THE PROPOSED

WHITEWATER UNIT

MASTER DEVELOPMENT PLAN

Drafted by
Fram Operating, LLC
30 E Pikes Peak Ave
Suite 287
Colorado Springs, Colorado 80903
Phone: (719) 355-1320
Fax: (719) 314-1362
Table of Contents

1.0 Introduction ........................................................................................................................................... 1
2.0 History of the Field ................................................................................................................................ 2
3.0 The Proposed Action ............................................................................................................................. 3
  3.1 Schedule ............................................................................................................................................. 3
  3.2 Construction ....................................................................................................................................... 3
  3.3 Drilling and Completion ....................................................................................................................... 3
  3.4 Production – Operation and Maintenance .......................................................................................... 5
    3.4.1 Surface Facilities ..................................................................................................................... 6
    3.4.2 Workovers or Recompletion ................................................................................................. 8
  3.5 Abandonment and Reclamation ...................................................................................................... 8
    3.5.1 Well Plugging and Abandonment ....................................................................................... 8
    3.5.2 Reclamation ........................................................................................................................... 8

List of Figures

Figure 1 The Whitewater Area .................................................................................................................... 1

List of Tables

Table 1 Name and Location of Proposed Well Pads by Lease Number ................................................. 2
Table 2 Proposed Short-Term and Long-Term Disturbance by Project Component ........... 3

List of Attachments

Attachment A Maps
Attachment B Well Pad Layout and Facilities Layout Diagrams

List of Appendices

Appendix A 13-Point Surface Use Plan
Appendix B 9-Point Drilling Plan
1.0 INTRODUCTION

Fram Operating, LLC (Fram) is proposing a four-year program of oil exploration and development within the Whitewater Unit in Mesa County, Colorado (see Map 1 in Attachment A). The Whitewater Unit consists of approximately 90,400 acres containing a mixture of public, split estate, and private lands in Mesa and Delta counties, Colorado (see Map 2 in Attachment A). The project will be located about 15 miles east and southeast of the City of Grand Junction. The Whitewater Unit is bounded in the northeast by the Mesa Plateau, to the southeast by the City of Delta, to the southwest by Highway 50 running parallel to the Gunnison River, and to the northwest by the City of Grand Junction (Figure 1). The leases that are part of the proposed four-year program are in the northern half of the Whitewater Unit and are within the following Townships in Mesa County, Colorado:

<table>
<thead>
<tr>
<th>6th Principal Meridian</th>
<th>T 12 S, R 97 W</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T 12 S, R 98 W</td>
</tr>
<tr>
<td></td>
<td>T 13 S, R 98 W</td>
</tr>
<tr>
<td></td>
<td>T 13 S, R 97 W</td>
</tr>
<tr>
<td>Ute Meridian</td>
<td>T 1 S, R 2 E</td>
</tr>
<tr>
<td></td>
<td>T 2 S, R 2 E</td>
</tr>
</tbody>
</table>

Figure 1 The Whitewater Area
The proposal consists of constructing, drilling, completing, operating, and abandonment of up to 108 wells. The wells will be drilled on twelve new or existing well pads (see Table 1). This proposal also includes oil, gas, and water gathering pipelines, and access roads to support drilling, completion, operation, and abandonment of the proposed wells.

### Table 1

<table>
<thead>
<tr>
<th>Proposed Well Pad</th>
<th>Surface/Mineral Ownership</th>
<th>Location</th>
<th>Lease Number</th>
<th>Lease Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal 2-2-2-1</td>
<td>Private/Federal</td>
<td>Section 2, T2S, R2E</td>
<td>COC-61847</td>
<td>06/01/98</td>
</tr>
<tr>
<td>Federal 12-97-30-1</td>
<td>Federal/Federal</td>
<td>Section 30, T12S, R97W</td>
<td>COC-62810</td>
<td>06/01/99</td>
</tr>
<tr>
<td>Federal 13-97-8-2</td>
<td>Federal/Federal</td>
<td>Section 8, T13S, R97W</td>
<td>COC-63027</td>
<td>01/01/00</td>
</tr>
<tr>
<td>Federal 13-98-12-2</td>
<td>Federal/Federal</td>
<td>Section 12, T13S, R98W</td>
<td>COC-63033</td>
<td>01/01/00</td>
</tr>
<tr>
<td>Federal 12-97-7-1</td>
<td>Federal/Federal</td>
<td>Section 7, T12S, R97W</td>
<td>COC-63929</td>
<td>09/01/00</td>
</tr>
<tr>
<td>Federal 1-2-15-1</td>
<td>Federal/Federal</td>
<td>Section 15, T1S, R2E</td>
<td>COC-64949</td>
<td>06/01/01</td>
</tr>
<tr>
<td>Federal 1-2-16-1</td>
<td>Federal/Federal</td>
<td>Section 16, T1S, R2E</td>
<td>COC-64950</td>
<td>06/01/01</td>
</tr>
<tr>
<td>Federal 1-2-22-1</td>
<td>Federal/Federal</td>
<td>Section 22, T1S, R2E</td>
<td>COC-64951</td>
<td>06/01/01</td>
</tr>
<tr>
<td>Federal 1-2-25-2</td>
<td>Federal/Federal</td>
<td>Section 25, T1S, R2E</td>
<td>COC-64952</td>
<td>06/01/01</td>
</tr>
<tr>
<td>Federal 1-2-26-2</td>
<td>Federal/Federal</td>
<td>Section 26, T1S, R2E</td>
<td>COC-64952</td>
<td>06/01/01</td>
</tr>
<tr>
<td>Federal 1-2-33-1</td>
<td>Federal/Federal</td>
<td>Section 33, T1S, R2E</td>
<td>COC-64952</td>
<td>06/01/01</td>
</tr>
</tbody>
</table>

The Grand Junction Field Office (GJFO) of the Bureau of Land Management (BLM) administers the federal mineral estate in the Whitewater Unit. Private leases are also contained within the subject area.

### 2.0 HISTORY OF THE FIELD

Initial drilling within the Whitewater Unit was done in an exploration program executed in the 70’s and early 80’s when Mitchell Energy drilled seven wells in 1974 and 22 wells from 1979 through 1981. In 2002 and 2003, Evertson Operating drilled an additional seven wells, and South Oil Company and Aspen Well Drilling drilled 11 wells in 2005. During this prior drilling, hydrocarbons, primarily natural gas, were encountered in all wells within the Dakota and Morrison formations (although a few wells did encounter oil within the Dakota Formation). However, pipelines did not exist and the small volumes were not significant to warrant a development. Therefore, all of the wells were plugged and abandoned. In 2009 and 2010, Fram Operating, LLC drilled seven wells, two of which are producing.

