From:	dwhite@geolex.com
To:	Chavez, Carl J, EMNRD
Cc:	sflores@geolex.com
Subject:	[EXTERNAL] Revised Pinon Midstream H2S Plans (H2S-66 & H2S-67)
Date:	Friday, December 10, 2021 11:41:40 AM
Attachments:	Dark Horse_H2S Contingency Plan_NMOCD Submission.pdf White Horse_H2S Contingency Plan_NMOCD Submission.pdf Dark Horse Plan Change Log.pdf White Horse Plan Change Log.pdf
Importance:	High

Good day Mr. Chavez,

I hope you are doing well. I'm reaching out to follow up on our previous discussion regarding revision of the Piñon Midstream, LLC H_2S Contingency Plans (H2S-66 and H2S-67). As we discussed, operating conditions at the facility will be changing and the H_2S Contingency Plans for the Dark Horse Treatment Facility (H2S-66) and White Horse Station and Pipeline (H2S-67) have been revised in accordance with those anticipated operations.

Attached for your review and convenience, you will find revised PDF versions of each revised plan, as well as an associated change log that details all of the revisions made.

If this also needs to be submitted electronically through the NMOCD portal, please let me know the details of how you prefer to have them submitted. I believe there is an H2S Plan submission option, however, I wanted to check with you first as I didn't want to have that system generate any projects/action IDs/etc. that were not appropriately associated with either H2S-66 or H2S-67.

I greatly appreciate your time in this and please feel free to reach out any time if you need any additional information or wish to discuss.

Regards,

David A. White, P.G.
Geolex, Incorporated
500 Marquette Avenue NW, Suite 1350
Albuquerque, NM 87102
(505) 842-8000 Office
(859) 967-7231 Cell

White Horse and Pipeline H_2S Contingency Plan Change Log (12/10/2021)

Page	Section	Description
Cover Page	Cover Page	Cover page date changed to November
vi	page vi	Changes reflect current operational status of the plant
1	1.0	Changes reflect current operational status of the plant
2	2.0	Changes reflect current operational status of the plant
7	4.4.1	Updated to reflect a second residence within the new 100 ppm ROE
8	4.4.4	Active operator list is updated with new 100 ppm ROE
16	6.0	ROE Calculations are revised based on 80 MMSCFD throughput at 2.5% H_2S concentrations.
17	7.2	Changes reflect current operational status of the plant
24	11.0	Changes reflect a resubmission
	Figure 4	Map updated to show new ROE and associated locations of road blocks and residences
	Figure 6	Personnel updated in detailed ICS
	Appendix A	Response Plan updated to reflect assembly areas relevant to new ROEs
	Appendix B	Response Plan Flow Chart updated to reflect assembly areas relevant to new ROEs
	Appendix C	Resident information updated, Internal Piñon contact list updated, list of operators updated, and BLM added to contact list.
	Appendix D	ROE Calculations are updated to reflect future expected volumes

H_2S CONTINGENCY PLAN

PIÑON MIDSTREAM – WHITE HORSE COMPRESSOR STATION AND
HIGH-PRESSURE PIPELINE
LEA COUNTY, NEW MEXICO

Piñon Midstream
465 W. NM Highway 128
Jal, New Mexico 88252

December 2021

Prepared by:

GEOLEX®
INCORPORATED

500 Marquette Ave. NW, Suite 1350
Albuquerque, NM 87102
(505) 842-8000

The following check list is provided by NMOCD to ensure completeness and accuracy of the components of the H_2S Contingency Plan. Requirements, applicable regulations, and location within this document are provided for reference.

Contingency Plan Requirements Checklist	Applicable Regulation(s)		
19.15.11.9.B NMAC Requirement		**Included?**	**Page in Document?**
Emergency Procedures			
Responsibilities & duties of personnel during emergency	19.15.11.9.B.2.a & 19.15.11.9.B.2.d	Y	pages 5-6, Figures 5 & 6
Immediate action plan	19.15.11.9.B.2.a; 19.15.11.9.B.2.d; & 12.15.11.12.D.2 (well control)	Y	page 6, Appendix A
Evacuation & shelter in place plans	19.15.11.9.B.2.a; & 19.15.11.9.B.2.d	Y	pages 1, 7-9, Figure 3
Telephone numbers of emergency responders	19.15.11.9.B.2.a & 19.15.11.9.H	Y	Appendix C
Telephone numbers of public agencies	19.15.11.9.B.2.a & 19.15.11.9.H	Y	Appendix C
Telephone numbers of local government	19.15.11.9.B.2.a & 19.15.11.9.H	Y	Appendix C
Telephone numbers of appropriate public authorities	19.15.11.9.B.2.a	Y	Appendix C
Location of potentially affected public areas	19.15.11.7.H; 19.15.11.8.C.2; 19.15.11.8.D; 19.15.11.9.A; 19.15.11.9.B.2.a; 19.15.11.9.D.2; 19.15.11.11.D; 19.15.11.12.B.2.a; & 19.15.11.12.D	Y	Figure 4, pages 7-8
Location of potentially affected public roads	19.15.11.7.H.2; 19.15.11.7.J; 19.15.11.9.B.2.a; 19.15.11.9.B.2.c; & 19.15.11.9.C	Y	Figure 4, pages 7-9
Proposed evacuation routes, with locations of road blocks	19.15.11.9.B.2.a & 19.15.11.9.B.2.d	Y	Figures 3 & 4, page 9
Procedures for notifying the public	19.15.11.9.B.2.a	Y	pages 6-7, Appendix A & B: Level 3
Availability & location of safety equipment & supplies	19.15.11.9.B.2.a; 19.15.11.11.C; & 19.15.11.12.D	Y	Figure 3, pages 10-12
Characteristics of hydrogen sulfide & sulfur dioxide			
Discussion of characteristics	19.15.11.9.B.2.b	Y	pages 13-14
Maps & Drawings			
Area of exposure	19.15.11.7.B & 19.15.11.9.B.2.c;	Y	Figure 4, Appendix D, p. 16
Public areas within area of exposure	19.15.11.7.B; 19.15.11.7.H; 19.15.11.7.I; 19.15.11.7.K.1-3; 19.15.11.8.C.1-2; 19.15.11.8.D; 19.15.11.9.B.2.c; 19.15.11.9.C; 19.15.11.9.D.2; 19.15.11.11.D; 19.15.11.11.E; 19.15.11.12.D; & 19.15.11.12.D.	Y	Figure 4, pages 7-8
Public roads within area of exposure	19.15.11.9.B.2.a; 19.15.11.9.B.2.c & 19.15.11.9.C	Y	Figure 4, pages 7-8
Training & Drills			
Training of personnel to include responsibilities, duties, hazards, detection, personal protection & contingency procedure	19.15.11.9.B.2.a; 19.15.11.9.B.2.d; 19.15.11.12 & 19.15.11.13	Y	pages 3, 19-21
Periodic drills or exercises that simulate a release	19.15.11.9.B.2.d	Y	pages 19-20
Documentation of training, drills, & attendance	19.15.11.9.B.2.d	Y	page 21
Training of residents on protective measures	19.15.11.9.B.2.d	Y	pages 19-21
Briefing of public officials on evacuation or shelter-in-place plans	19.15.11.9.B.2.a & d	Y	pages 1, 19-21, Figure 4, Appendices A & B

Coordination with state emergency plans			
How emergency response actions will coordinate with OCD & the state police response plans	19.15.11.9.B.2.e	Y	page 22
Activation Levels			
Activation Levels & description of events which may lead to a release in excess of activation level	19.15.11.9.B.2.f' 19.15.11.9.C; & 19.05.11.16	Y	page 23, Appendices A & B
Plan Activation			
Commitment to activate contingency plan whenever H2S concentration of more that 100 ppm in a public area or 500 ppm at a public road	19.15.11.7.H & 19.15.11.7.I; 19.15.11.9.B.2.a 19.15.11.9.B.2.c & 19.15.11.9.C	Y	page 23, Appendices A & B
Commitment to activate contingency plan whenever H2S concentration of more than 100 ppm 3000 feet from the site of release	19.15.11.7.H & 19.15.11.9.C	Y	page 23, Appendices A & B
Acid Gas Injection Well Information			
Well name, API#, legal description, map location, figures &/or construction diagrams	API RP-49 Recommended Practice for Drilling & Well Servicing Operations Involving Hydrogen Sulfide; & API RP-54 Recommended Practice for Occupational Safety for Oil & Gas Drilling & Servicing Operations	N/A	See Dark Horse Plant CP
Compliance w/ OCD "Well" Regulations:	19.15.11.7K(3) NMAC; 19.15.11.9B(2)&H NMAC; 19.15.11.10 NMAC; 19.15.11.11 NMAC. 19.15.11.12 NMAC & 19.15.11.16 NMAC	N/A	See Dark Horse Plant CP
Compliance w/ applicable standards	API RP-49; API RP-54 (formerly RP-68); API RP-55; & NACE Standards for Sour Gas Wells	N/A	See Dark Horse Plant CP
Adequate H2S Detection Monitoring	19.15.11.11.B NMAC	Y	Figure 2, pages 11-12
Notification CP implementation w/ C-141 Full Report submitted to the OCD within 15-days of release	19.15.11.16 NMAC	Y	Appendix G, page 22
Miscellaneous			
AGI Well Location	19.15.11.7K(3) NMAC; 19.15.11.9B(2)&H NMAC; 19.15.11.10 NMAC; 19.15.11.11 NMAC. 19.15.11.12 NMAC & 19.15.11.16 NMAC	N/A	See Dark Horse Plant CP
Pipeline(s)	19.15.11.12 NMAC; 19.15.11.12.B NMAC; & 19.15.11.12.C NMAC	Y	Figures 1, 4, & 8; page 17
Flare Stack	19.15.11.11.D NMAC;	Y	Figures 2 & 3, page10
Signs	19.15.11.10 NMAC	Y	Figures 4 & 7, page 11
Emergency Shut Down- ESD	19.15.11.12.D.1 NMAC	Y	Figure 2, page 10
Hazards	19.15.11.13 NMAC	Y	page 19
AGI Wells	19.15.11.7.D.2-4 NMAC; 19.15.11.7K(3) NMAC; 19.15.11.9B(2)&H NMAC; 19.15.11.10 NMAC; 19.15.11.11 NMAC. 19.15.11.12 NMAC & 19.15.11.16 NMAC	N/A	See Dark Horse Plant CP
Maps & Drawings	19.15.11.9.B.2.c NMAC	Y	page 17-18

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LOCATION OF PIÑON MIDSTREAM WHITE HORSE COMPRESSOR STATION AND PIPELINE:

The White Horse to Dark Horse Facility Gas Pipeline is a 10.5-mile pipeline, owned and operated by Piñon Midstream, LLC (Piñon), that gathers and transports natural gas and natural gas liquids containing hydrogen sulfide (H_2S). The pipeline is wholly located within Lea County, New Mexico, originating from the White Horse Compressor Station, located on the northwest corner of Section 27, Township 26S, Range 36E, and terminating at the Dark Horse Gas Treatment Plant, located at Section 20, Township 25S, Range 36E. The path of the pipeline will primarily extend across rural and non-populated areas of Lea County and all sections of the pipeline are installed at a minimum depth of 36 inches below grade. As designed, the pipeline will cross multiple lease roads where design considerations include specialty coatings and additional wall thickness. A map of the pipeline in its entirety is included in Figure 1, and a detailed plot plan of the White Horse Compressor Stations, which is part of the pipeline system, is included in Figures 2 and 3.

DARK HORSE GAS TREATMENT PLANT MAILING ADDRESS:

Piñon Midstream
Dark Horse Gas Treatment Plant
465 W. NM Highway 128
Jal, NM 88252

DRIVING DIRECTIONS FROM JAL, NM TO WHITE HORSE:

From Jal, NM (intersection of 3rd Street and W. Kansas Avenue), drive south on 3rd Street/Frying Pan Road and continue for approximately 8.4 miles. The entrance to the Booster Station is directly on the right (west) side of the road. Signage indicating the presence of the Booster Station will be posted near the facility entrance, on Frying Pan Road, along with instruction to check in at the Dark Horse Gas Treatment Plant (Address shown above).

WHITE HORSE COMPRESSOR STATION LOCATION:

Compressor Station Surface Location:	Section 27, Township 26S, Range 36E	
	Latitude (NAD83):	32.01968
	Longitude (NAD83):	-103.25938

PIÑON MIDSTREAM CORPORATE ADDRESS:

Piñon Midstream
20445 State Hwy 249, Suite 300
Houston, Texas 77070

GLOSSARY OF ACRONYMS UTILIZED IN THE H_2S CONTINGENCY PLAN

ACGIH	American Conference of Governmental Industrial Hygienists
AGI	Acid Gas Injection
ANSI	American National Standards Institute
API	American Petroleum Institute
CO_2	Carbon Dioxide
DCS	Distributed Control System
DOT	Department of Transportation
ERO	Emergency Response Officer
ESD	Emergency Shutdown
H_2S	Hydrogen Sulfide
IC	Incident Commander
ICS	Incident Command System
ICC	Incident Command Center
IDLH	Immediately Dangerous to Life or Health
LEL	Lower Explosive Limit
LEPC	Local Emergency Planning Committee
MSDS	Materials Safety Data Sheets
NACE	National Association of Corrosion Engineers
NCP	National Contingency Plan
NIIMS	National Interagency Incident Management System
NIOSH	National Institute of Occupational Safety and Health
NGL	Natural Gas Liquid
NMAC	New Mexico Administrative Code
NMED	New Mexico Environment Department
NMOCC	New Mexico Oil Conservation Commission
OCD	Oil Conservation Division
OSHA	Occupational Safety and Health Administration
PLC	Programmable Logic Controller
PPE	Personal Protective Equipment
PPM	Parts Per Million
ROE	Radius of Exposure
SCBA	Self-Contained Breathing Apparatus
SERC	State Emergency Response Commission
SO_2	Sulfur Dioxide
STEL	Short Term Exposure Limit
TLV	Threshold Limit Value
TWA	Time Weighted Average

1.0 INTRODUCTION [NMAC 19.15.11 ET SEQ.] [API RP-55 7.1, RP-49, & RP-68]

Piñon Midstream (Piñon) is currently operating the White Horse Compressor Station (hereafter the "Station" or "Booster Station") and an associated 10.5-mile long, 16-inch pipeline (hereafter the "Pipeline") within a permitted Right-of-Way (ROW) that transports sour natural gas and natural gas liquids from gathering systems originating in Winkler County, Texas and Lea County, New Mexico to the Dark Horse Gas Treatment Plant (the "Plant") in Lea County, New Mexico, where the sour gas will be sweetened, and the associated waste gas (H_2S and CO_2) will be permanently sequestered in deep geologic reservoirs via an acid gas injection (AGI) well. Because the natural gas that is being transported by the Pipeline contains hydrogen sulfide (H_2S), this H_2S Contingency Plan (the "H_2S Plan" or "the Plan") is being submitted to document procedures that are to be followed in the event of an unintended H_2S release that occurs at the Compressor Station or at any location along the Pipeline in New Mexico. A separate H_2S Contingency Plan has been developed that covers the Dark Horse Gas Treatment Plant and associated AGI Well. The Pipeline described in this plan is wholly contained within New Mexico without any lateral gas gathering systems. Gathering lines that supply gas to the Compressor Station from nearby development projects are not operated by Piñon.

This Hydrogen Sulfide Contingency Plan fully complies with New Mexico Oil Conservation Division (NMOCD) Rule 11(§ 19.15.11 et. seq. NMAC) regarding the procedures that are to be followed in the event of an H_2S release that occurs at any location along the Pipeline or at the Booster Station.

Additionally, the plan and operation of the Dark Horse Gas Treatment Plant conform to standards set forth in API RP-55 "*Recommended Practice for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide*", as well as applicable NACE standards for sour gas service and current industry best practices.

Safety precautions and response actions in the event of a H_2S release may include placement of roadblocks, evacuation along designated routes, or instructions to shelter-in-place. When the term "shelter-in-place" is used in this Plan, it indicates that individuals should go inside homes, businesses, etc., turn off heating and air-conditioning systems, close windows and doors, put towels or tape around doors and/or windows that are not sealed, and wait for further instruction from the Incident Commander.

