H2S - 61

OXY HOBBS
H2S CP

2019

REACTION-PROCESS CONTINGENCY PLAN FOR A HYDROGEN SULFIDE (H2S) GAS EMERGENCY INVOLVING THE OXY PERMIAN-CENTRAL OPERATING AREA HOBBS OPERATIONS

Revision 12-6-19

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OPERATOR QUICK REFERENCE GUIDE

If H2S (facility alarm or personal monitor) is detected greater than 10 ppm

- Move away from the source and get away from the affected area-with continuous *wind direction awareness indicators* (upwind and perpendicular to the release)
- Verbally alert other affected personnel and direct them to a safe assembly area that will be determined using JSA or by current wind conditions
- Don personal SCBA and assist personnel in distress (The standby person must be adequately trained and have a SCBA/Supplied Air Respirator to provide effective emergency rescue.)
- Account for on-site personnel using JSA or plant sign in sheet
- Take immediate measures to control the presence of or potential H2S discharged and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as necessary to correct or control the specific situation.

Was release abated?

Yes

- Call Surface Lead.
- Monitor air to see when re-entry is safe (< 10 ppm H2S)

No

Call Surface Lead. Use the calculated ROEs to determine if release could potentially affect the public in the following concentrations: 100 ppm H2S in a public area, 500 ppm H2S on a public road, or if the 100 ppm H2S is over 3000 ft.

Could public potentially be affected by release?

No

Monitor air and cordon off area until re-entry is safe (<10 ppm H2S)

Yes

- **Oxy to Activate H2S Contingency Plan**
- Call 911 and alert the local emergency departments. The reverse 911 system can be used to alert residents in addition to door-to-door notifications.

Notify NMOCD and National Response Center as applicable within 14 days and submit form C-141.

Information to provide 911 Operator

- Name, phone number and/or address of person reporting emergency
- Location of emergency (Well or facility number, cross street and/or lat/long)
- Any known injuries or missing persons
- Concise statement of what is happening
- What type of emergency services are needed on location

Note: abatement measures have been in place after uncontrolled event. The area will be monitored to determine safe re-entry as per API RP-55 paragraph 7.6

REACTION-PROCESS CONTINGENCY PLAN FOR A HYDROGEN SULFIDE GAS EMERGENCY INVOLVING THE OXY PERMIAN-HOBBS AREA

Section I. OVERVIEW

A. Purpose and Scope of Plan Coverage

The purpose of this plan is to conduct oil and gas operations in a manner that protects the public from exposure to hydrogen sulfide gas and to provide for the logical, efficient and safe emergency response action to be taken by the Occidental Permian, Central Operating Area, Hobbs Operations (Hobbs Area) as required by 19.15.11 NMAC and API RP-55, RP-68 and RP-49. The protection of the general public and workers in the event of an accidental release of potentially hazardous quantity of Hydrogen Sulfide Gas (H2S) or Sulfur Dioxide (SO2) from the site operations is of the highest priority.

Flares are installed at some Oxy facilities (See section on Batteries and Satellites for locations). The flares are the only sources of SO2 in Oxy's Hobbs operations and are used in emergency conditions or during maintenance. The worst case flaring events have been modeled using EPA software AERSCREEN. The results for SO2 indicated that the 10ppm SO2 threshold referenced in RP-55 would never be reached. Therefore, SO2 is not further discussed in this plan.

In the Hobbs Area, Oxy has operated a secondary recovery water flood and since 2003 has operated a tertiary recovery program which utilizes carbon dioxide (CO2) as a means of additional recovery of oil and gas production.

Operations in the Hobbs Area are divided into two areas, the North Hobbs and South Hobbs Units. A map of the Hobbs Area boundaries is included as Appendix A in Section IV of this plan.

The operations consist of producing oil and gas wells, water and gas injection wells, tank batteries with vapor recovery units, production/injection satellites, water injection facilities, several thousand feet of underground pipeline injection or production gathering systems, and the Reinjection Compression Facility (RCF).

Field personnel conduct 24 hour surveillance of the operations and are equipped with laptops capable of operating remote equipment through the supervisory control and data acquisition (SCADA) system. All Oxy field personnel have updated H2S contingency plans which include radii of exposure (ROEs-PHAST), personal H2S monitors and Self Contained Breathing Apparatus (SCBA). All Hobbs personnel are trained and participate annually in Emergency Response drills and scenarios.

Sources of potentially hazardous volumes of H2S gas in the Hobbs Area operations include:

- Oil and gas producing and injection wells and associated lines
- Injection systems (pipelines)
- Fluid gathering and handling facilities (satellites and batteries)
- Reinjection Compression Facility (RCF) and its distribution system

Leaks from these sources could create an H2S exposure area. Whether such exposure areas would be hazardous would depend upon their location and size. The calculations of the exposure potential, leak size is assumed to be the maximum possible from the particular system. This is

generally and intentionally a conservative calculation because the vast majority of leaks will occur as a small fraction of the system. To determine which facilities are required to be in this plan, the Pasquill-Gifford equation was used. These calculations are based on the escape rates as allowed by New Mexico Hydrogen Sulfide standard for existing and new operations.

To calculate the radii of exposure (ROEs) in this plan Oxy utilized DNV's PHAST version 6.7, one of the most widely-used commercial consequence modeling software. Because PHAST incorporates more advanced techniques and scientific theories, its results are closer to realistic and more reliable compared with Pasquill-Gifford. In addition, PHAST version 6.7 has been validated with actual CO2 release data. Based on discussions with the Hobbs Fire Department, Oxy is able to provide an H2S ROE with PHAST that corresponds to the release rate at the 10th minute of the release when the escape rate is at the maximum flowrate in the system which will provide the most relevant and useful information to the emergency responders..

Oxy utilizes conservative inputs into PHAST to model a worst case scenario for each potential release. Assumptions include:

- An escape rate that is the maximum inflow rate in the line/facility, the absolute open flow rate of the gas injectors or the maximum gas rate for oil producers
- The maximum anticipated line operating pressure for each individual line was used.
- Each release is modeled as a horizontal release for maximum ROE.
- The weather conditions are 1.5m/s wind speed and F stability class

Gas samples were taken to determine the H2S concentration from each facility. A representative H2S concentration was applied to all of the wells to calculate the ROEs from individual wells. The gas samples were analyzed by a third party using applicable ASTM and/or GPA standards. In addition, the H2S concentration is continuously monitored at the RCF.

B. Safety and Design Specifications

Production Wells

All wells with an ROE(PHAST) of >100 ppm that includes a public area (See Appendix G for a list of these wells) are being equipped with new 3,000 PSI integral type flanged wellheads. These wellheads are constructed with materials that meet or exceed the NACE MRO 175 specification and the API 6A specification for wellhead and Christmas tree equipment. All wellheads are designed to NMOCD specifications and allow down hole accessibility under pressure for permanent well control. In addition, these wells have automatic shut-down controls that are maintained in good operating condition.

All producing wells have a high and low-pressure switch which will shut down the artificial lift equipment when a condition outside the normal operating range is detected. All rod pumped wells are equipped with an additional polished rod "blow out preventer". Production fluids are transported from the well to the Satellites through Schedule 40 ERW pipe (HIC resistant) rated to 2000 PSI.

All well controls are monitored through the SCADA system, automatically shut down and are capable of being controlled remotely.

Injection Systems

The Injection System in North Hobbs is a water- alternating- gas injection system (WAG). The WAG injection lines are 3" Sch. 40, ASTM A-312, GR TP 316/316L ERW with a MAOP of 2160 psi and are constructed to handle the injection pressure of 1750 psi. Also, a pressure safety valve on the injection source is designed to protect the injection line and each CO_2 distribution lateral is protected with thermal relief valves that will prevent a harmful overpressure condition due to trapped CO_2. Additionally, Oxy performs quarterly UT testing of pipelines.

Batteries and Satellites

North Hobbs Unit

There are 3 tank batteries, 7 CO2 satellites, and 4 water flood satellite facilities.
All of these locations are equipped with wind direction indicators. Each stair or ladder leading to the top of a tank or vessel with >300 ppm H2S is equipped with a chain or sign to restrict entry.

The 3 tank batteries have flares equipped with assist gas and are designed for complete combustion of hydrocarbon gas. In the event of an overpressure or an upset situation, the gas volume will be directed to the flare.

The pressure vessels, production headers, and injection headers are equipped with pressure monitoring devices and pressure safety valves. The pressure vessel design incorporates Emergency Shutdown (ESD) Valves to protect against an overpressure or under pressure condition. Pressure safety devices and flow control devices will be used to control the pressure and flow during the operation of the satellites and batteries. Level alarms and ESDs on the tank batteries and satellites are installed to prevent an unsafe condition due to overflow or gas release and automatically notify operational personnel through the answering service.

All batteries and satellites in the North Hobbs Unit with an ROE (PHAST) of >100 ppm that includes a public area are equipped with H2S gas detectors set to alarm at ≥ 10 ppm that activates an ESD valve to isolate the source (See Appendix G). Some additional batteries and satellites that do not have an ROE (PHAST) of >100ppm which includes a public area also have H2S alarms that activate an ESD. (See Appendix B for location of H2S detection equipment and ESDs at each location) The alarms have a blue beacon and automatically notify Oxy personnel through the answering service which is operational 24 hours a day. The H2S monitors are calibrated every 90 days.

All facilities are monitored and are capable of being controlled remotely by the SCADA system.

South Hobbs Unit

There is 1 central tank battery, 3 CO2 Satellites and 3 waterflood satellites with security fencing, safety signage and locking entrance gates. Locations are equipped with wind direction indicators. Each stair or ladder leading to the top of a tank or vessel with >300 ppm H2S is equipped with a chain and sign to restrict entry.

The central tank battery has two flare stacks equipped with assist gas and are designed for complete combustion of hydrocarbon gas. In the event of an overpressure or an upset situation, the gas volume will be directed to the flares (High and Low pressure).

The pressure vessels, production headers, and injection headers are equipped with pressure monitoring devices and pressure safety valves. Pressure safety devices and flow control devices will be used to control the pressure and flow during the operation of the satellites and batteries. Level alarms on the tank batteries and satellites are installed to prevent an unsafe condition due to overflow or gas release and automatically notify operational personnel through the answering service.

The South Hobbs Unit batteries and facilities do not have an ROE (PHAST) of >100 ppm that includes a public area, however, the central tank battery and satellites are equipped with H2S gas detectors (See Appendix B for location of H2S detection equipment at each location) set to alarm at ≥ 10ppm. The alarms have a blue beacon and automatically notify Oxy personnel through the answering service which operates 24 hours a day.

All facilities are monitored and are capable of being controlled remotely by the SCADA system,

Reinjection Compression Facility (RCF)

The RCF is monitored 24 hours a day from the control room. The Facility control room is located on the Southwest corner of the facility. The location of SCBA (5-minute and 30-minute escape packs) is shown in Appendix C. All H2S alarms are visible and audible and notify the plant operator at 10 ppm and automatically shut in equipment. Appendix B shows the location of the H2S monitors and all egress routes from the RCF. The mustering area will be determined based on the wind direction indicators and will be communicated to all workers at the facility through JSA.

H2S Fixed Monitoring System

Oxy maintains H2S fixed gas monitors in the North and South Hobbs Unit that notify operators of an H2S leak. The monitors detect any condition from 0 to 100 PPM with alarm capability at a high level, low level and a fault condition, and activate a shutdown on the producing well, production header, injection header, and fluid gathering systems to minimize the release of gas. This monitoring system can provide notification to the operations personnel before the release impacts the public. Battery backup is on standby and ensures continued operation of the monitors due to a power failure. All monitors are calibrated and tested every 90 days and records are kept in the Maximo data base. See Appendix B for a map of each location with H2S monitors.

SCADA Monitoring System

All operations in North and South Hobbs are monitored 24 hours per day with a state of the art SCADA system. This system allows remote control of the operations and the alarm callout communications.

Warning Signs, Markers and wind direction Indicators

In accordance to applicable regulations, warning signs are posted at each well, satellite, battery and all facility entrances containing >100 ppm H2S. Signs are also posted on all surfaces and buried lines where the potential exists to be exposed to a release of hydrogen sulfide gas. The posted markers and signs warn of the impending danger if the line ruptures. Signs are also posted at all road crossings where a pipeline exists. The signs meet ANSI Standards and include the words danger and 'poison gas'. Oxy has also posted these signs that are within the city limits in Spanish and English. Wind Socks or Wind Vanes are used as wind direction indicators

Security

All the injection and producing wells with >100 ppm H2S and located within ¼ mile of a public area (NMAC19.15.11.12.B) are equipped with fencing and locked gates around the wells. This fencing serves as a deterrent to public access and will remain locked when unattended.

Hydrogen Sulfide Precautions during Operations

All Oxy employees and contractors are required to have in their possession all the customary personal safety equipment such as hard hats, steel toe shoes and safety glasses. Oxy employees and contractors are required to attend a site specific orientation of the operations and be advised in all safety measures. In addition, each Oxy operator that is in Respiratory Protection Plan (RPP), is equipped with a personal H2S monitor and SCBA (30-min supplied air) and is required to have it with him when working in a known H2S environment. All personal H2S monitors are calibrated on a monthly basis to assure proper working condition and accuracy. In addition, all Oxy field personnel have updated H2S contingency plans which include ROEs (PHAST).

Drilling & Workover Operations

Drilling operations in the Hobbs area will be conducted with due consideration of API RP-49 (Recommended Practices for Drilling and Well Servicing Operations Involving H2S). Oxy has a drilling H2S contingency plan and meets the requirements specified in NMAC19.15.11.11 for drilling operations. The plan is submitted to the NMOCD district office with the drilling permit application. The H2S concentrations are sufficiently well known in the Hobbs area to enable Oxy to calculate an ROE (PHAST). However, if a situation should exist where the H2S concentration was not known, a 3000 ft. ROE would be assumed as per NMAC19.15.11.7.

Workover operations in the Hobbs area are covered by this H2S Contingency Plan and will be conducted with due consideration of API RP-68 and in compliance with NMAC19.15.11.11. Each workover operation is equipped with detection and monitoring equipment that automatically activates visible and audible alarms when the hydrogen sulfide's ambient air concentration reaches 10 ppm. The monitors are located on the rig floor as close to the wellbore as practical and on the circulating tanks. There will be two wind direction indicators which are visible at all times. Workover operations use a hydrogen sulfide mud program capable of handling hydrogen sulfide conditions and well control, In addition, the remote controlled BOPs are pressure and hydrogen sulfide-rated and meet or exceed API specifications. These BOPs will be operational at all times during a well's workover and servicing.

Drilling and Workover operations will be conducted in compliance with the City Ordinance pertaining to Oil and Gas Activities within the city of Hobbs, New Mexico.

C. Coordination with State Emergency Plans

As provided for in the New Mexico Hazardous Materials Emergency Response Plan (HMER), the New Mexico State Police responding to the emergency will assume the position of On-Scene-Commander (OSC) or they may establish a Unified Command of which the OXY OSC will be a key member. The OXY OSC will be the senior OXY employee on-site until when/if the Hobbs area TEAM LEAD or designated relief arrives. Under the Unified Command scenario, the OXY OSC shall cooperate with the other involved emergency responders, such as the New Mexico State Police, local fire department, City Police, Sheriff's Office, NMOCD or other appropriate public emergency response agencies to manage the effective and safe response to the emergency situation. The OSC will ensure that the local authorities have any and all required information regarding the extent (ROE-PHAST), chemical concentration, hazards and expected timeline for any OXY release so they can appropriately establish an action plan regarding restricted access (road blocks, etc.), notification of the public, area evacuation or shelter in place. The ROE (PHAST) tables (see section IV) have been calculated with due consultation and input from the local area fire department to ensure adequacy and usability. These ROE (PHAST) can be used by the fire department electronic mapping software to display detailed maps of any areas of concern, showing public buildings, roadways and other pertinent information needed.
The Hobbs AREA OSC will notify or delegate notifications of all OXY Permian or contract personnel as well as the civil authorities needed for response to the situation. The OXY OSC will assign additional OXY personnel to support roles as needed.

See additional roles and responsibilities in Section III Roles and Responsibilities of Emergency Response Personnel.

Section II. Emergency Procedures

A. Discovery and Implementation of an Immediate Action Plan

1. Upon discovering or recognizing a potentially hazardous H2S release, from an H2S monitor alarm or personal H2S monitor that is triggered at 10 ppm, OXY employees should implement the following immediate action plan:
   a. Move away from the source and get away from the affected area-using continuous *wind direction awareness indicators* (upwind and perpendicular to the release)
   b. Verbally alert other affected personnel and direct them to a safe assembly area that will be determined on the job safety analysis (JSA) or by current conditions observed with the wind direction indicators.
   c. Don personal protective breathing equipment-supplied air, respiratory protection (SCBA-self-contained breathing apparatus)
   d. Assist personnel in distress- First Aid/Rescue (The standby person must be adequately trained and have a SCBA/Supplied Air Respirator to provide effective emergency rescue.)
   e. Account for on-site personnel using JSA or Security gate sign in sheet
   f. Take immediate measures to control (ESD, Well Control, Isolation…) the presence of or potential H2S discharged and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as necessary to correct or control the specific situation in addition to the automatic shutdowns.

2. If abatement measures (ESD, Well Control, Isolation…) were successful, monitor the ambient air in the area of exposure with multi gas meters to determine when it is safe for re-entry (<10 ppm H2S) and notify TEAM LEAD.

3. If abatement measures were not successful, notify the TEAM LEAD (or relief) of the situation. Use the previously calculated ROEs (PHAST) to determine if the release could potentially affect the public in the following concentrations:
   a. 100 ppm H2S ROE in a public area
   b. 500 ppm H2S ROE on a public road
   c. 100 ppm H2S ROE over 3000 ft.

The list in Appendix G shows wells and facilities whose 100 ppm ROEs (PHAST) could potentially affect the public based on the calculated ROEs (PHAST).

4. If the public could potentially be affected, activate H2S Contingency Plan, then call 911. Give all pertinent information including:
   a. Name, phone number and/or address of person reporting emergency
   b. Location of emergency (well or facility number, cross street and/or lat/long)
   c. Any known injuries or missing persons
   d. Concise statement of what is happening
   e. What type of emergency services are needed on location

5. Notify other key HOBBS AREA personnel and alert them to situation.

6. The Team leader shall then proceed to the site to assess the situation.

7. In the absence of the Team Leader (or relief) the OXY employee at the site shall assume the responsibilities of the TEAM LEADER and shall remain at the scene until relieved by another OXY employee.

8. Block unauthorized access to the unsafe area using ROE's (PHAST) and site drawings which are contained in the H2S CP and have been previously made available to the Lea County Emergency Communication Center and the Hobbs Fire Dept.. *See section IV*.

9. Notify and/or evacuate the public (through public address, door to door, or reverse 911 as deemed appropriate).

10. Notify state and local officials (NMOCD with form C-141 within 14 days off incident) and the National Response Center to comply with applicable release reporting requirements in a timely manner (See Section V for contact information).

B. Activation of Hydrogen Sulfide Contingency Plan (Action levels)

It is the responsibility of the Oxy On Scene Command (OSC) to ensure activation of the H2S contingency plan.
The H2S contingency plan shall be activated by Oxy if it is indicated that the release of product could potentially pose a hazard to the general public in the following concentrations:

- 100 ppm - in any public area
- 500 ppm - at any public road
- or if 100 ppm ROE (PHAST) is greater than 3000 feet from the site of the release

As discussed above in Section II.A, this will be determined through use of previously calculated Radius of Eposure (ROEs)-PHAST.(See section IV)

C. Training and Drills

The value of annual training and drills in emergency response procedures cannot be over emphasized. All OXY personnel and long term contractors shall be trained on the H2S contingency plan which includes response actions, roles & responsibilities, internal/external notifications, PPE, policies & procedures . The importance of each role of the emergency responders and the assignment that each person has during an emergency will be stressed. In additional, the need for emergency preparedness will emphasized through the use of drills and other exercises that simulate an emergency in which personnel perform or demonstrate their duties. These exercises will consist of table-top or realistic drills in which equipment is deployed, communications equipment is tested. Public officials will be informed and preferably involved in these annual exercises.

After drills or exercises are completed reviews and critiques will be conducted to identify any potential improvement opportunities. Action items will be agreed and tracked through to implementation. These action items will be implemented in Oxy's maintenance database. Documentation of the training, drills, attendance and reviews will be on file in the HOBBS AREA files.

The plan will be periodically reviewed and updated anytime its provisions or coverage change.

Oxy will provide annual training of residents as required on the protective measures to be taken in the event of a release of H2S.

D. Physical Characteristics and Physiological Effects of Hydrogen Sulfide

Physical Data
Chemical Name: Hydrogen Sulfide
CAS Number: 7783-06-4
UN Number: 1053
DOT Hazard Class: 3.2 (Flammable liquids: *flashpoint between -18°C and 23°C*)
Synonyms: Sulfureted hydrogen, hydrosulfuric acid, dihydrogen sulfide, Chemical Family: Inorganic sulfide
Chemical Formula: H2S
Normal Physical State: Colorless Gas, slightly heavier than air.
Vapor Density (specific gravity) at 59°F (15° C) and 1 atmosphere = 1.189
Auto ignition Temperature: 500°F (260° C)
Boiling Point: -76.4°F (-60.2° C)
Melting Point: -117°F (-82.9° C)
Flammable Limits: 4.3 – 46 percent vapor by volume in air.
Solubility: Soluble in water and oil; solubility decreases as the fluid temperature increases.
Combustibility: Burns with a blue flame to produce Sulfur Dioxide (SO2SO2) Odor and Warning Properties: Hydrogen Sulfide has an extremely unpleasant odor, characteristic of rotten eggs, and is easily detected at low concentrations, however, due to rapid onset of olfactory fatigue and paralysis (inability to smell) ODOR SHALL NOT BE USED AS A WARNING MEASURE

Exposure Limits
The OSHA Permissible Exposure Limit (PEL) of 10 ppm (8-hour TWA) and IDLH of 100ppm.

Physiological Effects
Inhalation at certain concentrations can lead to injury or death. The 300 ppm is considered by the ACGI as Immediately Dangerous to Life and Health (IDLH) Hydrogen Sulfide is an extremely toxic, flammable gas that may be encountered in the production of gas well gas, high-sulfur content crude oil, crude oil fractions, associated gas, and waters.
Since hydrogen sulfide is heavier than air, it can collect in low places.

It is colorless and has a foul, rotten egg odor. In low concentrations, H2S can be detected by its characteristic odor; however smell cannot be relied on to forewarn of dangerous

concentrations because exposure to high concentrations (greater than 100 ppm) of the gas rapidly paralyzes the sense of smell due to paralysis of the olfactory nerve. A longer exposure to lower concentrations has a similar desensitizing effect on the sense of smell. It should be well understood that the sense of smell will be rendered ineffective by hydrogen sulfide, which can result in the individual failing to recognize the presence of dangerously high concentrations.

Exposure to hydrogen sulfide causes death by poisoning the respiratory system at the cellular level. Symptoms from repeated exposure to low concentrations usually disappear after not being exposed for a period of time. Repeated exposure to low concentrations that do not produce effects initially may eventually lead to irritation if the exposures are frequent.

Respiratory Protection

Supplied air respiratory protection (SCBA) shall be worn above the initial action level of 10 ppm and until such time that H2S concentrations have been determined by monitoring the area with quad function H2S monitors.

E. Physical Characteristics and Physiological Effects of Sulfur Dioxide

Physical Data
Chemical Name: Sulfur Dioxide
CAS Number: 7446-09-05
UN Number: 1079
DOT Hazard Class: 2.3 (Poisonous Gases)
Synonyms: Sulfurous acid anhydride, sulfurous oxide, sulfur oxide
Chemical Family: Inorganic
Chemical Formula: SO_2
Normal Physical State: Colorless Gas, heavier than air.
Vapor Density: 2.2
Boiling Point: 148°F
Flammable Limits: Non-flammable (produced by burning hydrogen sulfide)
Solubility: Soluble in water and oil; solubility decreases as the fluid temperature increases.
Odor and Warning Properties: Sulfur Dioxide has a pungent odor associated with burning sulfur. It produces a suffocating effect and produces sulfurous acid on membranes of the nose and throat.

Exposure Limits
The OSHA PEL is 2 ppm as an 8-hour TWA. STEL is 5 ppm averaged over 15 minutes. IDLH is 100 ppm

Physiological Effects
Acute Toxicity: Inhalation at certain concentrations can lead to injury or death. 100 ppm is considered by the ACGIH as Immediately Dangerous to Life and Health.

Respiratory Protection
Supplied air respiratory protection (SCBA) shall be worn above the initial action level of 2 ppm for initial testing and until such time that SO_2 concentrations have been determined and action levels established.

F. "Non-OXY" Emergencies

It is possible that an OXY employee could discover a potentially hazardous leak from a pipeline or other facility not operated by OXY. Also, leaks could be reported to OXY personnel but upon investigation, turn out to be from someone else's facility. In such instances, the OXY employee(s) involved should lend assistance without unduly endangering themselves. Generally, such assistance would include the following actions:

1. Alert and/or assist any person apparently in immediate danger.
2. Notify all personnel of the location and nature of the emergency and assistance needed, if any.
3. Notify the Operator of the facility if the identity can be determined.
4. Continue to lend assistance, such as manning road barricades, until relieved by employees of the Operator or Public Safety Personnel.

Section III. Roles and Responsibilities of Emergency Response Personnel

Following is a description of key personnel responsibilities for incident response.

On Scene Commander (OSC): The first, most senior OXY personnel on the scene will act as the Oxy OSC until relieved by either the OXY Surface Lead or their designated alternate (for the Plant Operations the Plant Operator will act as initial Oxy OSC). The OSC's responsibility is to ensure control of the emergency incident. The OSC will notify or delegate notifications of all OXY Permian or contract personnel needed for response to the situation. The OSC will assign additional OXY personnel to support roles as needed. The initial priority for the OSC is to assess the size and scope of the incident scene. Such factors as the immediate level of danger to employees, contractors, and the general public should be high on the list of considerations. The OSC will act as a liaison between the site ERT and the Business Unit Emergency Management Team (BU EMT). The civil authorities responding to the emergency may assume the position of OSC and establish a Unified Command of which the OXY OSC will be a key member. The following is an abbreviated list concerning the responsibilities and recommended sequence for the OXY OSC to achieve his/her responsibilities.

1. Assess the size and scope of the incident scene.
2. Establish preliminary “hot and cold zones” based on the information available.
3. Set Ensure that the OXY Emergency Personnel are contacted according to the appropriate call out list (Field or Plant areas).
4. Manage all aspects of the incident as a key player in a Unified Command.
5. Communicate routinely with the OXY Permian Operations Emergency Manager on the BU EMT.
6. OSC is responsible for assigning support roles as listed below.

Note: The On Scene Commander, or relief, remains on site until the emergency is over. The On Scene Commander ensures repairs have been completed and ensures the operation has returned to normal, before releasing emergency team members.

Operations and Planning Section Chief: The Operations and Planning Section Chief (OPSC) plays an integral role in interfacing with the various State and Local emergency responders in coordinating all OXY response activities. This allows the OSC to focus on the incident and its big picture decisions. The minimum required actions of the OPSC are as follows:

1. Facilitate onsite responder personnel briefings and status updates.
2. Arrange for humanitarian assistance with the OXY Human Resources Manager if required by the scope of the incident with coordination from the OSC.
3. If requested, provide assistance to the local municipalities in a “search and rescue” operation.
4. Perform all other response functions as requested by the OSC.

Technical Specialist: Technical Specialists, those individuals possessing critical skills, experience and knowledge in specific areas of OXY's or industry operations may be enlisted to assist in providing operational solutions for controlling releases in their areas of expertise. The Technical Specialist will function through the OPSC.

Examples of Technical Specialists include:

- Downhole Specialist
- Critical Well Control Specialist
- Drilling Specialist
- Construction Specialist
- Electrician
- Maintenance Specialist

Facility Engineers: Facility Engineers will function through the OPSC and assist in providing operational solutions to controlling the size and scope of an incident. The ability to identify process related equipment for isolation and routing for field sources often proves to be one of the biggest challenges during a crisis situation. The following tasks should receive the initial priority for responding Facility Engineers and operations personnel.

1. Identify source location and isolation equipment if available.

2. Provide detailed isolation instructions for responding personnel. Keep in mind the responders may or may not be OXY employees and may or may not have a good understanding of E&P operations.

3. Be prepared to provide the operational technical portion of update sessions with the onsite field response groups.

4. Begin the operational aspect of a facility recovery plan to first address operational needs to return to "normal" operating mode and second to complete long term considerations for site mitigation.

Safety Officer: The Safety Officer (SO) plays an integral part in assisting the OSC in managing the onsite issues surrounding an incident. Focused internally on the incident, the Safety Officer is constantly evaluating the safety and health issues involved with the incident and monitors pieces of the response process to allow the OSC to address "bigger picture" issues. The following is an abbreviated list of the responsibilities and recommended sequence for the SO to achieve his/her responsibilities.

1. Confirm the OSC's preliminary "hot and cold zones" are still applicable or adjust accordingly for such activities as staging areas, media crew locations, decontamination operations, etc.
2. Address Safety, Health, Environmental, and Regulatory issues including notifications.

3. If required, coordinate the development of a Site Safety and Health Plan or request this service from the BU EMT.
4. If required, develop an “incident mitigation or recovery plan” or request this service from the BU EMT.

Note: The SO must stay abreast of the incident status and situation in order provide relief as an alternate OSC if the situations dictates a change needs to be made.

Logistics Section Chief: The Logistics Section Chief (LSC) is responsible for assisting the OSC by arranging all aspects of field logistical support. The LSC must accommodate not only OXY responders but also municipal or other industrial responders as requested by the OSC or OPSC. The Logistical Manager’s staff has multiple contracts and processes already in place to assist in such issues as food, lodging, vehicles, aircraft, etc. The following is an abbreviated list and recommended sequence to ensure the LSC is able to achieve his/her responsibilities.

1. Initiate both victim and emergency responder “personnel accountability systems” upon arrival to the incident scene.
2. Establish and maintain a communication between the OSC and the BU EMT.
3. Assist in media interactions with Public Information Officer.
4. Initiate and maintain an incident documentation system to ensure all activities are captured and a summary report will be available.
5. Begin supplying logistical support to the incident scene, staging operations, and local areas as soon as practical
6. Coordinate site security capabilities with the OSC, OPCS, SO, and responding municipalities.

Public Information Officer (PIO): The designated PIO reports to the OSC. The PIO will work very closely with the OSC, OPSC, and the OXY Corporate Communications Representative. Initial priorities for the PIO will include the following:

1. Establish themselves as the onsite Public Information Officer or media contact for all media inquiries.
2. Work with Corporate Communications to establish and distribute an initial press release as soon as feasible and with an announced time of when additional updates would be available.
3. Either assist the OSC or personally conduct all initial media interviews until relieved by a member of Corporate Communications or their designate.

Lea County Emergency Operations Center (EOC) Liaison: The Lea County EOC Liaison will report to the EOC as required to form communications between the EOC Emergency Manager and the OXY OSC or EMT Emergency manager. This position will only be filled if the event escalates to a level that requires the manning of the Lea County EOC and the event adversely affects, or could affect OXY operations or personnel.

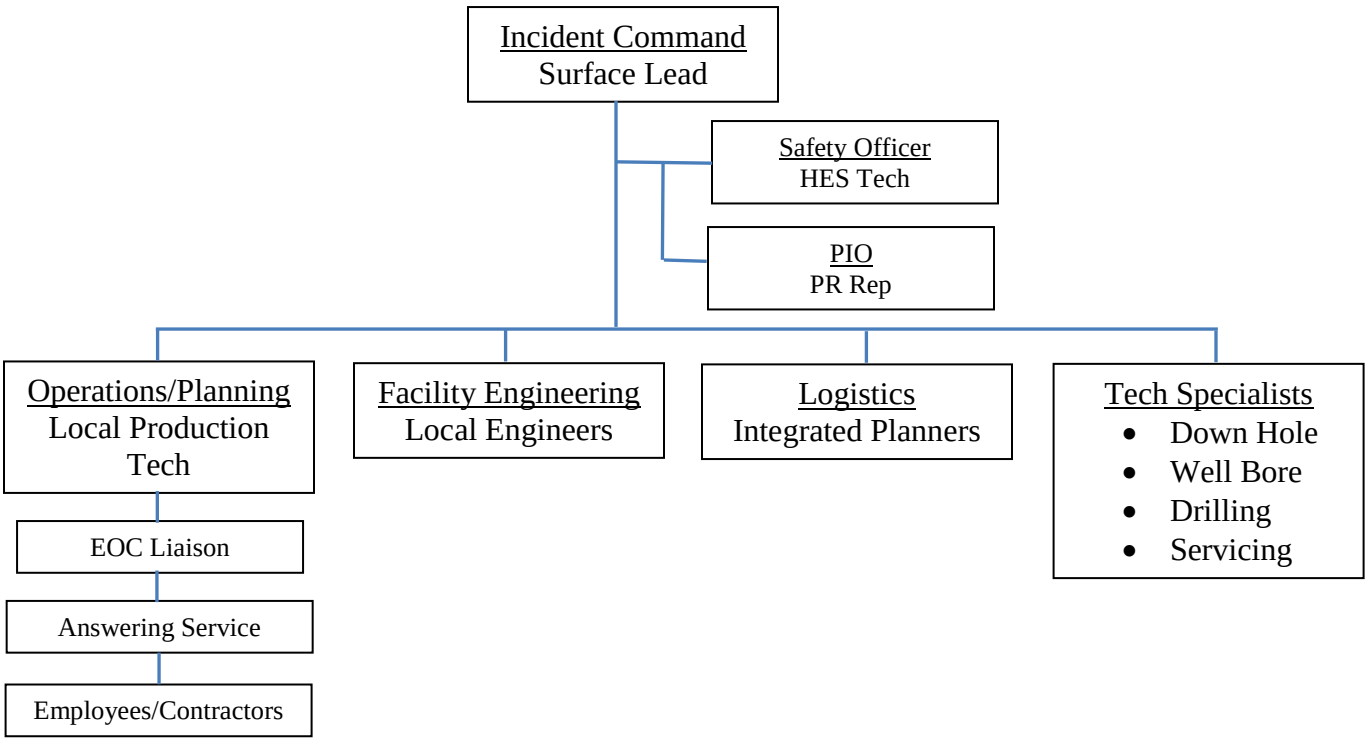
Other Employees: All other personnel should stand by and wait for instructions from the OSC.

1. Once accounted for, Hobbs AREA employees may be called upon by the OSC to support in many different directions.
2. OXY personnel in "staging area" wait to assist in the actual response efforts, escorting vendors to remote locations as a guide, blocking roads, assisting with evacuations, etc.

It should be understood however, no employee or contractor of the Hobbs Area will be asked to provide incident scene support that they are not comfortable in their ability to perform or have not been specifically trained to do.

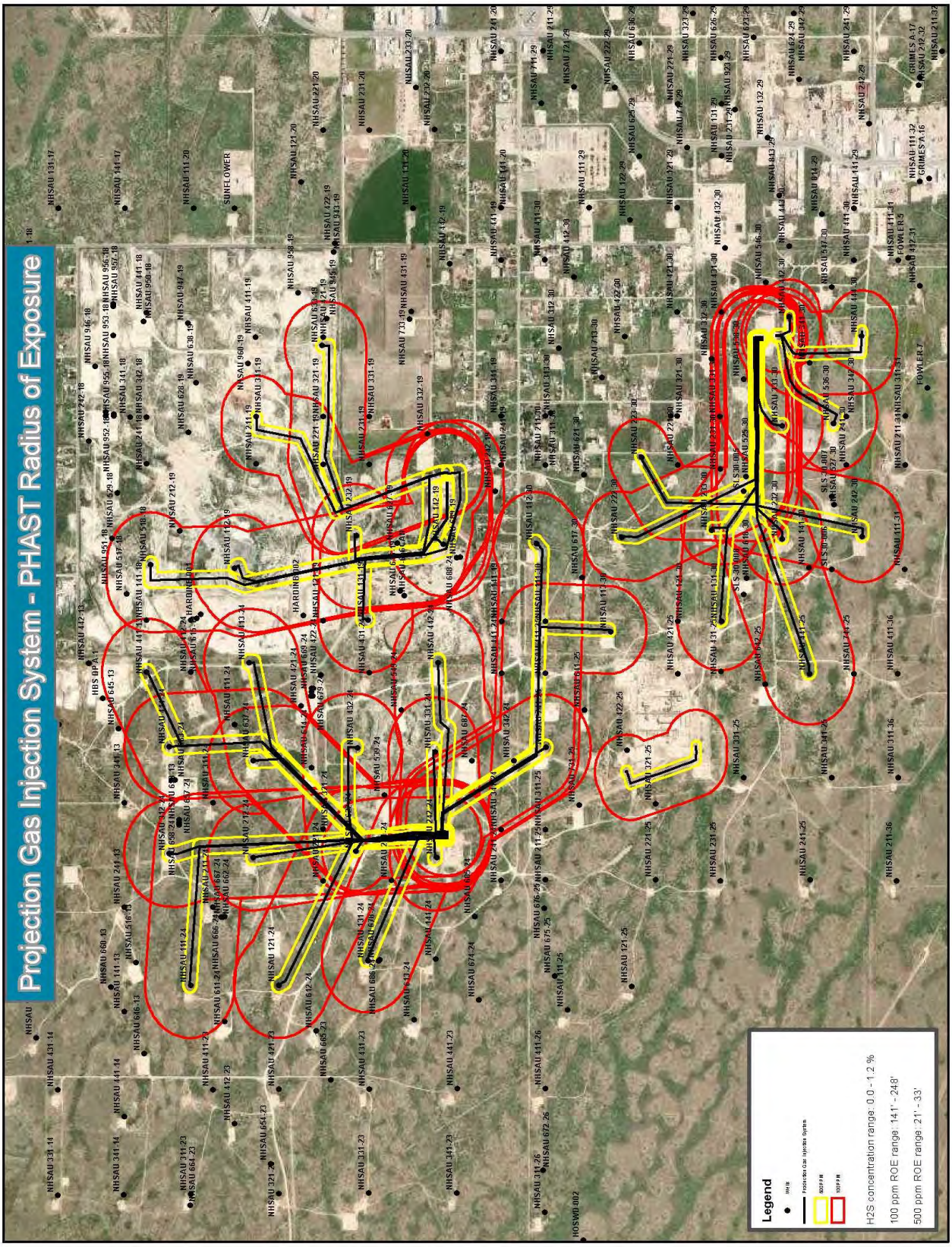
Caprock Answering Service: The Caprock Answering Service is a 24-hr answering service contracted by Oxy. Their phone number is posted on all pipeline markers and on SFRM facilities. The number can be called by any member of the public or an emergency responder. Upon notification of a possible emergency on Occidental Permian property, the answering service operator should ensure that he/she has all of the following information and proceed to call the OXY Technician on call and Surface Lead and provide:

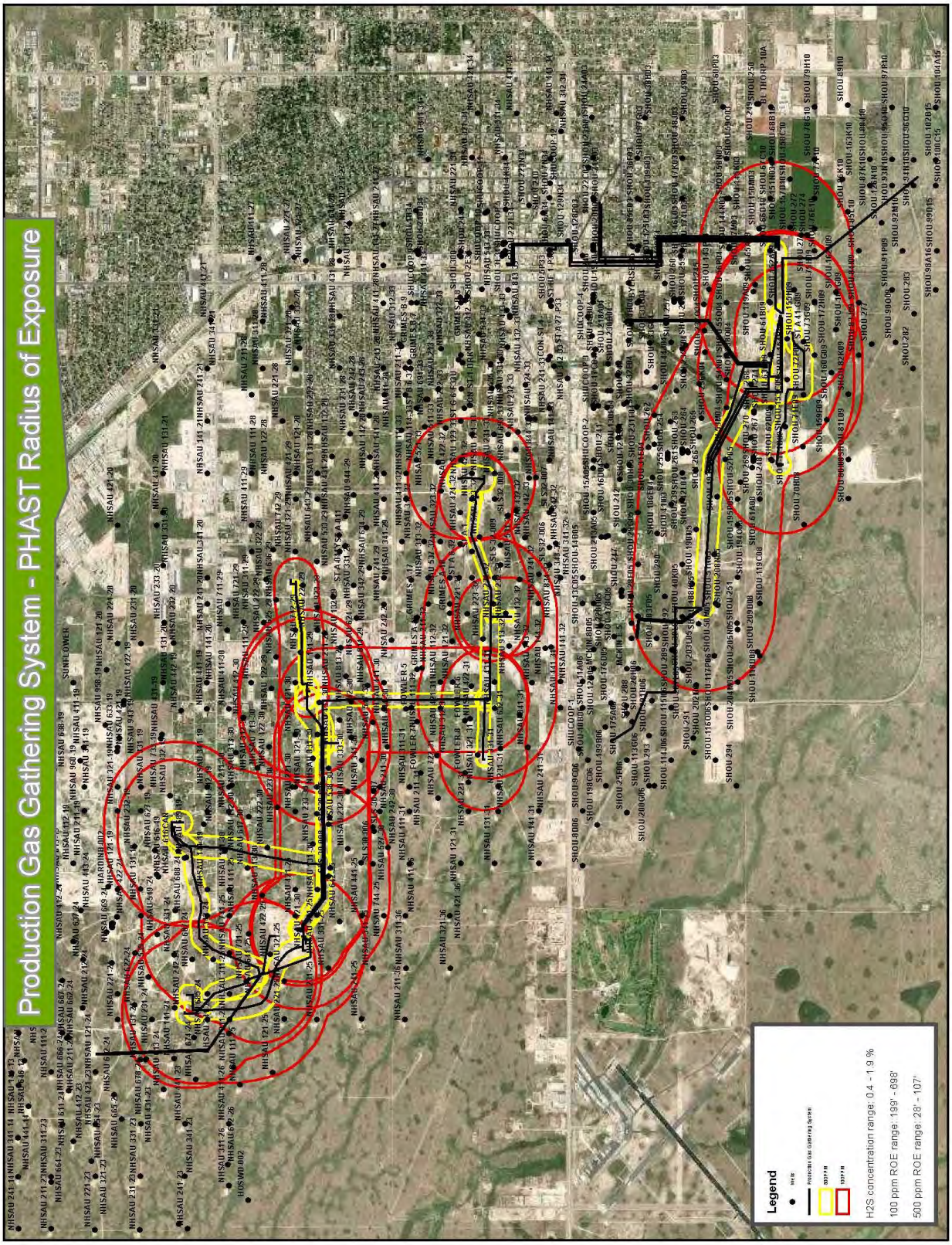
1. Name, phone number, and/or address of the person reporting emergency.
2. Location of emergency. (Well/Facility Number, cross street and /or Lat/Long
3. Any known injuries or missing persons
4. Concise statement of what is happening.
5. What type of emergency services are needed on location.]

