Sour	13.12
Gathering	20	Steel	LP	Sour	0.06
Gathering	20	Poly	LP	Sour	0.8
Gathering	22	Steel	LP	Sour	0.14
Gathering	22	Poly	LP	Sour	5.65
Gathering	24	Steel	LP	Sour	0.13



3.0 Operational Practices to Minimize Waste of Natural Gas

3.1 Pipeline Inspection

Pipeline operations personnel are instructed and trained to be observant for signs of pipeline leaks, corrosion, and or exposed pipe during the normal course of their daily field operations. If an issue or potential issue is observed, it is communicated to the pipeline operations supervisor for timely follow up and corrective action.

3.1.1 Audible, Visual, and Olfactory (AVO) Inspections

An AVO sensory leak is the indication of a leak identifiable by sensory methods (i.e., audible, visual, olfactory) or any other detection method used to determine a potential leak to the atmosphere.

When an AVO sensory leak is found, an attempt at repair will be performed upon discovery and no later than within 15 days of discovery. Repair all leaking components shall occur no later than 30 days after the leak is discovered.

The Surveyor making the AVO observation shall attempt to repair any leaks identified during the AVO inspection. If each leak repair attempt is not successful, then the surveyor will assign the leak(s) to the maintenance crew for repair. The maintenance crew will repair the leak and notify the environmental compliance coordinator that the leak(s) have been repaired.

FFS AVO INSPECTION PROCEDURES

AVO inspections are required for Frontier Field Services (FFS) compressor stations once per calendar week in accordance with New Mexico Energy & Natural Resources Department (NMENRD) regulations effective May 25, 2021.

AVO Inspection Procedure:

1. AVO inspections shall occur weekly if an operator is on site and no later than once per calendar month with at least 20 days between AVO Inspections.
2. A standard hardcopy or electronic AVO inspection form must be used to document the inspections. (See Appendix 1)
3. Inspections can be performed by contractors or by Operational personnel familiar with the LDAR Program.
4. Inspections are done as early in the week as is practical.
5. For the inspection, observe components that may have visible leakage including dripping, spraying, misting, or clouding. Other indications of leaks include puddling or new stains that are indicative of an existing evaporated drip.
6. Listen to process equipment to determine if a leak is occurring. Abnormal hissing sounds



may indicate a leak.

7. Use olfactory senses while performing the AVO inspection to detect abnormal odors that may indicate a leak of process fluids.
8. If any AVO leaks are observed, a leak tag shall be attached.
9. Give all completed inspection forms to the site EH&S representative within 24 hours, as these checklists are required documentation.
10. Maintain a log that includes the name of the person conducting the inspection and the date on which leak inspections are made, the findings of the inspection, and a list of leaks by tag identification number. Leak records shall be maintained for a period of not less than 5 years from the date of their occurrence.
11. Maintenance shall keep a supply of components or component parts that are recognized by the source to wear or corrode, or that otherwise need to be routinely replaced, such as seals, gaskets, packing, and pipe fittings.

3.1.2 Right of Way Patrols

Right of way patrols (inspections) are conducted by FFS pipeline operations personnel on an annual basis and areas with known and or historical issues are patrolled on a weekly basis.

3.1.3 Ariel Surveys

Ariel surveys of the FFS gathering system via airplane, helicopter, or drone will commence during the first quarter of 2022 and will be conducted on an annual basis after the initial survey.

3.2 Cathodic Protection

Test point surveys are conducted on an annual basis and rectifiers readings are observed and recorded monthly. All steel pipeline installations include cathodic protection measures.

3.3 Corrosion Control & Chemical Treatment

Water samples are obtained and analyzed on a quarterly basis on FFS back-bone system, the Fade Away Ridge Compressor Station, and the Skelly Compressor Station. A chemical treatment program has been implemented on all high-pressure sour gathering pipeline segments.

3.4 Pipeline Liquids Management – Pigging

To maintain maximum pipeline efficiency and minimize gas releases to the environment, pigging operations are conducted on all high-pressure gathering lines on a frequency that ensures hydraulic efficiency and reduces the risk of standing liquids in the pipeline.



3.5 Pipeline Testing

All new pipeline segments are hydrostatically tested prior to being placed into service per good engineering practices

3.6 Pipeline Maintenance

Routine pipeline maintenance of the FFS gathering system consists of replacing missing and or damaged pipeline markers, maintaining pipe to soil interfaces, and performing routine maintenance on pigging valves.

In the event a pipeline segment is required to be depressurized prior to initiating maintenance activities, the volume of gas contained within the segment will be routed to a temporary flare if technically able to do so.