2.0 SCOPE [API RP-55 7.2]

The terms used in this Plan are used as defined in Title 19, Chapter 15, Part 11 of the New Mexico Administrative Code (19.15.11.7 NMAC)), unless otherwise defined herein. The term "Pipeline" as used in this plan may refer to all parts of those physical facilities through which gas moves during transportation, including pipe, valves and other appurtenances attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies, including the White Horse Compressor Station. The term Right-of-Way (ROW) as used in this plan means an area 15 feet wide on either side of the Pipeline for a total ROW width of 30 feet with the Pipeline at its center.

The White Horse Station to Dark Horse Facility Pipeline is constructed in accordance with and fully meets the requirements of **NACE MRO-175 and API 5L, Annex H.** The pipeline has been designed such that installation includes burial of the line to a minimum of three (3) feet below the ground surface and operation of the pipeline is conducted in a manner to protect the public from exposure to its contents, including H_2S.

Additionally, the Pipeline Contingency Plan developed is fully compliant with New Mexico Oil Conservation Division (OCD) Rule 11 (§ 19.15.11 NMAC) and the Plan and operation of the pipeline conform to standards set forth in API-55 "*Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide*", as well as API RP 1162 "*Public Awareness Programs for Pipeline Operators*". At no location along the Pipeline are there any storage tanks in which H_2S or other gas or gas products are stored, and thus, API regulations and OCD regulations (specifically 19.15.11.12.E NMAC) relative to those types of storage facilities are not applicable for this Plan. Produced water will be temporarily stored at the Booster Station, treated, and piped to a nearby SWD, and an overflow tank may be used for sour condensate storage if pumps are not working properly. The condensate will then be sent through the slug catcher at the Plant or trucked away. Any tank at the booster station will have chains across the stairs or signs restricting entry pursuant to 19.15.11.12.E NMAC.

This Plan is specific to the Pipeline and the White Horse Compression Station. It contains procedures to provide an organized response to an unplanned release of H_2S from the Pipeline and/or White Horse Booster Station and documents procedures that would be followed to alert and protect any members of the public, residents in surrounding areas, and/or contractors working on or within the ROW of the Pipeline in the event of an unplanned release. Although the Pipeline transports natural gas and natural gas liquids to the Dark Horse Gas Treatment Plant, this Plan does not include the Dark Horse Plant or the associated acid gas injection well. Those facilities have their own distinct H_2S plan which has been submitted separately to NMOCD. This Plan has been prepared to minimize the hazard resulting from an H_2S release at any location along the Pipeline. It will be used to inform company personnel, local emergency responders, and the public of actions to be taken before, during, and after an H_2S release. All operations shall be performed with safety as the primary goal. The primary objective of Piñon, should an H_2S release occur, is to protect the public, contractors, and Piñon company employees; the secondary objective is to minimize the damage to Piñon property and other adverse effects of the emergency. In the event of a release, any part of the Pipeline operation that might compromise the safety of potentially-affected parties will cease until the operation can be re-evaluated and the proper engineering controls instituted to assure safety of all concerned. No individual should place the protection of the Pipeline or Piñon property above his or her own personal safety.

In a serious situation involving an H_2S release not only Piñon personnel are involved, but local Fire Departments, Law Enforcement, City, County, and even State of New Mexico agencies may be interested parties. Cooperation will expedite all decisions. In any emergency situation involving a H_2S release, delegation of duties will be made to appropriate employees and groups. These duties and procedures are

reviewed on an annual basis to ensure complete understanding and facilitate a well-coordinated response by all involved personnel to the emergency situation.

2.1 COMPRESSOR STATION AND PIPELINE HAZARD SUMMARY

Several potential hazards are identified and addressed by Piñon Midstream at the Dark Horse Facility through the use of a Facility Site Study (FSS). The FSS identifies hazards as they relate to buildings on the facility grounds, the details of which are beyond the scope of this Plan. A copy of the FSS will be held at location. As such, the hazards associated with such a treatment plant are also relevant for the Compressor Station and Pipeline and are fire, related to the flammable material being transported and treated, explosion from compression, and exposure to toxic materials such as sour gas or acid gas. With such hazards present, this plan describes the emergency procedures necessary during an emergency (see Section 4.0), the characteristics of toxic chemicals at the Plant (see Section 5), potentially impacted areas (see Section 6.0), and training and drills to inform personnel and the public of such hazards (see Section 8.0).

3.0 PLAN AVAILABILITY [API RP-55 7.3]

The H_2S Plan shall be available to all personnel responsible for implementation, regardless of their normal location assignment. A copy of the Plan will be maintained at the Dark Horse Gas Treatment Plant Control Room, in the Asset Manager's office at the plant, and in the Piñon Corporate Office in Houston, Texas. See Appendix E for the complete H_2S Plan Distribution List, which lists all the additional entities and agencies that will be provided a copy of the approved H_2S Plan.

4.0 EMERGENCY PROCEDURES [NMAC 19.15.11.9.B(2)(A)] [API RP-55 7.4 A] [29 CFR 1910.1200]

4.1 RESPONSIBILITY AND DUTIES OF PERSONNEL DURING AN EMERGENCY

It is the responsibility of all on-site personnel to follow the safety and emergency procedures outlined in this H_2S Contingency Plan, as well as any facility-specific safety plans retained by Piñon. The Dark Horse Plant uses the Incident Command System (ICS) for emergency response (see Figure 5 for a diagram of the command structure and Figure 6 for detailed information). The ICS structure used is based on the National Interagency Incident Management System (NIIMS) and is consistent with the National Contingency Plan (NCP). All Piñon employees, on-site, along the pipeline ROW, at the Compressor Station, or at the Dark Horse Plant, shall be prepared to respond to an H_2S emergency at the Booster Station or Pipeline as part of the Operations Response Team (ORT). All on-site employees must be H_2S certified, and that certification must be renewed on an annual basis. In the event that an unplanned release is detected, the first person to discover the problem or his designee, by default, will be the on-scene Incident Commander (IC in this Plan) until the responsibility is transferred to appropriate facility personnel. This responsibility should be formally transferred to the Asset Manager as soon as practical. All personnel will be evacuated out of the affected area, and the IC will contact and coordinate with Piñon management if an H_2S emergency occurs. Piñon personnel will immediately respond to the emergency, as detailed in Appendices A and B of this plan, and the IC will contact and coordinate with Piñon's management team.

The Asset Manager/IC or designee shall determine the need for, and implement as necessary:

1) Total Facility Shutdowns
2) Isolation of pipeline segments
3) Repairs, tests, or restarts as required

If an emergency occurs, the Asset Manager, or designee, shall be notified first, and that individual will notify the Director of Operations, whom will activate the Corporate Emergency Response Plan. If any person in this chain of command is unavailable, the individual making the call will elevate the communication to the next level. The intention of this process is to allow the IC to make one phone call and then be able to focus on the incident response.

4.1.1 Site Security [NMAC 19.15.11.12.B]

In order to have an accurate listing of all personnel on-site in the event of an emergency, a daily sign-in log sheet will be utilized. The sign-in log sheet will include, at a minimum the name of the individual entering the plant, Booster Station, or Pipeline ROW, the company name, time of arrival, and time of departure. All personnel are required to sign in at the Dark Horse Plant Office/Control Room. In compliance with 19.15.11.12.B NMAC, the Booster Station is contained within a secure fenced area with locking gates.

4.1.2 Discovery and Internal Reporting

All personnel, including contractors who perform operations, maintenance and/or repair work on the Booster Station or Pipeline must wear personal H_2S monitoring devices to assist them in detecting the presence of unsafe levels of H_2S. There are also fixed H_2S monitors located around the Booster station. Personal monitoring devices will give an audible alarm at 10 ppm as will the fixed H_2S monitors. When any person discovers a leak or emission release, they are to attempt to resolve the issue as long as H_2S levels remain at 10 ppm or below. If the response action needed to resolve the issue is more than simply closing a valve or stopping a small leak, the individual who has discovered the leak shall notify the

Control Room Operator who will contact the Asset Manager or his designee so that the person can activate the H_2S Contingency Plan, if necessary. The Control Room Operator will also initiate and maintain a Chronologic Record of Events Log (see Appendix F) which records the time, date, and summary of events.

The record will include, at a minimum, the following information:

- Name, telephone number, and location of person reporting the situation
- Type and severity of the emergency
- Location of the emergency and the distance to surrounding equipment and/or structures
- The cause of the spill or leak, name, and quantity of material released, and extent of the affected area including the degree of environmental hazard
- Description of injuries (if any) and report of damage to property and structures

If any person detects H_2S levels of 10 ppm or greater, either as a result of an alarm from their personal monitoring device or one of the facility fixed monitors, they will immediately report this to the Control Room Operator who will contact the Asset Manager for assistance. If the alarm persists, the responding Operator will put on the 30-minute Self Contained Breathing Apparatus (SCBA). All non-essential persons shall be notified of the release and evacuated from the area. The responding Operator, wearing the SCBA, will first help any persons requiring assistance during the evacuation, then attempt to resolve the issue. The Control Room Operator is responsible for notifying the Asset Manager or his designee so that the H_2S Contingency Plan can be activated, if necessary.

Once the Asset Manager/IC is contacted, he or his designee is to contact the appropriate Piñon management and Dark Horse Plant emergency response personnel (Figure 6 and Appendix C) and notify them of the existing situation. Local emergency response providers will also be contacted as deemed necessary by the IC. If necessary, the Control Room Operator will then conduct the notifications of federal and state regulatory agencies including the BLM Field Office in Carlsbad, the NMOCD District Office in Hobbs, and emergency response agencies listed in Appendix C. Piñon personnel will instruct any contractor and all others attempting to enter the vicinity of the area that the H_2S Plan has been activated and that they must follow direction of the IC.

4.2 IMMEDIATE ACTION PLAN

Immediate Action Plans outlining procedures and decision processes to be used in the event of an H_2S release are contained in Appendix A. These procedures and decision processes have been designed to ensure a coordinated, efficient, and immediate action plan for alerting and protecting operating personnel and the public as well as to prevent or minimize environmental hazards and damage to property. Emergency response actions may be taken for a variety of situations that may occur. The Plan is activated in progressive levels (Levels 1, 2 and 3), based on the concentration and duration of the H_2S release. Response Flow Diagrams illustrating these Immediate Action Plans are contained in Appendix B. **Piñon on-site personnel or Control Room Operators are authorized to elevate the level of response, based on observed conditions, if they feel a lower-level response may not be effective in protecting personnel, the public, or the environment.** Additional or long-term response actions will be determined on a case-by-case basis, if needed, once the Incident Command Center (ICC) and System (ICS) are established following the immediate response.

4.3 TELEPHONE NUMBERS, COMMUNICATION METHODS AND MEDIA SITE

4.3.1 Telephone Numbers and Communication Methods

In the event of activation of the Plan at level 3, emergency responders, public agencies, local government, and other appropriate public authorities must be contacted. Public awareness and communication are a primary function of this Plan. As such, Piñon has compiled a list of various public, private, federal, state, and local contacts (Appendix C) that are to be notified at various phases during the activation of the Plan. The Level 1, 2, and 3 Immediate Action Plans and the Response Flow diagrams, contained in Appendices A and B, indicate when certain entities are to be contacted in the event of activation of this Plan. Piñon will contact, by telephone, all potentially affected parties as well as state and local response organizations if the H_2S Plan is activated. All entities contacted will be advised of the following:

- The nature, location, and extent of the release/emergency at the Booster Station or Pipeline and recommendations for protective actions, such as evacuation or shelter-in-place orders.
- Any other event-specific information that is necessary to protect the public.
- Updated status of the release and continued safety measures to be taken, including but not limited to, when to evacuate and/or when it is safe to return to the area

In the event of activation of the Plan, in addition to notifying individuals, businesses, and operators (listed in Appendix C), Piñon on-site personnel, as designated by the IC, will make a visual inspection of the ROW area to ensure that no individuals are seen inside the ROW. If any are observed, they will be advised to evacuate immediately to a designated Emergency Evacuation Area.

4.3.2 Media Site

During all Level 2 and Level 3 events, a media site will be established adjacent to relevant assembly areas. The IC will designate a Media Site adjacent to each Emergency Assembly Area, which may be relocated should ambient environmental conditions become unsuitable. The IC will also designate an individual to assume the duties of Media Liaison Officer. Under no circumstances will media personnel be allowed inside the warm or hot zone (road blocked area). Media personnel will only be allowed inside the road blocked area once the area has been monitored and restored to a cold zone (less than 10 ppm H_2S) and the IC has approved their entry. Media personnel shall not be allowed to enter the White Horse Compressor Station property or damaged Pipeline vicinity without the approval of the Piñon Asset Manager or his designee, and shall be escorted by Piñon personnel at all times.

4.4 LOCATION OF NEARBY RESIDENCE, MEDICAL FACILITIES, ROADS, BUSINESSES, PUBLIC RECEPTORS, AND PRODUCERS

4.4.1 Residences and Medical Facilities

There are two residential properties (one currently utilized as operator field offices with no residents) and no medical facilities located within the 100 ppm Radius of Exposure (ROE) of the Booster Station and Pipeline. Figures 1 and 4 display the relative isolation of the Pipeline and Compressor Station from public receptors. Upon activation of the Plan (see Appendix A for activation levels), the IC, or designee, shall notify all individuals within the 100 ppm ROE, depending on the location of the release, of the nature of the release and status of containment. Depending on the nature of the release and the prevailing wind conditions, individuals will be instructed to shelter in place or evacuate. Contact information for individuals of the residence can be found in Appendix C. (See Section 6.0 and Appendix D of this Plan for specific information about ROE calculations and map showing the 500 and 100 ppm ROE).

4.4.2 Roads

There are 3 public roads located within the 100 ppm ROE (NM State Highway 128, Frying Pan Road, and Beckham Road), and 2 roads within the 500 ppm ROE (Frying Pan Road and Beckham Road). In the event of activation of this Plan, on-site Piñon personnel will be dispatched to establish roadblocks on applicable roads to prevent entrance into the 500 or 100 ppm ROE (0.76 and 1.65 miles, respectively), as determined for the location of the point of release, depending on the response level and as designated by the IC (see Figure 4). Roadblocks will be established, if necessary, regardless of wind direction in anticipation that variations in wind conditions can occur. There are emergency trailers or equivalent vehicles, equipped with flashing lights, windsocks, and roadblock signs for use in alerting the public of hazardous conditions on the road. Signs, warning of the potential presence of H_2S, will be installed where the 100 ppm ROEs of the Pipeline and Compressor Station intersect the above referenced public roads. (See Figure 4 for the location of these signs; see Figure 7 for a sample photograph of one of these signs).

4.4.3 Businesses or Other Public Receptors

In addition to what is stated above, The Salt Creek Ameredev South Gas Treatment Plant is located within the 500 ppm ROE (and, therefore, within the 100 ppm ROE) and is located approximately one (1) mile, NW of the White Horse Compressor Station and approximately 0.55 miles from the nearest Pipeline Segment, as shown in Figure 4. The Westfield Facility and associated water wells, operated by the City of Jal, are also within the 100 ppm ROE and are frequently occupied by city employees or contractors. The facility is a booster station which sends water, via pipeline, to the city of Jal. Depending on the nature of the release, available shelter, and the prevailing wind conditions, individuals will be instructed to shelter in place or evacuate. Contact information for The Salt Creek Ameredev South Gas Treatment Plant and the City of Jal Westfield Facility is located in Appendix C. Aside from what is described above, there are not additional areas in which it may be reasonable for members of the public to be present (referred to as “public areas” or “public receptors”).

4.4.4 Producers

There are 12 operators of active or permitted wells within the 100 ppm ROE (Ameredev Operating, LLC, BC&D Operating Inc., Caza Operating Inc., Chevron USA Inc., COG Operating, LLC, Franklin Mountain Energy, LLC, Fulfer Oil and Cattle, LLC, Piñon Midsream, LLC, RMR Operating, LLC, Salt Creek Midstream, LLC, Solaris Water Midstream, LLC, and Tap Rock Operating, LLC). Contact information for these operators is included in Appendix C.