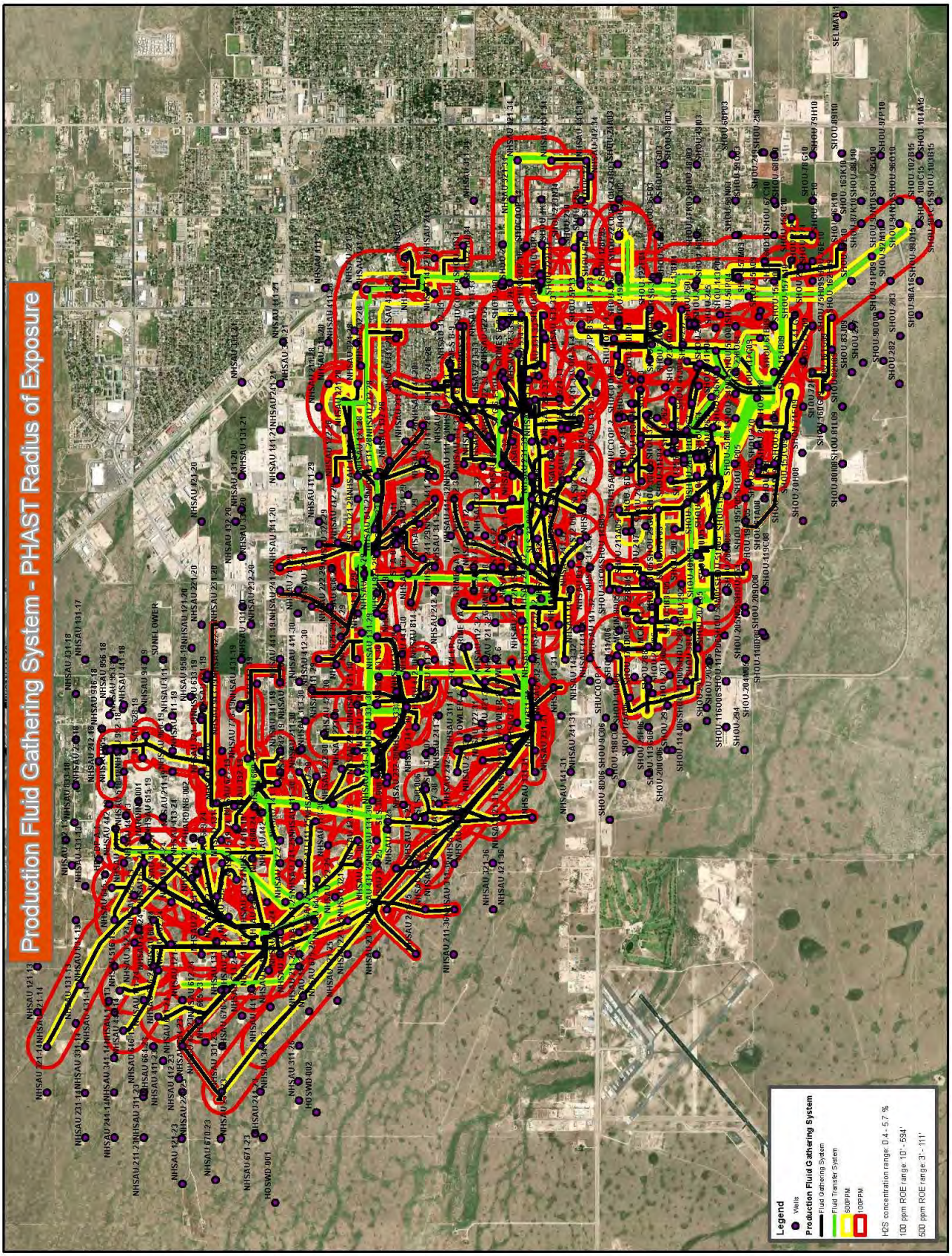


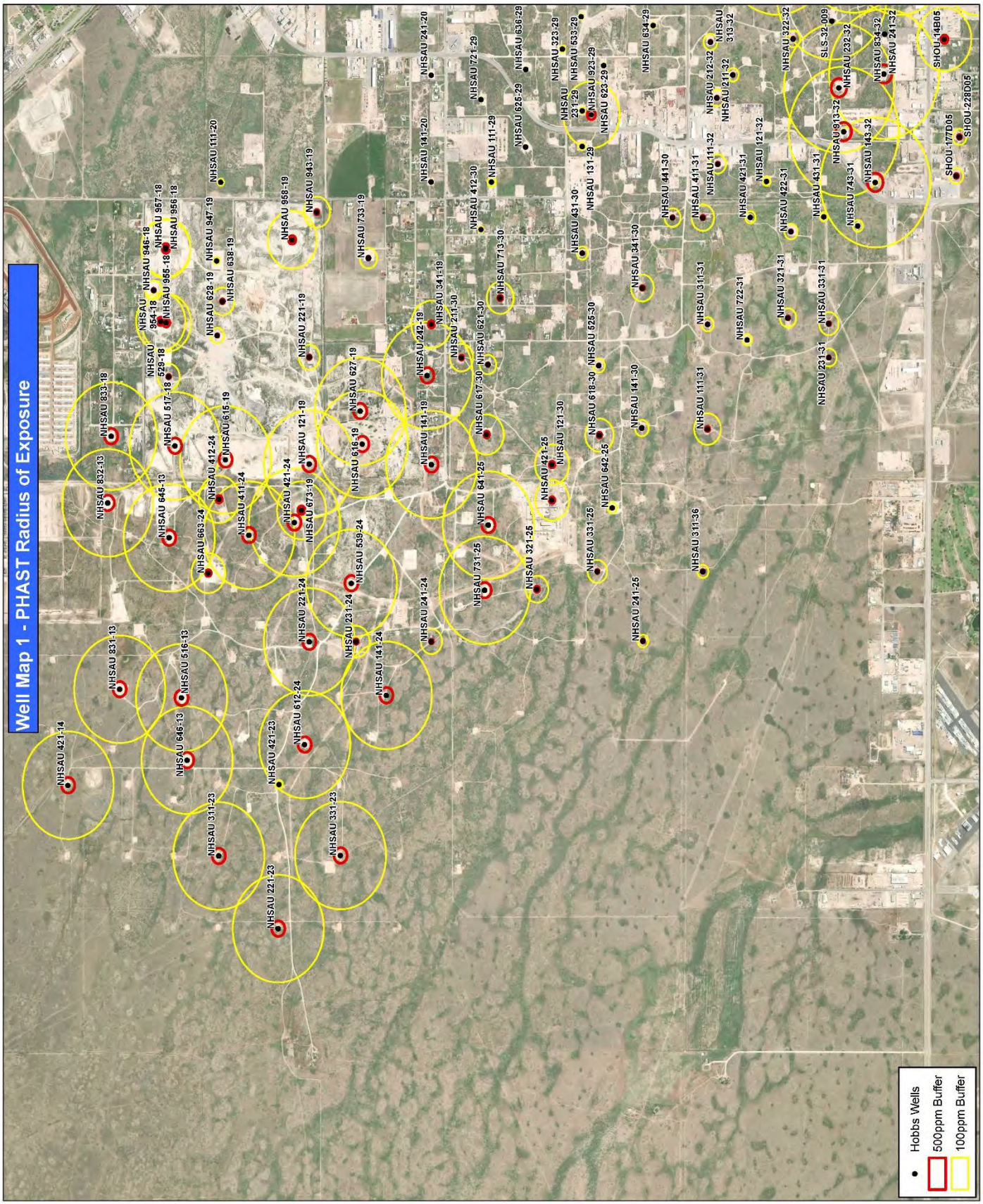
Section IV: Appendices

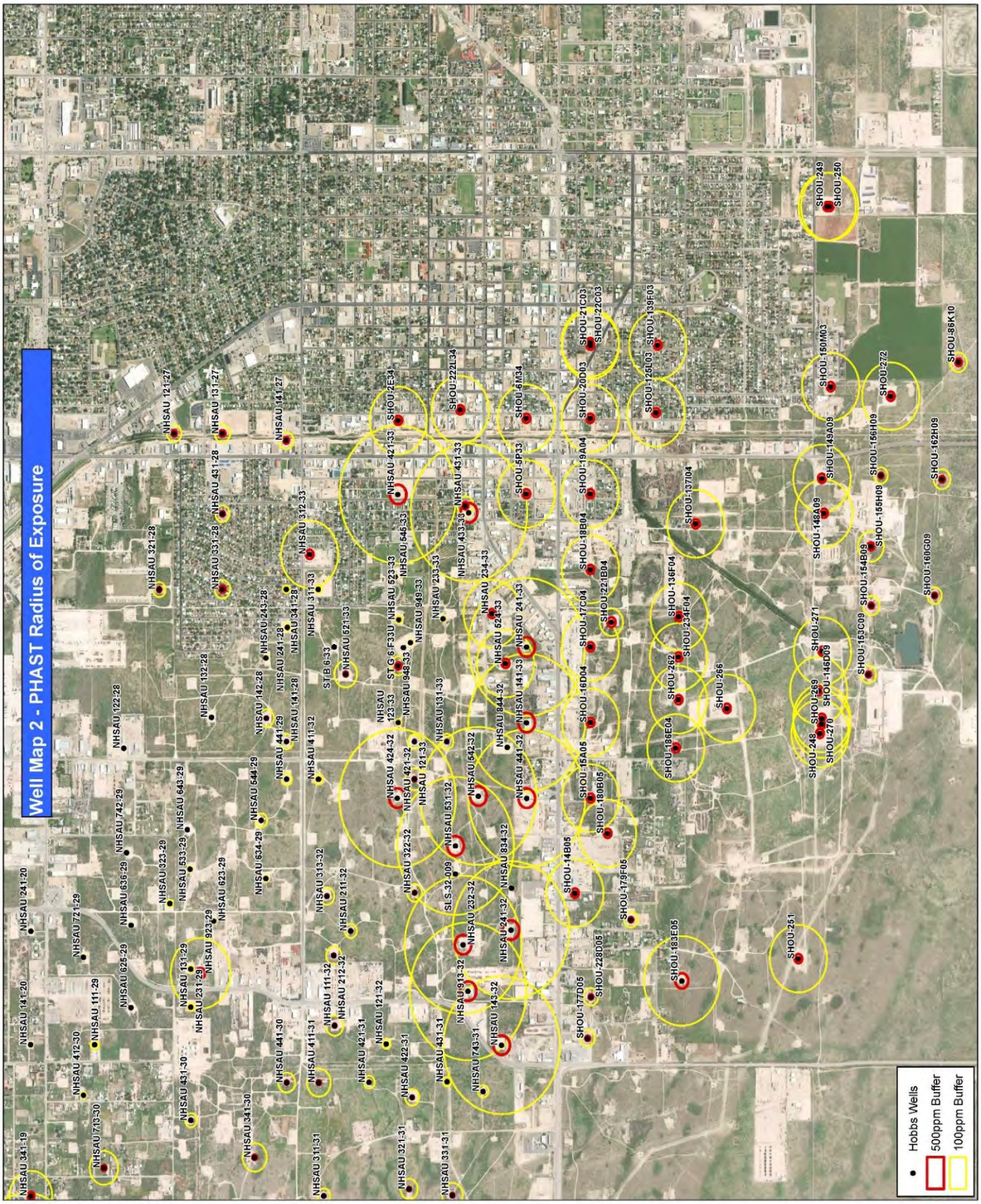
Appendix 1: Maps of Hobbs Area ROE Maps Calculated by PHAST


Projection Gas Injection System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.0 - 1.2 %
100 ppm ROE range: 141' - 248'
500 ppm ROE range: 21' - 33'

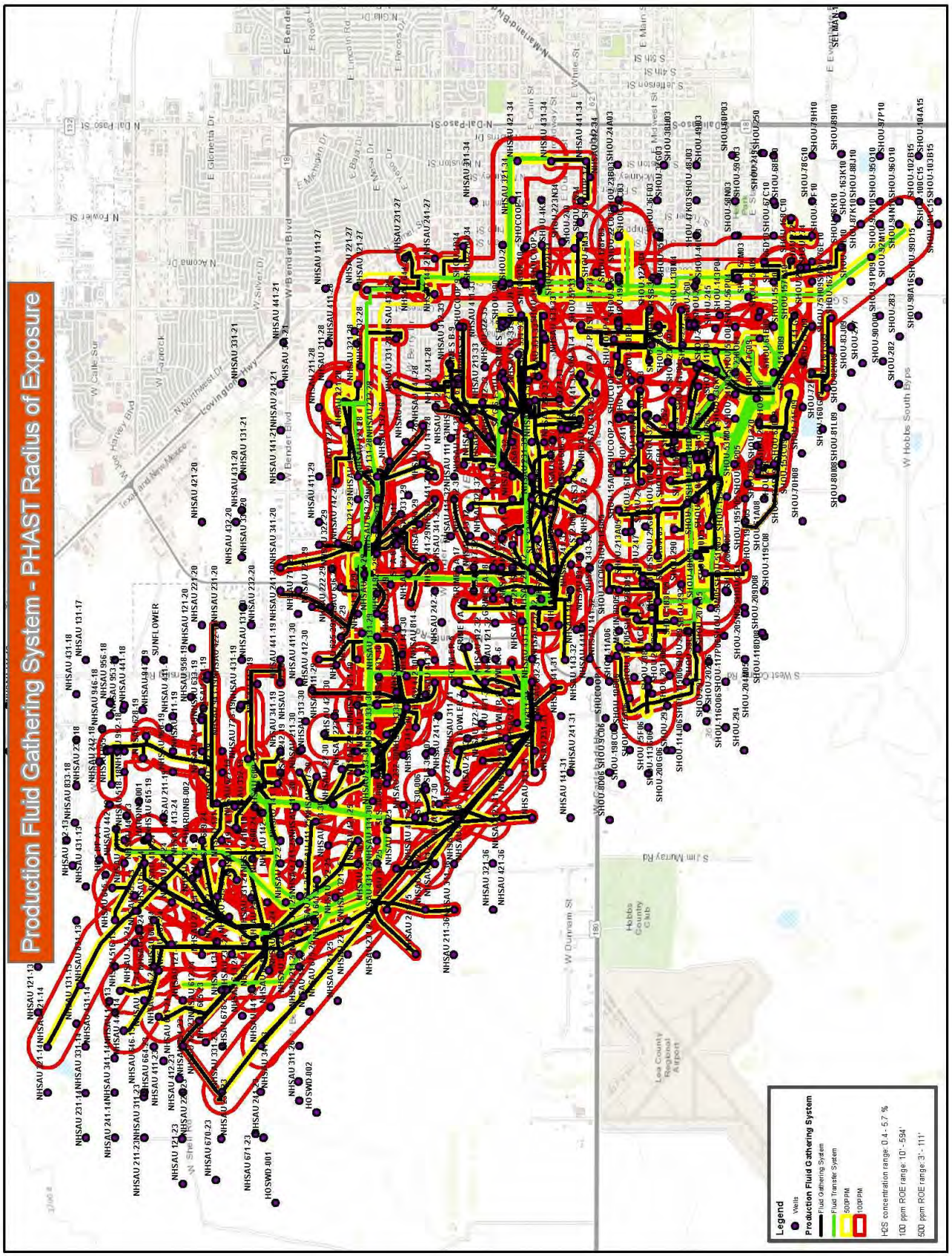

Production Gas Gathering System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.4 - 1.9 %
100 ppm ROE range: 193' - 698'
500 ppm ROE range: 28' - 107'

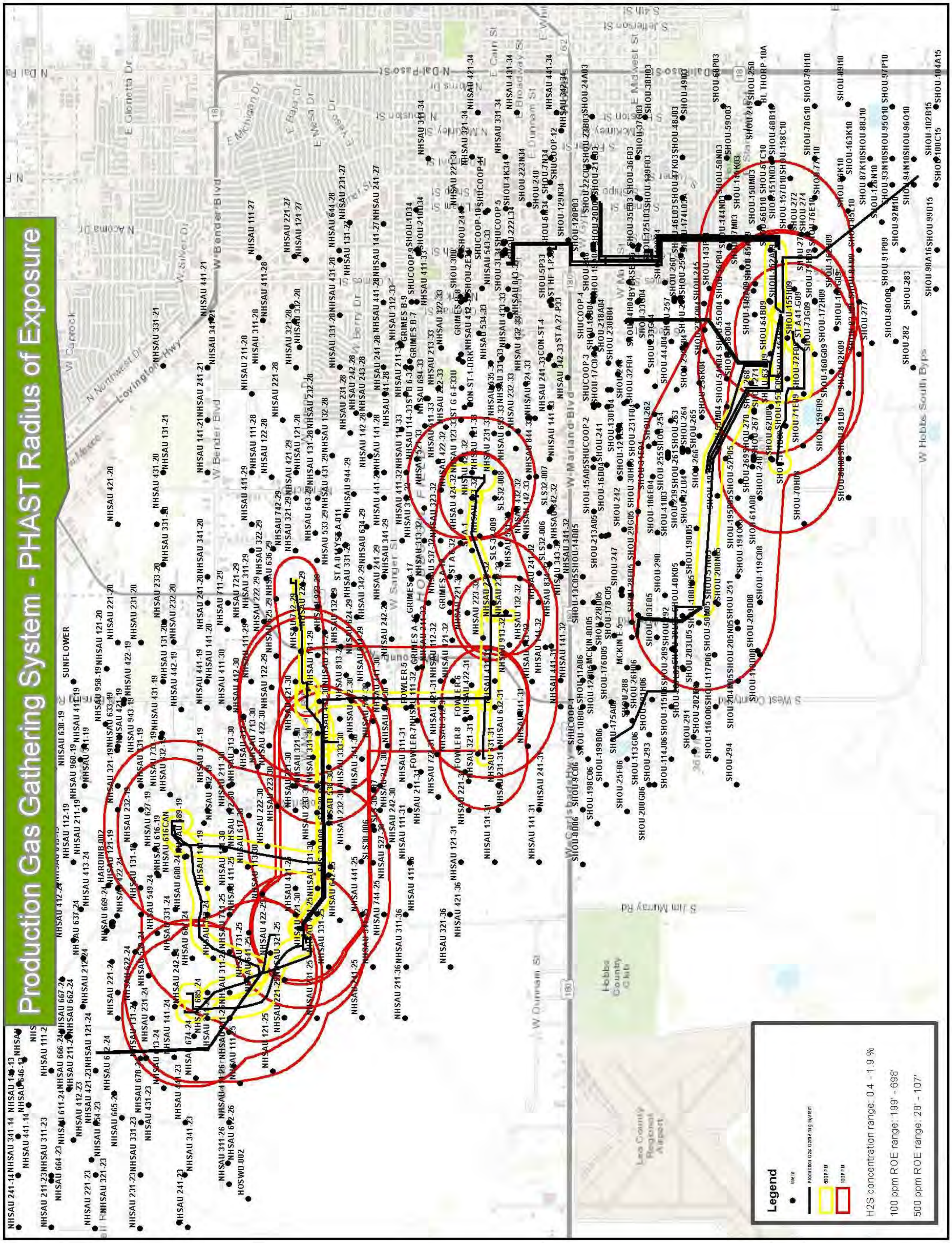

Production Fluid Gathering System - PHAST Radius of Exposure
Legend
Wells
Production Fluid Gathering System
Fluid Gathering System
Fluid Transfer System
50PPM
100PPM
H2S concentration range: 0.4 - 5.7 %
100 ppm ROE range: 10' - 594'
500 ppm ROE range: 3' - 111'

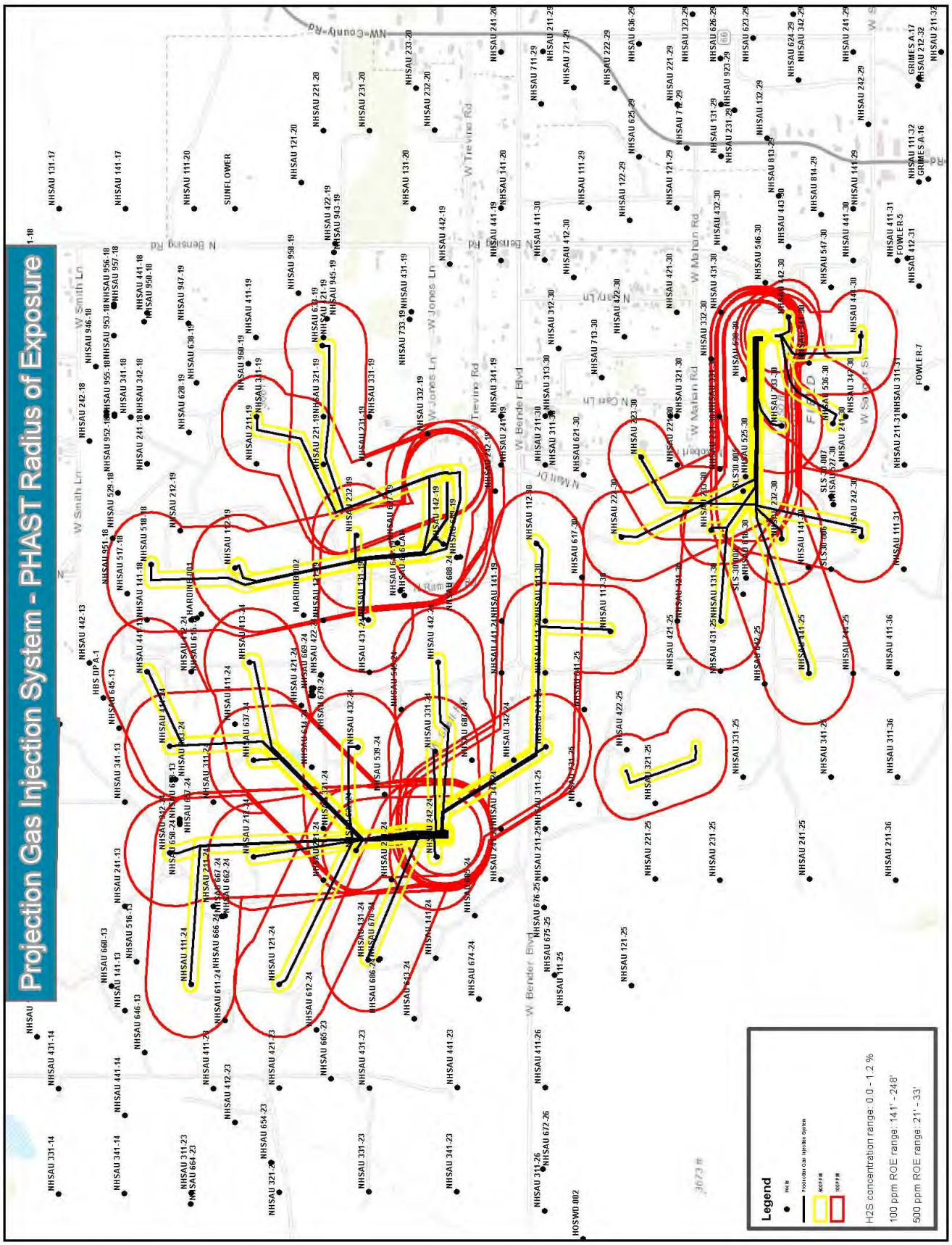

Well Map 1 - PHAST Radius of Exposure
Hobbs Wells
500ppm Buffer
100ppm Buffer

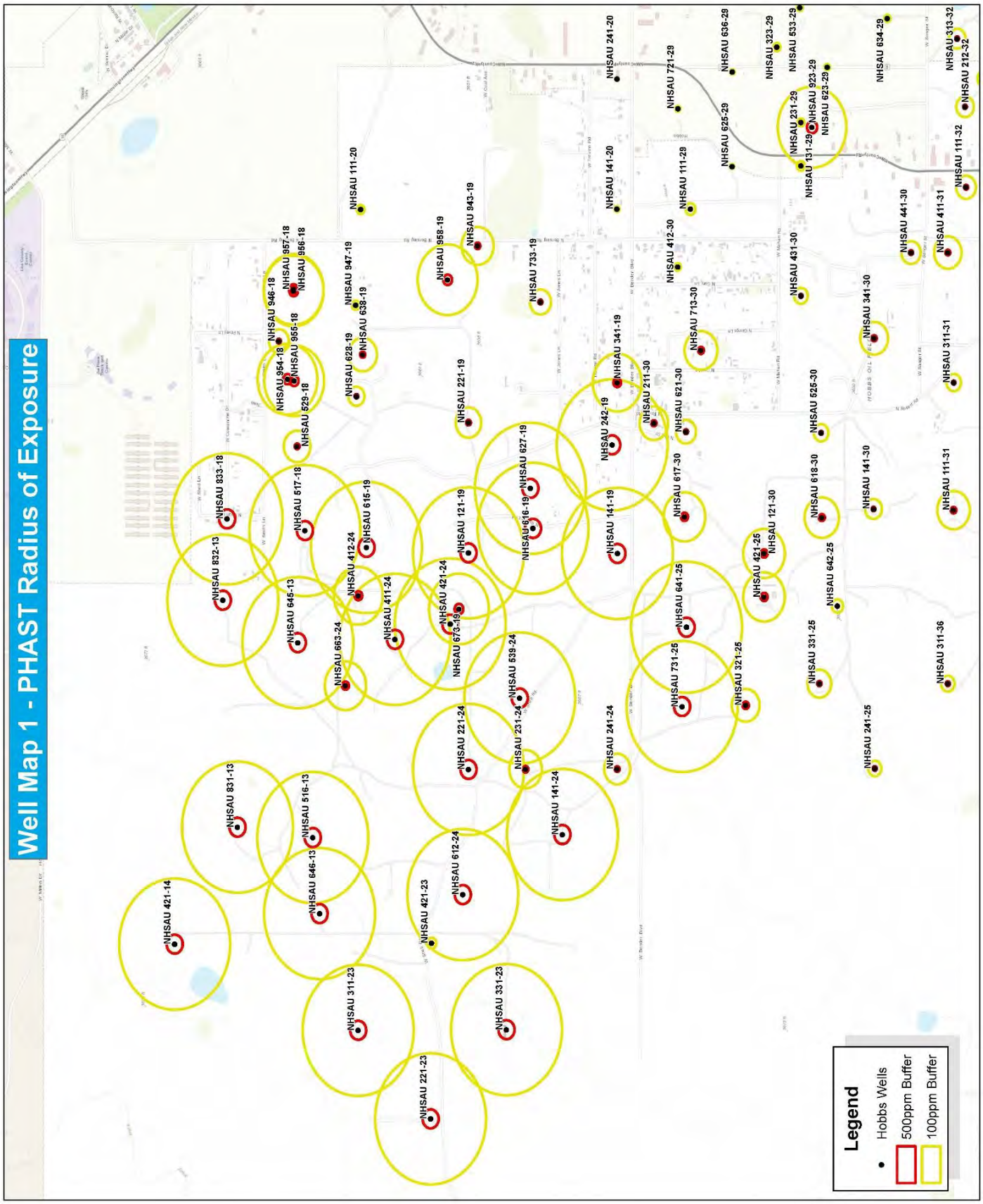

Well Map 2 - PHAST Radius of Exposure
Hobbs Wells
500ppm Buffer
100ppm Buffer

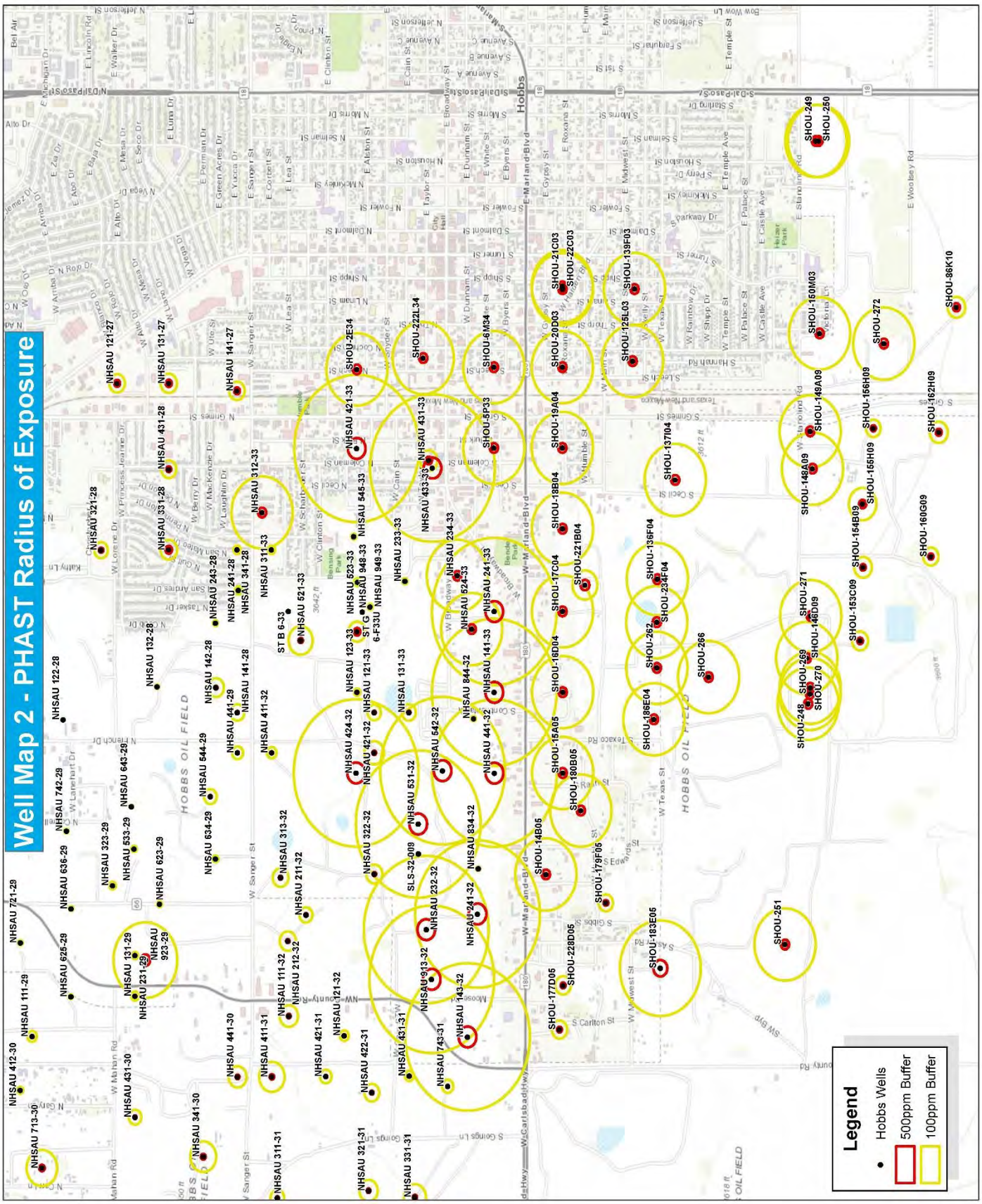
Appendix 1.2: Topographic Maps of Hobbs Area ROE Maps Calculated by PHAST


Production Fluid Gathering System - PHAST Radius of Exposure
Legend
Wells
Production Fluid Gathering System
Fluid Gathering System
Fluid Transfer System
50@PPM
100@PPM
H2S concentration range 0.4 - 5.7 %
100 ppm ROE range 10' - 594'
500 ppm ROE range 3' - 111'


Production Gas Gathering System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.4 - 1.9 %
100 ppm ROE range: 199' - 698'
500 ppm ROE range: 28' - 107'


Projection Gas Injection System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.0 - 1.2 %
100 ppm ROE range: 141' - 248'
500 ppm ROE range: 21' - 33'


Well Map 1 - PHAST Radius of Exposure
NHSAU 421-14
NHSAU 831-13
NHSAU 516-13
NHSAU 646-13
NHSAU 311-23
NHSAU 421-23
NHSAU 612-24
NHSAU 331-23
NHSAU 221-23
NHSAU 832-13
NHSAU 833-18
NHSAU 645-13
NHSAU 517-18
NHSAU 663-24
NHSAU 412-24
NHSAU 615-19
NHSAU 411-24
NHSAU 673-19
NHSAU 421-24
NHSAU 121-19
NHSAU 539-24
NHSAU 221-24
NHSAU 231-24
NHSAU 141-24
NHSAU 954-18
NHSAU 957-18
NHSAU 946-18
NHSAU 956-18
NHSAU 955-18
NHSAU 529-18
NHSAU 628-19
NHSAU 947-19
NHSAU 638-19
NHSAU 111-20
NHSAU 958-19
NHSAU 943-19
NHSAU 221-19
NHSAU 733-19
NHSAU 616-19
NHSAU 627-19
NHSAU 242-19
NHSAU 141-19
NHSAU 241-20
NHSAU 141-20
NHSAU 341-19
NHSAU 211-30
NHSAU 241-24
NHSAU 617-30
NHSAU 641-25
NHSAU 731-25
NHSAU 412-30
NHSAU 111-29
NHSAU 721-29
NHSAU 621-30
NHSAU 713-30
NHSAU 636-29
NHSAU 625-29
NHSAU 323-29
NHSAU 533-29
NHSAU 231-29
NHSAU 131-29
NHSAU 923-29
NHSAU 623-29
NHSAU 431-30
NHSAU 634-29
NHSAU 313-32
NHSAU 212-32
NHSAU 111-32
NHSAU 441-30
NHSAU 411-31
NHSAU 341-30
NHSAU 311-31
NHSAU 525-30
NHSAU 618-30
NHSAU 642-25
NHSAU 331-25
NHSAU 421-25
NHSAU 121-30
NHSAU 321-25
NHSAU 141-30
NHSAU 111-31
NHSAU 311-36
NHSAU 241-25
Legend
Hobbs Wells
500ppm Buffer
100ppm Buffer


Well Map 2 - PHAST Radius of Exposure
Legend
Hobbs Wells
500ppm Buffer
100ppm Buffer
HOBBS OIL FIELD
Hobbs
NHSAU 121-27
NHSAU 131-27
NHSAU 141-27
NHSAU 431-28
NHSAU 331-28
NHSAU 321-28
NHSAU 122-28
NHSAU 132-28
NHSAU 142-28
NHSAU 243-28
NHSAU 241-28
NHSAU 341-28
NHSAU 312-33
NHSAU 311-33
NHSAU 421-33
NHSAU 431-33
NHSAU 433-33
NHSAU 545-33
NHSAU 523-33
NHSAU 948-33
NHSAU 949-33
NHSAU 233-33
NHSAU 234-33
NHSAU 524-33
NHSAU 241-33
NHSAU 621-33
ST B 6-33
ST G 6-F33U
SHOU-222L34
SHOU-2E34
SHOU-6M34
SHOU-5P33
SHOU-21C03
SHOU-22C03
SHOU-20D03
SHOU-19A04
SHOU-18B04
SHOU-17C04
SHOU-221B04
SHOU-139F03
SHOU-125L03
SHOU-137I04
SHOU-136F04
SHOU-234F04
SHOU-262
SHOU-266
SHOU-186E04
SHOU-180B05
SHOU-15A05
SHOU-18D04
SHOU-14B05
SHOU-179F05
SHOU-183E05
SHOU-228D05
SHOU-177D06
SHOU-251
SHOU-248
SHOU-269
SHOU-270
SHOU-271
SHOU-146D09
SHOU-153C09
SHOU-154B09
SHOU-155H09
SHOU-156H09
SHOU-148A09
SHOU-149A09
SHOU-160M03
SHOU-272
SHOU-162H09
SHOU-160G09
SHOU-86K10
SHOU-249
SHOU-250
NHSAU 122-28
NHSAU 742-29
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NHSAU 341-30
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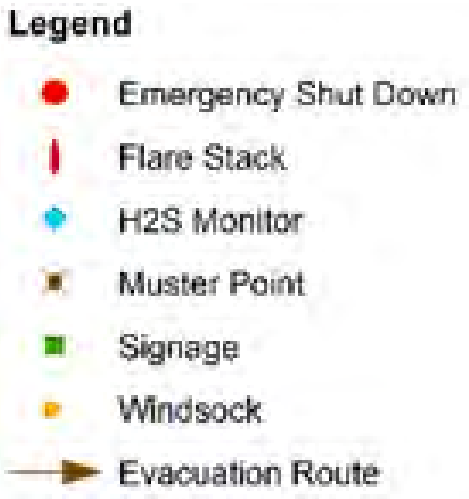
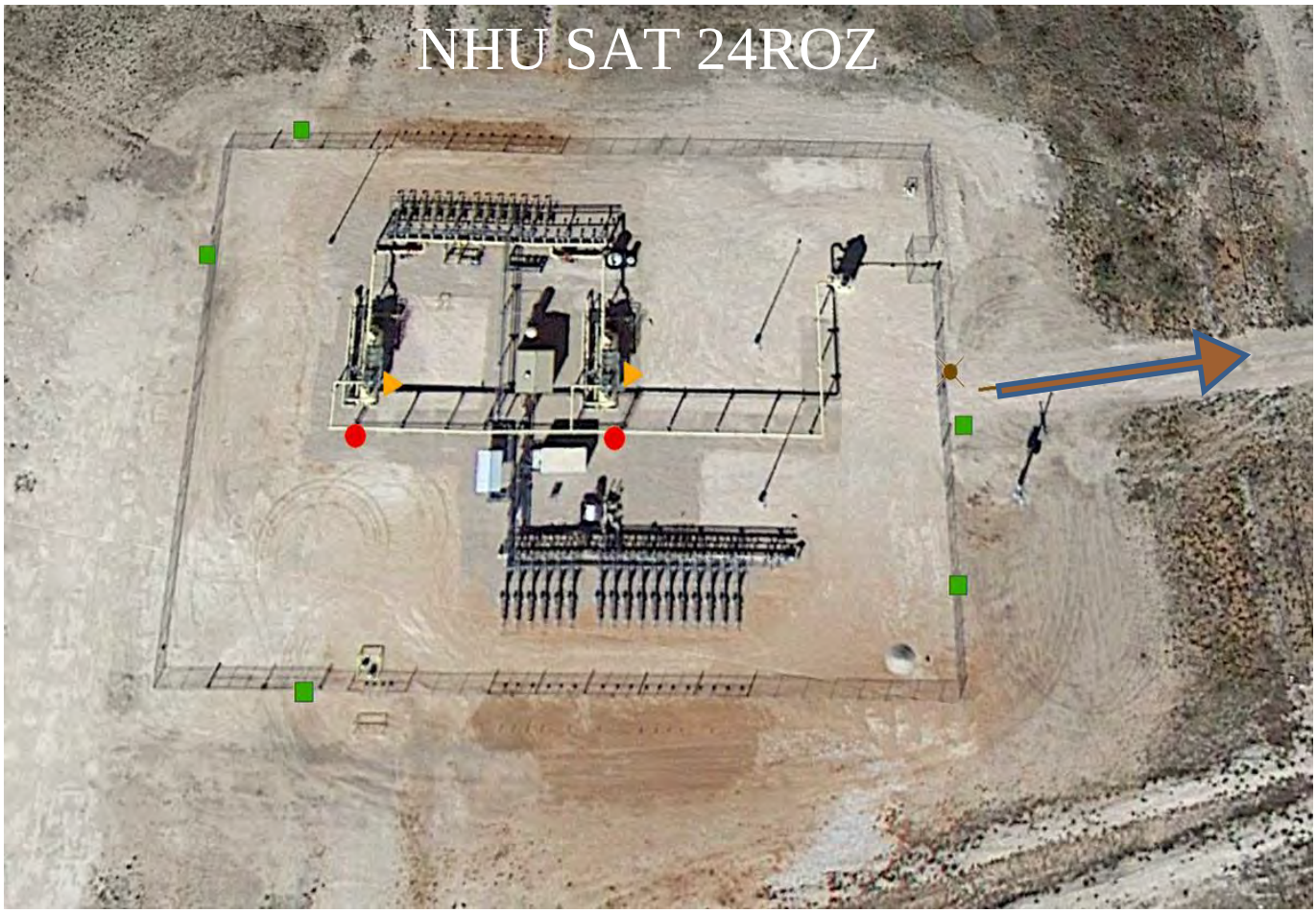
NHSAU 211-32
NHSAU 212-32
NHSAU 111-32
NHSAU 411-31
NHSAU 311-31
NHSAU 121-32
NHSAU 421-31
NHSAU 422-31
NHSAU 321-31
NHSAU 411-32
NHSAU 141-32
NHSAU 441-29
NHSAU 141-28
NHSAU 123-33
NHSAU 121-33
NHSAU 131-33
NHSAU 424-32
NHSAU 421-32
NHSAU 322-32
NHSAU 531-32
NHSAU 542-32
NHSAU 844-32
NHSAU 141-33
NHSAU 441-32
NHSAU 834-32
NHSAU 232-32
NHSAU 241-32
NHSAU 913-32
NHSAU 143-32
NHSAU 743-31
NHSAU 431-31
NHSAU 331-31
SLS-32-009

Appendix 2: Maps of Hobbs Area Facilities and Locations of Safety Equipment

Note: H2S monitors are strategically located based on location or absence of any off-site receptors.