If depressurization of the pipeline to a temporary flare is technical infeasible and / or presents a safety issue or concern, the pipeline segment will be depressurized to the atmosphere.

4.0 Compressor Station Operations

4.1 Depressurization

Each compressor blow down is entered into DMS's Environmental Management Information System (EMIS) database and quantified. Compressor blow downs are routed to one of two places:

1. To flare at FFS compressor stations equipped with a flare header and flare
2. To atmosphere at FFS compressor stations that are not equipped with a flare.

For any compressor blowdown to atmosphere, FFS has implemented a cascading blow down policy whereby higher stages are routed to the lowest pressure stage prior to release to the atmosphere.

4.2 Dehydration

To decrease the incidence of corrosion and eliminate free liquids within the gathering system, TEG systems are used to remove moisture from the field gas stream thereby maximizing pipeline efficiency. Where compressor station pressures allow, both the flash tank and still vent are routed back to the station inlet thereby reducing overall TEG system emissions.

4.3 Storage Tanks

Produced water and condensate storage tanks are inspected on a weekly basis for leaks within the interconnecting pipe and to ensure the thief hatches are securely closed and operating properly. At FFS



new compressor stations, condensate is routed to a heater treater (stabilizer) to reduce the reed vapor pressure (RVP) of the condensate providing a stabilized product in the storage tanks and thereby reducing emissions. Stabilizer over-heads are routed back to the station inlet lowering overall emissions for the facility. Working and breathing losses from condensate storage tanks are routed to an enclosed combustion device for emissions control.

4.4 Instrument Air

Instrument air in lieu of residue gas is utilized at FFS newer compressor stations and is a standard design element for all new compressor stations.

Additionally, FFS is in the process of phasing out all pneumatic devices utilizing residue gas as motive gas over the next several years and replacing these systems with instrument air where technically feasible.

5.0 Pipeline Release & Reporting Policy

5.1 Scheduled Maintenance

Scheduled maintenance of the gathering system is coordinated between the DMS Chief Operating Officer (COO), the FFS Area Manager, the FFS pipeline operations supervisor and the DMS marketing department. Affected downstream producers will be notified in accordance with NMAC 19.15.28.8.D.1 and as follows:

- In writing within 14 days prior to the date of the schedule maintenance event
- The written notification will include:
 - The date of the maintenance event
 - The expected duration the gathering system will be unavailable

5.2 Unscheduled Maintenance

Affected downstream producers will be notified of an unscheduled maintenance event (emergency or malfunction) event in accordance with NMAC 19.15.28.8.D.2 and as follows:

- Verbal notification as soon as possible but no later than 12 hours after discovery
 - The verbal notification will include the date and expected duration the gathering system will be unavailable
- Written confirmation of the verbal notification including the date, time, person, and telephone number to whom verbal notification was given no later than 24 hours after discovery.

5.3 Emergencies & Emergency Response

FFS has implemented an Emergency Action Plan for addressing emergency conditions at all FFS facilities located within New Mexico. The plan addresses any uncontrolled or emergency condition at an FFS facility that requires immediate action to provide safety of the public and for individuals at the emergency site, and/or to prevent or control damage.



Any of the following or similar events might be treated as or result in an emergency:

- Fire and/or Explosion
- Rupture or serious leak

- Natural disaster (e.g., Tornado, Flood or Winter Weather resulting in serious damage to Company Facilities)
- Hostage Situations, Threatening phone call or credible Bomb Threat.
- After notification of any witnessed account which has been verified by company personnel that could result in a crisis involving Company Facilities
- Unplanned emergency shutdown of the facility or a component of the facility
- Spill or release resulting in environmental pollution

A copy of the plan is available on request.

5.4 Internal Release Reporting and Response

Upon notification of a potential leak and or pipeline release, the pipeline supervisor or his designee will be dispatched to the potential release location. Upon verification the release is in fact a Frontier Field Services LLC (FFS) line and associated release, the pipeline supervisor or his designee shall conduct the following:

- The individual discovering the release shall make all reasonable efforts to both stop and contain the release to mitigate the impact of the release to human health and the environment.
- The individual discovering the release shall also attempt to determine the quantity and rate at which the release is occurring or has occurred as well as determine the approximate location of the release using GPS coordinates as well as note the date and time of discovery.
- Determine volume of the release:
 - For liquids, the volume will be estimated in barrels (bbl.) using an industry accepted estimation methodology.
 - The liquids estimate will specify a volume for each of the following:
 - produced water,
 - crude oil, and
 - condensate.
 - For gas, the volume will be estimated in thousand cubic feet (MCF) and will specify if the gas release is sweet or sour.

