



Emergency Response Plan

Denova Project

Washington County, Colorado

March 3, 2022

PRESENTED TO

Denova Sequestration LLC
a wholly owned subsidiary of Carbon America
5525 W 56th Ave. Suite 200
Arvada, CO 80002

TABLE OF CONTENTS

1.0 NOTIFICATION PROCEDURES 1

1.1 Internal Contacts 1

1.1.1 Qualified Individual..... 1

1.1.2 Alternate Qualified Individual..... 1

1.1.3 Corporate Personnel..... 1

1.2 External Contacts 2

1.2.1 Federal Agencies 2

1.2.2 State Agencies 2

1.2.3 Local Agencies..... 4

2.0 PURPOSE AND SCOPE..... 5

2.1 Purpose..... 5

2.2 Company Information 5

2.3 Plan Review And Availability 6

2.4 Regulatory Applicability..... 6

3.0 INCIDENT AND RESPONSE LEVELS 7

4.0 RESPONSE ACTIONS..... 9

4.1 Safety Awareness 9

4.1.1 Overhead Powerlines..... 12

4.2 Potential Hazardous Substances..... 12

4.2.1 Hydrogen Sulfide 12

4.2.2 Naturally Occurring Radioactive Materials 12

4.3 Incident Specific Response 12

4.3.1 Water Pipeline Leak or Rupture..... 12

4.3.2 Fire (Minor or Major Explosion) 14

4.3.3 Natural Disaster (Tornado, Severe Storms) 17

4.3.4 Evacuation..... 18

4.3.5 Vehicle Accidents or Vehicle Accidents Resulting in Spills..... 19

4.3.6 Injury/Medical Emergency..... 20

4.4 Decontamination..... 21

5.0 RESPONSE RESOURCES..... 22

5.1 External..... 22

 5.1.1 Fire District..... 22

5.2 Internal..... 22

 5.2.1 Personnel/Supplies..... 22

 5.2.2 Funding 22

6.0 RESPONSE PLANNING 23

6.1 Emergency Pre-Planning..... 23

 6.1.1 Prevention and Mitigation Measures 23

7.0 TRAINING AND IMPLEMENTATION..... 24

7.1 Carbon America Training Program 24

LIST OF TABLES

Table 4.1 – Personal Protective Equipment Incident Levels..... 10

Table 4.2 – Carbon America Staff Responsibilities 14

Table 4.3 - Carbon America Staff Responsibilities..... 17

LIST OF FIGURES

Figure 1 Project Location

APPENDICES

- Appendix A: Carbon America Personnel
- Appendix B: Safety Meeting Forms
- Appendix C: Hospital Route Map

1.0 NOTIFICATION PROCEDURES

1.1 INTERNAL CONTACTS

1.1.1 Qualified Individual

The Qualified Individual (QI) is an English-speaking representative of an operator, located in the United States, available on a 24-hour basis, with full authority to: activate and contract with required oil spill response organization(s)/spill cleanup contractors; activate personnel and equipment maintained by operator; act as liaison with emergency response agencies and federal or state regulatory agencies as applicable to the incident; and obligate any funds required to carry out all required or directed oil response activities. The QI will be established for this ERP to facilitate communications through response agencies and Carbon America.

Qualified Individual		
Title	Name	Phone #
Drilling Operations Manager	John Kroshus	720-280-1536

1.1.2 Alternate Qualified Individual

The Alternate Qualified Individual (AQI) must possess all of the criteria for the QI and will act in replacement of the QI if needed.

Alternate Qualified Individual		
Title	Name	Phone #
Charles Maybee	Production Manager	303-286-6589
HOLD		

1.1.3 Corporate Personnel

Corporate Personnel are employees of the company who may be involved at some level with any incident.

Corporate Personnel		
Title	Name	Phone #
Vice President of Projects	Mike Matson	281-220-7385
Environmental and Regulatory Compliance Manager	Jessica Gregg	720-838-5458

1.2 EXTERNAL CONTACTS

1.2.1 Federal Agencies

Occupational Safety and Health Administration

1-800-321-6742

Basic requirement. Within eight (8) hours after the death of any employee from a work-related incident or the in-patient hospitalization of three or more employees because of a work-related incident, you must orally report the fatality/multiple hospitalization by telephone or in person.

1.2.2 State Agencies

Colorado Department of Public Health and Environment

Spill Reporting Hotline: 1-877-518-5608

The Colorado Department of Public Health and Environment shall be notified for the following incidents.

- Accidental Release
 - A spill of any chemical, oil, petroleum product, sewage, etc., which may enter waters of the state of Colorado (which include surface water, ground water, and dry gullies and storm sewers leading to surface water) must be reported immediately to the Colorado Department of Public Health and Environment. Any accidental discharge to the sanitary sewer system must be reported immediately to the local sewer authority and the affected wastewater treatment plant.
- Air: Excess Emission Event
 - In the case of excess emissions during an emergency or malfunction, the owner or operator must notify the Air Pollution Control Division of the Colorado Department of Public Health and Environment as soon as possible, but no later than noon of the next working day, and provide a written follow-up report to the Air Pollution Control Division by the end of the facility's next reporting period.
- E&P Waste
 - Spills and releases of Exploration and Production (E&P) waste and produced fluids should be controlled and contained immediately upon discovery. Impacts resulting from spills and releases should be investigated and cleaned up as soon as practicable.
 - Spills or releases of any size that impact or threaten to impact any surface water supply area must be reported to the Colorado Oil and Gas Conservation Commission and to the Colorado Environmental Release and Incident Reporting Line. If the release impacts or threatens to impact a surface water intake, it must be verbally reported to the emergency contact for that

facility immediately after discovery. The operator must notify the affected surface owner or their appointed representative of all reportable spills as soon as practicable, but not more than 24 hours after discovery.

Chemical spills and releases must be reported in accordance with all applicable state and federal laws, including the Emergency Planning and community Right-to-Know Act (EPCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Oil Pollution Act, and the Clean Water Act.