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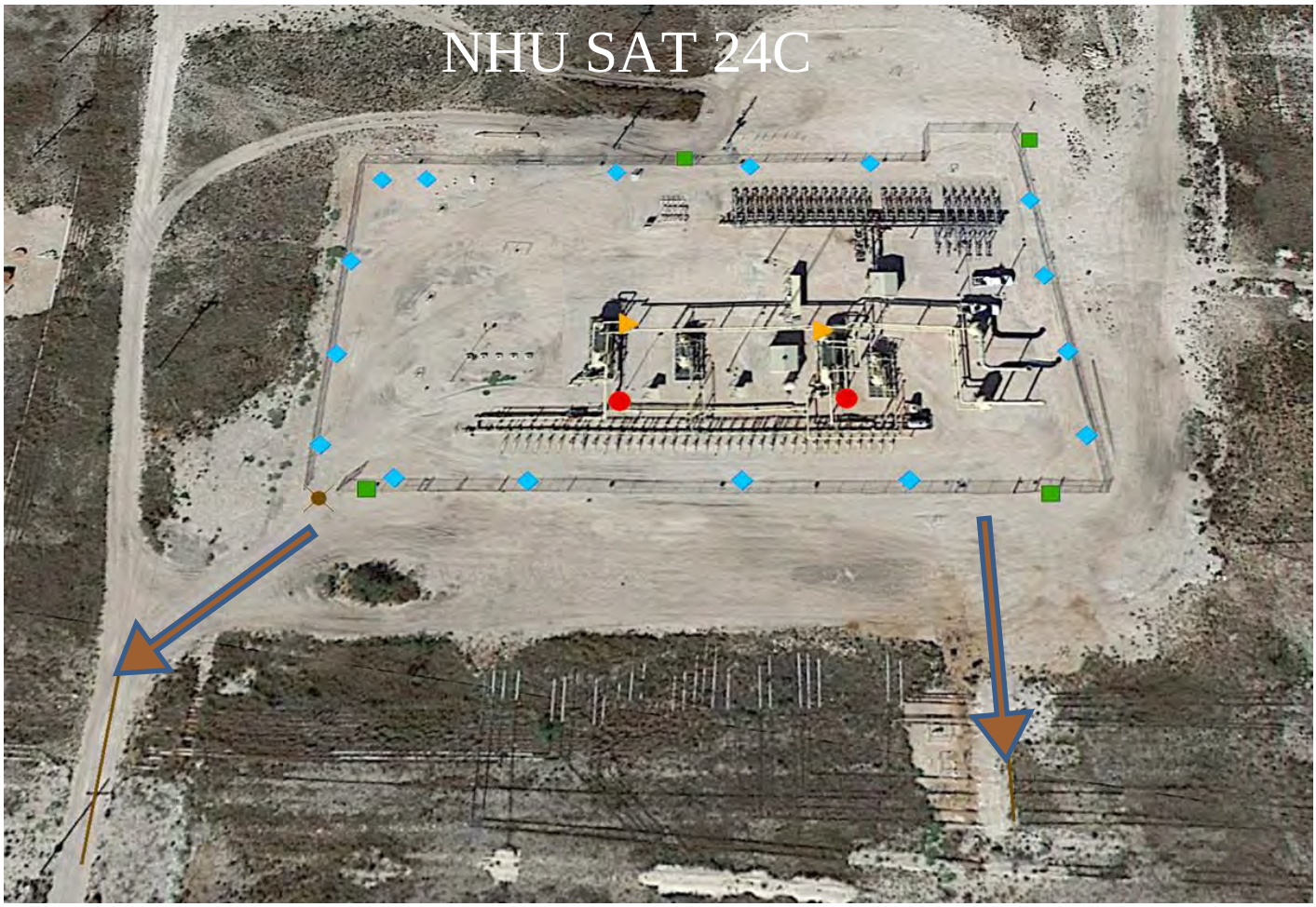
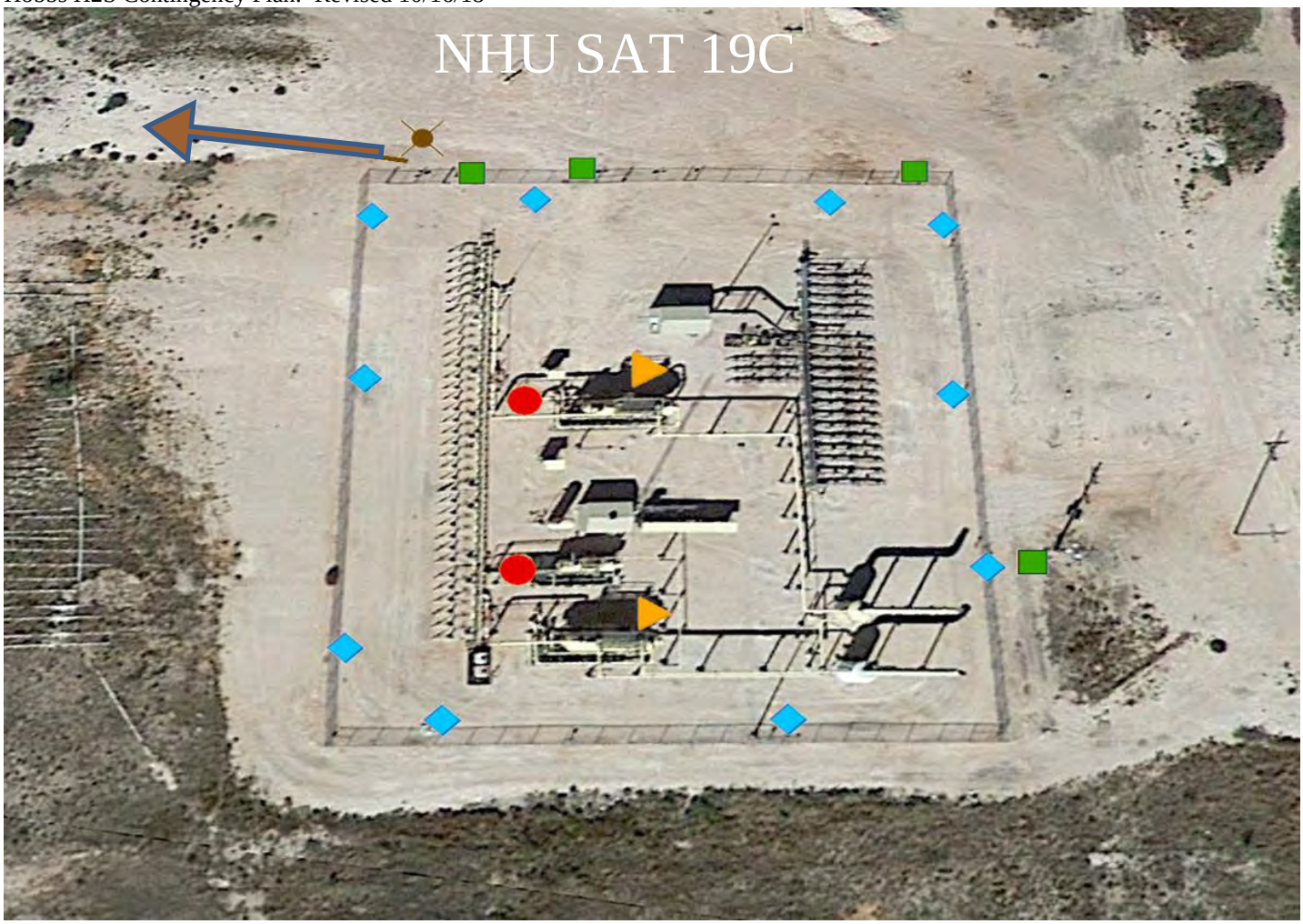

NHU SAT 24C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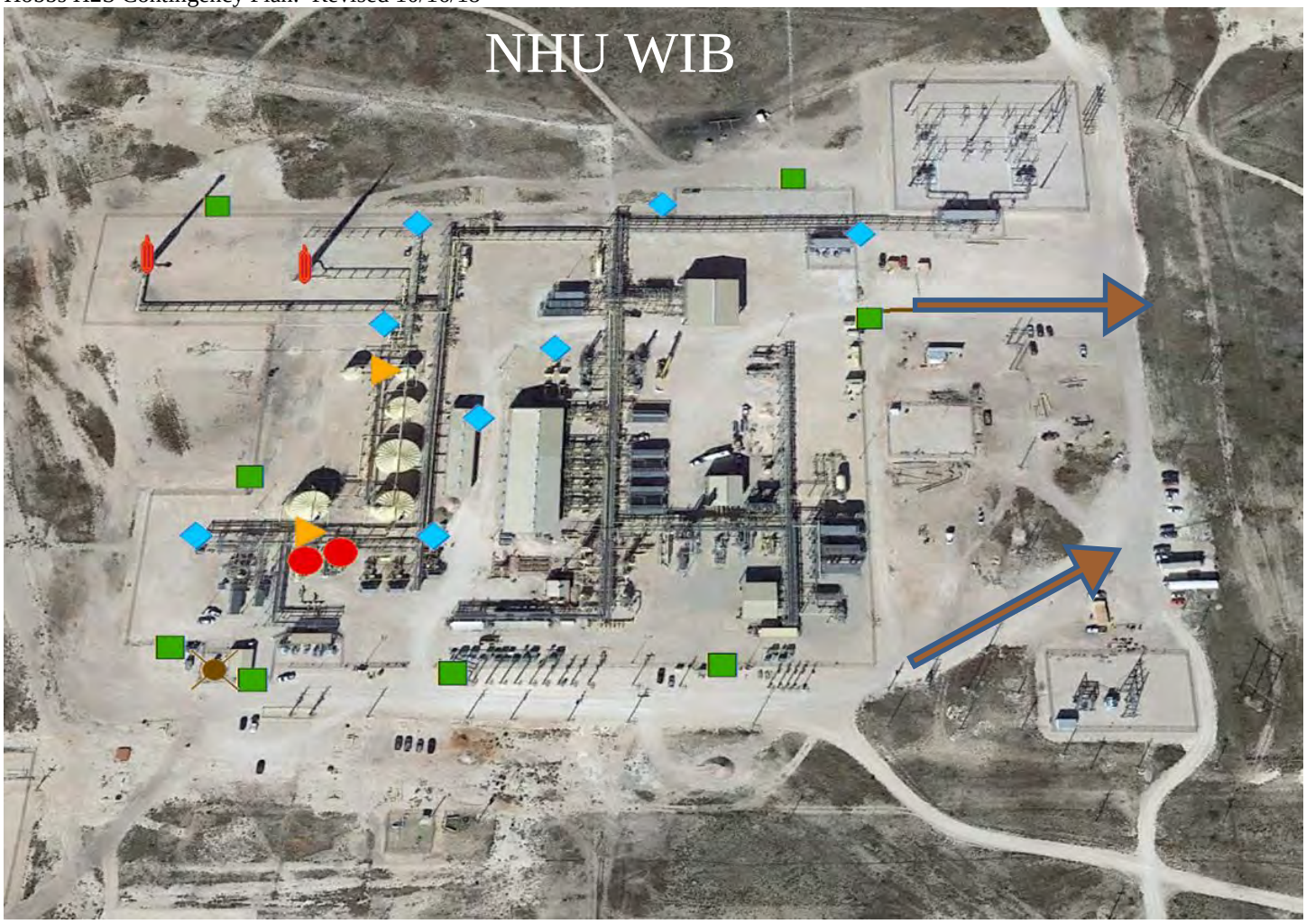
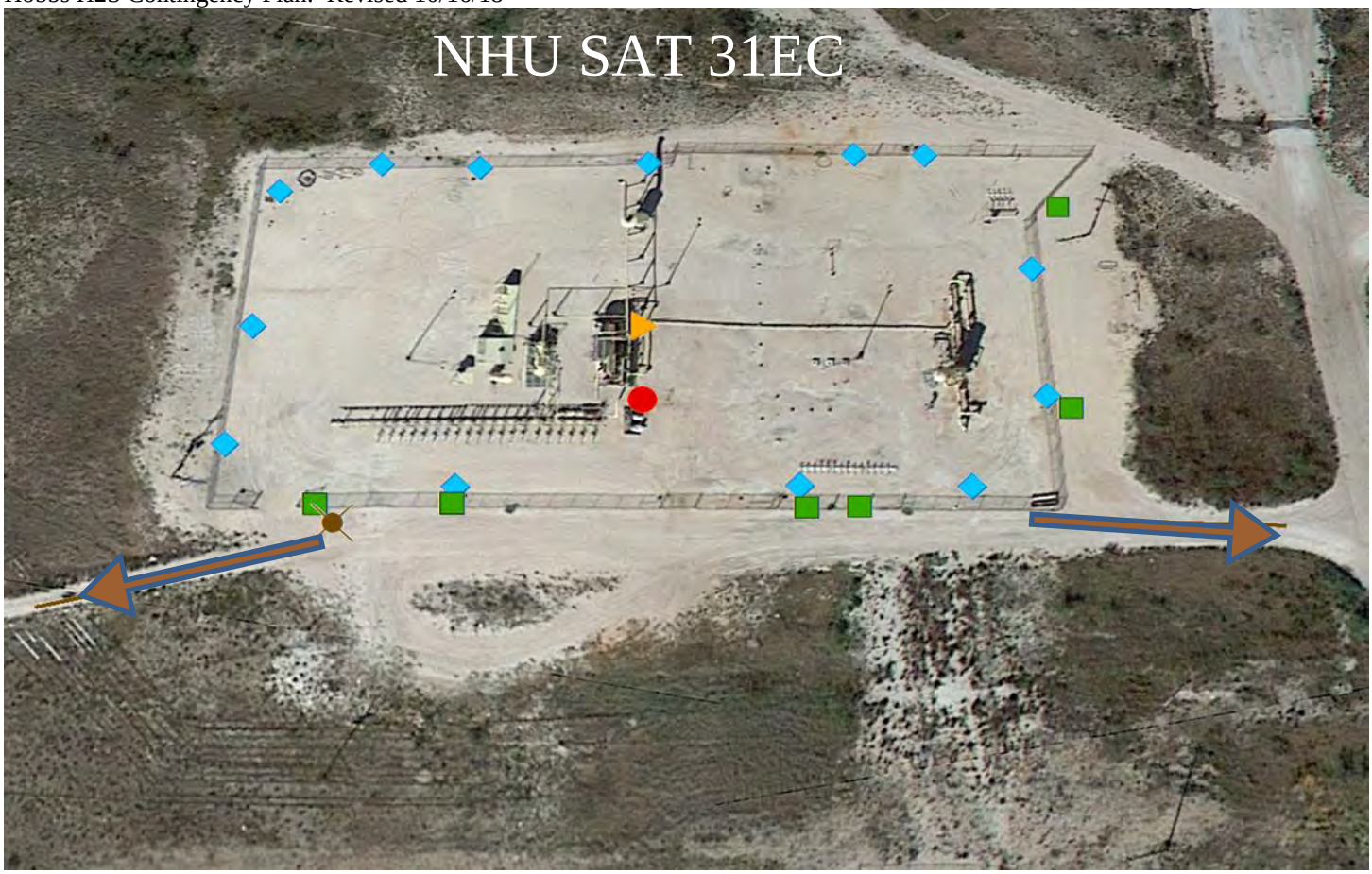
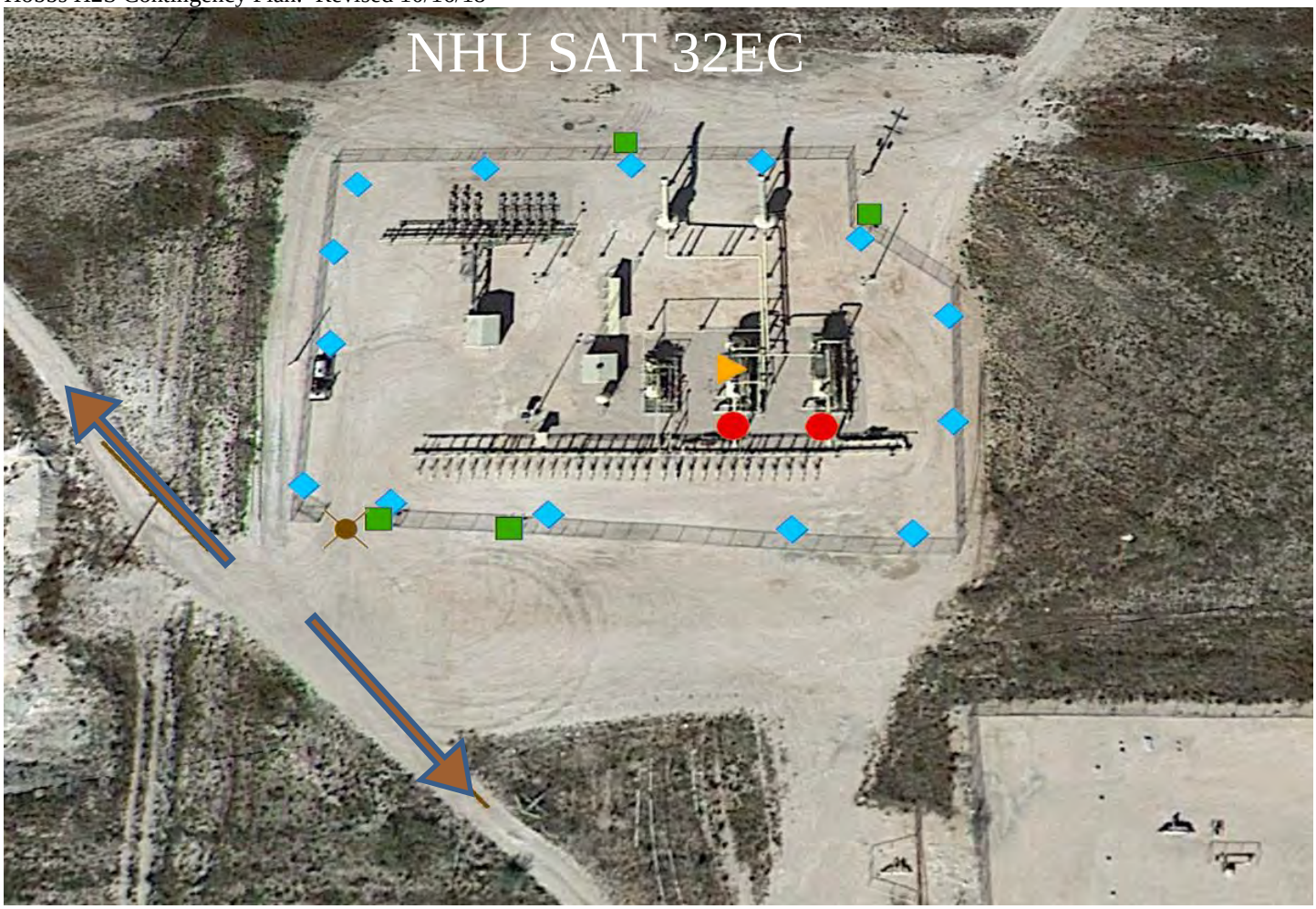
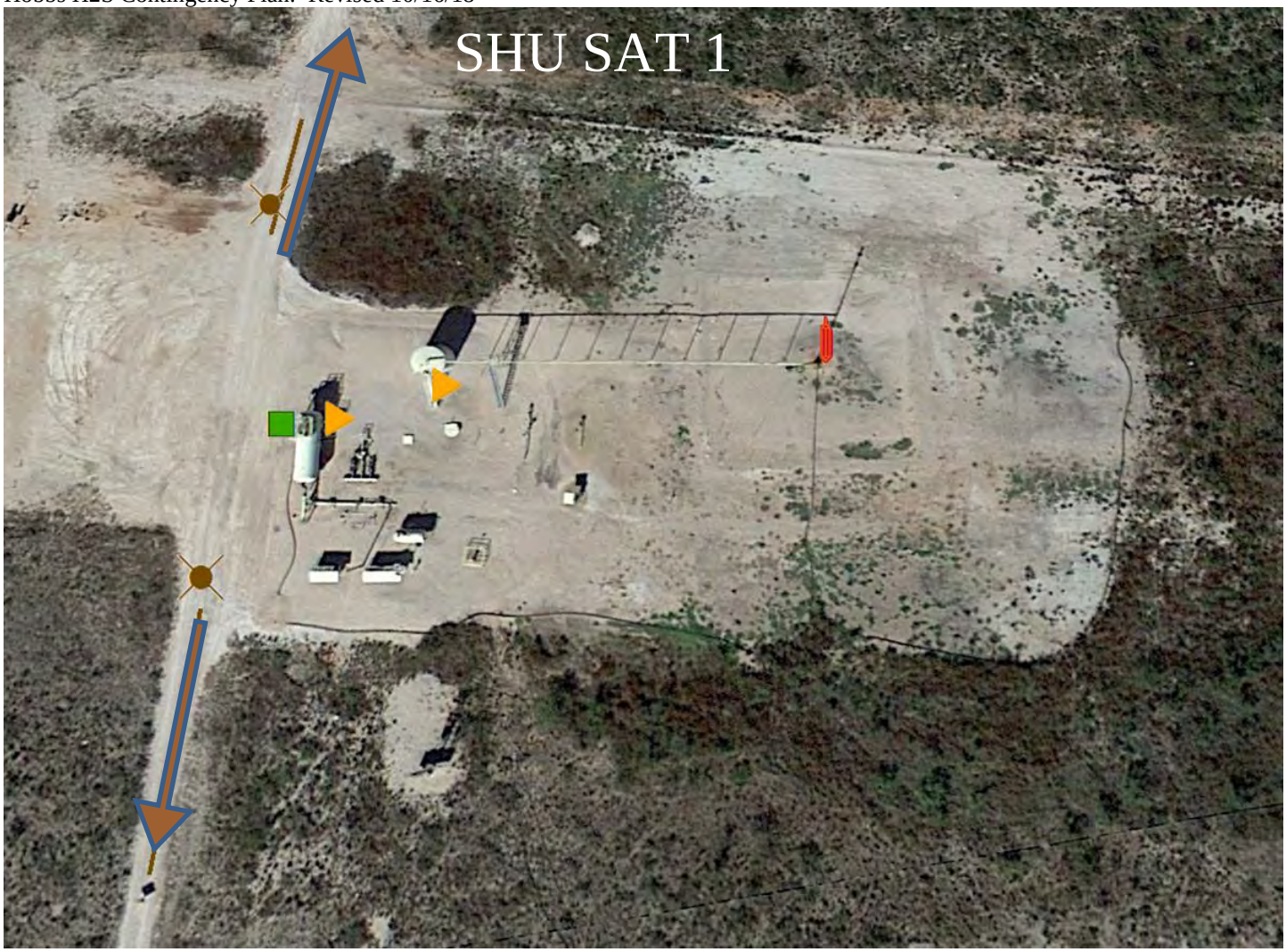

NHU WIB


NHU SAT 31EC


NHU SAT 32WC

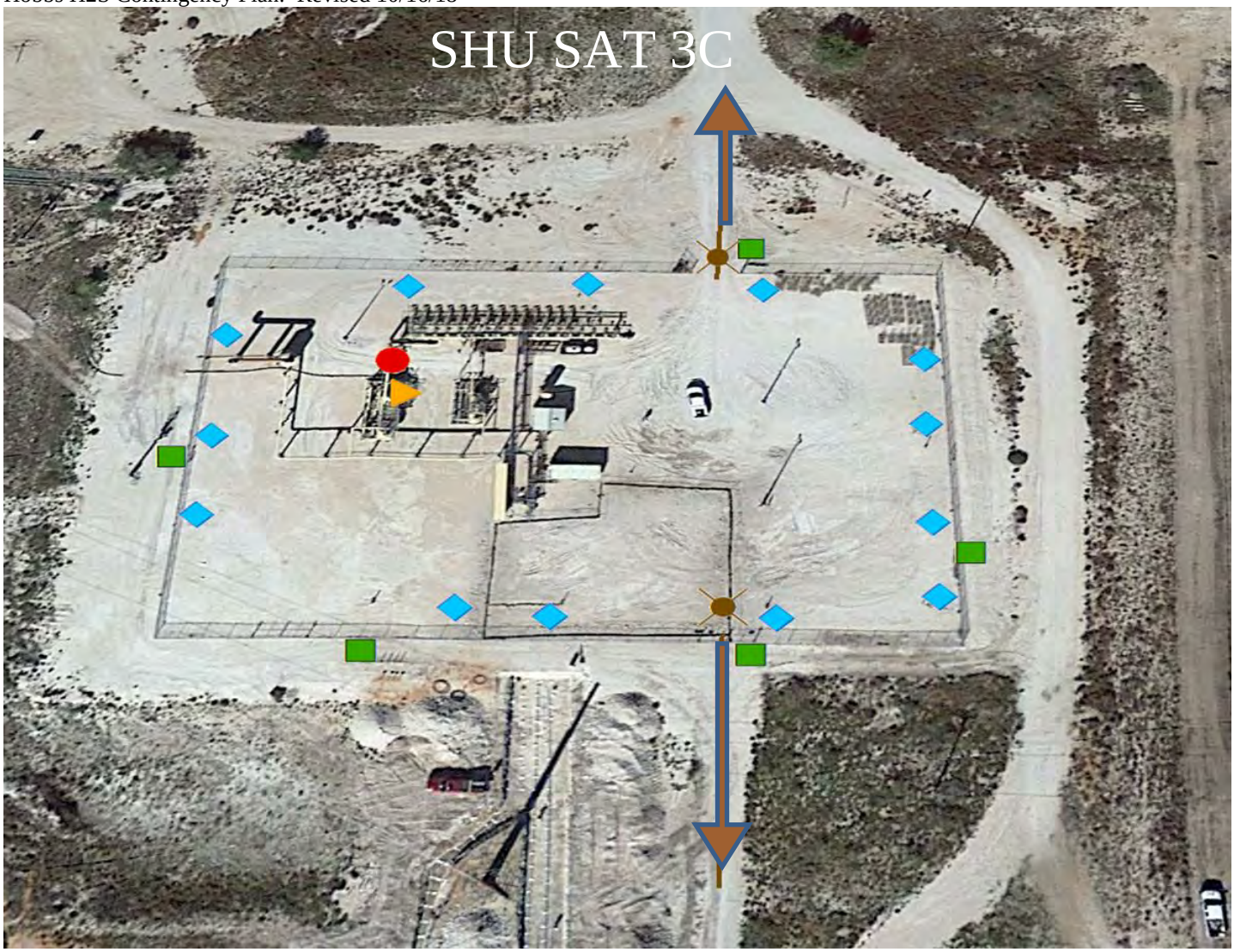

NHU SAT 32EC


NHU NIB


SHU SAT 1


SHU SAT 1C


SHU RCF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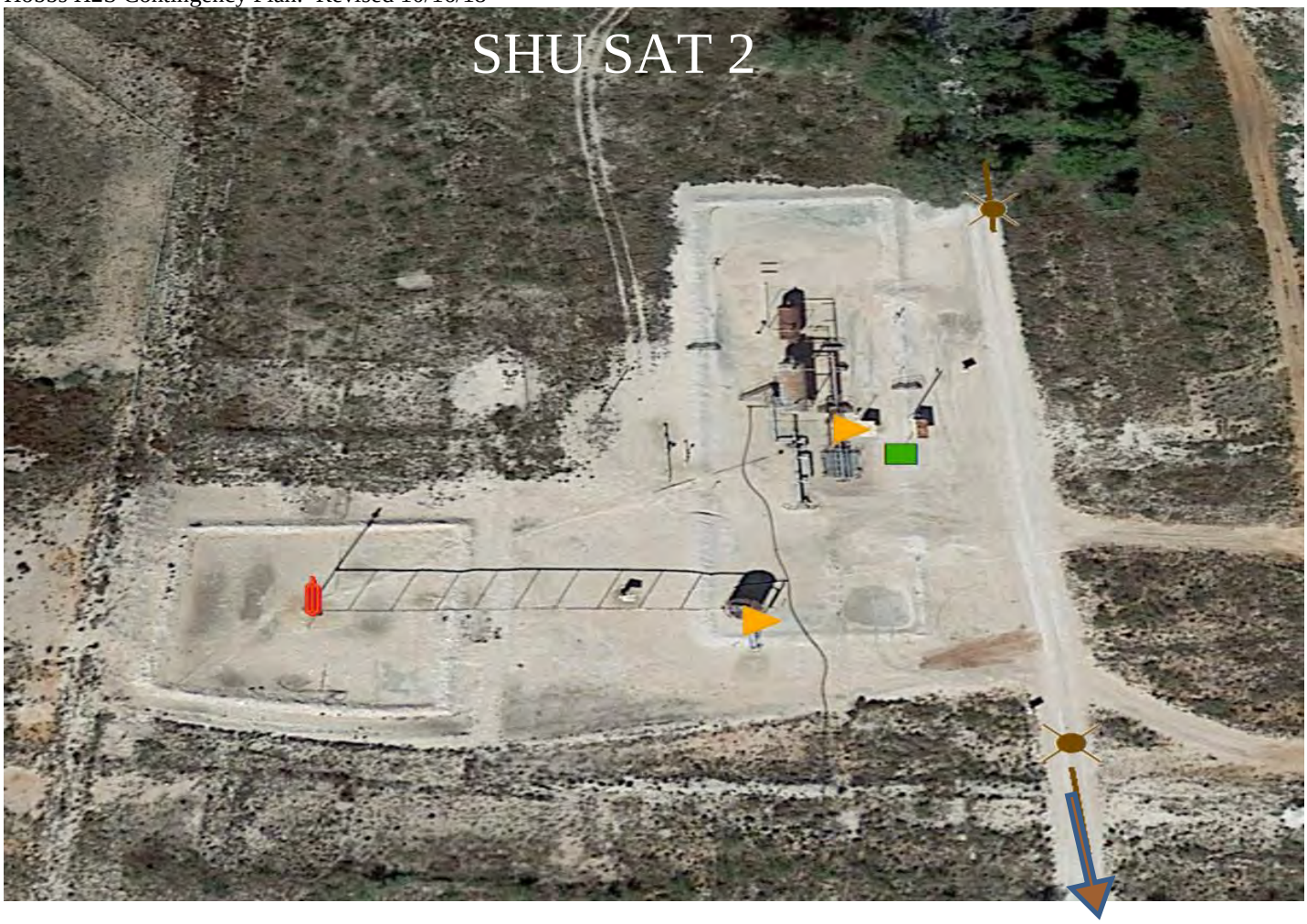
SHU SAT 2


SHU CTB
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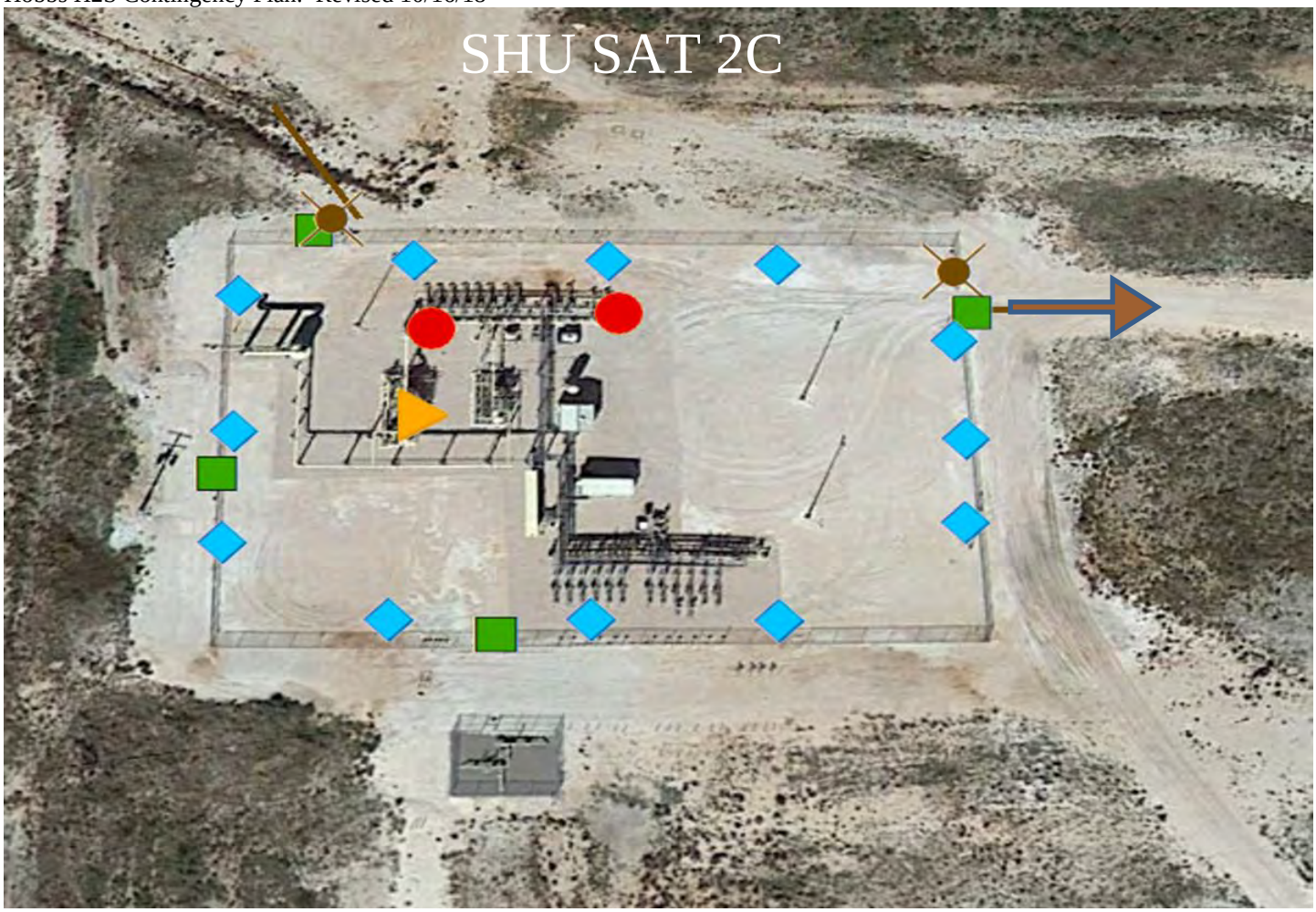
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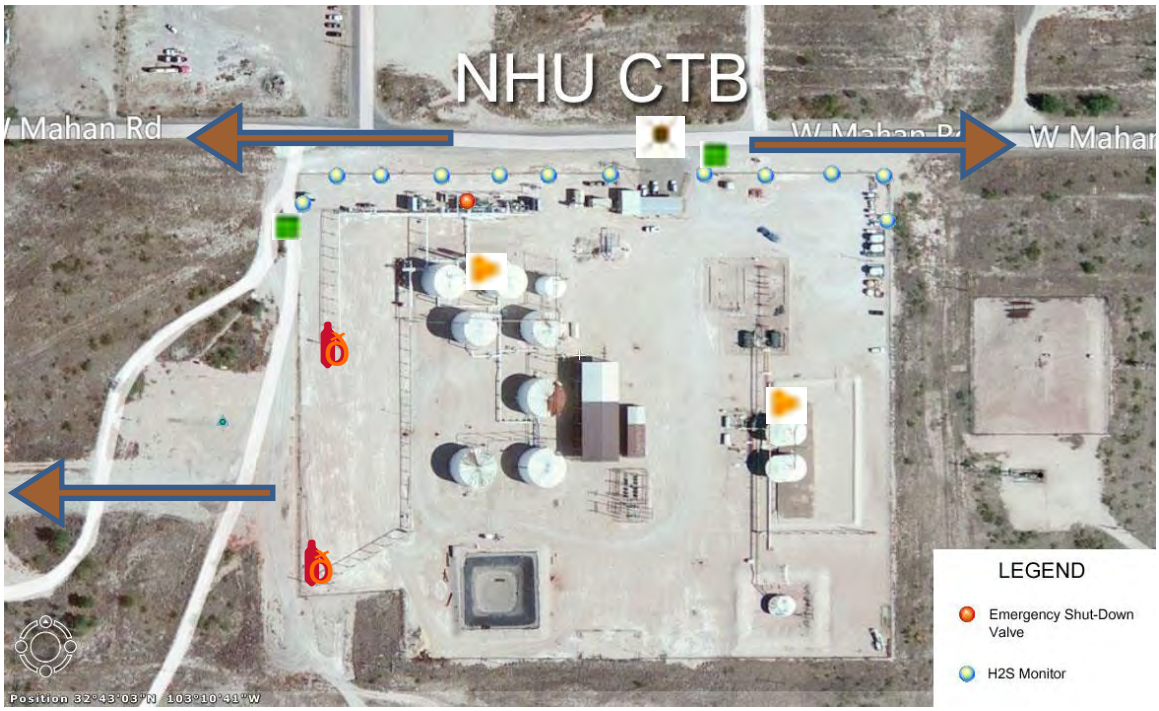
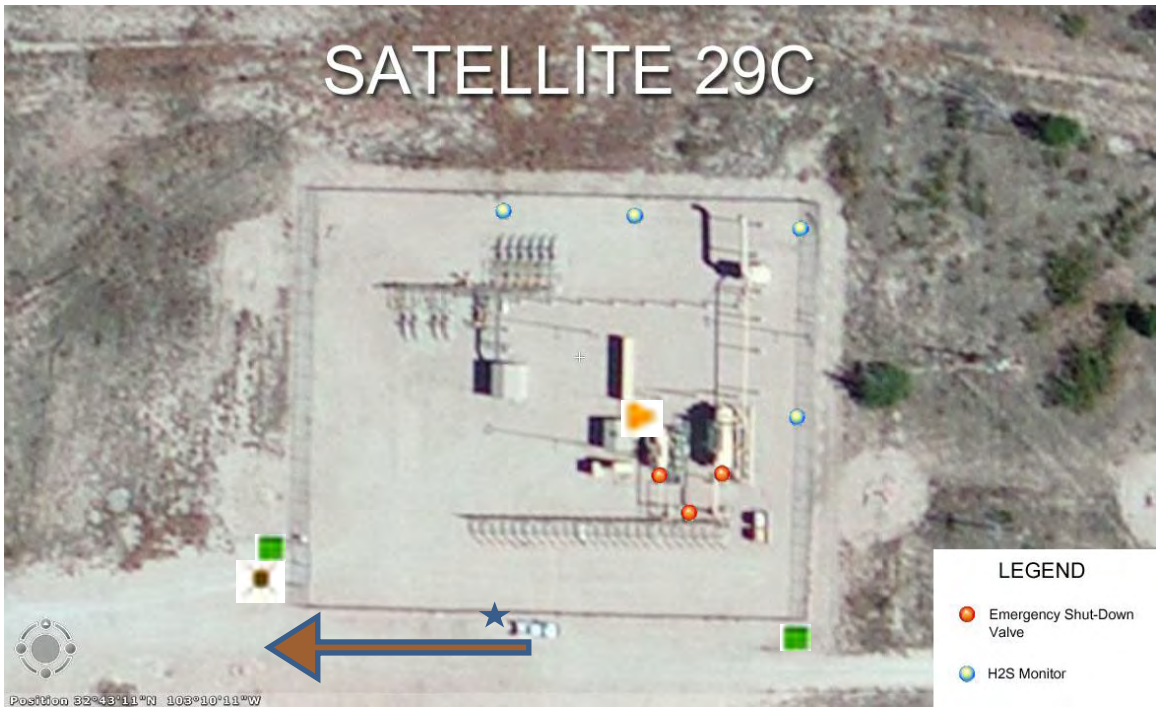

NHU CTB
Mahan Rd
W Mahan
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'03"N 103°10'41"W


SATELLITE 28
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'15"N 103°09'14"W

