H2S – 59-1

AGAVE
LARUE CS
H2S CP

2013

H_2S Contingency Plan

LaRue Compressor Station

Agave Energy Company

105 South 4th Street
Artesia, NM 88210
(575-748-4555)

February 1, 2013

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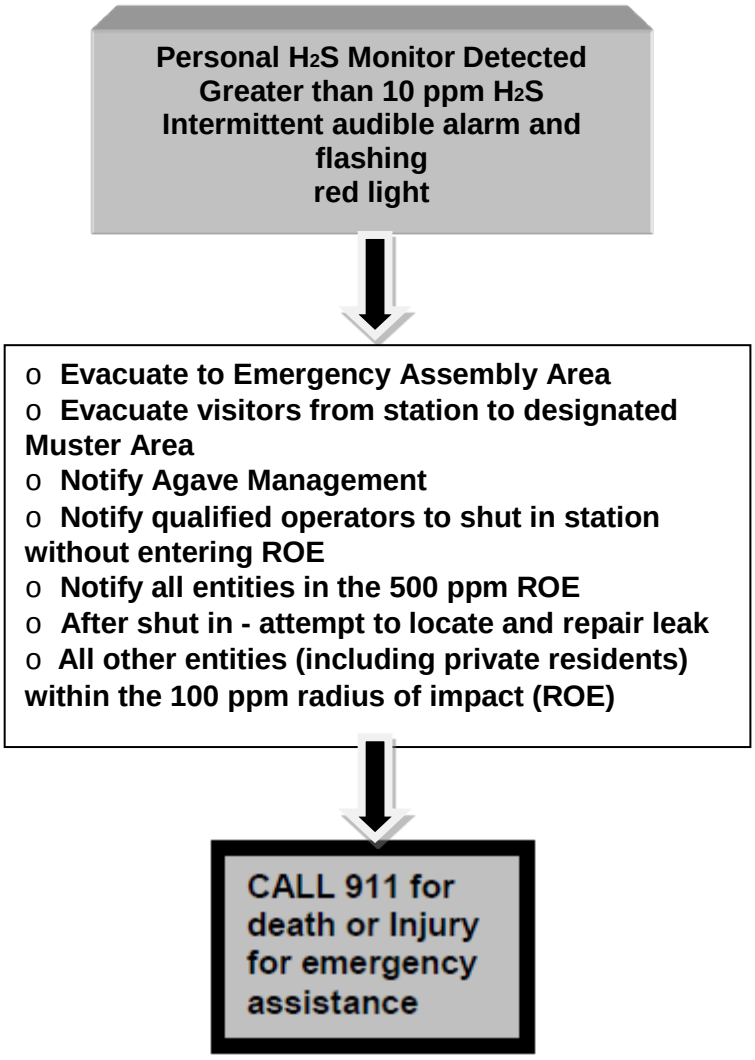


Location of Facilities

Larue Compressor Station Location

Section 3, Township 20S, Range 24E, Eddy County- Go south of Artesia, NM on Highway285 to Rock Daisy Road (County Road #23). Drive8 ½ miles to the fork in the road; take the right fork and stay on Rock Daisy (County Road 23). Cross the draw and go approximately 1 mile turn right on to the location.

Emergency Trailer – Atoka Facility Location (See Map)

From Artesia, drive south on Highway 285 to County Road 39. Turn east and drive approximately 2 miles. The facility is on the south side of the road in NW/NE Sec 14 18S 26 E.

I. Introduction
[API RP-55 7.1]
The Larue Compressor Station is a natural gas compressor station which handles sour field gas that contains hydrogen sulfide (H_2S). This H_2S contingency Plan was created to outline procedures that are to be followed in the event of an H_2S Release that could occur at the station. This plan complies with the ***New Mexico Oil Conservation Division (OCD) Rule 11***. The plan and operation of the Larue Compressor Station also conform to standards set forth in ***API RP55 "Recommended Practices for Oil and Gas Producing and Gas Processing Plant Operations Involving Hydrogen Sulfide"*** as well as ***API RP-49 "Recommended Practice for Drilling and Well Servicing Operations Involving Hydrogen Sulfide."*** The Larue Compressor Station does have storage tanks in which sour condensate is stored, and thus, API regulations and OCD regulations (specifically19.15.11.12.E NMAC) relative to those types of storage are applicable for this station. While there are no known residences or businesses within the 100 ppm radius of exposure (ROE) other than the Larue Compressor Station, Agave has committed to provide notice to nearby property owners outside of the ROE if necessary as detailed in Section IV.B in the case of an unintended release.

II. Scope
[API RP-55 7.2]
This contingency plan is specific to the Larue Compressor Station. This plan contains procedures to provide an organized response to an unplanned release from the station and it outlines procedures that would be followed to alert and protect any members of the public. Residents in surrounding areas and/or contractors working on or around the Station will be contacted in the event of an unplanned release. All operations shall be performed with safety as the primary goal. Any part of the operation that might compromise the safety of personnel will cease until the operation can be re-evaluated and the proper engineering controls implemented.

III. Plan Availability
[API RP-55 7.3]
This contingency plan shall be available to all personnel responsible for implementing any portion of the plan. Copies of the plan will be distributed to the following agencies: New Mexico Oil Conservation Division (OCD), New Mexico Department of Public Safety, Local Emergency Planning Committee (LEPC), Artesia Fire Department and Eddy County Sheriff's Department. The Plan will be available at the following Agave Energy Company locations: Artesia Field Office, Emergency Response Trailer at Atoka (Map 1) and the Agave Main Office in Artesia.

IV. Emergency Procedures
[NMAC 19.15.11.9.B(2)(a)] [API RP-55 7.4 a] [29 CFR 1910.1200]

A. Responsibilities and Duties of Personnel during an Emergency

1. Mechanical Supervisor or designee will serve as the Incident Commander (IC); is responsible for training operators assigned to the Station, contractors and visitors on the implementation of this plan; and will maintain communication with Agave management and residents within the radius of exposure (ROE).
2. Mechanical Supervisor or designee will serve as the Incident Commander (IC) in the absence of the Area Foreman; is responsible for training and supervising station operators on the

implementation of this plan, will maintain accountability of all contractors and visitors; and will maintain communication with the Area Foreman and Agave management.
3. Field personal will perform operations in accordance with this safety plan; assist in the accountability and evacuation of visitors and contractors to designated muster areas; and keep the Area Foreman and manager informed on the repair progress.
4. Essential Agave Personnel will be familiar with the procedures in this plan and assist station operators in assisting with the implementation of this plan in a safe manner.
5. Visitors and contractors on site will be familiar with safety alarms; and adhere to instructions of Mechanical Supervisor and other Agave personnel in evacuation of the facilities.