The Trans-Colorado gas pipeline (TSP) was built in 1996 through the Whitewater Unit and is connected to the unit at two gathering stations, providing a ready sales channel. The TSP is connected to the Rocky Mountain Express (REX) and provides a secure and cost efficient sales channel for the Whitewater gas to the Eastern coast of the USA. Because of the presence of inert gases nitrogen and carbon dioxide in the produced natural gas and the current price of natural gas, it is not economically viable to produce natural gas from the unit at this time. The inert gas content in the gas is too high and will require expensive treating. In addition, compression is necessary to transport natural gas and air permits are required for the compressor stations. Fram applied for an air permit from the Colorado Department of Health and Environment (CDPHE), and is unsure when the permit may be issued.
3.0 THE PROPOSED ACTION

Due to the lack of sustained production, Fram perceives this area as an exploratory prospect. Fram has discovered oil in the eastern edge of the Whitewater Unit in the Dakota Formation; however, Fram is investigating to determine if it has commercial potential. Currently, the Federal 12-2 well and the Mansur 33-1-K are both producing oil from the Dakota Formation. Initially, exploration of the oil will be accomplished through vertical wells and if the wells prove to be productive, later development will include horizontal wells. If the market sustains favorable conditions, Fram proposes to explore oil production in the Dakota Formation with four new well pads in the first year and eight new well pads in the second year, with up to 9 wells per pad not to exceed 108 wells total. See Map 1 in Attachment A and Table 2 below.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Length (miles)</th>
<th>Width (feet)</th>
<th>Short-Term Disturbance (Acres)</th>
<th>Long-Term Disturbance (Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Pads</td>
<td>N/A</td>
<td>N/A</td>
<td>42.00</td>
<td>9.60</td>
</tr>
<tr>
<td>Road upgrade with pipelines</td>
<td>25.81</td>
<td>44</td>
<td>137.65</td>
<td>75.031</td>
</tr>
<tr>
<td>New road/pipeline</td>
<td>1.19</td>
<td>44</td>
<td>6.35</td>
<td>3.46</td>
</tr>
<tr>
<td>Pipeline – Adjacent to existing</td>
<td>9.35</td>
<td>20</td>
<td>22.67</td>
<td>0</td>
</tr>
<tr>
<td>improved road</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>208.67</strong></td>
<td><strong>88.09</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Most disturbance associated with road construction (24 feet in width) is along existing two-track roads. Approximately 57 percent (42.77 acres) of the proposed disturbance for road construction along existing two-tracks is existing disturbance.

3.1 Schedule

Once all BLM and other federal, state, and local approvals are obtained, Fram proposes to construct four well pads during the first year and eight well pads during the second year and will drill up to 108 wells from the 12 well pads over a four year period. On average, Fram will drill approximately 25 wells per year. Fram anticipates beginning construction during late fall 2011.

3.2 Construction

Fram will comply with all appropriate federal, state, county, municipal and local permits, including all necessary environmental clearances and permits (Colorado Oil and Gas Conservation Commission, U.S. Army Corps of Engineers, Colorado Division of Wildlife, U.S. Fish & Wildlife, U.S. Forest Service, Colorado Department of Transportation, CDPHE, and local government approvals) before commencing any work.

All construction (well pads, pipelines, roads) will be covered by a General Construction Permit for stormwater discharges from the CDPHE. The permit number for the Whitewater Unit is COR-03B947. A Stormwater Management Plan is currently in place for each of the permitted areas. The plans will be updated as necessary to include all new construction. Best Management Practices (BMPs) as required by the permits and plans
will be in place before, during, and after construction until the location has reached final stabilization. All other requirements of the permits will be followed, such as the bi-weekly inspections and post-precipitation event inspections. Fram also has prepared and will follow a Noxious Weed Management Plan, and Spill Prevention Control and Countermeasure Plan.

As a design feature included in this proposal, Fram incorporates and will follow BLM’s Standard Surface Use Conditions of Approval (COAs). Fram will follow BLM’s Standard Surface Use COAs as they apply to construction.

**Well Pads**

Fram is proposing to construct twelve well pads; four well pads during the first year and eight well pads during the second year. The working surface (drilling area) of the newly constructed well pads will average 300 feet by 300 feet (2.1 acres), and with cut and fill slopes and topsoil storage, disturbance per pad will be approximately 3.50 acres (see Table 2 and Map 1 in Attachment A). The target zone for the wells is the Dakota Formation from approximately 4,500 to 5,000 feet. A large drilling rig is not necessary to reach this depth, thereby eliminating the need for a larger pad. Construction of twelve well pads will result in an estimated 42 acres of new short-term surface disturbance. Following interim reclamation, a working area of about 0.8 acre per pad will remain disturbed throughout the long-term production phase of the well. Total long-term disturbance for well pads is estimated at 9.6 acres, following interim reclamation (see Table 2). See Attachment B for typical drawings of the well pad during drilling and production.

Each proposed well pad will accommodate up to a maximum of nine wells (one vertical and up to eight horizontal). Fram will conduct interim reclamation reducing the size of the well pad to approximately 0.8 acre within 6 months after completion of the last well planned for the well pad or after a year has passed with no new wells drilled.

The proposed well pads will be constructed from the native soil and rock materials present using a bulldozer, grader, front-end loader, or backhoe. The pad will be constructed by clearing vegetation, stripping and stockpiling topsoil, and leveling the pad area using cut-and-fill techniques. The tops of the cut banks and pad corners may be rounded to improve their appearance. All cut and fill slopes will be protected against rilling and erosion with BMPs such as water bars, lateral furrows, pocking, seeding or additional measures approved by the BLM or as described in the approved Stormwater Management Plan.