Colorado Oil and Gas Conservation Commission

Spill Reporting Hotline: 1-877-518-5608

The **Colorado Oil and Gas Conservation Commission** shall be notified for the following incidents;

- E&P Waste
 - Spills and releases of Exploration and Production (E&P) waste and produced fluids should be controlled and contained immediately upon discovery. Impacts resulting from spills and releases should be investigated and cleaned up as soon as practicable.
 - Spills/releases of E&P waste or produced fluid exceeding five (5) barrels, including those contained within lined or unlined berms, shall be reported on COGCC Spill/Release Report, Form 19.
 - Spills/releases which exceed twenty (20) barrels of an E&P waste shall be reported on COGCC Spill/Release Report, Form 19, and shall also be verbally reported to the Director as soon as practicable, but not more than twenty-four (24) hours after discovery.
 - Spills/releases of any size which impact or threaten to impact any waters of the state, residence or occupied structure, livestock, or public byway shall be reported on COGCC Spill/Release Report, Form 19, and shall also be verbally reported to the Director as soon as practicable, but not more than twenty-four (24) hours, after discovery.
 - Spills/releases of any size which impact or threaten to impact any surface water supply area shall be reported to the Director and to the Environmental Release/Incident Report Hotline (1-877-518-5608). Spills and releases that impact or threaten a surface water intake shall be verbally reported to the emergency contact for that facility immediately after discovery.
 - For all reportable spills, operators shall submit a Spill/Release Report, Form 19, within ten (10) days after discovery. An 8 1/2 x 11-inch topographic map showing the governmental section and location of the spill shall be included. Such report shall also include information relating to initial mitigation, site investigation, and remediation. The Director may require additional information.
 - Chemical spills and releases shall be reported in accordance with applicable state and federal laws, including the Emergency Planning and Community Right-to-Know Act, the Comprehensive Environmental Response, Compensation, and Liability Act, the Oil Pollution Act, and the Clean Water Act, as applicable.

1.2.3 Local Agencies

Washington County

Washington County shall be notified for the following incidents.

- Spills and Releases
 - For all spills and releases reportable to COGCC, operators shall also notify the County verbally or in writing the County’s LGD, Local Emergency Planning Committee (LEPC), Office of Emergency Management (OEM), the Planning and Development Department, Sheriff’s Office, and the local fire district immediately, but no more than 24 hours after discovery of the spill or release by an operator. This includes spills/release:
 - of any size that impacts or threatens to impact any waters of the state, a residence or occupied structure, livestock, or public byway;
 - in which one (1) or more barrel or more of Exploration and Production Waste or produced fluids is spilled or released outside of berms or other secondary confinement; and
 - of five (5) barrels or more regardless of whether the spill/release is completely contained within berms or other secondary confinement.
 - In addition, the operator shall notify the surface owner or the surface owner’s tenant of spills and releases in conformance with COGCC rules.
- Incidents outside of Spills and Releases
 - Emergencies that result in the use of local emergency response personnel, outside of those mentioned above, should be reported to the departments listed below.

Department/Agency	Contact #
COGCC	(877) 518-5608
Washington County Sheriff Department	(970) 345-2244
Akron Fire Department, Volunteer	(970) 345-2600
Eckley Fire Department, Volunteer	(970) 359-2300
Otis Fire Department, Volunteer	(970) 848-0464

2.0 PURPOSE AND SCOPE

2.1 PURPOSE

The purpose of the Emergency Response Plan is to accomplish the following:

- Provide guidelines for handling emergencies with the intent of avoiding or minimizing to the extent practical threats to human health, environment, and operational infrastructure.
- Establish a training and review program.
- Avoid or minimize damage to or loss of property.
- Comply with applicable regulations.
- Clearly define internal and external notification, activation and mobilization procedures that would occur during an emergency response.
- Provide a platform for collaboration of the company Emergency Response Plan, company personnel and local emergency response agencies.

NOTE

Although this manual contains guidance to most known foreseeable incidents, actual conditions will dictate

2.2 COMPANY INFORMATION

Carbon America, LLC
5525 W56th Ave. Suite 200
Arvada CO 80002

The Emergency Response Plan was developed for the Denova Project drilling and production pad site (Denova Project Pad). The site is in Section 25, Township 1 South, Range 66 West, Washington County Colorado.

Lat, Long	40.026529, -102.856036
Driving Directions to Site	From Otis, CO travel South on RR for 9.9 miles, East on CR 30 for 5.8 miles, turn North on existing Hickert Ranch Road for 1.36miles, Veer Northeast on New Access Road for 0.86 miles to Location.
Direction to Yuma District Hospital from Site	From location travel South 2.2 mile to CR30. Turn East and travel 7.8 miles to CO59. Turn North and travel 8 miles to West 8th Ave and turn West travelling 0.9miles to South Ivy St. Turn North and travel 0.1 miles to Yuma District Hospital Please refer to Figures for a facility location, site diagram maps and Hospital Route Maps (Appendix C).

2.3 PLAN REVIEW AND AVAILABILITY

The Emergency Response Plan shall be reviewed on an annual basis and shall be updated to address new or different operating conditions or information. The Emergency Response Plan shall be made available to all Carbon America, LLC personnel and contractors as well as any regulatory agency by request of that agency.

2.4 REGULATORY APPLICABILITY

The Emergency Response Plan was developed in accordance with the requirements set forth in the Washington County Development Standards and Regulations Chapter 4 Design Requirements and Performance Standards. The site covered in this plan, due to its size and nature of operations is not required to develop a facility response per EPA 40 CFR Part 112 regulation nor does it have any facilities associated with it that meet criteria for PHMSA CFR 49 Part 192, 194 or 195 regulations for emergency response plans. However, the plan was developed with considerations and guidance provided in regulations dictating the development of facility response plans and emergency response plans.

3.0 INCIDENT AND RESPONSE LEVELS

To properly respond to an emergency, the Emergency Response Plan classifies incidents into four levels. The incident level is determined by the complexity of the incident, the risks to company personnel and the public and the impact to the environment. It is important for all company personnel to understand the incident classification levels and the appropriate level of response to each.

NOTE

The Incident Level Classification is meant as a guideline to activate a certain level of response. Any specific incident may require different levels of response throughout the response activation and operation.

The table below summarizes the incident levels and typical response action associated with each level.

