

Emergency Response Plan and Fire Protection Plan (ERP)

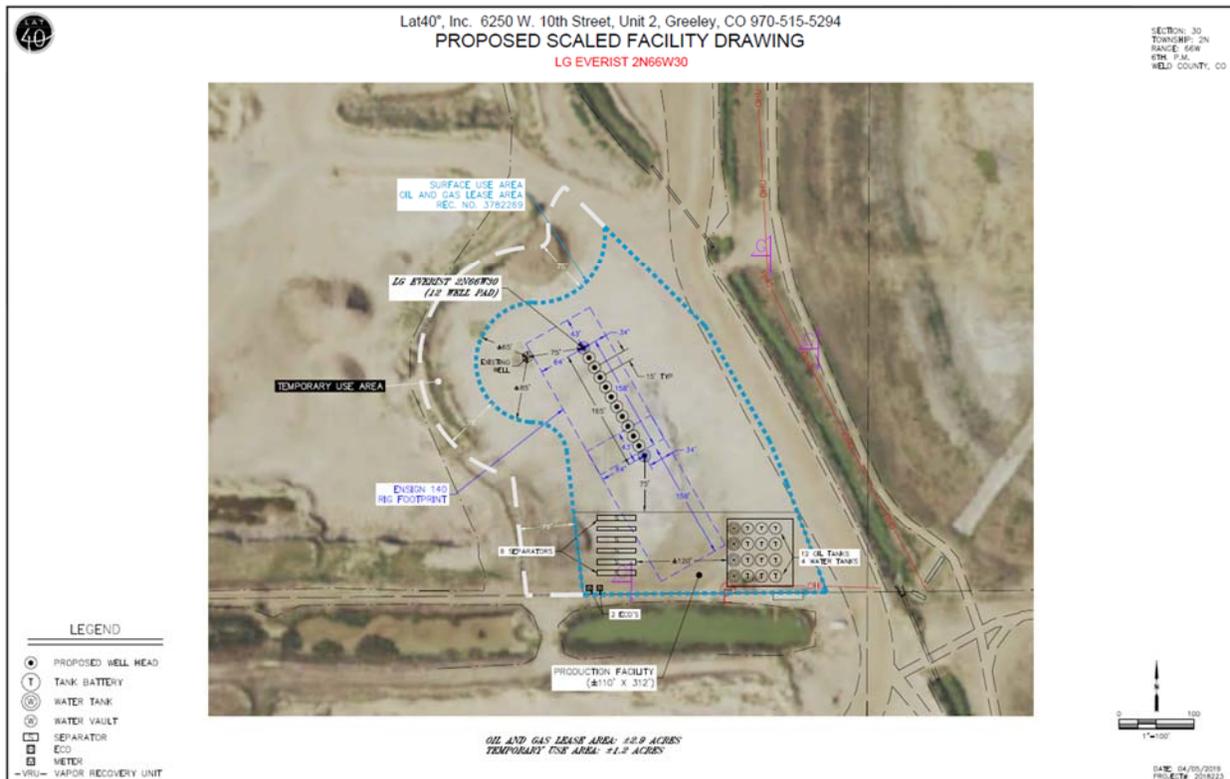
Petro Operating Company, LLC

LG Everist Pad – NWNW Sec. 30 – T1N – R66W
Fort Lupton, CO

Scope

Petro Operating Company (POC) plans to drill a total of twelve wells within the City of Ft. Lupton and the boundaries of the Ft. Lupton Fire Protection District. POC’s Emergency Response and Fire Protection Plan (the Plan) addresses potential risks and emergency response issues associated with the drilling, completion, and production of these oil and gas wells. Please refer to Section 6 for a detailed plan of operations.

Figure 1: Planned Site Design





Regulatory Requirements

This Plan has been prepared in compliance with the land use regulations of the City of Ft. Lupton. Incorporated into the Plan are Best Management Practices (BMPs) and safety, health, fire prevention, and environmental regulations of the Colorado Oil and Gas Conservation Commission (COGCC).

