



TOPSOIL PROTECTION PLAN

CPX Piceance Holdings, LLC (CPX) owns and operates Tepee Park Ranch (TPR) in Garfield County, Colorado. CPX has prepared this Topsoil Protection Plan for its proposed Temporary Water Support Pad 25B on TPR. The sections below correspond to Colorado Oil & Gas Conservation Commission (COGCC) Rule 304.c.(14) to prepare a Topsoil Protection Plan consistent with Rule 1002 and Topsoil Protection Plan Guidance (March 25, 2022).

1.0 Disturbance Acreage

TPR is privately owned and operated by CPX, predominantly for the exploration and development of natural gas. Pad 25B is a temporary water support pad. It will be used to store water during well completions on TPR. It will be decommissioned and the pad will be reclaimed when well development is complete on TPR. The life of the pad is an estimated 3 years.

Pad 25B will be located in part on the existing Tepee Park Ranch road to limit new disturbance. An approximately 411-foot portion of the existing private dirt Tepee Park Ranch road will be rerouted to provide sufficient area to place stormwater controls north of Pad 25B and to reduce the road grade south of Pad 25B.

Disturbance for Pad 25B is shown on the attached Construction Layout Drawing. The disturbance acreages are listed in Table 1.

Table 1. Estimated Disturbance Acreages

Area	Acres	Description
Oil and Gas Location	4.1	New Disturbance
Working Pad Surface	1.8	Included in Oil and Gas Location
Tepee Park Ranch Road	1.6	Existing Disturbance
Tepee Park Ranch Road Reroute	0.2	New Disturbance
TOTAL NEW DISTURBANCE	4.3	

2.0 Soil Types

The Natural Resource Conservation Service (NRCS) soil types under this OGDG are listed below.

Oil and Gas Location

220B: Angostura Family, 5 to 40 percent slopes

338B: Wetopa-Doughspon-Echemoor families complex, 5 to 40 percent slopes

Tepee Park Ranch Road

220B: Angostura Family, 5 to 40 percent slopes

338B: Wetopa-Doughspon-Echemoor families complex, 5 to 40 percent slopes

449C: Tampico-Echemoor-Eyre families complex, 30 to 65 percent slopes

The Oil and Gas Location will disturb NRCS soil type 338B: Wetopa-Doughspon-Echemoor families complex, 5 to 40 percent slopes. The location also will disturb an approximately 0.15-acre portion of NRCS soil type 220B: Angostura Family, 5 to 40 percent slopes.

A Soil Unit Map is attached. According to COGCC Topsoil Protection Plan Guidance (March 25, 2022), NRCS map unit description sheets should not be attached to the Topsoil Protection Plan; that information is a separate attachment to the Form 2A.

3.0 Soil Evaluation

An onsite soil pit evaluation was conducted on June 15, 2022. The evaluation was a visual and tactile field review of topsoil depths using hand-dug soil pits in representative undisturbed soils on the proposed Oil and Gas Location. A qualified representative for CPX dug three pits to represent the NRCS soil units. The pit locations are shown on the attached Soil Pit Location figure.

Soil pit depths distinguished the A and B soil horizons. Topsoil depth in the soil pit locations was identified based on root structure, organic content, soil color (Munsell color), and texture. The results of the soil pit evaluation are shown in Table 2. The evaluation is illustrated on the attached Soil Pit Photographs and Evaluation.

Topsoil depths ranged from 10 to 12 inches. Organic matter was high. Soil texture in the A-horizon varied from sandy loam to silt loam. The B-horizon varied from clay loam to cobbly silt loam.

Table 2. Soil Pits

	Soil Pit 1	Soil Pit 2	Soil Pit 3
Location	39.404944, -107.83161	39.404992, -107.83088	39.404776, -107.83028
Soil Unit	338B: Wetopa-Doughspon-Echemoor	338B: Wetopa-Doughspon-Echemoor	220B: Angostura Family
Topsoil Depth (inches)	12	11	10
A-Horizon	Sandy Loam	Sandy Loam	Silt Loam
B-Horizon	Clay Loam	Clay Loam	Cobbly Silt Loam
Munsell Soil Color	10YR 2/2	10YR 3/3	5YR 3/1

4.0 Volume of Topsoil to be Salvaged

The topsoil to be salvaged is an estimated 2,900 cubic yards. The volume is shown on the attached Construction Layout Drawing.

5.0 Topsoil Segregation and Stockpiling

The soil stockpile location is shown on the attached Construction Layout Drawing.

During pad construction, topsoil will be segregated based on physical characteristics, such as organic content, color, texture, structure, and consistency. The topsoil is darker and contains less clay than the underlying soils.

Topsoil will be stockpiled on the east side of the pad.

The stockpile will be approximately 10.8 feet high.

The stockpile slope will be a stable 2:1 to 2.7:1.

The stockpile will be marked to designate it as topsoil to be protected for reclamation.

6.0 Topsoil Protection

CPX will protect the topsoil stockpile from degradation in the following ways:

Contamination

CPX will keep the area surrounding the stockpile clear of equipment, stored materials, and vehicle parking.