**Proposed Access Roads and Gathering Lines**

Fram proposes to use existing improved and oil field roads and upgrade existing two track roads to the largest extent possible. The project will require 27.00 miles of road for access to the well pads. Approximately 96 percent of the disturbance will occur along existing two-track roads. Roads will be upgraded to comply with BLM’s Gold Book Standards for roads. This will require 24 feet (width) of long-term disturbance for the road upgrade.
The proposed roads will be constructed to meet standards for the anticipated traffic flows and all-weather requirements. Bulldozers, trackhoes and/or road graders will first clear vegetation and topsoil. The road will be constructed using standard equipment and techniques approved by the BLM, which could include ditching, draining, crowning, surfacing, sloping and dipping the roadbed as necessary.

Proposed gathering lines (water, gas, and oil) will be constructed within or immediately adjacent to existing, upgraded, or proposed roads, generally along the uphill side of the road. It is anticipated that there will be approximately 9.35 miles of new gathering lines installed adjacent to existing improved roads (no upgrading needed) requiring 20 feet (width) of short-term disturbance. Approximately 27.00 miles of gathering lines will be constructed adjacent to existing two-track roads which will be upgraded. This will also require 20 feet (width) of short-term disturbance. Excavated topsoil will be windrowed separately from the underlying subsoil and stored along the road until the trench is backfilled. All pipelines will be buried to a minimum depth of 3 feet from surface to top of pipe. The pipeline trench will be excavated mechanically; pipe segments will then be welded together and tested, lowered into the trench and covered with excavated material. Generally, one mile of pipeline will be constructed in 4 to 7 days.

Each pipeline will be pressure tested with fresh water and/or nitrogen gas to locate leaks. Fresh water will be acquired from the City of Grand Junction. Water will be transported to the testing location by truck. Nitrogen to be used for testing will be obtained by a third-party contractor, such as Halliburton or BJ Services, who will then be on location to pump the nitrogen test. After testing, if fresh water is used, the water will either be disposed of in a commercial disposal facility.

### 3.3 Drilling and Completion

Up to 108 wells will be developed as part of this proposal. Fewer wells may be drilled than are proposed because of geologic and market uncertainties. Initially, wells will be drilled vertically; the additional wells on a pad may be drilled horizontally.

Fram drilling operations will be conducted in compliance with all Federal Oil and Gas Onshore Orders, as well as all other applicable rules and regulations. Drilling will target oil production zones at approximately 4,500-5,000 feet deep.

Surface casing will be run to a minimum depth of 100 feet below freshwater aquifers within one mile. The surface hole will be cased with steel casing and cemented in place entirely from ground level to the depth as determined in the individual APD. Prior to drilling below the surface casing, a Blowout Preventor (BOP) will be installed on the surface casing and both the BOP and the surface casing will be tested for pressure integrity. The BOP and related equipment will meet the minimum requirements of Onshore Oil and Gas Order No. 2 and the BLM will be notified in advance of all pressure tests.

After drilling the hole to its final depth, logging tools will be run into the well to evaluate the potential hydrocarbon resource. If the evaluation indicates adequate hydrocarbon
resources are present and recoverable, steel production casing will be run and cemented into place in accordance with the well design as approved by the BLM and applicable COAs. The proposed casing and cementing program will be designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. BLM approval is required prior to the use of any isolating medium other than cement.

After production casing has been cemented in place, the drilling rig will be removed and a completion rig will be moved in. Well completion consists of running a Cement Bond Log to evaluate cement integrity and to correlate the cased hole logs to the open hole logs. The casing is then perforated across the hydrocarbon producing zones and the formation may be stimulated to enhance the production of oil and gas.

The typical method used for stimulation consists of a hydraulic fracture treatment in which sand and non-toxic fluids are pumped into the producing formation with sufficient pressure to fracture the rock formation. The sand serves as a proppant to keep the created fracture open, thereby allowing reservoir fluids to move more efficiently into the well bore. Due to the water sensitive nature of the target formation, Fram does not expect to use the typical hydraulic fracture. Instead of water, Fram plans to fracture with foam made from 85 percent CO₂ and 15 percent methanol.

If horizontal wells are drilled, specific directional plans for each well will be included with site specific APDs (Application for Permit to Drill). Downhole operations will be done with tools to facilitate proper direction and path of the well.

A well is anticipated to require approximately 10 days of drilling and 5 days to complete. Without recycling, approximately 1,950 barrels of water will be required for drilling and completion of each well. Whenever possible, Fram will recycle water saving approximately 800 barrels per well. The water will be purchased from the City of Grand Junction. Water will be hauled to the well location by truck. A small water truck, also known as a bobtail, can carry approximately 80 and barrels per trip; a larger water transport truck can carry up to 120 barrels per trip. Water volume used in drilling operations is dependent on the depth of the well and any losses that might occur during drilling.

On the first and last day of drilling, Fram anticipates an approximate average of 13 to 15 heavy truck round trips per day. For the remaining days of drilling, Fram anticipates 3 to 5 light vehicle round trips and 3 to 5 heavy truck round trips per day.

Fram estimates the number of workers per rig at 18 per day during drilling and 5 per day during completion. The rig will drill 24 hours per day, 7 days per week.

3.4 Production – Operation and Maintenance

3.4.1 Surface Facilities

Surface facilities at each well pad location will consist of wellheads, separator/dehydrator units, gas metering units, and aboveground condensate and produced water tanks with approximately 100 to 400 barrel capacities. Multi-well locations will share production
equipment, whenever feasible, to minimize surface occupancy/disturbance. All production equipment with a chimney, vent or stack shall be fitted with a device that will prevent birds from entering the chimney, such as an excluder cone or equivalent.

Production facilities will be located and arranged to facilitate safety and maximize interim reclamation opportunities, e.g. located at the access road end of the pad, with tanks in cut. As practical, the access to production facilities will be provided by a teardrop-shaped road through the production area, so that the driving area may be clearly defined and limited and so that teardrop center may be revegetated.

All production equipment will be painted the BLM Standard Environmental Color in a non-reflective finish to match the surrounding terrain. Production equipment will be located to reasonably minimize long term surface disturbance and visual impact. In cases of split estate lands with federal minerals, the surface equipment will be painted in accordance with BLM requirements unless the private surface owner requests differently.

Telemetry equipment will be used to remotely monitor wells. The use of telemetry will minimize traffic to and from the well locations in order to minimize impacts on wildlife and sensitive plants. A pumper truck will be required to periodically visit the well pads. The frequency of the visits will be based upon information gathered from the telemetry equipment.