ALERT LEVEL	<ul style="list-style-type: none"> • Minimal area impacted • Immediate control at hand • Restricted to site Low probability of escalation • No immediate impact to operations 	
LEVEL I EMERGENCY	<ul style="list-style-type: none"> • No immediate threat to human health or safety • No threat to facility infrastructure, no effects outside of company property • No impact to public property • Control of released product pending (if applicable) 	<ul style="list-style-type: none"> • Minimal environmental effects • External response resources may be required. Internal resources are supervised closely to prevent escalation • Internal notifications made. • Management will assess need for external notifications
LEVEL II EMERGENCY	<ul style="list-style-type: none"> • Potential threat to human health and safety • No immediate threat outside of company property but offsite impact is possible • Potential threat to facility infrastructure • Moderate environmental effects 	<ul style="list-style-type: none"> • Limited to short-term impact to operations • External resources (i.e., spill cleanup crews and associated resources) deployed • Emergency response agencies (i.e., sheriff, fire, ambulance) notifications are made (typically non-emergency notification but 911 if required)

LEVEL III EMERGENCY	<ul style="list-style-type: none">• Fatality/serious injury/illness or ongoing threat to public health and safety• Ongoing threat to facility infrastructure• High environmental impact• Potential for long term impact operations• External resources (i.e., spill cleanup crews and associated resources) deployed• Emergency response agencies (i.e., sheriff, fire, ambulance) notifications are made• Actions taken to ensure public safety• Evacuation protocols may be needed• Multi-Agency and external resource response required
----------------------------	--

4.0 RESPONSE ACTIONS

Initial response actions are those taken by local personnel immediately upon becoming aware of an emergency incident. Immediate actions are required at the onset of an emergency response to mitigate the extent of a release, minimize the potential hazard to human health and the environment, as well as implement an effective response.

This section is intended as guidance to determine the appropriate initial response and notification actions that should be carried out in the event of an emergency incident. Possible emergency incidents discussed in this section are listed below:

- Water Pipeline Leaks or Ruptures
- Fire (Explosions)
- Natural Disaster/Hazardous Weather
- Evacuation
- Vehicle Accidents or Vehicle Accidents Resulting in Spills
- Medical Emergency

NOTE

The guidelines provided for each type of emergency incident addressed in this section are intended only as guidance. Due to the severity of the incident, other actions may be appropriate than the ones described here. The guidelines are for purposes of the plan only; each specific incident and the associated response may

4.1 SAFETY AWARENESS

Prior to engaging in any spill response activities all employees and contractors must:

- received safety orientation,
- follow OSHA training requirements,
- comply with the site safety and health plan, and
- follow all corporate training requirements.
- No employee or contractor shall engage in any spill response activities which may place them at risk without the appropriate personal protective equipment (PPE) as detailed in Table 4.1.

NOTE

It is the responsibility of Carbon America and its contractors to be educated on the COGCC Series 600 Safety Guidelines along with guidelines outlined in this Emergency Response Plan.

The following are guidelines which an employer can use to begin the selection of the appropriate PPE. As noted above, the site information may suggest the use of combinations of PPE selected from the different protection levels (i.e., A, B, C, or D) as being more suitable to the hazards of the work. It should be cautioned that the listing below does not fully address the performance of the specific PPE material in relation to the specific hazards at the job site, and that PPE selection, evaluation, and re-selection is an ongoing process until sufficient information about the hazards and PPE performance is obtained.

Table 4.1 – Personal Protective Equipment Incident Levels

Level	Equipment	Type of Protection
LEVEL A	<ol style="list-style-type: none"> 1. Positive pressure, full face-piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA, approved by the National Institute for Occupational Safety and Health (NIOSH) 2. Totally encapsulating chemical-protective suit 3. Coveralls* 4. Long underwear* 5. Gloves, outer, chemical-resistant 6. Gloves, inner, chemical-resistant 7. Boots, chemical-resistant, steel toe and shank. 8. Hard hat (under suit) * 9. Disposable protective suit, gloves and boots (depending on suit construction, may be worn over totally-encapsulating suit) 	Level A is to be initiated when the greatest level of skin, respiratory, and eye protection is required.

Level	Equipment	Type of Protection
LEVEL B	<ol style="list-style-type: none"> 1. Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved) 2. Hooded chemical-resistant clothing (overalls and long-sleeved jacket; coveralls; one or two-piece chemical-splash suit; disposable chemical-resistant overalls) 3. Coveralls* 4. Gloves, outer, chemical-resistant 5. Gloves, inner, chemical-resistant 6. Boots, outer, chemical-resistant steel toe and shank 7. Boot-covers, outer, chemical-resistant (disposable) * 8. Hard hat* 9. [Reserved] Face shield* 	Level B is to be initiated when the highest level of respiratory protection is necessary, but a lesser level of skin protection is needed.
LEVEL C	<ol style="list-style-type: none"> 1. Full-face or half-mask, air purifying respirators (NIOSH approved) 2. Hooded chemical-resistant clothing (overalls; two-piece chemical-splash suit; disposable chemical-resistant overalls) 3. Coveralls* 4. Gloves, outer, chemical-resistant 5. Gloves, inner, chemical-resistant 6. Boots (outer), chemical-resistant steel toe and shank* 7. Boot-covers, outer, chemical-resistant (disposable)* 8. Hard hat* 9. Escape mask* 10. Face shield (1) 	Level C is to be initiated when the concentration(s) and type(s) of airborne substance(s) is known and the criteria for using air purifying respirators are met.
LEVEL D	<ol style="list-style-type: none"> 1. Coveralls 2. Gloves (*) 3. Boots/shoes, chemical-resistant steel toe and shank 4. Boots, outer, chemical-resistant (disposable) (*) 5. Safety glasses or chemical splash goggles (*) 6. Hard hat 7. Escape mask (*) 8. Face shield (*) 	Level D is to be initiated when the atmosphere contains no known hazard and work function precludes the potential for unexpected inhalation of or contact with hazardous levels of chemicals. A work uniform affording minimal protection: used for nuisance contamination only.

* Optional, as applicable

4.1.1 Overhead Powerlines

Under some high-voltage lines, vehicles can collect an induced voltage. This is particularly true if the vehicle is parked on a nonconductive surface such as asphalt or dry rock. To minimize damage or injury by this induced voltage, park your vehicle away from the high voltage power line. Alternatively, you can drain the voltage from your vehicle to the ground by attaching a chain that reaches the ground or by leaning a metal bar against your vehicle.

4.2 POTENTIAL HAZARDOUS SUBSTANCES

Employees have a right to know about the hazards they are exposed to in the workplace. It is required that each employer makes its employees aware of the hazards and provide the information to work safely. Under the federal Occupational Safety and Health Administration Hazard Communication Standard, the employer must develop a comprehensive program to inform workers of hazards that may be encountered in the workplace and provide training in the use and handling of products containing hazardous chemicals.