Compaction

The stockpile will be placed on the edge of the Working Pad Surface to keep it intact and avoid the risk that equipment will be operated over the stockpile.

Wind and Water Degradation

The stockpile will be consolidated and mounded during pad construction to minimize loose or blowing soils. To further stabilize the stockpile, after the final soil is added the stockpile, the stockpile will be hydromulched and seeded to promote vegetation. The stockpile will be tracked for surface roughening and seeded using a Forest Service special blend seed mix that has been established for TPR reclamation. The stockpile will be located on a portion of the Working Pad Surface that promotes natural drainage and avoids ponding and stormwater runnels. Stormwater diversions will be constructed on the location that avoid degradation to the stockpile.

Weed Establishment

Vegetation established on the stockpile will be used to outcompete weeds. The stockpile will be monitored for potential weed infestations. Weeds will be managed by hand pulling and spraying. A Weed Control Plan is attached to this Plan.

Soil Microbial Activity

Vegetative cover will be established on the stockpile to promote soil microbial activity. The microbes provide a bank of viable seeds for native forbs and grasses for later germination. The stockpile during use of Pad 25B is shown on the attached Facility Layout Drawing.

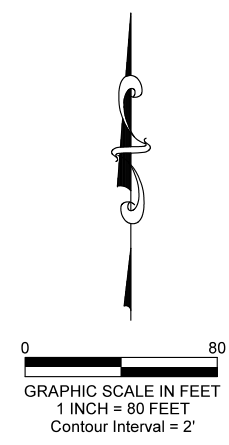
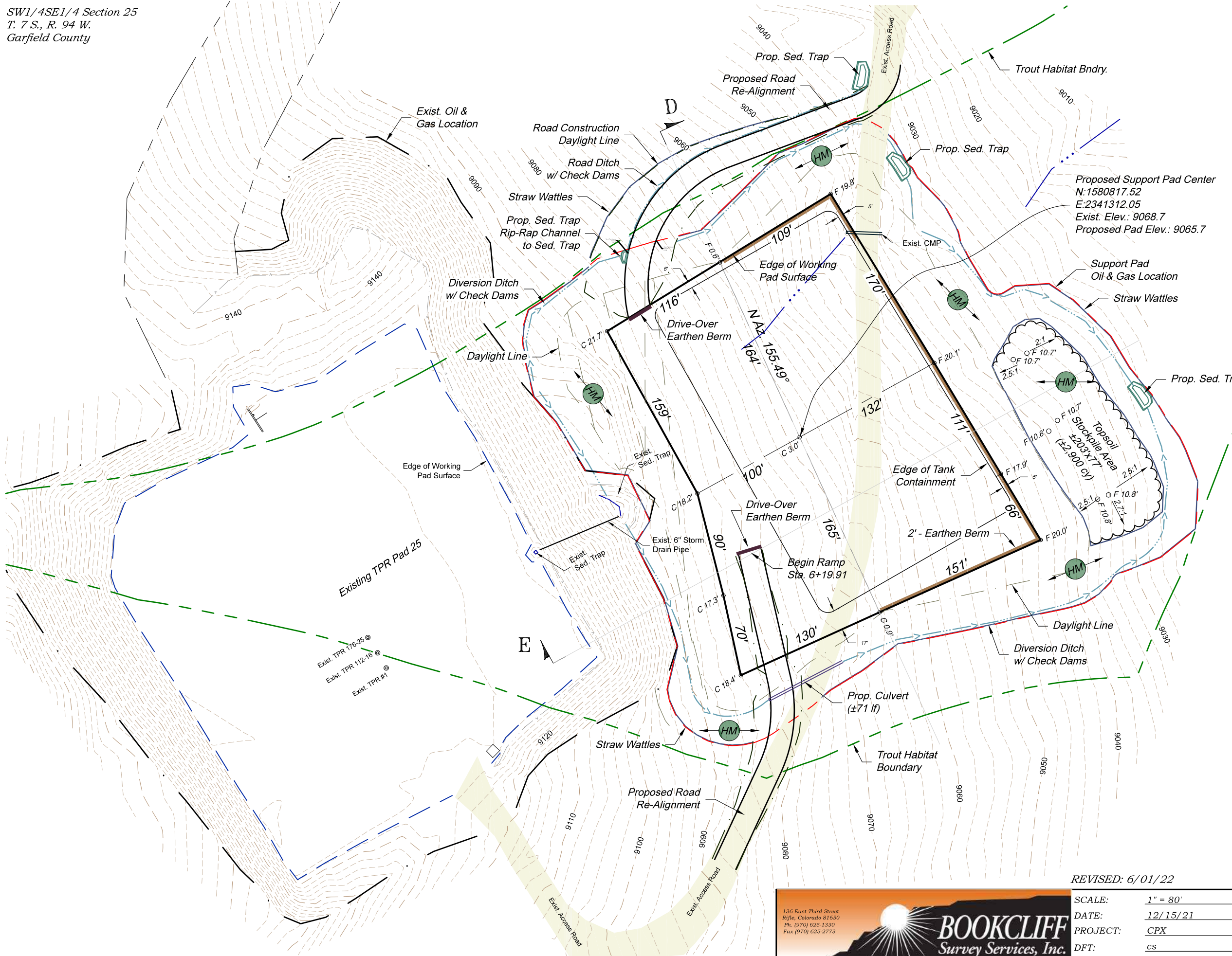
Table 3. Best Management Practices

