

1. Existing Roads:

BOPCO, L. P.  
Yellow Creek Federal 12-32-1  
Section 12, T1S, R98W, 6th PM

From the intersection of US Highway 64 and 10<sup>th</sup> Street in Meeker, Colorado proceed in a westerly direction along US Highway 64 approximately 19.8 miles to the junction of the Piceance Creek Road (County Road #5); exit left and proceed in a southerly direction along the Piceance Creek Road approximately 4.6 miles to the junction of County Road #20; exit right and proceed in a northwesterly direction along County Road #20 approximately 2.7 miles to the junction of County Road #83 (south) and County Road #88 (north). Continue on County Road #20 in a southwesterly direction approximately 2.3 miles to the junction of County Road #122; Continue on County road #20 in a southerly direction approximately 3.0 miles to the junction of an existing road; exit left and proceed in a southeasterly direction approximately 0.7 miles to the junction of an existing road to the southwest; exit right and proceed in a southwesterly direction approximately 0.6 miles to the 1-33-1 well pad; proceed in a southwesterly direction across the well pad approximately 400 feet to the proposed access road. Follow road flags in a southerly direction approximately 4,260 feet to the proposed location.

Total distance from Meeker, Colorado is approximately 34.5 miles in a westerly direction.


All existing roads to the proposed location are State of Colorado, BLM maintained or County Class D roads.

Please see the attached map for additional details.

2. Planned access road

The proposed access road will be approximately 3,960' of new construction. The road will be graded once per year minimum and maintained.

- A) Approximate length.....3,960 ft
- B) Right-of-Way width.....30 ft
- C) Running surface.....18 ft
- D) Surface material.....Native soil
- E) Maximum grade.....8%
- F) Fence crossings.....None
- G) Culverts.....None
- H) Turnouts.....None
- I) Major cuts and fills.....None
- J) Road Flagged.....Yes
- K) Access road surface ownership.....Federal
- L) All new construction on lease.....Yes

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M) Pipe line crossings.....No

Please see the attached location plat for additional details.

An off lease Right-of-Way will not be required.

All surface disturbances for the road and location will be within the lease boundary.

3. Location of existing wells

The following wells are located within a one-mile radius of the location site.

- A) Producing well.....YCF 1-33-1
- B) Water well.....None
- C) Abandoned well.....Mallard 4813  
Mallard 4812  
Mallard 4811  
Mallard 4810  
Mallard 4809
- D) Temp. abandoned well.....None
- E) Disposal well.....None
- F) Drilling /Permitted well.....None
- G) Shut in well.....None
- H) Injection well.....None
- I) Monitoring or observation well.....None

Please see the attached map for additional details.

4. Location of tank batteries, production facilities and production gathering service lines:

All production facilities are to be contained within the proposed location site. Please see the attached plat for a typical gas well separator installation and well site piping.

All permanent (on site for more than six months or longer) structures constructed or installed will be painted a **Juniper Green** color. Facilities required to comply with O.S.H.A. (Occupational Safety and Health Act) will be excluded. The required paint color is **Juniper Green**.

All tanks will be surrounded by a dike of sufficient capacity to contain the storage capacity of the largest tank in the battery. The integrity of the dike will be maintained.

The operator will adhere to all site security guidelines and regulation identified in 43 CFR 3126.7.

If the well is capable of economic production a surface gas line will be required.

**Approximately 5,030' of 6" steel buried gas gathering line and approximately 5,030' of 3.5" poly line for water would be constructed on Federal Lands in the same trench. The line will tie into an existing pipeline in Section 1, T1S, R98W, 6<sup>th</sup> PM. The pipelines will be buried to the north of the location and adjacent to the access road.**

**An off lease Right-of-Way will not be required.**

Please see the attached location diagrams for pipeline location.

## **5. Location and type of water supply**

Water for drilling and cementing will be hauled by Dalbo/A-1 Tanks and will come from the White River.

## **6. Source of construction materials**

All construction material for this location site and access road shall be barrow material accumulated during construction of the location site and access road. If required, additional road gravel or pit lining material will be obtained from private resources.

## **7. Methods for handling waste disposal**

### **A) Pit construction and liners:**

The reserve pit will be approximately **15 ft.** deep and most of the depth shall be below the surface of the existing ground. Please see the attached plat for details.

The reserve pit will be lined.

The reserve pit will be used to store water for drilling and for fracture stimulation during completion. A semi-closed system will be used to drill the well. All fresh water for drilling will come from a frac tank placed on location and from the rig tank. The pit will be used to hold non-flammable materials such as cuttings, salt, drilling fluids, chemicals, produced fluids, etc.