4.2.1 Hydrogen Sulfide

No hydrogen sulfide (H₂S) will be involved with the Project. As such, there will not be an H₂S treatment system. Hydrogen sulfide has the potential to be released during well installation activities. At low concentrations, it smells like "rotten eggs," but at higher concentrations it does not have a noticeable odor. Three best practices to help prevent injury and death are: active monitoring for hydrogen-sulfide gas; good planning; and training programs for workers. Personal and area monitors should be worn or placed in, or as close as possible to, the breathing zone.

4.2.2 Naturally Occurring Radioactive Materials

Naturally occurring radioactive materials (NORM) may be released, but not anticipated, during well installation activities. NORM may precipitate as scale or sludge in evaporation ponds, process piping, and production vessels in which the concentration of NORM can be higher than in the fluid.

NORM-containing sludge, scale, or equipment should be treated, processed, isolated, and/or disposed of according to good international industry practices so that potential future human exposure to the treated waste will be within internationally accepted limits. If waste is sent to an external facility for disposal, the facility must be licensed to receive such waste.

4.3 INCIDENT SPECIFIC RESPONSE

4.3.1 Water Pipeline Leak or Rupture

4.3.1.1 First Responder

The following are guidelines for the First Responder during an incident:

- Take appropriate personnel protective measures

- Assess the need for emergency response notifications. If required, call 911 and other local emergency response agencies as needed.
- Restrict access to the incident site and adjacent areas (this may be accomplished with the assistance of local law enforcement).
- Take any additional steps to ensure public health and safety
- Take necessary fire response actions
- Verify the type of product and estimated quantity released.
- Notify area/regional management
- Activate notifications internal and external. It is the responsibility of the company to ensure all employees understand the level of communication required at each position during an emergency.

4.3.1.2 Area/Regional Management

- Account for Contractors and Company personnel
- Continue working through internal/external notifications. Request from First Responder communication log to eliminate duplication of efforts.
- Begin an incident log with timeline.

Proceed with Initial Response

- Assess the need for evacuation of the immediate area, if required work with emergency response agencies to initiate evacuation procedures.
- Eliminate any potential ignition sources, if not already completed by First Responder.
- Initiate air monitoring (i.e., LEL, H₂S, chemical, heat stress, etc.) and establish hot, warm, and cold zones.
- Work to stop source and contain (if possible) in a safe manner.

Continue Initial Response and Incident Assessment

- Ensure all pumps and electrical equipment have been shut down.
- Initiate traffic control or work with local law enforcement to ensure a secured and directed flow of traffic around the site or detoured from the area.
- Notify any affected neighboring facilities.
- Establish objectives and priorities based on the initial assessment of the incident.
- Ensure the incident is being properly contained to prevent impacting adjacent areas.

4.3.1.3 Division of Emergency Management

The following table shows a division of emergency response responsibilities associated with the Denova Well Pad. The table provides general responsibilities for an emergency response associated with a Water Pipeline Leak or Rupture. Specific response roles and responsibilities may change based upon the level of incident and level of response required. The table should be updated as soon as possible when a change in the response agency, contractor or primary responsibility occurs.

Table 4.2 – Carbon America Staff Responsibilities

Carbon America Personnel/Response Agency/Contractor	Primary Responsibility	Contact Name	Contact #
Carbon America VP Projects	Corporate ERP Contact	Mike Matson	281-220-7385
Carbon America Drilling Operations Manager	Qualified Individual ERP Response	John Kroshus	720 280 1536
Carbon America Facilities Manager	Alternate Qualified Individual	Charles Maybee	303-286-6589
Carbon America Environmental and Regulatory Compliance Manager	EHS and Regulatory	Jessica Gregg	720-838-5458
Kinetic	Spill Cleanup	Shad Martin	720 552 1221
Miller-HFI, LLC	Backhoe Cleanup	Ryan Harding	970-396- 7359
Tetra Tech	Soil Testing / Water Well Test		
Washington County Sheriff Department	Traffic Control and assistance in evacuation notifications	Dispatch	911
Yuma Fire Department	Perimeter control, rescue, and evacuation	Dispatch Whitney Means	911 303-654-8040
Emergency Medical Services	Assistance with injured personnel via transportation and medical attention	Dispatch	911

4.3.2 Fire (Minor or Major Explosion)

The following is intended as guidelines for firefighting and initial response to a fire.

NOTE

Carbon America personnel do not have fire brigade training and are only permitted to use fire extinguishers in small incipient stage fires. If the situation warrants and personal safety is ensured, initial efforts to extinguish small incipient stage fires may prove to be the best action.

In these situations, if you believe that personal safety is not at risk, and interim measures can be taken to mitigate a situation while the Emergency Responders are deploying continued action to extinguish and control the fire may be allowed. First Responders (Company Personnel) always will consult with area/regional management during a fire incident.

Fire Classification

Class “A”	Ordinary combustible materials such as wood, cloth, paper, rubber and plastics.
Class “B”	Flammable liquids, gases and greases.
Class “C”	Involves energized electrical equipment where the electrical non-conductivity of the extinguishing media is of importance.

Ignition Sources	
Sources of ignition include but are not limited to:	
Open Flames	Cutting & Welding Sparks
Lightning	Electrical & Mechanical Sparks
Smoking	Spontaneous Ignition
Frictional Heat	Radiant Heat & Hot Surfaces

4.3.2.1 First Responder

- Take appropriate personnel protective measures.
 - Always check wind direction and approach an incident from upwind. Ensure to communicate site approach to all response personnel coming to the scene.
- Call 911 if necessary and/or local fire department directly.
- Restrict access to the incident site and adjacent areas (this may be accomplished with the assistance of local law enforcement).
- Take any additional steps to ensure public health and safety
- Take necessary fire response actions
 - Fire Response Actions: isolating or eliminating ignition sources through valve or tank closure (only if safe to do so and the First Responder is trained on how to isolate and eliminate).
- Notify Area/Regional Management
- Note time of calls to begin an incident log with timeline.

4.3.2.2 Area/Regional Management

- Assess weather, present and future, for wind direction.
- Account for all Contractors and Company personnel.

On-Scene Assessment

- Verify wind direction and approach site from upwind.
- Conduct a preliminary assessment of the situation.
- Evaluate scene for potential hazards.
- Determine what product is involved, have MSDS pulled and reviewed for PPE and firefighting instructions, and supply to the fire department and any other emergency response personnel upon arrival.
- Eliminate any sources of ignition in the immediate area if not already completed by First Responder.
- Shut down pumps and any movement into/out of area.
- Shut down all contractor activity.
- Ensure traffic control by local law enforcement is providing a secured and directed flow of traffic around the site or detoured from the area.
- Notify adjacent facilities to ensure zero off site ignition.