4.5 PUBLIC, STATE, AND LOCAL AUTHORITY AWARENESS AND COMMUNICATION

As protecting the public is a key objective in executing this plan, details of the plan are shared with state and local officials as well as with individuals who may be present in public areas, including businesses, within the ROE of the Compressor Station and Pipeline. A full list of entities with whom information is given can be found in Appendix C. By collaborating with such entities, questions and concerns are addressed and used to update the plan. Every effort is also made to ensure that contact information for all entities is correct and up to date in order to achieve effective communication with all parties in the event of an unplanned release that requires a plan activation.

4.6 EVACUATION ROUTES, EMERGENCY ASSEMBLY AREAS, AND ROAD BLOCK LOCATIONS

4.6.1 Evacuation Routes and Emergency Assembly Areas

Pre-determined evacuation routes and emergency assembly areas exist for the Compressor Station and are shown in Figure 3, but evacuation areas for a pipeline release will be dependent upon the location of the release along the Pipeline and will be determined at the time of the incident by the IC.

Figure 2 shows the Booster Station plot plan locations of emergency notification equipment. Figure 3 shows the potential locations of Emergency Assembly Areas and recommended evacuation routes away from the Station along with emergency-use equipment. Evacuation for all visitors and all personnel that are not operators begins with the 10 ppm H_2S siren and activation of amber beacons (see Appendix A).

The responding Piñon personnel are to put on the 30-minute SCBA and first determine if any personnel are in distress and assist any such personnel to evacuate to the designated Emergency Assembly Area. Emergency services (911) will be contacted if there are injuries or as otherwise deemed necessary. Responding operators, wearing the SCBAs, will then investigate the cause of the release. At the sound of the alarm and activation of amber beacons, all personnel at the Booster Station, or along the Pipeline ROW are to stop work, check the prevailing wind direction (using visible windsocks) and immediately proceed along designated evacuation routes and/or upwind to the IC-determined Emergency Assembly Areas and await instruction from the IC. Prevailing winds for the area are from the south-southwest. Personnel should evacuate along the designated route unless that route is downwind of the release, based on the wind directions observed at the windsocks at the compressor station, which are visible from Frying Pan Road. In that event all evacuees should proceed along a route that is perpendicular to the release and then upwind to the designated Emergency Assembly Area. Depending on the location of the leak, nearby individuals within the ROE may be advised to shelter-in-place, close windows and doors and turn off air conditioning and stay inside until further notice.

Roll call shall be conducted at the Emergency Assembly Area to ensure all personnel (including contractors and visitors) are accounted for and have evacuated safely. Piñon Midstream operates Process Safety Management (PSM) facilities and requires all personnel to check-in and sign-in at the Plant Office or Plant Control Room before conducting work at any facility or entering the Plant. The sign-in sheet will be used at the Emergency Assembly Areas to make a full accounting of all personnel and visitors. At each Emergency Assembly Area, the ambient air quality will be monitored for H_2S concentration to ensure the area remains at less than 10 ppm. If the H_2S concentration rises to 10 ppm or greater, the assembly area will be relocated as instructed by the IC (see Appendix A).

4.6.2 Road Block Locations

Pre-planned road block locations, which could be utilized in the event of a Level 2 or 3 response when the release occurs within 1.01 miles (500 ppm ROE radius) or 2.22 miles (100 ppm ROE radius), respectively, of a road, are shown on the ROE Map (Figure 4). Each location will have portable road barriers, flashing lights, and warning signs. The IC will designate representatives to staff each of the roadblocks. If deemed necessary by the IC, the State or Local Police will be asked to assist with maintaining the roadblocks and directing traffic through alternate routes outside of the ROE.

4.7 MONITORING EQUIPMENT, EMERGENCY SHUTDOWN SYSTEMS, ALARM SYSTEMS, SAFETY EQUIPMENT, AND SUPPLIES

4.7.1 Monitoring Equipment

Pipeline valves are configured with a high/low pressure alarm and will be monitored 24-hours/day, 7-days/week via a Supervisory Control and Data Acquisition industrial control system (SCADA) at the Dark Horse Facility. The valves have a low-pressure alarm set at 1000 psi and a high-pressure alarm set at 1400 psi. Operation of the pipeline within the ranges of the alarm is considered to be normal operation. The valves are also automated with an Emergency Shutdown (ESD) that can be controlled at the Dark Horse Plant Control Rooms or activated in the field when the alarm indicates a high/low level situation.

The SCADA system is designed to monitor specific operating metrics along the pipeline route such as pump pressures, pipeline volume pressures and other specific data relative to pipeline operations. The system is dependent both on human intervention and telemetry. The SCADA system is a highly integrated system developed to maintain proficient pipeline operations and to assist in the control of transmission activities along the pipeline.

4.7.2 Emergency Shutdown Systems [NMAC 19.15.11.12.D(1)]

In the event of a discrepancy in volumes or pressures within the pipeline, Piñon Midstream Operators will immediately initiate an internal response to identify the nature and location of the discrepancy. This response includes, but is not limited to, meter verifications, pipeline surveys (drive or fly over), and pipeline shutdown, if necessary, based on Piñon's best professional judgment. The pipeline can be isolated at valves located 2.8 miles directly SSE of the Dark Horse Facility, at the Dark Horse Facility, and at the White Horse Booster Station (see Figure 4). The Dark Horse Facility also has an ESD valve to isolate incoming and out-going gas and product streams. This system can be automatically or manually initiated, depending on pipeline operating conditions. The White Horse to Dark Horse Pipeline has an ESD system designed to isolate pipeline segments to contain hydrocarbon and H_2S releases. This system is automatically and/or manually initiated from the Plant Control Room depending on process conditions. The ESD system is designed to prevent a Level III response. Locations of ESD/Block valves are shown on Figure 2.

Additional Safeguards

- Compressors have high- and low-pressure shutdowns. This information is transmitted to the Dark Horse Control Room via SCADA and to Field Operators via phone. There are fixed H_2S monitors/alarms that provide information to the DCS which can initiate an automatic shutdown at the White Horse Booster Station. Additionally, the booster station is equipped with a flare to handle emergencies (see Figure 2 or Figure 3). Fire extinguishers and respiratory equipment are available at the facility site, and the White Horse Booster Station is fenced and gated.

- If a leak that requires the line to be shut in and depressurized is detected on the pipeline, the pipeline contents are routed to the White Horse flare or Dark Horse Facility flare so repairs can be made safely. Figure 2 and Figure 3 show the location of the White Horse and flare.

- The Pipeline has high/low pressure monitoring. The lines are monitored 24-hours a day by the Dark Horse DCS through SCADA.

- Majority of pipeline segments have 0.500-inch wall thickness, and the pipeline crossing roads has a 0.625-inch wall thickness, built to NACE MRO-175 and API 5L, Annex H standards. In addition to the increased wall thickness, the pipeline used in the road crossings is coated with Fusion Bond Epoxy on the bare pipe. This coating is designed to be resistant to scratches and coating damage during the installation process of the pipe under the public roads.

- Along the pipeline ROW the pipe is buried a minimum of 3 feet in depth to aid in preventing accidental excavation incidents. The pipe is at least 3 feet deeper than the lowest point of any road crossing.

- Corrosion Protection may be utilized to ensure the integrity of the Pipeline if necessary. Corrosion protection chemicals would be injected to the Pipeline and monitored for effectiveness with corrosion coupons.

The Plant ESD can be activated at any time by the Dark Horse Gas Treatment Plant Operators and is to be activated if efforts to control a release have failed or if a catastrophic release has occurred.

4.8 ALARMS, VISIBLE BEACONS, AND WIND INDICATORS

Colored beacons, horns, wind direction indicators, and ESD stations are situated in various locations throughout the Booster Station and are shown on Figure 2 and Figure 3. The audible signal for an emergency response is a continuous warble alarm that sounds at 10 ppm H_2S. Amber beacons are also activated at 10 ppm H_2S. The Booster Station ESD will automatically shut down upon 40 ppm H_2S detection at a fixed monitor on the station grounds. As per 19.15.11.12.C, wind direction indicators which are visible night and day are installed at the station as shown in Figure 3. At least one wind direction indicator can be seen from any location within the station as well as from any point on the perimeter.

4.9 SIGNS AND MARKERS

The Pipeline and Booster Station have readily readable warning, caution, and notice signs which conform to the current ANSI standard Z535.1-2002 (Safety Color Code). These signs contain language warnings about the presence of H_2S/Poisonous Gas and high-pressure gas; they are posted at the Booster Station entrance and around the perimeter. The signs are of sufficient size to be readable at a distance of 50 feet and contain the words "Caution Poison Gas". Emergency response phone numbers are also posted at the Entrance to the Booster Station, and there are signs at the entrance requiring that all visitors sign-in at the Dark Horse Facility office. Piñon does not have the authority to require individual operators who send gas to the Booster Station for transportation to the Dark Horse Facility to conform to OCD and/or Department of Transportation (DOT) regulations relative to placement of warning signs at individual wells or on gathering lines. It is the responsibility of these individual operators to conform to appropriate regulations and to certify compliance with those regulations to those regulating agencies, as required. Signs warning of the potential presence of H_2S will be installed where ROE of the Pipeline and Booster Station intersect the above referenced public roads. (See Figure 4 for the location of these signs; and see Figure 7 for a sample photograph of one of these signs). Line markers, indicating the presence of the Pipeline, will be placed every 200 feet and at road crossings.

4.10 EMERGENCY EQUIPMENT

4.10.1 Emergency Trailers

Emergency trailers or equivalent emergency vehicles, equipped with flashing lights and windsocks will be utilized at public road locations to establish roadblocks (as shown in Figure 4) to alert the public in the event of hazardous conditions. While local authorities will be notified of any Level 3 plan activation requiring roadblocks, it is the responsibility of the Piñon Midstream response team to maintain and deploy the Emergency Trailers.

4.10.2 First Aid Equipment

The first aid stations are located in the White Horse external control room (see Figure 3), the Dark Horse Facility control room, company vehicles, and with roadblock equipment. An emergency eye-wash station is located with first aid stations at the White Horse external control room, and eye-wash bottles may be transported from the Plant or White Horse external control room to the location of the emergency.

4.11 GAS DETECTION EQUIPMENT

4.11.1 Fixed Monitors

The White Horse Booster Station has ambient hydrogen sulfide detectors placed strategically throughout the facility grounds. Upon local detection of hydrogen sulfide at 10 ppm at any detector, visible beacons are activated, and an alarm is sounded at which time all personnel will proceed immediately to a designated evacuation area. The facility utilizes fixed-point monitors to detect the presence of H_2S in ambient air. The sensors are connected to the Dark Horse Control Room alarm panel's Programmable Logic Controllers (PLCs), and then to the Distributed Control System (DCS). The monitors are equipped with amber beacons. The beacon is activated at 10 ppm. The Station and horns are activated with a continuous warbling alarm at 10 ppm and a facility shutdown at 40 ppm. All monitoring equipment is Rosemount brand. The fixed point H_2S Sensor Heads are model number ST320A-100-ASSY.

The Plant will monitor the inlet gas steam concentrations from White Horse via H_2S Analyzers within the Plant. All H_2S analyzers are model T224, manufactured by Analytical Systems KECO.

The AGI system monitors can also be viewed on the PLC displays located at the Plant and the locations of ambient H_2S sensors are shown on the plot plan (see Figure 2). Immediate action is required for any alarm occurrence or malfunction. All H_2S sensors are calibrated monthly.

4.11.2 Personal and Handheld H_2S Monitors

All personnel working on the Pipeline or at the Booster Station wear personal H_2S monitors, which are required to alarm (visibly and audibly) and vibrate at 10 ppm. Handheld gas detection monitors are available at strategic locations around the Plant so that plant personnel can check specific areas and equipment prior to initiating maintenance or other work at the compressor stations or along the pipeline ROW. The handheld gas detectors have sensors for oxygen, LEL (explosive hydrocarbon atmospheres), H_2S, and carbon dioxide (CO_2).

4.12 RESPIRATORS

The on-site control building (denoted on Figure 2 & 3 as ECC Bldg. 1000) at White Horse has a portable 30-minute SCBA, and the Dark Horse Facility has portable 30-minute SCBAs that can be transported as required in response to a Booster Station or Pipeline emergency. Cascade hose reel systems are available for transport from Dark Horse in the event of a need for long-term compressed air supply during pipeline repairs. All Plant personnel are trained and fit tested annually for use of the SCBA respirators.

4.13 PROCESS PURGE SYSTEM

All vessels, pumps, compression equipment, and piping in the sour gas transportation process are designed and equipped to allow purging to decrease the pressure of the equipment prior to conducting maintenance or inspection work. The purged gas stream is routed safely into the gas flares located at the Dark Horse Facility or Booster Station. All flares are equipped with auto-ignition fuel assist devices in compliance with 19.15.11.11(D) NMAC. See Figure 2 and Figure 3 for location of flares at White Horse. Operating procedures include this purging of all equipment to avoid sour gas exposure to personnel and to prevent sour gas from escaping to the environment.

4.14 FIRE FIGHTING EQUIPMENT

Field personnel are trained only for insipient stage firefighting. Fire extinguishers are located in company vehicles, can be transported from the Dark Horse Facility, or can be use at, or transported from White Horse and are typically a 30# Ansul dry chemical fire extinguisher. Should an emergency resulting in fire occur on the Pipeline ROW or at the Booster Station, 911 will be contacted for assistance from the local fire department. Piñon Midstream employees are not trained for firefighting of incidents along the

pipeline ROW. Should the pipeline incur a failure requiring firefighting equipment, trained professional emergency responders will be contacted via 911.

5.0 CHARACTERISTICS OF HYDROGEN SULFIDE (H_2S), SULFUR DIOXIDE (SO_2), CARBON DIOXIDE (CO_2) [NMAC 19.15.11.9.B(2)(B)] [API RP-55 7.4 B.]

5.1 HYDROGEN SULFIDE (H_2S)

The projected gas streams in the Pipeline contain approximately 25,000 ppm (or 2.5 mole percent) of H_2S, based on data generated from the modeling of the combined gathering gas streams. H_2S is a colorless, toxic, and flammable gas, and has the odor of rotten eggs. It is heavier than air and presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

Table 1. Hydrogen sulfide properties and characteristics

Hydrogen Sulfide Properties and Characteristics		
CAS No.	7783-06-4	
Molecular Formula	H_2S	
Molecular Weight	34.082 g/mol	
Ceiling Concentration	20 ppm (OSHA)	
Ceiling Peak Concentration	50 ppm (OSHA)	
Threshold Limit Value (TLV)	15 ppm (ACGIH)	
Time Weighted Average (TWA)	10 ppm (NIOSH)	
Short Term Exposure Level (STEL)	15 ppm (ACGIH)	
Immediately Dangerous to Life or Health (IDLH)	100 ppm	
Specific Gravity Relative to Air (Air=1.0)	1.189	
Boiling Point	-76.5F	
Freezing Point	-121.8F	
Vapor Pressure	396 psia	
Auto-ignition Temperature	518F	
Lower Flammability Limit	4.3%	
Upper Flammability Limit	46.0%	
Stability	Stable	
pH in water	3	
Corrosivity	Reacts with metals, plastics, tissues, and nerves	
Physical Effects of Hydrogen Sulfide		
Concentration		**Physical Effects**
ppm	%	
1	0.00010	Can be smelled (rotten egg odor)
10	0.0010	Obvious & unpleasant odor; Permissible exposure level; safe for 8-hour exposure
20	0.0020	Acceptable ceiling concentration
15	.005	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure without respirator
50	0.0050	Loss of sense of smell in 15 minutes
100	0.0100	Immediately dangerous to life and health (IDLH) loss of sense of smell in 3-15 minutes; stinging in eyes & throat; Altered breathing
200	0.0200	Kills smell rapidly; stinging in eyes & throat
500	0.0500	Dizziness; Unconscious after short exposure; Need artificial respiration
700	0.0700	Unconscious quickly; death will result if not rescued promptly
1000	0.1000	Instant unconsciousness; followed by death within minutes

5.2 SULFUR DIOXIDE (SO_2)

SO_2 is produced as a by-product of H_2S combustion. The gas stream, partially consisting of H_2S and CO_2, is routed to the Plant acid gas flare or the White Horse flare during abnormal conditions when maintenance operations occur and equipment needs to be blown down. It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur. SO_2 is heavier than air but can be picked up by a breeze and carried downwind at elevated temperatures. It can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

Table 2. Sulfur dioxide properties and characteristics

Sulfur Dioxide Properties & Characteristics	
CAS No.	7446-09-5
Molecular Formula	SO_2
Molecular Weight	64.07 g/mol
Permissible Exposure Limit (PEL)	5 ppm (OSHA)
Time Weighted Average (TWA)	2 ppm (ACGIH)
Short Term Exposure Level (STEL)	5 ppm (ACGIH)
Immediately Dangerous to Life and Health (IDLH)	100 ppm
Specific Gravity Relative to Air (Air = 1.0)	2.26
Boiling Point	14°F
Freezing Point	-103.9°F
Vapor Pressure	49.1 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
Corrosivity	Could form an acid rain in aqueous solutions
Physical Effects of Sulfur Dioxide	
Concentration	**Effect**
1 ppm	Pungent odor, may cause respiratory changes
2 ppm	Permissible exposure limit; Safe for an 8-hour exposure
3-5 ppm	Pungent odor; normally a person can detect SO_2 in this range
5 ppm	Short Term Exposure Limit (STEL); Safe for 15 minutes of exposure
12 ppm	Throat irritation, coughing, chest constriction, eyes tear and burn
100 ppm	Immediately Dangerous to Life & Health (IDLH)
150 ppm	So irritating that it can only be endured for a few minutes
500 ppm	Causes a sense of suffocation, even with first breath
1,000 ppm	Death may result unless rescued promptly.