B. Immediate Action Plan

The following outlines the immediate action plan that is illustrated by the response flow diagram in Appendix B. This is to be used when responding to an H_2S release. The Response level is the same for a release at any point or concentration. 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.

If H2S is at 10 ppm or greater, worst case scenario, and/or catastrophic release have occurred, then the following response will be implemented:

2. Road blocks will be set up near the Muster Area on the intersection of the lease road and Rock Daisy Road (see Appendix D).
3. All personnel shall have evacuated to a designated Muster Areas. Evacuation of all entities within the 500 ppm radius of impact (ROE) will have been confirmed. Implementation of full H2S Plan does not require public notification. Notifications to all entities within the 100 ppm radius of impact (ROE) will include the nature of the release and status of containment. Notifications will include but are not limited to the following:

a) All businesses within the 100 ppm radius of impact (ROE) will be instructed to immediately alert all company personnel, third party contractors and/or services companies working in the area, and those imminently scheduled to work in the area, of the release and evacuation status of the Station. They will be instructed to immediately leave and/or not enter/reenter the area within the roadblocks until further instruction.

b) All other entities (including private residents) within the 100 ppm radius of impact (ROE) will be instructed to immediately shelter in place, if appropriate based on the source of the release and the wind direction. Those entities will be instructed to close any windows and shut off any air conditioning/heating until further notice. In addition, they will be instructed to contact other employees/residents not currently present to not enter/reenter the area until further instruction.

c) The Incident Commander (IC) will make the decision based on, but not limited to, H2S concentration and wind direction, whether a safe evacuation can be implemented, and recommend an evacuation route.

It should be noted that at the time of submission of this plan there are no known occupants, businesses or residences within the 100 ppm ROE; however, Agave personnel will make a visual inspection of the ROE area to insure that no individuals are seen inside the ROE, and if any are observed, they will be advised to immediately evacuate to the designated Muster Area, described above.

4. If escaping vapors have ignited, the vapors should be allowed to continue to burn unless the fire endangers personnel, other property, or other equipment.
5. When applicable, maintain communication with the Mechanical Supervisor, or his designee, to keep him up-to-date of the situation and the action taken prior to his arrival at the location.
6. Initiate and maintain a Chronological Record of Events log.
7. Within one hour after the activation of the H2S Plan, begin agency notifications by calling Oil Conservation Division (OCD) and National Response Center (NRC) if necessary.
8. Establish media staging area adjacent to Muster Area and direct all media to it if necessary.
9. Once resolved and monitored levels in the Station and at Muster Area are less than 10 ppm, roadblocks will be removed, and all entities within the 100 ppm radius of impact (ROE) will be allowed to return. All entities previously notified will be informed that the release has been resolved and advised of the current monitored H2S levels.
10. Monitoring will continue after problems are abated, at the direction of the Area Foreman.
11. Agency reports to be submitted as required.

C. Telephone Numbers and Communication Methods

1. Emergency Services

AGENCY	TELEPHONE #
Artesia Fire Department	(575) 946-5050
Eddy County Sheriff	(575) 887-7551
State Police (HMER)	
District 3 Roswell	(575) 827-9312
Sub District 3 Carlsbad	(575) 885-3138
Ambulance Services	
Artesia	(575) 746-5050
Carlsbad	(575) 885-2111
Hospitals	
Artesia General	(575) 748-3333
Carlsbad Medical Center	(575) 887-4100
Veterinarians	
Artesia Animal Clinic	(575) 748-2042
Livingston Animal Clinic	(575) 746-6167
Helicopter Services	
Lifeguard (Albuquerque)	1-800-633-5438
Southwest Medivac (Hobbs)	1-800-242-6199
AeroCare (Lubbock)	1-800-627-2376
Air Med (El Paso)	(915) 772-1449

2. Government Agencies

AGENCY	TELEPHONE #
Oil Conservation Division (OCD)	(505) 476-3440
US BLM	(575) 887-6544
Local Emergency Planning Committee (LEPC)	(575) 887-9511
National Response Center (NRC)	1-800-424-8802

3. Operators and Contractors

COMPANY	TELEPHONE #
CVE	(575) 746-3571
PVT	(575) 748-1241
DCP Midstream	(800) 435-1679
Chevron/West Texas Pipeline Company	(800) 762-3404
Transwestern Pipeline	(281) 714-2265
Yates Petroleum Corporation	(575) 748-1471

4. Public (None)

5. Agave Internal Call List

NAME	TITLE	Office #	Cell #
J.B. Smith	President	(575) 748-4414	(575) 365-8517
Rusty Nasta	Operations Manager	(575) 748-4523	(575) 626-7971
Ivan Villa	Engineering Manager	(575) 748-4528	(575) 365-4888
Jennifer Knowlton	Environmental Manager	(575) 748-4528	(505) 238-3588
Robert Moorhead	South Mechanical Supervisor	(575) 748-6815	(575) 365-4840
Justin Dosher	Station Mechanic	(575) 748-4555	(575) 365-8060
Ruben Molina	Safety Engineer	(575) 748-4447	(575) 513-9448
Bill Johnson	South Measurement Supervisor	(575) 748-6816	(575) 365-4615
Jason Fuentes	South Pipeline Supervisor	(575) 748-4518	(575) 365-8939

Agave Energy Company will use 2-way radios and telephones to communicate internally. Telephone will be used for external communication. Land lines and high speed internet access are available at the plant office.

D. Location of Nearby Residences, Roads, and Medical Facilities

1. The following residences are located within the ROE of the station:
    a) None
2. The following roads are located within the ROE:
    a) Agave/Yates Lease Road (private)
3. There are no medical facilities located within the ROE.
4. It should be noted that at the time of submission of this plan there are no known occupants, businesses or residences within the 100 ppm ROE; however, Agave personnel will make a visual inspection of the ROE area to insure that no individuals are seen inside the ROE, and if any are observed, they will be advised to immediately evacuate to the designated Muster Area, described above.