This ERP has been developed specifically for the POC Operating LG Everist location. It will be updated on an annual basis in January of each year or as conditions change, including personnel changes, ownership change, or substantial changes in process equipment.

Location of Project and Directions to Site

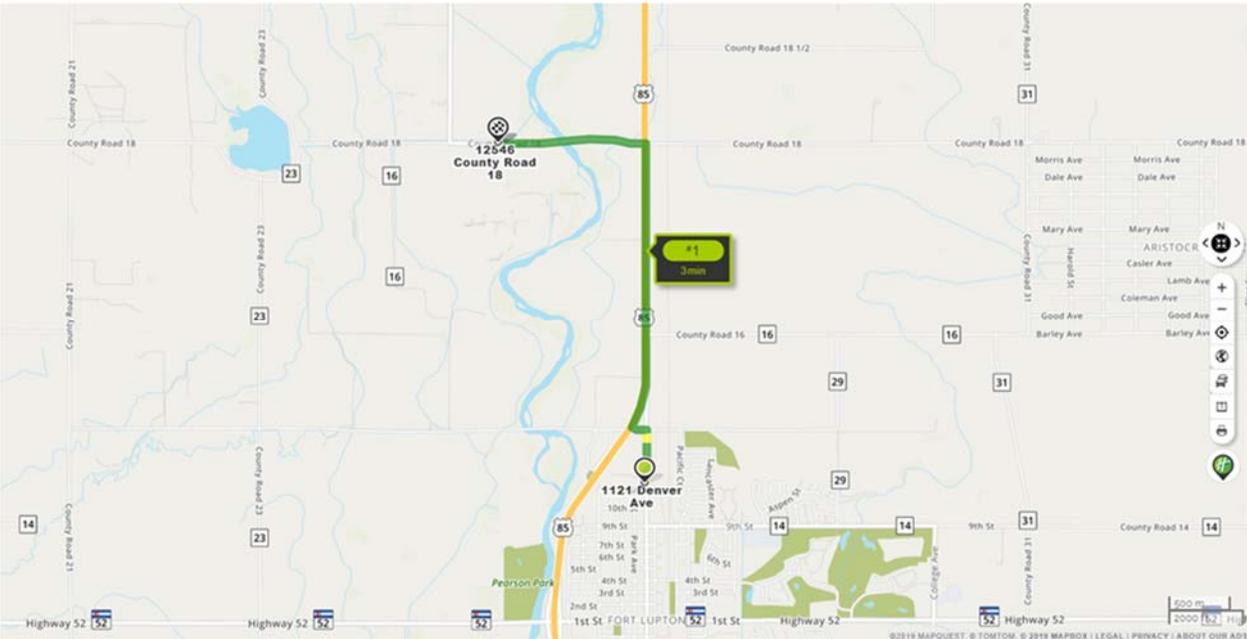
The lat/long of the well pad is 40.11271, -104.82481.

The project is located in the NWNW, Section 30, Township 2 North, Range 66 West, 6th P.M., Weld County, Colorado, in the LG Everist Fort Lupton Gravel Pit. The well pad location and directions necessary for access by emergency responders are presented below. The well pad does not have a street address assigned to it yet, however the LG Everist Ft. Lupton Gravel Pit is located at 12546 CR 18.

Name of Site	Location	Directions to Site from FLFPD Station 1, 1121 Denver Avenue
LG Everist Pad	NWNW Sec. 30 T1N R66W Lat 40.11271 Long -104.82481	Go North on Denver Avenue to Highway 85 northbound. Travel North 1 mile on Highway 85 to CR 18. Turn left, go West on CR 18 for 3/4 miles. Turn left, go South into LG Everist Gravel Pit. Travel south 2/10 miles on access road to well pad on right.



Figure 2: Emergency Response Route



All roads and access point will be constructed to a minimum standard of 20 feet wide and will be capable of supporting 75,000 lbs. The road access and fire truck access route maps are shown below.