Short-Term
<ul style="list-style-type: none"> Vegetation removal and soil disturbance on the Oil and Gas Location will be minimized to the area sufficient to site and level the Pad 25B equipment.
<ul style="list-style-type: none"> The operator will salvage and segregate topsoil based on soil characteristics or color, texture, structure, and consistency.
<ul style="list-style-type: none"> Topsoil will be protected from contamination by stockpiling it in a location free from equipment, fuel storage, and parking.
<ul style="list-style-type: none"> Topsoil removed for the approximately 411 feet of road reroute will be segregated based on changes in physical characteristics. It will be windrowed, hydromulched, and seeded for reuse.
Long-Term
<ul style="list-style-type: none"> The soil stockpile will be protected from compaction by isolating it from equipment operating on the Working Pad Surface.
<ul style="list-style-type: none"> The stockpile will be designated with surveyor staking and flagging as topsoil for reclamation.
<ul style="list-style-type: none"> Salvaged topsoil will be stockpiled for reuse. It will be protected from wind degradation by mounding at a stable 2:1 to 2.7:1 slope to prevent loose soils.
<ul style="list-style-type: none"> The stockpile will be protected from water degradation by ensuring that stormwater controls and diversions are installed to divert water away from the stockpile and prevent ponding and runnels.
<ul style="list-style-type: none"> Surface roughening and seeding will be used to allow vegetation to establish on the stockpile to stabilize it, outcompete weeds, and promote soil microbial activity.
<ul style="list-style-type: none"> The stockpile will be monitored for stormwater degradation on at least a weekly basis by the field operator.
<ul style="list-style-type: none"> The stockpile will be monitored and managed for weeds during weed management monitoring conducted by the field operator. Weeds will be mechanically or chemically controlled.

Attachments

Construction Layout Drawing
Facility Layout Drawing
Soil Unit Map
Soil Pit Locations
Soil Pit Photographs and Evaluation
Weed Control Plan

SW1/4SE1/4 Section 25
T. 7 S., R. 94 W.
Garfield County



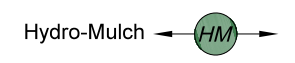
Proposed Support Pad Center
N:1580817.52
E:2341312.05
Exist. Elev.: 9068.7
Proposed Pad Elev.: 9065.7

- *Notes**
- 1) Design Cut Slope: 1.5:1
Design Fill Slope : 1.5:1
 - 2) CY soil based on topsoil depth
 - 3) 20% Swell Factor Applied to Earthwork Cut Volumes.

DISTURBANCE AREAS
Oil and Gas Location: ±4.13 ac
Working Pad Surface: ±1.83 ac

Workin Pad Surface: 328'x232'

Proposed Road Length: 411 lf
Road Width: 20 ft
Total Disturbance: 0.20 ac



ESTIMATED EARTHWORK QUANTITIES (cy)				
ITEM	CUT	FILL	TOPSOIL	EXCESS
PAD	24,790	22,560	2,900	20
TRENCH	0	0		0
TOTALS	24,790	22,560	2,900	20

REVISED: 6/01/22

136 East Third Street
Rifle, Colorado 81650
Ph. (970) 625-1330
Fax (970) 625-2773

BOOKCLIFF
Survey Services, Inc.