E. Evacuation Routes, Emergency Assembly Area, Muster Areas, and Road Block Locations

1. Evacuation Routes, Emergency Assembly Area, and Muster Areas are depicted on Appendix Map D-1 and Map D-2.
2. Pre-planned road block location is designated near the muster area on the lease road just off Rock Daisy Road depicted on Map D-1 in Appendix D. The location will have pre-positioned, portable road barriers with lights. The location will have flashing lights and warning signs. If the release is sufficient to require evacuation to muster areas, then roadblocks near the muster areas on the lease road of the facility, respectively, will be established. The Incident Commander (IC) will designate a representative to staff the roadblock. If deemed necessary by the Incident Commander (IC), the State or Local Police will be asked to assist with maintaining the roadblocks.
3. Emergency lights on the Muster Area signs will be activated by any perimeter alarm of 10 ppm or greater H_2S.

F. Monitoring Equipment, Alarm Systems, Safety Equipment, and Supplies Available

1. GAS DETECTION EQUIPMENT: Each individual is assigned a personal H_2S monitor. The handheld gas detection devices are Industrial Scientific ITX 3-gas detectors. The personal monitors are set to alarm (beep) at 10 ppm with the beeps becoming closer together as the H_2S concentration increases to 20 ppm.

2. FIRE FIGHTING EQUIPMENT: Agave personnel are trained only for insipient stage firefighting. Fire extinguishers are located in the compressor buildings and company vehicles and are typically a 20# ABC dry chemical fire extinguisher. See Appendix A for locations. The Station does not have a fire water system.

3. EMERGENCY RESPONSE TRAILER AND EQUIPMENT: Agave Energy Company has an Emergency Response Trailer located at the Atoka Facility (Map 1). This is located outside all radii of exposure (ROE) from the facility. The trailer can serve as a mobile resource center or Incident Command Center.

4. EMERGENCY RESPONSE TRAILER CONTENTS

- 2 wind socks / wind direction indicators w/poles & spares
- 1 – 110 volt generator, portable w/wheels
- 4 5-gas sensor ambient monitors (O_2, SO_2, LEL, CO, H_2S) with automatic air pumps (15 sec per foot) and data logging capability
- 1 calibration unit for monitors
- 5 intrinsically safe communication radios & chargers, 32 channel with capability to be programmed to fire service and police channels
- 4 20# stored pressure, ABC class Fire Extinguishers
- 4 4500 Grade D breathing air cylinders, regulator, low pressure alarm, and hose reel w/ 300 ft hose (total) and correct quick disconnects.
- 1 stretcher
- 1 20-person First Aid Kit with burn gel packets
- 4 30-minute SCBA's
- 4 work unit SCBA's
- 2 lights, mounted on each rear of trailer for night operations
- 2 hand cleaner for decontamination of petroleum products.
- 3 traffic Control Kits
- 1 emergency flare gun for lighting uncontrollable hazardous gases
- 2 full body harness and 150' X 2 lifelines
- 2 "Hazardous Area" "Do Not Enter" signs / barricades
- 2 burn gel blankets
- 1 set of maps and Emergency Response Plans
- 4 temporary use Nomex Fire retardant clothing (2-LG & 2-XLG)

5. TRAFFIC CONTROL KIT CONTENTS

- 3 electronic road flares
- 1 28" stop sign paddle
- 4 reflective traffic control vests
- 2 emergency signal wands
- 1 emergency Response Guidebook

6. FIRST AID EQUIPMENT LOCATIONS:

All Field Offices are equipped with first aid kits and fire extinguishers.
All company vehicles are equipped with a first aid kit and fire extinguisher.

7. PERSONAL H_2S MONITORS:

All Agave field and associated personnel are issued personal H_2S monitors.

8. SIGNS and MARKERS:

The Station has warning signs indicating the presence of "H_2S/Poisonous Gas" and high pressure gas at the entrance. Emergency response phone numbers are also posted.

V. Characteristics of Hydrogen Sulfide (H_2S) and Sulfur Dioxide (SO2) [NMAC 19.15.11.9.B(2)(b)] [API RP-55 7.4 b.]

A. Hydrogen Sulfide (H_2S): Hydrogen Sulfide (H_2S): The proposed inlet gas streams into the Station will contain a maximum of 9,530 ppm (or 0.095 mole percent) of hydrogen sulfide based on data generated from the sampling of the inlet gas at least daily. Hydrogen sulfide is a colorless, toxic and flammable gas, and has the odor of rotten eggs at low concentrations. Hydrogen sulfide gas is heavier than air. Hydrogen sulfide presents a significant health hazard by paralyzing the respiratory system resulting in serious injury or death.

Appearance and state:	Colorless gas
Odor: Rotten Egg Odor.	The sense of smell is paralyzed at approximately 100ppm.
Odor Threshold:	0.05 ppm
Flash Point:	Flammable Gas
Auto Ignition:	260°C
Lower Explosive Limit (%):	4.3%
Upper Explosive Limit (%):	45.0%
Boiling Point:	-60.4°C
Melting Point:	-85.5°C
Vapor Pressure:	1875 kPa @ 20 °C
Vapor Density (Air = 1):	1.19
Specific Gravity:	Not available
Solubility (H_2O):	Soluble in water
Percent Volatiles:	Not available
pH	Not available
Evaporation Rate:	Variable
Octanol/Water Coefficient:	Not available

POTENTIAL HEALTH EFFECTS

Acute effects: At high concentrations (500 - 1000 ppm), hydrogen sulfide acts as a systemic poison, causing unconsciousness and death. In lower concentrations (50 – 500 ppm), hydrogen sulfide acts as a respiratory irritant, and may cause fluid in the lungs or bronchial pneumonia. The rotten egg odor of hydrogen sulfide is not a reliable indicator for warning of exposure, since olfactory fatigue (loss of smell) readily occurs, especially at concentrations above 50 ppm. If rapidly escaping gas comes in contact with skin this product may result in frostbite and dermatitis.

Chronic effects: Chronic exposure to hydrogen sulfide of 50 ppm or greater may include bronchitis and inflammation of the mucous membrane of the respiratory system. At 250 ppm hydrogen sulfide, chronic effects may include bronchial pneumonia and pulmonary edema.

Sensitization: Not available.

Mutagenicity: Not mutagenic.

Reproductive effects: Not known to cause reproductive effects.

Carcinogenicity: Ingredients are not identified as carcinogens by IARC, NTP or ACGIH.

Target organs: Eyes, respiratory system, central nervous system (CNS).

B. Sulfur Dioxide (SO_2): Sulfur dioxide is produced as a by-product of H2S combustion at the flare. The flare unit receives the residual hydrogen sulfide and carbon dioxide stream that is routed from the amine unit. It is colorless, transparent, and is non-flammable, with a pungent odor associated with burning sulfur. Sulfur dioxide is heavier than air, but will be picked up by a breeze and carried

downwind at elevated temperatures. Sulfur dioxide can be extremely irritating to the eyes and mucous membranes of the upper respiratory tract.