### **B) Produced fluids:**

Produced water will be confined to the reserve pit, or if deemed necessary, a storage tank for a period not to exceed 90 days after initial production. During the 90-day period an application for approval for permanent disposal method and location will be submitted to the authorized officer. Onsite evaporation may be used instead of trucking to facilitate closing and reclamation of the reserve pit. A pumping system would be used for evaporation.

C) Garbage:

A commercial trash container will be used to hold trash on location and will be removed to an authorized landfill location.

D) Sewage:

Portable chemical toilets will be supplied for human waste.

E) Site clean-up:

After the rig is moved off the location the well site area will be cleaned and all refuse removed.

8. Ancillary facilities

There are no ancillary facilities planned at this time and none are foreseen for the future.

9. Well-site layout

Location dimensions are as follows:

A) Pad length.....	395 ft
B) Pad width.....	305 ft
C) Pit depth.....	15 ft
D) Pit length.....	140 ft
E) Pit width.....	85 ft
F) Max cut .....	13.3 ft
G) Max fill.....	16.3 ft
H) Total cut yards.....	14,670 cubic yards
I) Pit location.....	NW end
J) Pit topsoil location.....	Corner C
K) Top soil location.....	SW & West ends
L) Access road location.....	West end
M) Flare Pit.....	Corner C
N) FW Pit length.....	50 ft
O) FW Pit width.....	85 ft
P) FW Pit depth.....	15 ft
Q) Total disturbed acres.....	3.45

Please see the attached location diagram for additional details.

All pits will be fenced according to the following minimum standards:

- A) Reserve pits used for drilling will be fenced on three sides prior to drilling activity and closed off on the fourth side after drilling is finished. All fence corners will be braced with an H-type brace. Within the wild horse range, the reserve pit fence shall be 48 inches high. In sheep allotments, the fence will have 48 inches of woven wire and cattle allotments will have four strands of barbed wire. Fences will be located at least four feet from the edge of the pit slope.
- B) Corner posts shall be cemented and/or braced in such a manner to keep the fence tight at all times.
- C) Standard steel, wood or pipe posts shall be used between the corner braces. Maximum distance between any two posts shall be no greater than 16 ft.
- D) All wire shall be stretched by using a stretching device before it is attached to the corner posts.

#### **10. Plans for restoration of the surface:**

Prior to construction of the location, the top 6 inches of soil material will be stripped off the location and the pit area. The topsoil removed and piled will amount to approximately **2,170** cubic yards of material. Topsoil will be stockpiled in one distinct pile. Placement of the topsoil is noted on the attached location plat. The topsoil pile from the location will be seeded as soon as the soil is stock piled with the seed mix listed. When all drilling and completion activities have been completed and the pit back-filled the topsoil from the pit area will be spread on the pit area. The pit area will be seeded when the soil has been spread. The unused portion of the location (the area outside the dead men) will be re-contoured.

Once the drilling rig moves off location, the reserve pit will be bird netted. The dirt contractor will be provided with an approved copy of the surface use plan prior to construction activities.

Changes to the drainage during the construction activities shall be restored to its original line of flow or as near as possible when the pit is back-filled

All disturbed areas will be re-contoured to the approximate natural contours. Prior to back filling the pit the fences around the reserve pit will be removed.

The reserve pit will be reclaimed within 90 days of well completion. If the reserve pit has not dried sufficiently to allow back filling, an extension on the time requirement for back filling the pit will be requested. Once reclamation activities have begun, they shall be completed within 30 days.

After the reserve pit has been reclaimed, no depressions in the soil covering the reserve pit will be allowed. The objective is to keep seasonal rainfall and run off from seeping into the

soil used to cover the reserve pit. Diversion ditches and water bars will be used to divert the run off as needed.

When restoration activities have been completed, the location site and new access road cuts and shoulders shall be reseeded. Prior to reseeding, all disturbed areas will be scarified and left with a rough surface.

A) Seeding dates:

Seed will be spread when topsoil is stock piled and when reclamation work is performed.

The seed mix and quantity list will be used whether the seed is broadcast or drilled.

B) Interim Seed Mix:

**To be determined by the Authorized Officer.**

**11. Surface ownership:**

**Access road.....Federal**  
**Location.....Federal**  
**Pipe line.....Federal**

**12. Other information:**

A) Vegetation:

The vegetation coverage is slight. The majority of the existing vegetation consists of sagebrush, spruce, cedars and native vegetation.

B) Dwellings:

There are no dwellings or other facilities within a one-mile radius of the location.

C) Archeology:

The location has been surveyed. A copy of that survey will be forwarded to your office.

If, during operations, any archaeological or historical sites, or any objects of antiquity (subject to the antiquities act of June 8, 1906) are discovered, all operations, which would affect such sites will be suspended and the discovery reported promptly to the surface management agency.