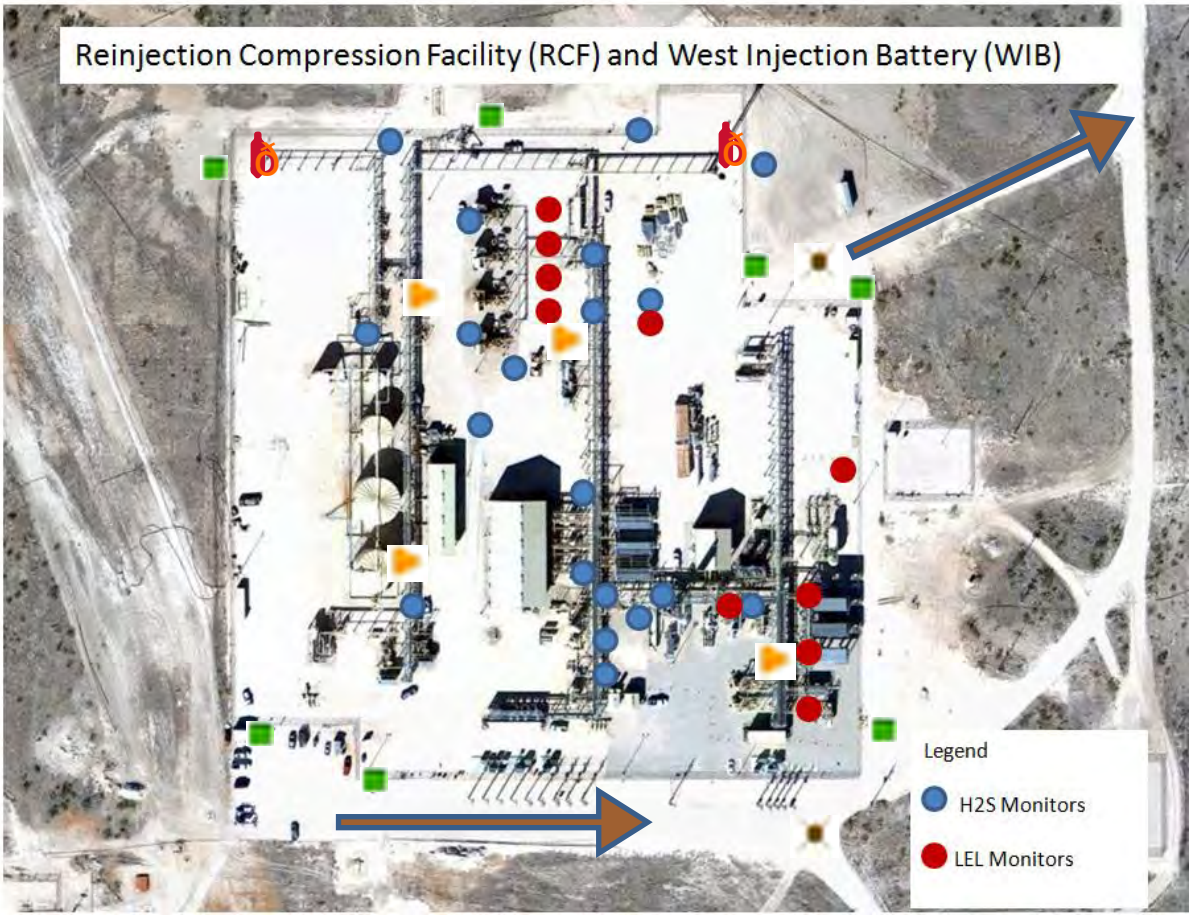

SATELLITE 25
LEGEND
Emergency Shut-Down Valve
Position 32°43'06"N 103°12'03"W


SATELLITE 29C
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'11"N 103°10'11"W


SATELLITE 30C
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°42'56"N 103°10'59"W


SATELLITE 33
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°42'13"N 103°09'19"W


SATELLITE 3
LEGEND
H2S Monitor
Position 32°40'46"N 103°08'33"W


Reinjection Compression Facility (RCF) and West Injection Battery (WIB)
Legend
H2S Monitors
LEL Monitors

Appendix 3:

List of Hobbs Area Facilities (Active) with 100 and 500 ppm ROEs

ROEs are calculated using PHAST Version 6.7

Unit	Description	ULSTR	H2S Conc. (ppm)	Latitude	Longitude	100 ppm ROE (ft)	500 ppm ROE (ft)
NHU	INJECTION BATTERY	E 33 18S,38E	19840	32.7065	-103.1616	463	100
NHU	SATELLITE 19 CO2	N 19 19S,38E	11000	32.7289	-103.1894	450	58
NHU	SATELLITE 24 CO2	O 24 18S,37E	9220	32.7287	-103.2038	430	55
NHU	SATELLITE 25	J 25 18S,37E	28115	32.7176	-103.2005	77	14
NHU	SATELLITE 29 CO2	G 29 18S,38E	4150	32.7198	-103.1700	103	16
NHU	SATELLITE 30 CO2	I 30 18S,38E	7000	32.7074	-103.1837	216	28
NHU	SATELLITE 31 EAST CO2	J 31 18S,38E	8960	32.7038	-103.1841	298	37
NHU	SATELLITE 32 EAST CO2	H 32 18S,38E	7020	32.7043	-103.1634	220	27
NHU	SATELLITE 32 WEST CO2	K 32 18S,38E	7650	32.7015	-103.1731	270	28
NHU	SATELLITE 33	K 33 18S,38E	54654	32.7036	-103.1556	255	53
NHU	CENTRAL TANK BATTERY	L 29 18S,38E	16060	32.7182	-103.1794	630	73
NHU	WEST INJECTION BATTERY	H 25 18S,37E	20330	32.7208	-103.1999	746	100
NHU	RECOMPRESSION FACILITY	H 25 18S,37E	9760	32.7208	-103.1999	417	144
SHU	CENTRAL TANK BATTERY	A 9 19S,38E	119778	32.6801	-103.1479	773	110
SHU	SATELLITE 1	F 5 19S,38E	40892	32.6861	-103.1728	410	95
SHU	SATELLITE 2	B 9 19S,38E	43163	32.6803	-103.1523	250	85
SHU	SATELLITE 3	D 10 19S,38E	53477	32.6797	-103.1426	325	128
	CONOCO STATE	H 32 18S,38E	139	32.70576	-103.1653	0.34	0
	STATE LAND 32 BATTERY	J 32 18S,38E	619	32.70220	-103.1679	4.1	0.2
SHU	SAT. BATTERY 1C	J 5 19S,38-E	12000	32.4110	-103.102	1249	211
SHU	SAT. BATTERY 2C	J 4 19S 38-E	12000	32.4113	-103.859	1249	211
SHU	SAT. BATTERY 3C	G 9 19S 38-E	12000	32.4059	-103.938	1249	211
NHU	24 ROZ						
	SOUTH HOBBS REMOTE HEADER 6		40892	32.691377	-103.173136	166	57
	South Hobbs Header - WP4		12000	32.702262	-103.14316	235	32
	South Hobbs Header - WP3		12000	32.698377	-103.14291	215	29
	South Hobbs Header - WP2		12000	32.694884	-103.14249	235	32
	South Hobbs Header - WP1		12000	32.691103	-103.14251	215	29

Appendix 4:

List of Hobbs Area Producing Wells (Active) with 100 and 500 ppm

ROEs calculated using PHAST Version 6.7

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
3002505456	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-14	10000	304	44	32.74829	-103.21406
3002505464	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-23	10000	304	44	32.73922	-103.21832
3002505466	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-23	9215	25	6	32.73559	-103.21401
3002505470	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-23	10000	304	44	32.7356	-103.22262
3002505474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-23	10000	304	44	32.73189	-103.21829
3002505479	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-24	9215	134	21	32.73921	-103.19683
3002505482	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-24	9215	71	13	32.72642	-103.2054
3002505483	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-24	9215	89	15	32.73095	-103.20541
3002505485	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-24	10000	304	44	32.72913	-103.20864
3002505500	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-25	8959	65	12	32.71643	-103.20118
3002505501	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-25	35064	36	11	32.71369	-103.20537
3002505504	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-25	9215	114	19	32.71916	-103.19689
3002505505	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-25	8800	76	17	32.72007	-103.20225
3002505541	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-36	35064	37	11	32.71008	-103.20118
3002507355	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-19	7698	70	13	32.73377	-103.18827
3002507357	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-19	10000	304	44	32.73377	-103.19471
3002507365	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-19	10000	304	44	32.72641	-103.19474
3002507375	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-20	10000	21	6	32.7374	-103.17773
3002507383	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-20	7698	13	5	32.72643	-103.17771
3002507408	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-27	46224	46	17	32.71193	-103.14343
3002507410	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-27	46224	48	18	32.71555	-103.14303
3002507412	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-28	48133	49	19	32.71555	-103.15187
3002507413	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-28	38095	44	14	32.71555	-103.14759
3002507416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-28	38095	40	13	32.71914	-103.15189
3002507438	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-29	4149	18	5	32.71734	-103.17342
3002507444	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-29	4149	32	7	32.7119	-103.16265
3002507447	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-29	7003	22	6	32.71734	-103.17557
3002507463	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-30	6500	78	14	32.72461	-103.1883
3002507464	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-30	9215	114	19	32.71916	-103.19474
3002507473	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-30	7003	53	11	32.7119	-103.17986
3002507474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-30	7003	37	9	32.71734	-103.182
3002507487	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-30	8959	46	10	32.71373	-103.1926
3002507490	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-31	8959	75	13	32.71008	-103.17986
3002507491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-31	8959	40	9	32.70979	-103.18629
3002507492	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-31	8959	54	11	32.70495	-103.1859
3002507493	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-31	8959	34	8	32.70722	-103.17984
3002507499	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-31	8959	65	12	32.70249	-103.18625

3002507507	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-31	8959	51	10	32.70249	-103.18829
3002507511	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-31	8959	89	15	32.7098	-103.1926
3002507516	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-32	7651	28	7	32.71009	-103.16265
3002507518	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 322-32	7651	47	10	32.70464	-103.16909
3002507525	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-32	7651	38	9	32.70827	-103.17126
3002507528	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-32	7300	54	11	32.70918	-103.17663
3002507533	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-32	10000	367	52	32.69917	-103.17121
3002507536	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-32	10000	367	52	32.69827	-103.16373
3002507543	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-33	10000	367	52	32.69828	-103.15944
3002507544	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-33	7015	41	9	32.70281	-103.16051
3002507547	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-33	10000	367	52	32.69828	-103.15515
3002507553	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-33	48133	51	19	32.70176	-103.14713
3002507554	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-33	10000	367	52	32.70558	-103.14649
3002507555	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-33	7015	21	6	32.7101	-103.15187
3002507559	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-33	7015	39	9	32.70465	-103.16051
3002507565	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 005P33	12000	180	24	32.6983	-103.14646
3002507571	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 002E34	12000	180	24	32.70557	-103.1422
3002507572	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 006M34	12000	180	24	32.6983	-103.14217
3002507587	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 022C03	12000	180	24	32.69467	-103.13788
3002507598	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 019A04	12000	180	24	32.69467	-103.14646
3002507603	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 020D03	12000	180	24	32.69467	-103.14217
3002507605	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 016D04	12000	180	24	32.69465	-103.15943
3002507614	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 014B05	12000	180	24	32.69554	-103.16911
3002507619	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 015A05	12000	180	24	32.69465	-103.16372
3002507629	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 018B04	12000	180	24	32.69466	-103.15075
3002509876	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-24	10000	304	44	32.73377	-103.20542
3002512489	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-28	7015	21	6	32.71192	-103.15187
3002512491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-19	8000	134	21	32.72642	-103.18629
3002512493	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-20	4149	9	3	32.72642	-103.17127
3002512494	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-27	46224	46	17	32.71829	-103.14303
3002512496	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-28	4149	41	8	32.71191	-103.16051
3002512498	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-28	7015	20	6	32.71192	-103.15406
3002512507	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-32	7015	58	11	32.70465	-103.16265
3002512758	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-31	8959	26	7	32.70279	-103.17981
3002512768	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 017C04	12000	180	24	32.69466	-103.15514
3002523007	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-32	7150	26	7	32.70623	-103.17769
3002523035	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-32	10000	367	52	32.70189	-103.17204
3002523081	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-24	10000	304	44	32.73468	-103.19825
3002523130	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 424-32	10000	367	52	32.70569	-103.16373
3002523246	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 142-28	4800	47	9	32.71301	-103.1592
3002523263	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 123-33	7015	18	6	32.70556	-103.15943
3002523277	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 132-28	4149	11	4	32.71617	-103.15914
3002523304	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 243-28	4149	14	4	32.71307	-103.15576
3002523309	STATE LAND SECTION 32 009	169	8	2	32.70231	-103.16802

3002523330	STATE B HOBBS 006-33	139	6	2	32.7092	-103.15514
3002523334	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 526-33	48133	50	19	32.70556	-103.15622
3002523384	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-30	6500	17	5	32.72343	-103.18057
3002523415	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 086K10	53477	52	20	32.67376	-103.13899
3002523481	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 242-19	10000	304	44	32.72667	-103.18937
3002523522	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-24	10000	304	44	32.7374	-103.19899
3002523530	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 021C03	12000	180	24	32.69466	-103.13803
3002523919	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-29	6500	27	7	32.7228	-103.17771
3002524665	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-30	7003	76	14	32.71372	-103.18415
3002526120	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 125L03	12000	180	24	32.69094	-103.14185
3002528339	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 136F04	12000	180	24	32.68963	-103.15343
3002528340	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 137I04	12000	180	24	32.68868	-103.14816
3002528342	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 139F03	12000	180	24	32.69084	-103.13802
3002528349	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 146D09	12000	180	24	32.6817	-103.15762
3002528351	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 148A09	12000	180	24	32.6814	-103.14756
3002528352	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 149A09	12000	180	24	32.68152	-103.14558
3002528353	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 150M03	12000	180	24	32.68102	-103.14038
3002528356	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 153C09	43163	47	16	32.67887	-103.15671
3002528357	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 154B09	43163	52	16	32.67872	-103.1528
3002528358	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 155H09	43163	81	21	32.67874	-103.14944
3002528359	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 156H09	43163	43	15	32.67817	-103.14542
3002528363	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 160G09	43163	45	15	32.67512	-103.15223
3002528365	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 162H09	43163	53	17	32.6747	-103.14563
3002528410	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 233-33	7015	15	5	32.70302	-103.15354
3002528887	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 422-31	7300	44	10	32.70478	-103.1807
3002528941	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 323-29	4149	19	5	32.71853	-103.1697
3002528943	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 143-32	10000	367	52	32.6997	-103.17774
3002528964	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 122-28	3809	8	3	32.72115	-103.16089
3002528975	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 177D05	40892	45	14	32.69482	-103.17735
3002528977	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 179F05	40892	42	14	32.69236	-103.17062
3002528978	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 180B05	12000	180	24	32.69373	-103.16864
3002528980	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 183E05	40892	238	41	32.68947	-103.17409
3002528981	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 186E04	12000	180	24	32.68981	-103.16087
3002529199	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 312-33	12000	180	24	32.7106	-103.14989
3002529275	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 234-33	12000	180	24	32.70024	-103.15325
3002529892	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 221B04	57141	73	26	32.69347	-103.15374
3002529893	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 222L34	12000	180	24	32.70203	-103.14167
3002530258	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 212-32	7651	48	10	32.70923	-103.17265
3002530263	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 313-32	7651	46	10	32.70962	-103.16928
3002530308	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 433-33	10000	367	52	32.70156	-103.14753
3002531212	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 228D05	40892	46	14	32.69463	-103.175
3002531428	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 234F04	12000	180	24	32.68966	-103.15571
3002534372	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 523-33	7015	20	6	32.70553	-103.15359
3002534374	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 531-32	10000	367	52	32.70228	-103.16647

3002534375	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 542-32	10000	367	52	32.70099	-103.16364
3002534416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 545-33	7015	14	5	32.70574	-103.15117
3002534643	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 521-33	7015	71	13	32.70821	-103.15668
3002534644	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 544-29	4149	37	8	32.71347	-103.16494
3002534869	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 623-29	4149	14	4	32.71601	-103.17067
3002534983	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 713-30	6500	90	16	32.72229	-103.18468
3002534993	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 524-33	12000	180	24	32.70071	-103.15616
3002535332	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 621-30	6500	55	11	32.72302	-103.18872
3002535376	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 643-29	4149	9	4	32.71753	-103.16551
3002535384	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 634-29	4149	16	5	32.71307	-103.16828
3002535385	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 913-32	10000	367	52	32.70155	-103.17472
3002535450	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 612-24	10000	304	44	32.73405	-103.21161
3002535451	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 743-31	8959	33	7	32.70008	-103.18036
3002535452	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 834-32	4700	11	4	32.69913	-103.16921
3002535534	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 844-32	7651	13	5	32.69938	-103.16083
3002535541	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 533-29	4149	15	4	32.71739	-103.16775
3002536011	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 923-29	10000	188	28	32.71679	-103.17366
3002536213	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 539-24	10000	304	44	32.73122	-103.20192
3002536216	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 525-30	7003	40	9	32.71634	-103.18883
3002537102	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 617-30	9215	114	19	32.72309	-103.19293
3002537105	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 642-25	8959	31	7	32.71554	-103.19734
3002537118	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 641-25	10000	304	44	32.72299	-103.19839
3002537120	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 618-30	8959	94	16	32.71631	-103.19863
3002537127	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 615-19	10000	304	44	32.73882	-103.19444
3002537128	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 636-29	4149	12	4	32.72073	-103.17093
3002537154	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 616-19	10000	304	44	32.73057	-103.19347
3002537213	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 625-29	4149	11	4	32.72074	-103.17559
3002537235	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 627-19	10000	304	44	32.73071	-103.19152
3002537428	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 722-31	8959	32	7	32.70741	-103.18722
3002537435	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 943-19	7698	88	15	32.73332	-103.17953
3002537445	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 733-19	7698	58	11	32.73021	-103.1823
3002537474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 721-29	4149	13	4	32.72342	-103.17274
3002537475	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 742-29	4149	12	4	32.72098	-103.16681
3002537481	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 731-25	10000	304	44	32.72321	-103.20230
3002538023	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 516-13	10000	304	44	32.74146	-103.2088
3002538071	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 646-13	10000	304	44	32.74112	-103.21256
3002538087	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 517-18	10000	304	44	32.74185	-103.19361
3002538110	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 529-18	7698	73	13	32.74225	-103.18945
3002538125	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 638-19	7698	78	14	32.73900	-103.18491
3002538518	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 645-13	10000	304	44	32.74221	-103.19915
3002538524	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 628-19	7698	44	10	32.73931	-103.18697
3002542541	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 250 (Prod ND TZ-3)(3P/10A)	12000	180	24	32.681894	-103.131032
3002542540	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 249 (Prod ND TZ-2) (49R)	12000	180	24	32.681894	-103.131032

3002542592	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 251 (Prod ND MOC-21) (205R)	12000	180	24	32.682981	-103.173875
3002539955	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 248	12000	180	24	32.68172	-103.16063
3002540816	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 831-13	10000	304	44	32.74529	-103.20877
3002540822	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 832-13	10000	304	44	32.74602	-103.19747
3002540834	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 833-18	10000	304	44	32.74581	-103.19343
3002541550	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 946-18	8000	55	11	32.74324	-103.18471
3002541551	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 947-19	8000	21	6	32.73944	-103.18292
3002541578	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 948-33	4000	8	3	32.705374	-103.15560
3002541643	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 949-33	4000	15	4	32.70496	-103.15533
3002542454	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 958-19	10000	164	24	32.73490	-103.18167
3002542485	NORTH HOBBS GRAYBURG SAN ANDRES 955-18	10000	164	24	32.74248	-103.18668
3002542470	NORTH HOBBS GRAYBURG SAN ANDRES 956-18	10000	164	24	32.74251	-103.18214
3002542471	NORTH HOBBS GRAYBURG SAN ANDRES 957-18	10000	164	24	32.74251	-103.18076
3002542490	NORTH HOBBS GRAYBURG SAN ANDRES 954-18	10000	164	24	32.74271	-103.18611
3002543026	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 663-24	10000	113	19	32.73761	-103.20235
3002543058	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 673-19	10000	164	24	32.73425	-103.19750
3002543099	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 0262	12000	180	24	32.68965	-103.158141
3002543107	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT SHU 272	12000	180	24	32.67761	-103.1409192
3002543106	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 0269	12000	180	24	32.68164	-103.1600064
3002543098	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 266	12000	180	24	32.68690	-103.1586272
3002543105	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 270	12000	180	24	32.68152	-103.1591982
3002543101	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 271	12000	180	24	32.681489	-103.1553843

Appendix 5:

List of Hobbs Area Produced Gas Injection Wells (Active) and 100 and 500 ppm

ROEs calculated using PHAST Version 6.7

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
3002505436	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-13	9000	205	30	32.74194	-103.20652
3002505437	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-13	9000	205	30	32.74194	-103.21081
3002505445	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-13	9000	205	30	32.74465	-103.19898
3002505477	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-24	9000	205	30	32.73922	-103.20973
3002505488	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-24	9000	205	30	32.72914	-103.20011
3002505491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-25	9200	205	30	32.7237	-103.21075
3002507342	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-18	9200	193	28	32.74103	-103.18632
3002507358	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-19	9200	197	29	32.7374	-103.19255
3002507361	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-19	9000	205	30	32.73185	-103.19471
3002512732	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-13	9000	205	30	32.74103	-103.19683
3002526833	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 222-30	9200	169	25	32.72147	-103.19128
3002526935	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-30	9200	183	27	32.71485	-103.19136
3002527001	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 442-30	9200	141	21	32.71456	-103.1822
3002528343	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 140L04	12000	215	29	32.68599	-103.15751
3002528886	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 242-30	9200	183	27	32.71156	-103.19126
3002528942	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 233-30	9200	141	21	32.71775	-103.191
3002528982	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 188K05	12000	215	29	32.68601	-103.17287
3002529063	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-30	9200	193	28	32.72496	-103.19155
3002529064	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 113-30	9200	169	25	32.72191	-103.19518
3002529073	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 432-24	9000	205	30	32.73233	-103.19995
3002529098	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 442-24	9000	205	30	32.72897	-103.19645
3002529129	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 212-24	9000	205	30	32.73665	-103.20447
3002543039	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 24-669	9000	205	30	32.7342482	-103.1976505

Appendix 6:

List of Hobbs Area Facilities and Wells (Active)with a 100pm ROE

ROE calculated with PHAST Version 6.7 that includes a Public Area

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
N/A	NORTH HOBBS UNIT CENTRAL TANK BATTERY	29000	734	99	32.71826667	-103.1794833
N/A	NORTH HOBBS UNIT CENTRAL TANK BATTERY	16000	332	43	32.71826667	-103.1794833
N/A	SOUTH HOBBS REMOTE HEADER 6	40892	166	57	32.691377	-103.173136
N/A	Production Test Header - Well Pad 4	12000	180	24	32.702262	-103.14316
N/A	Production Header - Well Pad 4	12000	235	32	32.702262	-103.14316
N/A	Production Test Header - Well Pad 3	12000	180	24	32.698377	-103.14291
N/A	Production Header - Well Pad 3	12000	215	29	32.698377	-103.14291
N/A	Production Test Header - Well Pad 2	12000	180	24	32.694884	-103.14249
N/A	Production Header - Well Pad 2	12000	235	32	32.694884	-103.14249
N/A	Production Test Header - Well Pad 1	12000	180	24	32.691103	-103.14251
N/A	Production Header - Well Pad 1	12000	215	29	32.691103	-103.14251
N/A	NORTH HOBBS SATELLITE 19 CO2	9000	338	45	32.72893611	-103.1898583
N/A	NORTH HOBBS SATELLITE 30 CO2	6400	245	35	32.715808	-103.182864
N/A	NORTH HOBBS SATELLITE 31 EAST CO2	7300	148	23	32.70381389	-103.1841889
3002505478	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 422-24	9200	180	27	32.73377	-103.19686
3002507342	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-18	9200	193	28	32.74103	-103.18632
3002507355	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-19	7698	70	13	32.73377	-103.18827
3002507358	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-19	9200	197	29	32.7374	-103.19255
3002507360	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-19	7698	82	15	32.73377	-103.18631
3002507362	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-19	9200	134	19	32.73186	-103.18828
3002507364	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-19	9200	176	26	32.72642	-103.1883
3002507369	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-19	9200	160	24	32.73652	-103.18631
3002507370	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-19	9200	193	28	32.73655	-103.18303
3002507412	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-28	48133	49	19	32.71555	-103.15187

3002507413	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-28	38095	44	14	32.71555	-103.14759
3002507416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-28	38095	40	13	32.71914	-103.15189
3002507463	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-30	6500	78	14	32.72461	-103.1883
3002507467	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-30	6500	54	11	32.71917	-103.18629
3002507553	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-33	48133	51	19	32.70176	-103.14713
3002507554	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-33	10000	367	52	32.70558	-103.14649
3002507565	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 005P33	12000	180	24	32.6983	-103.14646
3002507570	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 004K34	12000	180	24	32.70199	-103.13867
3002507571	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 002E34	12000	180	24	32.70557	-103.1422
3002507572	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 006M34	12000	180	24	32.6983	-103.14217
3002507587	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 022C03	12000	180	24	32.69467	-103.13788
3002507598	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 019A04	12000	180	24	32.69467	-103.14646
3002507603	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 020D03	12000	180	24	32.69467	-103.14217
3002507629	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 018B04	12000	180	24	32.69466	-103.15075
3002512489	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-28	7015	21	6	32.71192	-103.15187
3002512498	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-28	7015	20	6	32.71192	-103.15406
3002523530	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 021C03	12000	180	24	32.69466	-103.13803
3002523919	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-29	6500	27	7	32.7228	-103.17771
3002526120	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 125L03	12000	180	24	32.69094	-103.14185
3002528342	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 139F03	12000	180	24	32.69084	-103.13802
3002528351	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 148A09	12000	180	24	32.6814	-103.14756
3002528353	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 150M03	12000	180	24	32.68102	-103.14038
3002529063	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-30	9200	193	28	32.72496	-103.19155
3002529172	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-19	9200	193	28	32.73239	-103.1912
3002529199	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 312-33	12000	180	24	32.7106	-103.14989
3002529275	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 234-33	12000	180	24	32.70024	-103.15325
3002529893	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 222L34	12000	180	24	32.70203	-103.14167
3002529931	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-28	7015	14	5	32.71046	-103.15009
3002529932	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-33	10000	367	52	32.7056	-103.14606

3002530308	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 433-33	10000	367	52	32.70156	-103.14753
3002534416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 545-33	7015	14	5	32.70574	-103.15117
3002534983	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 713-30	6500	90	16	32.72229	-103.18468
3002535332	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 621-30	6500	55	11	32.72302	-103.18872
3002537446	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 633-19	9200	169	25	32.73381	-103.18338
3002538110	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 529-18	7698	73	13	32.74225	-103.18945
3002538114	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 518-18	9200	201	30	32.74086	-103.19241
3002538125	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 638-19	7698	78	14	32.7390	-103.18491
3002538524	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 628-19	7698	44	10	32.73931	-103.18697
3002542541	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 250 (Prod ND TZ-3)(3P/10A)	12000	180	24	32.68189	-103.13103
3002542540	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 249 (Prod ND TZ-2) (49R)	12000	180	24	32.68189	-103.13103
3002540859	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 945-19	9200	197	29	32.73371	-103.18272
3002541550	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 946-18	8000	55	11	32.74324	-103.18471
3002541551	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 947-19	8000	21	6	32.73944	-103.18292
3002542454	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 958-19	10000	164	24	32.73490	-103.18167
3002542469	NORTH HOBBS GRAYBURG SAN ANDRES 953-18	9000	205	30	32.74250	-103.18342
3002542485	NORTH HOBBS GRAYBURG SAN ANDRES 955-18	10000	164	24	32.74248	-103.18668
3002542470	NORTH HOBBS GRAYBURG SAN ANDRES 956-18	10000	164	24	32.74251	-103.18214
3002542471	NORTH HOBBS GRAYBURG SAN ANDRES 957-18	10000	164	24	32.74251	-103.18076
3002542776	NORTH HOBBS GRAYBURG SAN ANDRES 959-18	9000	205	30	32.74271	-103.18628
3002542490	NORTH HOBBS GRAYBURG SAN ANDRES 954-18	10000	164	24	32.74271	-103.18611
3002542456	NORTH HOBBS GRAYBURG SAN ANDRES 950-18	9000	205	30	32.74117	-103.18236
3002542478	NORTH HOBBS GRAYBURG SAN ANDRES 952-18	9000	205	30	32.74238	-103.18628
3002543107	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT SHU 272	12000	180	24	32.6776135	-103.14091

Section V. Emergency Telephone Lists

This current H2S Contingency Plan is sent annually to the following:

- **Carl Chavez: CHMM, NMOCD Santa Fe, NM, (505) 476-3490**
- **Manny Gomez: Fire Chief Hobbs FD Hobbs NM, (575) 392-9265**
- **Lorenzo Velasquez: Department of Homeland Security, Hobbs NM, ((575) 391-2961**
- **Chris McCall: Police Chief, Hobbs PD, Hobbs NM, (575) 397-9265**
- **Gene Strickland: Hobbs School Dean, Hobbs NM, (575) 433-0100**
- **Oxy: Plants HSE, Production HES, Surface Lead, HSE Team Lead, workover/completions Specialist,**
- **Emergency Manager, Hobbs EOR HSE Advisor, Hobbs EOR Asset Lead**

OXY Permian Emergency Answering Service

CAPROCK ANSWERING SERVICE	575-397-8200/8255

FIELD OPERATIONS
EMERGENCY CALL-OUT LIST

Scott Hodges Lead Asset Manager Hobbs, NM	Office Cell	575-397-8211 432-238-4405
Alternate: Tony Aguilar HSE Advisor	Office Cell	575-397-8251 575-390-6312
Alternate: Kris Allen Surface Lead	Office Cell	575-397-8220 575-318-4763
Joshua Schut Leader Down Hole	Office Cell	575-397-8207 701-690-7053
Steven Sparks Logistic Coordinator	Office Cell	806-592-6482 806-598-1144
Nick Reid Logistic Coordinator	Office Cell	806-592-6420 806-891-1476
Alfredo Ceniceros Workover/Completion Specialist Senior	Office Cell	806-592-6715 806-215-2385
Merritt Talbott Mgr Comm & Public Affairs	Office Cell	713-552-8676 512-964-4718
Eric Moses Sr Dir Com & Public Affairs	Office Cell	713-497-2017 310-710-0743
Thomas Barton MBF Inspection Specialist	Cell	832-289-3623
Jared Tucker Well Performance Specialist	Office Cell	575-397-8223 575-499-4992
Justin Saxon Leader Well Surveillance	Office Cell	575-397-8206 806-215-3636
Command Center- Field	Office	575-391-4727
Command Center: Plant	Office	575-391-4728

PLANT OPERATIONS NHU/SHU RCF
EMERGENCY CALL-OUT LIST – Fax 806-592-7355

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
Jason Sisson	Lead Plant	NA	432-758-8640	806-549-3957
Ricard Alvarado	HSE Ops Specialist	NA	432-758-6808	432-209-2659
Jason Cary	HSE Specialist		432-758-8608	806-620-5501
Carl Morales	HES Team Lead		432-699-8397	325-207-3374
Richard Sanders	Operation Team Lead		575-391-4731	806-893-2233
Sarah Chaffin	Senior Counsel		713-513-6681	713-471-9129
Merritt Talbott	Mgr. Comm. & Public Affairs		713-552-8676	512-964-4718
Eric Moses	Sr Dir Com & Public Affairs		713-497-2017	310-710-0743

ENGINEERING SUPPORT

Name	Title	Office Phone	Home	Cellular
Greg Vencil	**Leader Facility Engineer**	**713-366-5110**	**NA**	**713-560-8064**
Chris Frei	**Engineer Sr. Facility**	**806-597-7363**	**NA**	**806-215-5772**
Braden Pate	**Engineer Process Sr.**	**432-699-4289**	**NA**	**281-896-6355**

HES SUPPORT PERSONNEL

Mark Gary HES Team Lead	Office Cell	432-699-8374 806-281-4919

OXY PERMIAN HOBBS/HOUSTON OFFICE

Scott Hodges Manager Asset Hobbs	Office Cell	575-397-8211 432-238-4405
Doug Fife HES Mgr. Houston Greenway	Office in Midland Cell Office in Houston	713-366-5650 432-254-0225 713-366-0225
Ryan Radicioni Director Business Area EOR	Office Cell	713-215-7895 832-580-8333

OXY PERMIAN HOUSTON OFFICE

Robert Peterson President and General Manager Permian EOR	Office Cell	713-366-5149 972-693-6428
Ryan Radicioni Director Business Area EOR	Office Cell	713-215-7895 832-580-8333
Doug Fife HES Mgr.	Office Cell	713-366-5650 432-254-0225

EMERGENCY SERVICES
OUTSIDE SUPPORT PHONE NUMBERS

MEDICAL

HOSPITAL NAME	ADDRESS	CITY	PHONE NUMBER
Lea Regional Hospital	5419 Lovington Highway	Hobbs, NM	575-492-5000
Memorial Hospital	209 NW 8th	Seminole, TX	432-758-5811
Nor-Lea General Hospital	1600 N. Main Street	Lovington, NM	575-396-6611
Yoakum County Hospital	412 Mustang Drive	Denver City, TX	806-592-5484
Brownfield Regional Medical Center	705 E. Felt	Brownfield, TX	806-637-3551
Covenant Health Systems	4000 24th Street	Lubbock, TX	806-725-6000
Covenant Medical Center	2615 19th Street	Lubbock, TX	806-725-1011
University Medical Center (county Hospital)	602 Indiana	Lubbock, TX	806-775-8200

AMBULANCE

Hobbs, New Mexico	911 or 575-397-9308
Lovington, New Mexico	911 or 575-396-2359
Eunice, New Mexico	911 or 575-394-3258
Seminole, Texas	432-758-9871
Denver City, Texas	806-592-3516

AIR AMBULANCE

Native Air Hobbs NM 88240 Dispatch Ctr. Response	888-538-6498 or 575-392-0109
AEROCARE Methodist Hospital Lubbock, Texas - Aerocare will respond to a call from any OXY personnel. ***ETA Lubbock to Hobbs 42 minutes. (Seminole Based)***	1-800-627-2376

LAW ENFORCEMENT 911

POLICE

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-397-9265
Eunice, New Mexico	911 or 575-394-2112
Lovington, New Mexico	911 or 575-396-2811

SHERIFF

CITY/COUNTY	PHONE NUMBER
Lea County Sheriff - Lovington	911 or 575-396-3611

STATE HIGHWAY PATROL

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-392-5588

FIRE DEPARTMENT

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-397-9265
Lovington, New Mexico	911 or 575-396-2359
Denver City, Texas	911 or 806-592-3516
Seminole, Texas	911 or 432-758-9871

GOVERNMENT AGENCIES

AGENCY	PHONE NUMBER
New Mexico Oil Conservation Division	575-393-6161
Bureau of Land Management	575-393-3612
Air Quality Bureau, Santa Fe, NM	505-476-4300
LEPC – Lorenzo Velasquez, Hobbs, NM	575-391-2961 Office 575-397-7413 Fax 575-605-6561 Cell
OEM – Charlie Pruitt	575-725-8633

AIRPORTS

CITY	PHONE NO.
Lea County Airport - Carlsbad Hwy	575-393-6612
Lubbock Preston Smith International Airport	806-775-2044
Midland International Airport	432-560-2200

POISON CONTROL

POISON CONTROL CENTER	1-800-432-6866

CHEMTREC	1-800-424-9300

District Manager NM Baker Hughes	575-390-8193

HOBBS EOR AREA OPERATIONAL PERSONNEL

EMPLOYEE	CELL PHONE NUMBERS	HOME PHONE NUMBERS
Daniel Schmitt	432-209-9976	NA
Henson, Willie	575-942-1928	NA
Hubbard, Glen	575-631-6881	NA
King, Jimmy	575-390-0068	NA
Michael Rendon	806-592-6201	NA
Jerry Velasquez	575-631-9054	NA
Baeza, Carlos	575-390-7879	NA
Kelcee Elston	575-390-3626	NA
Timothy Lowe	575-390-7214	NA
Daniel Tucker	575-499-4992	NA
Kris Allen	575-318-4763	NA
Noe Arce	325-338-6244	NA
Tiffany Roberts	903-215-6112	NA
Robert Ross	575-390-6360	
Kyle Martin	575-631-0272	NA
Donald Higgins	575-631-9886	NA
Stanley Pridgen	469-417-8948	
Hobbs Area Night Rider Joe Wilks	432-664-8155	NA
Hobbs Area Night rider Carl Zepeda	575-263-4615	NA

Hobbs Treating Facility

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
Ricky Sanders	Plant Team Lead	NA	575-391-4731	806-893-2233
Richard Alvarado	HSE Specialist	NA	432-758-6808	432-209-2659
Jason Cary	HSE Specialist	NA	432-758-8608	806-620-5501
RCF Command Center	Office		575-391-4728	

Gathering System Personnel:

Callout Service 806-592-9055

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
David(Chip) Mitchell	Measurement Tech 1		806-592-6325	806-332-8710
Dillon Hart	Measurement Tech 1			806-215-5531
Todd King	Ops Team Lead		806-592-6274	806-215-0183

CORPORATE SECURITY

Security Representative		
Jim Myers Vice President of Security	Office Cell/Pager	713-366-5897 310-739-8763
Alternate		
Frank Munoz Manager Security	Office Cell/pager	713-215-7157 818-203-2334
Jerry Byrne Manager Security	Office Cell/Pager	432-685-5740 432-638-4750
Orlando Munoz Sr. Security Investigator	Office Cell/Pager	713-350-4861 956-457-1444
Rene Medina Security Svcs Investigator	Cell	575-993-2111
Nicolas Jimenez Coord Security Svcs	Cell	575-605-2419

****Must be notified to assist in providing site security for all major emergencies and spills or response for any bomb threats or terrorist activities.**

CONTRACTOR SUPPORT

ELECTRIC SERVICE COMPANIES

COMPANY NAME	PHONE NUMBER(S)
TESSCO Hobbs NM	575-392-2008
Klein Electric – Hobbs, NM	575-393-3167 24 hour
Pyramid Automations/Electrical	432-661-1013

WATER SERVICE AND VACUUM TRUCKS

Key Energy Services – Hobbs , NM	575-397-4994 24 hour
Maclaskey Oilfield Services Hobbs, NM	575-393-1016 24 hour
Pate Trucking	575-397-6264 24 hour
Globe Trucking Answering Service	575-391-8858

ROUSTABOUT CREWS

Banta Oilfield Service – Hobbs, NM	575-393-3875 24 hour
CJR Contractors – Denver City, TX	806-592-2558 24 hour or 592-2232
TexMex Rentals LLC – Hobbs, NM	575-492-0888

DIRT WORK EQUIPMENT

Banta Oilfield Service – Hobbs, NM	575-393-3875 24 hour
GCI – Hobbs, NM	575-397-4541 24 hour
Dirt Works	575-631-8866
TexMex Rentals LLC – Hobbs, NM	575-492-0888

WELDERS

Custom Welding - Hobbs, NM	575-393-5904 24 hour
M3 Roustabout Services Denver City TX	806-215-7631
Smith & Sons Hobbs, NM	575-631-5045 or 575-631-6407

SAFETY EQUIPMENT

DXP - Indian Fire and Safety – Hobbs, NM	575-393-3093 24 hour
Legacy Safety – Hobbs, NM	575-393-7233

CO2 SUPPLY

Trinity Pipeline	432-297-1004 24 hour
Billy Trull	432-661-1412
Ty Houston	432-528-7886

OUTSIDE PRODUCING COMPANIES

Apache Corp	Office Phone Answering Service	575-394-2743 1-888-257-6840
Chevron	Answering Service	Not Available
CHI Operating	Emergency Number	575-748-1691 24 hour
Chi Operating	Sunny Mann	432-634-7062
Conoco/Phillips Pipeline	Supply/Transportation Goldsmith	800-332-9449
DCP Midstream	Office Phone After Hours Linam Office	800-847-6427 575-391-5793
Targa	Office Chris Price Raul Gibson	575-393-2823 575-602-6005 432-308-9288
Enterprise (NGL Line from RCF)	Chaparral Pipeline Emergency Number	1-800-666-0125
Equilon Shell	Office Phone	Not Available
Intrepid Operating	Emergency Number	432-699-4304
Legacy Reserves	Call for Emergency Manuel Sorino Production/Foreman	432-269-8806
NNG (RCF Fuel Gas)	Emergency Number	1-888-367-6671
Texland Petroleum	Levelland Emergency After Hours (24 Hours) Raul Alvarado Operator Ronnie McCracken Foreman	806-894-4316 806-781-5625 432-894-1466
Trinity Pipeline (CO2) Supply	Emergency/office Number Ty Houston Billy Trull	432-297-1004 432-528-7886 432-661-1412
Zia Natural Gas	Office/Emergency	575-392-4277
Plains Pipeline	24 hr Answering Serv. Tony Puckett Director of Regulatory Safety	800-708-5071 713-306-3298

From:	Aguilar, Raymond A
To:	Chavez, Carl J, EMNRD; Velasquez, Lorenzo; Strickland, Gene; mgomez@hobbsnm.org; Chris McCall; Gary, Mark; Allen, Kris; Choquette, Garret
Cc:	Aguilar, Raymond A
Subject:	[EXT] Oxy"s Hobbs H2S contingency plan 2019
Date:	Friday, December 20, 2019 9:40:00 AM
Attachments:	Oxy"s Hobbs H2S contingency plan 2019.pdf

Here is an updated copy of the Hobbs EOR H2S Contingency Plan for your personal record. An added statement was revised on page 3, 10, highlighted in yellow. Maps and facility photos have been updated, all the wells listed in the plan are active wells. You will see starting on page 63 – 72, all highlighted yellow, are the new names of personnel with correct phone numbers and titles, and contractors as well.
Thank you

Tony Aguilar
HSE Advisor

REACTION-PROCESS CONTINGENCY PLAN FOR A HYDROGEN SULFIDE (H2S) GAS EMERGENCY INVOLVING THE OXY PERMIAN-CENTRAL OPERATING AREA HOBBS OPERATIONS

Revision 12-6-19

TABLE OF CONTENTS

OPERATOR QUICK REFERENCE GUIDE

If H2S (facility alarm or personal monitor) is detected greater than 10 ppm

- Move away from the source and get away from the affected area-with continuous *wind direction awareness indicators* (upwind and perpendicular to the release)
- Verbally alert other affected personnel and direct them to a safe assembly area that will be determined using JSA or by current wind conditions
- Don personal SCBA and assist personnel in distress (The standby person must be adequately trained and have a SCBA/Supplied Air Respirator to provide effective emergency rescue.)
- Account for on-site personnel using JSA or plant sign in sheet
- Take immediate measures to control the presence of or potential H2S discharged and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as necessary to correct or control the specific situation.