Liquid Releases with a volume of 5 barrels or less and gas releases less than 50 MCF:

- If the release is a liquid release with a total volume of 5 barrels or less or a gas release less than or equal to 50 MCF:
 - The pipeline supervisor or his designee shall engage the FFS preferred pipeline repair contractor to repair the line and remediate visual contamination associated with the release.



Liquid Releases with a volume of 5 barrels or more and gas releases greater than 50 MCF:

- If the release is a liquid release with a total volume of greater than 5 barrels or a gas release greater than 50 MCF:
 - The pipeline supervisor or his designee shall engage the FFS preferred pipeline repair contractor to repair the line only.
 - The pipeline supervisor or his designee shall inform the FFS Environmental Compliance Coordinator that the release is estimated to be greater than 5 barrels and / or 50 MCF.
 - The FFS Environmental Compliance Coordinator shall engage the FFS preferred pipeline remediation contractor to commence remediation activities.

Notification of ALL pipeline releases shall be made via a phone call or email to the following individuals within 24 hours of discovery.

- Durango Midstream Chief Operating Operator
- Durango Midstream Vice President & General Manager
- Durango Midstream Environmental Manager
- Frontier Field Services Sr. Area Manager
- Frontier Field Services Environmental Compliance Coordinator

Additionally, the DMS Release Event Report (Appendix 1) shall also be completed within this 24-hour time frame and emailed to the DMS EH&S mailbox at EH&S@DurangoMidstream.com.

5.5 Administrative Agency Reporting

Notification to the New Mexico Oil Conservation Division (OCD) will be handled at the corporate level by either the Durango Midstream Environmental Manager or Vice President & General Manager.

Notification will occur as follows:

- Minor Releases
 - Liquid release greater than 5 bbl., and / or a gas release greater than 50 MCF but less than 500 MCF:
 - Notification to the appropriate OCD division office will occur in writing **within 15** days of discovery of the release by completing and filing form C-141.
- Major Releases –
 - Liquid release greater than 25 bbl., and / or a gas release greater than 500 MCF.
 - Notification will be conducted verbally or by email **within 24 hours** of discovery to the OCD Division Environmental Bureau Chief and the appropriate OCD division office
 - Notification will include relevant information required in the OCD form C-141.
 - Notify the division office in writing within 15 days of discovery using form C-141.



- Notification will also verify prior verbal or email notification and will include additions or corrections to the information (if applicable) contained in the prior verbal or e-mail notification.



Appendix 1



Release Event Report

Date of Report:

Time of Report:

Durango Midstream Entity:

Durango Midstream Facility:

Gathering System ID:

West Wichita Gas Gathering, LLC

Release Information

Release Event Type:

If Release Type = Air Emission Event - Please Choose:

Leak - Pipeline Release

Comments:

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Media Impacted by Release:

Date of Release Discovery:

Time of Release Discovery:

Event Start Date:

Event Start Time:

Event End Date:

Event End Time:

Soil

Material Released:

If other - Specify

Natural Gas	Condensate

Estimated Quantity of Material Released (Gas & Liquid):

Estimated Quantity of Material Recovered:

Where any Materials Released Off-site?

Is the Release Event Reportable?

Agency Name Release Reported to:

Does the Release Require Remediation?

Latitude of Spill or Release: (Decimal)

Longitude of Spill or Release: (Decimal)

Name of Person Reporting Event:

	BBL		MSCF
	BBL		MSCF
No			
No			

Cause of the Event:

--

Actions Taken to Correct Release Event:

--

Frontier Field Services LLC
AVO Inspection Form

Company: Frontier Field Services, LLC
Facility:
Date:

Were any leaks found by AVO?

☐

NO

☐

YES

If Yes, List leak information below:

Area	Class	Type	Size	Location Description	AVO	Repair Attempt			
					Type	Type	Date	Time	Successful?

Comments

Name of Surveyor:

Signature of Surveyor:

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 43838

QUESTIONS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 43838
	Action Type: [NGGS] NGGS Operations Plan (NGGS-OP)

QUESTIONS

Verification	
Does the operator own the selected facility	Yes
Is the selected facility a natural gas gathering system	Yes

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Action 43838

ACKNOWLEDGMENTS

Operator: FRONTIER FIELD SERVICES, LLC 10077 Grogans Mill Rd. The Woodlands, TX 77380	OGRID: 221115
	Action Number: 43838
	Action Type: [NGGS] NGGS Operations Plan (NGGS-OP)

ACKNOWLEDGMENTS

<input checked="checked" type="checkbox"/>	I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Gathering System Operations Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
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