Figure 3: Road Access Map

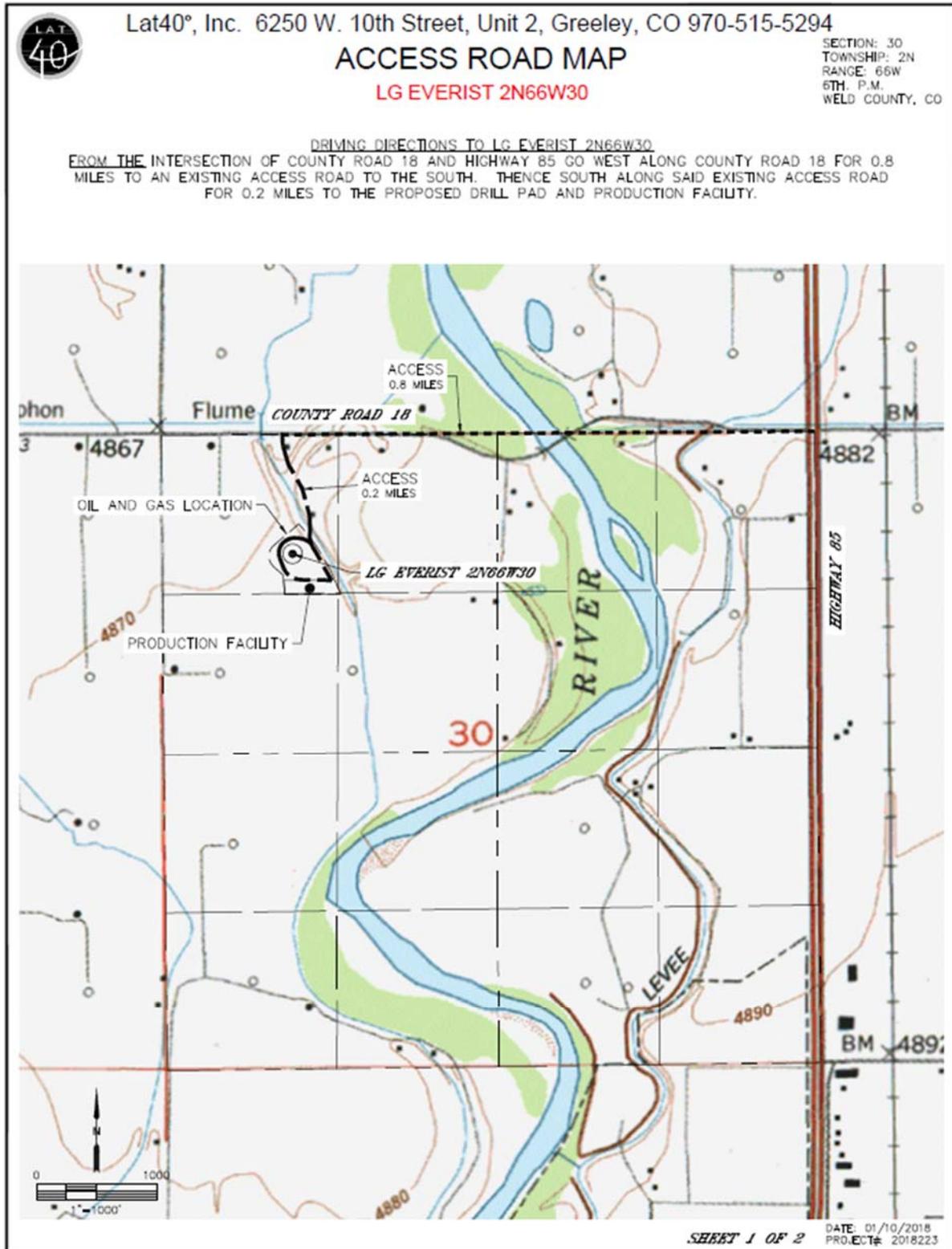