Appearance and state:	**Colorless Gas**
Odor:	**Faint Sweetish Odor.**
Odor Threshold:	**0.35-5 ppm**
Flash Point:	**Non-Flammable Gas**
Auto Ignition:	**Non-Flammable**
Lower Explosive Limit (%):	**Not Available**
Upper Explosive Limit (%):	**Not Available**
Boiling Point:	**14 ° F at 760 mm Hg**
Melting Point:	**-98.9 ° F**
Vapor Pressure:	**2432 mm Hg at 68.0 ° F**
Vapor Density(Air=1):	**2.26**
Specific Gravity:	**1.434**
Solubility (H_2O):	**10 %**
Percent Volatiles:	**Not Available**
pH:	**Not Available**
Evaporation Rate:	**Variable**
Ocatanol/Water Coefficient:	**Not Available**

C. Radii of Exposure (ROE)
[NMAC 19.15.11.7.K]
The basis for worst case scenario calculations is as follows:

- The hydrogen sulfide content of the inlet natural gas stream into the Laue Compressor Station is variable, ranging upwards to 9240 parts per million (ppm) or 0.924 mole percent. In reality, the actual H_2S concentration that the station processes will be much less than this.
- The inlet gas H_2S concentration of 0.924 mole percent was determined using a mass-balance approach.
- The Station has a maximum daily (24 hour) processing volume of 3 MMSCF.
- The worst case scenario radius of exposure (ROE) also assumes an uncontrolled instantaneous release from the area around any point along the pipeline connecting the compressors or referenced volume and concentration. Because the Station is a compressor facility, it is impossible that the entire 24 hour-throughput volume of the station could be released instantaneously as is assumed in the worst case scenario calculations of the ROE. However, to comply with NMAC 19.15.11, that assumption is the worst case scenario in the formulas/calculations provided here.
- It should further be noted that the reason this rate, used as worst case, could not be released over a 24 hour period because both the inlet pipeline or the wells feeding the station could be shut in from an off station location.
- The formulas for calculating the two radius of exposure (ROE) are as follows:

100 ppm Radius of Exposure Calculation (as per 19 NMAC 15.11.7.K.1):

$X=[(1.589)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$

500 ppm Radius of Exposure Calculation (as per 19 NMAC 15.11.7.K.2):

$X=[(0.4546)(\text{hydrogen sulfide concentration})(Q)]^{(0.6258)}$

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)

Larue Compressor Station

500 ppm ROE	**368 feet**
100 ppm ROE	**805 feet**

The ROE for the facility are shown on Map C-1 of Appendix C. This ROE pattern is designed to include the 100 and 500 ppm radii for a potential worst case failure at any point in the system from the facility.

VI. Facility Description, Maps, and Drawings
[NMAC 19.15.11.9.B(2)(c)] [API RP-55 7.4 c.]

Larue Compressor Station Description of Operations
The primary function of this facility is to enable the transportation process of natural gas from one location to another. The facility is also involved in some primary treatment of natural gas via a scrubber located at the inlet feed.

VII. Training and Drills
[NMAC 19.15.11.9.B(2)(d)] [API RP-55 7.4 d]

A. Responsibilities and Duties of Essential Personnel
Personnel responsible for implementing this plan shall be trained on their duties and responsibilities related to this plan annually.

B. On-site or Classroom Drills
Agave Energy Company may use table top exercises as well as hands on emergency response training methods. Agave Energy Company shall conduct a table top exercise annually at a minimum.

C. Notification and Training of Others on Protective Measures in Emergency Situations
While at the time of submission of this plan there are no residences or businesses within the 100 ppm ROE, nearby residents who live outside of the ROE will be invited to participate in and/or observe annual drills, where they will be briefed on notification, evacuation, and shelter in place options such as closing windows and shutting off any air conditioning/heating until they are notified that it is safe.

D. Training and Attendance Documentation
All training and drills will be documented. Documentation shall include sign in sheets, synopsis of the training conducted, and an after action review of the training.

E. Briefing of Public Officials on Evacuation and Shelter in Place Plans
Local law enforcement, first responders, and fire personnel will also be invited to participate and/or observe annual drills, as well as being briefed on notification, evacuation, and shelter in place plans.

VIII. Coordination with State Emergency Plans
[NMAC 19.15.11.9.B(2)(e)]

A. Oil Conservation Division (OCD)
Oil Conservation Division (OCD) will be notified with an automatic email to the District I office advising 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. All subsequent paperwork will be filed in a timely fashion.

B. New Mexico State Police/ New Mexico Hazardous Materials Emergency Response Plan
The New Mexico State Police are responsible for overall scene management and coordination of all resources. 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.

IX. Plan Activation
[NMAC 19.15.11.9.C] [API RP-55 7.4 d]

A. Activation Level
The activation level per Section IV.B will be an H2S detection of 10ppm or greater.

This H2S contingency plan will be activated by any catastrophic release; fire; explosion; a continuous release of maximum volume for 24 hours; or NMAC 19.15.11: mandatory activation of indication of 100 ppm in any defined public area; 500 ppm at any public road; 100 ppm 3000 feet from the site or the release.

B. Events that Could Lead to a Release of H_2S
- -Inlet and Station piping failure
- -Flange/gasket leaks on inlet and station piping
- -Flange/gasket leaks on the gas compressor
- -Failure gas pipeline
- -Valve packing
- -Seal failure on gas compressor
- -Failure of flare to ignite

X. Submission of H_2S Contingency Plans
[NMAC 19.15.11.9.D]

A. Submission
Agave Energy Company will submit the H_2S Contingency Plan to the Oil Conservation Division (OCD).

B. Retention

Agave Energy Company shall maintain a copy of the contingency plan in the Main Office at 105 South 4th Street in Artesia, NM. The plan shall be readily accessible for review by the Oil Conservation Division (OCD) upon request.

