STATE OF COLORADO

Yeldell - DNR, Amy <amy.yeldell@state.co.us>

Re: Colony TR-18 Adequacy Review #2

1 message

Dillon Foster <dfoster@rccwest.com> Mon, Jun 9, 2025 at 1:34 PM
To: "Yeldell - DNR, Amy" <amy.yeldell@state.co.us>
Cc: Ed Seymour <eseymour@qb-energy.com>, Ivan Geer <igeer@rccwest.com>, John Andrews <jandrews@qb-energy.com>, Brett Middleton <BMiddleton@qb-energy.com>, Waylon Bennett <wbennett@qb-energy.com>

Colony Mine Cost Estimate.pdf
Colony Mine Portal Water Samples.pdf
Colony Mine Well List.pdf
Exhibit L 1.pdf
Exhibit E 2.pdf

Hi Amy,

Please see the attached for our response to Adequacy Review #2. I have also attached an excel spreadsheet with our responses to each of your comments.

Please note - I did not add Rev clouds to the plans due to the updates that were made and the maps and narrative. The most important portion of the maps that was added was the reclamation activities outline note on the plans.

As always, please reach out with any questions.

Thanks,

Dillon Foster, P.E.

River City Consultants Inc.
215 Pitkin Ave., Unit 201
Grand Junction, CO 81501
Office: 970.241.4722
Direct: 970.730.2843

From: Yeldell - DNR, Amy <amy.yeldell@state.co.us>
Sent: Thursday, June 5, 2025 9:25 AM
To: Dillon Foster <dfoster@rccwest.com>
Cc: Ed Seymour <eseymour@qb-energy.com>; Ivan Geer <igeer@rccwest.com>; John Andrews <jandrews@qb-energy.com>; Brett Middleton <BMiddleton@qb-energy.com>; Waylon Bennett <wbennett@qb-energy.com>
Subject: Re: Colony TR-18 Adequacy Review #2

Attached is the extension approval. Note that depending on the changes proposed I may need more time to finish the bond calculation, I'll keep you all posted.

--
Amy Yeldell
Environmental Protection Specialist III
Active Mines Program, Grand Junction Field Office

Colony Reclamation Plan

DRMS Adequecy Review 2 - Response to Comments

No.	Amy's Question	Responsible Person	Needed Action Items	Item Complete	Status/Comments	QB Response to DRMS	
GENERAL QUESTIONS & REMARKS							
1	Pursuant to Rule 6.4.5(2)(a) please explicitly state the type(s) of reclamation to be employed for each area. Additionally state why each was chosen, the amount of acreage associated with each, and a general discussion of methods of reclamation as related to the mechanics of earthmoving. Some information may be easily summarized in table from.	Dillon		yes		*Bullet pointed list was added to the maps explaining an overview of the reclamation required for each area, which is consistent with the narrative.*	
2	overview states proposed land uses are aligned with county development code but does not address a comparison to vicinty land.	Dillon		yes		*All lands within the permit area and adjacent to the permit area are zoned as Resource Lands per Article 3 of the Garfield County Land Use Development Code. Further, all lands within a 12-mile radius of the permit area are either zoned as Resource Lands or as Public Lands per the aforementioned code. Resource Lands per the code allow for most types of agriculture, forestry, and oil and gas extraction as a "right of use".*	
3	For all areas where vegetation is to occur state within the reclamation plan state to total number of acres to be seeded and the seeding method by area. Clarify topsoil	Dillon		yes		*No topsoil is to be imported on this site. Please see the General Seeding Requirements. Acres of seeding and distubance is updated on plans/takeoff. Once vegetation survey is completed, this may be updated.*	
3a	Each exhibit should stand on its own without needing to refer to other exhibits to see the full picture. Likewise the information presented in each should coincide.	Dillon		yes		*Explanations are now added on each individual sheet.*	
4a	for any remaining items that QB proposes disposing of at a QB ranch property the Division will need to bond for off-site removal to a landfill. In the eventof forfeiture the Division would not have access to QB ranch property.	Dillon/Ken		yes		*Garfield county landfill is 23.1 miles from the colony mine for disposal of all items listed within the rec plan narrative.*	
4b	For any items listed on Existing building summary table that are to be removed please state the disposal location/method.	Dillon		yes		*Added column in table to incorporate disposal location.*	
5a	clarify topsoil importation	Dillon		yes		*No topsoil to be imported and this is clearly represented in the narrative.*	
5b	General seeding requirements - seeding section states that no topsoil importation is anticipated please revise this statement. Either salvaged topsoil needs to be reapplied or imported topsoil need to be utilized, application of no topsoil where revegetation is to occur is impractical.	Dillon/Ed/John		yes		*Additional Language was added to the narrative explaining the reasoning behind no use of onsite topsoil or import.*	
6	Has vegetation been surveyed in all areas where contouring will not take place to ensure that additional spot seeding is not required? Re division cannot assume areas have completed self-reclaimed. Provide additonal documentation spot-seeding is not required or update the plan accordingly.	Team		progress	Vegetation survey is currently being completed.	*Vegetation survey is in the works and will be provided upon completion.*	needs 70-80% of vegetation coverage comparitive to adjacent. Take pictures and complete the vegetation survey. Break apart per area and provide pictures as well.
7	Under the general seeding requirements section explicity state when (what time of year) will seeding occur.	Dillon		yes		*Added this information to the narrative. Spring and fall shall be used as guidance with and ideal timing of March or October.*	
8	within each section,state the maximum grade to reamin, all highwalls shall be removed. If steeper than a 2:1, please provide justification.	Dillon		yes		*The majority of the site is naturally sloped around a 2:1 and this can be seen on the contours provided on the maps, which were added this round of responses. Overall justification is that it is consistent with the undistrubed natural ground adjacent to the site. The highwall to remain on the mine bench is the only steeper section to remain that requires justification and can be seen in the narrative.*	
9	the seed mix is made up of entirely cool season grasses. Please update the mix to include at least one warm season grass and at least one forb, shrub or legume.	Dillon/John		yes		*Seed table is now updated and a warm season grass is now added in there.*	

Colony Reclamation Plan

DRMS Adequecy Review 2 - Response to Comments

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GENERAL QUESTIONS & REMARKS						
10	incorporation of fertilizers or soil amendments are proposed on page 13. please provide cost for each additive utilized. Exlicity state if any areas are not to receive these treatments prior to seeding.	Dillon		yes		*Prices for the soil amendments are now in the takeoff and separated for you.*
11	Paragraph 2 of area 4 indicates that electrical utilities have been dismantled but only partailly disposed of. Off-site disposal of the remaining items will be accounted for in the RCE.	Dillon		yes		*Added to narrative. All electrical infrastructure has been removed and there is no remaining infrastructure to be hauled off.*
12	a 8x3x6 foundation is mentioned as being removed. What was this foundation for	Dillon/ed		yes		*This foundation is under the weather station/shed, Narrative has been more clearly stated.*
13	address revegetation methods for the area where the weather station and 28 railroad ties were removed leading to the weather station.	Dillon		yes		*This has been added to the plans and narrative stating what will need to be done. Hand Broadcast seeding method used given the amount of area.*
14	provide dimensions and building type for the weather station which will be removed from the site and disposed of.	Dillon		yes		*The shed is the same size as the pad at 8'x3' and this detail has been provided in the narrative.*
15	specify the anticipated total CY of materail to be graded out in the scree area. Provide volume of the anticipated materail which will be graded to maintain positive drainage.	Dillon		yes		*Cubic yards of material has been stated in the narrative and shown on the volume table.*
16	the colony mine rec plan outline table indicates that area 5 will be disced and drill seeded. This area is a contoured scree area, with no topsoil being proposed to be added, drill seeding is not feasible under these conditions. Add topsoil or change seeding methods	Dillon		yes		*Updated. No seeding will be done here given its location being directly at the bottom of a rock scree, which will eventually be a continuation of the scree.*
17	Provide justification as to why topsoil import is not being proposed, only deep ripping. Previous revegetation efforts in this area have failed, what will make this different. Map C13 for area 6A states that 1-6" of topsoil will be imported which is inconsistent with the narrative portion.	Dillon		yes		*Narrative has been updated to provide justification. Map has been updated and topsoil importation has been removed.*
18	clarify what water quality standards the sample results are being compared to.	Tim		Yes		*See analytical report completed by Entrada as part of this submittal.*
19	what are the dimensions of the secondary escape that will receive a hollow core shaft closure method?	Dillon/Ken		yes		*It is a 48" CMP pipe that will be capped and this is added to the narrative.*
20	Until the operator can provide documentation that the existing masonry wall at each end of the portal entrances meets the IMP Bid specs the division will bond for the installation of a new feature at each.	Ken/Ed		yes		*Noted.*
21	Vegetation throughout the entire mine bench is not comparable to adjacent undisturbed ares. Additional revegation efforts will be required. Please explicity state the number of aces to be revegetated and methods utilized.	John		progress	Vegetation survey is currently being completed.	*A vegetation survey is currently being completed and will be provided upon completion. This vegetation survey will incclude a comparison and a plan of what will be needed here will be addressed.*
22	as previously discussed, QA/QC must be provided to demonstate that the 6' buried steel pipe has not been compromised over the past 50 years and that it is in acceptable state and may remain post-reclamation.	ED/Ken		yes		*A new plan has been devised to install a 72" culvert from the mine bench pond to the existing outlet structure. The new design is a more cost effective option that is constructable and alleviates the concern of the existing 72" steel pipe and the longevity/life expectancy. The existing standpipe will be cutoff and capped below existing ground level with a 2.0' concrete cap. This work will be compelted when water levels are at their lowest to assist in constructability.*
23	what are the specific species of concern in area 7 and how many treatments per year are anticipated to get noxious weeds under control	John/Dillon		yes		*Treatment plan has been outlined in the narrative. The vegetation survey may provide additional information on this as well.*
24	water wells are located on both the north and south sides of the road connecting area 10C/12.	Dillon		yes		*The wells that were either permitted or repermitted are added to the maps and labeled to remain for reference. Please see the plan maps.*
25	what is required to remove the PVC delineators?	Ken/Dillon		yes		*Hand removal will be done here to eliminate additional disturbances.*