Was release abated?

Yes

- Call Surface Lead.
- Monitor air to see when re-entry is safe (< 10 ppm H2S)

No

Call Surface Lead. Use the calculated ROEs to determine if release could potentially affect the public in the following concentrations: 100 ppm H2S in a public area, 500 ppm H2S on a public road, or if the 100 ppm H2S is over 3000 ft.

Could public potentially be affected by release?

No

Monitor air and cordon off area until re-entry is safe (<10 ppm H2S)

Yes

- **Oxy to Activate H2S Contingency Plan**
- Call 911 and alert the local emergency departments. The reverse 911 system can be used to alert residents in addition to door-to-door notifications.

Notify NMOCD and National Response Center as applicable within 14 days and submit form C-141.

Information to provide 911 Operator

- Name, phone number and/or address of person reporting emergency
- Location of emergency (Well or facility number, cross street and/or lat/long)
- Any known injuries or missing persons
- Concise statement of what is happening
- What type of emergency services are needed on location

Note: abatement measures have been in place after uncontrolled event. The area will be monitored to determine safe re-entry as per API RP-55 paragraph 7.6

REACTION-PROCESS CONTINGENCY PLAN FOR A HYDROGEN SULFIDE GAS EMERGENCY INVOLVING THE OXY PERMIAN-HOBBS AREA

Section I. OVERVIEW

A. Purpose and Scope of Plan Coverage

The purpose of this plan is to conduct oil and gas operations in a manner that protects the public from exposure to hydrogen sulfide gas and to provide for the logical, efficient and safe emergency response action to be taken by the Occidental Permian, Central Operating Area, Hobbs Operations (Hobbs Area) as required by 19.15.11 NMAC and API RP-55, RP-68 and RP-49. The protection of the general public and workers in the event of an accidental release of potentially hazardous quantity of Hydrogen Sulfide Gas (H2S) or Sulfur Dioxide (SO2) from the site operations is of the highest priority.

Flares are installed at some Oxy facilities (See section on Batteries and Satellites for locations). The flares are the only sources of SO2 in Oxy's Hobbs operations and are used in emergency conditions or during maintenance. The worst case flaring events have been modeled using EPA software AERSCREEN. The results for SO2 indicated that the 10ppm SO2 threshold referenced in RP-55 would never be reached. Therefore, SO2 is not further discussed in this plan.

In the Hobbs Area, Oxy has operated a secondary recovery water flood and since 2003 has operated a tertiary recovery program which utilizes carbon dioxide (CO2) as a means of additional recovery of oil and gas production.

Operations in the Hobbs Area are divided into two areas, the North Hobbs and South Hobbs Units. A map of the Hobbs Area boundaries is included as Appendix A in Section IV of this plan.

The operations consist of producing oil and gas wells, water and gas injection wells, tank batteries with vapor recovery units, production/injection satellites, water injection facilities, several thousand feet of underground pipeline injection or production gathering systems, and the Reinjection Compression Facility (RCF).

Field personnel conduct 24 hour surveillance of the operations and are equipped with laptops capable of operating remote equipment through the supervisory control and data acquisition (SCADA) system. All Oxy field personnel have updated H2S contingency plans which include radii of exposure (ROEs-PHAST), personal H2S monitors and Self Contained Breathing Apparatus (SCBA). All Hobbs personnel are trained and participate annually in Emergency Response drills and scenarios.

Sources of potentially hazardous volumes of H2S gas in the Hobbs Area operations include:

- Oil and gas producing and injection wells and associated lines
- Injection systems (pipelines)
- Fluid gathering and handling facilities (satellites and batteries)
- Reinjection Compression Facility (RCF) and its distribution system

Leaks from these sources could create an H2S exposure area. Whether such exposure areas would be hazardous would depend upon their location and size. The calculations of the exposure potential, leak size is assumed to be the maximum possible from the particular system. This is

generally and intentionally a conservative calculation because the vast majority of leaks will occur as a small fraction of the system. To determine which facilities are required to be in this plan, the Pasquill-Gifford equation was used. These calculations are based on the escape rates as allowed by New Mexico Hydrogen Sulfide standard for existing and new operations.

To calculate the radii of exposure (ROEs) in this plan Oxy utilized DNV's PHAST version 6.7, one of the most widely-used commercial consequence modeling software. Because PHAST incorporates more advanced techniques and scientific theories, its results are closer to realistic and more reliable compared with Pasquill-Gifford. In addition, PHAST version 6.7 has been validated with actual CO2 release data. Based on discussions with the Hobbs Fire Department, Oxy is able to provide an H2S ROE with PHAST that corresponds to the release rate at the 10th minute of the release when the escape rate is at the maximum flowrate in the system which will provide the most relevant and useful information to the emergency responders..

Oxy utilizes conservative inputs into PHAST to model a worst case scenario for each potential release. Assumptions include:

- An escape rate that is the maximum inflow rate in the line/facility, the absolute open flow rate of the gas injectors or the maximum gas rate for oil producers
- The maximum anticipated line operating pressure for each individual line was used.
- Each release is modeled as a horizontal release for maximum ROE.
- The weather conditions are 1.5m/s wind speed and F stability class

Gas samples were taken to determine the H2S concentration from each facility. A representative H2S concentration was applied to all of the wells to calculate the ROEs from individual wells. The gas samples were analyzed by a third party using applicable ASTM and/or GPA standards. In addition, the H2S concentration is continuously monitored at the RCF.

B. Safety and Design Specifications

Production Wells

All wells with an ROE(PHAST) of >100 ppm that includes a public area (See Appendix G for a list of these wells) are being equipped with new 3,000 PSI integral type flanged wellheads. These wellheads are constructed with materials that meet or exceed the NACE MRO 175 specification and the API 6A specification for wellhead and Christmas tree equipment. All wellheads are designed to NMOCD specifications and allow down hole accessibility under pressure for permanent well control. In addition, these wells have automatic shut-down controls that are maintained in good operating condition.

All producing wells have a high and low-pressure switch which will shut down the artificial lift equipment when a condition outside the normal operating range is detected. All rod pumped wells are equipped with an additional polished rod "blow out preventer". Production fluids are transported from the well to the Satellites through Schedule 40 ERW pipe (HIC resistant) rated to 2000 PSI.

All well controls are monitored through the SCADA system, automatically shut down and are capable of being controlled remotely.

Injection Systems

The Injection System in North Hobbs is a water- alternating- gas injection system (WAG). The WAG injection lines are 3" Sch. 40, ASTM A-312, GR TP 316/316L ERW with a MAOP of 2160 psi and are constructed to handle the injection pressure of 1750 psi. Also, a pressure safety valve on the injection source is designed to protect the injection line and each CO_2 distribution lateral is protected with thermal relief valves that will prevent a harmful overpressure condition due to trapped CO_2. Additionally, Oxy performs quarterly UT testing of pipelines.

Batteries and Satellites

North Hobbs Unit

There are 3 tank batteries, 7 CO2 satellites, and 4 water flood satellite facilities.
All of these locations are equipped with wind direction indicators. Each stair or ladder leading to the top of a tank or vessel with >300 ppm H2S is equipped with a chain or sign to restrict entry.

The 3 tank batteries have flares equipped with assist gas and are designed for complete combustion of hydrocarbon gas. In the event of an overpressure or an upset situation, the gas volume will be directed to the flare.

The pressure vessels, production headers, and injection headers are equipped with pressure monitoring devices and pressure safety valves. The pressure vessel design incorporates Emergency Shutdown (ESD) Valves to protect against an overpressure or under pressure condition. Pressure safety devices and flow control devices will be used to control the pressure and flow during the operation of the satellites and batteries. Level alarms and ESDs on the tank batteries and satellites are installed to prevent an unsafe condition due to overflow or gas release and automatically notify operational personnel through the answering service.

All batteries and satellites in the North Hobbs Unit with an ROE (PHAST) of >100 ppm that includes a public area are equipped with H2S gas detectors set to alarm at ≥ 10 ppm that activates an ESD valve to isolate the source (See Appendix G). Some additional batteries and satellites that do not have an ROE (PHAST) of >100ppm which includes a public area also have H2S alarms that activate an ESD. (See Appendix B for location of H2S detection equipment and ESDs at each location) The alarms have a blue beacon and automatically notify Oxy personnel through the answering service which is operational 24 hours a day. The H2S monitors are calibrated every 90 days.

All facilities are monitored and are capable of being controlled remotely by the SCADA system.

South Hobbs Unit

There is 1 central tank battery, 3 CO2 Satellites and 3 waterflood satellites with security fencing, safety signage and locking entrance gates. Locations are equipped with wind direction indicators. Each stair or ladder leading to the top of a tank or vessel with >300 ppm H2S is equipped with a chain and sign to restrict entry.

The central tank battery has two flare stacks equipped with assist gas and are designed for complete combustion of hydrocarbon gas. In the event of an overpressure or an upset situation, the gas volume will be directed to the flares (High and Low pressure).

The pressure vessels, production headers, and injection headers are equipped with pressure monitoring devices and pressure safety valves. Pressure safety devices and flow control devices will be used to control the pressure and flow during the operation of the satellites and batteries. Level alarms on the tank batteries and satellites are installed to prevent an unsafe condition due to overflow or gas release and automatically notify operational personnel through the answering service.

The South Hobbs Unit batteries and facilities do not have an ROE (PHAST) of >100 ppm that includes a public area, however, the central tank battery and satellites are equipped with H2S gas detectors (See Appendix B for location of H2S detection equipment at each location) set to alarm at ≥ 10ppm. The alarms have a blue beacon and automatically notify Oxy personnel through the answering service which operates 24 hours a day.

All facilities are monitored and are capable of being controlled remotely by the SCADA system,

Reinjection Compression Facility (RCF)

The RCF is monitored 24 hours a day from the control room. The Facility control room is located on the Southwest corner of the facility. The location of SCBA (5-minute and 30-minute escape packs) is shown in Appendix C. All H2S alarms are visible and audible and notify the plant operator at 10 ppm and automatically shut in equipment. Appendix B shows the location of the H2S monitors and all egress routes from the RCF. The mustering area will be determined based on the wind direction indicators and will be communicated to all workers at the facility through JSA.

H2S Fixed Monitoring System

Oxy maintains H2S fixed gas monitors in the North and South Hobbs Unit that notify operators of an H2S leak. The monitors detect any condition from 0 to 100 PPM with alarm capability at a high level, low level and a fault condition, and activate a shutdown on the producing well, production header, injection header, and fluid gathering systems to minimize the release of gas. This monitoring system can provide notification to the operations personnel before the release impacts the public. Battery backup is on standby and ensures continued operation of the monitors due to a power failure. All monitors are calibrated and tested every 90 days and records are kept in the Maximo data base. See Appendix B for a map of each location with H2S monitors.

SCADA Monitoring System

All operations in North and South Hobbs are monitored 24 hours per day with a state of the art SCADA system. This system allows remote control of the operations and the alarm callout communications.

Warning Signs, Markers and wind direction Indicators

In accordance to applicable regulations, warning signs are posted at each well, satellite, battery and all facility entrances containing >100 ppm H2S. Signs are also posted on all surfaces and buried lines where the potential exists to be exposed to a release of hydrogen sulfide gas. The posted markers and signs warn of the impending danger if the line ruptures. Signs are also posted at all road crossings where a pipeline exists. The signs meet ANSI Standards and include the words danger and 'poison gas'. Oxy has also posted these signs that are within the city limits in Spanish and English. Wind Socks or Wind Vanes are used as wind direction indicators

Security

All the injection and producing wells with >100 ppm H2S and located within ¼ mile of a public area (NMAC19.15.11.12.B) are equipped with fencing and locked gates around the wells. This fencing serves as a deterrent to public access and will remain locked when unattended.

Hydrogen Sulfide Precautions during Operations

All Oxy employees and contractors are required to have in their possession all the customary personal safety equipment such as hard hats, steel toe shoes and safety glasses. Oxy employees and contractors are required to attend a site specific orientation of the operations and be advised in all safety measures. In addition, each Oxy operator that is in Respiratory Protection Plan (RPP), is equipped with a personal H2S monitor and SCBA (30-min supplied air) and is required to have it with him when working in a known H2S environment. All personal H2S monitors are calibrated on a monthly basis to assure proper working condition and accuracy. In addition, all Oxy field personnel have updated H2S contingency plans which include ROEs (PHAST).

Drilling & Workover Operations

Drilling operations in the Hobbs area will be conducted with due consideration of API RP-49 (Recommended Practices for Drilling and Well Servicing Operations Involving H2S). Oxy has a drilling H2S contingency plan and meets the requirements specified in NMAC19.15.11.11 for drilling operations. The plan is submitted to the NMOCD district office with the drilling permit application. The H2S concentrations are sufficiently well known in the Hobbs area to enable Oxy to calculate an ROE (PHAST). However, if a situation should exist where the H2S concentration was not known, a 3000 ft. ROE would be assumed as per NMAC19.15.11.7.

Workover operations in the Hobbs area are covered by this H2S Contingency Plan and will be conducted with due consideration of API RP-68 and in compliance with NMAC19.15.11.11. Each workover operation is equipped with detection and monitoring equipment that automatically activates visible and audible alarms when the hydrogen sulfide's ambient air concentration reaches 10 ppm. The monitors are located on the rig floor as close to the wellbore as practical and on the circulating tanks. There will be two wind direction indicators which are visible at all times. Workover operations use a hydrogen sulfide mud program capable of handling hydrogen sulfide conditions and well control, In addition, the remote controlled BOPs are pressure and hydrogen sulfide-rated and meet or exceed API specifications. These BOPs will be operational at all times during a well's workover and servicing.

Drilling and Workover operations will be conducted in compliance with the City Ordinance pertaining to Oil and Gas Activities within the city of Hobbs, New Mexico.

C. Coordination with State Emergency Plans

As provided for in the New Mexico Hazardous Materials Emergency Response Plan (HMER), the New Mexico State Police responding to the emergency will assume the position of On-Scene-Commander (OSC) or they may establish a Unified Command of which the OXY OSC will be a key member. The OXY OSC will be the senior OXY employee on-site until when/if the Hobbs area TEAM LEAD or designated relief arrives. Under the Unified Command scenario, the OXY OSC shall cooperate with the other involved emergency responders, such as the New Mexico State Police, local fire department, City Police, Sheriff's Office, NMOCD or other appropriate public emergency response agencies to manage the effective and safe response to the emergency situation. The OSC will ensure that the local authorities have any and all required information regarding the extent (ROE-PHAST), chemical concentration, hazards and expected timeline for any OXY release so they can appropriately establish an action plan regarding restricted access (road blocks, etc.), notification of the public, area evacuation or shelter in place. The ROE (PHAST) tables (see section IV) have been calculated with due consultation and input from the local area fire department to ensure adequacy and usability. These ROE (PHAST) can be used by the fire department electronic mapping software to display detailed maps of any areas of concern, showing public buildings, roadways and other pertinent information needed.
The Hobbs AREA OSC will notify or delegate notifications of all OXY Permian or contract personnel as well as the civil authorities needed for response to the situation. The OXY OSC will assign additional OXY personnel to support roles as needed.

See additional roles and responsibilities in Section III Roles and Responsibilities of Emergency Response Personnel.

Section II. Emergency Procedures

A. Discovery and Implementation of an Immediate Action Plan

1. Upon discovering or recognizing a potentially hazardous H2S release, from an H2S monitor alarm or personal H2S monitor that is triggered at 10 ppm, OXY employees should implement the following immediate action plan:
   a. Move away from the source and get away from the affected area-using continuous *wind direction awareness indicators* (upwind and perpendicular to the release)
   b. Verbally alert other affected personnel and direct them to a safe assembly area that will be determined on the job safety analysis (JSA) or by current conditions observed with the wind direction indicators.
   c. Don personal protective breathing equipment-supplied air, respiratory protection (SCBA-self-contained breathing apparatus)
   d. Assist personnel in distress- First Aid/Rescue (The standby person must be adequately trained and have a SCBA/Supplied Air Respirator to provide effective emergency rescue.)
   e. Account for on-site personnel using JSA or Security gate sign in sheet
   f. Take immediate measures to control (ESD, Well Control, Isolation…) the presence of or potential H2S discharged and to eliminate possible ignition sources. Emergency shutdown procedures should be initiated as necessary to correct or control the specific situation in addition to the automatic shutdowns.

2. If abatement measures (ESD, Well Control, Isolation…) were successful, monitor the ambient air in the area of exposure with multi gas meters to determine when it is safe for re-entry (<10 ppm H2S) and notify TEAM LEAD.

3. If abatement measures were not successful, notify the TEAM LEAD (or relief) of the situation. Use the previously calculated ROEs (PHAST) to determine if the release could potentially affect the public in the following concentrations:
   a. 100 ppm H2S ROE in a public area
   b. 500 ppm H2S ROE on a public road
   c. 100 ppm H2S ROE over 3000 ft.

The list in Appendix G shows wells and facilities whose 100 ppm ROEs (PHAST) could potentially affect the public based on the calculated ROEs (PHAST).

4. If the public could potentially be affected, activate H2S Contingency Plan, then call 911. Give all pertinent information including:
   a. Name, phone number and/or address of person reporting emergency
   b. Location of emergency (well or facility number, cross street and/or lat/long)
   c. Any known injuries or missing persons
   d. Concise statement of what is happening
   e. What type of emergency services are needed on location

5. Notify other key HOBBS AREA personnel and alert them to situation.

6. The Team leader shall then proceed to the site to assess the situation.

7. In the absence of the Team Leader (or relief) the OXY employee at the site shall assume the responsibilities of the TEAM LEADER and shall remain at the scene until relieved by another OXY employee.

8. Block unauthorized access to the unsafe area using ROE's (PHAST) and site drawings which are contained in the H2S CP and have been previously made available to the Lea County Emergency Communication Center and the Hobbs Fire Dept.. *See section IV*.

9. Notify and/or evacuate the public (through public address, door to door, or reverse 911 as deemed appropriate).

10. Notify state and local officials (NMOCD with form C-141 within 14 days off incident) and the National Response Center to comply with applicable release reporting requirements in a timely manner (See Section V for contact information).

B. Activation of Hydrogen Sulfide Contingency Plan (Action levels)

It is the responsibility of the Oxy On Scene Command (OSC) to ensure activation of the H2S contingency plan.
The H2S contingency plan shall be activated by Oxy if it is indicated that the release of product could potentially pose a hazard to the general public in the following concentrations:

- 100 ppm - in any public area
- 500 ppm - at any public road
- or if 100 ppm ROE (PHAST) is greater than 3000 feet from the site of the release

As discussed above in Section II.A, this will be determined through use of previously calculated Radius of Eposure (ROEs)-PHAST.(See section IV)

C. Training and Drills

The value of annual training and drills in emergency response procedures cannot be over emphasized. All OXY personnel and long term contractors shall be trained on the H2S contingency plan which includes response actions, roles & responsibilities, internal/external notifications, PPE, policies & procedures . The importance of each role of the emergency responders and the assignment that each person has during an emergency will be stressed. In additional, the need for emergency preparedness will emphasized through the use of drills and other exercises that simulate an emergency in which personnel perform or demonstrate their duties. These exercises will consist of table-top or realistic drills in which equipment is deployed, communications equipment is tested. Public officials will be informed and preferably involved in these annual exercises.

After drills or exercises are completed reviews and critiques will be conducted to identify any potential improvement opportunities. Action items will be agreed and tracked through to implementation. These action items will be implemented in Oxy's maintenance database. Documentation of the training, drills, attendance and reviews will be on file in the HOBBS AREA files.

The plan will be periodically reviewed and updated anytime its provisions or coverage change.

Oxy will provide annual training of residents as required on the protective measures to be taken in the event of a release of H2S.

D. Physical Characteristics and Physiological Effects of Hydrogen Sulfide

Physical Data
Chemical Name: Hydrogen Sulfide
CAS Number: 7783-06-4
UN Number: 1053
DOT Hazard Class: 3.2 (Flammable liquids: *flashpoint between -18°C and 23°C*)
Synonyms: Sulfureted hydrogen, hydrosulfuric acid, dihydrogen sulfide, Chemical Family: Inorganic sulfide
Chemical Formula: H2S
Normal Physical State: Colorless Gas, slightly heavier than air.
Vapor Density (specific gravity) at 59°F (15° C) and 1 atmosphere = 1.189
Auto ignition Temperature: 500°F (260° C)
Boiling Point: -76.4°F (-60.2° C)
Melting Point: -117°F (-82.9° C)
Flammable Limits: 4.3 – 46 percent vapor by volume in air.
Solubility: Soluble in water and oil; solubility decreases as the fluid temperature increases.
Combustibility: Burns with a blue flame to produce Sulfur Dioxide (SO2SO2) Odor and Warning Properties: Hydrogen Sulfide has an extremely unpleasant odor, characteristic of rotten eggs, and is easily detected at low concentrations, however, due to rapid onset of olfactory fatigue and paralysis (inability to smell) ODOR SHALL NOT BE USED AS A WARNING MEASURE

Exposure Limits
The OSHA Permissible Exposure Limit (PEL) of 10 ppm (8-hour TWA) and IDLH of 100ppm.

Physiological Effects
Inhalation at certain concentrations can lead to injury or death. The 300 ppm is considered by the ACGI as Immediately Dangerous to Life and Health (IDLH) Hydrogen Sulfide is an extremely toxic, flammable gas that may be encountered in the production of gas well gas, high-sulfur content crude oil, crude oil fractions, associated gas, and waters.
Since hydrogen sulfide is heavier than air, it can collect in low places.

It is colorless and has a foul, rotten egg odor. In low concentrations, H2S can be detected by its characteristic odor; however smell cannot be relied on to forewarn of dangerous

concentrations because exposure to high concentrations (greater than 100 ppm) of the gas rapidly paralyzes the sense of smell due to paralysis of the olfactory nerve. A longer exposure to lower concentrations has a similar desensitizing effect on the sense of smell. It should be well understood that the sense of smell will be rendered ineffective by hydrogen sulfide, which can result in the individual failing to recognize the presence of dangerously high concentrations.

Exposure to hydrogen sulfide causes death by poisoning the respiratory system at the cellular level. Symptoms from repeated exposure to low concentrations usually disappear after not being exposed for a period of time. Repeated exposure to low concentrations that do not produce effects initially may eventually lead to irritation if the exposures are frequent.

Respiratory Protection

Supplied air respiratory protection (SCBA) shall be worn above the initial action level of 10 ppm and until such time that H2S concentrations have been determined by monitoring the area with quad function H2S monitors.

E. Physical Characteristics and Physiological Effects of Sulfur Dioxide

Physical Data
Chemical Name: Sulfur Dioxide
CAS Number: 7446-09-05
UN Number: 1079
DOT Hazard Class: 2.3 (Poisonous Gases)
Synonyms: Sulfurous acid anhydride, sulfurous oxide, sulfur oxide
Chemical Family: Inorganic
Chemical Formula: SO_2
Normal Physical State: Colorless Gas, heavier than air.
Vapor Density: 2.2
Boiling Point: 148°F
Flammable Limits: Non-flammable (produced by burning hydrogen sulfide)
Solubility: Soluble in water and oil; solubility decreases as the fluid temperature increases.
Odor and Warning Properties: Sulfur Dioxide has a pungent odor associated with burning sulfur. It produces a suffocating effect and produces sulfurous acid on membranes of the nose and throat.

Exposure Limits
The OSHA PEL is 2 ppm as an 8-hour TWA. STEL is 5 ppm averaged over 15 minutes. IDLH is 100 ppm

Physiological Effects
Acute Toxicity: Inhalation at certain concentrations can lead to injury or death. 100 ppm is considered by the ACGIH as Immediately Dangerous to Life and Health.

Respiratory Protection
Supplied air respiratory protection (SCBA) shall be worn above the initial action level of 2 ppm for initial testing and until such time that SO_2 concentrations have been determined and action levels established.

F. "Non-OXY" Emergencies

It is possible that an OXY employee could discover a potentially hazardous leak from a pipeline or other facility not operated by OXY. Also, leaks could be reported to OXY personnel but upon investigation, turn out to be from someone else's facility. In such instances, the OXY employee(s) involved should lend assistance without unduly endangering themselves. Generally, such assistance would include the following actions:

1. Alert and/or assist any person apparently in immediate danger.
2. Notify all personnel of the location and nature of the emergency and assistance needed, if any.
3. Notify the Operator of the facility if the identity can be determined.
4. Continue to lend assistance, such as manning road barricades, until relieved by employees of the Operator or Public Safety Personnel.

Section III. Roles and Responsibilities of Emergency Response Personnel

Following is a description of key personnel responsibilities for incident response.

On Scene Commander (OSC): The first, most senior OXY personnel on the scene will act as the Oxy OSC until relieved by either the OXY Surface Lead or their designated alternate (for the Plant Operations the Plant Operator will act as initial Oxy OSC). The OSC's responsibility is to ensure control of the emergency incident. The OSC will notify or delegate notifications of all OXY Permian or contract personnel needed for response to the situation. The OSC will assign additional OXY personnel to support roles as needed. The initial priority for the OSC is to assess the size and scope of the incident scene. Such factors as the immediate level of danger to employees, contractors, and the general public should be high on the list of considerations. The OSC will act as a liaison between the site ERT and the Business Unit Emergency Management Team (BU EMT). The civil authorities responding to the emergency may assume the position of OSC and establish a Unified Command of which the OXY OSC will be a key member. The following is an abbreviated list concerning the responsibilities and recommended sequence for the OXY OSC to achieve his/her responsibilities.

1. Assess the size and scope of the incident scene.
2. Establish preliminary “hot and cold zones” based on the information available.
3. Set Ensure that the OXY Emergency Personnel are contacted according to the appropriate call out list (Field or Plant areas).
4. Manage all aspects of the incident as a key player in a Unified Command.
5. Communicate routinely with the OXY Permian Operations Emergency Manager on the BU EMT.
6. OSC is responsible for assigning support roles as listed below.

Note: The On Scene Commander, or relief, remains on site until the emergency is over. The On Scene Commander ensures repairs have been completed and ensures the operation has returned to normal, before releasing emergency team members.

Operations and Planning Section Chief: The Operations and Planning Section Chief (OPSC) plays an integral role in interfacing with the various State and Local emergency responders in coordinating all OXY response activities. This allows the OSC to focus on the incident and its big picture decisions. The minimum required actions of the OPSC are as follows:

1. Facilitate onsite responder personnel briefings and status updates.
2. Arrange for humanitarian assistance with the OXY Human Resources Manager if required by the scope of the incident with coordination from the OSC.
3. If requested, provide assistance to the local municipalities in a “search and rescue” operation.
4. Perform all other response functions as requested by the OSC.

Technical Specialist: Technical Specialists, those individuals possessing critical skills, experience and knowledge in specific areas of OXY's or industry operations may be enlisted to assist in providing operational solutions for controlling releases in their areas of expertise. The Technical Specialist will function through the OPSC.

Examples of Technical Specialists include:

- Downhole Specialist
- Critical Well Control Specialist
- Drilling Specialist
- Construction Specialist
- Electrician
- Maintenance Specialist

Facility Engineers: Facility Engineers will function through the OPSC and assist in providing operational solutions to controlling the size and scope of an incident. The ability to identify process related equipment for isolation and routing for field sources often proves to be one of the biggest challenges during a crisis situation. The following tasks should receive the initial priority for responding Facility Engineers and operations personnel.

1. Identify source location and isolation equipment if available.

2. Provide detailed isolation instructions for responding personnel. Keep in mind the responders may or may not be OXY employees and may or may not have a good understanding of E&P operations.

3. Be prepared to provide the operational technical portion of update sessions with the onsite field response groups.

4. Begin the operational aspect of a facility recovery plan to first address operational needs to return to "normal" operating mode and second to complete long term considerations for site mitigation.

Safety Officer: The Safety Officer (SO) plays an integral part in assisting the OSC in managing the onsite issues surrounding an incident. Focused internally on the incident, the Safety Officer is constantly evaluating the safety and health issues involved with the incident and monitors pieces of the response process to allow the OSC to address "bigger picture" issues. The following is an abbreviated list of the responsibilities and recommended sequence for the SO to achieve his/her responsibilities.

1. Confirm the OSC's preliminary "hot and cold zones" are still applicable or adjust accordingly for such activities as staging areas, media crew locations, decontamination operations, etc.
2. Address Safety, Health, Environmental, and Regulatory issues including notifications.

3. If required, coordinate the development of a Site Safety and Health Plan or request this service from the BU EMT.
4. If required, develop an “incident mitigation or recovery plan” or request this service from the BU EMT.

Note: The SO must stay abreast of the incident status and situation in order provide relief as an alternate OSC if the situations dictates a change needs to be made.

Logistics Section Chief: The Logistics Section Chief (LSC) is responsible for assisting the OSC by arranging all aspects of field logistical support. The LSC must accommodate not only OXY responders but also municipal or other industrial responders as requested by the OSC or OPSC. The Logistical Manager’s staff has multiple contracts and processes already in place to assist in such issues as food, lodging, vehicles, aircraft, etc. The following is an abbreviated list and recommended sequence to ensure the LSC is able to achieve his/her responsibilities.

1. Initiate both victim and emergency responder “personnel accountability systems” upon arrival to the incident scene.
2. Establish and maintain a communication between the OSC and the BU EMT.
3. Assist in media interactions with Public Information Officer.
4. Initiate and maintain an incident documentation system to ensure all activities are captured and a summary report will be available.
5. Begin supplying logistical support to the incident scene, staging operations, and local areas as soon as practical
6. Coordinate site security capabilities with the OSC, OPCS, SO, and responding municipalities.

Public Information Officer (PIO): The designated PIO reports to the OSC. The PIO will work very closely with the OSC, OPSC, and the OXY Corporate Communications Representative. Initial priorities for the PIO will include the following:

1. Establish themselves as the onsite Public Information Officer or media contact for all media inquiries.
2. Work with Corporate Communications to establish and distribute an initial press release as soon as feasible and with an announced time of when additional updates would be available.
3. Either assist the OSC or personally conduct all initial media interviews until relieved by a member of Corporate Communications or their designate.

Lea County Emergency Operations Center (EOC) Liaison: The Lea County EOC Liaison will report to the EOC as required to form communications between the EOC Emergency Manager and the OXY OSC or EMT Emergency manager. This position will only be filled if the event escalates to a level that requires the manning of the Lea County EOC and the event adversely affects, or could affect OXY operations or personnel.

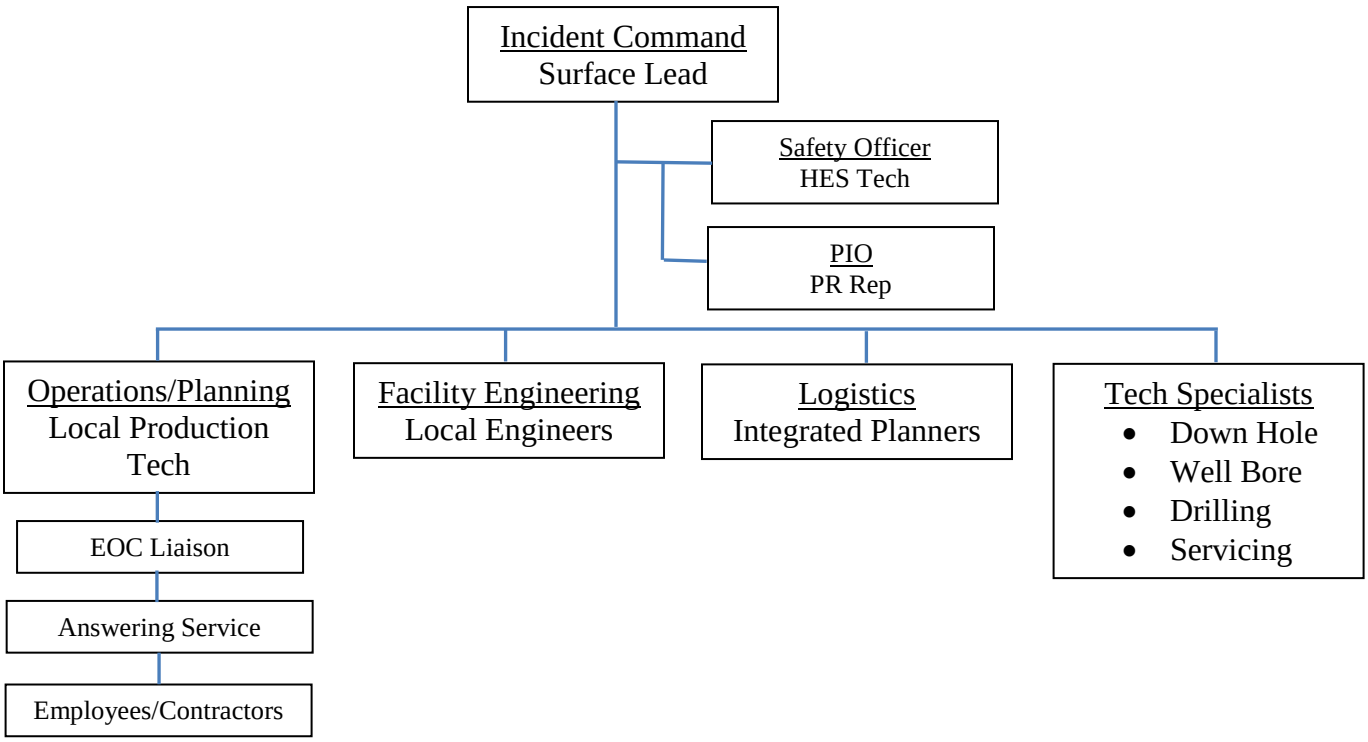
Other Employees: All other personnel should stand by and wait for instructions from the OSC.

1. Once accounted for, Hobbs AREA employees may be called upon by the OSC to support in many different directions.
2. OXY personnel in "staging area" wait to assist in the actual response efforts, escorting vendors to remote locations as a guide, blocking roads, assisting with evacuations, etc.

It should be understood however, no employee or contractor of the Hobbs Area will be asked to provide incident scene support that they are not comfortable in their ability to perform or have not been specifically trained to do.

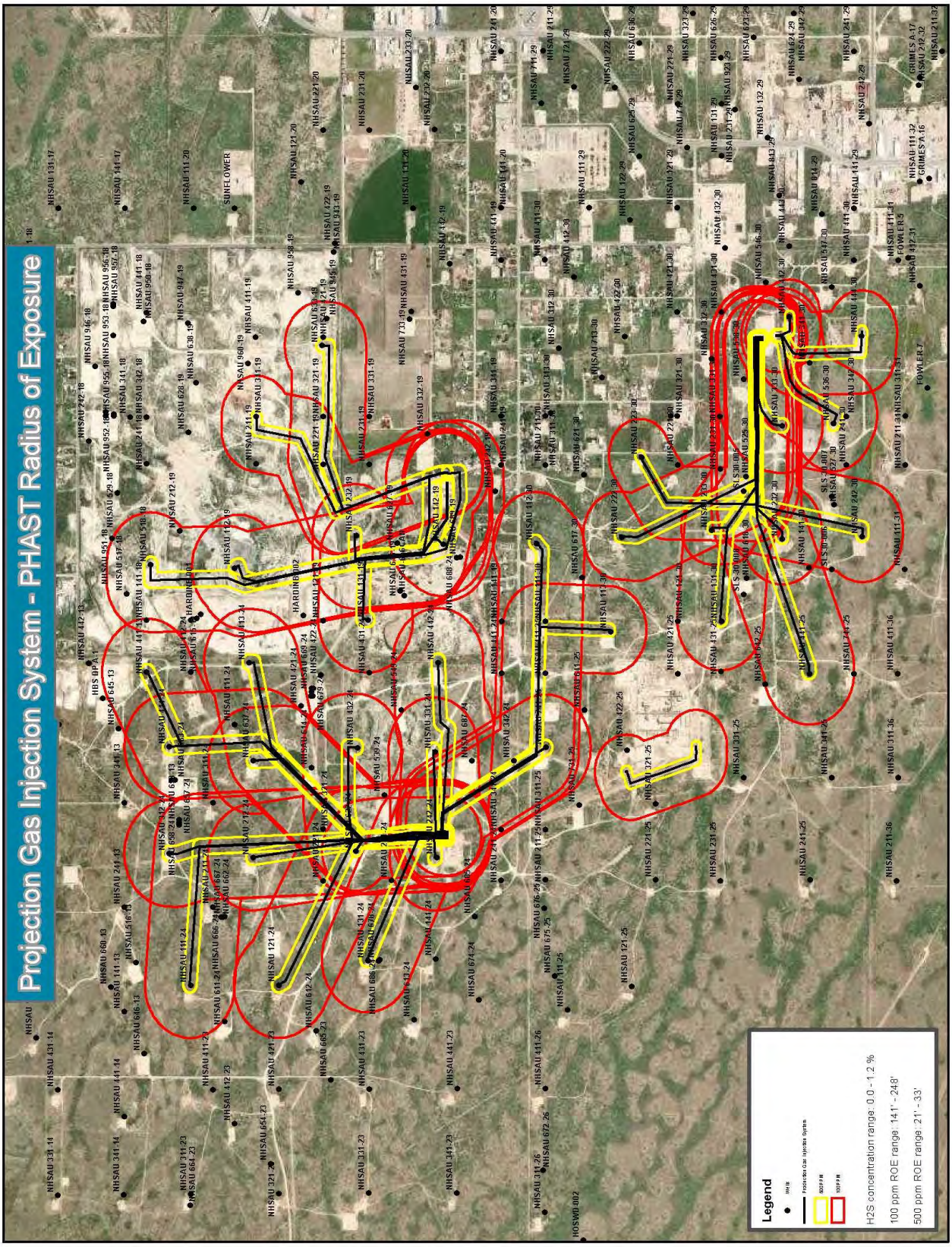
Caprock Answering Service: The Caprock Answering Service is a 24-hr answering service contracted by Oxy. Their phone number is posted on all pipeline markers and on SFRM facilities. The number can be called by any member of the public or an emergency responder. Upon notification of a possible emergency on Occidental Permian property, the answering service operator should ensure that he/she has all of the following information and proceed to call the OXY Technician on call and Surface Lead and provide:

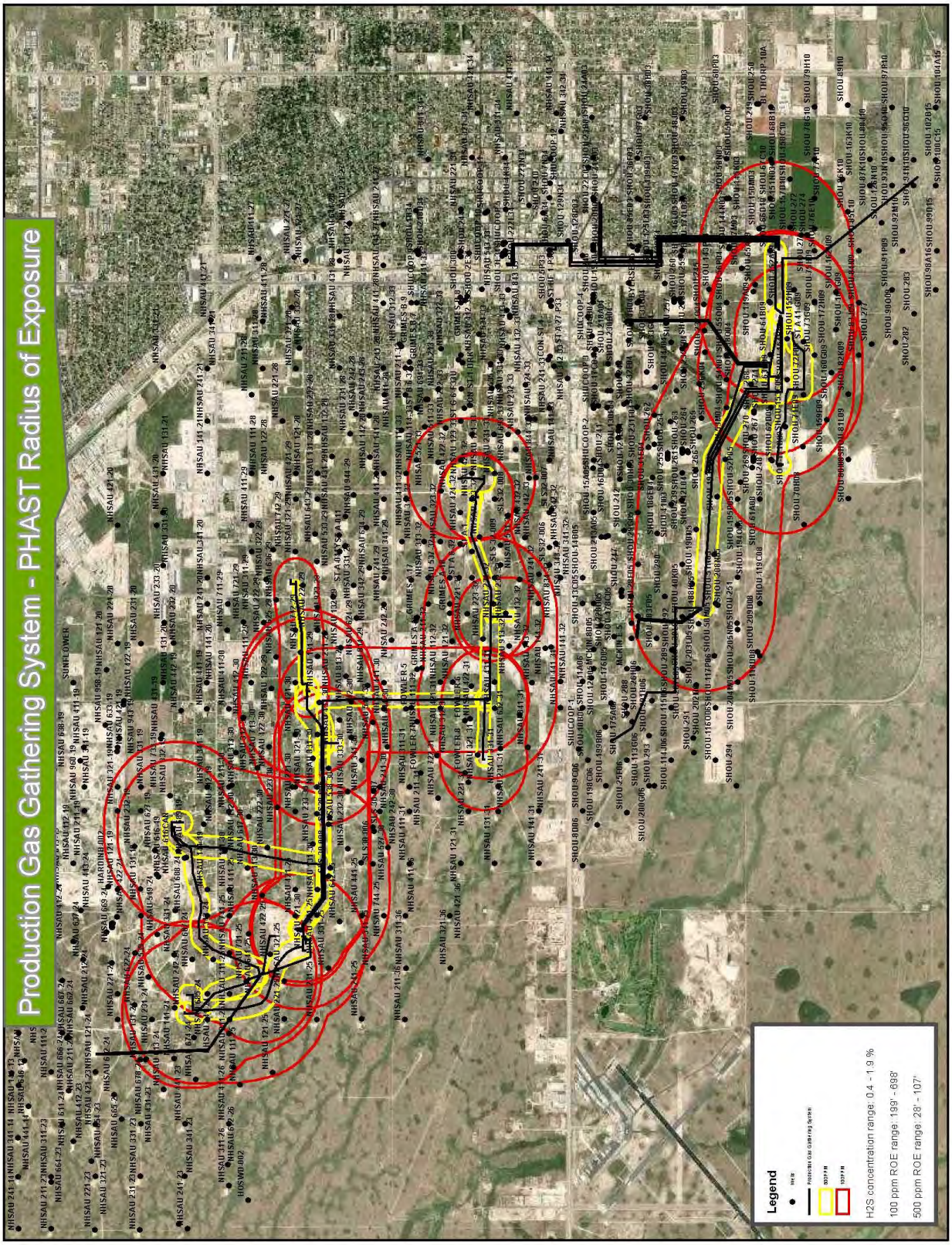
1. Name, phone number, and/or address of the person reporting emergency.
2. Location of emergency. (Well/Facility Number, cross street and /or Lat/Long
3. Any known injuries or missing persons
4. Concise statement of what is happening.
5. What type of emergency services are needed on location.]