5.3 CARBON DIOXIDE (CO_2)

The CO_2 concentration in the pipeline is projected to be 40,000 ppm. CO_2 is a colorless, odorless and non-flammable gas, which is heavier than air. At concentrations above 10% CO_2 can cause asphyxiation with prolonged exposure.

Table 3. Carbon dioxide properties and characteristics

Carbon Dioxide Properties & Characteristics	
CAS No.	124-38-9
Molecular Formula	CO_2
Molecular Weight	44.010 g/mol
Time Weighted Average (TWA)	5,000 ppm
Short Term Exposure Level (STEL)	30,000 ppm
Immediately Dangerous to Life and Health (IDLH)	40,000 ppm
Specific Gravity Relative to Air (Air = 1.0)	1.5197
Boiling Point	-109.12°F
Freezing Point	-69.81°F
Vapor Pressure	830 psia
Auto-ignition Temperature	N/A
Lower Flammability Limit	N/A
Upper Flammability Limit	N/A
Stability	Stable
pH in Saturated Solution	3.7
Corrosivity	Dry gas is relatively inert & not corrosive; can be corrosive to mild steels in aqueous solutions

Physical Effects of Carbon Dioxide	
Concentration	**Effect**
1.0 %	Breathing rate increases slightly
2.0 %	Breathing rate increases to 50% above normal level. Prolonged exposure can cause headache, tiredness
3.0 %	Breathing rate increases to twice normal rate and becomes labored. Weak narcotic effect. Impaired hearing, headache, increased blood pressure and pulse rate
4 – 5 %	Breathing increases to approximately four times normal rate, symptoms of intoxication become evident, and slight choking may be felt
5 – 10 %	Characteristic sharp odor noticeable. Very labored breathing, headache, visual impairment, and ringing in the ears. Judgment may be impaired, followed within minutes by loss of consciousness
10 – 100 %	Unconsciousness occurs more rapidly above 10% level. Prolonged exposure to high concentrations may eventually result in death from asphyxiation

6.0 RADII OF EXPOSURE [NMAC 19.15.11.7.K]

WORST CASE SCENARIOS: See Appendix D for actual ROE calculations. The basis for worst case scenario calculations is as follows:

- The worst-case ROE for this Plan has been calculated utilizing the expected sour gas flow rates (24-hour rate) and composition expected from the Booster Station which is 80 MMSCFD. The ROE calculation in this Plan utilizes that Booster Station/Pipeline flow rate and an H_2S concentration of 2.5 mole percent. The calculated ROE's for the gas are shown in the calculations in Appendix D.

- The worst-case scenario ROE assumes an uncontrolled instantaneous release of a 24-hour volume of gas at the Booster Station or anywhere along the Pipeline. Because the facility operates as a throughput process, it is impossible that the entire 24-hour throughput volume of the system could be released instantaneously as is assumed in the worst-case scenario calculations of the ROE. Furthermore, the Booster Station or Pipeline ESD systems would be activated in the event of a catastrophic emergency and would prevent the flow of gas through the Pipeline, isolate segments and equipment, and route the acid gas safely to the White Horse or Dark Horse flares. To comply with NMAC 19.15.11, the worst-case scenario calculations (assuming an instantaneous release of the 24-hour processing and/or TAG volume) are utilized here (see Appendix D for actual calculations).

The formulas for calculating the radius of exposure (ROE) are as follows:

100 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.1):
X=[(1.589)(hydrogen sulfide concentration)(Q)]^(0.6258)

500 ppm ROE Calculation (as per 19 NMAC 15.11.7.K.2):
X=[(0.4546)(hydrogen sulfide concentration)(Q)]^(0.6258)

Where:

X = radius of exposure in feet
"hydrogen sulfide concentration" = the decimal equivalent of the mole or volume fraction of hydrogen sulfide in the gaseous mixture
Q = Escape rate expressed in cubic feet per day (corrected for standard conditions of 14.73 psi absolute and 60 degrees Fahrenheit)

ROE FOR WHITE HORSE COMPRESSOR STATION AND PIPELINE WORST CASE SCENARIO

100-ppm ROE 11,723 feet (2.22 miles)
500-ppm ROE 5,357 feet (1.01 miles)

The ROE for the Booster Station and Pipeline are shown on Figure 4. This ROE pattern is designed to include the 100 ppm and 500 ppm radii for a potential worst-case failure at any point in the system.

7.0 FACILITY DESCRIPTION, MAPS AND DRAWINGS [NMAC 19.15.11.9.B (2)(C)][API RP-55 7.4 C.]

7.1 DESCRIPTION OF PIPELINE OPERATIONS AND DESIGN

The White Horse to Dark Horse Pipeline is a 10.5-mile pipeline that transports natural gas and natural gas liquids from the White Horse Compressor Stations (S27, T26S, R36E,) to the Dark Horse Gas Processing Facility in Lea County, New Mexico (S21, T25S, R36E). All 10.5 miles of the Pipeline are within Lea County, New Mexico. The Pipeline transports natural gas resources containing H_2S to be treated at the Dark Horse Facility. The Pipeline is buried at a minimum depth of 36 inches below grade, and the normal operating pressure is between 1,000 and 1,400 psig; the MAOP (Maximum Allowable Operating Pressure) is 1,440 psig with a daily volume of approximately 50 MMSCF, of which 2.5% is H_2S. The line will be hydrostatically tested to a pressure of 2160-2220 psig for an eight (8)-hour period with a smart tool run to inspect the interior of the pipeline.

The Pipeline is steel and is constructed in accordance with NACE MRO-175, and API 5L, Annex H design and construction requirements. The metal components of the steel pipe have been selected and manufactured so as to be resistant to H_2S stress cracking under the operating conditions for which their use is intended. The handling and installation of materials and equipment used in H_2S service are performed in such a manner so as not to induce susceptibility to sulfide stress cracking.

The 16-inch steel buried pipeline has a standard 0.500-inch wall thickness but contains a 0.625-inch wall thickness at road crossings. The pipe used is API 5L X-42 grade steel pipe coated with fusion-bonded epoxy (FBE) for corrosion prevention. Additionally, the pipe will contain an abrasion resistant overlay (ARO) in places where installation will occur through a boring or horizontal directional drilling (HDD). All valves, flanges, etc. are constructed of those same or equivalent metals, which have been selected and manufactured so as to be resistant to H_2S stress cracking under normal operating conditions.

7.2 DESCRIPTION OF WHITE HORSE COMPRESSOR STATION

The White Horse Compressor Station is constructed on an approximately 35-acre tract of surface land (owned by Ameredev Operating, LLC) on the northwest corner of Section 27, T26S, R36E, in Lea County, New Mexico. The facility has been designed and is constructed to receive sour natural gas and natural gas liquids from gathering systems originating in Winkler County, Texas and Lea County, New Mexico. The gathering systems supplying the White Horse Compressor Station are to be those of 3rd-party operators and hydrogen sulfide concentrations at the booster station will be the same as those of natural gas and natural gas liquids transmitted through the pipeline. As such, all radius of potential exposure calculations for the compressor station are the same as those for the pipeline.

Operation of the White Horse Compressor Station will be carried out and monitored by Dark Horse Gas Treatment Facility personnel and monitoring systems. The facility will be fully integrated into the Dark Horse monitoring systems and can be automatically or manually isolated in the event of an un-planned release of H_2S or during the completion of maintenance operations.

7.3 MAPS AND FIGURES

Figure 1 shows the location of the White Horse Compressor Station and Pipeline. The plot plan of the Booster Stations is the base for Figures 2 and 3 and show the locations of safety equipment and emergency evacuation routes at the station. Figure 4 shows the 100 and 500 ppm ROE, roadblock locations, and locations of H_2S warning signs. Figure 5 is the Incident Command Structure, Figure 6 is the detailed Incident Command Structure, and Figure 7 is an example of an H_2S warning sign. Figure 8

shows the locations of the non-operator gas gathering lines that supply gas and gas liquids to the booster station. Per request of NMOCD, Piñon will notify all operators that feed the gathering line that they may be subject to additional oversight and H_2S regulation regarding sour gas operations. Through review of Figures 1 and 4, the isolation of the pipeline and compressor station area of interest from inhabitants and pubic receptors is evident. While not included as supplemental materials in this document, a review of USGS quadrangle maps of the area shows no additional points of interest or public areas of concern.

8.0 TRAINING AND DRILLS [NMAC 19.15.11.9.B(2)(D)] [API RP-55 7.4 D.]

Piñon will conduct annual training for its own personnel as well as for the public and emergency responders, as detailed below. Training will include:

- Characteristics of H_2S and safety precautions
- An overview of the Booster Station and Pipeline operations
- A review of their roles in responding to activation of the H_2S Contingency Plan
- Location of the Radii of Exposure and how to protect the public within the Radii of Exposure
- Potential roadblock locations, potential evacuation routes, and how they can assist in implementing the Plan

8.1 TRAINING OF ESSENTIAL PERSONNEL

Annual training for Piñon personnel shall include plant and pipeline operators, mechanics, instrument and electrical technicians, and maintenance support personnel. Operators will be responsible for initiating and implementing the H_2S Contingency Plan. In addition, all Piñon personnel will receive:

- Annual training on the H_2S Contingency Plan. This training will include a review of all aspects of the Plan and will include, at a minimum, one tabletop drill involving activation of the Plan.
- Plant, Booster Station, and Pipeline Orientation Training - All Piñon personnel, visitors, and contractors must attend an overview orientation prior to obtaining permission to enter the Plant, Booster Station, or Pipeline ROW. A refresher course on this training is required annually for all persons. Included as part of this orientation is how to respond and evacuate safely in the event of a H_2S alarm or release. This training also complies with the requirements of Piñon and its Plant Process Safety Management Program and Procedures Manuals.
- All Piñon field personnel are also trained annually on the Corporate Emergency Response Plan.
- H_2S and SO_2 Training - All Piñon personnel must be H_2S certified and must also receive annual refresher training on H_2S and SO_2, which is conducted by Dark Horse Gas Treatment Plant personnel. Individuals must maintain their H_2S certification to work at the Plant, Booster Station, or Pipeline ROW. If an individual is unable to attend, they may be required to attend a third-party training session from an outside provider. All contract employees are required to have had H_2S training and to provide the Plant a copy of their certification card prior to obtaining permission to enter the Plant, Booster Station, or Pipeline ROW.
- Respirators - All Piñon plant personnel are trained annually on the proper use of respirators. In addition to the annual training, all Piñon personnel are fit-tested annually on the respirators. All Piñon personnel must have medical clearance for respirator use.
- Hazard Communication - All Plant personnel are trained annually on Hazard Communication. The annual training includes, at a minimum, the use of material safety data sheets (MSDS) for those materials that are present at the Plant.
- Personal Protective Equipment (PPE) - All Plant personnel are trained annually on the Piñon requirements for PPE. The training includes, at a minimum, a review of all the types and levels of personal protective equipment and how to select the correct equipment for the job.

8.2 ON-SITE OR CLASSROOM EMERGENCY RESPONSE DRILLS

- Piñon will conduct, at least, a tabletop drill annually, and multiple drills during the year may be scheduled at the discretion of the Asset Manager.
- The annual drill will execute this Plan and include, at a minimum, the Public Officials and Local Emergency Response Agencies listed in Section 8.4 below.

- Annual training will also include making contact with the interested parties, including all entities that have been identified as being within the 500 ppm and 100 ppm ROE (see Appendix C) to ensure contact information for them in Appendix C is current. Appendix C will be verified and updated annually by Piñon to be sure any changes of occupancy, ownership or new commercial and/or residential buildings are reflected, and all owners/occupants receive training on protective measures.
- The drills will also include briefing of public officials on issues such as evacuation or shelter-in-place plans.

8.3 NOTIFICATION AND TRAINING OF PRODUCERS LOCATED WITHIN THE ROE

Piñon will provide annual training to the producers listed in Appendix C that includes:

- An overview of the Booster Station and Pipeline operations
- Design and operating safety features of the facilities
- A review of the H_2S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

8.4 TRAINING OF PUBLIC OFFICIALS AND EMERGENCY RESPONSE AGENCIES

All of the Emergency Response Agencies listed in Appendix C will have copies of the H_2S Contingency Plan and will receive training from qualified Piñon personnel:

- NM State Police-Hobbs Office
- Lea County 911 Emergency Response
- Lea County Emergency Planning Committee
- Lea County Sherriff's Department
- New Mexico Oil Conservation Division-Hobbs District Office
- Hobbs EMS – Fire, police, ambulance
- Jal EMS – Fire, police, ambulance
- Jal City Manager

Training for emergency response agencies will include:

- An overview of the Booster Station and Pipeline operations
- Design and operating safety features on the facilities
- A review of the H_2S alarms and significance
- Notification procedures
- Roadblock locations
- Potential evacuation routes
- Procedures for sheltering in place
- Radii of exposure

Piñon will also conduct, at a minimum, one annual tabletop drill involving the Emergency Response Organizations listed above on the activation of the H_2S Contingency Plan.

8.5 TRAINING AND ATTENDANCE DOCUMENTATION [NMAC 19.15.11.9(B)2(D)]

Pursuant to NMAC 19.15.11.9.(B)2(d), drills and training pertaining to the Plant, Pipeline, and Compressor Station will be documented by plant personnel, and those records will be maintained at the Plant and will be available to an OCD representative upon request. The documentation, as shown in the table below, shall include at a minimum the following:

- Description or scope of the drill or training, including date and time
- Attendees and Participants in the drill or training
- Summary of activities and responses
- Post-drill debriefing and/or training reviews

Table 4. Sample training and attendance record sheet.

Sample Training and Attendance Record			
Date:	Time:	Location:	
Description of Training or Scope of Drill		**Summary of Activities**	
Attendee and Participant Sign-in			
Name	Organization	Email	Phone
Post-Drill Debriefing and Review			

9.0 COORDINATION WITH STATE EMERGENCY PLANS [NMAC 19.15.11.9.B(2)(E)

9.1 NOTIFICATIONS AND REPORTS

Piñon has various notification and reporting obligations. Some are related to its state air quality permit that is overseen by NMED as well as state and federal spill reporting obligations. In addition to the regulatory obligations noted above, Piñon personnel also have internal and external notification and reporting obligations associated with the activation of this Plan at Level 3, in which a Potentially Hazardous Volume (PHV) is released. Reporting obligations are as follows:

9.1.1 New Mexico Oil Conservation Division (OCD) [NMAC 19.15.11.16]
As soon as possible, but no later than four hours after plan activation, (recognizing that a prompt response should supersede notification), OCD will be notified by the IC or the IC's designee via email or fax to the District I Office of the activation of the H_2S Contingency Plan. In the event of a power failure, a phone call will be made within four hours. A full report of the incident to the OCD, utilizing Form C-141 shall be made no later than 15 days following the release, if greater than 50 MSCF (see Appendix G).