C. Inventory

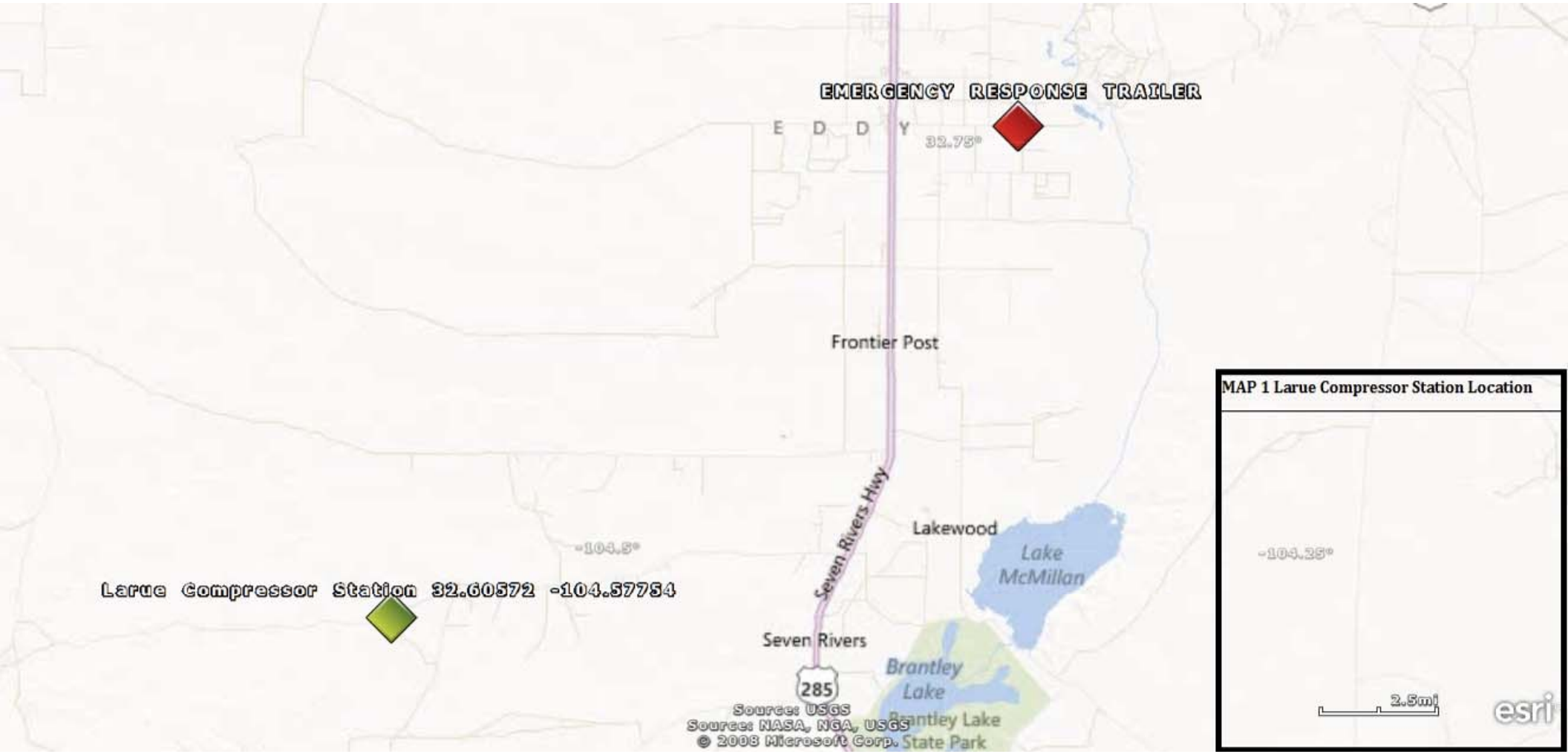
1. Agave Energy Company will file an annual inventory of wells, facilities and operations for which plans are on file with the Oil Conservation Division (OCD), to the Local Emergency Planning Committee (LEPC) and the State Emergency Response Commission as per NMAC 19.15.11.
2. The inventory shall include the name, address, telephone number, and point of contact for all operations in which plans are on file.