Continued initial response and site assessment

- Conduct evacuations of adjacent areas, if needed. Follow evacuation protocols in Section 4.2.4.
- Assist fire department in establishing objectives and priorities based on the initial assessment and product involved
- Continue constant coordination with local, state and federal agency representative, as applicable.

4.3.2.3 Division of Emergency Responsibilities

The following table shows a division of emergency response responsibilities associated with the Denova Well Pad. The table provides general responsibilities for an emergency response associated with a Fire related incident. Specific response roles and responsibilities may change based upon the level of incident and level of response required. The table should be updated as soon as possible when a change in the response agency, contractor or primary responsibility occurs.

Table 4.3 - Carbon America Staff Responsibilities

Carbon America Personnel/Response Agency/Contractor	Primary Responsibility	Contact Name	Contact #
Carbon America VP Projects	Corporate ERP Contact	Mike Matson	281-220-7385
Carbon America Drilling Operations Manager	Qualified Individual ERP Response	John Kroshus	720 280 1536
Carbon America Facilities Manager	Alternate Qualified Individual	Charles Maybee	303-286-6589
Carbon America Environmental and Regulatory Compliance Manager	EHS and Regulatory	Jessica Gregg	720-838-5458
Kinetic	Spill Cleanup	Shad Martin	720 552 1221
Miller-HFI, LLC	Backhoe Cleanup	Ryan Harding	970-396- 7359
Tetra Tech	Soil Testing / Water Well Test		
Washington County Sheriff Department	Traffic Control and assistance in evacuation notifications	Dispatch	911
Yuma Fire Department	Perimeter control, rescue, and evacuation	Dispatch Whitney Means	911 303-654-8040
Emergency Medical Services	Assistance with injured personnel via transportation and medical attention	Dispatch	911

4.3.3 Natural Disaster (Tornado, Severe Storms)

Although many disasters cannot be prevented, or predicted, preparations can significantly reduce losses. In the event of a severe weather condition or a natural disaster or the possibility of the following guidelines shall assist Area/Regional Management in preparation of possible threat to facilities.

Tornado Watch	Conditions are right for the formation of a tornado.
Tornado Warning	A tornado has been sighted but is not in the area at thistime.
Tornado Alert	A tornado has been sighted in the immediate area; take cover immediately.

- If a Tornado is sighted:
 - Area Supervisors and Management shall announce the sighting to all company personnel and instruct any personnel in the vicinity to seek shelter immediately.
 - Account for all contractors and company personnel.

- Initiate any emergency response or search and rescue operations as needed.
- Call 911 if applicable for assistance.
- If Severe Weather Conditions Threaten
 - Alert Facility and Field Personnel of condition.
 - Take necessary precautions to ensure the integrity of the facility.
 - If time permits, all personnel should assemble at an inside room of a nearby facility or shelter.
 - If time does not permit, seek shelter in low level areas away from glass.
 - Stay in shelter until it is deemed safe to exit.
- Immediately After the Storm
 - Account for all personnel.
 - Survey any damages to the facility.
 - Initiate initial response to any damages.

4.3.4 Evacuation

This section provides guidelines from evacuating CARBON AMERICA personnel and the public as a result of a major incident.

4.3.4.1 Evacuation of CARBON AMERICA employees and contractor personnel:

- Carbon America employees shall evacuate to a location upwind and uphill if possible.
- Muster Points shall be established on the site and clearly marked. The muster points will be identified on the map and site once construction of the pad site is completed and prior to drilling operations.
 - Muster Point 1: Upwind from prevailing winds
 - Muster Point 2: 90 degrees from prevailing winds
- Prior to evacuation to a muster point or beyond; identify the direction of the wind by observing the direction of the windsock and move cross or upwind of the affected area.
- Evacuation of Carbon America employees will be based on a determination of the risk of remaining on-site. In the event of an evacuation, the site will be secured by a combined effort between CARBON AMERICA and local fire and law enforcement agencies.
- The hot zone is the area defined by a qualified Carbon America representative and/or local Fire Department. MSDS sheet is a tool to aid in the formation of the hot zone, it should be readily available to all emergency responders.
- The hot zone should extend far enough to prevent adverse effects to unprotected personnel outside of the zone.

4.3.4.2 Evacuation of the Surrounding Areas

- Evacuation of the public will be determined by a consensus decision between the on- scene Carbon America employee, Area/Regional Management, and the local emergency response agencies.
- The physical act of evacuating the public is undertaken usually by local emergency response agencies.

- Carbon America will provide any assistance to the local law enforcement and fire department to assist in the evacuation of the surrounding areas.

4.3.4.3 Possible Evacuation Routes:

- Evacuation routes will be clearly communicated to all personnel by postings or radio directives as mandated by changing conditions. The primary evacuation will route to CR 30 – 2.2 miles South of wellsite.
- If conditions warrant, this evacuation route shall be revised to account for upwind possibilities, hot zone area determination and possible other factors. It will be the responsibility of CARBON AMERICA personnel and the local fire and law enforcement agencies to assess and put into action the appropriate evacuation plan if needed.
 - Evacuation routes shall be upwind of any hot zone or exclusion zone and windsocks shall be visible to all site personnel to determine which exit route to take during evacuation.
 - If the primary evacuation route is unusable, workers shall be directed via radio to an alternate route.

4.3.5 Vehicle Accidents or Vehicle Accidents Resulting in Spills

4.3.5.1 Vehicle Accidents

- First Responder
- Assess severity of the accident and only aid the accident victims if trained and safe to do so.
- Call 911
- Provide any assistance to local emergency response personnel.
- Contact company safety representative.

4.3.5.2 Vehicle Accidents Resulting in a Spill

- First Responder
- Assess severity of the accident and only aid the accident victims if trained and safe to do so.
- Call 911
- Determine what product the spill contains. Pull MSDS to determine appropriate response and share MSDS with any emergency response personnel.
- Assess the need for isolation of the spill to prevent its migration into sensitive areas.
- Initiate internal and external notifications to spill cleanup contractor and regulatory agencies based on the severity of the spill and potential environmental and public hazards associate with the spill.
- Area/Regional Management or Trucking Company Management
- Initiate spill cleanup once safe to do so.
- Ensure appropriate regulatory agencies have been contacted regarding the spill.