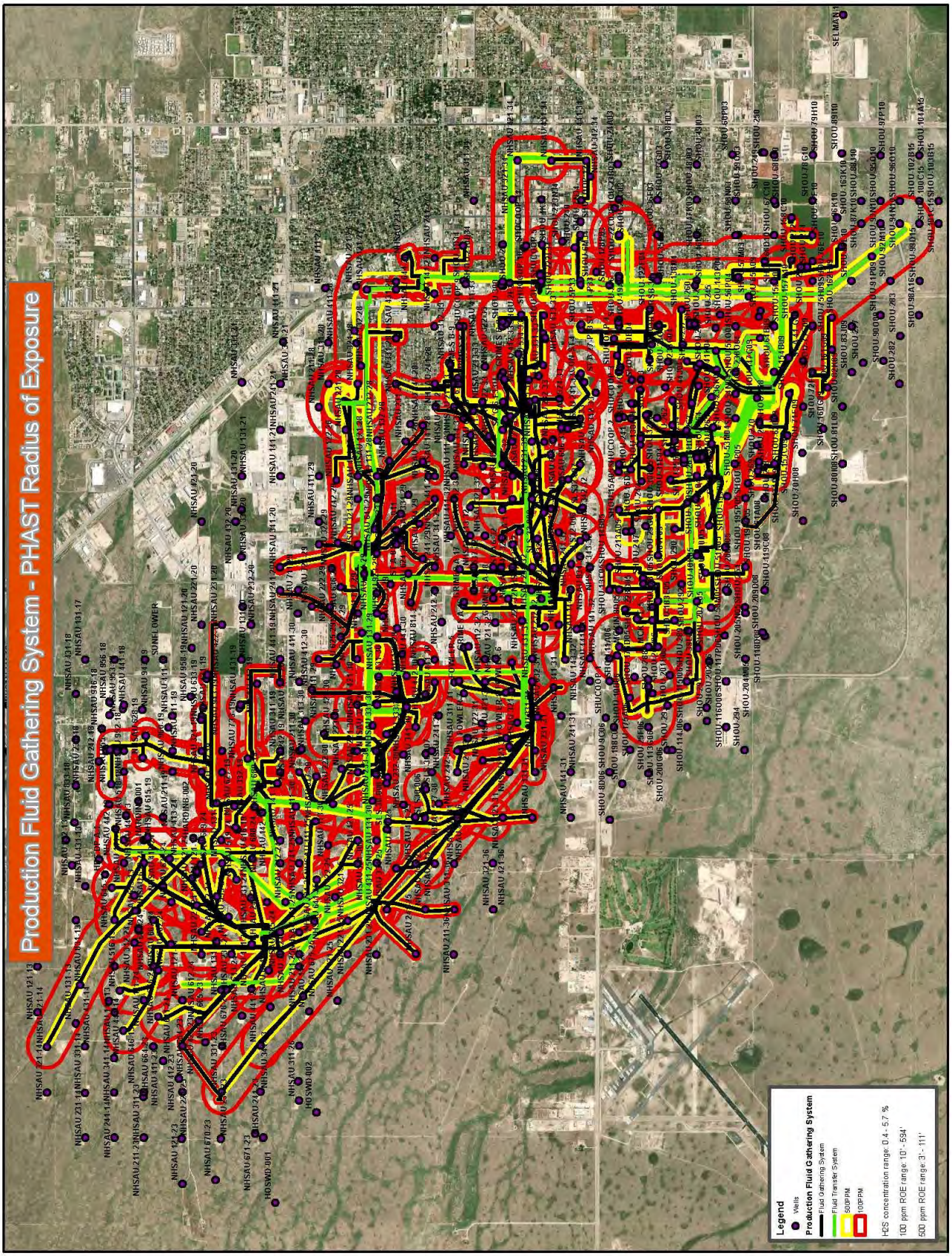


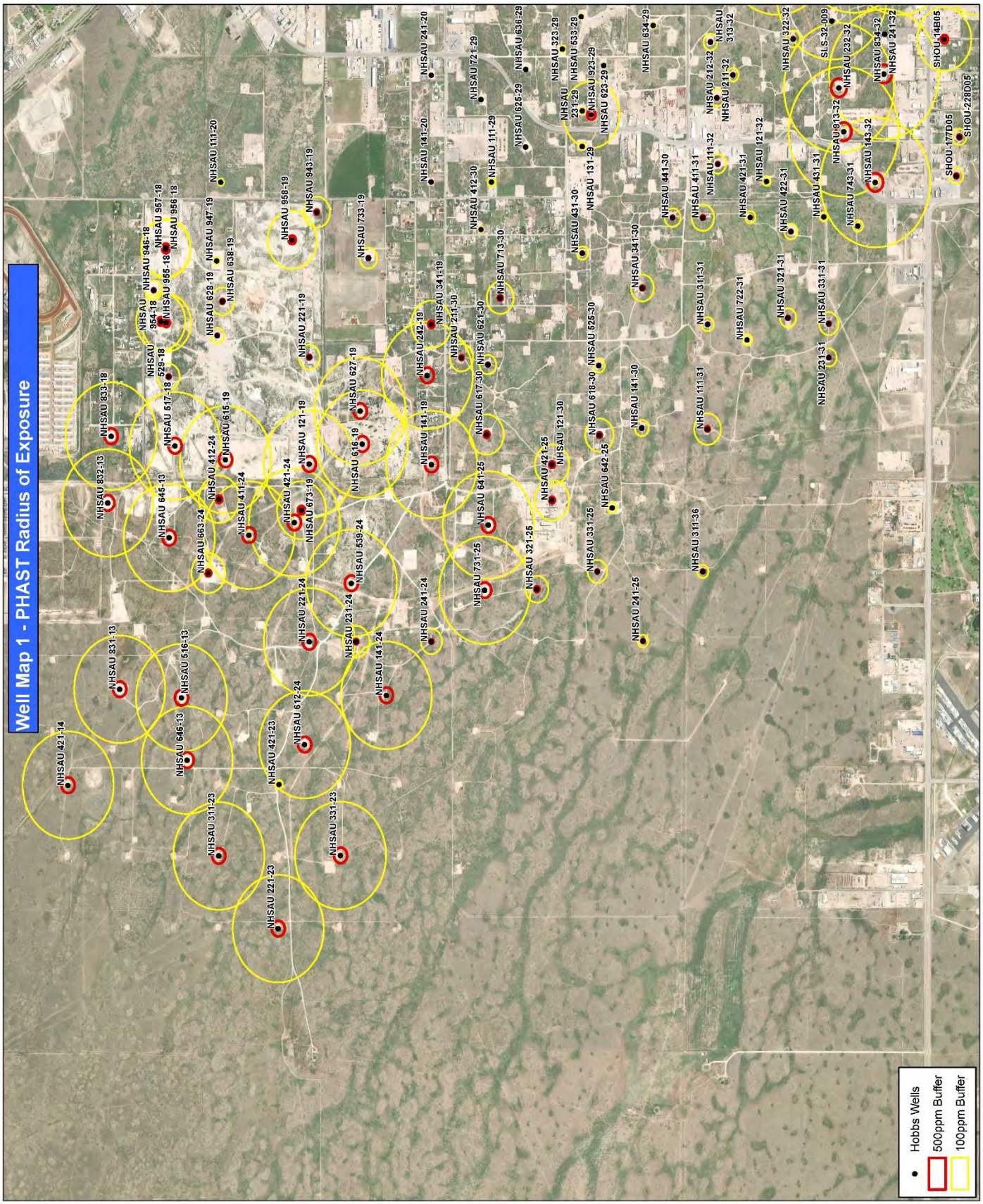
Section IV: Appendices

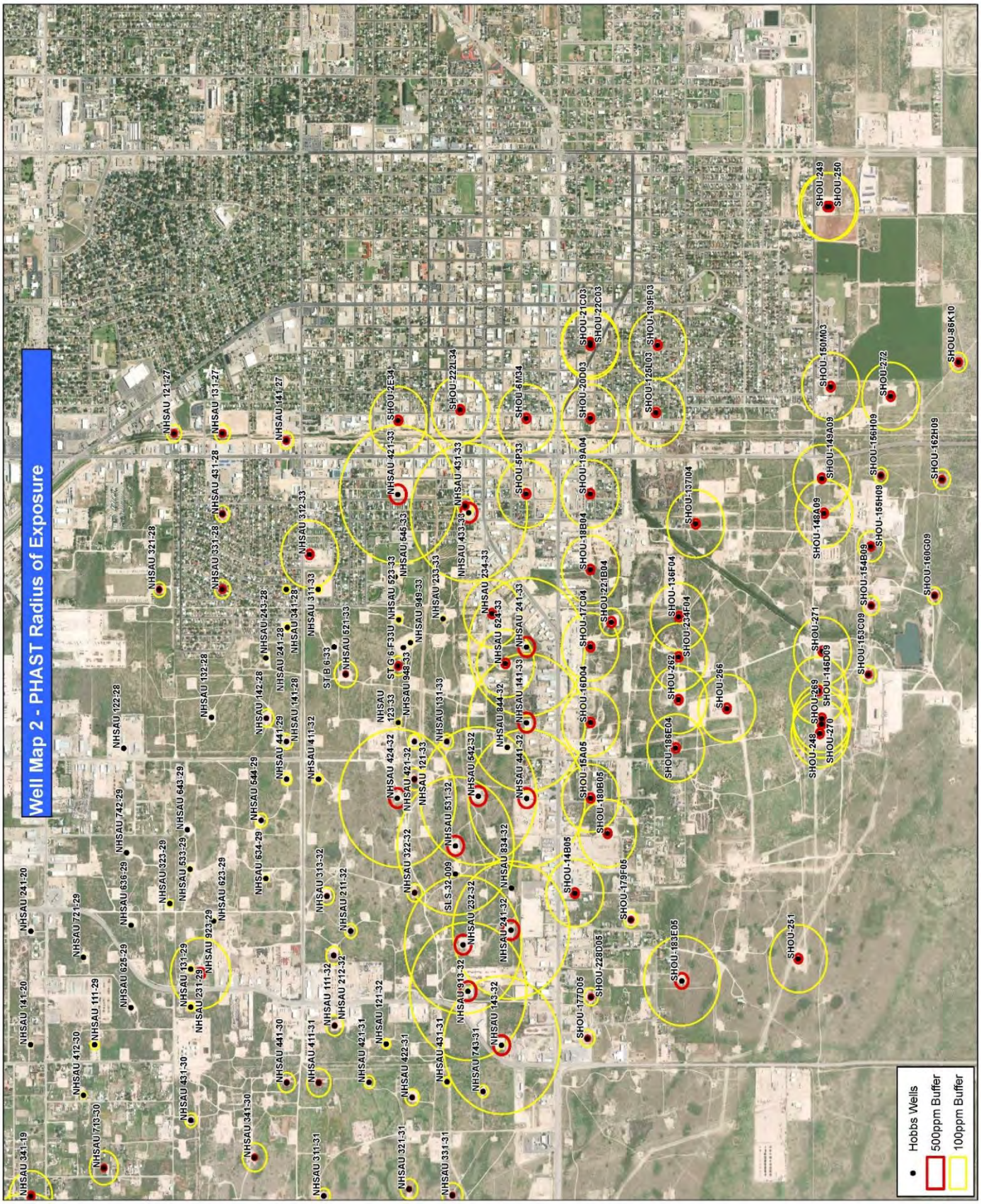
Appendix 1: Maps of Hobbs Area ROE Maps Calculated by PHAST


Projection Gas Injection System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.0 - 1.2 %
100 ppm ROE range: 141' - 248'
500 ppm ROE range: 21' - 33'

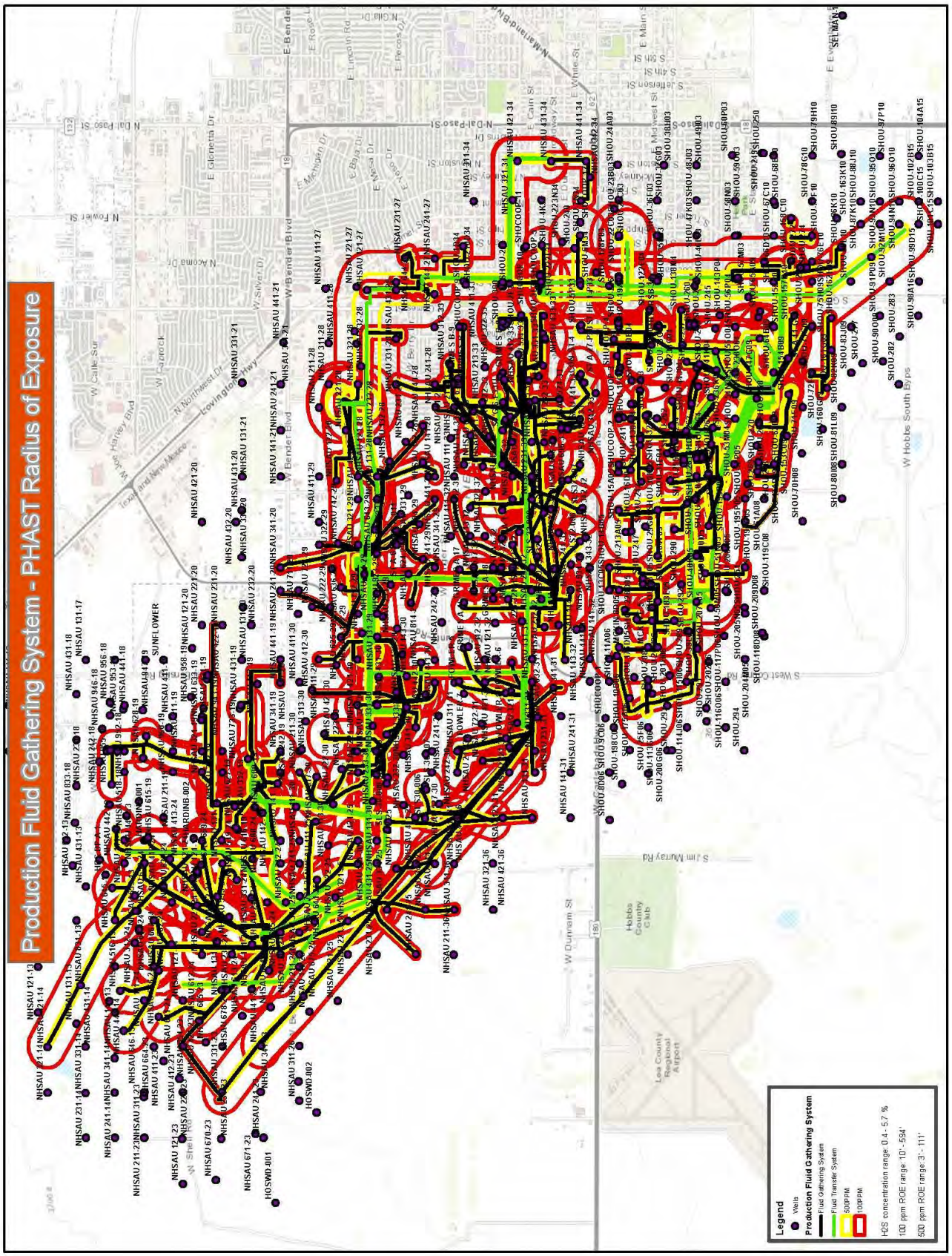

Production Gas Gathering System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.4 - 1.9 %
100 ppm ROE range: 193' - 698'
500 ppm ROE range: 28' - 107'

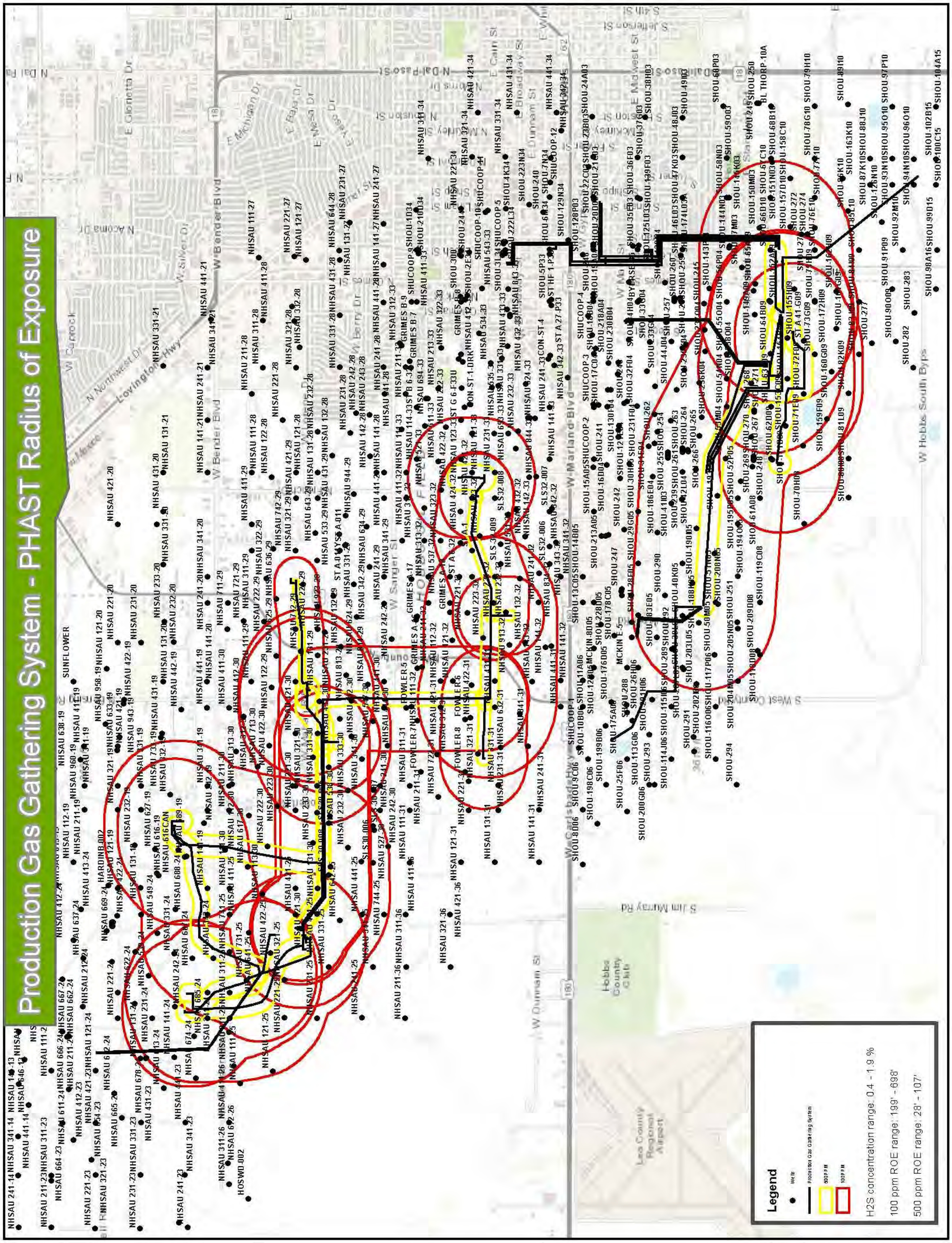

Production Fluid Gathering System - PHAST Radius of Exposure
Legend
Wells
Production Fluid Gathering System
Fluid Gathering System
Fluid Transfer System
50PPM
100PPM
H2S concentration range: 0.4 - 5.7 %
100 ppm ROE range: 10' - 594'
500 ppm ROE range: 3' - 111'

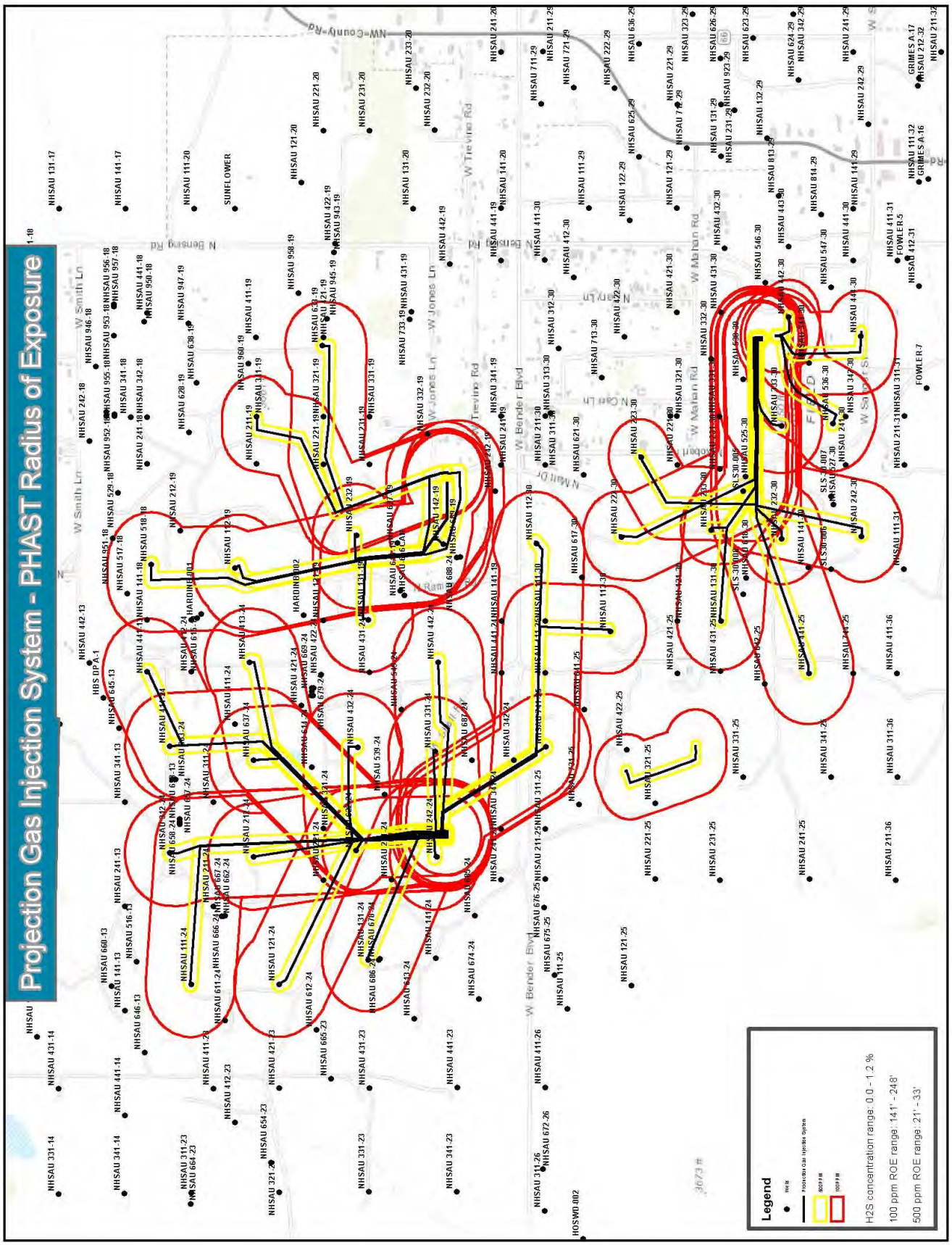

Well Map 1 - PHAST Radius of Exposure
Hobbs Wells
500ppm Buffer
100ppm Buffer

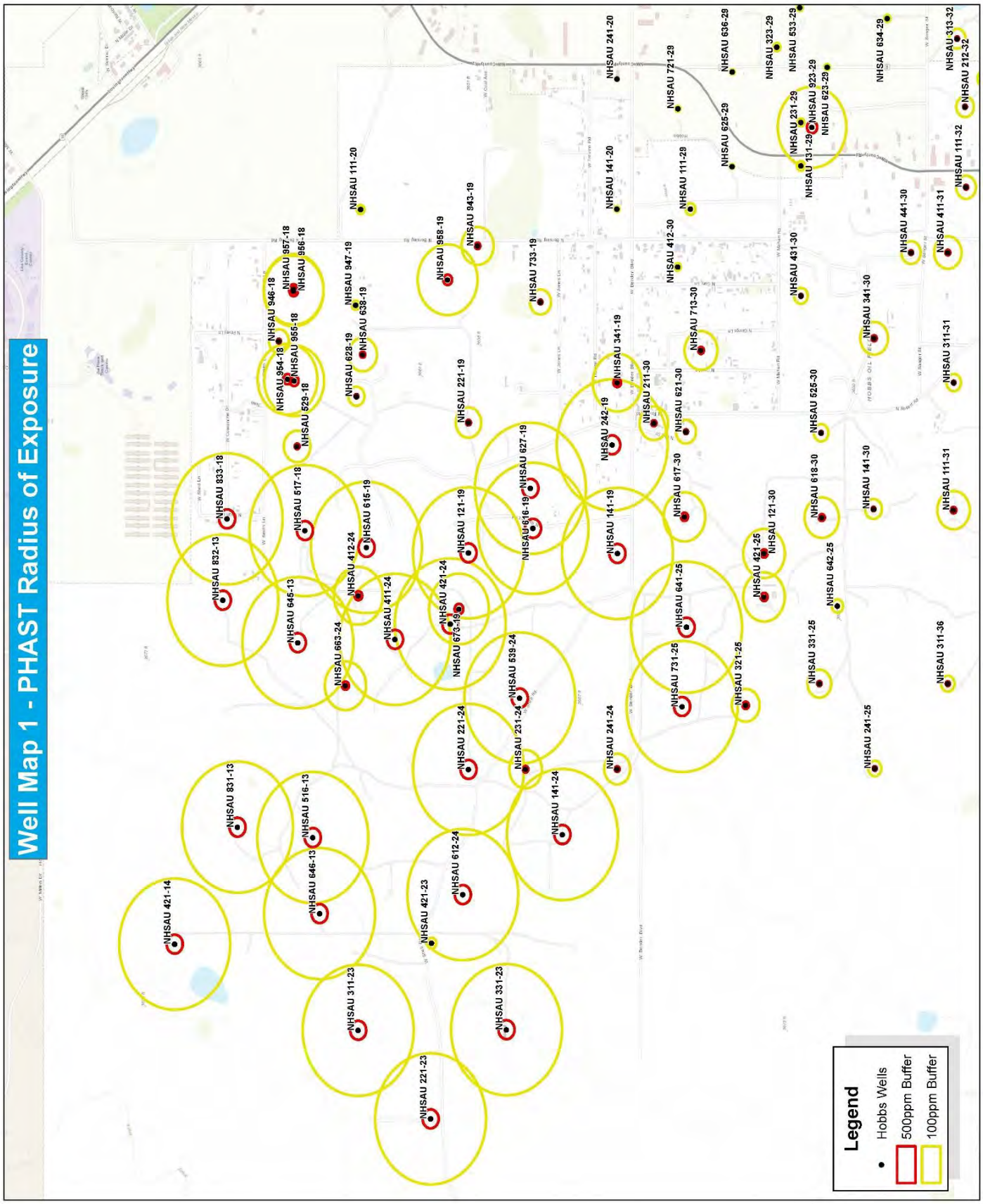

Well Map 2 - PHAST Radius of Exposure
Hobbs Wells
500ppm Buffer
100ppm Buffer

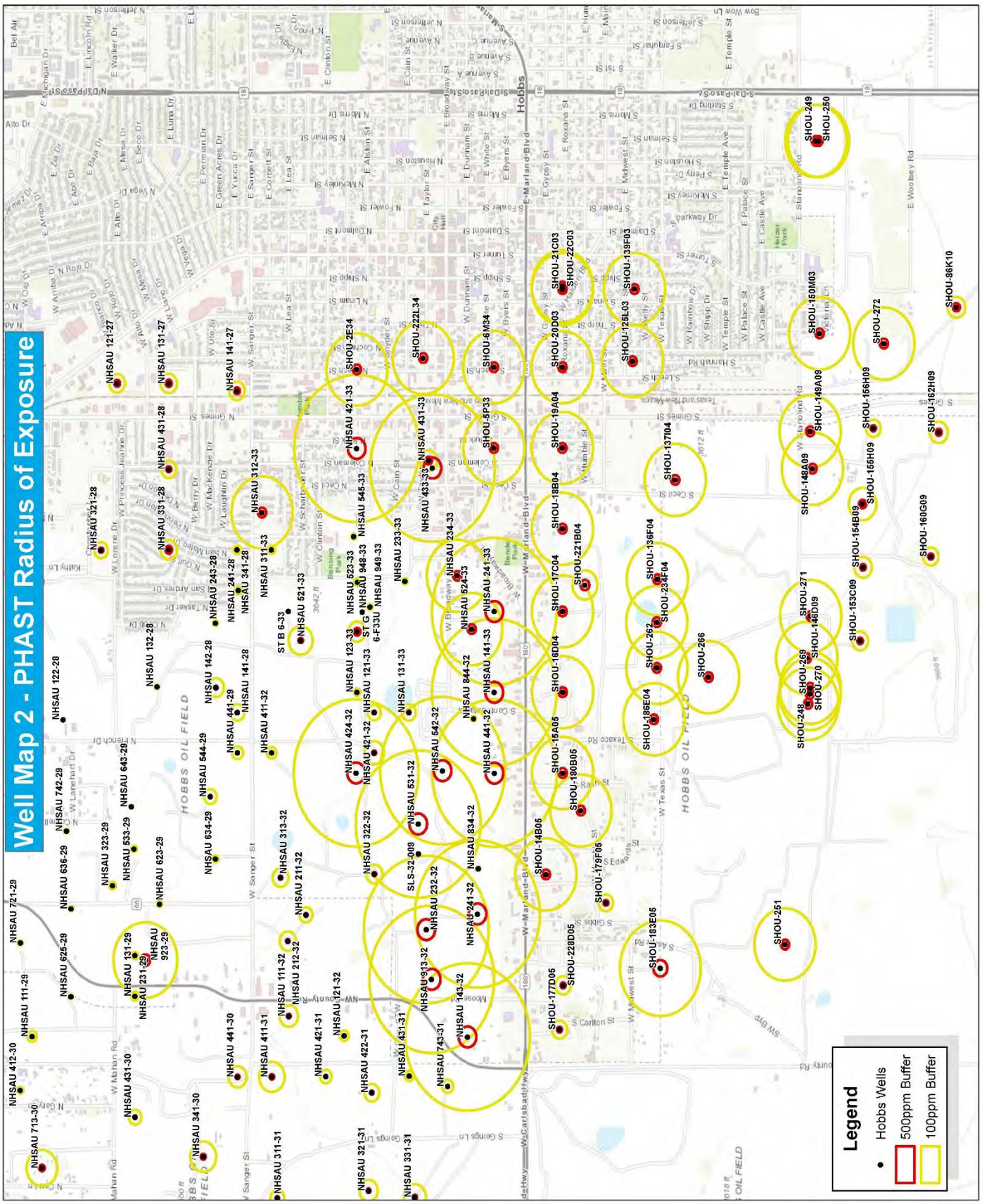
Appendix 1.2: Topographic Maps of Hobbs Area ROE Maps Calculated by PHAST


Production Fluid Gathering System - PHAST Radius of Exposure
Legend
Wells
Production Fluid Gathering System
Fluid Gathering System
Fluid Transfer System
50@PPM
100@PPM
H2S concentration range 0.4 - 5.7 %
100 ppm ROE range 10' - 594'
500 ppm ROE range 3' - 111'


Production Gas Gathering System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.4 - 1.9 %
100 ppm ROE range: 199' - 698'
500 ppm ROE range: 28' - 107'


Projection Gas Injection System - PHAST Radius of Exposure
Legend
H2S concentration range: 0.0 - 1.2 %
100 ppm ROE range: 141' - 248'
500 ppm ROE range: 21' - 33'


Well Map 1 - PHAST Radius of Exposure
NHSAU 421-14
NHSAU 831-13
NHSAU 516-13
NHSAU 646-13
NHSAU 311-23
NHSAU 421-23
NHSAU 612-24
NHSAU 331-23
NHSAU 221-23
NHSAU 832-13
NHSAU 833-18
NHSAU 645-13
NHSAU 517-18
NHSAU 663-24
NHSAU 412-24
NHSAU 615-19
NHSAU 411-24
NHSAU 673-19
NHSAU 421-24
NHSAU 121-19
NHSAU 539-24
NHSAU 221-24
NHSAU 231-24
NHSAU 141-24
NHSAU 954-18
NHSAU 957-18
NHSAU 946-18
NHSAU 956-18
NHSAU 955-18
NHSAU 529-18
NHSAU 628-19
NHSAU 947-19
NHSAU 638-19
NHSAU 111-20
NHSAU 958-19
NHSAU 943-19
NHSAU 221-19
NHSAU 733-19
NHSAU 616-19
NHSAU 627-19
NHSAU 242-19
NHSAU 141-19
NHSAU 241-20
NHSAU 141-20
NHSAU 341-19
NHSAU 211-30
NHSAU 241-24
NHSAU 617-30
NHSAU 641-25
NHSAU 731-25
NHSAU 412-30
NHSAU 111-29
NHSAU 721-29
NHSAU 621-30
NHSAU 713-30
NHSAU 636-29
NHSAU 625-29
NHSAU 323-29
NHSAU 533-29
NHSAU 231-29
NHSAU 131-29
NHSAU 923-29
NHSAU 623-29
NHSAU 431-30
NHSAU 634-29
NHSAU 313-32
NHSAU 212-32
NHSAU 111-32
NHSAU 441-30
NHSAU 411-31
NHSAU 341-30
NHSAU 311-31
NHSAU 525-30
NHSAU 618-30
NHSAU 642-25
NHSAU 331-25
NHSAU 421-25
NHSAU 121-30
NHSAU 321-25
NHSAU 141-30
NHSAU 111-31
NHSAU 311-36
NHSAU 241-25
Legend
Hobbs Wells
500ppm Buffer
100ppm Buffer


Well Map 2 - PHAST Radius of Exposure
Legend
Hobbs Wells
500ppm Buffer
100ppm Buffer
HOBBS OIL FIELD
Hobbs
NHSAU 121-27
NHSAU 131-27
NHSAU 141-27
NHSAU 431-28
NHSAU 331-28
NHSAU 321-28
NHSAU 122-28
NHSAU 132-28
NHSAU 142-28
NHSAU 243-28
NHSAU 241-28
NHSAU 341-28
NHSAU 312-33
NHSAU 311-33
NHSAU 421-33
NHSAU 431-33
NHSAU 433-33
NHSAU 545-33
NHSAU 523-33
NHSAU 948-33
NHSAU 949-33
NHSAU 233-33
NHSAU 234-33
NHSAU 524-33
NHSAU 241-33
NHSAU 621-33
ST B 6-33
ST G 6-F33U
SHOU-222L34
SHOU-2E34
SHOU-6M34
SHOU-5P33
SHOU-21C03
SHOU-22C03
SHOU-20D03
SHOU-19A04
SHOU-18B04
SHOU-17C04
SHOU-221B04
SHOU-139F03
SHOU-125L03
SHOU-137I04
SHOU-136F04
SHOU-234F04
SHOU-262
SHOU-266
SHOU-186E04
SHOU-180B05
SHOU-15A05
SHOU-18D04
SHOU-14B05
SHOU-179F05
SHOU-183E05
SHOU-228D05
SHOU-177D06
SHOU-251
SHOU-248
SHOU-269
SHOU-270
SHOU-271
SHOU-146D09
SHOU-153C09
SHOU-154B09
SHOU-155H09
SHOU-156H09
SHOU-148A09
SHOU-149A09
SHOU-160M03
SHOU-272
SHOU-162H09
SHOU-160G09
SHOU-86K10
SHOU-249
SHOU-250
NHSAU 122-28
NHSAU 742-29
NHSAU 643-29
NHSAU 323-29
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NHSAU 441-30
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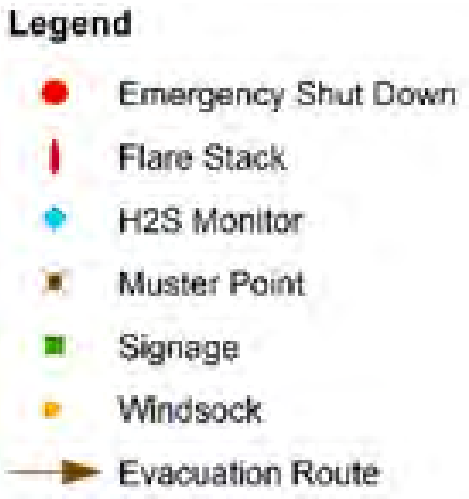
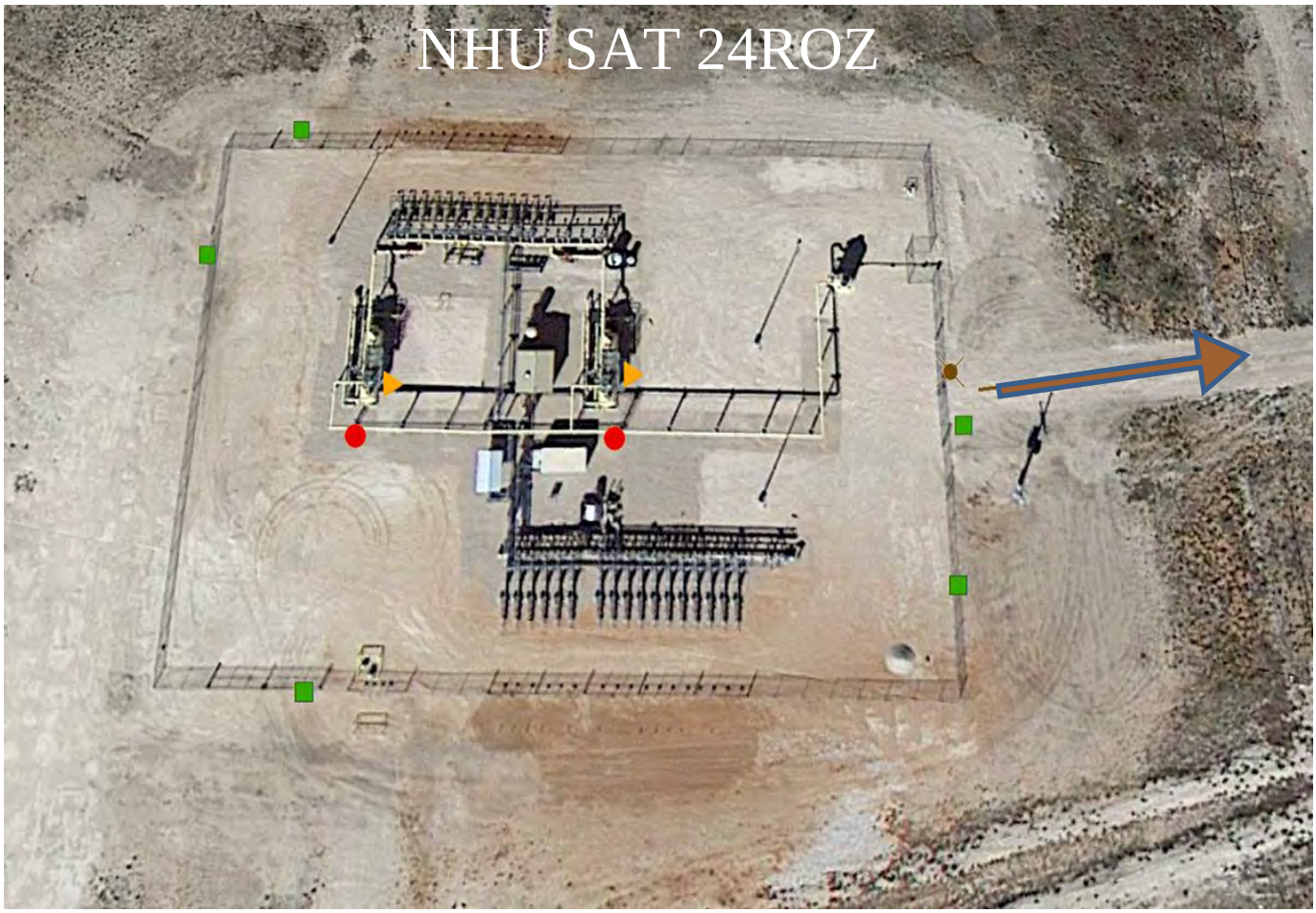
NHSAU 211-32
NHSAU 212-32
NHSAU 111-32
NHSAU 411-31
NHSAU 311-31
NHSAU 121-32
NHSAU 421-31
NHSAU 422-31
NHSAU 321-31
NHSAU 411-32
NHSAU 141-32
NHSAU 441-29
NHSAU 141-28
NHSAU 123-33
NHSAU 121-33
NHSAU 131-33
NHSAU 424-32
NHSAU 421-32
NHSAU 322-32
NHSAU 531-32
NHSAU 542-32
NHSAU 844-32
NHSAU 141-33
NHSAU 441-32
NHSAU 834-32
NHSAU 232-32
NHSAU 241-32
NHSAU 913-32
NHSAU 143-32
NHSAU 743-31
NHSAU 431-31
NHSAU 331-31
SLS-32-009

Appendix 2: Maps of Hobbs Area Facilities and Locations of Safety Equipment

Note: H2S monitors are strategically located based on location or absence of any off-site receptors.