MAPS AND FIGURES

MAP 1: Larue Compressor station and emergency trailer location

MAP 2: General Process Flow Diagram of Larue Compressor Station

FIGURE 1: Station Photos



MAP 1 Larue Compressor Station Location

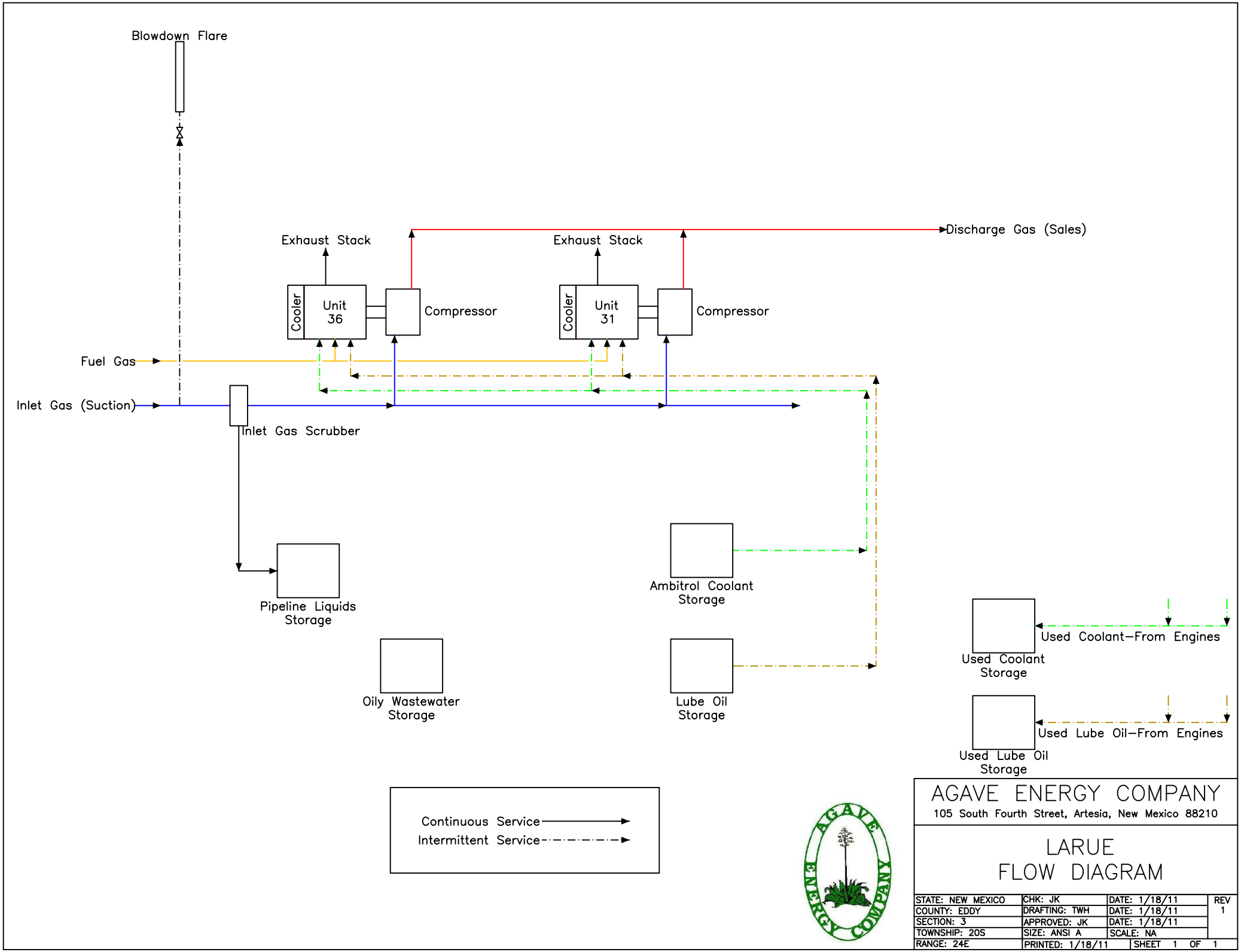

Blowdown Flare
Exhaust Stack
Exhaust Stack
Discharge Gas (Sales)
Cooler
Unit 36
Compressor
Cooler
Unit 31
Compressor
Fuel Gas
Inlet Gas (Suction)
Inlet Gas Scrubber
Pipeline Liquids Storage
Ambitrol Coolant Storage
Used Coolant—From Engines
Used Coolant Storage
Oily Wastewater Storage
Lube Oil Storage
Used Lube Oil—From Engines
Used Lube Oil Storage
Continuous Service
Intermittent Service
AGAVE ENERGY COMPANY
105 South Fourth Street, Artesia, New Mexico 88210
LARUE
FLOW DIAGRAM
STATE: NEW MEXICO
COUNTY: EDDY
SECTION: 3
TOWNSHIP: 20S
RANGE: 24E
CHK: JK
DRAFTING: TWH
APPROVED: JK
SIZE: ANSI A
PRINTED: 1/18/11
DATE: 1/18/11
DATE: 1/18/11
DATE: 1/18/11
SCALE: NA
SHEET 1 OF 1
REV 1