9.1.2 New Mexico State Police/ New Mexico Hazardous Materials Emergency Response Plan
The New Mexico State Police will only be notified for a Level 3 plan activation. They have authority to take control of the scene management and coordination of all resources, though limited availability of personnel may inhibit any intervention. Should the State Police assume control, a designated Emergency Response Officer (ERO) will establish the National Interagency Incident Management System (NIIMS) Incident Command System (ICS) as the Incident Commander (IC) and be responsible for management of all response resources on scene. Off-scene coordination of response resources will be handled through designated Headquarters Emergency Response Officers. Law enforcement-related activities will be coordinated by State Police, if necessary.

10.0 PLAN ACTIVATION [NMAC 19.15.11.9.C] [API RP-55 7.4 D]

10.1 ACTIVATION LEVELS

Piñon Midstream commits to implement this Plan in response to the three activation thresholds that are described in detail in the Immediate Action Plan Section of this Plan (see Appendix A) and in outline form in the Response Flow Diagrams (see Appendix B).

> **Level 1** – Operator conducting monthly visual inspection detects H_2S of 10 ppm or greater; Piñon employee or other 3rd party reports gas leak; DCS reports discrepancy between White Horse outlet and Dark Horse inlet; Leak not resolved rapidly.
>
> **Level 2** - Level 1 response unsuccessful. $H_2S \geq 10$ ppm at Booster Station or along Pipeline and increasing; $H_2S \geq 40$ ppm detected; Pipeline leak visible
>
> **Level 3** - Level 2 response unsuccessful. Catastrophic release; fire; explosion; a continuous release of maximum volume for 24 hours; or Rule 11 mandatory activation for a PHV, in which 100 ppm in any defined public area; 500 ppm at any public road; or 100 ppm at a distance greater than 3000 feet from the site or the release; (See Appendices A, Level 3 and B, Level 3 for detail.)

As soon as the Plan has been activated based on the criteria above, the Asset Manager or designee will be notified.

10.2 EVENTS THAT COULD LEAD TO A RELEASE OF H_2S

- Inlet piping or pig catcher seal failure
- Flange/gasket leaks at Booster Station or on exposed Pipeline sections
- Valve or seal failure or physical damage to the Booster Station or the Pipeline
- Catastrophic damage to Pipeline as a result of inappropriate excavation

11.0 SUBMISSION OF H_2S CONTINGENCY PLANS [NMAC 19.15.11.9.D]

Piñon resubmitted this H_2S Contingency Plan to the OCD for review and approval on December 10, 2021, pursuant to NMAC 19.15.11.9F, in which material changes to operations warrant amendments to the Plan in order to adequately protect public safety.

Piñon shall maintain a copy of the contingency plan at their corporate office. The plan, as approved by the OCD, will be readily accessible for review by the OCD at the facility upon request.

11.1 REVISIONS TO THE PLAN

The H_2S Plan will be reviewed annually and revised at that time as necessary to address changes to the facilities, operations, or training requirements, contact information, and the public areas including roads, businesses, or residents potentially affected by the operations of the Booster Station or Pipeline, specifically, those areas within the radii-of-exposure.

11.2 ANNUAL INVENTORY OF CONTINGENCY PLANS

Piñon Midstream will file an annual inventory of wells, facilities, and operations for which H_2S Contingency Plans are on file with the OCD with the appropriate Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission as per NMAC 19.15.11.9H. The inventory shall include the name, address, telephone number, and point of contact for all operations for which H_2S Contingency Plans are on file with the OCD.

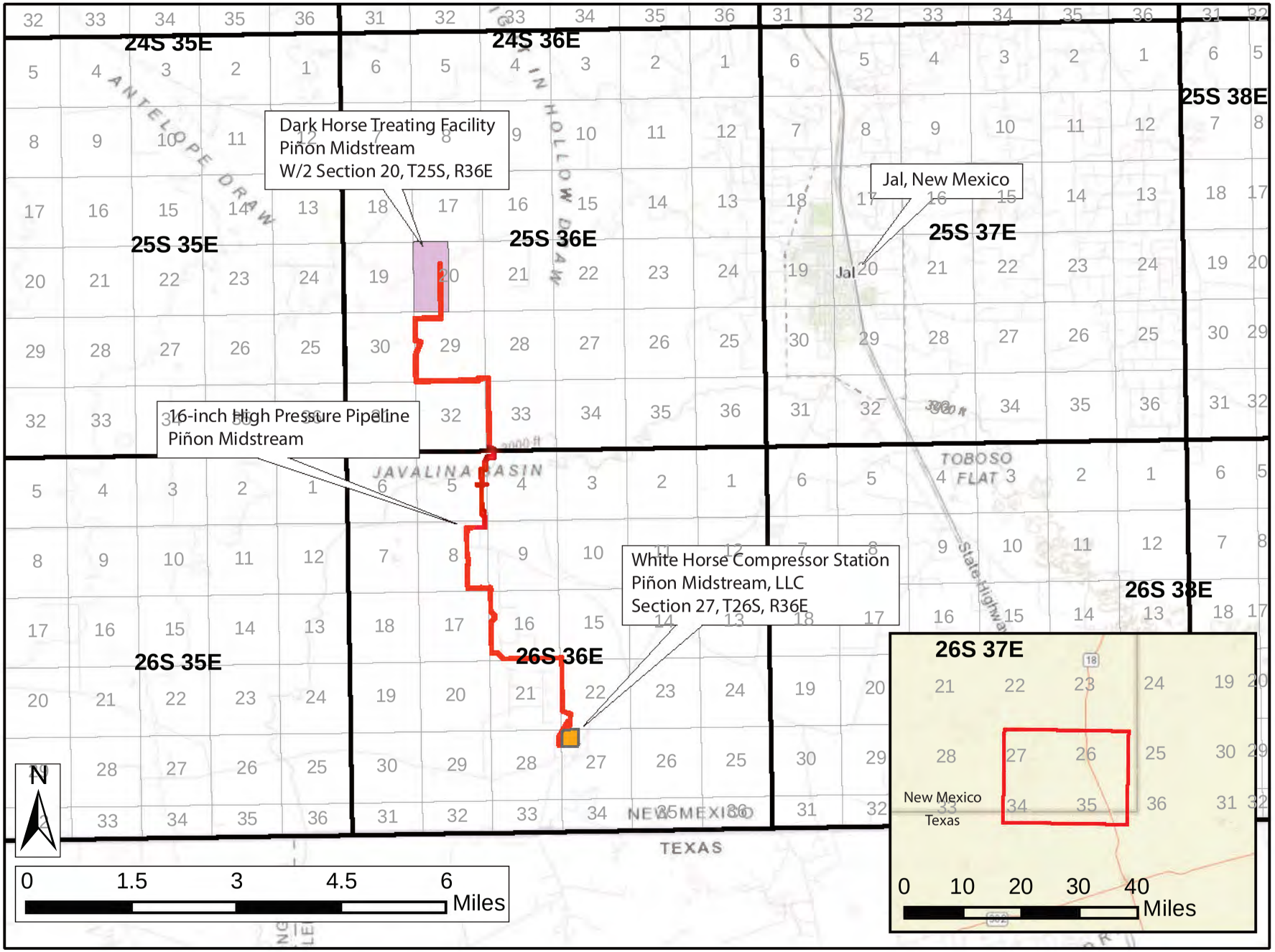
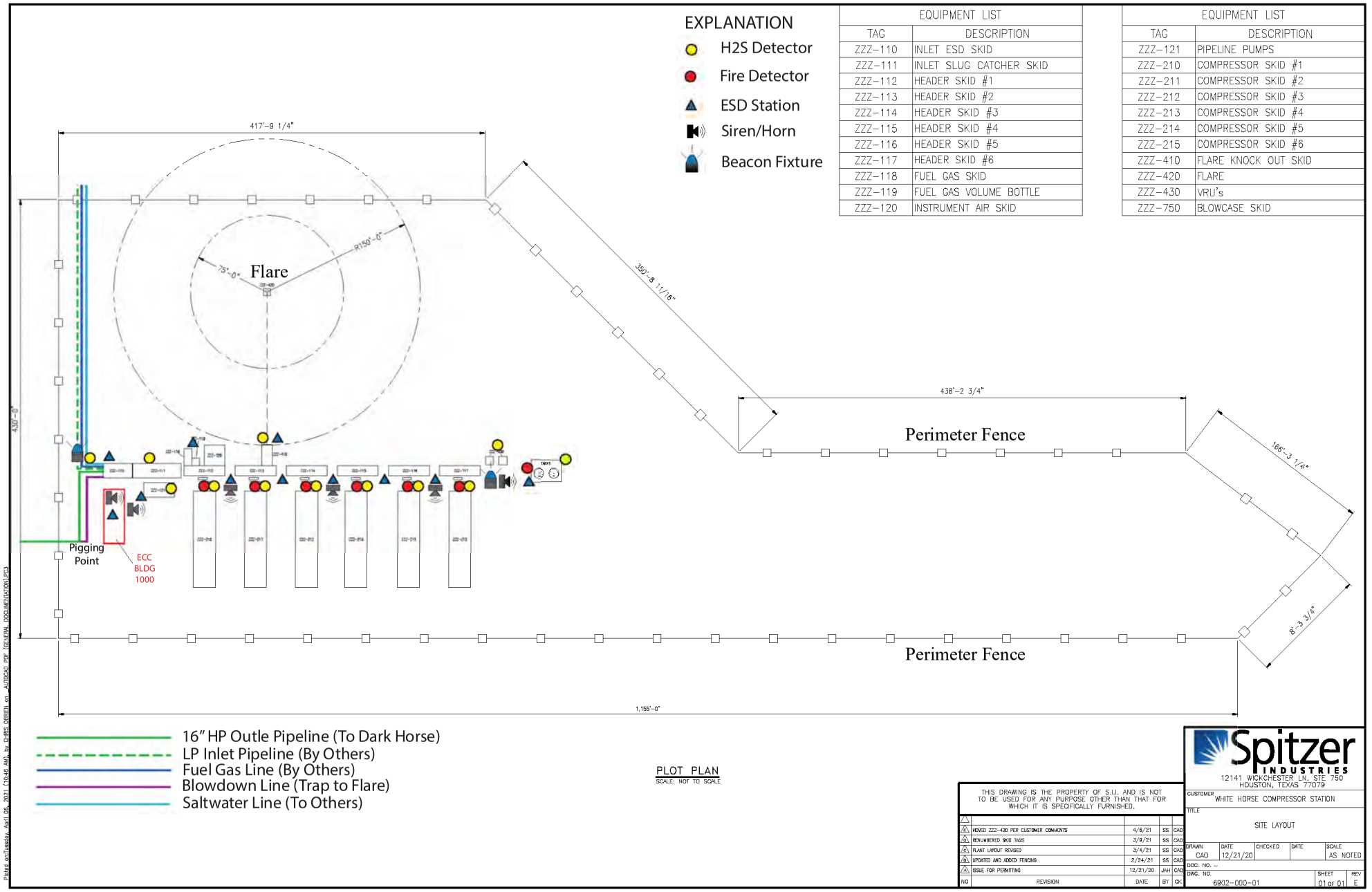


Figure 1. General location map illustrating surface lands to be occupied by the Piñon White Horse Compression Station, Dark Horse Gas Treatment Plant, and 16-inch high pressure pipeline.



EQUIPMENT LIST	
TAG	DESCRIPTION
ZZZ-110	INLET ESD SKID
ZZZ-111	INLET SLUG CATCHER SKID
ZZZ-112	HEADER SKID #1
ZZZ-113	HEADER SKID #2
ZZZ-114	HEADER SKID #3
ZZZ-115	HEADER SKID #4
ZZZ-116	HEADER SKID #5
ZZZ-117	HEADER SKID #6
ZZZ-118	FUEL GAS SKID
ZZZ-119	FUEL GAS VOLUME BOTTLE
ZZZ-120	INSTRUMENT AIR SKID

EQUIPMENT LIST	
TAG	DESCRIPTION
ZZZ-121	PIPELINE PUMPS
ZZZ-210	COMPRESSOR SKID #1
ZZZ-211	COMPRESSOR SKID #2
ZZZ-212	COMPRESSOR SKID #3
ZZZ-213	COMPRESSOR SKID #4
ZZZ-214	COMPRESSOR SKID #5
ZZZ-215	COMPRESSOR SKID #6
ZZZ-410	FLARE KNOCK OUT SKID
ZZZ-420	FLARE
ZZZ-430	VRU's
ZZZ-750	BLOWCASE SKID

PLOT PLAN
SCALE: NOT TO SCALE

NO	REVISION	DATE	BY	CK
7	MOVED ZZZ-430 PER CUSTOMER COMMENTS	4/6/21	SS	CAD
6	RENUMBERED SKID TAGS	3/9/21	SS	CAD
5	PLANT LAYOUT REVISED	3/4/21	SS	CAD
4	UPDATED AND ADDED FENCING	2/24/21	SS	CAD
3	ISSUE FOR PERMITTING	12/21/20	JAH	CAD

Spitzer INDUSTRIES
12141 WICKCHESTER LN, STE 750
HOUSTON, TEXAS 77079

CUSTOMER: WHITE HORSE COMPRESSOR STATION
TITLE: SITE LAYOUT

DRAWN	DATE	CHECKED	DATE	SCALE
CAO	12/21/20			AS NOTED

DOC. NO. –
DWG. NO. 6802-000-01
SHEET 01 OF 01
REV E

Plotted on/Tuesday, April 06, 2021 (10:48 AM) by CHRIS GIBSEN on AUTOCAD PDF (GENERAL DOCUMENTATION).PC3

Figure 2. Detailed White Horse Compressor Station schematic illustrating the location of major station components, H2S, fire, and gas detection sensors, sirens, beacons, and major flow lines at the station.