Figure 4: Road Access Map with Site Detail

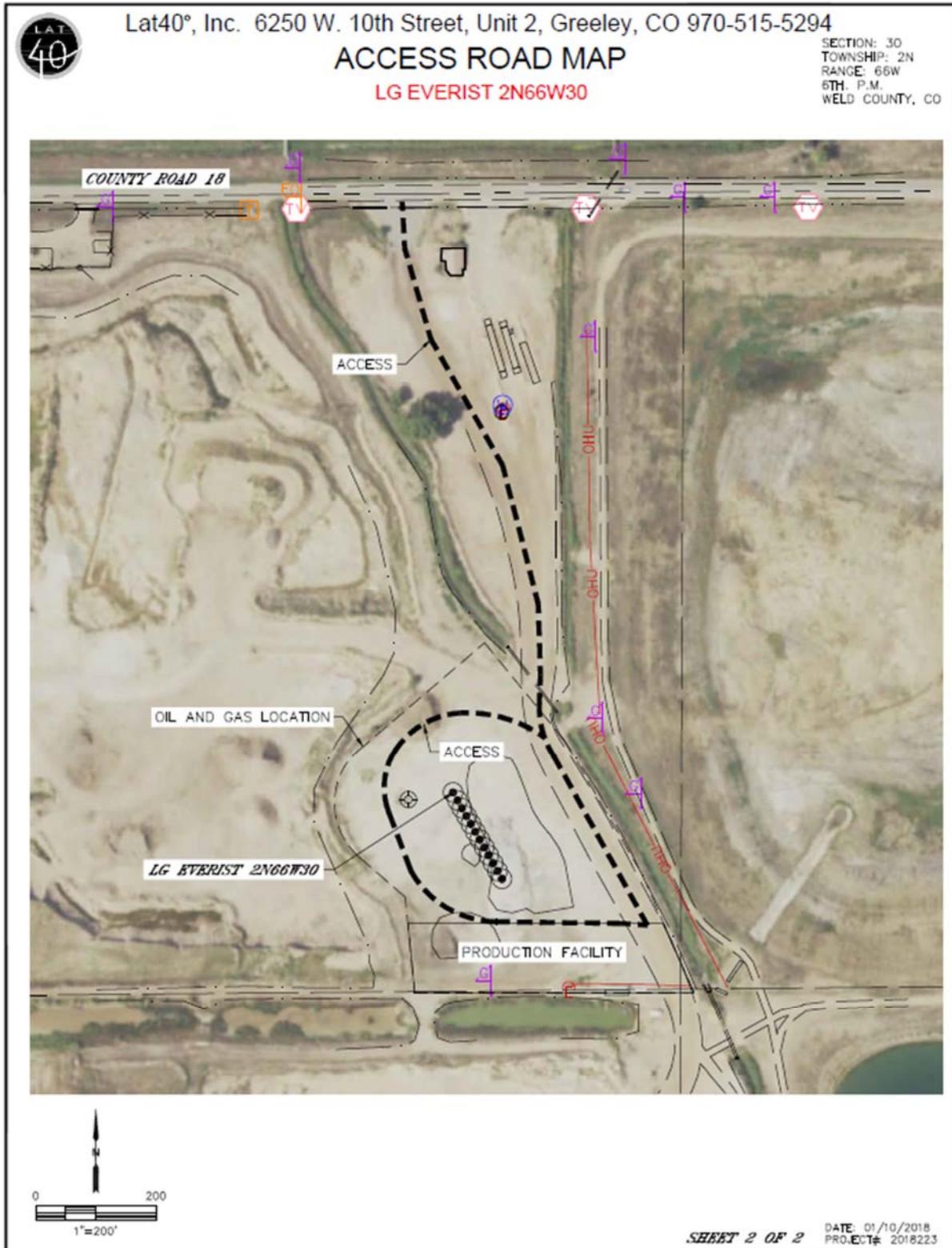
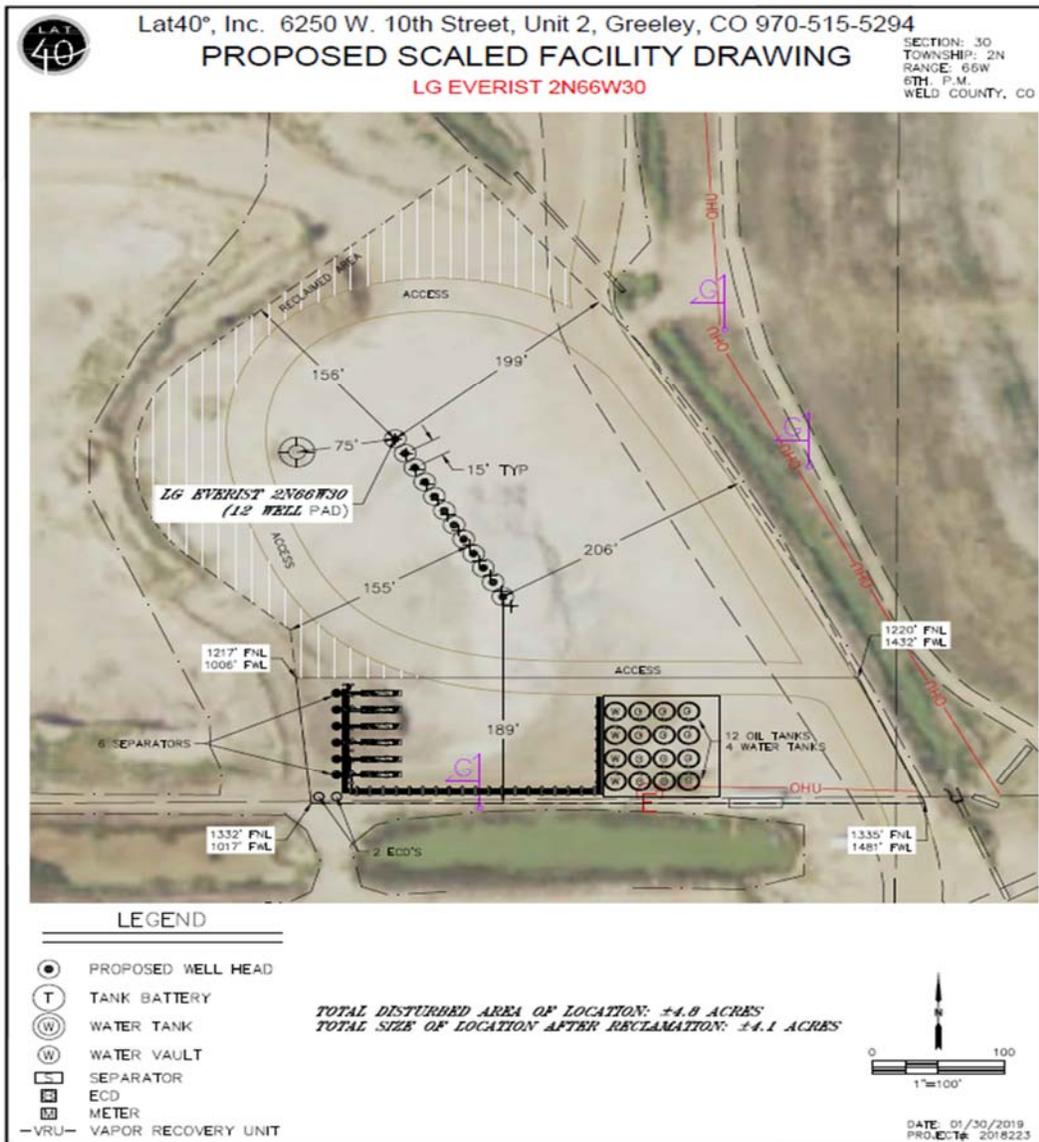