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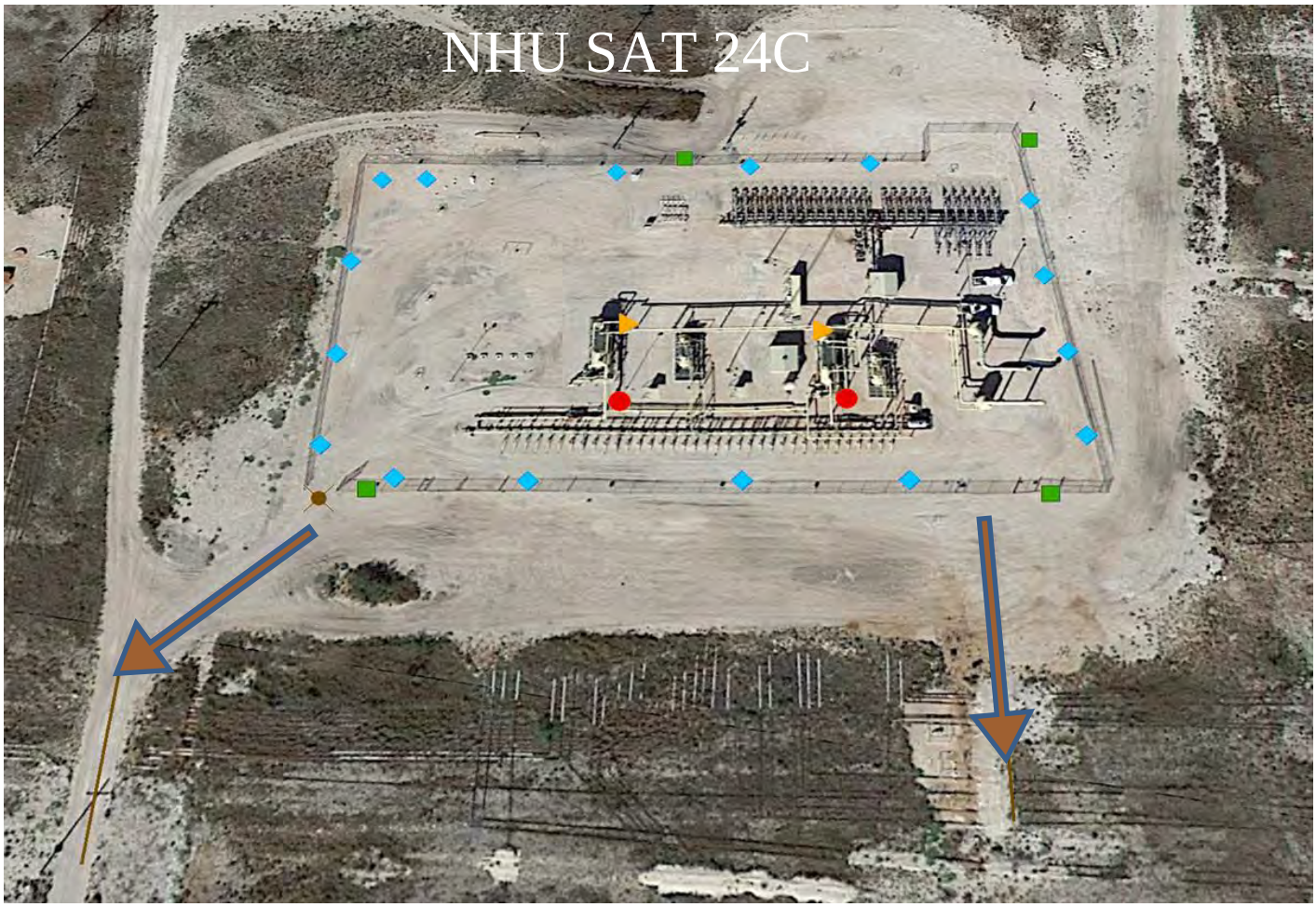
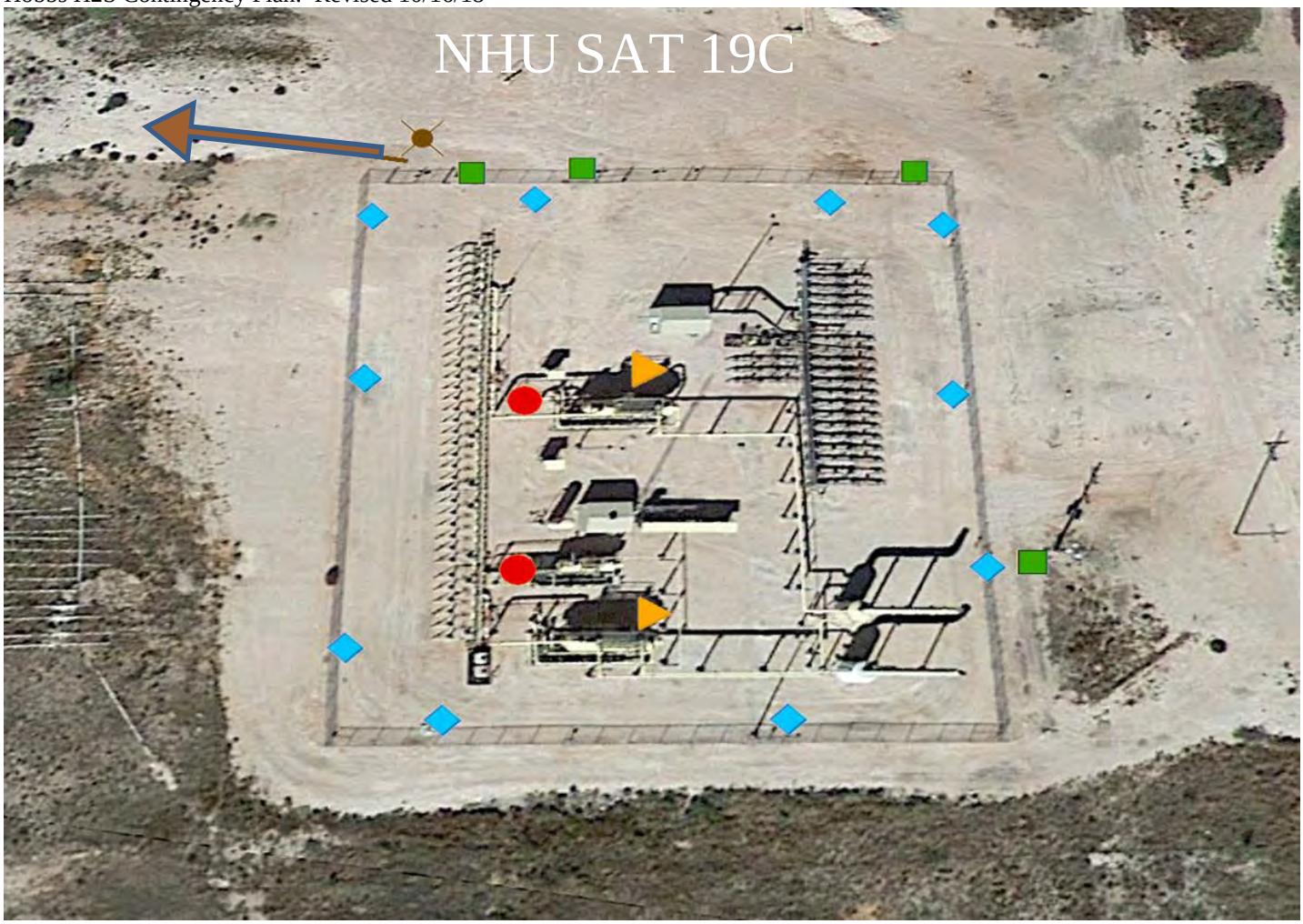
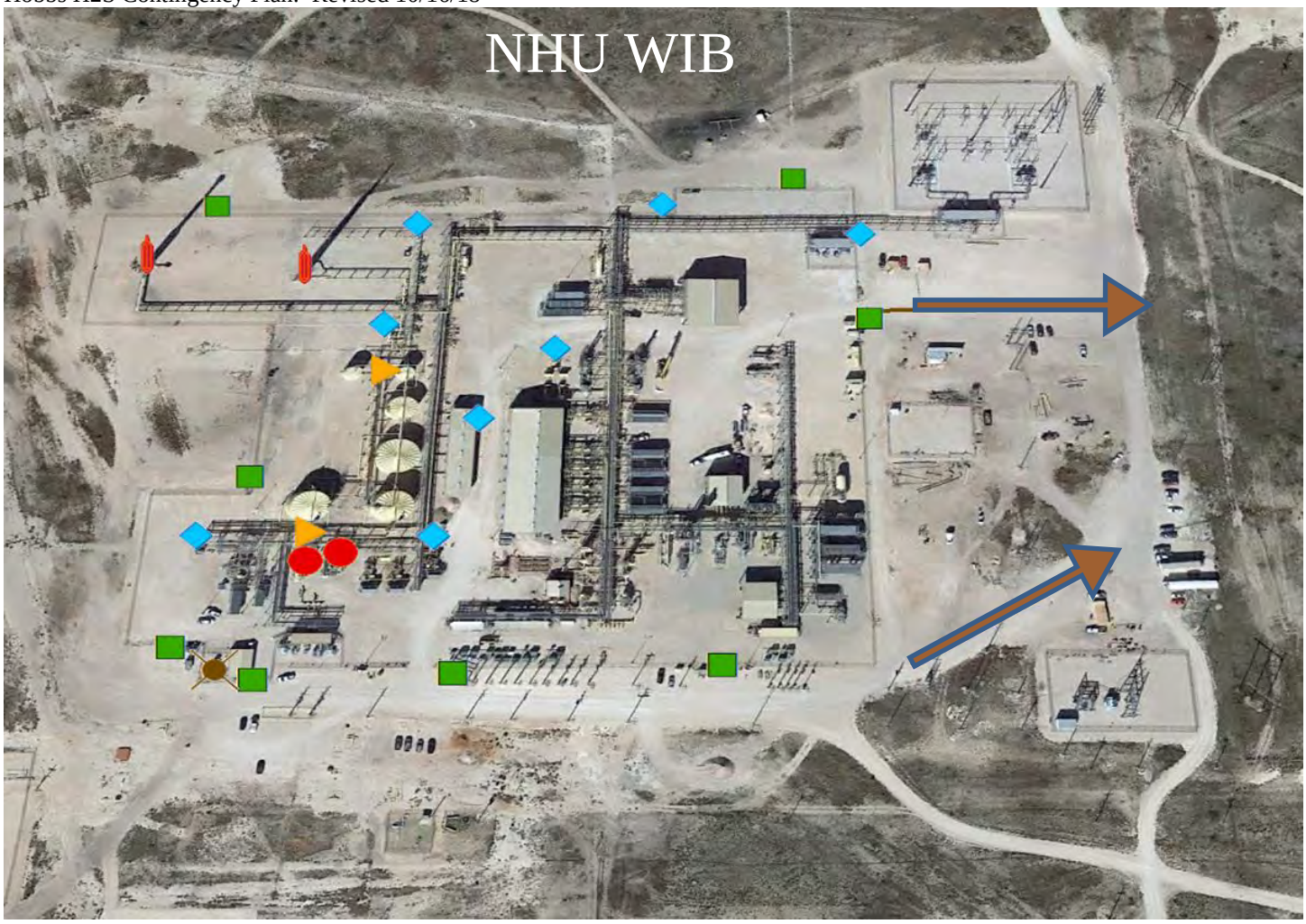
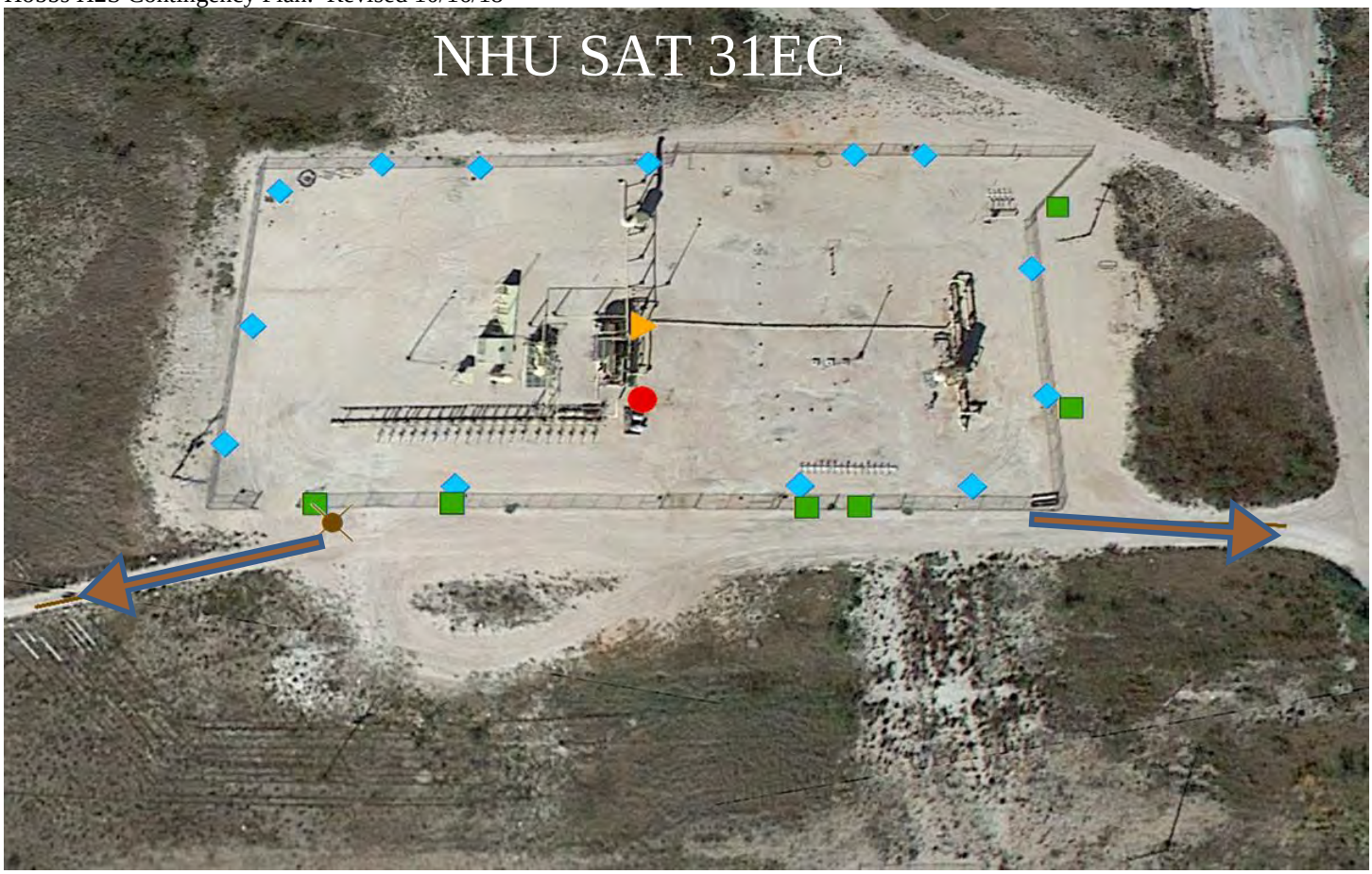
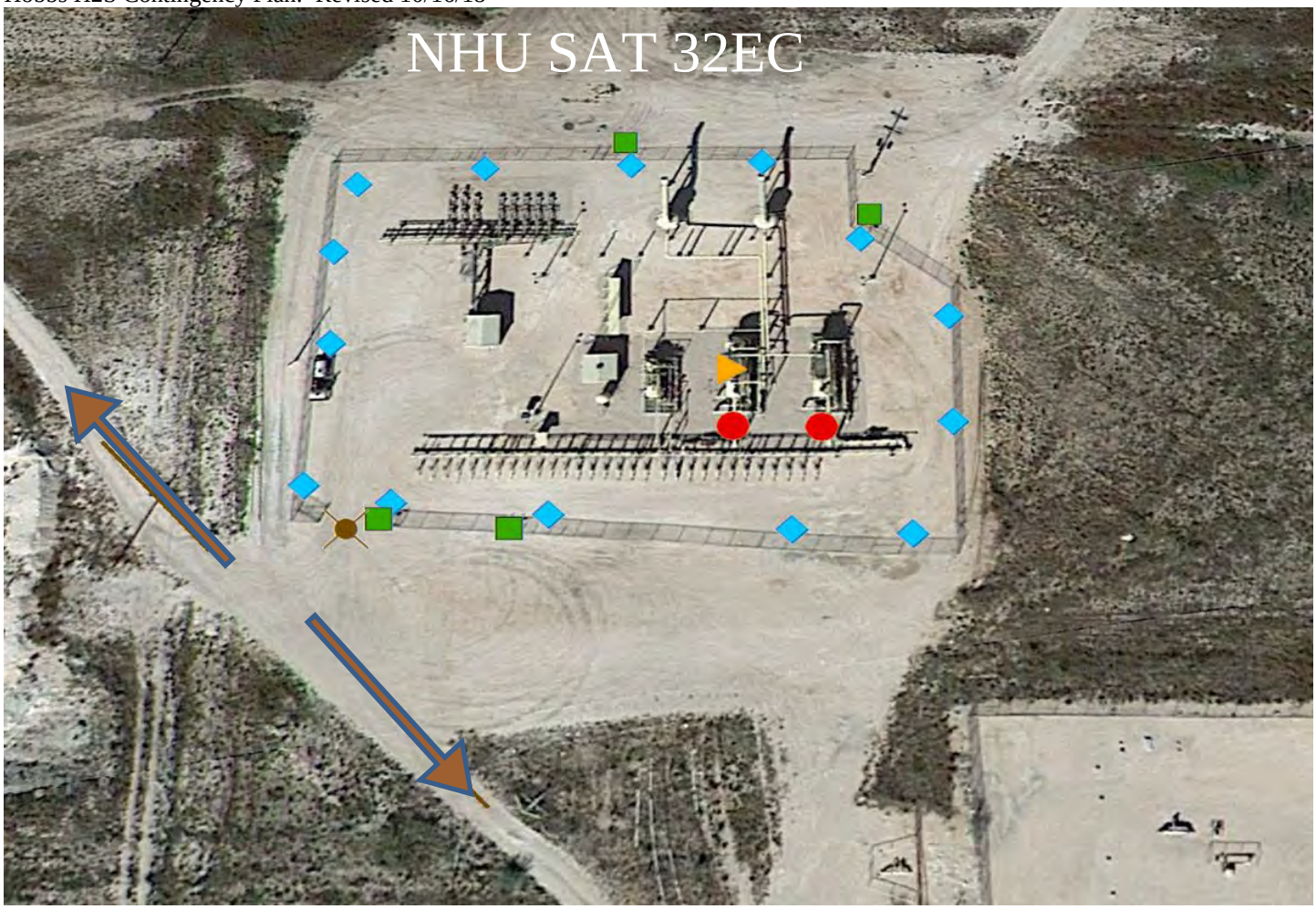

NHU SAT 24C


NHU SAT 19C

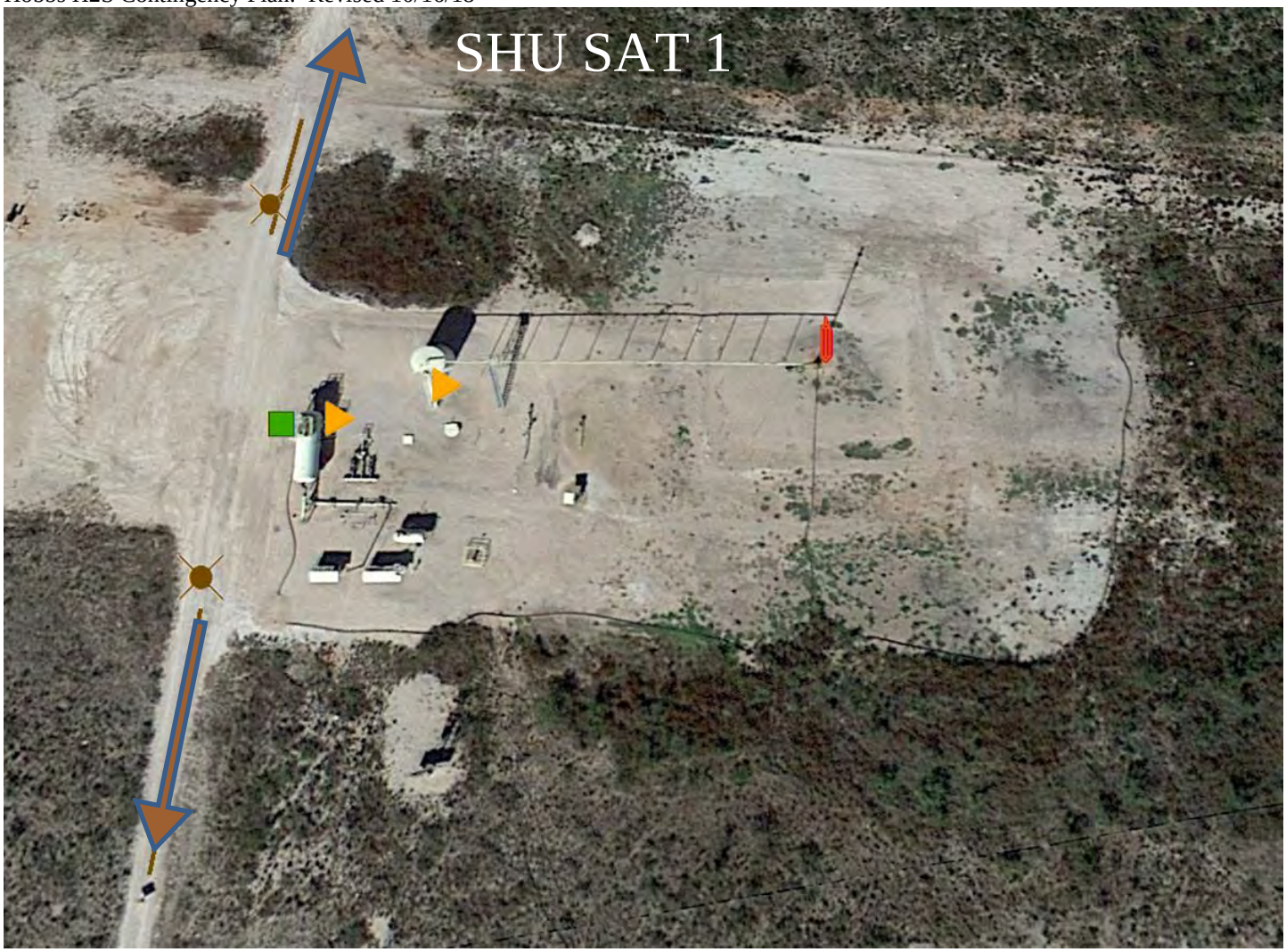

NHU WIB


NHU SAT 31EC


NHU SAT 32WC

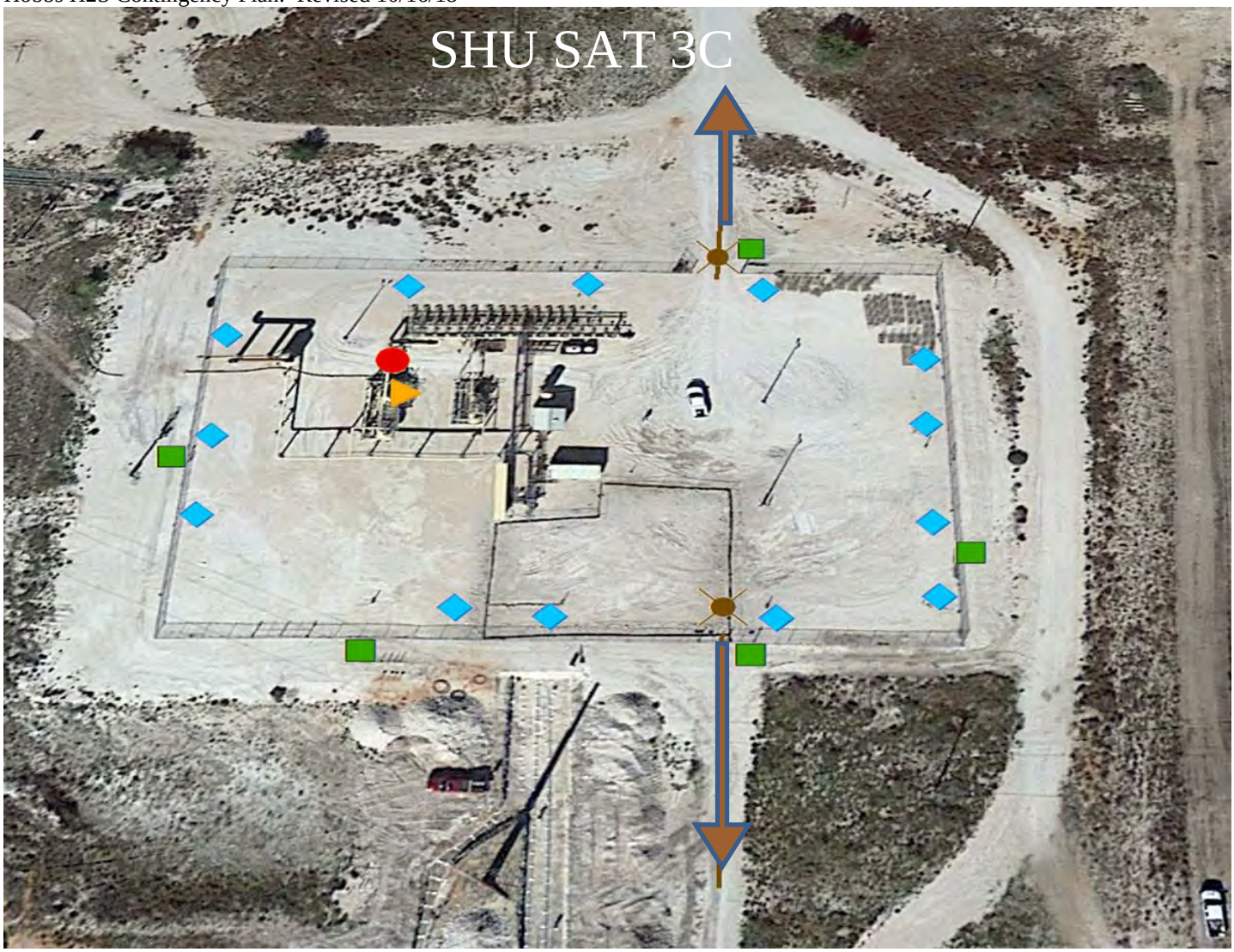

NHU SAT 32EC

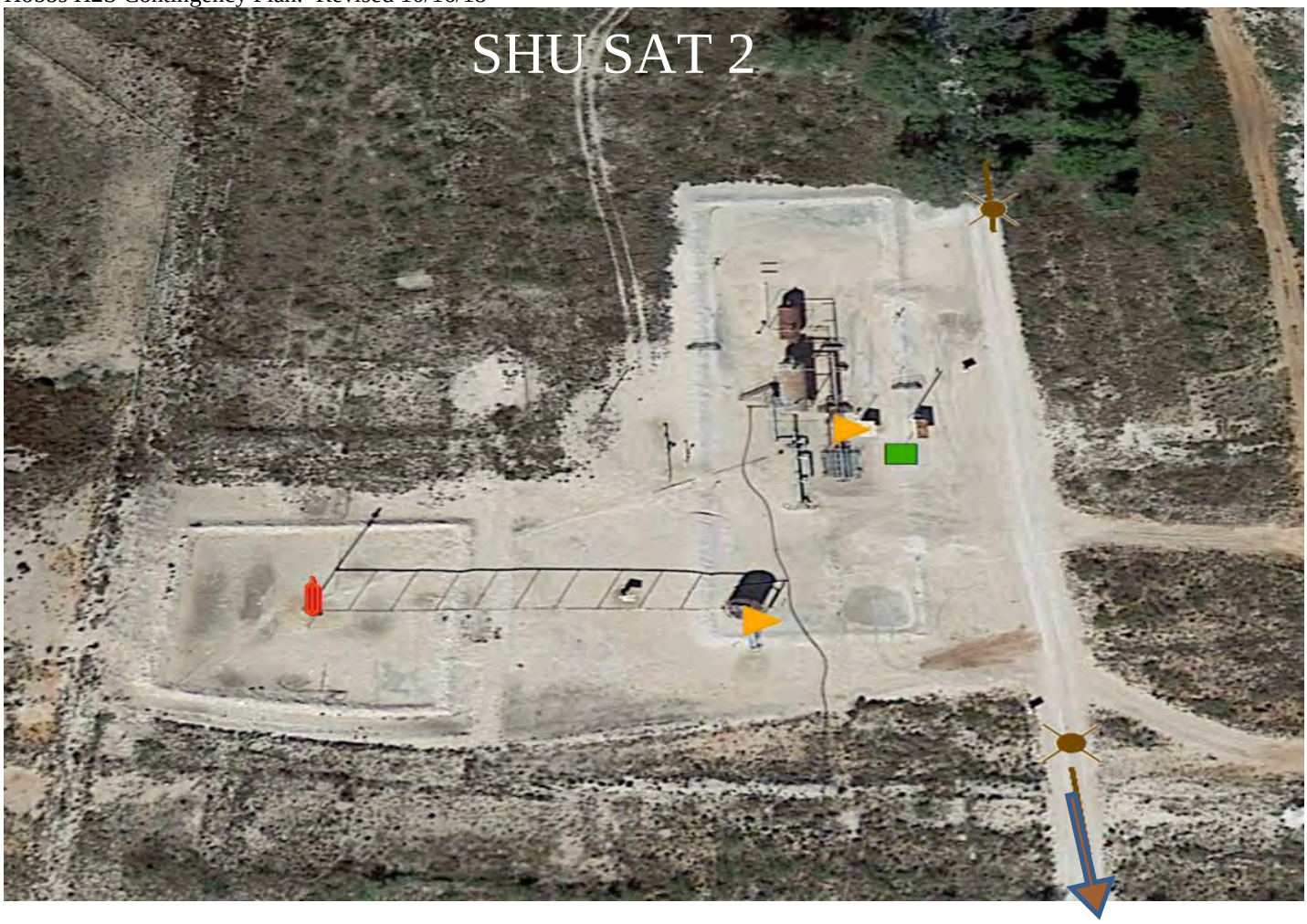

NHU NIB


SHU SAT 1


SHU SAT 1C


SHU RCF


SHU SAT 3C


SHU SAT 2


SHU CTB
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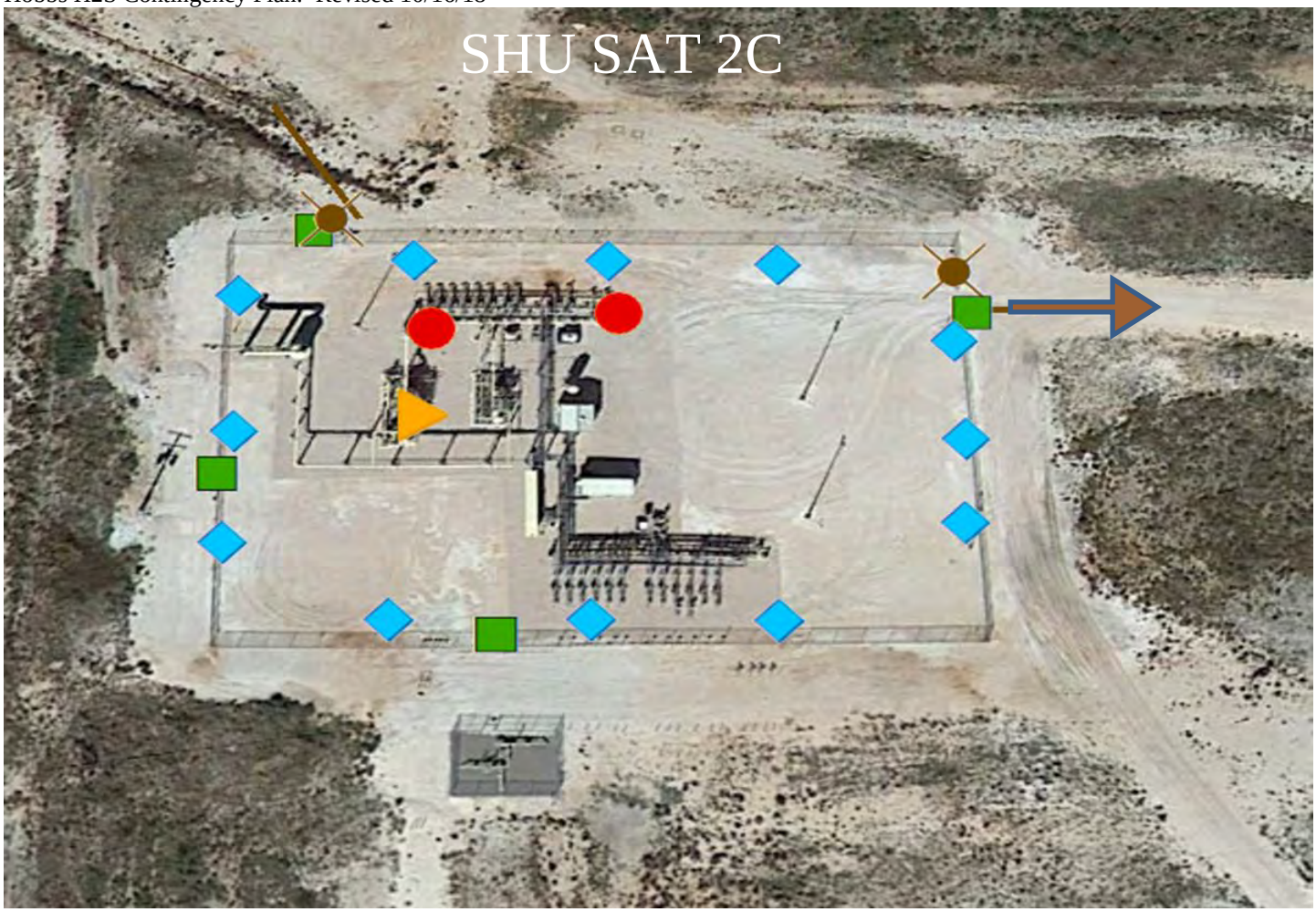
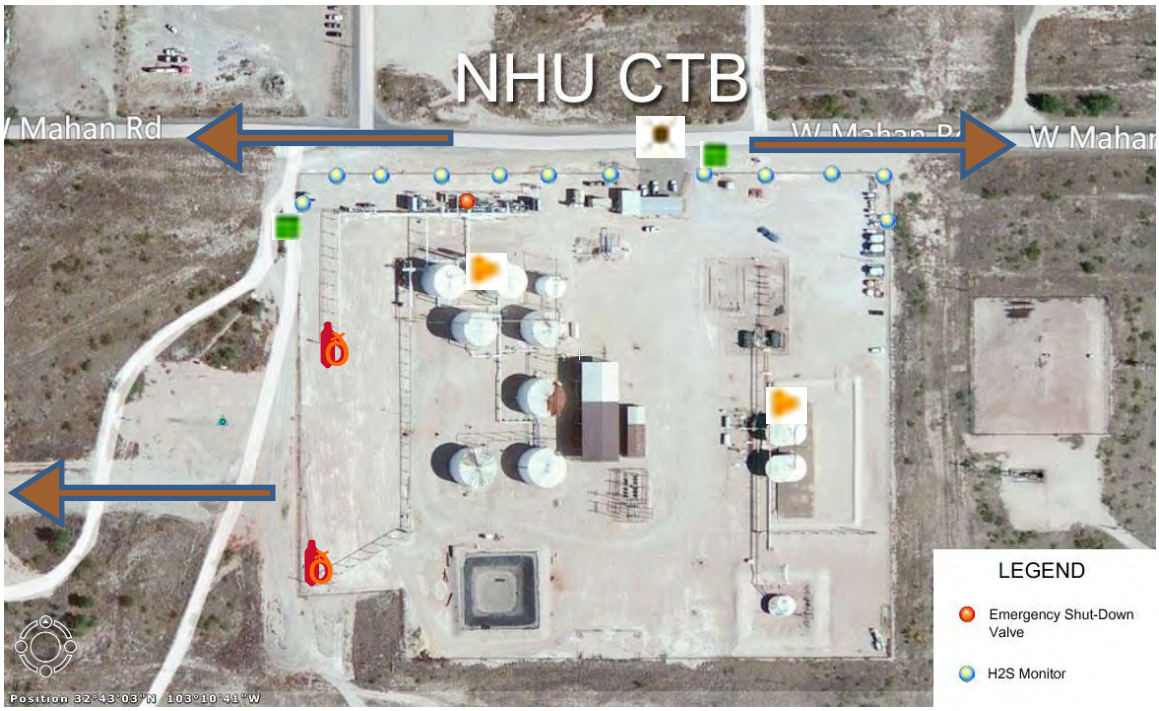
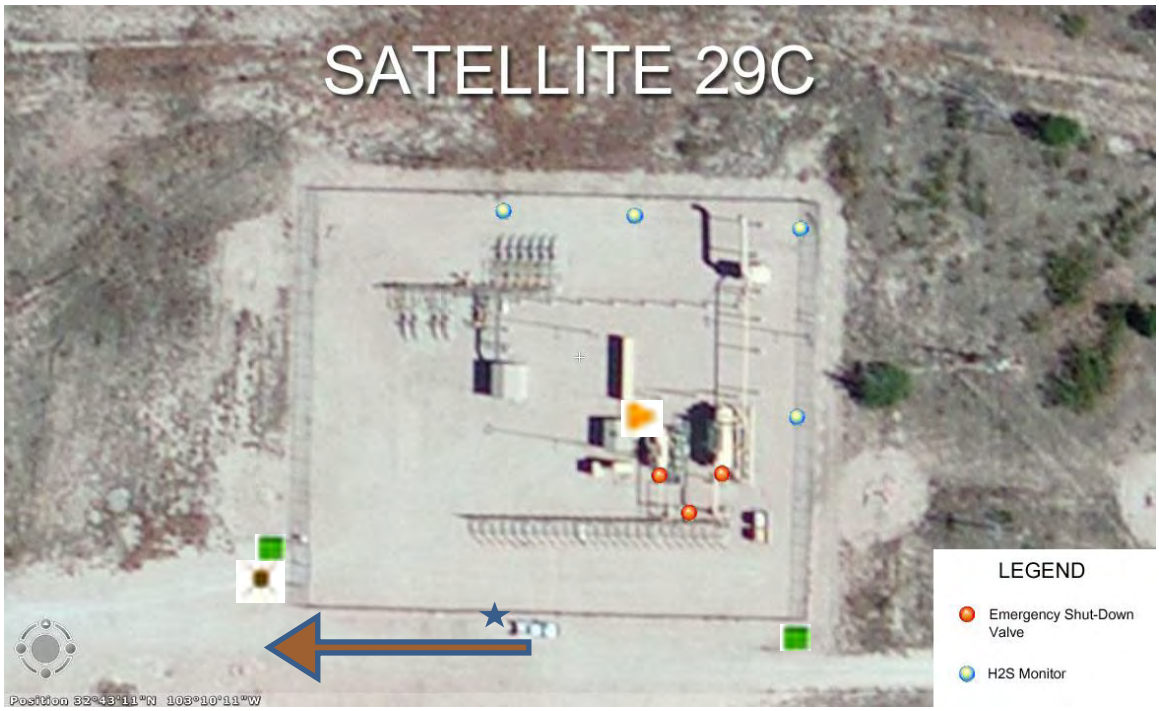

SHU SAT 2C


NHU CTB
Mahan Rd
W Mahan
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'03"N 103°10'41"W


SATELLITE 28
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'15"N 103°09'14"W