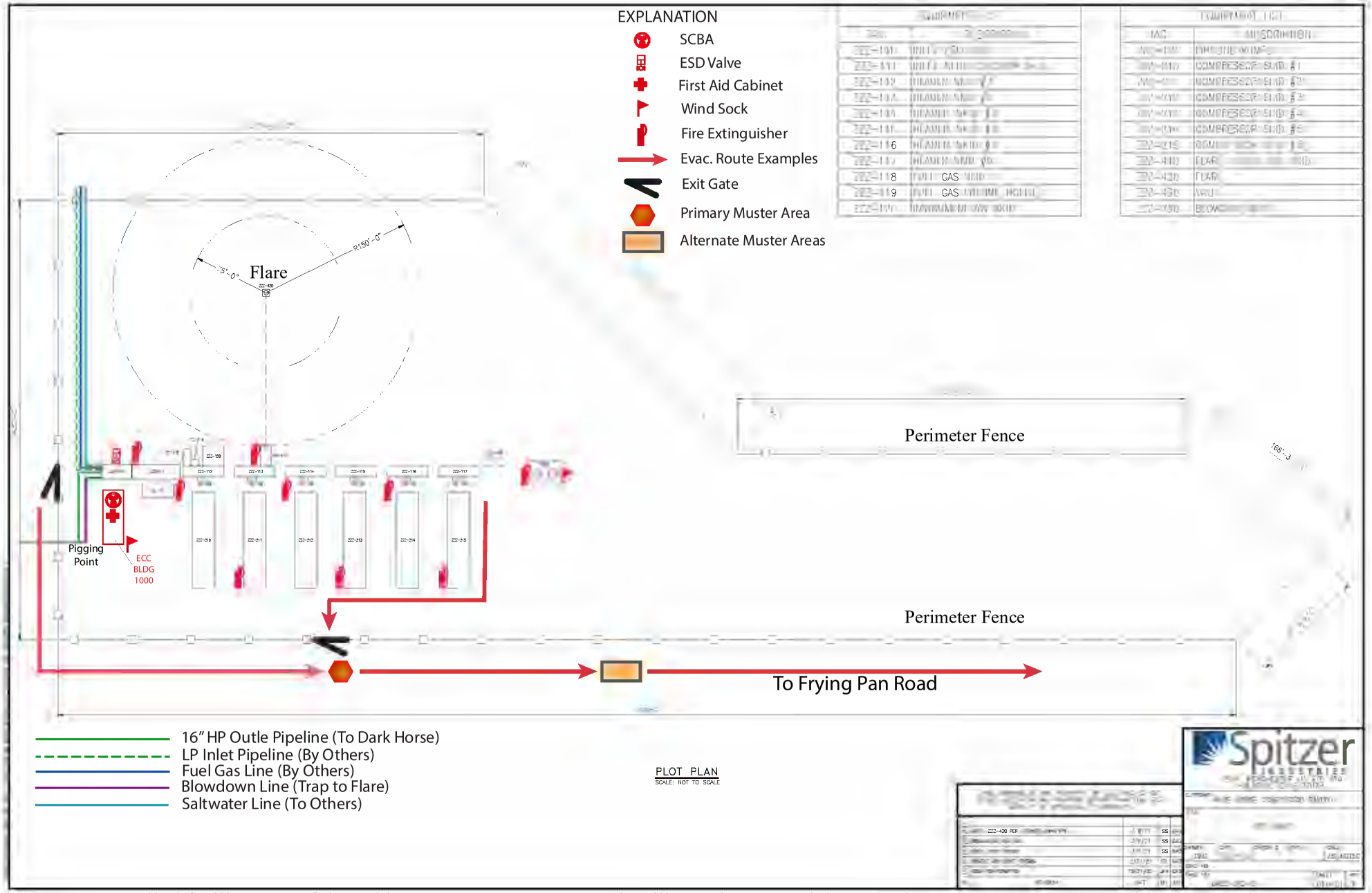


Figure 3. Detailed facility map of the White Horse Compressor Station illustrating potential evacuation routes, muster areas, exit gates, and emergency equipment. Note: Optimal evacuation routes may vary depending on the nature of the emergency and environmental conditions at the time of the event. Predominant annual wind direction is to the northeast.

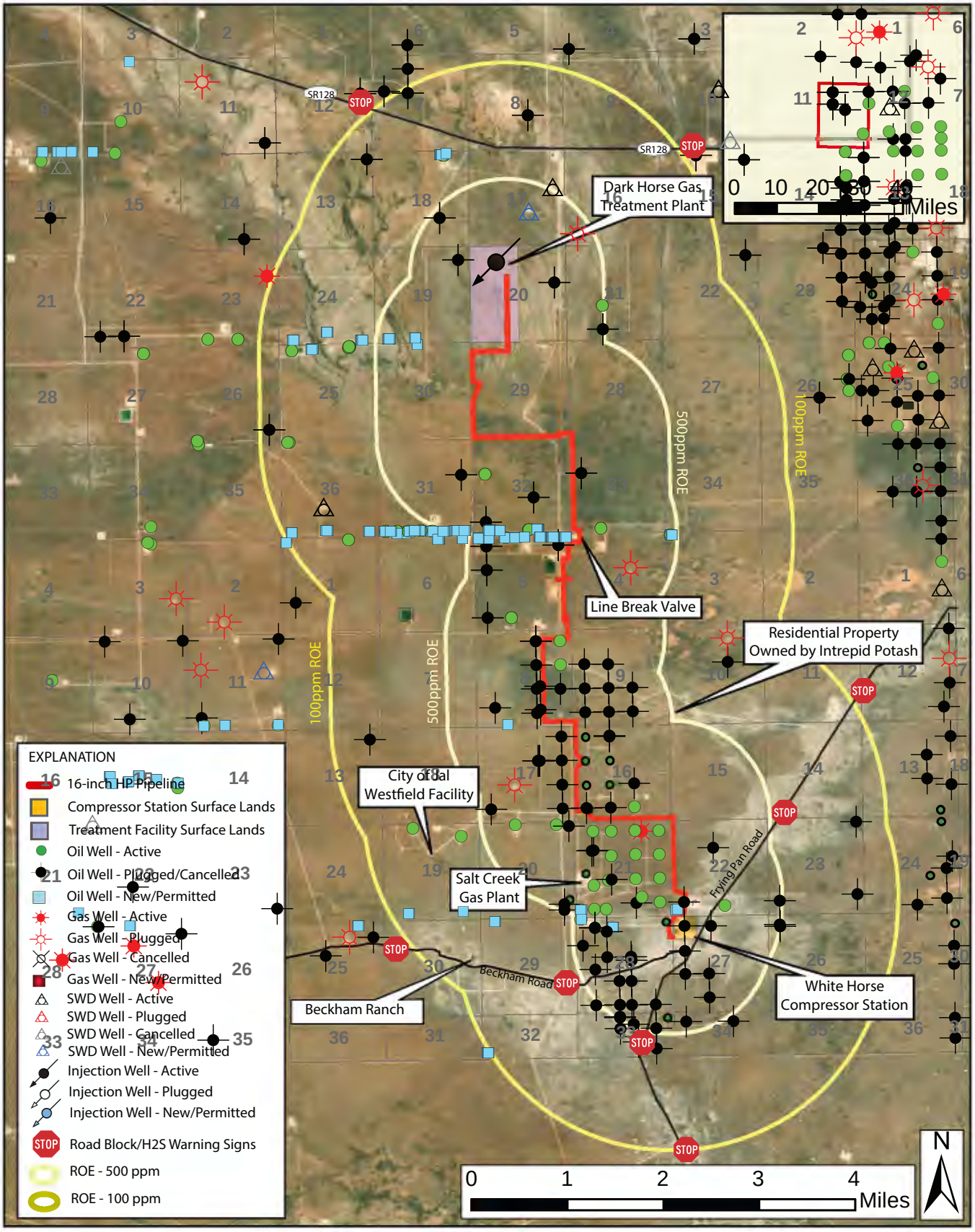


Figure 4. Radius of Exposure (ROE) map. Calculations for ROE made for concentrations of H_2S for 100ppm and 500ppm. Locations of potential road blocks are shown along State Road 128, Frying Pan Road, and Beckham Road. Emergency assembly areas are designated by the IC and will reflect an appropriate ROE and the prevailing wind direction.

White Horse Compressor Station and Pipeline Incident Command System Structure: Duties and Responsibilities

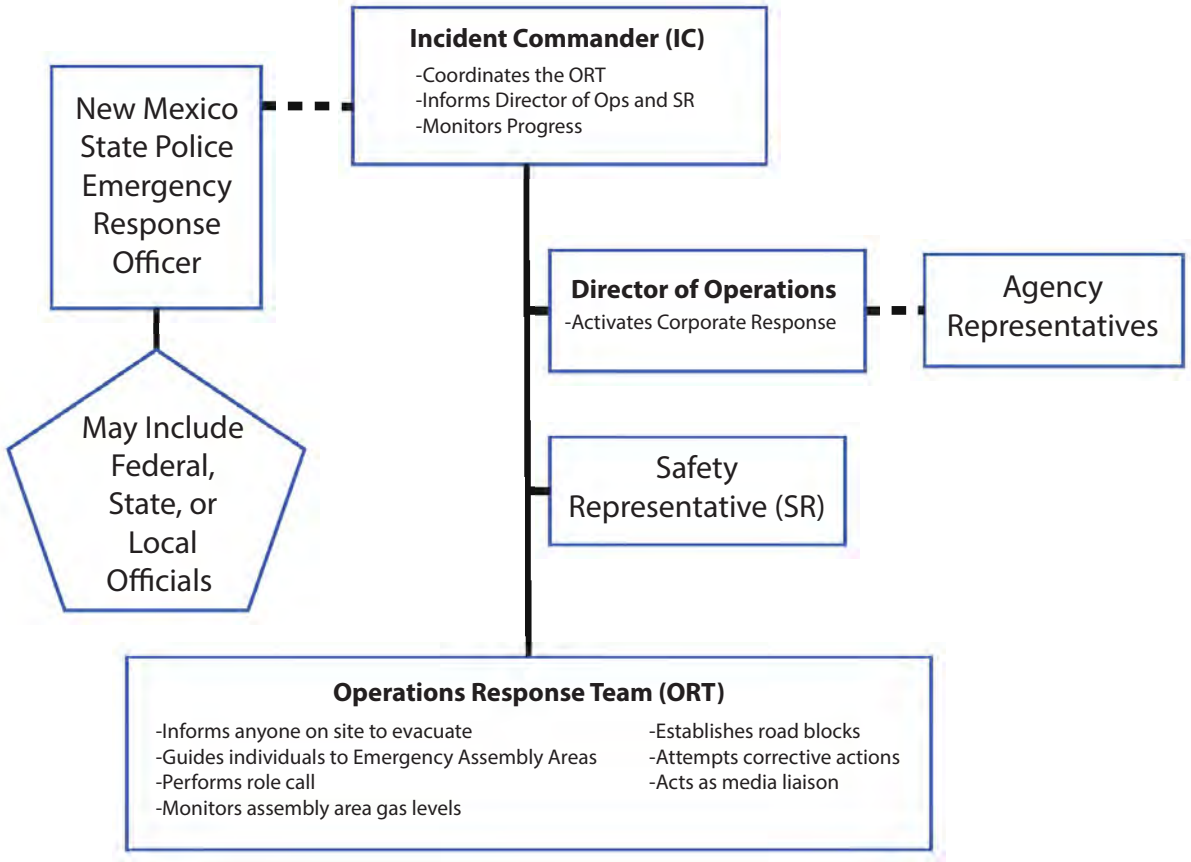


Figure 5. Incident Command System Structure for the White Horse Compressor Station and associated 16-inch high-pressure pipeline.

White Horse Compressor Station and Pipeline
Detailed Incident Command System Structure

Name	Title	Phone Number
Leo Aridon	Asset Manager	337-945-3783
Casey Fix	Director of Operations	970-405-2614
Hunter Clymore	Safety Coordinator	817-304-7261
Operations Response Team (Includes Asset Manager, Plant/Pipeline Operators, and Technicians)	Please Note: Operators work in shifts (24/7). The 8am-5pm shift, Monday-Friday, includes a manager, maintenance technicians, and 2 operators. **All Operations Response Team Personnel are Emergency Responders and are HAZWOPER Certified and fit tested for respirators and SCBA**	575-249-1073
2 Individuals	Plant/Pipeline Operators	575-249-1561
0-2 Individuals	Maintenance Technicians	575-249-1073

Employee Information	Phone Number	Responsibilities and Duties
Asset Manager: Leo Aridon	337-945-3783	Assumes role of **Incident Commander (IC)** Coordinates the ORT (Plant Operators and Technicians) Informs the Director of Operations and Safety Coordinator Monitors Progress
Operators: Armando Olivas Lynn Landrum Christian Hernandez Wade Duke Marshall Bevel Octavio Ramirez Thomas Tingle Tim Sapien	 806-638-2907 432-955-3100 936-581-0955 830-328-0041 281-508-8023 928-581-1341 307-640-7851 432-934-4471	Assumes role in **Operations Response Team (ORT)** Informs anyone on site to evacuate Guides individuals to Emergency Assembly Areas Performs role call Monitors Assembly Area Gas levels Establishes road blocks Attempts corrective actions Acts as media liaison
Maintenance Technicians: George Segovia	 575-605-4590	

Facility Main Office Phone Number	575-249-1073
Control Room Phone Number	575-249-1561

Figure 6 - Detailed Incident Command System Structure, Responsibilities, and Duties. All Operations Response Team personnel will be ready to perform any of the duties outlined in the table above, as directed by the Incident Commander.

Figure 7. Examples of an H2S warning sign placed at critical junctures between public areas and the ROE as well as at the entrance of the Compressor Station and throughout the facility.

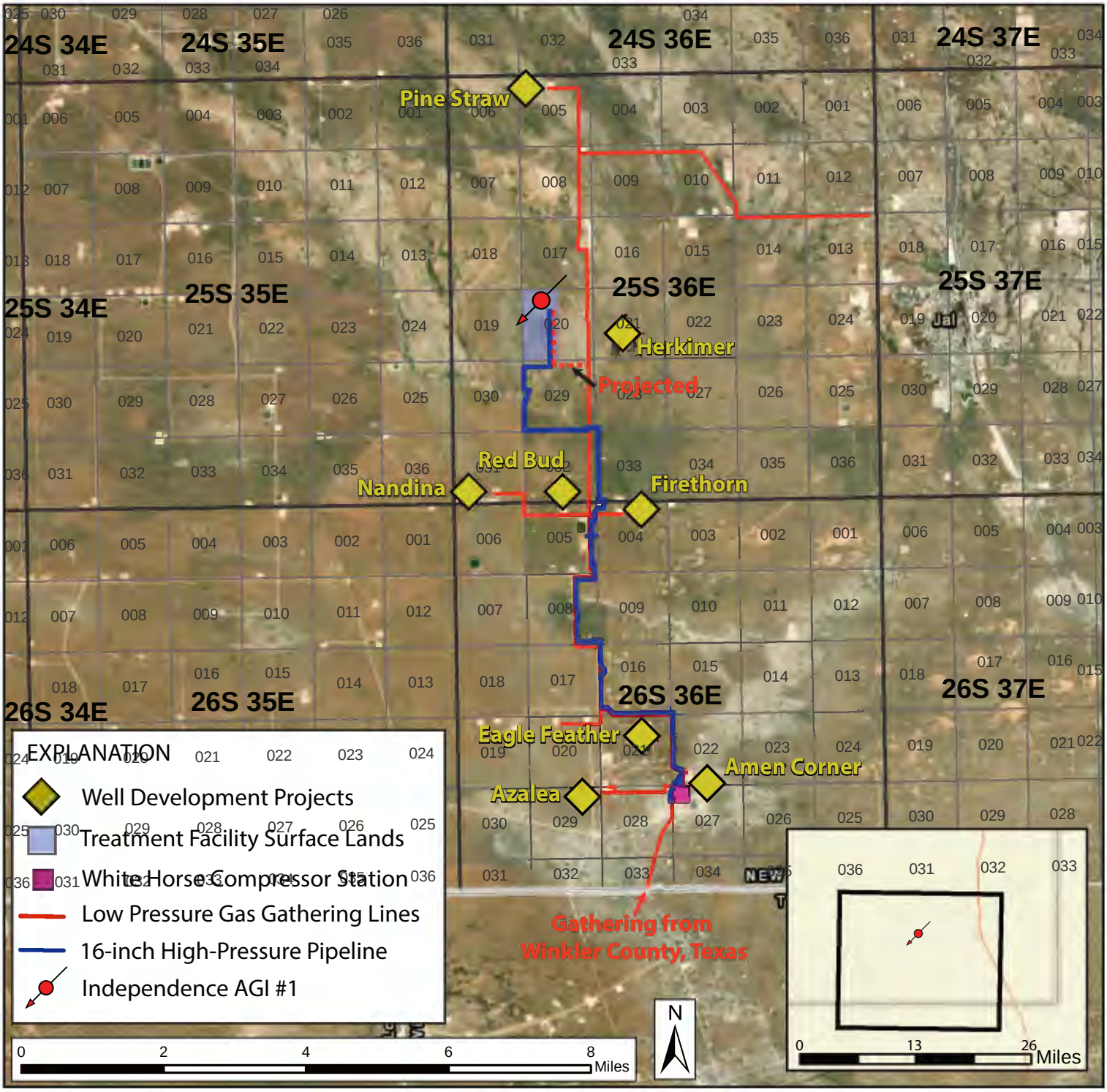


Figure 8. Location of gas-gathering lines (not owned by Piñon) and development project areas capable of sending production to the White Horse Compression station. Low pressure lines either lead to the compressor station or directly to the treatment plant. Gas sent to the compressor station is sent to the treatment plant via the16-inch high-pressure pipeline.