4.3.6 Injury/Medical Emergency

4.3.6.1 Injury Levels

Level 1: Minor Injury	Person sustains minor cut, bruise, etc. First aid treatment using first-aid kit.
Level 2: Serious Injury	Patient is in need of skilled medical assistance but is able to walk. Treat on-site as practical and transport to emergency center.
Level 3: Very Serious Injury	Patient is unconscious and/or shock and/or bleeding seriously. Call 911.

The first aid and emergency procedures could be lifesaving. First Aid training is required to administer any First Aid during an emergency. CARBON AMERICA is responsible for the training of its employees in First Aid techniques. It is the responsibility of the injured personnel to report bodily injury, chemical exposure(s) or property damage.

- Basic First Aid Guidelines
 - Make sure it is safe to be in the victim’s area;
 - Call 911 and request an ambulance. Provide the following information:
 - Number and location of victim(s);
 - Nature of injury or illness;
 - Hazards involved; and,
 - Nearest entrance (emergency access point.)
 - Alert trained employees (if possible) to respond to the victim’s location and bring first aid kit and/or AED.
 - Notify the Site Supervisor or Site Manager.
 - Only trained responders/personnel shall provide first aid and assistance.
 - Never move a victim in need of medical assistance unless:
 - Directed by a competent medical authority.
 - The injury will not be aggravated or complicated by a move.
 - Greater physical harm to the victim likely if not moved from current location.
 - Wound severity is life-threatening.
 - Take “universal precautions” to prevent contact with bodily fluids and exposure to blood borne pathogens.
 - Meet the ambulance at the nearest entrance or emergency access point and direct them to the victim(s).

4.3.6.2 First Aid Kits

First aid kits should be kept at the facility and visible to all personnel. Commercial, cabinet-type, or unit-type first aid kits are acceptable. A typical model includes a variety of items specially selected to carry out emergency treatment of cuts, burns, eye injuries, or sudden illness. The first aid kit should contain individually sealed packages for each type of item. Contents of the kit should be checked weekly to ensure that expended items are replaced. Personnel are responsible for maintaining the contents of the first aid kit. No oral medication should be dispensed from the first aid kit.

4.4 DECONTAMINATION

Decontamination is the process of removing or neutralizing hazardous materials/dangerous goods that have contaminated people and equipment during an incident. The equipment decontamination area will have a pool or other diked impoundment for cleaning equipment and a frac-tank for storage of liquids. The cleaning pool or dike area will be lined with secondary containment to capture any spilled material.

Equipment that cannot safely be moved will be decontaminated onsite using a water rinse; this process will be repeated until visible contamination is removed. Expendable equipment (e.g., rope mops, rags, tarps, etc.) will not be decontaminated but will be drummed as waste.

5.0 RESPONSE RESOURCES

5.1 EXTERNAL

5.1.1 Fire District

The Denova Pad Site is located within the Yuma Fire District Jurisdiction.

Health Care Facilities

Emergency Medical Services with ability to respond to applicable emergencies located at the Denova Well Pad are as follows:

- Yuma District Hospital - 970 848 3896
- Colorado Plains Medical Center, Fort Morgan - 970 867 3391

5.2 INTERNAL

5.2.1 Personnel/Supplies

Carbon America will respond to an emergency at the Denova Well Pad and to aid local emergency response agencies. The Carbon America personnel and contractor responsibilities are outlined within the Division of Responsibility sections for each possible emergency in Section 4. Appendix A contains a full contact list that can easily be printed or copied for Carbon America personnel.

5.2.2 Funding

The Carbon America will reimburse the appropriate emergency response service providers for costs incurred in connection with any emergency.

6.0 RESPONSE PLANNING

6.1 EMERGENCY PRE-PLANNING

6.1.1 Prevention and Mitigation Measures

6.1.1.1 Training and Education

Educating Carbon America personnel and contractors about the possible hazards associated with the Denova Well Pad and training for a concerted response effort is critical to ensuring the safety of employees, contractors, and the public. Section 7 outlines Carbon America’s training program.

6.1.1.2 Drilling Operations

All facilities will be visited daily by Carbon America field personnel. Unsafe or potentially unsafe conditions will be reported immediately to the field supervisor, Area Manager, or Safety representative.

Vehicles not involved in drilling, production, or well servicing operations will be kept at least 100 feet from the well bore, or a distance equal to the height of the drilling derrick, whichever is greater

- The drilling rig shall be positioned a distance of 200 feet or one and one-half times the height of the rig derrick, whichever is greater, from any occupied building, public road, major above ground utility line, or railroad;
- During well drilling and well servicing operations, a safety valve with connections suitable for use with each size and type of tool joint or coupling being used will be present on the rig floor;
- The drilling rig substructure, derrick, or mast will be designed and operated to prevent the accumulation of static charge;
- Prior to well servicing operations, the well’s pressure will be checked, and appropriate steps taken to remove pressure or operate safely under pressure before beginning servicing operations;
- Appropriate blowout prevention equipment (BOPs) will be utilized during well drilling, completion, workover, or servicing activities, as required by COGCC Rule 317, and in accordance with American Petroleum Institute (API) RP 53: Recommended Practices for Blowout Prevention Equipment Systems, as amended;
- BOP equipment will be inspected daily, and a preventer operating test shall be performed on each round trip (not to exceed more than once per 24-hour period). Notes of the tests shall be made on the daily report;
- All fittings, valves, and unions connected to the BOP, well casing, casing head, drill pipe, or tubing will have a working pressure rating suitable for the maximum anticipated surface pressure and will be maintained in good working order;
- The BOP will contain pipe rams to enable closure of the pipe being used and the choke lines and kill lines will be anchored or secured;
- All rig employees shall have an adequate understanding to operate the BOP system;

7.0 TRAINING AND IMPLEMENTATION

7.1 CARBON AMERICA TRAINING PROGRAM

Carbon America’s Emergency Response training program consists of the following:

- Employee and Contractor Training
- The training program above is triggered by the following:
- Pre-Construction/Drilling
 - Emergency Response Plan training for Carbon America employees and contractors
- New Employee/Contractor
 - Emergency Response Plan training for specific individuals
 - May be incorporated in site safety training depending upon the level of employee or contractor involvement in an emergency response.