Colony Reclamation Plan

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GENERAL QUESTIONS & REMARKS						
26	see question 5a. If onsite topsoil stockpiles will not be utilized, please provide information regarding alternative sources to be imported. Volume, location, and cost.	Dillon/Ken		yes		*Additional information has been provided in the narrative. These piles will not be disturbed as part of the reclamation plan and reasoning behind it has been provided.*
27	what are the dimensions of the piers to be removed	Dillon		yes		*Dimensions are provided in the narrative.*
28	what is the current well-ID? Provide documentation once repermitting has occurred	John/Dillon		yes		*All repermitted wells are include in the submittal for your review.*
29	on the 72x72x6" pad that will remain its noted that the anchor bolts shall be cut off. Please provide the quantity an size of bolts to be cut flush with foundation.	Dillon		yes		*All of the bolts have been cut off and no longer need to be added to the rec plan.*
30	rational was provided for not topsoiling areas that have self reclaimed but explain why no topsoil is anticipated in areas where grading is to occur	Dillon/Ken		yes		*No topsoil will be placed on the areas that will be grading given the seeding requirements and soil conditioners that will be added. Reiterating the success in similar areas that have been completed by QB using the proposed method.*
31	what is the anticipated area that will require reclamation after grading?	Dillon		yes		*Acreage is broken down and added to the maps in the reclamation callout.*
32	Where is the 50CY of road maintenance stockpiled material being transported to? What is the material type?	Dillon		yes		*This material will be placed and graded on the road immediately adjecent to the area.*
33	Why no topsoil anticipated to be applied to areas where grading is to occur?	Dillon		yes		*No topsoil will be placed on the areas that will be grading given the seeding requirements and soil conditioners that will be added. Reiterating the success in similar areas that have been completed by QB using the proposed method.*
34	Only revegetation of the contoured berm areas is addressed. The pad itself needs to be decompacted	Dillon		yes		*Narrtive has added information. Once vegetation survey is completed, additional information may be added.*
35	map C3 sets 1-6" of topsoil will be imported. Please revise reclamation plan narratie and Exhibit L to include this information as well as state the total CY of topsoil.	Dillon		yes		*No topsoil to be imported, note from map is now gone.*
36	What is the anticipated area that will require reclamation after topsoil application?			yes		*9.61 acres of disturbed area here.*
37	Please provide information regarding the dimensions of the foundations to be crushed and buried on site. Only estimate CY of volume generated was provided.	Dillon		yes		*Dimensions are added.*
38	Please summarize the total number of cubic yards of materail that requires grading.	Dillon		yes		*The volume table is added to all sheets that have grading.*
39	No mention of topsoil application	Dillon		yes		*No topsoil to be applied; please see the general seeding requirements with and explanation of why.*
40	what is the anticipated area that will require reclamation after grading?			yes		*Added to narrative for all of the areas. This can be found in the quanity takeoffs as well.*
41a	demolition of the lysimeter is not sufficiently described. Internal contents must be removed before exterior cement foundations can be demolished. What is the volume of the internal instrumentation to be removed? What is the thickness of the foundation and is it reinforced?	Dillon		yes		*Additional information has been provided in the narrative talking about the internal components and the CY yardage associated.*
41b	there is additional debris that needs to be removed from the ESR test plots.	Dillon/team		yes		*Additional information was added to the narrative representing removals of the ESR Site*
41c	what is the total linear feet of of fence that surrounds the ESR and its material/construction type?	Dillon		yes		*~ 2,400' of fence to be removed. This has been added to the narrative.*
41c	Include removal of electric to well	Dillon		yes		*Added to narrative.*
42	what is the current well-ID? Provide documentation once re-permitting has occurred.	Dillon/John		yes		*Repermitted wells are completed. Documentation has been provided as part of this submittal*
43	not all buildings, foundations or other features mentioned in the narrative portion of the reclamation plan are listed on this table. The table should also include all features to be removed.	Dillon		yes		*Revised.*
44	how is foundation 6 varied in thickness what is the average thickness or thickest area?	Dillon		yes		*Thickness has been added.*

Colony Reclamation Plan

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GENERAL QUESTIONS & REMARKS						
80a	Regarding the spreadsheet of wells. Please clarify the abandonment method.			yes		*Spreadsheet has been revised and printed on PDF for ease of review. Overall, 6 wells will remain that have been permitted and 6 have be repermitted to remain. All documentation has been included in this submittal.*
80b	commit to providing abandonment documentation to the division within the time frames specified.			yes		*Noted.*
80c	provide documentation from DWR that wells are permitted for appropriate use post-mining.			yes		*This will be attached to the submitted.*
81	permit 18150-F is noted as being unusable and well 18150-F-R reaplced that well. Was 18150-F ever abandoned? Provide clarification.			yes		*This has been researched and all wells are accounted for and listed in the narrative and the takeoff for abandonment.*
82	Per DWR website the decree uses listed in the table do not match the DWR's website.			yes		*Decree's should match the website or at minimum, what is listed in the uses.*
83	All maps must be signed and prepared	Dillon		yes		*Signature block has been added to the plans and will be signed once we approach approval.*
84	within several maps the legend includes a red line "area boundary" is this menat to depict the current limits of disturbance?	Dillon		yes		*This represents the original area delineations as part of the existing TR. This was to remain for ease of comparison from the existing TR to the current one.*
85	map C13 for area 6A has a note 4. That states topsoil imported and placed a 1-6". This is inconsistent.	Dillon		yes		*Revised.*
86	All maps , in general the final reclamation maps should depict the areas after reclamation is completed.			yes		*The only thing shown on the reclamation plan maps are what will remain post-reclamation.*
87	Per Rule 6.4.6(a), the expected physical appearance of the area of the affected land, correlated to the proposed mining and reclamation should not be depicted on the map as post-mining and reclamation timetables. The map must show proposed topography of the area with contour lines of sufficient detailto portray the direction and rate of slope of all reclaimed lands. need to show the contours on all maps.			yes		*Contour lines are all added to the plans with associated slopes.*
88	Persuant Rule 6.4.6(b) on each map please state the proposed use for each portion of the affected lands.			yes		*Future land use has been called out on all map sheets specific to the area of interest. They range from Rangeland, Industrial, and Agricultural.*
89	Add additional information where the imagery is not accurate.			yes		*Callouts are updated and maps are cleaned up.*
90	map C17 has the area 10D outlined in green, however there is no indication in the legend what the green means. Same for C20, Area 12 and C21, Area 14			yes		*Legend has been updated. The green represents the topsoil stockpiles.*
91	add all post reclmation wells to remain on the maps	Dillon		yes		*All of the wells to remain post-reclamation are added to the maps and called out.*
92	the reclamation plan narrative indicates 72x72x6 pad to remain on the west side of area 16A. This is not depicted on the map C23.	Dillon		yes		*Pad depiction was added to the map.*
93	Update Exhibit L	Dillon		yes		*This has been revised per the comments above.*

Colony Mine Reclamation

Takeoff Estimate

DATE: June 9, 2025

PREPARED BY: Dillon Foster

Item #	Item Description	Unit	Quantity	Unit Price	Extended Price
A	**Area 4**				
1	N/A				$ -
					$ -
	Subtotal Area 4				**$ -**
B	**Area 5**				
1	Unclassified Excavation	CY	892	$ 4.25	$ 3,791.00
2	Drill Seeding (labor)	AC	0.47	$ 4,750.00	$ 2,232.50
3	Hydraulic Growth Organics	AC	0.47	$ 1,800.00	$ 846.00
4	Rich Lawn 363	AC	0.47	$ 1,450.00	$ 681.50
5	Sulfur Flakes	AC	0.47	$ 950.00	$ 446.50
6	Lot 125	AC	0.47	$ 550.00	$ 258.50
7	Remove Jersey Barriers and Repurpose	EA	3	$ 200.00	$ 600.00
8	Rock Delineation of Pulloff/Parking Area	CY	7	$ 200.00	$ 1,400.00
					$ -
	Subtotal Area 5				**$ 10,256.00**
C	**Area 6 & 6A**				
1	Removal of Existing Electrical poles and line	EA	4	$ 225.00	$ 900.00
2	Rock Delineation of Pulloff/Parking Area	CY	36	$ 145.00	$ 5,220.00
3	De-compaction Area 6 with ripper and dozer	AC	2.9	$ 750.00	$ 2,175.00
4	Drill Seeding	AC	2.9	$ 4,750.00	$ 13,775.00
5	Hydraulic Growth Organics	AC	2.9	$ 1,800.00	$ 5,220.00
6	Rich Lawn 363	AC	2.9	$ 1,450.00	$ 4,205.00
7	Sulfur Flakes	AC	2.9	$ 950.00	$ 2,755.00
8	Lot 125	AC	2.9	$ 550.00	$ 1,595.00
9	North Portal Entrance Closure per IMP Specs (12'x24.5')	EA	1	$ 40,000.00	$ 40,000.00
10	South Portal Entrance Closure per IMP Specs (12'x23')	EA	1	$ 38,500.00	$ 38,500.00
11	Secondary Access Closure per IMP Specs	EA	1	$ 40,000.00	$ 40,000.00
12	De-compaction of Area 6A with ripper and Dozer	AC	2.9	$ 5,000.00	$ 14,500.00
13	Removal of 15'x20 metal building	EA	1	$ 6,000.00	$ 6,000.00
14	Capping off monitoring pins	EA	4	$ 1,000.00	$ 4,000.00
15	72" RCP Pipe (PR Drain)	LF	2518	$ 215.00	$ 541,370.00
16	72" CMP Pipe (PR Drain)	LF	310	$ 178.00	$ 55,180.00
17	120" Manholes	EA	5	$ 7,500.00	$ 37,500.00
17	RCP Pipe installation	LF	2518	$ 85.00	$ 214,030.00
18	CMP Pipe installation	LF	310	$ 215.00	$ 66,650.00
					$ -
	Subtotal Area 6 & 6A				**$ 1,093,575.00**
D	**Area 7**				
1	Mitgate Noxious Weeds	EA	1	$ 1,000.00	$ 1,000.00
	Subtotal Area 7				**$ 1,000.00**
E	**Area 8B**				
1	Break concrete Pad 1 (62'x42'x8")	CY	65	$ 90.00	$ 5,850.00
2	Break concrete Pad 2 (30'x25'x8")	CY	19	$ 90.00	$ 1,710.00
3	Excavation for burying pads 1 & 2	CY	457	$ 25.00	$ 11,425.00
3	Unclassified excavation for berm around pad	CY	85	$ 90.00	$ 7,650.00
2	Drill Seeding	AC	1.36	$ 4,750.00	$ 6,460.00
5	Hydraulic Growth Organics	AC	1.36	$ 1,800.00	$ 2,448.00
6	Rich Lawn 363	AC	1.36	$ 1,450.00	$ 1,972.00
7	Sulfur Flakes	AC	1.36	$ 950.00	$ 1,292.00
8	Lot 125	AC	1.36	$ 550.00	$ 748.00