FIGURE 1: Photos of Station

NE Corner Larue Compressor Station

NW Corner Larue Compressor Station

SW Corner Larue Compressor Station

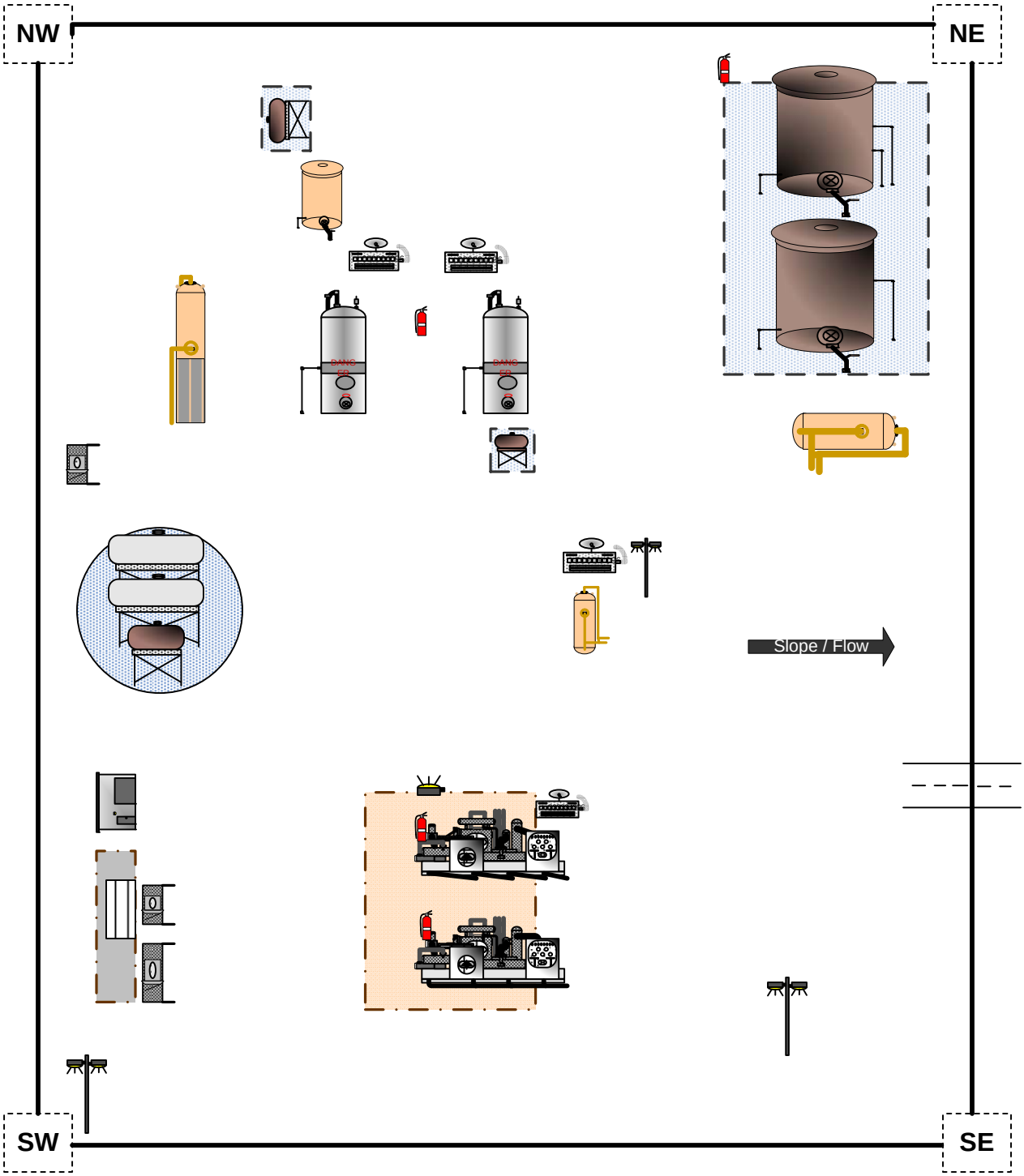
APPENDIX A- Facility Maps and Drawings

MAP A-1: Facility Map

MAP A-2: Evacuation Route

AGAVE ENERGY COMPANY

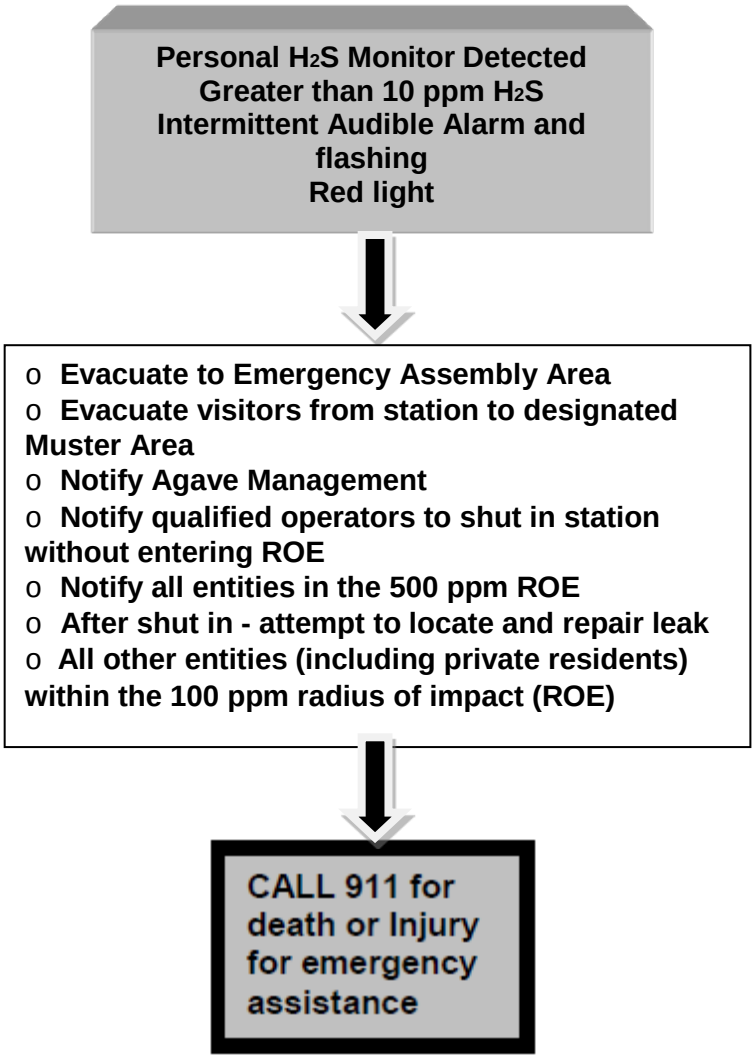
Wednesday, February 06, 2013



MAP A-2 Evacuation Route

Appendix B – Response Flow Diagrams

OPERATOR QUICK REFERENCE GUIDE
Larue Compressor Station
Response



Appendix C - Radius of Exposure Calculations

ROE Calculations

Map C-1: Facility ROE

APPENDIX C-RADIUS OF EXPOSURE CALCULATIONS

The basis for worst case scenario calculations is as follows:

- The hydrogen sulfide content of the inlet natural gas stream into the Laue Compressor Station is variable, ranging upwards to 9240 parts per million (ppm) or 0.924 mole percent. In reality, the actual H_2S concentration that the station processes will be much less than this.
- The inlet gas H_2S concentration of 0.924 mole percent was determined using a mass-balance approach.
- The Station has a maximum daily (24 hour) processing volume of 3 MMSCFD.
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- It should further be noted that the reason this rate, used as worst case, could not be released over a 24 hour period because both the inlet pipeline or the wells feeding the station could be shut in from an off station location.

It should be noted that the plan will remain effective as long as the processed volume and H_2S content equate to the same or smaller ROE.

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

Using:

Q = 3,000,000 cfd
H_2S conc = 9240 ppm or .924 mole%

500 ppm Radius of Exposure Calculation (as per 19 NMAC 15.11.7.K.2):
$X = [(0.4546)*(H_2S \text{ concentration})*(\text{gas volume } (Q))]^{0.6258}$

$X = [(0.4546)*(9{,}240*.000001)*(3{,}000{,}000)]^{0.6258}$

X = 368 feet = 500-ppm ROE

100 ppm Radius of Exposure Calculation (as per 19 NMAC 15.11.7.K.1):
$X = [(1.589)*(H_2S \text{ concentration})*(\text{gas volume})]^{0.6258}$