Figure 5: Detailed Wellhead and Production Equipment Layout



Upon completing facility construction, POC will submit as-built drawings in AutoCAD or other format compatible with the City’s current adopted coordinate system. As-built drawings shall depict the locations and type and type of above and below ground facilities including sizes, and depth below grade of all oil and gas gathering and transmission lines and associated equipment, isolation valves, surface processing equipment, as well as transportation routes to and from exploration and development sites, and dry and wet utility infrastructure and/or surface water bodies, for emergency response and management purposes.



Emergency Response & Contact List

All drilling, completion, and production activities will be performed by POC and its contractors. Emergency response personnel will have unrestricted access to all wells and production facilities. Production Facilities access will be controlled by fencing and/or keypad lock. Access code and/ or keys will be shared with Emergency Responders via Knox Box or similar method. Location signage will indicate POC's 24/7 emergency response number.

Prior to starting each operations phase (Construction, Drilling, Completion, and Production) the Operator will supply a current emergency contact list to the City and FLFPD. The contact list will be updated as changes in personnel occur.

Operations Managers have been assigned for each phase of the development. The development process will be carried out in a manner that is protective of public health, safety, welfare, and the environment; minimizing the requirement for emergency response activities. In the event of fire, injury, spill or release of hazardous materials, or any other incident requiring and emergency response, the following contacts will be made:

Emergency Response Contact List

24 hour Emergency Contact Number: (303) 484-9105

Key Company Personnel

1. Roger Parker: (303) 475-5640; 9033 E. Easter Place Suite #112, Centennial, CO, 80112
2. Andy Peterson: (970) 203-4263; 1707 Cole Blvd Suite 200, Golden CO 80401
3. Alex Corey: (713) 408-7174; 1707 Cole Blvd Suite 200, Golden CO 80401
4. Jim Berger: (970) 481-6372
5. Matt Kalb: (970) 630-3429

Emergency Response Contact List by Operations Phase

PETRO OPERATING COMPANY CEO	Roger Parker	(303) 475-5640	Primary Contact For Project
POC Operations Manager Location Construction	Jim Berger	(970) 481-6372	Primary Contact for Lease Construction
POC Operations Manager – Drilling	Siji Chaparro – IPT Drilling Superintendent	(720) 951-8838	Primary Contact for Drilling Operations
POC Operations Manager Drilling	John Kroshus – IPT Drilling Manager	(720) 420-5741 (720) 280-1536	Secondary Contact for Drilling Operations.
POC Operations Manager Fracturing	Todd Poulson – IPT Frac Manager	(405) 834-4459	Primary Contact for Fracturing Operations
POC Operations Manager Completions And Flowback	Matthew Hoffman	(970) 380-0811	Primary Contact for Completion and Flowback Operations
POC Operations Manager Facilities Construction	Jim Berger	(970) 481-6372	Primary contract for Facilities Construction



POC Operations Manager Production Operations	Matt Kalb	(970) 630-3429	Primary Contact for Production Operations
Surface Owner	City of Aurora – Lyle Whitney, Sr. Resources Specialist	(720) 859-4372	Landowner Contact

Incident Response Matrix

Incident	Contact	Phone Number	Comments
Fire, explosion, serious injury	Fort Lupton Fire Protection District	911	Non-Emergency Number (303) 857-4603
	Weld County Regional Communications Center	911	Non-Emergency Number (970) 350-9600
	COGCC	(303) 894-2100	
Fire, explosion, associated with loss of well control	Fort Lupton Fire Protection District	911	Non-Emergency Number (303) 857-4603
	Weld County Regional Communications Center	911	Non-Emergency Number (970) 350-9600
	COGCC	(303) 894-2100	
	Wild Well Control	(281) 784-4700	Commercial well control contractor
Spill or release	COGCC	(303) 894-2100	E&P waste exceeding 5 bbls or all spills that impact surface or ground water will be reported.
	Fort Lupton Fire Protection District	911 or (303) 857-4603	Reportable spill quantities of CERCLA hazardous substances.
	Colorado Department of Public Health and Environment	(303) 692-2000	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
	US EPA - Region 8	(303) 312-6312	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.
	EPA National Response Center	(202) 260-4610 (800) 227-8914	Reporting required for spills impacting surface water or for reportable quantity spills of CERCLA hazardous substances.