FIGURE

**Carbon America
Denova Project**

**Figure 1
Project Location**

SW4NW4 SEC 27; NE4, SE4NW4, NE4SW4,
NW4SE4 SEC 28; T1N R49W of the 6th PM,
Washington County, CO

Project Features

-  Approximate Pad Location
-  Preferred Site
-  Alternative Site
-  Access Road 15-foot Corridor

Transportation

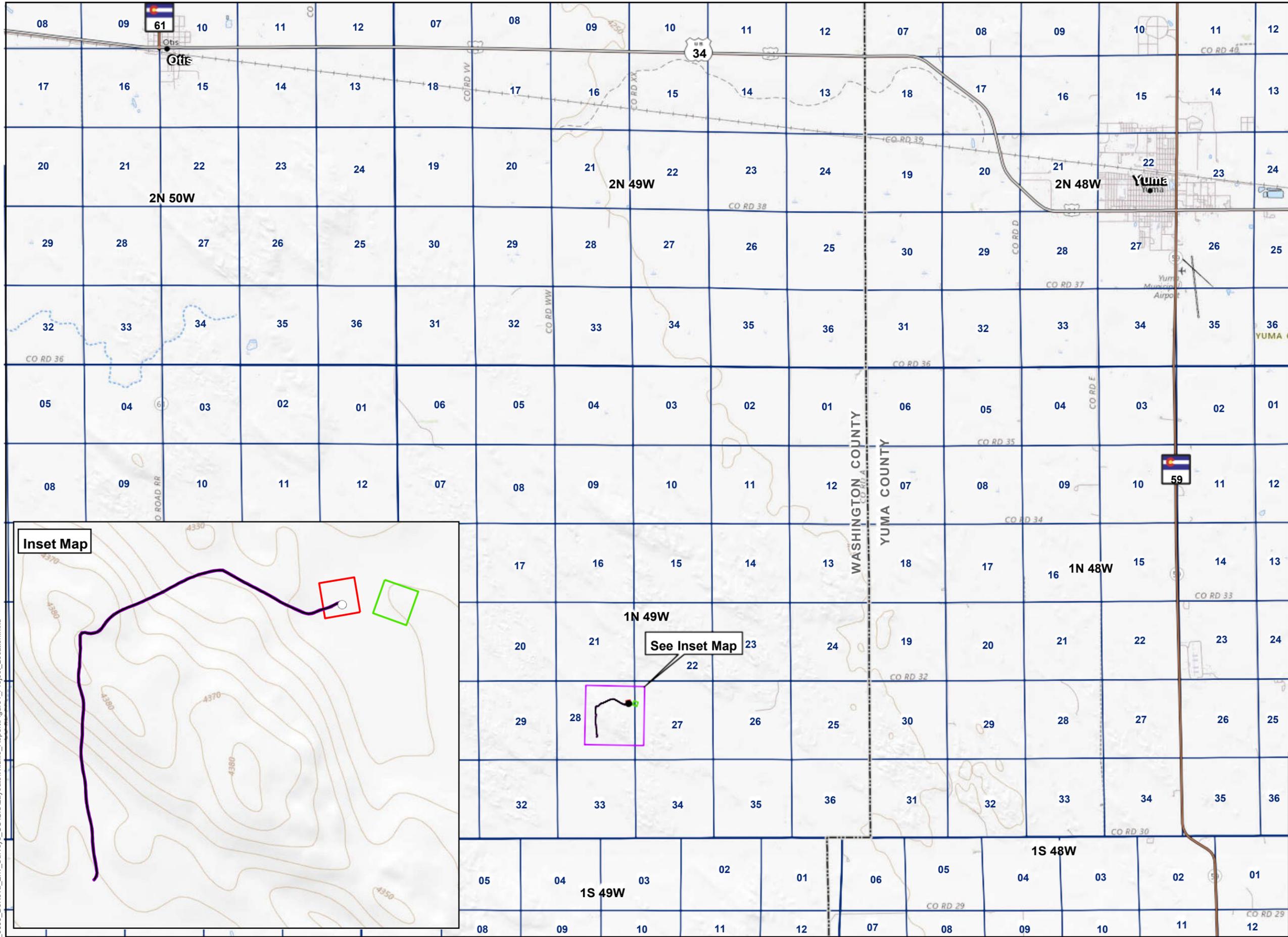
-  US Highway
-  State Highway

Boundaries

-  County Boundary
-  PLSS Township
-  PLSS Section



NOT FOR CONSTRUCTION
Reference Map



Inset Map

See Inset Map

1:75,000 NAD 1983 StatePlane Colorado North FIPS 0501 Feet



Source: ESRI, USGS US TOPO MAPS, BTS, US CENSUS, BLM PLSS

P:\0204_0003_Denova_Env_Surveys_CO\GIS\Layouts\Wildlife_Report\Figure1_Project_Location.mxd

APPENDIX A: CARBON AMERICA PERSONNEL

CARBON AMERICA PERSONNEL

Carbon America Personnel/Response Agency/Contractor	Primary Responsibility	Contact Name	Contact #
Carbon America VP Projects	Corporate ERP Contact	Mike Matson	281-220-7385
Carbon America Drilling Operations Manager	Qualified Individual ERP Response	John Kroshus	720 280 1536
Carbon America Facilities Manager	Alternate Qualified Individual	Charles Maybee	303-286-6589
Carbon America Environmental and Regulatory Compliance Manager	EHS and Regulatory	Jessica Gregg	720-838-5458
Kinetic	Spill Cleanup	Shad Martin	720 552 1221
Miller-HFI, LLC	Backhoe Cleanup	Ryan Harding	970-396- 7359
Tetra Tech	Soil Testing / Water Well Test		
Washington County Sheriff Department	Traffic Control and assistance in evacuation notifications	Dispatch	911
Yuma Fire Department	Perimeter control, rescue, and evacuation	Dispatch Whitney Means	911 303-654-8040
Emergency Medical Services	Assistance with injured personnel via transportation and medical attention	Dispatch	911

APPENDIX B: SAFETY MEETING FORMS

Safety Meeting Form

Please sign and send a copy to the Carbon America Project Manager.