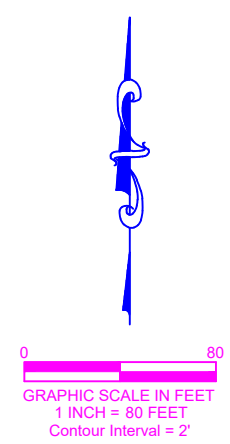
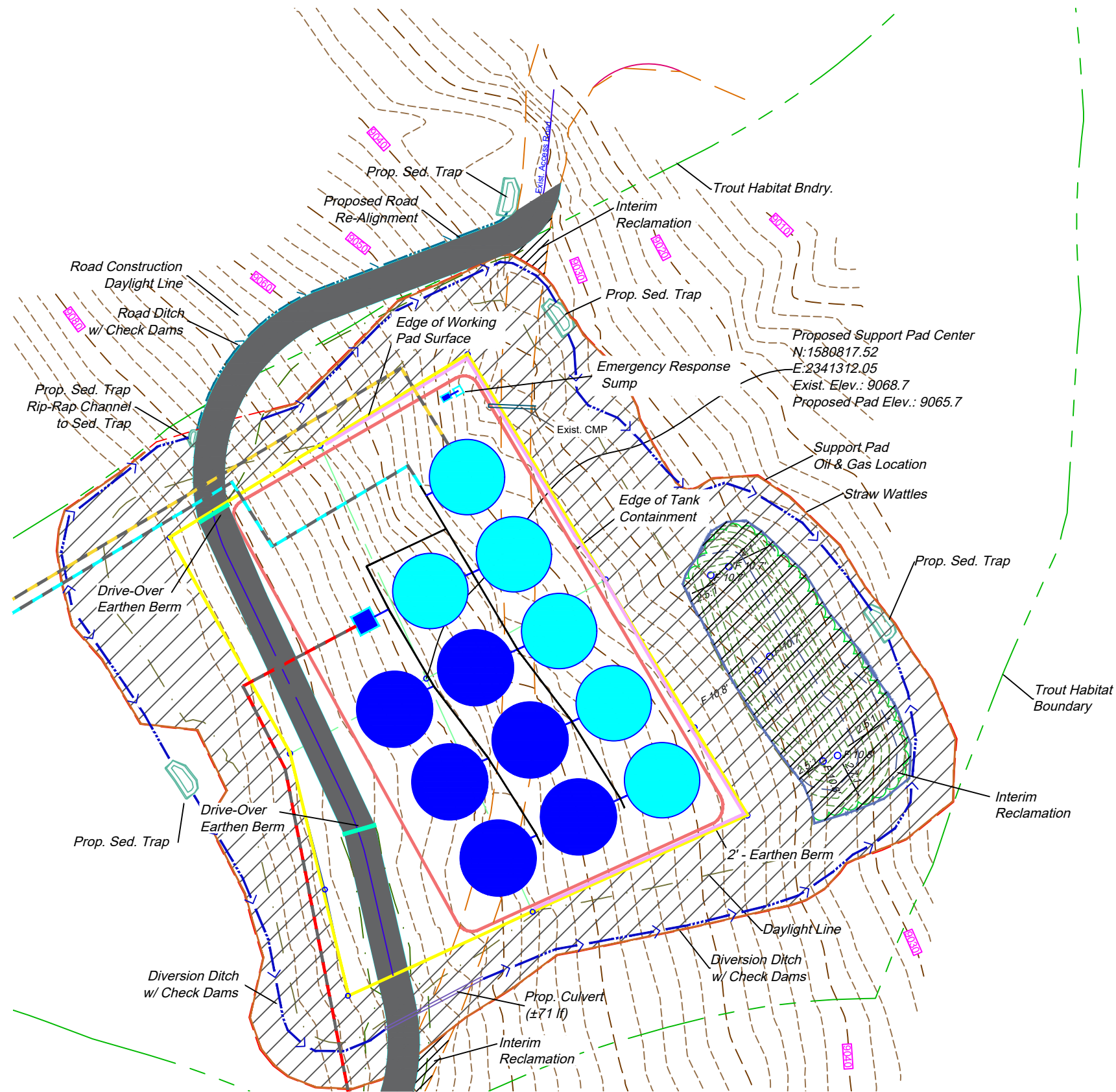
SCALE: 1" = 80'
DATE: 12/15/21
PROJECT: CPX
DFT: cs

Construction Plan Prepared for:

CPX Piceance Holdings, LLC

Temporary Water Support Pad 25B
CONSTRUCTION LAYOUT DRAWING
PLAN VIEW

PRELIMINARY



- LEGEND -

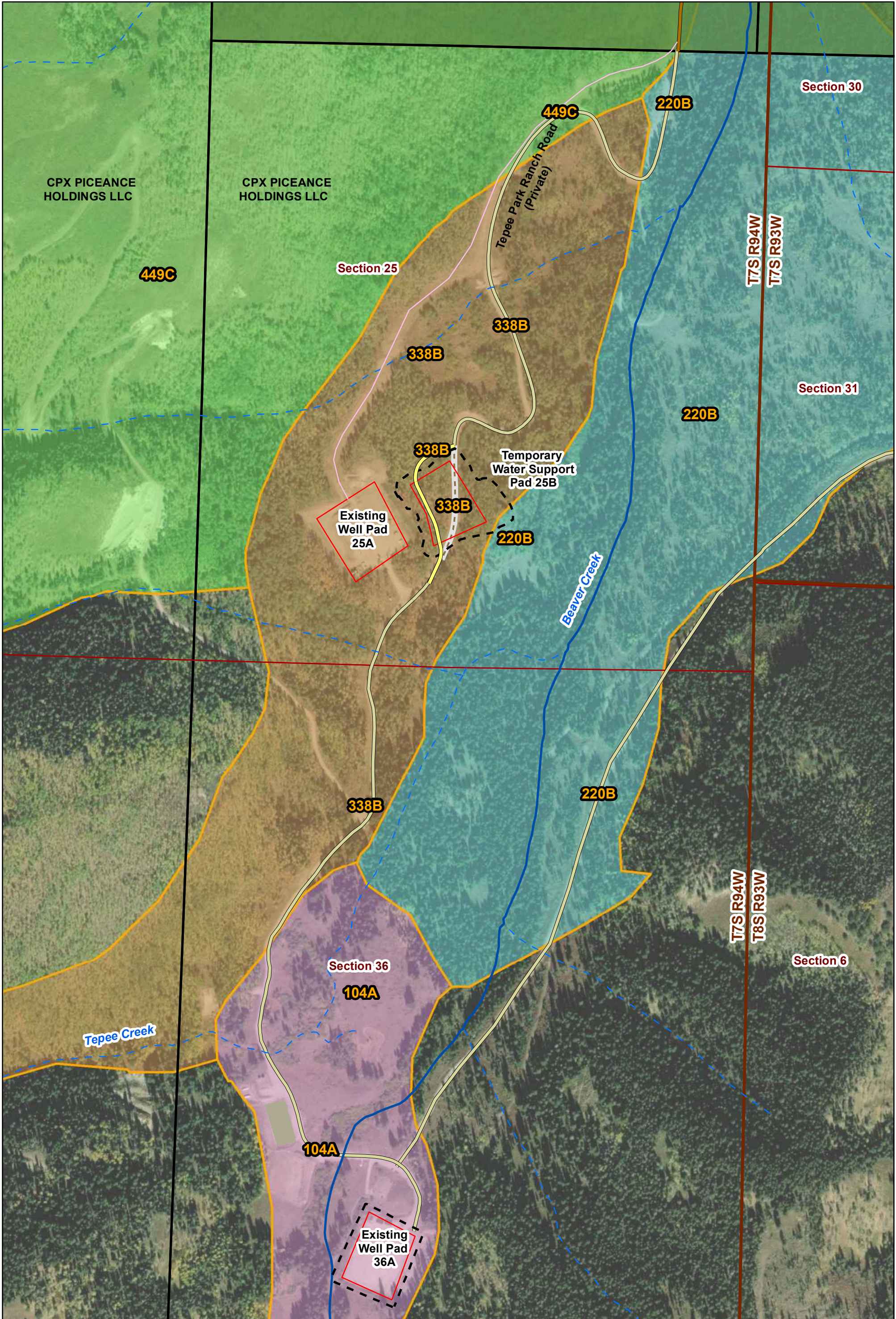
- 10K bbl WATER STORAGE TANK (50ft DIAMETER)
- 15K bbl HARPOON TANK (55ft DIAMETER)
- EDGE OF WORKING PAD SURFACE
- PROPOSED ROAD
- - - SUPPORT PAD OIL & GAS LOCATION
- DRIVE OVER BERM
- - - 2' MIN EARTH BERM
- - - DIVERSION DITCH
- STRAW WATTLES
- WATER FROM WELL COMPLETIONS
- WATER TRANSFER LINE TO REMOTE FRAC PAD
- WATER TRANSFER LINE FROM 8" FLEX STEEL
- - - 4' SECONDARY CONTAINMENT (MUSCLE WALL)
- 12" MANIFOLD (STEEL)
- 4" RUBBER HOSE
- PUMP
- EMERGENCY FLUID SUMP (STEEL)
- HYDROMULCH /SEED

Notes:

1. Water storage will total approximately 150,000 bbls in modular large volume tanks (MLVTs). Tank procurement is dependent on availability. Tanks are forecasted to be either 10,000-bbl or 15,000-bbl in size, or approximately 10 to 15 tanks.
2. Secondary Containment Capacity: +150% total capacity.
3. Pad 25B will be used only for temporary water storage. It will not contain wells.
4. Pad located on private surface. Gate locked at main entrance.

Temporary Water Support Pad 25B
Facility Layout

	DATE: 06/27/22		
	PROJECT: CPX		
	DESIGNED BY: JAS		
	DRAWN BY: TPP		



Aota Technical, LLC
CPX Piceance Holdings, LLC
Tepee Park Ranch
Temporary Water Support Pad 25B
Soil Unit Map
 Garfield County
 SW1/4SE1/4 Sec. 25, T7S R94W, 6th P.M.
 Date
 6/3/22

- Legend**
- Existing Off-location Flowlines
 - Oil and Gas Location
 - Working Pad Surface
 - Forest Service Jurisdiction
 - Parcels
 - Perennial Stream
 - Intermittent Stream
 - Forest Service Road
 - Private Road
 - Private Road Reroute and Access
 - Reclaimed Private Road
 - NRCS Soil Survey**
 - Soil Map Unit

- Soil Map Unit Description**
- 104A: Haplocryolls-Cryaquolls complex, 0 to 15 percent slopes
 - 220B: Angostura family, till substratum, 5 to 40 percent slopes
 - 338B: Wetopa-Doughspon-Echemoor families complex, 5 to 40 percent slopes
 - 449C: Tampico-Echemoor-Eyre families complex, 30 to 65 percent slopes

N

0 100 200 300 400
Feet

Data Source:
 COGCC GIS Online
 Natural Resources Conservation Service, Web Soil Survey
 U.S. Geologic Survey, National Hydrography Dataset

**T7S R94W
Section 25**



Aota Technical, LLC
CPX Piceance Holdings, LLC
Tepee Park Ranch
Temporary Water Support Pad 25B
Soil Test Pit Locations
 Garfield County
 SW1/4SE1/4 Sec. 25, T7S R94W, 6th P.M.
 Date
 6/24/22

Legend
 Working Pad Surface
 Oil and Gas Location
 Tepee Park Ranch Road
 Private Road Reroute and Access
 Reclaimed Private Road

NRCS Soil Survey
 Soil Map Unit
Soil Map Unit Description
 220B: Angostura family, till substratum, 5 to 40 percent slopes
 338B: Wetopa-Doughspon-Echemoor families complex, 5 to 40 percent slopes