APPENDIX A
Immediate Action Plans

White Horse Compressor Station and Pipeline
Immediate Action Plans /Emergency Activation Procedures

LEVEL 1 ACTIVATION

ACTIVATING CONDITIONS:

- H_2S of 10 ppm or greater detected at any fixed monitor.
- Operator conducting monthly line patrol detects H_2S concentration of 10 ppm or greater.
- Other Piñon Employees or third party (contractor, etc.) report an H_2S gas leak (Odor Complaint).
- Leak is not rapidly resolved

ALARMS AND AUTOMATED ACTIVATIONS:

- Localized flashing yellow lights or beacons and an intermittent horn are activated if any fixed monitor senses H_2S at 10 ppm or greater. The horn and flashing yellow lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.

- A computer in the Control Room and in the office of the Asset Manager establishes the location of the monitor(s), at the compressor station, that has activated the alarm and/or flashing yellow beacons.

- All employees also wear personal monitors that sound an audible alarm at 10ppm H_2S or greater.

ACTIONS:

1. The responding operator will return to a safe area and notify the Dark Horse control room operator of the release. Asset Manager will be notified of the release, and they, or their designee will assume the role of Incident Commander (IC). Control Room Operator will remain in the control room, identify the location(s) of the problem(s), and monitor H_2S concentrations throughout the facilities.

2. The control room operator will contact any Piñon personnel or contractors working along the pipeline ROW, inform them of the H_2S alarm, and direct them to monitor air quality, especially H_2S concentrations.

3. Appropriate operator dons SCBA and helps any persons in distress, and evacuates any employees or contractors who may be working on or near the pipeline ROW to an Emergency Assembly Area, designated by the IC.

4. Any third parties observed working near the ROW will be advised verbally of the situation and instructed to leave the area and not return until further notice.

5. Responding personnel will don SCBA and help any persons in distress to evacuate, if not already done so, and will then assess the location of the alarm and attempt to make an initial determination of its cause and rule out potential false alarms based on sensor malfunction or other conditions. If the cause of the release is a minor problem such as a packing or seal leak, the Operator(s) will attempt to take the necessary steps to correct the situation and eliminate the source of the release.

6. If deemed necessary, local emergency response service providers (see Appendix C) will be contacted by Plant personnel designated by the operator.

7. IC will designate secondary re-entry teams in 30-minute SCBA's to re-enter and resolve the situation. Re-entry will occur in 15-minute increments at the direction of the IC until the problem is resolved or Operators activate ESD.

8. If corrective actions are successful, and the release is resolved and monitored H_2S levels return to less than 10 ppm, the IC or designee will signal all clear and personnel will be allowed to sign in and re-enter the ROW to resume work. If the release is not resolved and H_2S levels continue to rise, IC will initiate a Level 2 Response.

9. The IC will initiate and maintain a Chronologic Record of Events Log (see Appendix F).

10. The Asset Manager or designee will only contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 3. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of a release greater than 50 MSCF**

LEVEL 2 ACTIVATION

ACTIVATING CONDITIONS:

- Corrective actions at Level 1 are unsuccessful.
- H_2S concentration is increasing rapidly above 10 ppm
- Pipeline leak is visible.

ALARM AND AUTOMATED ACTIVATIONS:

- The automated ESD will trigger proactively at 40 ppm to minimize the potential for Level 2 events.

- Continuous facility-wide horn and flashing yellow lights will occur if detection occurs at the Compressor Station. The horn and flashing lights are redundant systems which function independently of one another so that should one system fail, the other would remain active. These systems incorporate backup battery capabilities as recommended in API RP 55 which insure their operation in the event of a power failure.

ACTIONS:

1. The responding operator, on detecting H_2S greater than or equal to 10 ppm, returns to safe area and immediately contacts the Dark Horse Facility control room operator to shut down the pipeline.

2. The responding operator will don SCBA and will check the pipeline ROW, help any persons in distress, and evacuate any employees or contractors who may be working on or near the pipeline ROW to the Emergency Assembly Area designated by the IC. If deemed necessary, local emergency response service providers will be contacted by Pipeline personnel designated by the operator.

3. Pipeline personnel with H_2S monitors and emergency trailers will be dispatched to the pipeline release area. Personnel will monitor air quality and move further away if H_2S reaches 10 ppm and notify IC.

4. All personnel will be accounted for using the Plant sign-in list and air quality will continue to be monitored for H_2S at the Emergency Assembly Area.

5. The Plant ESD can be activated at any time by the Dark Horse Treatment Plant Operators and is to be activated if efforts to control the release have failed, or if a catastrophic release has occurred.

6. An Incident Command Center will be established at a designated Emergency Assembly Area, and a media staging area will be established adjacent to Assembly Area and all media will be directed to it.

7. IC will designate personnel with H_2S monitors and emergency trailers to deploy to roadblock locations along State Road 128 (SR128), Frying Pan Road, and/or, Beckham Road to restrict entry within 1.01 miles (500 ppm ROE radius) of the location of the release, if necessary.

8. Designated personnel will notify anyone visibly near the ROW, individuals, and producers within the 500 and 100 ppm ROE (phone numbers provided in Appendix C) of the nature of the release and the status of containment. All will be instructed to evacuate, or shelter in place, depending on the nature of the release and the prevailing wind conditions. They will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the Plant evacuation status and advise them to leave and not enter, or re-enter the Plant vicinity until further notice.

9. Notifications by designated personnel will commence as follows:

    a) Anyone in immediate danger such as Piñon personal or contractors on site
    b) All entities, individuals, and producers within in 500 and 100 ppm ROE

10. Re-entry will occur in full SCBA and at 15-minute increments at the direction of the IC until IC determines problem has been resolved or Operators activate ESD.

11. If release is resolved and monitored levels of H_2S in the Plant are less than 10 ppm, IC or designee may authorize personnel to return.

12. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H_2S levels.

13. If monitored H_2S levels at the Emergency Assembly Area exceed 10 ppm, all personnel will evacuate to A new Emergency Assembly Area as designated by the IC (see Figure 4).

14. If the release is not resolved or H_2S levels continue to increase, the IC will initiate a Level 3 Response.

15. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)

16. The Asset Manager or designee will only contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 3. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of a release greater than 50 MSCF.**

White Horse Compressor Station and Pipeline
Immediate Action Plans /Emergency Activation Procedures

LEVEL 3 ACTIVATION

ACTIVATING CONDITIONS:

- Corrective actions at Level 2 are unsuccessful;
- A catastrophic release, fire, explosion;
- A continuous release of maximum volume for 24 hours occurs;
- As per NMAC 19.15.11 there is indication of a PHV, in which 100ppm H_2S in any defined public area, 500ppm at any public road, or 100 ppm at a distance greater than 3,000 feet from the site of the release.

ACTIONS:

1. All personnel shall have been or will immediately be evacuated to the Emergency Assembly Area (designated by the IC) and be accounted for using the Plant sign in sheet, and air quality will be monitored for H_2S concentrations.

2. IC shall have activated or will immediately activate the facility ESD.

3. The ICC and media staging area shall be established and/or moved to the designated Emergency Assembly Area.

4. Dispatch personnel with emergency trailers to move or establish designated Level 3 roadblocks on SR128, Frying Pan Road, and/or Beckham Road to prevent entry within a 2.22-mile radius (100 ppm ROE radius) of the release, if necessary. Monitor H_2S concentrations at the roadblocks.

5. Local emergency responders, state agencies, including the OCD District Office, will be notified of the release and status of containment (phone numbers provided in Appendix C).

6. All individuals and entities within the 100 ppm ROE will already have been or shall be notified to evacuate or shelter in place. IC will review the status of evacuation, and make the final decision whether individuals within the 100 ppm ROE should evacuate or shelter in place based on, but not limited to H_2S concentration, wind conditions and whether a safe evacuation can be implemented. If individuals within the 100 ppm ROE are instructed to evacuate, IC will recommend an evacuation route. All entities will be instructed to immediately alert all company personnel, third party contractors and/or service companies working in the area and those imminently scheduled to work in the area of the evacuation status and advise them to leave and not enter, or re-enter the vicinity until further notice. All will be advised of the deployed road blocks (if they were necessary.

7. If escaping vapors have been ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, the public, other property, or other equipment.

8. Re-entry will occur in full SCBA and cascade breathing air systems at the direction of the IC until IC determines problem has been resolved.

9. Once release is resolved and monitored levels of H_2S along the ROW are less than 10 ppm, IC or designee may authorize personnel to sign in and return and resume work.

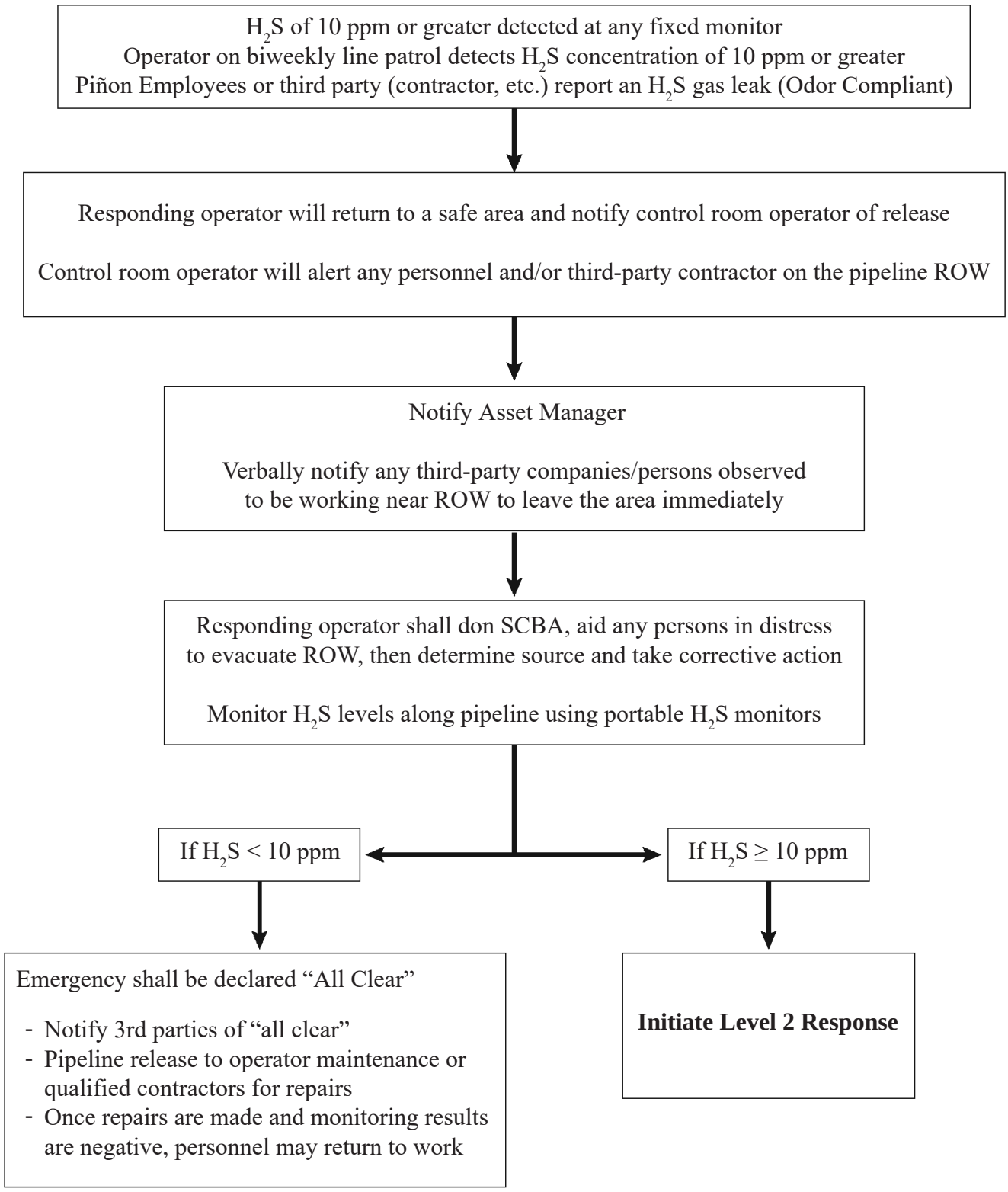
10. All entities and individuals previously notified will be informed that the release has been resolved and advised of the current monitored H_2S levels at the Plant. Roadblocks will be recalled and traffic will be restored.

11. The IC will initiate and maintain a Chronologic Record of Events log. (Appendix F)

12. The Asset Manager or designee will only contact the Oil Conservation Division (OCD) district office within 4 hours of a release that activates the plan at Level 3. **Per 19.15.11.16 NMAC, notification of Contingency Plan implementation will be submitted to the OCD via form C-141 within 15 days of a release greater than 50 MSCF**

APPENDIX B
Response Flow Diagrams

PIPELINE RELEASE
LEVEL 1 RESPONSE



PIPELINE RELEASE
LEVEL 2 RESPONSE

Level 1 response actions are unsuccessful
H_2S > 10 ppm along pipeline ROW and increasing
H_2S > 40 ppm detected by any monitor
Visible pipeline leak

↓

Responding operator shall return to a safe area and direct control room operator to activate pipeline shutdown

↓

Control room operator shall direct personnel on pipeline ROW to leave and/or evacuate up-wind of the pipeline

Provide verbal notification to any 3rd party companies or persons observed working near ROW to leave the area

Notify Asset Manager

↓

If necessary, Incident Command Center will set up an Assembly Area

Plant personnel will be dispatched with emergency trailers to assist with monitoring wind direction and ambient H_2S concentrations and to block roads to restrict entry within 1.01 miles of the release if applicable

↓

If H_2S < 10 ppm

↓

Emergency shall be declared "All Clear"

- Notify 3rd parties of "all clear"
- Pipeline release to operator maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

If $H_2S \geq 10$ ppm

↓

Initiate Level 3 Response

PIPELINE RELEASE
LEVEL 3 RESPONSE

Level 2 response actions are unsuccessful
Continuous Release of Maximum Volume for 24 hours
Catastrophic release of H_2S, Fire, or Explosion
PHV released in which 100ppm H2S in any defined public area,
500ppm at any public road, or
100 ppm at a distance greater than 3,000

↓

Direct control room operator to activate plant ESD

Initiate implementation of the H_2S Contingency Plan

Verbally notify any 3rd party companies or persons observed working near ROW to leave

Notify Asset Manager

Notify NMOCD, NM state agencies, and emergency responders

↓

Establish Incident Command and Media Staging Area at the designated location

↓

Dispatch personnel with emergency trailers to designated areas along pipeline route and to place roadblocks to restrict entry within 2.22 miles of the release if applicable

Monitor ambient air quality and move assembly area further away if H_2S reaching 10 ppm and notify Incident Commander of new assembly location

↓

Additional operations personnel may be directed to close valves on gas pipelines

Monitor H_2S levels along the pipeline

↓

If $H_2S < 10$ ppm

↓

Emergency shall be declared "All Clear"

- Notify 3rd parties of "All Clear"
- Pipeline release to operator maintenance or qualified contractors for repairs
- Once repairs are made and monitoring results are negative, personnel may return to work

APPENDIX C
Telephone Numbers/Emergency Call List

RESIDENCES, BUSINESSES, PUBLIC RECEPTORS, AND PRODUCERS WITHIN THE 100 PPM ROE

Business/Residence	Business/Residence Location	Phone
Beckham Ranch, Inc. (Residence)	236 Beckham Rd, Jal, NM 88252	575-395-3230
City of Jal Westfield Facility	-103.304, 32.031 (NAD83)	575-395-3340 (City Manager)
Salt Creek Ameredev South Gas Processing Plant	-103.277, 32.027 (NAD83) ~1 mile NW of White Horse	1-800-807-3628
Intrepid Potash Residential Property	193 Anthony Ranch Rd Jal, NM 88252	575-706-7973 575-234-3875