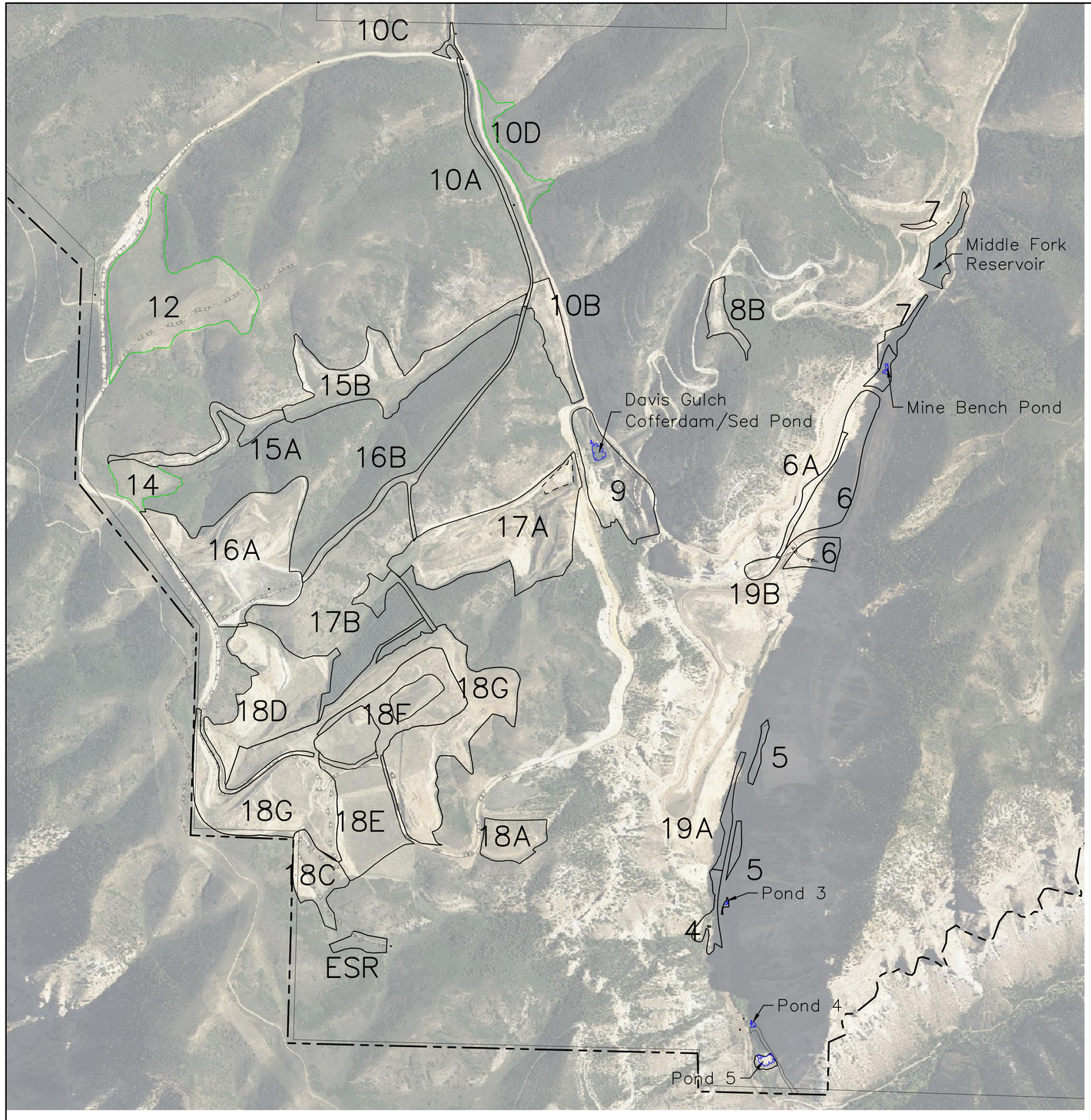
Item #	Item Description	Unit	Quantity	Unit Price	Extended Price
	Subtotal Area 8B				**$ 39,555.00**
F	**Area 9**				
1	N/A				$ -
					$ -
	Subtotal Area 9				**$ -**
G	**Area 10**				
1	Unclassified Excavation and placement of existing riprap	CY	85	$ 125.00	$ 10,625.00
2	Hand Broadcast Seeding	AC	0.1	$ 4,000.00	$ 400.00
3	Capping existing waterline	LS	1	$ 3,500.00	$ 3,500.00
4	Remove Delineators (Hand removal)	LS	1	$ 1,500.00	$ 1,500.00
	Subtotal Area 10				**$ 16,025.00**
H	**Area 12**				
1	N/A				
	Subtotal Area 12				**$ -**
I	**Area 14**				
1	N/A				
	Subtotal Area 14				**$ -**
J	**Area 15**				
1	N/A				
	Subtotal Area 15				**$ -**
K	**Area 16**				
1	Unclassified Excavation (CIP)	CY	95321	$ 2.00	$ 190,642.00
2	De-compaction with Rome Disc	AC	15.74	$ 600.00	$ 9,444.00
3	Removal of existing foundations	LS	1	$ 7,500.00	$ 7,500.00
4	Drill Seeding	AC	15.74	$ 4,750.00	$ 74,765.00
5	Hydraulic Growth Organics	AC	15.74	$ 1,800.00	$ 28,332.00
6	Rich Lawn 363	AC	15.74	$ 1,450.00	$ 22,823.00
7	Sulfur Flakes	AC	15.74	$ 950.00	$ 14,953.00
8	Lot 125	AC	15.74	$ 550.00	$ 8,657.00
9	Remove Delineators (Hand removal)	LS	1	$ 1,500.00	$ 1,500.00
					$ -
	Subtotal Area 16				**$ 358,616.00**
L	**Area 17**				
1	Remove Stockpiles	CY	50	$ 175.00	$ 8,750.00
2	De-Compaction with Dozer and Ripper	AC	1.97	$ 750.00	$ 1,477.50
3	Drill Seeding	AC	1.97	$ 4,750.00	$ 9,357.50
4	Hydraulic Growth Organics	AC	1.97	$ 1,800.00	$ 3,546.00
5	Rich Lawn 363	AC	1.97	$ 1,450.00	$ 2,856.50
6	Sulfur Flakes	AC	1.97	$ 950.00	$ 1,871.50
7	Lot 125	AC	1.97	$ 550.00	$ 1,083.50
	Subtotal Area 17				**$ 28,942.50**
M	**Area 18A**				
1	Unclassified Excavation (CIP)	CY	948	$ 3.50	$ 3,318.00
2	Import of Topsoil (30 Mile Haul Route)	CY	607	$ 50.00	$ 30,350.00
3	Drill Seeding	AC	0.75	$ 4,750.00	$ 3,562.50
4	Hydraulic Growth Organics	AC	0.75	$ 1,800.00	$ 1,350.00
5	Rich Lawn 363	AC	0.75	$ 1,450.00	$ 1,087.50
6	Sulfur Flakes	AC	0.75	$ 950.00	$ 712.50

Item #	Item Description	Unit	Quantity	Unit Price	Extended Price
7	Lot 125	AC	0.75	$ 550.00	$ 412.50
8	Remove Existing Electrical Poles	LS	1	$ 25,000.00	$ 25,000.00
9	Remove Electrical Lines	LS	1	$ 20,000.00	$ 20,000.00
	Subtotal Area 18A				**$ 85,793.00**
N	**Area 18C**				
1	Surface Roughening with Excavator	AC	6.91	$ 1,000.00	$ 6,910.00
2	Hydroseeding	AC	6.91	$ 4,200.00	$ 29,022.00
3	Hydraulic Growth Organics	AC	6.91	$ 1,800.00	$ 12,438.00
4	Rich Lawn 363	AC	6.91	$ 1,450.00	$ 10,019.50
5	Sulfur Flakes	AC	6.91	$ 950.00	$ 6,564.50
6	Lot 125	AC	6.91	$ 550.00	$ 3,800.50
	Subtotal Area 18C				**$ 68,754.50**
O	**Area 18D**				
1	Unclassified Excavation (CIP)	CY	42467	$ 2.00	$ 84,934.00
2	Import of Topsoil (30 Mile Haul Route)	CY	5708	$ 50.00	$ 285,400.00
3	Drill Seeding	AC	7.6	$ 4,750.00	$ 36,100.00
4	Hydraulic Growth Organics	AC	7.6	$ 1,800.00	$ 13,680.00
5	Rich Lawn 363	AC	7.6	$ 1,450.00	$ 11,020.00
6	Sulfur Flakes	AC	7.6	$ 950.00	$ 7,220.00
7	Lot 125	AC	7.6	$ 550.00	$ 4,180.00
	Subtotal Area 18D				**$ 442,534.00**
P	**Area 18E**				
1	Unclassified Excavation (CIP)	CY	134941	$ 3.00	$ 127,401.00
2	De-Compaction with Rome disc	AC	6.7	$ 600.00	$ 4,020.00
3	Drill Seeding	AC	6.7	$ 4,750.00	$ 31,825.00
4	Hydraulic Growth Organics	AC	6.7	$ 1,800.00	$ 12,060.00
5	Rich Lawn 363	AC	6.7	$ 1,450.00	$ 9,715.00
6	Sulfur Flakes	AC	6.7	$ 950.00	$ 6,365.00
7	Lot 125	AC	6.7	$ 550.00	$ 3,685.00
	Subtotal Area 18E				**$ 195,071.00**
Q	**Area 18F**				
1	Unclassified Excavation (CIP)	CY	113702	$ 3.00	$ 341,106.00
2	De-Compaction with Rome Disc	AC	15.5	$ 600.00	$ 9,300.00
3	Drill Seeding	AC	15.5	$ 4,750.00	$ 73,625.00
4	Hydraulic Growth Organics	AC	15.5	$ 1,800.00	$ 27,900.00
5	Rich Lawn 363	AC	15.5	$ 1,450.00	$ 22,475.00
6	Sulfur Flakes	AC	15.5	$ 950.00	$ 14,725.00
7	Lot 125	AC	15.5	$ 550.00	$ 8,525.00
4	Remove Existing Foundation	LS	1	$ 5,500.00	$ 5,500.00
	Subtotal Area 18F				**$ 503,156.00**
R	**Area 18G(1)**				
1	Unclassified Excavation (CIP)	CY	245512	$ 3.00	$ 736,536.00
2	De-Comapction with Rome Disc	AC	25.4	$ 600.00	$ 15,240.00
3	Drill Seeding	AC	25.4	$ 4,750.00	$ 120,650.00
4	Hydraulic Growth Organics	AC	25.4	$ 1,800.00	$ 45,720.00
5	Rich Lawn 363	AC	25.4	$ 1,450.00	$ 36,830.00
6	Sulfur Flakes	AC	25.4	$ 950.00	$ 24,130.00
7	Lot 125	AC	25.4	$ 550.00	$ 13,970.00
	Subtotal Area 18G(1)				**$ 993,076.00**