Data Source:
 COGCC GIS Online
 Natural Resources Conservation Service, Web Soil Survey
 U.S. Geologic Survey, National Hydrography Dataset

CPX Piceance Holdings, LLC

Temporary Water Support Pad 25B

Soil Pit 1: Pit excavated on the Oil and Gas Location

Location Coordinates	Munsell Color	A Horizon	B Horizon
39.404944, -107.83161	10YR 2/2	12" Sandy Loam	Clay Loam

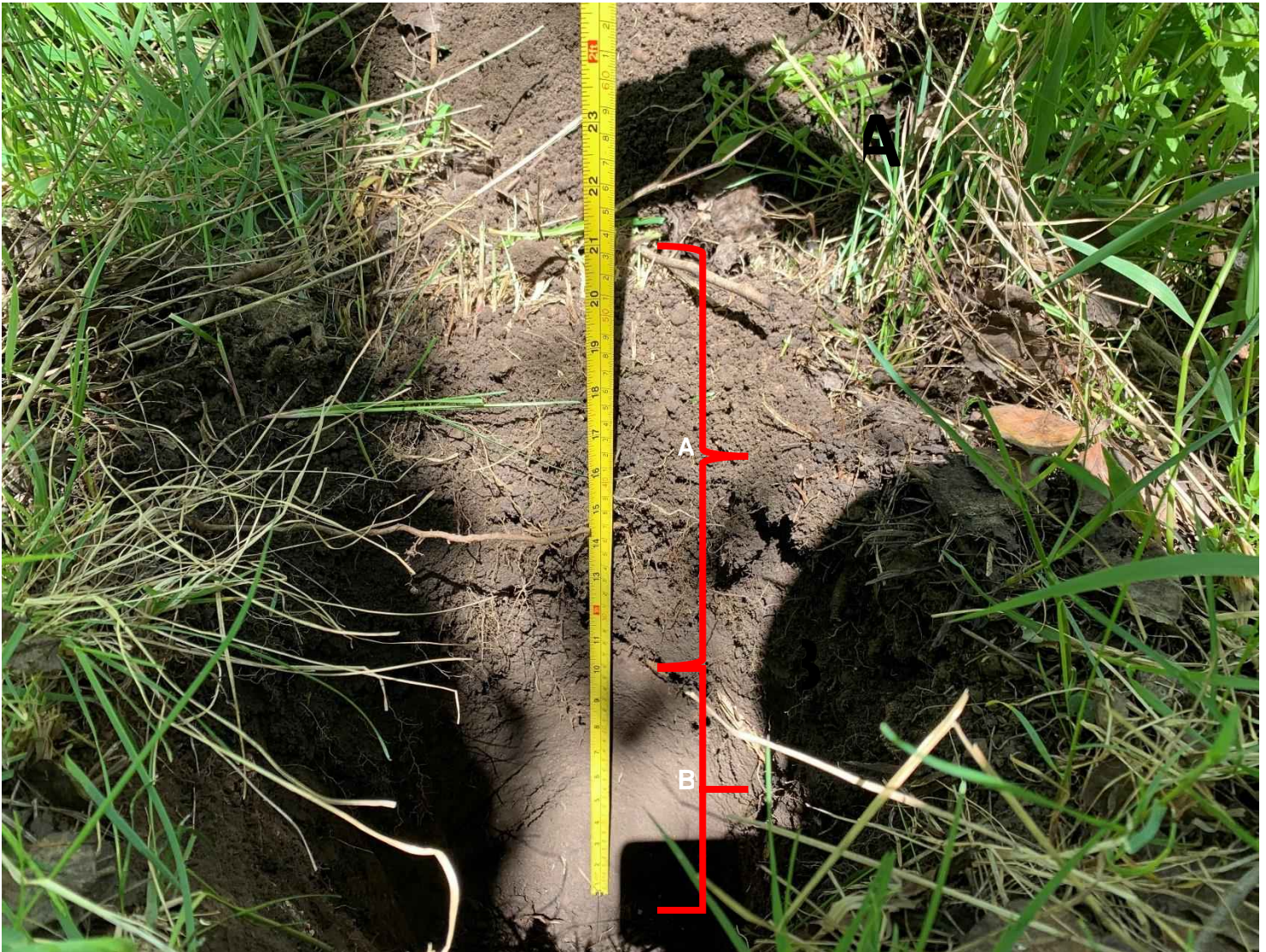


CPX Piceance Holdings, LLC

Temporary Water Support Pad 25B

Soil Pit 2: Pit excavated on the Oil and Gas Location

Location Coordinates	Munsell Color	A Horizon	B Horizon
39.404992, -107.83088	10YR 3/3	11" Sandy Loam	Clay Loam