$X = [(1.589)*(9{,}240*.000001)*(3{,}000{,}000)]^{0.6258}$

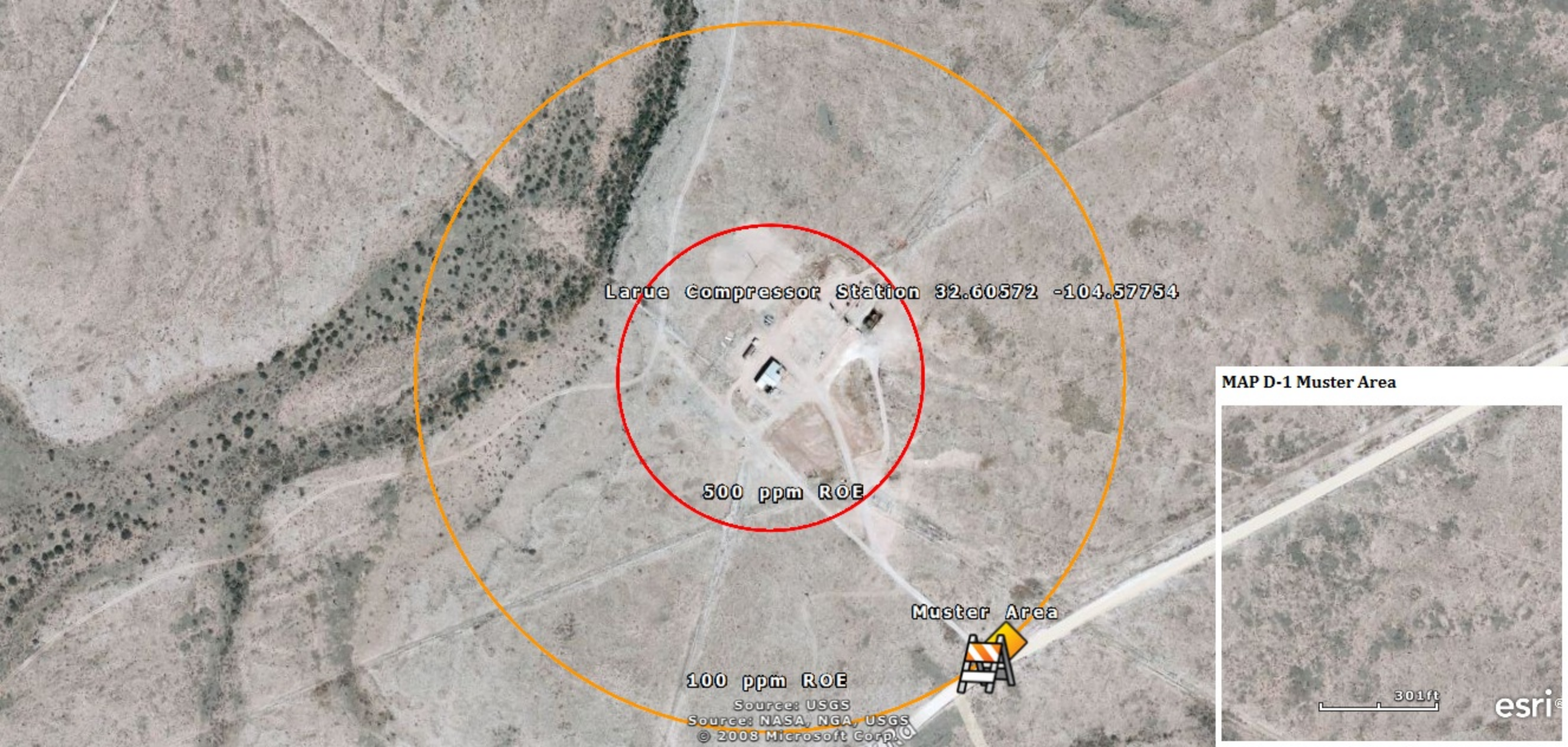
X = 805 feet = 100-ppm ROE

MAP C-1 Facility ROE

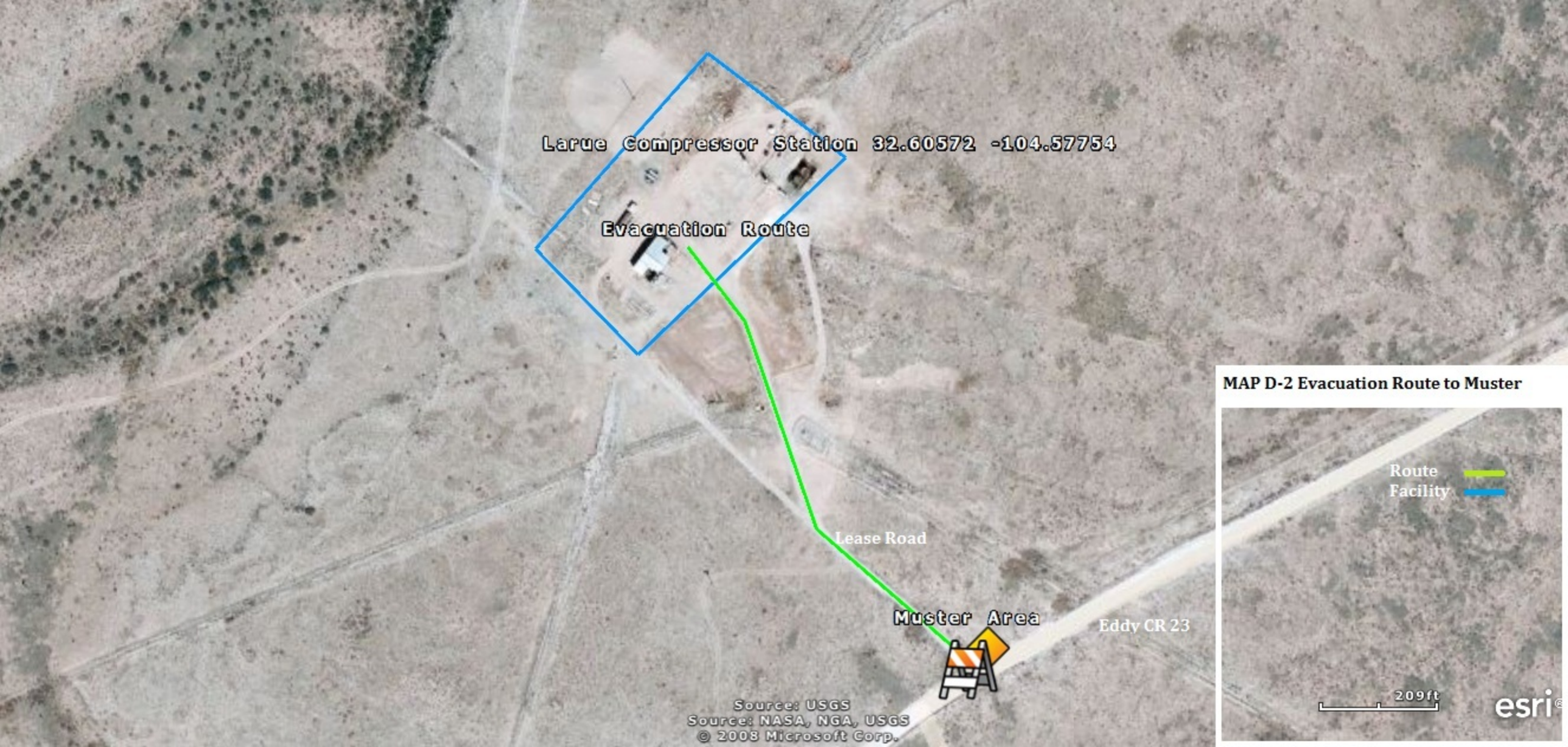
Appendix D – Muster Area and Evacuation Routes

Map D-1: Muster Area

Map D-2: Evacuation Route to Muster Area



MAP D-1 Muster Area


Larue Compressor Station 32.60572 -104.57754
Evacuation Route
Lease Road
Muster Area
Eddy CR 23
Source: USGS
Source: NASA, NGA, USGS
© 2008 Microsoft Corp.
MAP D-2 Evacuation Route to Muster
Route
Facility
209ft
esri

APPENDIX E – H2S Contingency Plan Distribution List

New Mexico Oil Conservation Division
1301 West Grand Avenue
Artesia, NM 88210-1729

New Mexico Department of Public Safety
4207 W 2nd Street
Roswell, NM 88201-8857

Local Emergency Planning Committee
324 S Canyon Street, Suite B
Carlsbad, NM 88210

Artesia Fire Department
309 North 7th Street
Artesia, NM 88210-1913

Atoka Fire Department
2611 South 13th Street
Artesia, NM 88210-9333

Eddy County Sheriff's Department
Eddy County Courthouse
102 N. Canal
Carlsbad, NM 88220

Agave Field Office
288 Kincaid Road
Artesia, NM 88210

Agave Main Office
105 South 4th Street
Artesia, NM 88210