All production facilities (storage tanks, loadouts, separators, treating units, etc.) with the potential to leak or spill oil, condensate, produced water, glycol, or other fluids which may be a hazard to public health or safety will be placed within secondary containment structures. Secondary containment structures will consist of corrugated steel containment berms or earthen berms. Compaction and construction of earthen berms surrounding the tank batteries will be performed to prevent lateral movement of fluids through the utilized materials. Secondary containment will be sized to contain a minimum of 150 percent of the storage capacity of the largest tank within the berm. All loading lines will be placed inside the containment berm.

Access roads will be upgraded and maintained as necessary to prevent soil erosion and accommodate year-round traffic.

Chemical containers will be clearly labeled, maintained in good condition and placed within secondary containment. They will not be stored on bare ground, nor exposed to sun and moisture.

Fram will regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the joint BLM/Forest Service Noxious and Invasive Weed Management Plan for Oil and Gas Operator, dated March 2007. A Pesticide Use Proposal (PUP) will be approved by the BLM prior to the use of herbicides. Annual weed monitoring reports will be submitted by December 1.

Fram will not use pits for drill cuttings. Drill cuttings will be placed on liners within jersey barriers. Fram will background test soils for arsenic and sodium absorption ratio
produced water of approximately 3 to 5 barrels per day, per well will be transferred by water gathering line to the compressor sites or another yet to be determined central location. Water will be trucked offsite to an approved commercial disposal facility. Oil will be transferred to a central location by gathering pipeline and trucked to markets.

3.4.2 Workovers or Recompletion

Periodically, the workover or recompletion of a well may be required to ensure that efficient production is maintained. Workovers can include repairs to the well bore equipment (casing, tubing, rods or pump), the wellhead, or the production facilities. These repairs will usually be completed during daylight hours. The frequency of this type of work cannot be accurately projected because workovers vary from well to well.

3.5 Abandonment and Reclamation

3.5.1 Well Plugging and Abandonment

Dry/non-producing wells will be plugged, abandoned, and reclaimed within 90 days of well completion, weather permitting. Upon abandonment, each borehole will be plugged, capped, and its related surface equipment removed. Subsurface pipelines will be plugged at specific intervals. A Sundry Notice will be submitted to the BLM that describes the engineering, technical, and/or environmental aspects of final plugging and abandonment. This notice will describe final reclamation procedures and mitigation measures associated with the final reclamation. The BLM and the COGCC standards for plugging will be followed. A configuration diagram, a summary of plugging procedures and a job summary with techniques used to plug the wellbore (e.g., cementation) will be included in the Sundry Notice.

3.5.2 Reclamation

All surface disturbances will be recontoured and revegetated in accordance with an approved reclamation plan, including control of noxious weeds. One of Fram’s goals is to accomplish as much reclamation as possible during the life of the well, even on those pads that will need to retain a larger production area during the life of the well.

Fram will restore the well locations and access roads to approximately their original contours. During reclamation of these sites, fill material will be pushed into cuts and over the backslope. No depressions will be left that will trap water or form ponds. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). All disturbed surfaces will be reseeded with a seed mixture approved or recommended by either the BLM or the private surface owner. All seeding will be conducted after September 1 and prior to ground frost. Spring seeding will be conducted after the frost leaves the ground but no later than May 15. If the seeding is unsuccessful, Fram will make subsequent seedings.
Interim Reclamation

According to the BLM GJFO Standard COAs, the objectives of interim reclamation are to restore sufficient landform to maintain healthy, biologically active topsoil, including vegetative cover; control erosion and sediment transport; and minimize losses of habitat, visual resources, and forage throughout the project life.

After completion activities, Fram will reduce the size of the well pad within 6 months of the last well scheduled on a pad or after 12 months without a well being drilled on the pad. Areas unnecessary to operation will be reshaped to blend with natural topography to the extent possible. Interim reclamation will be accomplished by grading, leveling, spreading topsoil, and seeding, as recommended by the BLM or private surface owner. Interim Reclamation will reduce the disturbed area at each pad to approximately 0.8 acre after well development. If interim revegetation is unsuccessful, additional prep and reseeding will be completed annually until standards are met.

Prior to interim reclamation, Fram will meet with the BLM to inspect the disturbed area, review the existing reclamation plan, and agree upon any revisions to the plan. Fram will notify the BLM GJFO Authorized Officer at least 48 hour prior to commencing any reclamation work and by Sundry Notice within 48 hours of completion of the reclamation work. Fram will attach seed tags or send them to the BLM within 30 days.

Interim reclamation work will include removing all debris, materials, and trash unnecessary to production operations, reshaping of all areas unnecessary to operation to blend with natural topography to the extent possible, and reseeding with seed mixes and techniques specified by the BLM. Seeding techniques as described in the BLM GJFO Standard COAs will be followed as appropriate.

Annual monitoring surveys of all sites will be conducted and an annual monitoring report of these sites submitted to the BLM Authorized Officer by December 1 of each year. Vegetative cover will be monitored for reclamation success and for invasive species. Annual reports regarding weed management and reclamation success will be submitted to the BLM Authorized Officer in compliance with the BLM/Forest Service Noxious and Invasive Weed Management Plan for Oil and Gas Operators. The annual report will document whether attainment of reclamation objectives appears likely. If one or more objectives appear unlikely to be achieved, the report will identify appropriate corrective actions. Upon review and approval of the report by the BLM, Fram will implement the corrective actions or other measures specified by the Authorized Officer.

Interim reclamation will be considered successful when disturbed areas not needed for long-term production operations or vehicle travel have been recontoured and stabilized; revegetated with a self-sustaining, vigorous, diverse, native (or otherwise approved) plant community that minimizes visual impacts, provides forage and stabilizes soil; and 50 percent of the new perennial seeded species are producing seed.
Final Reclamation

A well pad that no longer has a producing well will undergo final reclamation within 1 year following plugging and abandonment of the final well on the well pad. Prior to recontouring and reseeding the pad, Fram will meet with the BLM to inspect the disturbed area, review the existing reclamation plan, and agree to any changes to the plan. Fram will notify the BLM at least 48 hours prior to commencing any reclamation work and within 48 hours of completing reclamation work.