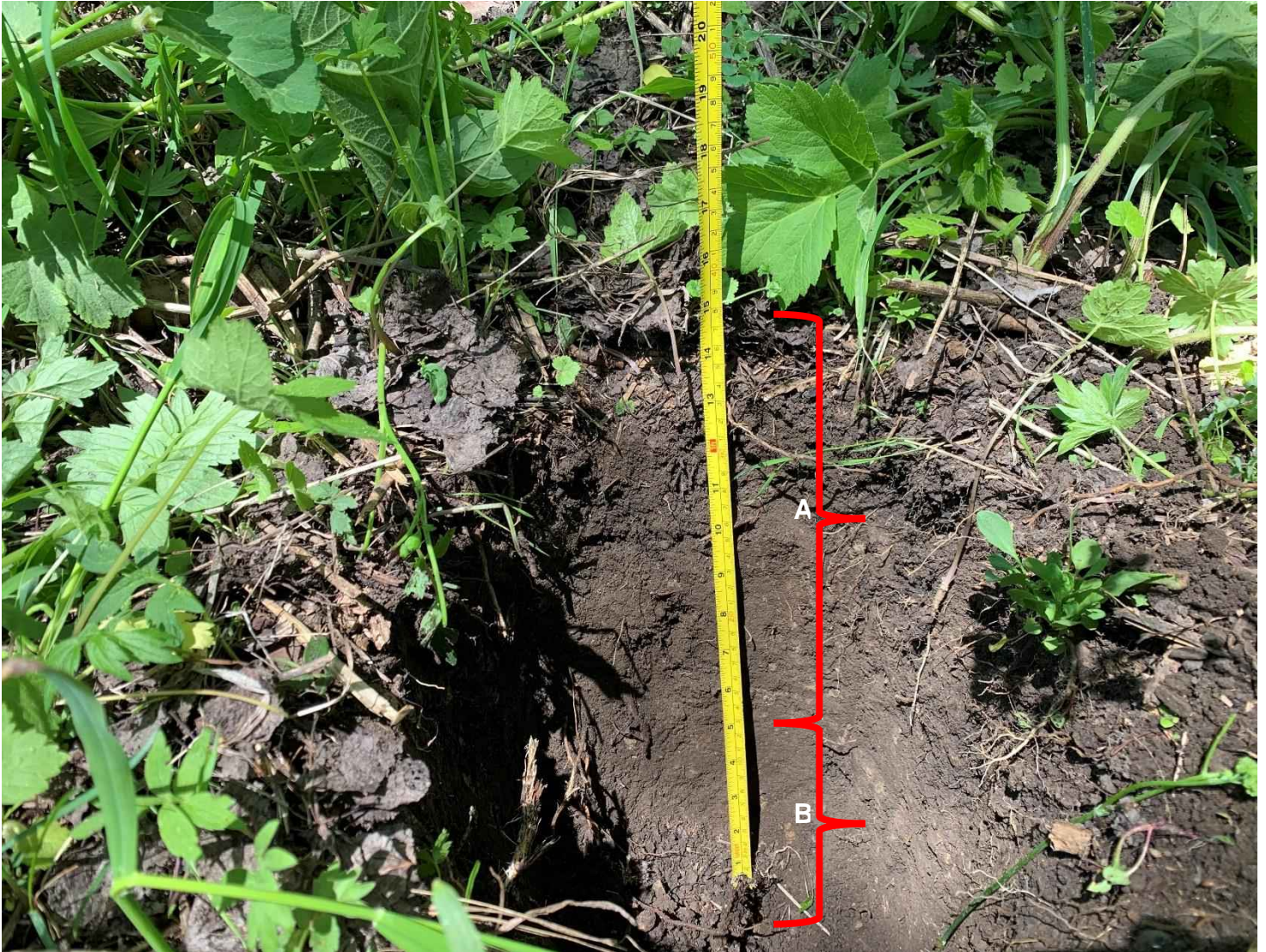


CPX Piceance Holdings, LLC

Temporary Water Support Pad 25B

Soil Pit 3: Pit excavated on the Oil and Gas Location

Location Coordinates	Munsell Color	A Horizon	B Horizon
39.404776, -107.83028	5YR 3/1	10" Silt Loam	Cobbly Silt Loam





WEED CONTROL PLAN

CPX Piceance Holdings, LLC (CPX) owns and operates Tepee Park Ranch (TPR) in Garfield County, Colorado. CPX has prepared this Weed Control Plan for operations on TPR. The Weed Control Plan supplements the Topsoil Protection Plan required under Colorado Oil & Gas Conservation Commission (COGCC) Rule 304.c.14. Topsoil Protection Plan guidance issued by COGCC (March 25, 2022) instructs that Topsoil Protection Plans include weed prevention best management practices (BMPs). In addition to BMPs, this Weed Management Plan includes Identification, Prevention, Control, and Monitoring for weeds, as described below.

1.0 Weed Identification and Existing Conditions

TPR performs identification of noxious weeds and weed infestations through site survey and during routine operations and maintenance.

Site surveys were conducted on TPR on September 27, 2021 and June 15, 2022. There were no noxious weeds or weed infestations observed on existing or proposed Oil and Gas Locations or along the access road during the surveys. There were scattered Canada thistle observed between existing well pads. Canada thistle is a List B species, according to the Colorado Department of Agriculture. The state, in consultation with local governments, develops weed management plans designed to stop the continued spread of List B species.