If a fire or explosion were to occur, field personnel are instructed to:

- Sound the alarm appropriate for the current operations phase,
- Muster at the appointed site and insure all personnel are accounted for
- Assess the situation to determine whether available site resources are adequate to control/mitigate the hazard. If so then proceed with control and mitigation. Contact POC Management when possible.
- If available resources are not adequate to control/mitigate the hazard then notify the relevant agency and mobilize companies and personnel for assistance. Inform POC Management.



Spill & Release Response

All activities will comply with federal and state spill response/reporting requirements and be operated in a manner that prevents spills and releases of crude oil, natural gas, produced water and other wastes to the environment. POC employs a formal spill response plan and reporting guidelines. All POC field employees and contractors are provided with annual spill response training. In addition, all tank batteries comply with EPA Spill Prevention Control and Countermeasure (SPCC) requirements. A complete SPCC Plan will be submitted to the City within 6 months of first production from the site.

During initial production and flowback (60 – 90 days) the operator will have personnel onsite 24 hours a day, 7 days a week. During this time the wells achieve maximum flow rates and will be monitored with personnel onsite around the clock to insure no spills occur. Onsite personnel will have the ability to shut the wells in if needed.

All tanks will be equipped to monitor fluid levels and to notify the operator of any potential leaks or potential overflow conditions and flow will be automatically shut down to the affected tank. In addition, all tanks will have automatic overflow protection which diverts produced fluids to a backup tank. Major process upsets or high tank conditions will trigger a complete shut in of all producing wells.

If a spill or release were to occur, field personnel are instructed to:

- Assess immediate danger or threat to health, safety, and welfare and contact emergency responders, if appropriate;
- Locate and stop the source of the spill, if safe to do so;
- Report the spill to the Operations Manager and arrange for additional response support, including contractor support;
- Take whatever steps are necessary to prevent the spill from impacting surface water, public health, safety, and welfare; and,
- Report the spill to POC management, who will coordinate follow-up spill cleanup and environmental assessment activities and who will report the incident to appropriate authorities.



Safety and Fire Prevention Guidelines

POC and its contractors will employ best management practices during the drilling, completing and production of its wells and will comply with all COGCC rules concerning safety and fire relating to oilfield development.

- POC employees and contractors will be familiar with the COGCC rules and regulations concerning safety and fire prevention as they apply to their specific job duties;
- All facilities will be visited at a minimum daily by POC employees and/or contractors. Unsafe or potentially unsafe conditions will be reported immediately to the Operations Manager.
- POC will utilize automation equipment to monitor production on the site in real time. In the event of an emergency the operator will be capable of remotely shutting in wells and facilities.
- Accidents that result in significant injury or property damage will be reported to the COGCC and the City within 24 hours;
- POC and its contractors will cooperate fully with local and state emergency responders;
- Vehicles not involved in drilling, production, or well servicing operations will be kept at least 100' from the well head, or a distance equal to the height of the drilling derrick, whichever is greater.
- Appropriate weed abatement measures will be taken prior to and during drilling, workover, and production operations to minimize fire danger;
- The drilling rig shall be positioned a minimum distance of 200' from any occupied building, public road, major above ground utility line, or railroad;
- Drilling and Well Servicing contractors will place a sign or marker at the intersection of the access road and County Road 18. The sig or marker will include emergency contact telephone numbers;
- During well drilling and well servicing operations, a safety valve with connections suitable for use with each size and type of tool joint or coupling being used will be present on the rig floor;
- The drilling rig substructure, derrick, or mast will be designed and operated to prevent the accumulation of static charge;
- Appropriate emergency response numbers will be posted at the drilling and service rig as well as detailed information identifying access or evacuation routes, and health care facilities to be used in the event of an emergency.
- The site will be fenced and locked for security purposes. All gates will be equipped with Knox padlocks or Knox Box to allow access for emergency response personnel.