Prior to recontouring and reseeding, Fram will remove all equipment, facilities and trash from the location. Each borehole will be plugged, capped and its related surface equipment removed. Subsurface pipelines will be purged and plugged at specific intervals. A dry hole marker will be placed sub-surface to prevent their use as perching sites by raptors. Recontouring and seeding will be conducted in accordance with the BLM GJFO’s Standard COAs.

Resource Considerations

Fram has conducted pre-construction surveys and included measures to further reduce impacts to resources.

Cultural Resource Surveys: Alpine Archaeological Resources is currently conducting a Class III cultural resources inventory. Inventories are being conducted within 100 feet either side of all proposed gathering pipelines, resource roads, and existing access roads identified for use. Inventories are also being conducted within a 40-acre block centered around the proposed well pad disturbance. Results from the Class III cultural resource surveys will be reported in a Class III Cultural Resources Inventory report expected in September 2011.

Biological Resource Surveys: WestWater Engineering conducted biological surveys within the proposed project area in June 2010 and June and July 2011 for special status plants, burrowing owls, and raptors. A wetland evaluation was also conducted. Surveys were completed in July 2011 and a comprehensive biological report will be prepared in August 2011. Results from the 2010 surveys are also included in the 2010 Biological Survey Report (WestWater Engineering, 2010). WestWater Engineering also conducted biological surveys for the BLM in the Horse Mountain area in May 2010, which incorporates the northern portion of the proposed project area.

Special Status Plant Surveys: Special status plant surveys were conducted within 100 meters (328 feet) of proposed gathering pipelines, resources roads, and existing access roads identified for use, and within a 40-acre block centered around the proposed well pad disturbance.

Dust Abatement: Fram will control fugitive dust from traffic, equipment operations, and wind events by watering and controlling speed limits. Surfactants, binding agents, or other dust suppression chemicals will not be used on roadways within public lands without BLM approval. Speed limits on unpaved roads will be limited to 30 miles per hour.
Attachment A
Maps
MAP 1
Whitewater Unit
Proposed Oil Exploration
Attachment B
Well Pad Layout and Facilities Layout Diagrams
Proposed Well Head:
Ungraded Ground El. 5238.0'
Finished Grade El. 5237.4'

CONTOUR INTERVAL = 2'
Note: Sediment Reservoir & Traps to be Positioned Per Topography

LEGEND

- PERIMETER CONTROL (WATTLES)
- SR = SEDIMENT RESERVOIR
- ST = SEDIMENT TRAP
- ROP = RUN-ON PROTECTION
- CSD = CUT SLOPE DIVERSION (BERM TOE OF CUT SLOPE)
- D = FILL DIVERSION TO SEDIMENT TRAP
- VGB = VEGETATION BUFFER (UNDISTURBED LAND INSIDE FC)
- FCD = FLOW CONTROL DITCH
- FC = PERIMETER CONTROL

SCALE: 1" = 60'

FRAM OPERATING, LLC
STORM WATER CONTROL PLAN (TYP.)

Proposed Well Head

Concrete Washout Basin

Top of Cut Slope

Toe of Fill Slope
NOTE:
1. PRODUCTION EQUIPMENT LOCATION COULD VARY DUE TO SITE AND OPERATION EFFECTIVENESS.

2. TOTAL DISTURBED AREA: ±3.00 ACRES
   RECLAIMED AREA: ±1.97 ACRES
   UN-RECLAIMED AREA: ±1.03 ACRES

CONTOUR INTERVAL = 2’

FRAM OPERATING, LLC
WELL PAD RECLAMATION DIAGRAM

WELL
2447' FNL, 2369' FWL
SECTION 1, T18S, R22E, 6th P.M.
Appendix A

13-Point Surface Use Plan
Submitted by Fram Operating, LLC
1. **Existing Roads**

   A. Existing roads in the Project Area are shown on Map 1 in Attachment A of the MDP.
   B. The Project Area can be accessed from Whitewater, Colorado.
   C. If a road to a specific location will need to be widened, it will be delineated in the APD.
   D. Existing roads will be maintained in conditions equal to or better than those existing prior to the commencement of operations. Maintenance of the roads used to access the drill site locations will continue until abandonment and reclamation of the wells. Two-track roads will not be flat bladed. Excessive rutting or other surface disturbance will be avoided. Operations will be suspended temporarily during adverse weather conditions if excessive rutting begins to occur.

2. **Proposed Access Routes**

   A. Routes that could be used for access are shown on the topographic map in Attachment A of the MDP.
   B. Width maximum – 24 feet overall with a 16 to 18-foot road running surface.
   C. The road will be constructed to meet the standards of the anticipated traffic flow and all weather requirements.
   D. Maximum grades will not exceed BLM standards.
   E. In an effort to minimize disturbance, equipment and vehicles will be confined to travel these corridors.
   F. The proposed access routes have been sited to avoid areas of steep terrain and soils susceptible to increased erosion for the proposed action.
   G. Flagging material, pin flags, painted wooden survey lath, or other directional markers specified by the BLM will be temporarily placed along the proposed limits of disturbance access routes to serve as guides to the locations. Markers will be removed as soon as they are no longer needed.
   H. Specific needs for the construction of cuts or fills and drainage structures, such as culverts, water bars, or drainage dips for the proposed access routes will be verified during onsite reviews.
   I. Gates, cattle guards, or fence cuts – none required unless specified during the onsite inspection.
   J. Dust will be controlled on the roads and locations during construction and drilling by approved periodic dust mitigation measures and enforcement of speed limits.
   K. Roads will be crowned or sloped, ditched, drained with culverts and/or water dips, and constructed, sized and surfaced to BLM Gold Book standards (pp. 24-28). Water outlets will incorporate controls such as rip-rap, sediment catchments, and anchored check structures to slow water velocity and prevent erosion and sediment transport. If applicable, initial gravel application will be to a minimum depth of 4 inches.
   L. When saturated soil conditions exist on access roads or location, travel will be halted until soil material dries out or is frozen sufficiently for use to proceed without undue damage and erosion to soils, roads and locations.
M. Fram will provide timely maintenance and cleanup of roads. A regular schedule for maintenance will include, but not be limited to dust abatement, reconstruction of the crown, slope, or water bars; blading or resurfacing; clean out of ditches, culverts, catchments and other BMPs. When rutting of the travel way becomes greater than 4 inches, maintenance such as blading, and/or gravelling will be conducted as approved by the BLM.