CPX’s Operations Manager and Field Operator are experienced with weed identification during routine operation and maintenance of Oil and Gas Locations, access roads, and flowline corridors. The noxious weed list provided by the Garfield County Vegetation Management Department is shown in Table 1. To assist individuals in the field, Garfield County provides electronic access to species-specific Identification and Management sheets prepared by the Colorado Department of Agriculture, Conservation Services Division. Each sheet provides photographs, descriptions, and physical characteristics of the weed species, including key identifiers. The sheets enable CPX staff to clearly identify a weed species and to distinguish between similar species.

Table 1. Garfield County Noxious Weed List and Classifications

Common Name	Common Name	Common Name
Absinth wormwood (B)	Black henbane (B)	Bouncingbet (B)
Bull thistle (B)	Canada thistle (B)	Chicory (C)
Chinese clematis (B)	Common burdock (C)	Common tansy (B)
Common teasel (B)	Corn chamomile (B)	Curly dock (Not designated)
Cutleaf teasel (B)	Cypress spurge (A)	Dalmatian toadflax (B)
Dame’s rocket (B)	Diffuse knapweed (B)	Hoary cress (B)
Houndstongue (B)	Jointed goatgrass (B)	Leafy spurge (B)
Mayweed chamomile (B)	Meadow knapweed (A)	Mediterranean sage (A)
Musk thistle (B)	Myrtle spurge (A)	Oxeye daisy (B)
Perennial pepperweed (B)	Plumeless thistle (B)	Poison hemlock (C)
Purple loosestrife (A)	Russian knapweed (B)	Russian olive (B)
Salt cedar (B)	Scentless chamomile (B)	Scotch thistle (B)

Common Name	Common Name	Common Name
Spotted knapweed (B)	Sulfur cinquefoil (B)	Yellow starthistle (A)
Yellow toadflax (B)		

Source: Garfield County Vegetation Management Department

2.0 Prevention

The Colorado Department Agriculture established at C.R.S. 35-5.5-102 an organized and coordinated effort to stop the spread of noxious weeds. The rules classify noxious weeds into four categories:

A – Rare noxious weeds subject to eradication as a matter of law whenever they are detected.

B – Specified populations are subject to eradication, containment, or suppression in identified areas of the state to deplete the seed source.

C – Widespread and well-established species for which the state recommends but does not require control, although Garfield County may.

Watch List – A non-regulatory and advisory list to increase awareness of new invasive species in the state.

Canada thistle is a List B species. Its control is described in Section 3.0.

CPX performs noxious weed management in accordance with the *Noxious Weed Management Plan* (February 16, 2016) issued by Garfield County. CPX’s general prevention methods for noxious weeds are to avoid or minimize ground disturbance where noxious weeds may outcompete native vegetation in disturbed soil. CPX also avoids cross country travel on TPR, which can introduce seeds to previously undisturbed locations. Frequent monitoring and treatment of identified infestations is used to limit the spread of noxious weeds. When seeding disturbed areas, CPX uses certified weed-free seed mixes recommended by the adjacent U.S. Forest Service. The seed mixes represent native species that are most likely to proliferate and be sustainable.

3.0 Control

For control of Canada thistle, the Colorado Department of Agriculture recommends combining control methods to continually stress the plant and exhaust root nutrient stores. This includes mechanical suppression by mowing every 10 to 21 days during the growing season and application of a fall herbicide.

In general, integrated weed management and control can be accomplished through a combination of mechanical and chemical controls, potential biological controls, and education.

Mechanical control is labor intensive. CPX finds mechanical control through mowing or hand pulling best suited to smaller or linear areas.

Chemical control with herbicides is generally the most effective and targeted method to eradicate noxious weeds and disrupt their proliferation. CPX uses spot treatment and broadcast treatment of targeted areas using a recommended herbicide by weed species.

Biological controls through the deliberate introduction of living agents, such as insects and grazing animals to reduce noxious weed populations, can be difficult to effectively target a specific area or corridor. CPX finds that biological control is most conducive to pasture or rangeland.

Education is an effective tool for minimizing the introduction or spread of weed species. CPX educates personnel and contractors particularly on avoidance of unnecessary disturbances and unnecessary cross country travel that may introduce spores from vehicle tires.

4.0 Monitoring

For Canada thistle, the Colorado Department of Agriculture weed control sheets adopted by Garfield County recommend monitoring for new infestations to prevent, rather than treat, the species. In general, CPX regularly monitors and maintains its oil and gas facilities, including pads, pad disturbances, flowline corridors, and access roads. The presence of weed infestations and noxious weeds is noted for appropriate treatment using the controls described above. The treated locations are reinspected to identify where infestations may not have been adequately suppressed and require additional mechanical or chemical treatment.

5.0 Best Management Practices

Table 2. Best Management Practices

Best Management Practice
Maintain existing vegetation to outcompete weeds and promote healthy native vegetation.
Monitor and manage Oil and Gas Locations, flowline corridors, and access roads for weeds as part of routine facility inspection and maintenance.
Use certified weed-free seed mixes and mulches.
Broadcast or hydroseed seed mixes recommended by the U.S. Forest Service Native Plant Materials Program to optimize successful establishment of vegetation.
Limit cross-country travel to minimize introduction of noxious weed spores.
Avoid unnecessary disturbances that require revegetation and weed control.