S	**Area 18G(2)**				
1	Unclassified Excavation (CIP)	CY	121943	$ 3.00	$ 365,829.00
3	De-Compaction with Rome Disc	AC	15.9	$ 600.00	$ 9,540.00

Item #	Item Description	Unit	Quantity	Unit Price	Extended Price
4	Drill Seeding	AC	15.9	$ 4,750.00	$ 75,525.00
4	Hydraulic Growth Organics	AC	15.9	$ 1,800.00	$ 28,620.00
5	Rich Lawn 363	AC	15.9	$ 1,450.00	$ 23,055.00
6	Sulfur Flakes	AC	15.9	$ 950.00	$ 15,105.00
7	Lot 125	AC	15.9	$ 550.00	$ 8,745.00
	Subtotal Area 18G(2)				**$ 526,419.00**
T	**Area 18G(3)**				
1	N/A				$ -
	Subtotal Area 18G(3)				**$ -**
U	**Area 19**				
1	N/A				
	Subtotal Area 19				**$ -**
U	**ESR Site**				
1	Remove Vistor Shack (10'x12'x8')	LS	1	$ 3,500.00	$ 3,500.00
2	Remove Cooler Building (6'x8'x8')	LS	1	$ 2,000.00	$ 2,000.00
3	Remove Lysimeter, break foundation, and bury	LS	1	$ 12,500.00	$ 12,500.00
4	Hydrseeding (Completing this when Hydroseeding 18C)	AC	0.057	$ 4,200.00	$ 239.40
	Subtotal ESR Site				**$ 18,239.40**
V	**Miscellaneous Items**				
1	Clean Out Ponds	EA	2	$ 7,500.00	$ 15,000.00
2	Existing Monitoring Well P&A	EA	25	$ 1,250.00	$ 31,250.00
3	Additonal Electrical Pole & Line Removal (16 additonal Poles)	EA	16	$ 32,000.00	$ 512,000.00
	Subtotal Miscellaneous Items				**$ 558,250.00**

Total	**$ 4,939,262.40**



NOTE:

1. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
2. Refer to each sheet for overview of reclamation activities to be completed.

Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

INDEX OF SHEETS

Sheet No.	Description
C1	Overall
C2	18A & ESR
C3	18C
C4	18D
C5	18E
C6	18F
C7	18G Section 1
C8	18G Section 2
C9	18G Section 3
C10	Alternate Access Road, Pond 4, and Pond 5
C11	4 and Pond 3
C12	19A and 5
C13	19B 6A and 6
C14	6 and 7
C15	6 and 7 Proposed Drain
C16	10B
C17	7 8B and 10C
C18	10D
C19	9
C20	17A
C21	12
C22	14 and 15A
C23	15B & 10A
C24	16A
C25	16B and 17B

CERTIFICATION

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 750 1500
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [Overall] 6/9/2025 1:25:47 PM

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DRAWN BY: tjt | PROJECT: 1770-031
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB ENERGY OPERATING, LLC

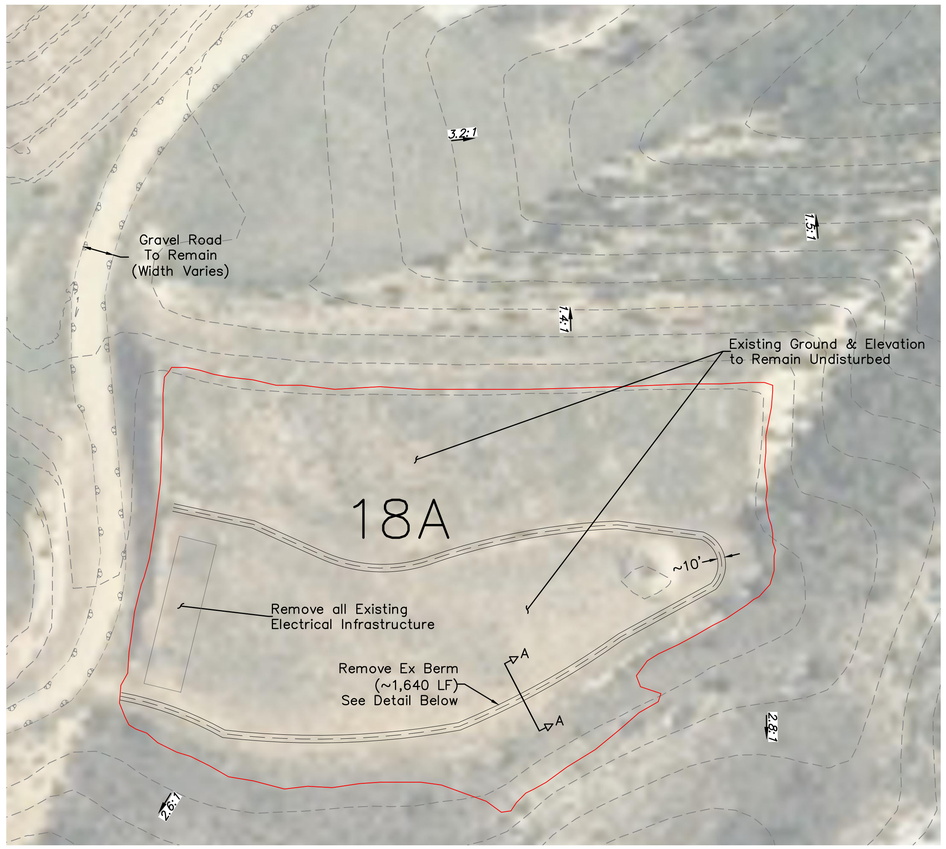
Colony Mine Technical Revision - Exhibit E

Reclamation Plan
Overall

C1

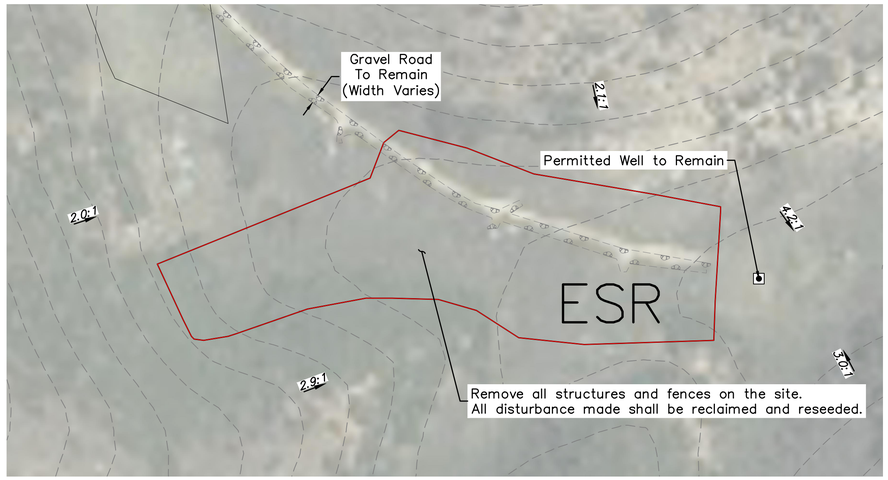
Area 18C Reclamation Activities:

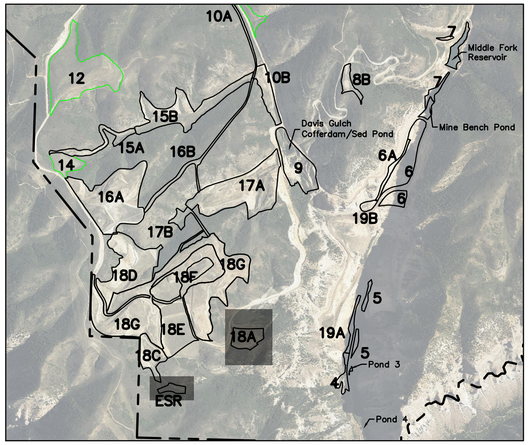
1. Remove (12) 60' tall poles and (2) 30' tall poles. Exposed pole and cut off at minimum 2.0' below existing grade and backfill once complete.
2. Contour edge of pad where existing berm is located following the detail shown on this sheet. This contouring results in ~948 CY of material.
3. Drill seed and apply soil amendments to all disturbed areas from the pole removals and contouring. Seeding acreage is ~0.75 acres.
4. Future Land Use – Rangeland



ESR Reclamation Activities:

1. All buildings have been removed.
2. Remove (6) 9'x8' guzzlers/test plots.
3. Remove ~2,400' of 8' fence.
4. Remove internal components of Lysimeter.
5. Removed Lysimeter an scale.
6. Break Lysimeter foundation and bury onsite with minimum 3.0' of cover.
7. Hydroseed all disturbed areas with soil amendments added to mixture following the General Seeding Requirements. It is estimated that there will be ~0.72 acres of seeding.
8. Existing road through the ESR area shall remain in place after reclamation is completed.
9. Future Land Use – Rangeland

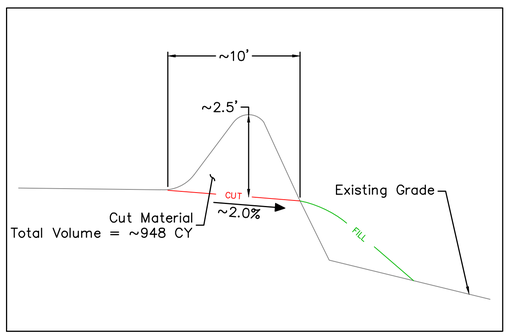




Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend



Section A-A

NOTE:

1. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

CERTIFICATION

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SIGN:

DATE:

UNCC Utility Notification Center of Colorado 800.922.1987 www.uncc.org — Know what's below. Call before you dig. 811
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Project Benchmark
TBD
NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary — DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [18A] 6/9/2025 1:26:57 PM

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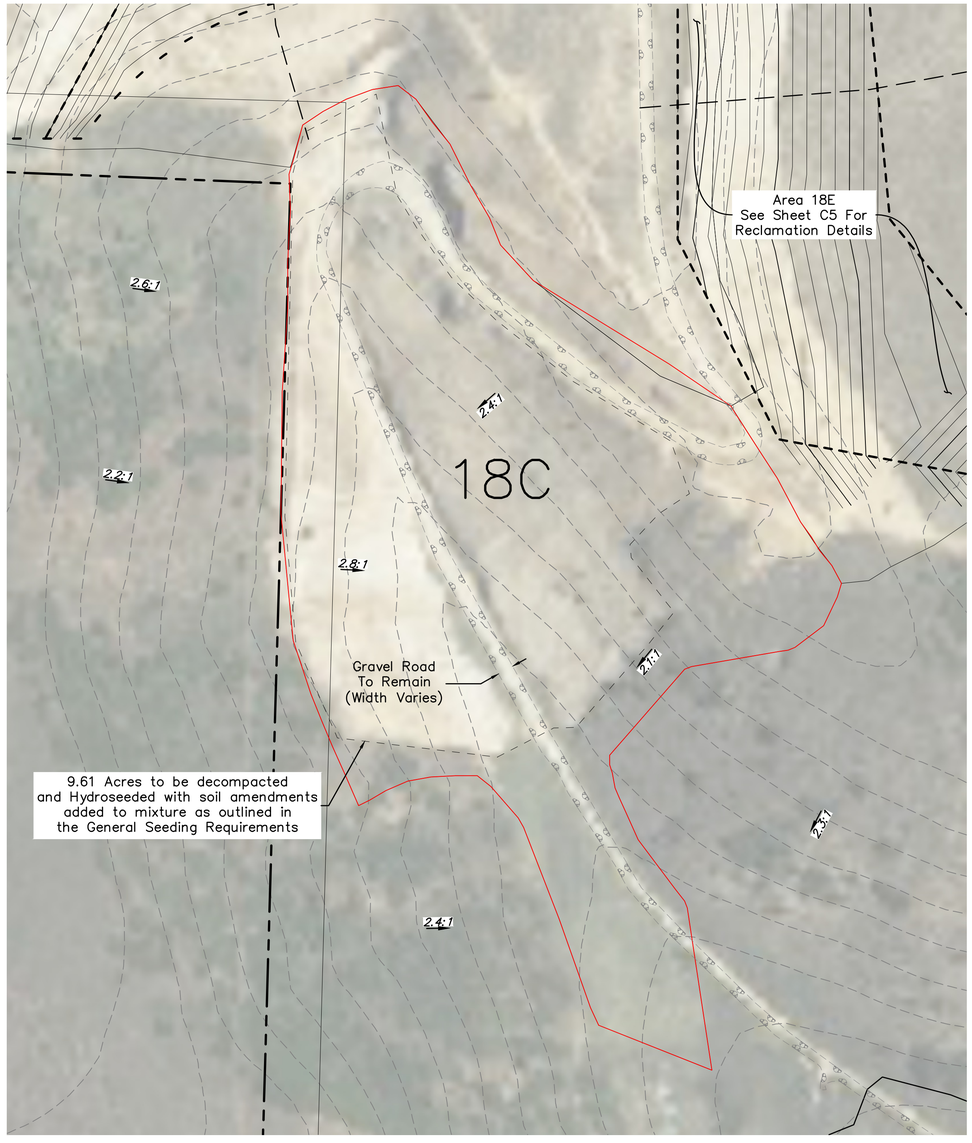
CHECKED BY: idq
ORIGINAL SHEET SIZE: 22 x 34

QB ENERGY OPERATING, LLC

Colony Mine Technical Revision - Exhibit E

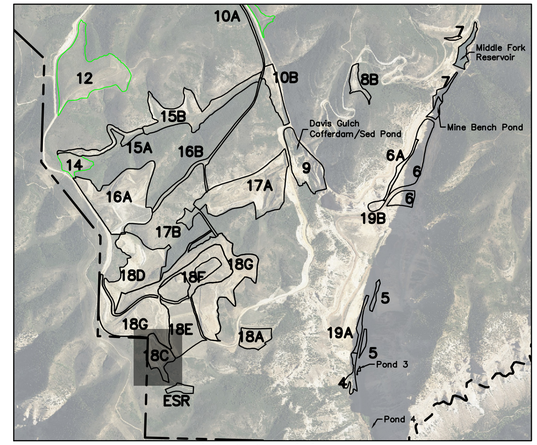
Reclamation Plan
18A & ESR

C2



Area 18C Reclamation Activities:

1. Decompact 9.61 acres of existing disturbed area.
2. Hydroseed area with soil amendments added to mixture following the General Seeding Requirements.
3. Existing road through area 18C shall remain in place after reclamation is completed.
4. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [18C] 09-Jun-25 12:51:00

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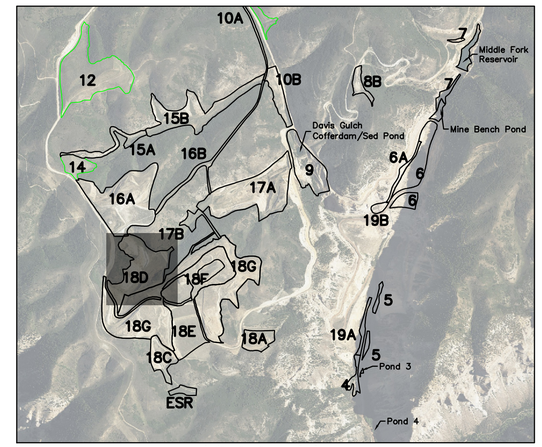
QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
18C

C3



Vicinity Map
(1:2000)

Area 18D Reclamation Activities:

1. Contour 7.60 acres of the area following the grading represented on this sheet.
2. Once grading is completed, apply soil amendments and drill seed following the General Seeding Requirements.
3. Future Land Use – Rangeland

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Volume Table			
Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
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8B	400	400	0
10B	85	85	0
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17A	50	50	0
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18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

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SIGN:

DATE:

UNCC Utility Notification Center of Colorado 800.922.1987 www.uncc.org
811 Know what's below. Call before you dig.
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [18D] 09-Jun-25 12:53:35

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Fax: 970.241.8841

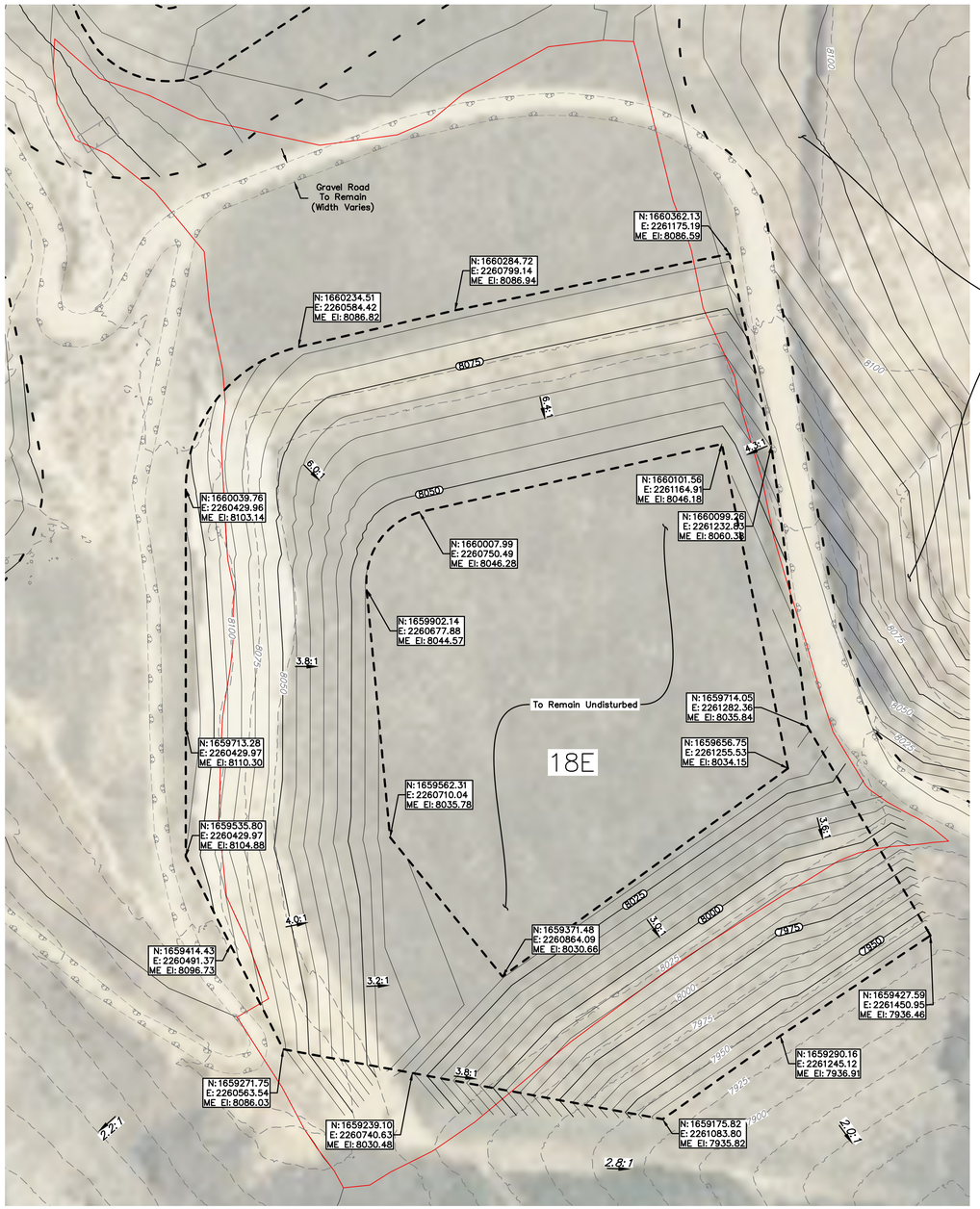
DRAWN BY: lcf | PROJECT: 1770-031
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
18D