N. Roads that access active construction and drilling sites will be posted with warning signs to alert hunters and recreational vehicle users to project personnel and vehicles in the project area. Project personnel will restrict activities and travel to permitted roads and sites.

O. Ditches will be allowed to vegetate and/or will include large rocks or stones to slow the velocity of drainage and allow sediment to settle out. Ditches may be seeded where soils are erodible.

P. All cut and fill slopes for roads and well pad locations will be protected against rilling and erosion with BMPs such as water bars, lateral furrows, pocking, seeding or additional measures approved by the BLM. To further protect against erosion and soil loss on cuts and fill slopes, BMPs such as geotextiles, seeding, weed-free straw bales, wattles or straw matting will be installed and maintained on cuts and fill slopes, as needed or as detailed by the stormwater plan or BLM permit.

Q. To minimize erosion and sediment transport, access road water dips will be spaced using the BLM Gold Book standards (pp. 32-33, Figures 5 & 6). Placement of a culvert will take the place of a water dip. Additional water dips, water turn-outs or culverts may be required based on road conditions. Water outlets will incorporate erosion control structures, such as rip-rap and anchored straw bales, to slow water velocity and prevent erosion. All drainage ditches and culverts will be kept clear and free flowing, and shall be maintained in good condition.

R. Where an access road crosses small drainages and intermittent streams not requiring culverts, low water crossing will be used. The crossing will be accomplished by dipping the road down to the bed of the drainage. Material moved from the banks of the crossing will be stockpiled near the right-of-way. Gravel, riprap, or concrete bottoms may be required in some situations.
3. Location of Existing and/or Proposed Facilities

A. Proposed locations of oil, gas, and water gathering lines are shown on Map 1 in Attachment A of the MDP.
B. See Attachment B of the MDP for general well pad and facilities diagrams.
C. Production facilities shall be located and arranged to facilitate safety and minimize long-term surface disturbance. They are typically clustered as the access end of the pad with tanks in cut. Access to production facilities should be provided by a teardrop-shaped road through the production area, so that the driving area may be clearly defined and limited and so that teardrop center may be revegetated.
D. All installed production facilities (storage tanks, load outs, separators, treating units, etc.) with the potential to leak or spill oil, condensate, produced water, glycol, or other fluids which may be a hazard to public health or safety will be placed within appropriate secondary containment structures. The structure will hold 150 percent of the capacity of the largest single container within it and be impervious to any oil, glycol, produced water, or other fluids for 72 hours.
E. Chemical containers will be clearly labeled, maintained in good condition and placed within secondary containment. They will not be stored on bare ground, nor exposed to sun and moisture.
F. To blend with the natural environment, all permanent above-ground facilities placed on the location will be painted the BLM Standard Environmental Color in a non-reflective finish.
G. Any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 will be reported as required by the Comprehensive Environmental Response, Compensation and Liability Act of 1980, Section 102b. A copy of any report required or requested by a Federal agency or State government as a result of a reportable release or spill of any toxic substances will be furnished to the Authorized Officer concurrent with the filing of the reports to the involved Federal agency or State government.
H. Should drilling result in established commercial production, the following will be shown:
   1. Proposed location and attendant lines, by flagging, if off well pad.
   2. Dimensions of facilities.
   3. Construction methods and materials.
   4. Protective measures and devices to protect livestock and wildlife.
   5. All buried pipelines will be buried to a depth of 3 feet and will be co-located with roads.
   6. Construction width for pipelines adjacent to roads will be an additional 20 feet of disturbance.
   7. Pipeline location warning signs will be installed within 90 days after construction is complete.
   8. Pipeline area of disturbance will be requested on the site-specific APD if needed. Areas with road and adjacent pipeline construction will be 44 feet in width for working surface. After construction is complete, 20 feet will
be rehabilitated leaving a 24 foot wide road (16 to 18 feet running surface). In the event production is established, the wells will be tied-in to existing pipelines as shown in Mineral Lease Map.

4. **Location and Types of Water Supply**

   A. Water to be used for the drilling of these wells will be hauled by truck over the roads from the nearest water supply. The water volume used in the drilling operation is dependent on the depth of the well and any losses that might occur during drilling.
   B. The water source is the City of Grand Junction.

5. **Construction Materials**

   A. All construction material for these location sites and access roads shall be borrowed material accumulated during the construction of the location sites and access roads. No additional construction materials from other sources are anticipated at this time. If they are required in the future, the appropriate actions will be taken to acquire them from private sources.
   B. All brush and trees on the locations, access roads and proposed pipeline routes shall be chipped and shredded in place, then salvaged and stored with topsoil. No stump left in place shall exceed six inches in height. Cleared trees and shrubs which are not shredded shall be removed completely from the site as cut firewood.

6. **Methods of Handling Waste**

   A. Produced water will be transferred to a central location via gathering pipeline and disposed of offsite in an approved commercial disposal facility.
   B. Garbage – garbage, trash, and other waste materials will be collected in a portable, self-contained and fully-enclosed trash cage during drilling and completion operations. Upon completion of operations (or as needed) the accumulated trash will be disposed of at an authorized sanitary landfill. No trash will be burned on location or placed in the cuttings pit.
   C. Sewage – self-contained, chemical toilets will be provided for human waste disposal. Upon completion of operations, or as needed, the toilet holding tanks will be pumped and the contents thereof disposed of in the nearest, approved sewage disposal facility.
   D. Fram will not use pits for drill cuttings. Drill cuttings will be placed on liners within jersey barriers. Fram will background test soils for arsenic and sodium absorption ratio (SAR). If allowed by the BLM, Fram will use the drill cuttings for cut and fill.
   E. Immediately after the removal of the drilling rig, all debris and other waste materials not contained in the trash cage will be cleaned up and removed from the well location. No adverse materials will be left on the location.
F. Hazardous Materials Management

1. Project-related activities involving hazardous materials will be conducted in a manner that minimizes potential environmental impacts. A file will be maintained containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used in the course of construction, drilling, completion, production and reclamation operations.

2. Hazardous substances, as defined by Comprehensive Environmental Response Compensation Liability Act (CERCLA), will not be used in the construction or drilling operations associated with these wells. Commercial preparations, which may contain hazardous substances, may be used in production operations and will be transported within the Project Area. Any materials containing hazardous substances will be handled in an appropriate manner to minimize the potential for leaks and spills to the environment. Resource Conservation and Recycling Act (RCRA) states that hazardous wastes will not be generated by well-drilling operations. Only RCRA exempt working pit contents will be buried onsite.