- Prior to well servicing operations, the well's pressure will be checked and appropriate steps taken to remove pressure or operate safely under pressure before beginning servicing operations;
- Appropriate blowout prevention equipment (BOPs) will be utilized during well drilling, completion, workover, or servicing activities, as required by COGCC Rule 317, and in accordance with American Petroleum Institute (API) RP-53: Recommended Practices for Blowout Prevention Equipment Systems.
- BOP equipment will be inspected daily and a preventer operating test shall be performed on each round trip (not to exceed more than once per 24 hour period). Notes of the tests shall be made on the daily report;
- All fittings, valves, and unions connected to the BOP, well casing, casing head, drill pipe, or tubing will have a working pressure rating suitable for the maximum anticipated surface pressure and will be maintained in good working order;
- The BOP will contain pipe rams to enable closure of the pipe being used as well as blind rams to close upon the open hole. All choke and kill lines will be anchored or secured;
- All rig employees shall have instruction in how to operate the BOP system;
- All wells and tank batteries will be kept free of weeds, debris, surplus equipment, and surplus vehicles;
- Above ground storage tanks (ASTs) for storage of crude oil and hydrocarbon condensate will be constructed of materials compatible with the materials stored in accordance with appropriate API and Underwriters Laboratories, Inc, standards;
- ASTs will be located at least two tank diameters or 350' feet, whichever is smaller, from property boundaries;
- ASTs will be located at least one-sixth the sum of their diameters apart;
- ASTs will be located at least 1000' feet from residences, normally occupied buildings, or well defined normally occupied outside areas;
- A metal containment structure or berm sufficient to contain the contents of the largest AST will be constructed and maintained at each tank battery, and no ignition source will be located within the berm;
- ASTs will be located at least 75' feet from the wellhead, any fired vessel, or other ignition source;
- Hatches on all ASTs will be kept closed when not in use;
- All fired vessels will be located at least 75' feet from the wellhead;



- Production facilities will be fenced to prevent access from the public. POC will comply with all IFC 2012 Fire Codes, including additional labeling of the tanks and storage areas. Emergency Response teams will have access to the facilities at all times.
- The required information will be either placards on the storage tanks and containers, or signage at the facility. The information will contain the following language: “FLAMMABLE-KEEP FIRE AND FLAME AWAY”. Location signs will be posted and maintained identifying the wells, POC as the operator, emergency contact telephone numbers, and directions to the facility;
- All valves, pipes, and fittings will be securely fastened and inspected at regular intervals to ensure they are maintained in good working order;
- Smoking will be prohibited in the vicinity of any fire hazard and signs will be posted to state “No Smoking or Open Flame”;
- Adequate fire extinguishers will be carried in every field vehicle, plainly labeled as to their type and method of operation, and field personnel will be trained in their use; and,
- In the unlikely event of a blowout the operator will not use foam to fight the fire. The operator will utilize contract well control experts to secure the well and extinguish the fire. The operator does not expect FLFPD personnel to engage in the well control activities unless mutually agreed upon.
- The facility will be equipped with Alarms, Muster Stations and Wind Socks
 - Note: Alarms and Muster Station will vary by operational stage; the operator will cover these in the pre job safety briefing prior to starting work on each phase.

Hydrogen Sulfide

There is no anticipated Hydrogen Sulfide on this location. All producing reservoirs are normally pressured and POC will utilize the 2 barrier (primary and secondary) method on all reservoir operations.

Material Safety Data Sheet

Material Safety Data Sheets (MSDS) for hazardous materials used during the drilling, completion, and production processes will be onsite during the relevant operations and available upon request. This includes crude oil and hydrocarbon condensate stored in the ASTs. Please contact Roger Parker at (303) 475-5640 for copies of the MSDS.

Emergency Response Expenses and Damages

POC will be obligated to reimburse the appropriate emergency agencies for expenses and damages resulting from the Operator's operations, to the extent required by Colorado State Statutes.