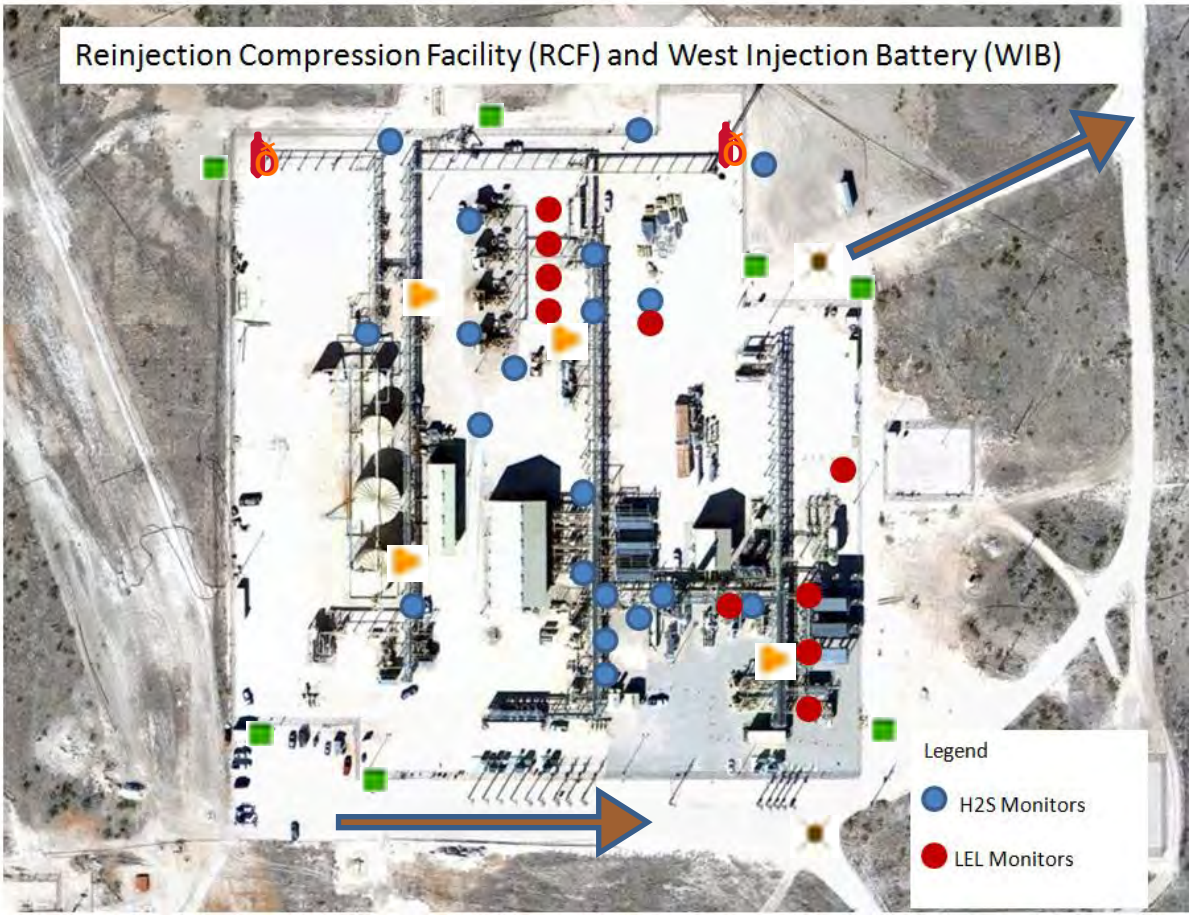

SATELLITE 25
LEGEND
Emergency Shut-Down Valve
Position 32°43'06"N 103°12'03"W


SATELLITE 29C
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°43'11"N 103°10'11"W


SATELLITE 30C
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°42'56"N 103°10'59"W


SATELLITE 33
LEGEND
Emergency Shut-Down Valve
H2S Monitor
Position 32°42'13"N 103°09'19"W


SATELLITE 3
LEGEND
H2S Monitor
Position 32°40'46"N 103°08'33"W


Reinjection Compression Facility (RCF) and West Injection Battery (WIB)
Legend
H2S Monitors
LEL Monitors

Appendix 3:

List of Hobbs Area Facilities (Active) with 100 and 500 ppm ROEs

ROEs are calculated using PHAST Version 6.7

Unit	Description	ULSTR	H2S Conc. (ppm)	Latitude	Longitude	100 ppm ROE (ft)	500 ppm ROE (ft)
NHU	INJECTION BATTERY	E 33 18S,38E	19840	32.7065	-103.1616	463	100
NHU	SATELLITE 19 CO2	N 19 19S,38E	11000	32.7289	-103.1894	450	58
NHU	SATELLITE 24 CO2	O 24 18S,37E	9220	32.7287	-103.2038	430	55
NHU	SATELLITE 25	J 25 18S,37E	28115	32.7176	-103.2005	77	14
NHU	SATELLITE 29 CO2	G 29 18S,38E	4150	32.7198	-103.1700	103	16
NHU	SATELLITE 30 CO2	I 30 18S,38E	7000	32.7074	-103.1837	216	28
NHU	SATELLITE 31 EAST CO2	J 31 18S,38E	8960	32.7038	-103.1841	298	37
NHU	SATELLITE 32 EAST CO2	H 32 18S,38E	7020	32.7043	-103.1634	220	27
NHU	SATELLITE 32 WEST CO2	K 32 18S,38E	7650	32.7015	-103.1731	270	28
NHU	SATELLITE 33	K 33 18S,38E	54654	32.7036	-103.1556	255	53
NHU	CENTRAL TANK BATTERY	L 29 18S,38E	16060	32.7182	-103.1794	630	73
NHU	WEST INJECTION BATTERY	H 25 18S,37E	20330	32.7208	-103.1999	746	100
NHU	RECOMPRESSION FACILITY	H 25 18S,37E	9760	32.7208	-103.1999	417	144
SHU	CENTRAL TANK BATTERY	A 9 19S,38E	119778	32.6801	-103.1479	773	110
SHU	SATELLITE 1	F 5 19S,38E	40892	32.6861	-103.1728	410	95
SHU	SATELLITE 2	B 9 19S,38E	43163	32.6803	-103.1523	250	85
SHU	SATELLITE 3	D 10 19S,38E	53477	32.6797	-103.1426	325	128
	CONOCO STATE	H 32 18S,38E	139	32.70576	-103.1653	0.34	0
	STATE LAND 32 BATTERY	J 32 18S,38E	619	32.70220	-103.1679	4.1	0.2
SHU	SAT. BATTERY 1C	J 5 19S,38-E	12000	32.4110	-103.102	1249	211
SHU	SAT. BATTERY 2C	J 4 19S 38-E	12000	32.4113	-103.859	1249	211
SHU	SAT. BATTERY 3C	G 9 19S 38-E	12000	32.4059	-103.938	1249	211
NHU	24 ROZ						
	SOUTH HOBBS REMOTE HEADER 6		40892	32.691377	-103.173136	166	57
	South Hobbs Header - WP4		12000	32.702262	-103.14316	235	32
	South Hobbs Header - WP3		12000	32.698377	-103.14291	215	29
	South Hobbs Header - WP2		12000	32.694884	-103.14249	235	32
	South Hobbs Header - WP1		12000	32.691103	-103.14251	215	29

Appendix 4:

List of Hobbs Area Producing Wells (Active) with 100 and 500 ppm

ROEs calculated using PHAST Version 6.7

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
3002505456	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-14	10000	304	44	32.74829	-103.21406
3002505464	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-23	10000	304	44	32.73922	-103.21832
3002505466	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-23	9215	25	6	32.73559	-103.21401
3002505470	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-23	10000	304	44	32.7356	-103.22262
3002505474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-23	10000	304	44	32.73189	-103.21829
3002505479	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-24	9215	134	21	32.73921	-103.19683
3002505482	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-24	9215	71	13	32.72642	-103.2054
3002505483	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-24	9215	89	15	32.73095	-103.20541
3002505485	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-24	10000	304	44	32.72913	-103.20864
3002505500	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-25	8959	65	12	32.71643	-103.20118
3002505501	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-25	35064	36	11	32.71369	-103.20537
3002505504	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-25	9215	114	19	32.71916	-103.19689
3002505505	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-25	8800	76	17	32.72007	-103.20225
3002505541	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-36	35064	37	11	32.71008	-103.20118
3002507355	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-19	7698	70	13	32.73377	-103.18827
3002507357	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-19	10000	304	44	32.73377	-103.19471
3002507365	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-19	10000	304	44	32.72641	-103.19474
3002507375	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-20	10000	21	6	32.7374	-103.17773
3002507383	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-20	7698	13	5	32.72643	-103.17771
3002507408	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-27	46224	46	17	32.71193	-103.14343
3002507410	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-27	46224	48	18	32.71555	-103.14303
3002507412	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-28	48133	49	19	32.71555	-103.15187
3002507413	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-28	38095	44	14	32.71555	-103.14759
3002507416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-28	38095	40	13	32.71914	-103.15189
3002507438	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-29	4149	18	5	32.71734	-103.17342
3002507444	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-29	4149	32	7	32.7119	-103.16265
3002507447	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-29	7003	22	6	32.71734	-103.17557
3002507463	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-30	6500	78	14	32.72461	-103.1883
3002507464	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-30	9215	114	19	32.71916	-103.19474
3002507473	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-30	7003	53	11	32.7119	-103.17986
3002507474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-30	7003	37	9	32.71734	-103.182
3002507487	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-30	8959	46	10	32.71373	-103.1926
3002507490	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-31	8959	75	13	32.71008	-103.17986
3002507491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-31	8959	40	9	32.70979	-103.18629
3002507492	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-31	8959	54	11	32.70495	-103.1859
3002507493	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-31	8959	34	8	32.70722	-103.17984
3002507499	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-31	8959	65	12	32.70249	-103.18625

3002507507	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-31	8959	51	10	32.70249	-103.18829
3002507511	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-31	8959	89	15	32.7098	-103.1926
3002507516	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-32	7651	28	7	32.71009	-103.16265
3002507518	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 322-32	7651	47	10	32.70464	-103.16909
3002507525	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-32	7651	38	9	32.70827	-103.17126
3002507528	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-32	7300	54	11	32.70918	-103.17663
3002507533	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-32	10000	367	52	32.69917	-103.17121
3002507536	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-32	10000	367	52	32.69827	-103.16373
3002507543	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-33	10000	367	52	32.69828	-103.15944
3002507544	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-33	7015	41	9	32.70281	-103.16051
3002507547	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-33	10000	367	52	32.69828	-103.15515
3002507553	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-33	48133	51	19	32.70176	-103.14713
3002507554	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-33	10000	367	52	32.70558	-103.14649
3002507555	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-33	7015	21	6	32.7101	-103.15187
3002507559	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-33	7015	39	9	32.70465	-103.16051
3002507565	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 005P33	12000	180	24	32.6983	-103.14646
3002507571	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 002E34	12000	180	24	32.70557	-103.1422
3002507572	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 006M34	12000	180	24	32.6983	-103.14217
3002507587	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 022C03	12000	180	24	32.69467	-103.13788
3002507598	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 019A04	12000	180	24	32.69467	-103.14646
3002507603	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 020D03	12000	180	24	32.69467	-103.14217
3002507605	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 016D04	12000	180	24	32.69465	-103.15943
3002507614	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 014B05	12000	180	24	32.69554	-103.16911
3002507619	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 015A05	12000	180	24	32.69465	-103.16372
3002507629	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 018B04	12000	180	24	32.69466	-103.15075
3002509876	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-24	10000	304	44	32.73377	-103.20542
3002512489	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-28	7015	21	6	32.71192	-103.15187
3002512491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-19	8000	134	21	32.72642	-103.18629
3002512493	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-20	4149	9	3	32.72642	-103.17127
3002512494	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-27	46224	46	17	32.71829	-103.14303
3002512496	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-28	4149	41	8	32.71191	-103.16051
3002512498	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-28	7015	20	6	32.71192	-103.15406
3002512507	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-32	7015	58	11	32.70465	-103.16265
3002512758	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-31	8959	26	7	32.70279	-103.17981
3002512768	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 017C04	12000	180	24	32.69466	-103.15514
3002523007	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 121-32	7150	26	7	32.70623	-103.17769
3002523035	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-32	10000	367	52	32.70189	-103.17204
3002523081	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-24	10000	304	44	32.73468	-103.19825
3002523130	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 424-32	10000	367	52	32.70569	-103.16373
3002523246	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 142-28	4800	47	9	32.71301	-103.1592
3002523263	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 123-33	7015	18	6	32.70556	-103.15943
3002523277	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 132-28	4149	11	4	32.71617	-103.15914
3002523304	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 243-28	4149	14	4	32.71307	-103.15576
3002523309	STATE LAND SECTION 32 009	169	8	2	32.70231	-103.16802

3002523330	STATE B HOBBS 006-33	139	6	2	32.7092	-103.15514
3002523334	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 526-33	48133	50	19	32.70556	-103.15622
3002523384	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-30	6500	17	5	32.72343	-103.18057
3002523415	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 086K10	53477	52	20	32.67376	-103.13899
3002523481	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 242-19	10000	304	44	32.72667	-103.18937
3002523522	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-24	10000	304	44	32.7374	-103.19899
3002523530	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 021C03	12000	180	24	32.69466	-103.13803
3002523919	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-29	6500	27	7	32.7228	-103.17771
3002524665	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-30	7003	76	14	32.71372	-103.18415
3002526120	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 125L03	12000	180	24	32.69094	-103.14185
3002528339	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 136F04	12000	180	24	32.68963	-103.15343
3002528340	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 137I04	12000	180	24	32.68868	-103.14816
3002528342	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 139F03	12000	180	24	32.69084	-103.13802
3002528349	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 146D09	12000	180	24	32.6817	-103.15762
3002528351	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 148A09	12000	180	24	32.6814	-103.14756
3002528352	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 149A09	12000	180	24	32.68152	-103.14558
3002528353	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 150M03	12000	180	24	32.68102	-103.14038
3002528356	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 153C09	43163	47	16	32.67887	-103.15671
3002528357	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 154B09	43163	52	16	32.67872	-103.1528
3002528358	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 155H09	43163	81	21	32.67874	-103.14944
3002528359	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 156H09	43163	43	15	32.67817	-103.14542
3002528363	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 160G09	43163	45	15	32.67512	-103.15223
3002528365	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 162H09	43163	53	17	32.6747	-103.14563
3002528410	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 233-33	7015	15	5	32.70302	-103.15354
3002528887	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 422-31	7300	44	10	32.70478	-103.1807
3002528941	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 323-29	4149	19	5	32.71853	-103.1697
3002528943	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 143-32	10000	367	52	32.6997	-103.17774
3002528964	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 122-28	3809	8	3	32.72115	-103.16089
3002528975	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 177D05	40892	45	14	32.69482	-103.17735
3002528977	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 179F05	40892	42	14	32.69236	-103.17062
3002528978	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 180B05	12000	180	24	32.69373	-103.16864
3002528980	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 183E05	40892	238	41	32.68947	-103.17409
3002528981	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 186E04	12000	180	24	32.68981	-103.16087
3002529199	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 312-33	12000	180	24	32.7106	-103.14989
3002529275	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 234-33	12000	180	24	32.70024	-103.15325
3002529892	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 221B04	57141	73	26	32.69347	-103.15374
3002529893	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 222L34	12000	180	24	32.70203	-103.14167
3002530258	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 212-32	7651	48	10	32.70923	-103.17265
3002530263	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 313-32	7651	46	10	32.70962	-103.16928
3002530308	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 433-33	10000	367	52	32.70156	-103.14753
3002531212	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 228D05	40892	46	14	32.69463	-103.175
3002531428	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 234F04	12000	180	24	32.68966	-103.15571
3002534372	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 523-33	7015	20	6	32.70553	-103.15359
3002534374	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 531-32	10000	367	52	32.70228	-103.16647

3002534375	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 542-32	10000	367	52	32.70099	-103.16364
3002534416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 545-33	7015	14	5	32.70574	-103.15117
3002534643	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 521-33	7015	71	13	32.70821	-103.15668
3002534644	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 544-29	4149	37	8	32.71347	-103.16494
3002534869	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 623-29	4149	14	4	32.71601	-103.17067
3002534983	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 713-30	6500	90	16	32.72229	-103.18468
3002534993	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 524-33	12000	180	24	32.70071	-103.15616
3002535332	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 621-30	6500	55	11	32.72302	-103.18872
3002535376	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 643-29	4149	9	4	32.71753	-103.16551
3002535384	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 634-29	4149	16	5	32.71307	-103.16828
3002535385	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 913-32	10000	367	52	32.70155	-103.17472
3002535450	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 612-24	10000	304	44	32.73405	-103.21161
3002535451	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 743-31	8959	33	7	32.70008	-103.18036
3002535452	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 834-32	4700	11	4	32.69913	-103.16921
3002535534	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 844-32	7651	13	5	32.69938	-103.16083
3002535541	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 533-29	4149	15	4	32.71739	-103.16775
3002536011	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 923-29	10000	188	28	32.71679	-103.17366
3002536213	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 539-24	10000	304	44	32.73122	-103.20192
3002536216	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 525-30	7003	40	9	32.71634	-103.18883
3002537102	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 617-30	9215	114	19	32.72309	-103.19293
3002537105	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 642-25	8959	31	7	32.71554	-103.19734
3002537118	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 641-25	10000	304	44	32.72299	-103.19839
3002537120	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 618-30	8959	94	16	32.71631	-103.19863
3002537127	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 615-19	10000	304	44	32.73882	-103.19444
3002537128	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 636-29	4149	12	4	32.72073	-103.17093
3002537154	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 616-19	10000	304	44	32.73057	-103.19347
3002537213	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 625-29	4149	11	4	32.72074	-103.17559
3002537235	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 627-19	10000	304	44	32.73071	-103.19152
3002537428	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 722-31	8959	32	7	32.70741	-103.18722
3002537435	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 943-19	7698	88	15	32.73332	-103.17953
3002537445	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 733-19	7698	58	11	32.73021	-103.1823
3002537474	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 721-29	4149	13	4	32.72342	-103.17274
3002537475	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 742-29	4149	12	4	32.72098	-103.16681
3002537481	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 731-25	10000	304	44	32.72321	-103.20230
3002538023	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 516-13	10000	304	44	32.74146	-103.2088
3002538071	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 646-13	10000	304	44	32.74112	-103.21256
3002538087	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 517-18	10000	304	44	32.74185	-103.19361
3002538110	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 529-18	7698	73	13	32.74225	-103.18945
3002538125	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 638-19	7698	78	14	32.73900	-103.18491
3002538518	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 645-13	10000	304	44	32.74221	-103.19915
3002538524	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 628-19	7698	44	10	32.73931	-103.18697
3002542541	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 250 (Prod ND TZ-3)(3P/10A)	12000	180	24	32.681894	-103.131032
3002542540	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 249 (Prod ND TZ-2) (49R)	12000	180	24	32.681894	-103.131032

3002542592	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 251 (Prod ND MOC-21) (205R)	12000	180	24	32.682981	-103.173875
3002539955	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 248	12000	180	24	32.68172	-103.16063
3002540816	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 831-13	10000	304	44	32.74529	-103.20877
3002540822	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 832-13	10000	304	44	32.74602	-103.19747
3002540834	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 833-18	10000	304	44	32.74581	-103.19343
3002541550	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 946-18	8000	55	11	32.74324	-103.18471
3002541551	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 947-19	8000	21	6	32.73944	-103.18292
3002541578	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 948-33	4000	8	3	32.705374	-103.15560
3002541643	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 949-33	4000	15	4	32.70496	-103.15533
3002542454	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 958-19	10000	164	24	32.73490	-103.18167
3002542485	NORTH HOBBS GRAYBURG SAN ANDRES 955-18	10000	164	24	32.74248	-103.18668
3002542470	NORTH HOBBS GRAYBURG SAN ANDRES 956-18	10000	164	24	32.74251	-103.18214
3002542471	NORTH HOBBS GRAYBURG SAN ANDRES 957-18	10000	164	24	32.74251	-103.18076
3002542490	NORTH HOBBS GRAYBURG SAN ANDRES 954-18	10000	164	24	32.74271	-103.18611
3002543026	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 663-24	10000	113	19	32.73761	-103.20235
3002543058	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 673-19	10000	164	24	32.73425	-103.19750
3002543099	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 0262	12000	180	24	32.68965	-103.158141
3002543107	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT SHU 272	12000	180	24	32.67761	-103.1409192
3002543106	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 0269	12000	180	24	32.68164	-103.1600064
3002543098	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 266	12000	180	24	32.68690	-103.1586272
3002543105	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 270	12000	180	24	32.68152	-103.1591982
3002543101	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 271	12000	180	24	32.681489	-103.1553843

Appendix 5:

List of Hobbs Area Produced Gas Injection Wells (Active) and 100 and 500 ppm

ROEs calculated using PHAST Version 6.7

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
3002505436	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-13	9000	205	30	32.74194	-103.20652
3002505437	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 141-13	9000	205	30	32.74194	-103.21081
3002505445	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-13	9000	205	30	32.74465	-103.19898
3002505477	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-24	9000	205	30	32.73922	-103.20973
3002505488	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-24	9000	205	30	32.72914	-103.20011
3002505491	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-25	9200	205	30	32.7237	-103.21075
3002507342	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-18	9200	193	28	32.74103	-103.18632
3002507358	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-19	9200	197	29	32.7374	-103.19255
3002507361	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 131-19	9000	205	30	32.73185	-103.19471
3002512732	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 441-13	9000	205	30	32.74103	-103.19683
3002526833	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 222-30	9200	169	25	32.72147	-103.19128
3002526935	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-30	9200	183	27	32.71485	-103.19136
3002527001	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 442-30	9200	141	21	32.71456	-103.1822
3002528343	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 140L04	12000	215	29	32.68599	-103.15751
3002528886	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 242-30	9200	183	27	32.71156	-103.19126
3002528942	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 233-30	9200	141	21	32.71775	-103.191
3002528982	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 188K05	12000	215	29	32.68601	-103.17287
3002529063	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-30	9200	193	28	32.72496	-103.19155
3002529064	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 113-30	9200	169	25	32.72191	-103.19518
3002529073	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 432-24	9000	205	30	32.73233	-103.19995
3002529098	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 442-24	9000	205	30	32.72897	-103.19645
3002529129	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 212-24	9000	205	30	32.73665	-103.20447
3002543039	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 24-669	9000	205	30	32.7342482	-103.1976505

Appendix 6:

List of Hobbs Area Facilities and Wells (Active)with a 100pm ROE

ROE calculated with PHAST Version 6.7 that includes a Public Area

API Number	Description / Well Number	H2S (ppm)	100 ppm ROE (ft)	500 ppm ROE (ft)	Latitude	Longitude
N/A	NORTH HOBBS UNIT CENTRAL TANK BATTERY	29000	734	99	32.71826667	-103.1794833
N/A	NORTH HOBBS UNIT CENTRAL TANK BATTERY	16000	332	43	32.71826667	-103.1794833
N/A	SOUTH HOBBS REMOTE HEADER 6	40892	166	57	32.691377	-103.173136
N/A	Production Test Header - Well Pad 4	12000	180	24	32.702262	-103.14316
N/A	Production Header - Well Pad 4	12000	235	32	32.702262	-103.14316
N/A	Production Test Header - Well Pad 3	12000	180	24	32.698377	-103.14291
N/A	Production Header - Well Pad 3	12000	215	29	32.698377	-103.14291
N/A	Production Test Header - Well Pad 2	12000	180	24	32.694884	-103.14249
N/A	Production Header - Well Pad 2	12000	235	32	32.694884	-103.14249
N/A	Production Test Header - Well Pad 1	12000	180	24	32.691103	-103.14251
N/A	Production Header - Well Pad 1	12000	215	29	32.691103	-103.14251
N/A	NORTH HOBBS SATELLITE 19 CO2	9000	338	45	32.72893611	-103.1898583
N/A	NORTH HOBBS SATELLITE 30 CO2	6400	245	35	32.715808	-103.182864
N/A	NORTH HOBBS SATELLITE 31 EAST CO2	7300	148	23	32.70381389	-103.1841889
3002505478	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 422-24	9200	180	27	32.73377	-103.19686
3002507342	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-18	9200	193	28	32.74103	-103.18632
3002507355	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 221-19	7698	70	13	32.73377	-103.18827
3002507358	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-19	9200	197	29	32.7374	-103.19255
3002507360	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-19	7698	82	15	32.73377	-103.18631
3002507362	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 231-19	9200	134	19	32.73186	-103.18828
3002507364	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-19	9200	176	26	32.72642	-103.1883
3002507369	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 311-19	9200	160	24	32.73652	-103.18631
3002507370	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 411-19	9200	193	28	32.73655	-103.18303
3002507412	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 331-28	48133	49	19	32.71555	-103.15187

3002507413	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-28	38095	44	14	32.71555	-103.14759
3002507416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-28	38095	40	13	32.71914	-103.15189
3002507463	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 211-30	6500	78	14	32.72461	-103.1883
3002507467	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 321-30	6500	54	11	32.71917	-103.18629
3002507553	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 431-33	48133	51	19	32.70176	-103.14713
3002507554	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 421-33	10000	367	52	32.70558	-103.14649
3002507565	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 005P33	12000	180	24	32.6983	-103.14646
3002507570	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 004K34	12000	180	24	32.70199	-103.13867
3002507571	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 002E34	12000	180	24	32.70557	-103.1422
3002507572	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 006M34	12000	180	24	32.6983	-103.14217
3002507587	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 022C03	12000	180	24	32.69467	-103.13788
3002507598	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 019A04	12000	180	24	32.69467	-103.14646
3002507603	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 020D03	12000	180	24	32.69467	-103.14217
3002507629	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 018B04	12000	180	24	32.69466	-103.15075
3002512489	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 341-28	7015	21	6	32.71192	-103.15187
3002512498	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 241-28	7015	20	6	32.71192	-103.15406
3002523530	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 021C03	12000	180	24	32.69466	-103.13803
3002523919	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 111-29	6500	27	7	32.7228	-103.17771
3002526120	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 125L03	12000	180	24	32.69094	-103.14185
3002528342	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 139F03	12000	180	24	32.69084	-103.13802
3002528351	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 148A09	12000	180	24	32.6814	-103.14756
3002528353	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 150M03	12000	180	24	32.68102	-103.14038
3002529063	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 112-30	9200	193	28	32.72496	-103.19155
3002529172	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 232-19	9200	193	28	32.73239	-103.1912
3002529199	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 312-33	12000	180	24	32.7106	-103.14989
3002529275	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 234-33	12000	180	24	32.70024	-103.15325
3002529893	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 222L34	12000	180	24	32.70203	-103.14167
3002529931	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 342-28	7015	14	5	32.71046	-103.15009
3002529932	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 412-33	10000	367	52	32.7056	-103.14606

3002530308	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 433-33	10000	367	52	32.70156	-103.14753
3002534416	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 545-33	7015	14	5	32.70574	-103.15117
3002534983	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 713-30	6500	90	16	32.72229	-103.18468
3002535332	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 621-30	6500	55	11	32.72302	-103.18872
3002537446	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 633-19	9200	169	25	32.73381	-103.18338
3002538110	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 529-18	7698	73	13	32.74225	-103.18945
3002538114	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 518-18	9200	201	30	32.74086	-103.19241
3002538125	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 638-19	7698	78	14	32.7390	-103.18491
3002538524	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 628-19	7698	44	10	32.73931	-103.18697
3002542541	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 250 (Prod ND TZ-3)(3P/10A)	12000	180	24	32.68189	-103.13103
3002542540	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT 249 (Prod ND TZ-2) (49R)	12000	180	24	32.68189	-103.13103
3002540859	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 945-19	9200	197	29	32.73371	-103.18272
3002541550	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 946-18	8000	55	11	32.74324	-103.18471
3002541551	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 947-19	8000	21	6	32.73944	-103.18292
3002542454	NORTH HOBBS GRAYBURG SAN ANDRES UNIT 958-19	10000	164	24	32.73490	-103.18167
3002542469	NORTH HOBBS GRAYBURG SAN ANDRES 953-18	9000	205	30	32.74250	-103.18342
3002542485	NORTH HOBBS GRAYBURG SAN ANDRES 955-18	10000	164	24	32.74248	-103.18668
3002542470	NORTH HOBBS GRAYBURG SAN ANDRES 956-18	10000	164	24	32.74251	-103.18214
3002542471	NORTH HOBBS GRAYBURG SAN ANDRES 957-18	10000	164	24	32.74251	-103.18076
3002542776	NORTH HOBBS GRAYBURG SAN ANDRES 959-18	9000	205	30	32.74271	-103.18628
3002542490	NORTH HOBBS GRAYBURG SAN ANDRES 954-18	10000	164	24	32.74271	-103.18611
3002542456	NORTH HOBBS GRAYBURG SAN ANDRES 950-18	9000	205	30	32.74117	-103.18236
3002542478	NORTH HOBBS GRAYBURG SAN ANDRES 952-18	9000	205	30	32.74238	-103.18628
3002543107	SOUTH HOBBS GRAYBURG SAN ANDRES UNIT SHU 272	12000	180	24	32.6776135	-103.14091

Section V. Emergency Telephone Lists

This current H2S Contingency Plan is sent annually to the following:

- **Carl Chavez: CHMM, NMOCD Santa Fe, NM, (505) 476-3490**
- **Manny Gomez: Fire Chief Hobbs FD Hobbs NM, (575) 392-9265**
- **Lorenzo Velasquez: Department of Homeland Security, Hobbs NM, ((575) 391-2961**
- **Chris McCall: Police Chief, Hobbs PD, Hobbs NM, (575) 397-9265**
- **Gene Strickland: Hobbs School Dean, Hobbs NM, (575) 433-0100**
- **Oxy: Plants HSE, Production HES, Surface Lead, HSE Team Lead, workover/completions Specialist,**
- **Emergency Manager, Hobbs EOR HSE Advisor, Hobbs EOR Asset Lead**

OXY Permian Emergency Answering Service

CAPROCK ANSWERING SERVICE	575-397-8200/8255

FIELD OPERATIONS
EMERGENCY CALL-OUT LIST

Scott Hodges Lead Asset Manager Hobbs, NM	Office Cell	575-397-8211 432-238-4405
Alternate: Tony Aguilar HSE Advisor	Office Cell	575-397-8251 575-390-6312
Alternate: Kris Allen Surface Lead	Office Cell	575-397-8220 575-318-4763
Joshua Schut Leader Down Hole	Office Cell	575-397-8207 701-690-7053
Steven Sparks Logistic Coordinator	Office Cell	806-592-6482 806-598-1144
Nick Reid Logistic Coordinator	Office Cell	806-592-6420 806-891-1476
Alfredo Ceniceros Workover/Completion Specialist Senior	Office Cell	806-592-6715 806-215-2385
Merritt Talbott Mgr Comm & Public Affairs	Office Cell	713-552-8676 512-964-4718
Eric Moses Sr Dir Com & Public Affairs	Office Cell	713-497-2017 310-710-0743
Thomas Barton MBF Inspection Specialist	Cell	832-289-3623
Jared Tucker Well Performance Specialist	Office Cell	575-397-8223 575-499-4992
Justin Saxon Leader Well Surveillance	Office Cell	575-397-8206 806-215-3636
Command Center- Field	Office	575-391-4727
Command Center: Plant	Office	575-391-4728

PLANT OPERATIONS NHU/SHU RCF
EMERGENCY CALL-OUT LIST – Fax 806-592-7355

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
Jason Sisson	Lead Plant	NA	432-758-8640	806-549-3957
Ricard Alvarado	HSE Ops Specialist	NA	432-758-6808	432-209-2659
Jason Cary	HSE Specialist		432-758-8608	806-620-5501
Carl Morales	HES Team Lead		432-699-8397	325-207-3374
Richard Sanders	Operation Team Lead		575-391-4731	806-893-2233
Sarah Chaffin	Senior Counsel		713-513-6681	713-471-9129
Merritt Talbott	Mgr. Comm. & Public Affairs		713-552-8676	512-964-4718
Eric Moses	Sr Dir Com & Public Affairs		713-497-2017	310-710-0743

ENGINEERING SUPPORT

Name	Title	Office Phone	Home	Cellular
Greg Vencil	**Leader Facility Engineer**	**713-366-5110**	**NA**	**713-560-8064**
Chris Frei	**Engineer Sr. Facility**	**806-597-7363**	**NA**	**806-215-5772**
Braden Pate	**Engineer Process Sr.**	**432-699-4289**	**NA**	**281-896-6355**

HES SUPPORT PERSONNEL

Mark Gary HES Team Lead	Office Cell	432-699-8374 806-281-4919

OXY PERMIAN HOBBS/HOUSTON OFFICE

Scott Hodges Manager Asset Hobbs	Office Cell	575-397-8211 432-238-4405
Doug Fife HES Mgr. Houston Greenway	Office in Midland Cell Office in Houston	713-366-5650 432-254-0225 713-366-0225
Ryan Radicioni Director Business Area EOR	Office Cell	713-215-7895 832-580-8333

OXY PERMIAN HOUSTON OFFICE

Robert Peterson President and General Manager Permian EOR	Office Cell	713-366-5149 972-693-6428
Ryan Radicioni Director Business Area EOR	Office Cell	713-215-7895 832-580-8333
Doug Fife HES Mgr.	Office Cell	713-366-5650 432-254-0225

EMERGENCY SERVICES
OUTSIDE SUPPORT PHONE NUMBERS

MEDICAL

HOSPITAL NAME	ADDRESS	CITY	PHONE NUMBER
Lea Regional Hospital	5419 Lovington Highway	Hobbs, NM	575-492-5000
Memorial Hospital	209 NW 8th	Seminole, TX	432-758-5811
Nor-Lea General Hospital	1600 N. Main Street	Lovington, NM	575-396-6611
Yoakum County Hospital	412 Mustang Drive	Denver City, TX	806-592-5484
Brownfield Regional Medical Center	705 E. Felt	Brownfield, TX	806-637-3551
Covenant Health Systems	4000 24th Street	Lubbock, TX	806-725-6000
Covenant Medical Center	2615 19th Street	Lubbock, TX	806-725-1011
University Medical Center (county Hospital)	602 Indiana	Lubbock, TX	806-775-8200

AMBULANCE

Hobbs, New Mexico	911 or 575-397-9308
Lovington, New Mexico	911 or 575-396-2359
Eunice, New Mexico	911 or 575-394-3258
Seminole, Texas	432-758-9871
Denver City, Texas	806-592-3516

AIR AMBULANCE

Native Air Hobbs NM 88240 Dispatch Ctr. Response	888-538-6498 or 575-392-0109
AEROCARE Methodist Hospital Lubbock, Texas - Aerocare will respond to a call from any OXY personnel. ***ETA Lubbock to Hobbs 42 minutes. (Seminole Based)***	1-800-627-2376

LAW ENFORCEMENT 911

POLICE

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-397-9265
Eunice, New Mexico	911 or 575-394-2112
Lovington, New Mexico	911 or 575-396-2811

SHERIFF

CITY/COUNTY	PHONE NUMBER
Lea County Sheriff - Lovington	911 or 575-396-3611

STATE HIGHWAY PATROL

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-392-5588

FIRE DEPARTMENT

CITY	PHONE NUMBER
Hobbs, New Mexico	911 or 575-397-9265
Lovington, New Mexico	911 or 575-396-2359
Denver City, Texas	911 or 806-592-3516
Seminole, Texas	911 or 432-758-9871

GOVERNMENT AGENCIES

AGENCY	PHONE NUMBER
New Mexico Oil Conservation Division	575-393-6161
Bureau of Land Management	575-393-3612
Air Quality Bureau, Santa Fe, NM	505-476-4300
LEPC – Lorenzo Velasquez, Hobbs, NM	575-391-2961 Office 575-397-7413 Fax 575-605-6561 Cell
OEM – Charlie Pruitt	575-725-8633

AIRPORTS

CITY	PHONE NO.
Lea County Airport - Carlsbad Hwy	575-393-6612
Lubbock Preston Smith International Airport	806-775-2044
Midland International Airport	432-560-2200

POISON CONTROL

POISON CONTROL CENTER	1-800-432-6866

CHEMTREC	1-800-424-9300

District Manager NM Baker Hughes	575-390-8193

HOBBS EOR AREA OPERATIONAL PERSONNEL

EMPLOYEE	CELL PHONE NUMBERS	HOME PHONE NUMBERS
Daniel Schmitt	432-209-9976	NA
Henson, Willie	575-942-1928	NA
Hubbard, Glen	575-631-6881	NA
King, Jimmy	575-390-0068	NA
Michael Rendon	806-592-6201	NA
Jerry Velasquez	575-631-9054	NA
Baeza, Carlos	575-390-7879	NA
Kelcee Elston	575-390-3626	NA
Timothy Lowe	575-390-7214	NA
Daniel Tucker	575-499-4992	NA
Kris Allen	575-318-4763	NA
Noe Arce	325-338-6244	NA
Tiffany Roberts	903-215-6112	NA
Robert Ross	575-390-6360	
Kyle Martin	575-631-0272	NA
Donald Higgins	575-631-9886	NA
Stanley Pridgen	469-417-8948	
Hobbs Area Night Rider Joe Wilks	432-664-8155	NA
Hobbs Area Night rider Carl Zepeda	575-263-4615	NA

Hobbs Treating Facility

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
Ricky Sanders	Plant Team Lead	NA	575-391-4731	806-893-2233
Richard Alvarado	HSE Specialist	NA	432-758-6808	432-209-2659
Jason Cary	HSE Specialist	NA	432-758-8608	806-620-5501
RCF Command Center	Office		575-391-4728	

Gathering System Personnel:

Callout Service 806-592-9055

Name	Title	Residence Phone	Office Phone	Cellular or Phone patch or Pager
David(Chip) Mitchell	Measurement Tech 1		806-592-6325	806-332-8710
Dillon Hart	Measurement Tech 1			806-215-5531
Todd King	Ops Team Lead		806-592-6274	806-215-0183

CORPORATE SECURITY

Security Representative		
Jim Myers Vice President of Security	Office Cell/Pager	713-366-5897 310-739-8763
Alternate		
Frank Munoz Manager Security	Office Cell/pager	713-215-7157 818-203-2334
Jerry Byrne Manager Security	Office Cell/Pager	432-685-5740 432-638-4750
Orlando Munoz Sr. Security Investigator	Office Cell/Pager	713-350-4861 956-457-1444
Rene Medina Security Svcs Investigator	Cell	575-993-2111
Nicolas Jimenez Coord Security Svcs	Cell	575-605-2419

****Must be notified to assist in providing site security for all major emergencies and spills or response for any bomb threats or terrorist activities.**

CONTRACTOR SUPPORT

ELECTRIC SERVICE COMPANIES

COMPANY NAME	PHONE NUMBER(S)
TESSCO Hobbs NM	575-392-2008
Klein Electric – Hobbs, NM	575-393-3167 24 hour
Pyramid Automations/Electrical	432-661-1013

WATER SERVICE AND VACUUM TRUCKS

Key Energy Services – Hobbs , NM	575-397-4994 24 hour
Maclaskey Oilfield Services Hobbs, NM	575-393-1016 24 hour
Pate Trucking	575-397-6264 24 hour
Globe Trucking Answering Service	575-391-8858

ROUSTABOUT CREWS

Banta Oilfield Service – Hobbs, NM	575-393-3875 24 hour
CJR Contractors – Denver City, TX	806-592-2558 24 hour or 592-2232
TexMex Rentals LLC – Hobbs, NM	575-492-0888

DIRT WORK EQUIPMENT

Banta Oilfield Service – Hobbs, NM	575-393-3875 24 hour
GCI – Hobbs, NM	575-397-4541 24 hour
Dirt Works	575-631-8866
TexMex Rentals LLC – Hobbs, NM	575-492-0888

WELDERS

Custom Welding - Hobbs, NM	575-393-5904 24 hour
M3 Roustabout Services Denver City TX	806-215-7631
Smith & Sons Hobbs, NM	575-631-5045 or 575-631-6407

SAFETY EQUIPMENT

DXP - Indian Fire and Safety – Hobbs, NM	575-393-3093 24 hour
Legacy Safety – Hobbs, NM	575-393-7233

CO2 SUPPLY

Trinity Pipeline	432-297-1004 24 hour
Billy Trull	432-661-1412
Ty Houston	432-528-7886

OUTSIDE PRODUCING COMPANIES

Apache Corp	Office Phone Answering Service	575-394-2743 1-888-257-6840
Chevron	Answering Service	Not Available
CHI Operating	Emergency Number	575-748-1691 24 hour
Chi Operating	Sunny Mann	432-634-7062
Conoco/Phillips Pipeline	Supply/Transportation Goldsmith	800-332-9449
DCP Midstream	Office Phone After Hours Linam Office	800-847-6427 575-391-5793
Targa	Office Chris Price Raul Gibson	575-393-2823 575-602-6005 432-308-9288
Enterprise (NGL Line from RCF)	Chaparral Pipeline Emergency Number	1-800-666-0125
Equilon Shell	Office Phone	Not Available
Intrepid Operating	Emergency Number	432-699-4304
Legacy Reserves	Call for Emergency Manuel Sorino Production/Foreman	432-269-8806
NNG (RCF Fuel Gas)	Emergency Number	1-888-367-6671
Texland Petroleum	Levelland Emergency After Hours (24 Hours) Raul Alvarado Operator Ronnie McCracken Foreman	806-894-4316 806-781-5625 432-894-1466
Trinity Pipeline (CO2) Supply	Emergency/office Number Ty Houston Billy Trull	432-297-1004 432-528-7886 432-661-1412
Zia Natural Gas	Office/Emergency	575-392-4277
Plains Pipeline	24 hr Answering Serv. Tony Puckett Director of Regulatory Safety	800-708-5071 713-306-3298