3. Spills of oil, gas, or any other potentially hazardous substance will be reported immediately to the BLM and other responsible parties. Spills will be mitigated immediately appropriate measures for cleanup implemented and spilled material removed to an approved disposal site.

7. Ancillary Facilities

No ancillary facilities are currently anticipated for the development of this area. If facilities are deemed necessary to drilling operations at a later date, they will be submitted to the Authorized Officer via sundry notice (Form 3160-5) for approval prior to commencing operations for that location.

8. Well Site Layout

A. Well pad layout diagrams are provided in Attachment B to the MDP. Cross sections will be drafted to visualize the planned cuts and fills across the location and will be submitted with the individual APDs. An average minimum of six (6) inches of topsoil will be stripped from the location (including the areas of cut, fill, and/or subsoil storage) and stockpiled for future reclamation of the well site.

B. A production schematic showing an average proposed production facility layout is provided in Attachment B to the MDP.

C. Operator will notify the Authorized Officer at least forty-eight (48) hours prior to construction of the well pad and/or related facilities.

9. Plans for Reclamation of the Surface

A. The BLM will be contacted at least forty-eight (48) hours prior to commencement of any reclamation operations.

B. Producing Locations
1. Immediately upon well completion, the well location and surrounding area(s) will be cleared of all debris, materials, trash, and junk not required for production.
2. Other waste and spoil materials will be disposed of immediately upon completion of drilling and workover activities.
3. That portion of the location and access road not needed for production facility/operations will be reclaimed within ninety (90) days from the date of well completion, weather permitting.
4. If the well is a producer, Fram will upgrade and maintain access roads as necessary to prevent soil erosion and accommodate year-round traffic. Areas unnecessary to operations will have areas reshaped. Topsoil will be redistributed and disked. All areas outside the work area will be reseeded according to the BLM recommendations for seed mixture.

C. Interim Reclamation work will include:
   1. Removing all debris, materials and trash unnecessary to production operations.
   2. Reshaping of all areas unnecessary to the operation to blend with natural topography to the extent possible.
   3. Reseeding with seed mixes and techniques specified by the BLM.

D. Dry Hole/Abandoned and Plugged Locations
   1. On lands administered by the BLM, abandoned well sites, roads or other disturbed areas will be restored to near their original condition. This procedure will include ensuring revegetation of the disturbed areas to the specification of the BLM at the time of abandonment.
   2. All disturbed surfaces will be recontoured to the approximate natural contours and reseeded according to BLM specifications. Reclamation of the well pad and access road will be performed as soon as practical after final abandonment and reseeding operations will be performed in the fall or spring following completion of reclamation operations.
   3. During reclamation of the site, fill material will be pushed into cuts and up over the backslope. No depressions will be left that will trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the recommended seed mixture. The access road and location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.
   4. Seedbed will be prepared by diskng then roller packing following the natural contours. Seed will be drilled on contours at a depth no greater than one-half (1/2) inch. In areas that cannot be drilled, seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed will be used whenever available.
   5. Fall seeding will be completed after September 1, and prior to prolonged ground frost. Spring seeding will be completed after the frost has left the ground and prior to May 15th.
   6. Upon completion of backfilling, leveling and recontouring, the stockpiled topsoil will be evenly spread over the reclaimed area(s). Prior to
reseeding, all disturbed surfaces will be scarified and left with a rough surface. No depressions will be left that will trap water and form ponds. All disturbed surfaces will be reseeded with a seed mixture to be recommended by the BLM.

10. **Surface Ownership**

Surface ownership is either fee or federal as shown on the Mineral Ownership Map in Attachment A and will be noted on the individual APD. In the case of privately-owned surface, Fram will certify to the BLM that a Surface Use Agreement has been reached with the owner prior to construction. If an Agreement cannot be reached, Fram will comply with laws or regulations governing the Federal right of re-entry to the surface (43 CFR 3814).

11. **Other Information**

A. A Class III Cultural Resource Inventory of the proposed drill sites, access roads, and other facilities on Federal lands is currently being conducted and a report will be filed with the BLM-GJFO.

B. Fram will be responsible for informing all persons in the area who are associated with the Project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites or for collection of artifacts. If archaeological, historical or vertebrate fossil materials are discovered during the course of any construction activities, Fram will suspend all operations that further disturb such materials and immediately contact the appropriate BLM office. Operations in the area of discovery will not resume until written authorization to proceed has been issued by the BLM Authorized Officer.

C. An Environmental Assessment will be prepared by a third party contractor to analyze the full effects of the proposed development.

D. Fram shall regularly monitor and promptly control noxious weeds or other undesirable plant species as set forth in the joint BLM/Forest Service Noxious and Invasive Weed Management Plan for Oil and Gas Operator, dated March 2007. A Pesticide Use Proposal (PUP) must be approved by the BLM prior to the use of herbicides. Annual weed monitoring reports shall be submitted by December 1.
Operator’s Representative and Certification

Representative

David Cook
Manager
Fram Operator, LLC
30 E. Pikes Peak Ave.
Suite 287
Colorado Springs, CO 80903
719-355-1320 (Office)
719-314-1362 (Fax)

Harold Mayland
Whitewater Manager
Fram Operating, LLC
30 E. Pikes Peak Ave.
Suite 287
Colorado Springs, CO 80903
719-355-1320 (Office)
719-314-1362 (Fax)

Field Representative

Alan Moore
Field Superintendent
Wildland Restoration, LLC
P.O. Box 427
Palisade, CO 81526
970-250-0538 (Office)
alamoinc@frontier.net

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

Executed this ______________ day of Aug., 2011.

Name
David A. Cook
Manager
Fram Operating, LLC, 30 E. Pikes Peak Ave., Suite 287, Colorado Springs, CO 80903
719-355-1320 (phone)
Appendix B

9-Point Drilling Plan
Submitted by Fram Operating, LLC
All lease and/or unit operations will be conducted in such a manner that full compliance is made with applicable laws, regulations, Onshore Oil and Gas Orders No. 1 and No. 2, and the approved Plan of Operations. The Operator is fully responsible for the actions of its subcontractors. A copy of the Conditions of Approval will be furnished to the field representatives to ensure compliance.