D) Water:

**The nearest water is Yellow Creek located 6,000' +/- to the west.**

E) Chemicals:

No pesticides, herbicides or other possible hazardous chemicals will be used without prior approval.

F) Notification:

- a) Location Construction at least forty eight (48) hours prior to construction of location and access roads.
- b) Location completion prior to moving on the drilling rig.
- c) Spud notice at least twenty-four (24) hours prior to spudding the well.
- d) Casing string and cementing at least twenty-four (24) hours prior to running casing and cementing all casing strings.
- e) BOP and related equipment tests  
At least twenty-four (24) hours prior to initial pressure tests.
- f) First production notice within five (5) business days after the new well begins, or production resumes after well has been off production for more than 90 days.

G) Flare pit:

The flare pit will be located in **corner 6** of the reserve pit out side the pit fences and 100 feet from the bore hole on the east side of the location. All fluids will be removed from the pit within 48 hours of occurrence.

**13. Lessees or Operator's representative and certification:**

A) Representative

Ginger Stringham *Paradigm*  
Paradigm Consulting  
Vernal, UT 84079

Office 435-789-4162  
Fax 435-789-8188  
Cellular 435-790-4163

All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, onshore oil and gas orders, and any applicable notices to lessees. The operator is fully responsible for the actions of his subcontractors. A copy of these conditions will be furnished to the field representative to ensure compliance.

This drilling permit will be valid for a period of two years from the date of approval. After permit termination, a new application will be filed for approval for any future operations.



Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill-site and access route that I am familiar with the conditions which currently exist, that the statements made in this plan are, to the best of my knowledge and belief, true and correct, and that the work associated with the operation proposed herein will be performed by BOPCO, L.P. and its contractors and subcontractors in conformity with this plan and terms and conditions with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for filing of a false statement.

**Name: Ginger Stringham**

**Title: Agent**

**Signature:**

*Ginger Bowden (Stringham)*

**Date: 7/2/07**

**Revised Date: October 22, 2007**

**Onsite Dates: October 1, 2007**

**BOPCO**  
**13-POINT SURFACE USE PLAN**  
**FOR YELLOW CREEK FEDERAL WELL 12-32-1,**  
**LOCATION IN LOT 7**  
**SECTION 12, T1S, R98W 6<sup>TH</sup> P.M.**  
**RIO BLANCO COUNTY, COLORADO**  
**LEASE NUMBER: COC-57978**  
**SURFACE OWNERSHIP: FEDERAL**

**Updated as of April 2008**

2008 MAY -8 PM 2:26  
COC-57978  
12-32-1  
LOT 7  
SECTION 12  
T1S R98W 6TH

*NOTE: The following sections of BOPCO's 13-Point Surface Use Plan for the YCF 12-32-1 well are revised and updated to incorporate new data and current actions/procedures proposed by BOPCO. New text is in red. Those sections not included in this updated plan remain unchanged from the original 13-Point SUP submitted by BOPCO included in the APD package dated October 22, 2007.*

**1. Existing Roads:**

**BOPCO, L.P.  
Yellow Creek Federal 12-32-1  
Section 12, T1S, R98W, 6<sup>th</sup> P.M.**

From the intersection of US Highway 64 and 10<sup>th</sup> Street in Meeker, Colorado, proceed in a westerly direction along US Highway 64 approximately 19.8 miles to the junction of the Piceance Creek Road (County Road #5); exit left and proceed in a southerly direction along the Piceance Creek Road approximately 4.6 miles to the junction of County Road #20; exit right and proceed in a northwesterly direction along County Road #20 approximately 2.7 miles to the junction of County Road #83 (south) and County Road #88 (north). Continue on County Road #20 in a southwesterly direction approximately 2.3 miles to the junction of County Road #122. **Continue on County Road #20 in a southerly direction approximately 3.0 miles to the existing compressor site and junction of an existing road; exit left and proceed in a southeasterly direction approximately 0.7 miles to the junction of an existing road to the southwest; exit right and proceed in a southwesterly direction approximately 0.6 miles to the existing YCF 1-35-1 well pad; continue in a southerly direction across the well pad approximately 4,260 feet to the proposed location.**

Total distance from Meeker, Colorado is approximately 34.5 miles in a westerly direction.

**2. Planned access road:**

The proposed access road will be approximately **4,260'** of new construction. The road will be graded once per year minimum and maintained.

**A) Approximate length.....4,260 ft**

**3. Location of existing wells:**

**A) Producing well.....YCF 1-35-1**

**4. Location of tank batteries, production facilities and production gathering service lines:**



All production facilities are to be located off the proposed well pad, at a site immediately adjacent to the pad where the proposed access road enters the pad (Corner 7). The tank battery site facilities will include four 400 barrel tanks, sales and dump lines and a quad pack. An insulated 2 inch flow line and a 1 inch trace line will connect the well head to the quad pack. Refer to Sheet 3b, dated November 29, 2007, for the production layout.