Meeting Details	
Meeting Details	Project: Carbon America Denova Project
1.0 Project Overview	Location:
2.0 Emergency Information	
3.0 Construction	Date:
4.0 Site Conditions	
5.0 Stop Work Authority	Meeting Leader:
6.0 Hospital Map	

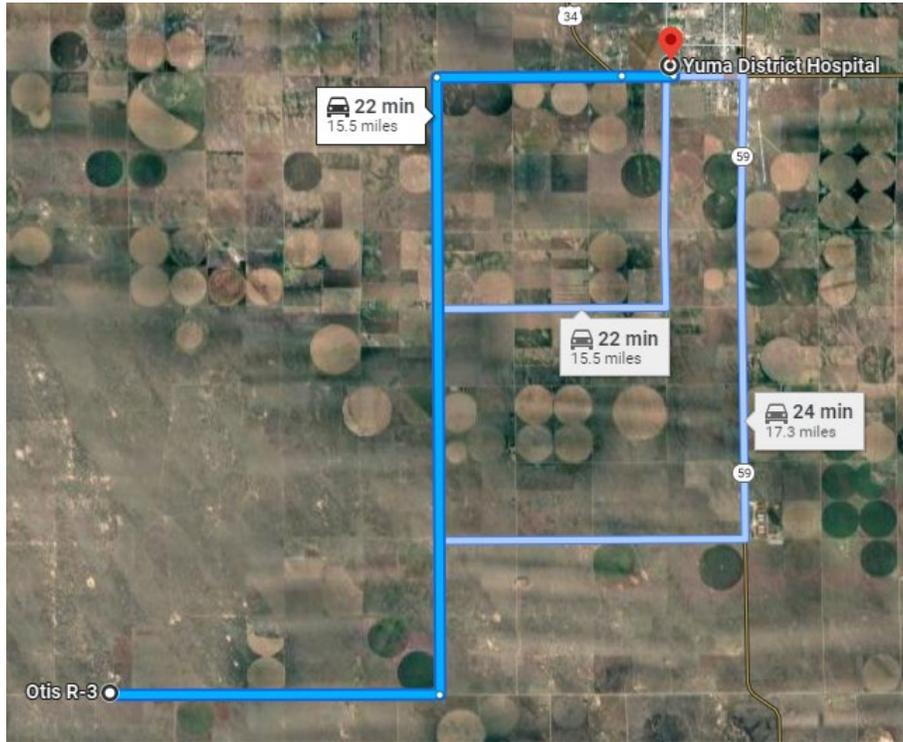
I have read and understand the Emergency Response Plan document.

Name (please print)	Signature	Title	Phone Number

APPENDIX C: HOSPITAL ROUTE MAP

Hospital Route Map

Yuma District Hospital
1000 W 8th Ave, Yuma, CO 80759
(970) 848-5405



1. HEAD EAST ON COUNTY RD 30 TOWARD COUNTY RD AA/YUMA CO RD 125 FOR 4.3 MILES
2. TURN LEFT ONTO COUNTY RD AA/YUMA CO RD 125 AND CONTINUE FOR 8 MILES
3. TURN RIGHT ONTO COUNTY RD 38
4. TURN RIGHT ONTO US-34 E
5. TURN LEFT ONTO S IVY ST
6. HOSPITAL WILL BE ON THE LEFT

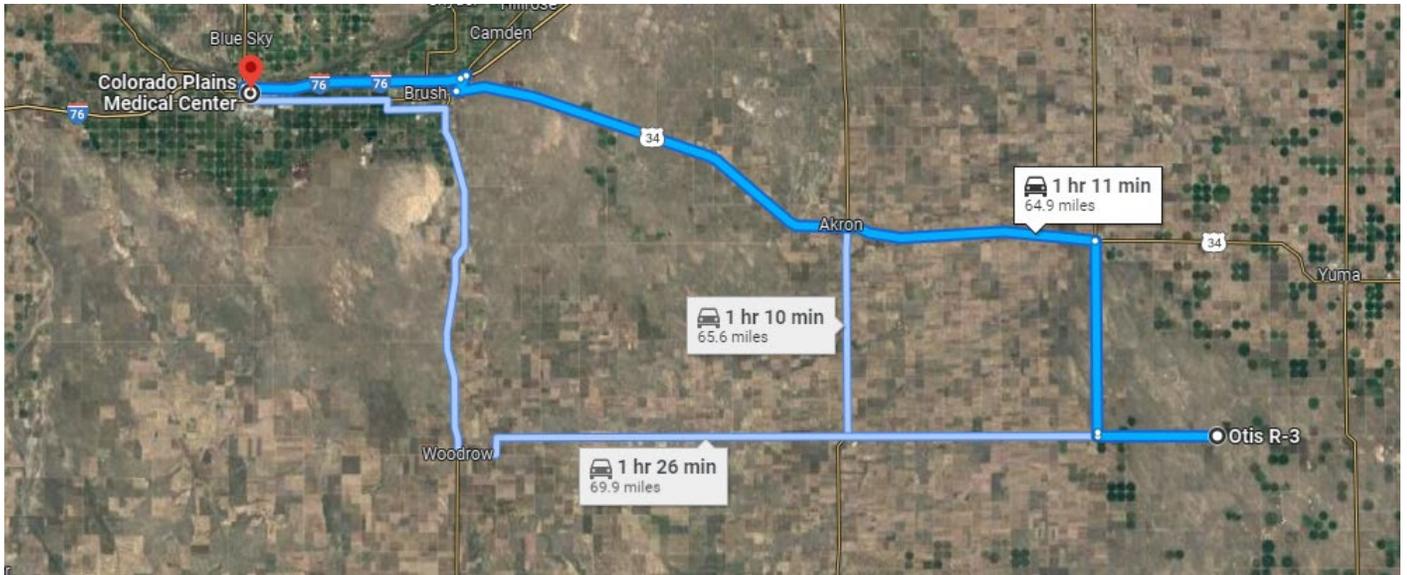
Hospital Route Map

Colorado Plains Medical Center

1000 Lincoln St

Fort Morgan, CO 80701

(970) 848-5405



- 1. HEAD WEST ON CO RD 30 TOWARD CO RD XX FOR 6.2 MILES**
- 2. TURN RIGHT ONTO CO RD RR AND CONTINUE FOR 9.9 MILES**
- 3. TURN LEFT ONTO US-34 W AND CONTINUE FOR 35.2 MILES**
- 4. TAKE A SHARP LEFT ONTO I-76W AND CONTINUE FOR 11 MILES**
- 5. TAKE EXIT 80 FOR COUNTY ROAD 52 AND TURN LEFT**
- 6. TURN LEFT ONTO EAST RIVERVIEW AVE AND CONTINUE FOR 0.3 MILE**
- 7. TURN RIGHT ONTO LINCOLN STREET AND HOSPITAL WILL BE ON THE LEFT**