Producers	Office Location	Office Phone
AMEREDEV OPERATING, LLC	2901 Via Fortuna, Suite 600, Austin, TX 78746	737-300-4700
BC & D OPERATING INC.	1008 West Broadway, Hobbs, NM 88240	575-393-2727 575-942-2700
CAZA OPERATING, LLC	200 N Loraine St, Suite 1550, Midland, TX 79701	432-682-7424
CHEVRON USA INC.	6301 Deauville Blvd, Midland, TX 79706	432-687-7328
COG OPERATING, LLC	600 W Illinois Ave, Midland, TX 79701	432-683-7443
FRANKLIN MOUNTAIN ENERGY, LLC	44 Cook Street, Suite 1000, Denver, CO 80206	720-414-7868
FULFER OIL & CATTLE LLC	P.O. Box 1224, Jal, NM 88252	505-935-9970
PIÑON MIDSTREAM	465 W. NM Highway 128 Jal, NM 88252	713-300-9300
RMR OPERATING, LLC	14282 Gillis Road, Farmers Branch, TX 75244	214-871-0400
SALT CREEK MIDSTREAM, LLC	20329 State Hwy 249, 4th Floor, Houston, TX 77070	281-655-3200
SOLARIS WATER MIDSTREAM, LLC	907 Tradewinds Blvd, Suite B, Midland, TX 79706	432-203-9024
TAP ROCK OPERATING, LLC	523 Park Point Drive, Suite 200, Golden, CO 80401	720-772-5093
CHANCE PROPERTIES COMPANY**	1008 West Broadway, Hobbs, NM 88240	432-586-2027
CHESAPEAKE OPERATING, INC.**	P.O. Box 11050, Midland, TX 79702	405-848-8000
ONEENERGY PARTNERS OPERATING, LLC**	2929 Allen Parkway, Suite 200, Houston, TX 77019	713-714-6482

MARALO, LLC**	P.O. Box 832, Midland, TX 79702	915-684-7441
ENSERCH EXPLORATION INC.**	4849 Greenville Ave, Ste 1200, Dallas, TX 75206- Bad Address***	214-670-2820
TEXACO EXPLORATION & PRODUCTION INC**	P.O. Box 3109, Midland, TX - Bad Address***	915-688-4235
DASCO ENERGY CORP.**	P.O. Box 755, Hobbs, NM 88241	unavailable
DRACO ENERGY, INCORPORATED**	P.O. Box 11404, 500 N Big Spring, Ste 201, Midland, TX 79701	432-687-4661
WHITING OIL AND GAS CORPORATION**	1700 Lincoln Street, Suite 4700, Denver, CO 80203	303-357-4078
BTA OIL PRODUCERS**	P.O. Box 1203, Jal, NM 88252	505-395-3230
BTA OIL PRODUCERS**	104 S Pecos, Midland, TX 79701	915-682-3753
IMPETRO OPERATING, LLC**	1600 West 7th Street, Suite 400, Fort Worth, TX 76102	817-720-9585
HERITAGE RESOURCES, INC.**	3131 Mckinney Avenue, Suite 710 Dallas, TX 75204	241-526-8118
CARR WELL SERVICE, INC.**	P.O. Box 69090, Odessa, TX 79769	915-682-2830
ENERGEN RESOURCES CORPORATION**	3510 N A St, Midland, TX 79705	432-687-1155
EOG Y RESOURCES, INC.**	104 S 4th St, Artesia, NM 88210	575-748-4168

**Operators are not actively operating in the area, but own plugged or cancelled wells
***Address on file with NMOCD is inaccurate or operator is not active

PIÑON COMPANY INTERNAL NOTIFICATIONS

Name	**Title**	**Phone Number**
Leo Aridon	Asset Manager	337-945-3783
Casey Fix	Director of Operations	970-405-2614
Hunter Clymore	Safety Coordinator	817-304-7261
Operations Response Team (Includes Asset Manager, Plant/Pipeline Operators, and Technicians)	Please Note: Operators work in shifts (24/7). The 8am-5pm shift, Monday-Friday, includes a manager, maintenance technicians, and 2 operators. **All Operations Response Team Personnel are Emergency Responders and are HAZWOPER Certified and fit tested for respirators and SCBA**	575-249-1073
2 Individuals	Plant/Pipeline Operators	575-249-1561
0-2 Individuals	Maintenance Technicians	575-249-1073

EMERGENCY RESPONDERS

Agency	Phone Number
Emergency Dispatch	911
Hobbs Fire & EMS Department	575-397-9308
Hobbs Police Department	575-397-9265
Jal Fire & EMS Department	575-395-2221
Eunice Fire & EMS Department	575-394-3258
New Mexico State Police (Hobbs)	575-392-5588
Lea County Sheriff's Office	575-396-3611
Hobbs-Lea Regional Medical Center	575-492-5000
Lubbock University Medical Center (UMC) (Level 1 Trauma Center)	800-345-9911
American Association of Poison Control Centers	800-222-1222
HELICOPTER SERVICES Lubbock University Medical Center Transfer to Level 1 Trauma Center	800-345-9911

COUNTY AND LOCAL LAW ENFORCEMENT AND PUBLIC AUTHORITIES AND LOCAL GOVERNMENT AGENCIES

Agency	Phone Number
Oil Conservation Division Santa Fe Office District 1 Office, Lea County (Hobbs)	 505-476-3460 575-370-3186
Bureau of Land Management (BLM) Hobbs Field Office	 575-393-3612
Local Emergency Planning Committee (LEPC) Lea County	 575-605-6561
New Mexico State Police (Hobbs)	575-392-5580
Lea County Sheriff's Office	575-396-3611
National Response Center (NRC) Response Center	800-424-8802
New Mexico Department of Homeland Security & Emergency Management (NMDHSEM)	505-476-9635
City of Jal City Manager	575-395-3340

APPENDIX D
Radius of Exposure (ROE) Calculation

Pinon Midstream **Proposed** *White Horse Compresssor* **ROE CALCULATIONS PURSUANT TO RULE 11**

If data is provided in mole% use calculator below for getting ppm

Enter Mole % in cell C5	**Mole %**	**ppm**
Convert mole% to ppm	2.5	25000

If data is provided in mole fraction use calculator below for getting ppm

Enter Mole Fraction in cell C10	**Mole Fraction**	**ppm**
Convert mole fraction to ppm	0.025	25000

Use ppm derived from either of above calculations to input data below

Input Data Here	**H_2S Concentration (ppm)**	25000
	24 Hour Throughput (MMCFD)	80

The radius of exposure is calculated using the following equations:

100 ppm ROE calculation (as per 19 NMAC 15.11.7.K.1)

$$X_{100ppm} = [(1.589)(Conc_{H2S})(Q)]^{(0.6258)}$$

500 ppm ROE calculation (as per 19 NMAC 15.11.7.K.2)

$$X_{500ppm} = [(0.4546)(Conc_{H2S})(Q)]^{(0.6258)}$$

Where:

X = radius of exposure (ft)

$Conc_{H2S}$ = the decimal equivalent of the mole or volume fraction of H_2S in the gas

Q = daily plant throughput corrected to standard conditions (SCFD)

Plant parameters

Q =	80	MMSCFD =	80000000	SCFD		
$Conc_{H2S}$ =	25000	ppm =	2.5	Mole %=	0.025	Mole Fraction

ROE calculation:

X_{100ppm} = [(1.589)*(0.025)*(80000000)]^(0.6258)

X_{100ppm} = 11723 ft = 2.22 miles

X_{500ppm} = [(0.4546)*(0.025)*(80000000)]^(0.6258)

X_{500ppm} = 5357 ft = 1.01 miles

APPENDIX E
H_2S Plan Distribution List

H_2S PLAN DISTRIBUTION LIST

Nearby Residents (if applicable)

New Mexico Oil Conservation Division, Santa Fe Office

New Mexico Department of Public Safety (State Office)

Lea County LEPC/Emergency Manager*

City of Jal City Manager

Dark Horse Gas Treatment Plant Asset Manager's Office

Dark Horse Gas Treatment Plant Control Room

Piñon Corporate Office

Dark Horse Gas Treatment Plant and White Horse Emergency Trailers

New Mexico State Police, Hobbs Office

State of New Mexico Emergency Response Commission (SERC)

*Note: Lea County LEPC Emergency Manager will make and send copies of this plan to appropriate entities within his jurisdiction, including the Hobbs Fire Department.

APPENDIX F
Chronologic Record of Events Log

CHRONOLOGICAL RECORD OF EVENTS LOG

1. Incident Name	2. Operational Period (Date/Time) From: To:	UNIT/ACTIVITY LOG ICS 214

3. Individual Name	4. ICS Section	5. Assignment/Location

6. Activity Log	Page	of

TIME	MAJOR EVENTS

7. Prepared by:	Date/Time

Unit/Activity Log		ICS 214

APPENDIX G
NMOCD Form C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 24, 2018
Submit to appropriate OCD District office

Incident ID	
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # *(assigned by OCD)*
Contact mailing address	

Location of Release Source

Latitude _____ Longitude _____
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# *(if applicable)*

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

☐ Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
☐ Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	☐ Yes ☐ No
☐ Condensate	Volume Released (bbls)	Volume Recovered (bbls)
☐ Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
☐ Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)
Cause of Release		

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC? ☐ Yes ☐ No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

Initial Response

The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury

☐ The source of the release has been stopped.

☐ The impacted area has been secured to protect human health and the environment.

☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.

☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Site Assessment/Characterization

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	_____ (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☐ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☐ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☐ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☐ No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

Characterization Report Checklist: ***Each of the following items must be included in the report.***

- ☐ Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- ☐ Field data
- ☐ Data table of soil contaminant concentration data
- ☐ Depth to water determination
- ☐ Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- ☐ Boring or excavation logs
- ☐ Photographs including date and GIS information
- ☐ Topographic/Aerial maps
- ☐ Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

APPENDIX H
Ameredev Development Project Wells

API	NAME	TYPE	STATUS	LATITUTE (NAD83)	LONGITUDE (NAD83)	DIRECTIONAL STATUS
30-025-46287	PINE STRAW 25 36 05 FEDERAL COM #091H	Oil	New	32.1660497	-103.2945647	H
30-025-46288	PINE STRAW 25 36 05 FEDERAL COM #101H	Oil	Active	32.1660499	-103.2947586	H
30-025-20381	HERKIMER BQF FEDERAL #001H	Oil	Active	32.113987	-103.2722168	H
30-025-46942	NANDINA 25 36 31 FEDERAL COM #075H	Oil	New	32.078945	-103.3019048	H
30-025-46943	NANDINA 25 36 31 FEDERAL COM #085H	Oil	New	32.078945	-103.3020339	H
30-025-45243	NANDINA 25 36 31 FEDERAL COM #105H	Oil	New	32.0801266	-103.3031326	H
30-025-45244	NANDINA 25 36 31 FEDERAL COM #125H	Oil	Active	32.0801266	-103.3030035	H
30-025-45246	NANDINA 25 36 31 FEDERAL COM #115H	Oil	New	32.0801266	-103.3030681	H
30-025-46219	NANDINA 25 36 31 FEDERAL COM #093H	Oil	New	32.0798496	-103.3078146	H
30-025-46222	NANDINA 25 36 31 FEDERAL COM #123H	Oil	New	32.0802072	-103.3073147	H
30-025-46191	NANDINA 25 36 31 FEDERAL COM #071H	Oil	New	32.080206	-103.3096875	H
30-025-46192	NANDINA 25 36 31 FEDERAL COM #081H	Oil	New	32.0802061	-103.309623	H
30-025-46194	NANDINA 25 36 31 FEDERAL COM #102H	Oil	New	32.0802061	-103.3094939	H
30-025-46221	NANDINA 25 36 31 FEDERAL COM #113H	Oil	New	32.0802072	-103.3073793	H
30-025-46145	NANDINA 25 36 31 FEDERAL COM #101H	Oil	Active	32.0802051	-103.3114632	H
30-025-46193	NANDINA 25 36 31 FEDERAL COM #091H	Oil	New	32.0802061	-103.3095584	H
30-025-46220	NANDINA 25 36 31 FEDERAL COM #103H	Oil	Active	32.0802071	-103.3074438	H
30-025-46217	NANDINA 25 36 31 FEDERAL COM #073H	Oil	New	32.0802073	-103.307121	H
30-025-46196	NANDINA 25 36 31 FEDERAL COM #121H	Oil	Active	32.0802052	-103.3113986	H
30-025-46146	NANDINA 25 36 31 FEDERAL COM #111H	Oil	New	32.0802052	-103.3113986	H
30-025-46195	NANDINA 25 36 31 FEDERAL COM #112H	Oil	Active	32.0802061	-103.3094293	H
30-025-46426	NANDINA 25 36 31 FEDERAL COM #126H	Oil	New	32.0801272	-103.3009212	H
30-025-46425	NANDINA 25 36 31 FEDERAL COM #095H	Oil	New	32.078945	-103.3019693	H
30-025-46334	NANDINA 25 36 31 FEDERAL COM #114H	Oil	Active	32.0802083	-103.305142	H
30-025-46393	NANDINA 25 36 31 FEDERAL COM #124H	Oil	New	32.1084818	-103.3052491	H
30-025-46433	NANDINA 25 36 31 FEDERAL COM #104H	Oil	New	32.0802082	-103.3052066	H
30-025-46197	NANDINA 25 36 31 FEDERAL COM #122H	Oil	New	32.0798489	-103.30941	H
30-025-46218	NANDINA 25 36 31 FEDERAL COM #083H	Oil	New	32.0802072	-103.3072501	H
30-025-46424	NANDINA 25 36 31 FEDERAL COM #087H	Oil	New	32.0789462	-103.2977725	H

30-025-48335	NANDINA 25 36 31 FEDERAL COM #107H	Oil	New	32.0801279	-103.2988712	H
30-025-44471	RED BUD 25 36 32 STATE COM #115H	Oil	Active	32.0801285	-103.286012	H
30-025-44470	RED BUD 25 36 32 STATE COM #105H	Oil	Active	32.080128	-103.2859479	H
30-025-47940	RED BUD 25 36 32 STATE COM #103H	Oil	New	32.0789464	-103.2903474	H
30-025-47363	RED BUD 25 36 32 STATE COM #108H	Oil	New	32.0789467	-103.2796685	H
30-025-47364	RED BUD 25 36 32 STATE COM #118H	Oil	New	32.0789467	-103.279604	H
30-025-47379	RED BUD 25 36 32 STATE COM #125H	Oil	New	32.0789461	-103.2867547	H
30-025-47380	RED BUD 25 36 32 STATE COM #128H	Oil	New	32.0789467	-103.2795394	H
30-025-47389	RED BUD 25 36 32 STATE COM #116H	Oil	New	32.0801283	-103.284237	H
30-025-47390	RED BUD 25 36 32 STATE COM #126H	Oil	New	32.0801283	-103.2841725	H
30-025-47391	RED BUD 25 36 32 STATE COM #106H	Oil	New	32.0801283	-103.2843016	H
30-025-47401	RED BUD 25 36 32 STATE COM #095H	Oil	New	32.0801283	-103.2843662	H
30-025-47421	RED BUD 25 36 32 STATE COM #085H	Oil	New	32.0801283	-103.2844307	H
30-025-47422	RED BUD 25 36 32 STATE COM #075H	Oil	New	32.0801283	-103.2844953	H
30-025-44961	FIRETHORN FEDERAL COM 26 36 04 #113H	Oil	Active	32.0801291	-103.2731308	H
30-025-38885	EAGLE FEATHER FEDERAL #002	Gas	Active	32.0341949	-103.2667923	V
30-025-44943	AMEN CORNER 26 36 27 STATE COM #091H	Oil	New	32.0221653	-103.2605415	H
30-025-44942	AMEN CORNER 26 36 27 STATE COM #121H	Oil	New	32.0221655	-103.2607997	H
30-025-44809	AMEN CORNER 26 36 27 STATE COM #105H	Oil	New	32.0209739	-103.2519577	H
30-025-44651	AMEN CORNER 26 36 27 STATE COM #115H	Oil	New	32.020974	-103.2520222	H
30-025-44652	AMEN CORNER 26 36 27 STATE COM #125H	Oil	New	32.0209742	-103.2520867	H
30-025-44104	AZALEA 26 36 28 STATE #111H	Oil	Active	32.020883	-103.2777528	H
30-025-44229	AZALEA 26 36 28 STATE #121Y	Oil	Active	32.020883	-103.2778167	H
30-025-44105	AZALEA 26 36 28 STATE #121	Oil	New	32.0208832	-103.2776884	V