#### **5. Location and type of water supply:**

Approximately 3.9 acre-feet (or 30,000 bbl [barrels]) of water would be needed to drill and complete each proposed well. All fresh water would come from either existing permits from the White River or from commercial culinary permits from the cities of Meeker or Rangely, Colorado. Water would be provided by water-hauling trucks having a water holding capacity ranging between 100 and 180 barrels. Water would be stored on location in either a tank or from the rig tank.

To minimize the use of fresh water, drilling water from one well will be cleaned, tested and reused to the maximum extent possible, without causing damage to equipment or result in degradation of surface resources. Water needed for fracing purposes during well completion activities would come from BOPCO's "frac tank water station, located on BOPCO's YCF 32-33-1 well pad in T1N, R98W, section 32. This pad contains a collection of about 80 tanks capable of supplying water needed for frac actions for a single well. Frac water would be transported from the water station to the proposed well location via an 8-inch polyurethane buried pipeline located within road ROWs. Upon completion of frac actions, the water would be recollected at the frac tank water station, cleaned, tested and held for use by the next well scheduled for such activities.

#### **7. Methods for handling waste disposal:**

##### **A) Pit Construction:**

The proposed wells would be drilled and completed using a two-phase process:

- The first phase would involve a relatively small drill rig (Lang or its equivalent in size and capacity) using reverse circulation methods to complete surface drilling down to a depth of about 3500 feet, and to install surface casing. This phase would require a small cuttings pit (having measurements of approximately 15 feet x 40 feet x 12 feet deep). This pit would hold first-phase cutting returns, fresh water liquids and excess circulation cement.
  - The cuttings pit would be constructed on the cut side of each pad. The pit would not be located in a natural drainage or where surface run-off could enter the pit or damage the pit walls.
  - Surface casing would involve cementing the drill hole from the surface to a depth of about 3500 feet, depending on the specific well.
- The second phase would involve a larger drill rig (H&P 317 or a skid-mounted rig of equivalent dimensions and capacity) to complete drilling activities down to the target depth. This phase would involve a closed loop system, involving a series of equipment and dewatering actions resulting in a "dry" location where a reserve pit



is not required and drilling fluids are recycled. BOPCO would use a small drill cuttings pit, located on the well pad, having a measurement of approximately 50 feet by 50 feet by 12 feet deep, to hold only the dry cuttings material obtained from drilling. Prior to reclamation, these pits would be cleared of cuttings materials.

## 9. Well-site layout:

Location dimensions are as follows:

B) Pad width.....	395 ft
C) Pit depth.....	15 ft
D) Pit length.....	130 ft
E) Pit width.....	85 ft
F) Max cut.....	25.3 ft (to depth of pit)
G) Max fill.....	18.3 ft (at Corner 8)
I) Pit location.....	Between Corners 4 and 6
K) Topsoil locations.....	Corner 6
L) Access road location.....	Corner 3
Q) Tank battery location.....	Corner 3 and adjacent to access route
R) Total disturbed acres.....	Well pad disturbance = 2.94
	Material stockpiles = 0.51
	Tank battery = 0.23
	Estimated Total Well-site Disturbance = 3.68

Please see the attached location diagrams, revised November 29, 2007, for additional details.

All pits will be constructed and operated to the following minimum standards:

A) The cuttings pit would be fenced to prevent access for wildlife and unauthorized personnel. The fencing would be installed on three sides of the pit during drilling operations and on the fourth side with the drilling rig moves off location and until the pit is backfilled and reclaimed. In wild horse range, the fence height would not exceed 48 inches. On cattle allotments, the fence would be constructed of four strands of barbed wire.

E) Once the drilling rig is moved off location, the reserve pit would be netted to protect migrating birds.

## 10. Plans for restoration of the surface:

A) Restoration of the cuttings pit would involve using an excavator to remove as much of the drilling mud as possible, then, using a 50:50 mix of subsoil with fly ash (obtained from a commercial supplier), compact the mixture as layers until the pit is completely filled and level with the well pad.

B) Restoration of the surface would be completed in accordance with the attached reclamation plan.

**12. Other information:**

H) The Storm Water Management Plan is attached

**13. Lessees or Operator's representative and certification:**

**A) Representatives**

Surface Use Plan  
Kally Moran  
Buys and Associates, Inc.  
300 East Mineral Avenue, Suite 10  
Littleton, CO 80122  
303-781-8211 Office  
303-781-1167 FAX  
303-968-5257 Cell

Drill Plan  
Bruce Patterson  
New Tech Engineering  
1600 Broadway  
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303-629-9334 Office  
303-629-0218 FAX  
303-941-7751 Cell