Fram Operating, LLC, will be operating under its BLM Bond # COB000260.

1. **Estimated Tops of Important Geologic Markers**

   A. Formations and depths will be submitted with the site specific APD.

2. **Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations**

   A. The proposed casing and cementing program has been designed to protect and/or isolate all usable water zones, potentially productive zones, lost circulation zones, abnormally pressured zones and any prospectively valuable deposits of minerals. Any isolating medium other than cement shall receive approval prior to use.

   B. The surface casing shall be cemented back to surface either during the primary cement job or by remedial cementing.

3. **Operator’s Minimum Specifications for Pressure Control**

   A. The blowout preventor assembly shall consist of one blind ram preventor, one pipe ram preventor, and an annular preventor. All will be hydraulically operated. The BOP pipe and blind rams will be hydraulically tested to 100% of working pressure (if isolated from the surface casing with a test plug) or to 70% (2,065 psig) of the internal yield of the surface casing after nipping up. The annular preventor will be tested to yield of the surface casing after nipping up. The annular preventor will be tested to 50% of its’ working pressure for 10 minutes or until provisions for the test are met. The pipe rams and blind rams will be function tested on each trip out of the hole, but not more than once per day. All such checks will be noted on the daily Tour Sheets.

   B. Accessories to the BOP include an upper and lower Kelly cock, a sub on the floor with a full opening valve to be stabbed into the drill string when the Kelly is not in the drill string; a drill pipe float (except for lost circulation conditions) and a choke manifold with a pressure rating equivalent to the BOP stack. An accumulator with a minimum of 1.5 times the volume of fluid necessary to close all BOP equipment will be part of the BOP system.

   C. Remote controls capable of both opening and closing all preventors will be readily accessible to the driller. A manual locking device (i.e. hand wheels) or automatic locking devices shall be installed as part of the system. The BOP will be kept in good mechanical working order. Checks and inspections will be recorded on daily Tour Sheets.
D. Primary BOP actuating control will be located either in the doghouse or on the rig floor.
E. Sufficient mud volume and weight material will be maintained on location to overcome any flows.

4. Proposed Casing Program

<table>
<thead>
<tr>
<th>Casing</th>
<th>Depth</th>
<th>Hole Size</th>
<th>Size</th>
<th>Weight</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conductor</td>
<td>0-40’</td>
<td>20”</td>
<td>16”</td>
<td>65#</td>
<td>H-40</td>
</tr>
<tr>
<td>Surface</td>
<td>Surface to 500’</td>
<td>12.25”</td>
<td>9 5/8”</td>
<td>36 #/ft</td>
<td>K-55</td>
</tr>
<tr>
<td>Production</td>
<td>Surface to TD</td>
<td>7 7/8”</td>
<td>5 ½”</td>
<td>15.50# /ft</td>
<td>J 55</td>
</tr>
</tbody>
</table>

A. The proposed casing setting depths will vary depending on well location and drilling conditions. The depths listed in the table give the approximate anticipated setting depth.
B. The casings proposed in the table are typical casings; should a different casing be required, it will be listed in the site-specific APD.
C. All casing will be new or reconditioned and tested to meet or exceed API standards.

5. Proposed Cementing Program

A prototypical cementing program is as follows. Site specific programs will be included with each APD.

A. Conductor Casing
   • Conductor Casing will be cemented to surface with redi-mix cement.

B. Surface Casing
   Cement to surface as follows:
   • 210 sks of class “G” Cement@ 15.8 ppg, 1.15 cu/ft/sk, with 2% Calcium Chloride, and ¼ lb per sack Flocele. 50% excess.
   • If cement is not circulated to surface, a top job using Class “G” with 2% CaCl2 will be used to top out to surface.

C. Production Casing

Lead Cement: 270 sks Thixlite + 2.5 lb/sk PSFlake + 0.5% LTR 2,635 ft. to 475 ft = 2,160 ft

Tail Cement 45 sks :1) ‘G’ + 0.5% CFR-2 + 1% CaCl2 + ¼ #/sk Polyflake 2,835 ft. to 2,635 ft. =200ft
All waiting on cement (WOC) times will be adequate to achieve a minimum of 500 psi compressive strength at the casing shoe prior to drill out.

6. **Proposed Mud Program**

The typical well will be drilled underbalanced with air, natural gas and/or foam. In cases where the underbalanced program is not practical, the following is a typical mud program. Site specific mud programs will be attached with the APD.

The well will be drilled to TD with a combination of fresh water and 3 percent KCL – polymer mud system or a DAP/Duro-Gel/Polymer system. The applicable depths and properties of this system are as follows:

<table>
<thead>
<tr>
<th>Depth (feet)</th>
<th>Type</th>
<th>Weight (ppg)</th>
<th>Viscosity (sec)</th>
<th>Water Loss (cc)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-470</td>
<td>FW</td>
<td>± 8.4</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>470-TD</td>
<td>3% KCL</td>
<td>± 8.6</td>
<td>35-60</td>
<td>8-10</td>
</tr>
</tbody>
</table>

Sufficient mud materials to maintain mud properties, to control lost circulation and to contain “kick” will be available at well site.

7. **Testing, Logging, and Core Programs**

- **Cores:** None
- **DST's:** None
- **Surveys:** MWD surveys during build and drop portions of well plan.
- **Mud Logger:** Base of surface casing (BSC) to TD.

**Logging Program:**
- GR TD to surface.
- CNL-FDC, GR and Caliper; TD to BSC.
- GR-CCL-CBL-VDL will be run from PBTD to 500’ above indicated TOC during completion.

8. **Anticipated Abnormal Pressures or Temperatures**

No abnormal pressures or temperatures are anticipated. No H$_2$S gas is anticipated.

Due to the size of the Whitewater Unit, pressures vary from a minimum of 490 psi to a maximum bottom hole pressure of approximately 1,150 psi based on a pressure gradient of 0.34 in the Dakota/Cedar Mountain interval at TD. Maximum anticipated surface pressure is approximately 1,140 psig. Minimum
surface pressure is 490 psig. If any well has a different anticipated pressure, it will be listed in the site specific APD.

9. Anticipated Starting Date and Duration

A. Dirt Work Start Up: Upon Approval of Site-Specific APDs
B. Spud: As soon as rig is available
C. Duration:
   1. Drilling: 10 days
   2. Completion: 5 days