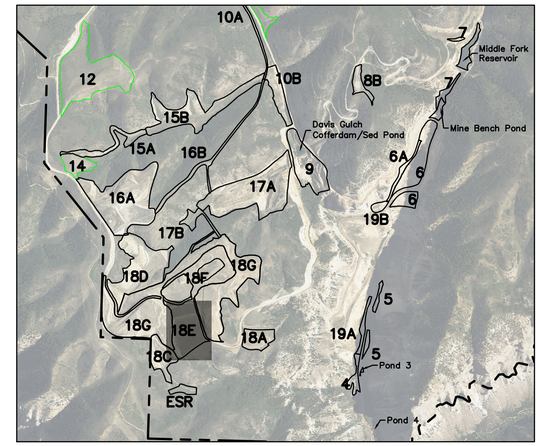
C4



Area 18G Section 2
See Sheet C8
for Reclamation Details

Area 18E Reclamation Activities:

1. Contour 6.70 acres within this area following the grading plan on this sheet.
2. Once contouring is completed, soil amendments and drill seeding shall commence following the General Seeding Requirements.
3. Remove monitoring pins as noted in Exhibit L.
4. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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17A	50	50	0
18A	948	948	0
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18E	126954	134941	7987
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Project Benchmark
TBD
NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary — DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [18E] 09-Jun-25 12:52:10

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DRAWN BY: lcf | PROJECT: 1770-031
CHECKED BY: idq
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

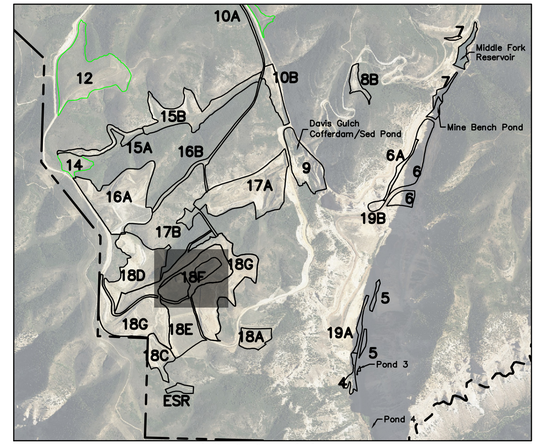
Colony Mine Technical Revision - Exhibit E

Reclamation Plan
18E

C5

Area 18F Reclamation Activities:

1. Contour 18.50 acres within this area following the grading plan shown on this sheet.
2. Once contouring is complete, soil amendments and dill soil shall commence following the General Seeding Requirements.
3. Break existing 22'x6'x6' foundation and bury in proposed grading with minimum 3.0' cover.
4. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

Volume Table

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NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
4. Break concrete and bury with a minimum cover of 3.0'.

CERTIFICATION

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [18F] 09-Jun-25 12:55:51

PRELIMINARY

RIVER CITY CONSULTANTS
215 Pitkin Avenue, Unit 201
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DRAWN BY: lcf | PROJECT: 1770-031
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

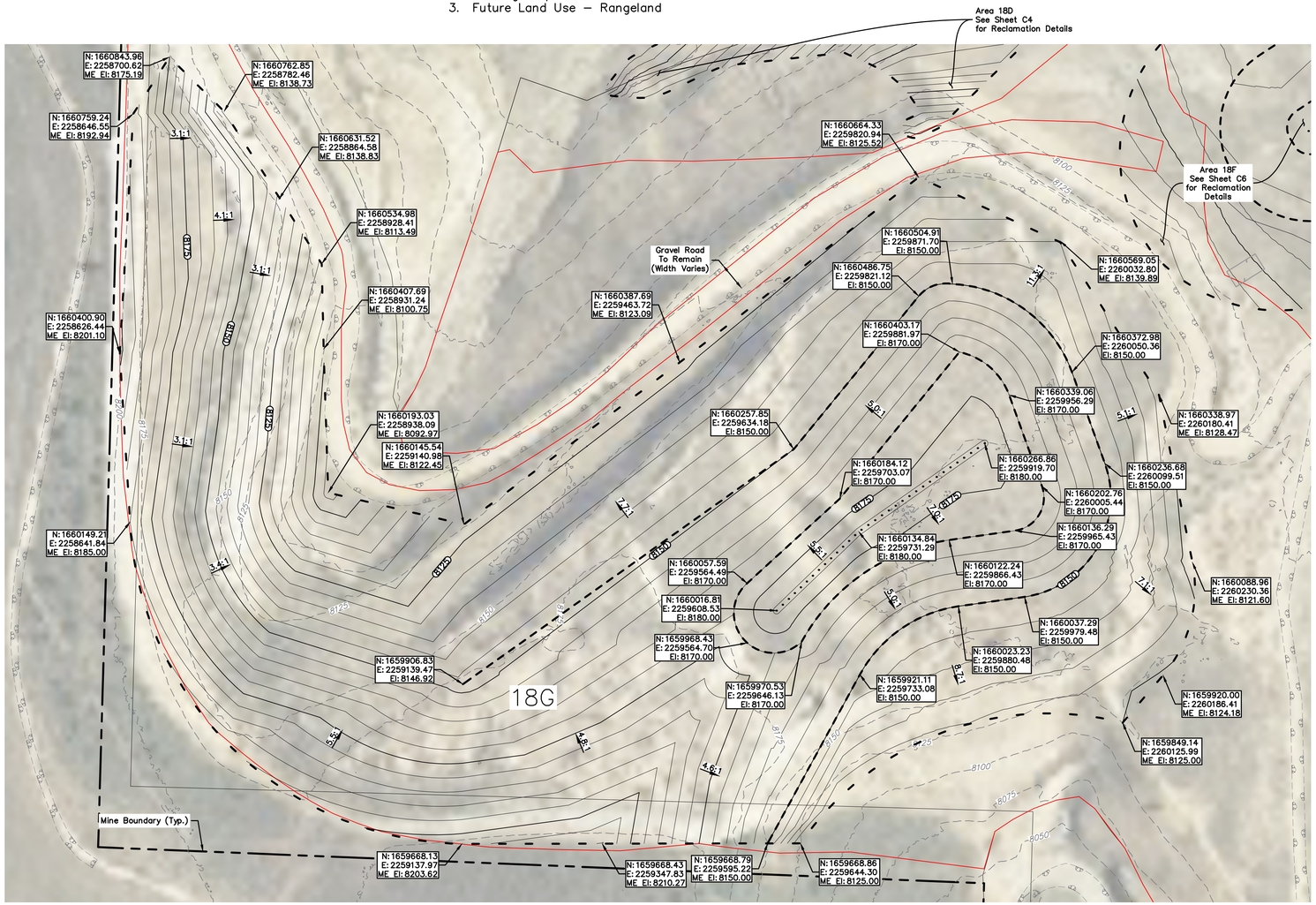
Colony Mine Technical Revision - Exhibit E

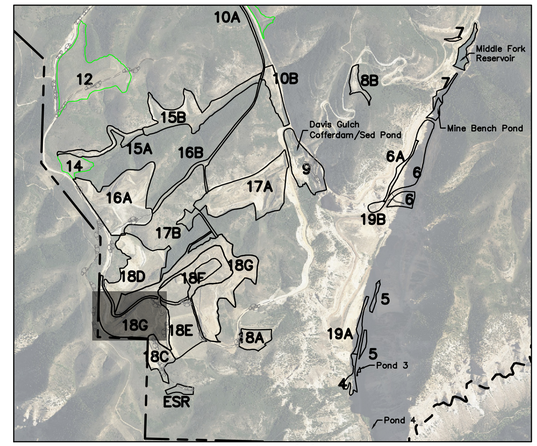
Reclamation Plan
18F

C6

Area 18G (1) Reclamation Activities:

1. Contour 25.40 acres within this area following the grading plan shown on this sheet.
2. Once contouring is complete, soil amendments and dill soil shall commence following the General Seeding Requirements.
3. Future Land Use – Rangeland





Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

CERTIFICATION

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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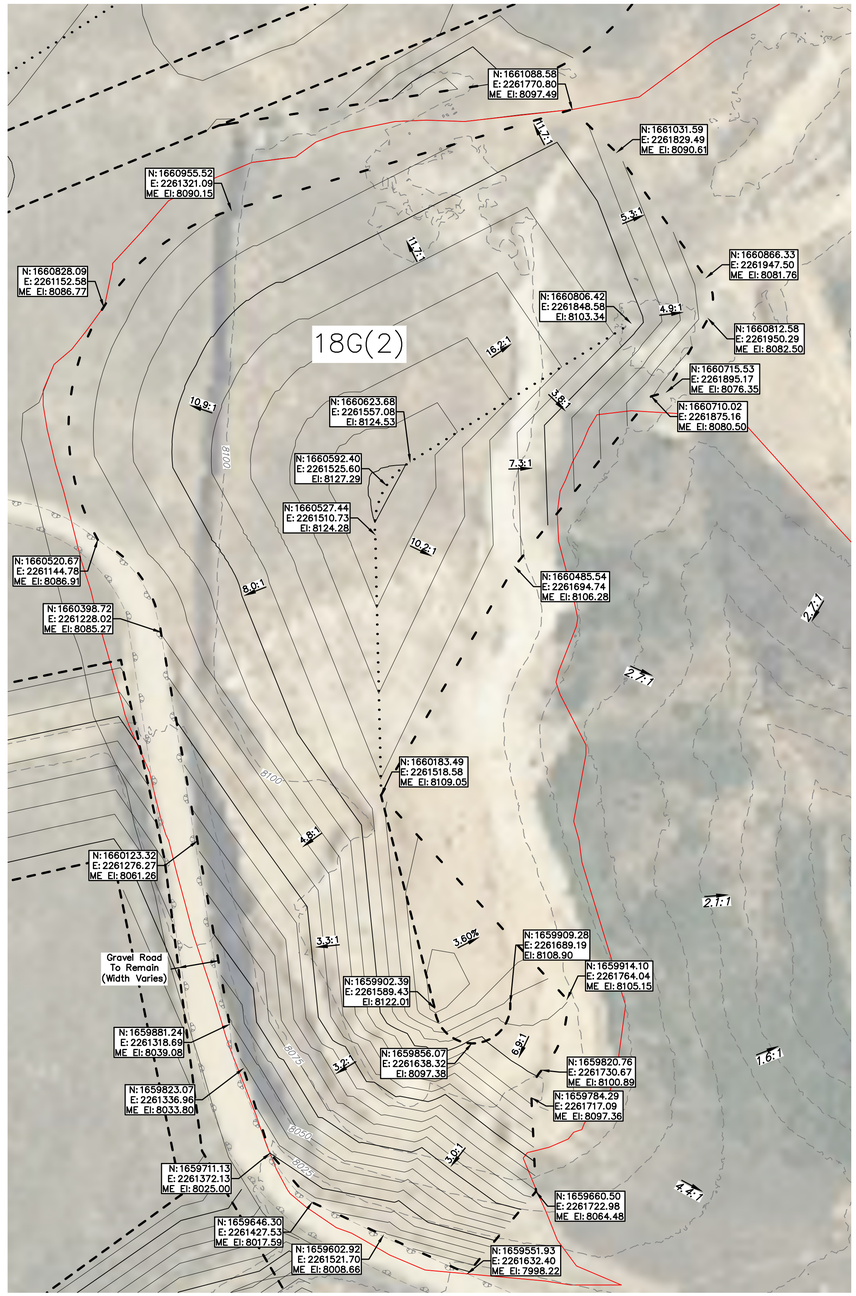
QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

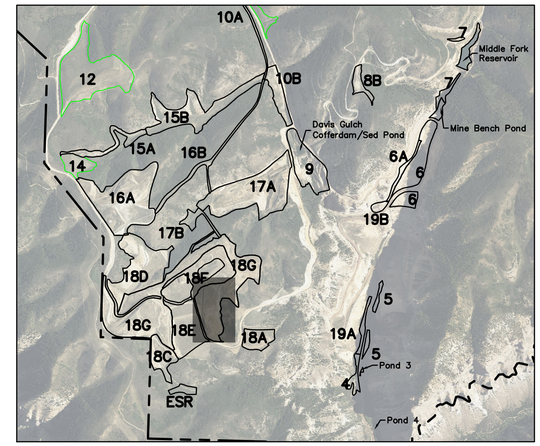
Reclamation Plan
18G Section 1

C7



Area 18G (2) Reclamation Activities:

1. Contour 15.9 acres within this area following the grading plan shown on this sheet.
2. Once contouring is complete, soil amendments and dill soil shall commence following the General Seeding Requirements.
3. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

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Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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CHECKED BY: jwm
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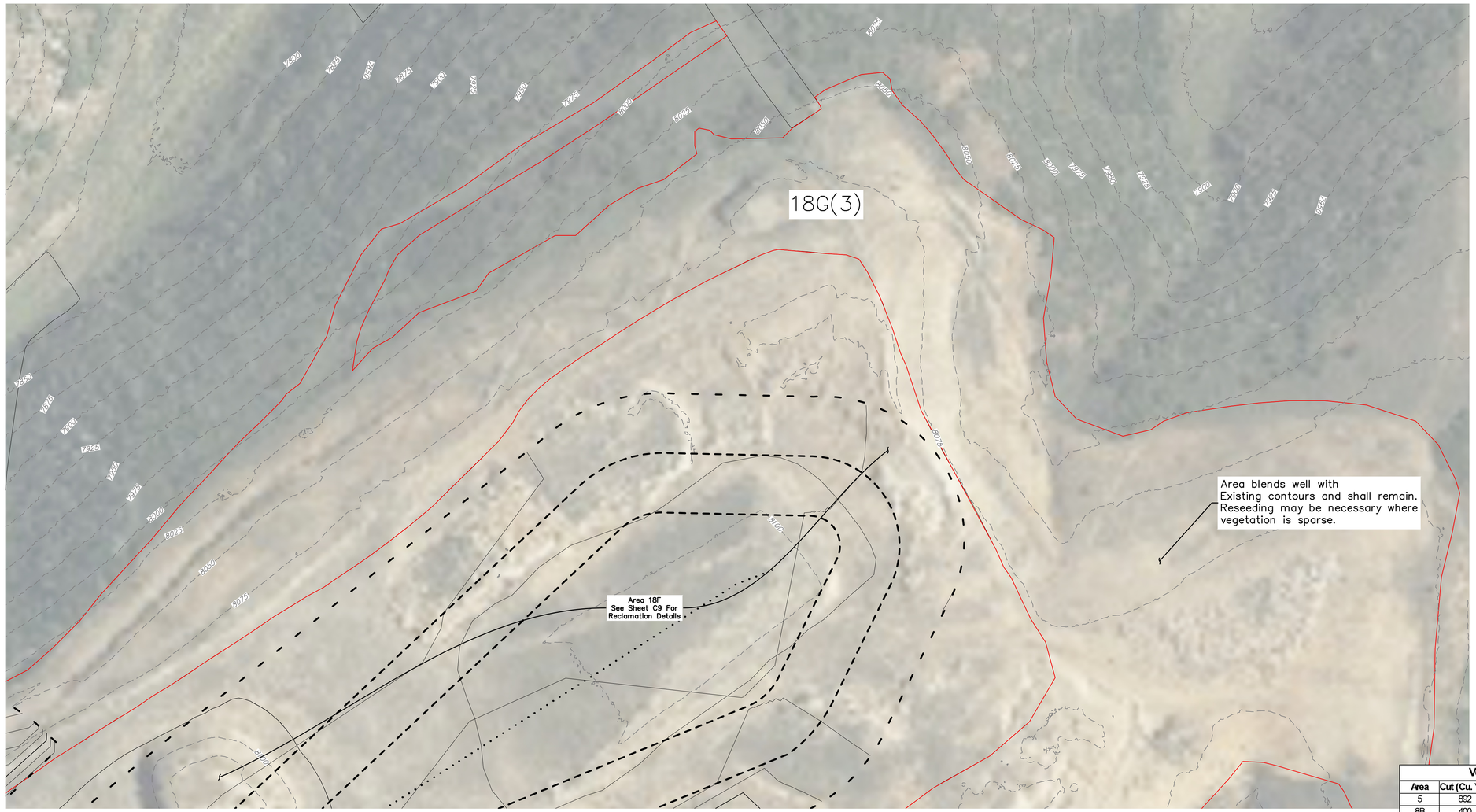
Colony Mine Technical Revision - Exhibit E

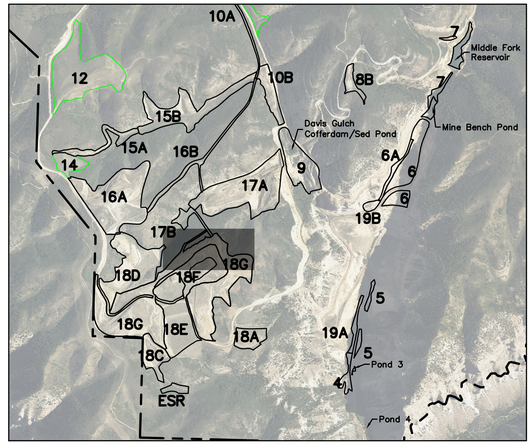
Reclamation Plan
18G Section 2

C8

Area 18G (3) Reclamation Activities:

1. Spot seeding where necessary.
2. Future Land Use – Rangeland





Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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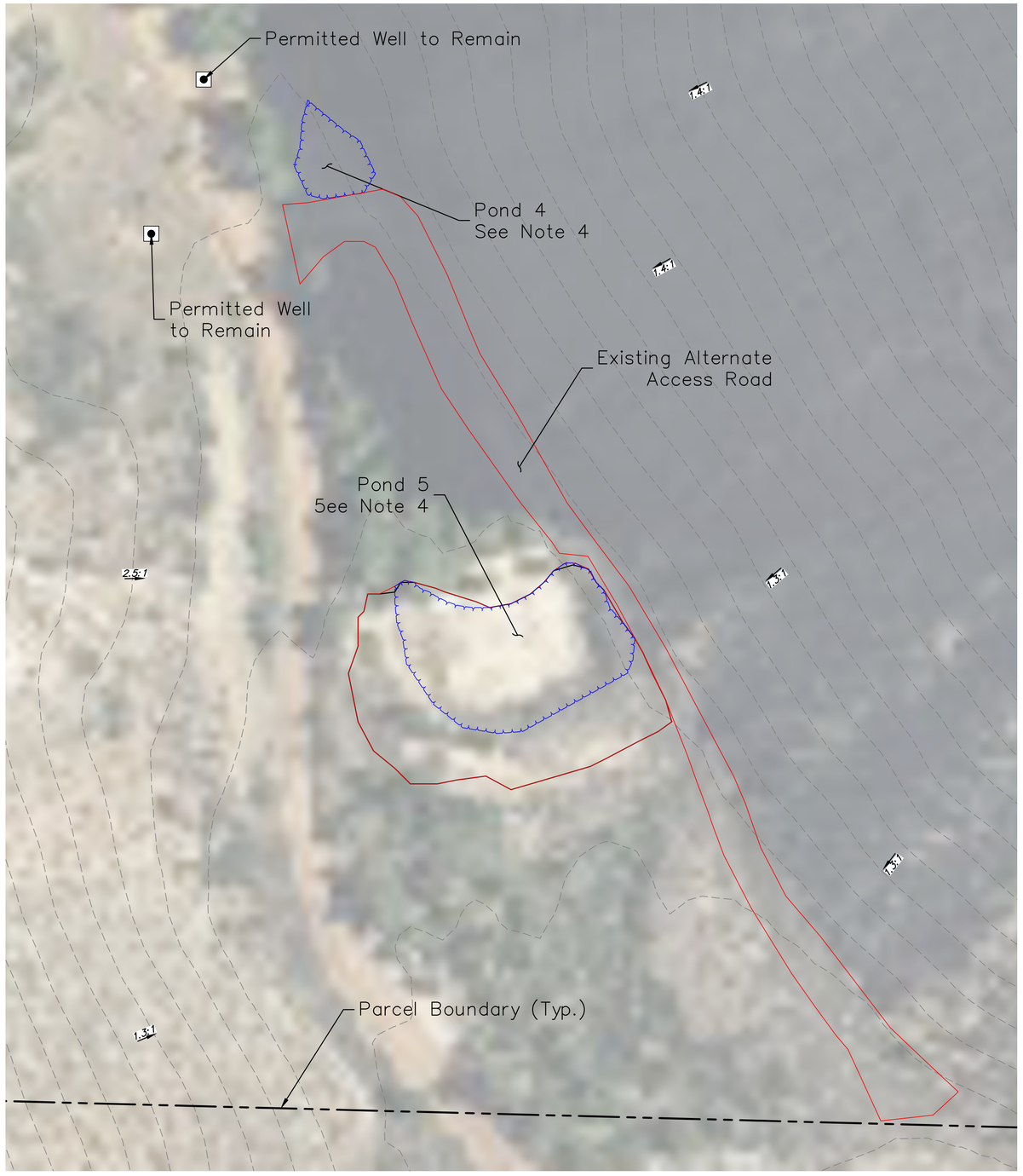
Colony Mine Technical Revision - Exhibit E

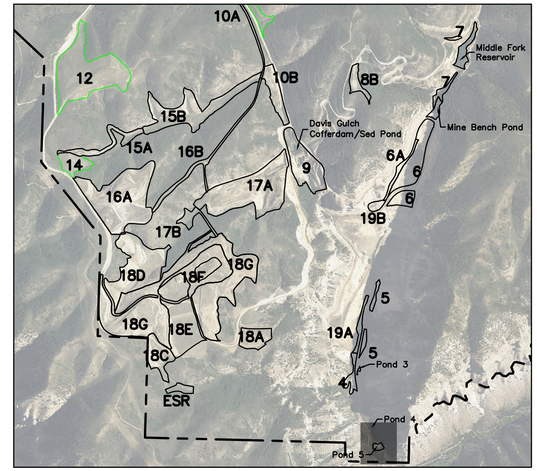
Reclamation Plan
18G Section 3

C9



Alternate Accees Road Reclamation Activities:

1. All reclamation items have been completed in this area.
2. Future Land Use – Rangeland



Vicinity Map
(1:2000)

5000	Proposed Major Contour
4995	Proposed Minor Contour
5000	Existing Major Contour
4995	Existing Minor Contour
	Edge of Gravel
	Proposed Ridgeline
	Proposed Grade Break
	Match Existing Grade
	Top of Pond
	Area Specific Boundary
	Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
4. Ponds are a stormwater measure within the stormwater management plan for the Colony Mine. Therefore, they shall be maintained without disturbance of existing vegetation but remain as is.

CERTIFICATION

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DATE:

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Project Benchmark
TBD
NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 60 120
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Caerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [Pond 4 and Pond 5] 09-Jun-25 12:57:47

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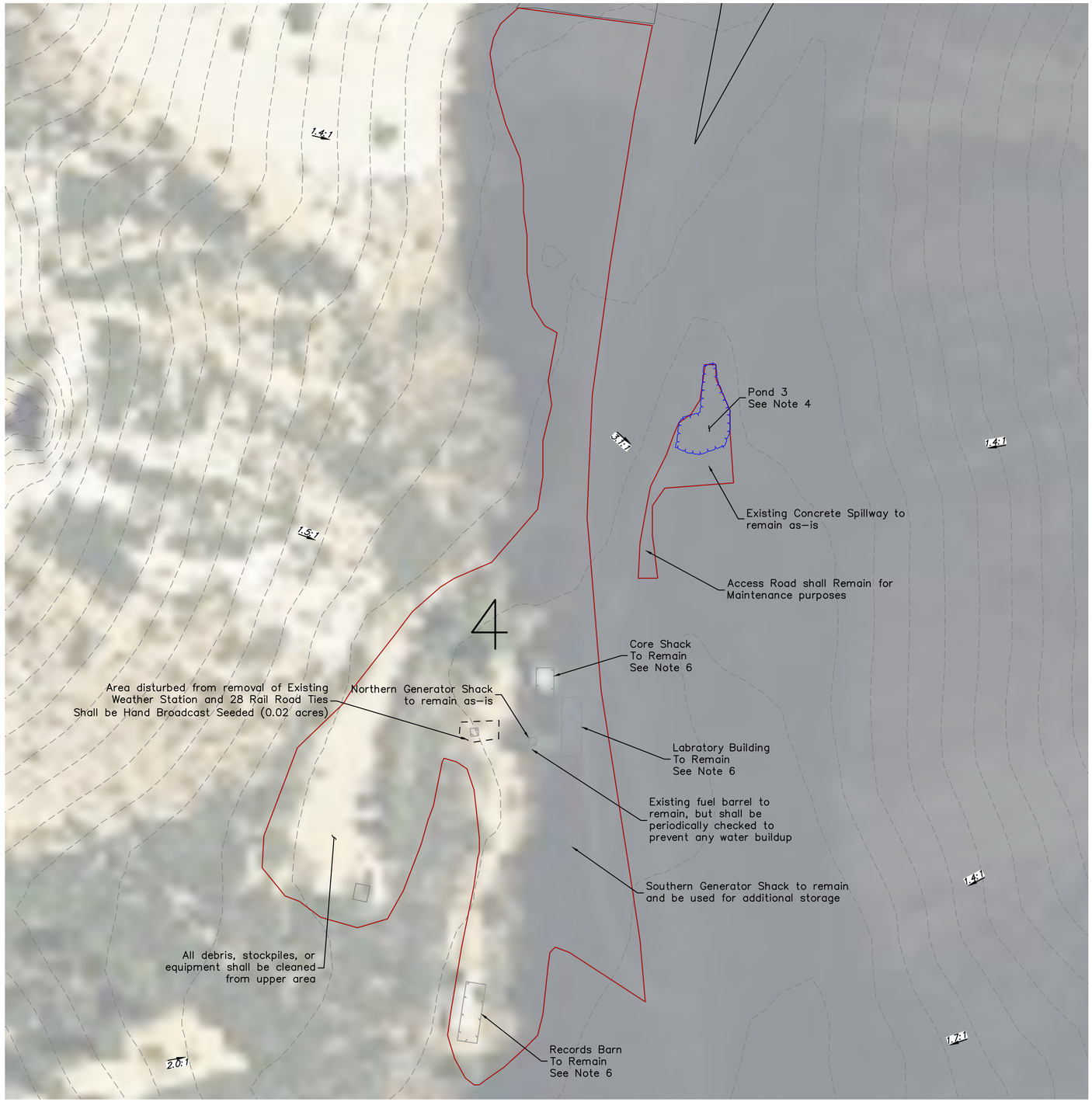
ORIGINAL SHEET SIZE: 22 x 34

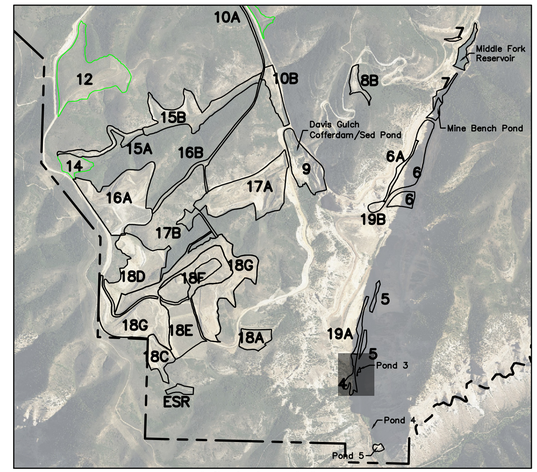
QB ENERGY OPERATING, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
Alternate Access Road, Pond 4, and Pond 5

C10





Vicinity Map
(1:2000)

Area 4 Reclamation Activities:

1. All buildings and foundations remaining in this area will stay.
2. Disturbance occured while removing weather station and rail road ties. This area should be hand broadcast seeded following the General Seeding Requirements. This results in ~0.02 acres of seeding required.
3. Future Land Use – Industrial/Rangeland

5000	Proposed Major Contour
4995	Proposed Minor Contour
5000	Existing Major Contour
4995	Existing Minor Contour
	Edge of Gravel
	Proposed Ridgeline
	Proposed Grade Break
	Match Existing Grade
	Top of Pond
	Area Specific Boundary
	Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
4. Ponds are a stormwater measure within the stormwater management plan for the Colony Mine. Therefore they shall be cleaned without disturbance of existing vegetation but remain as is.
5. Containment for fuel barrel adjacent to building shall be periodically inspected to ensure no standing water is collected within the containment.
6. All access to buildings shall remain as is. All electric services to buildings shall be removed and disposed of.

CERTIFICATION

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DATE:

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Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 60 120
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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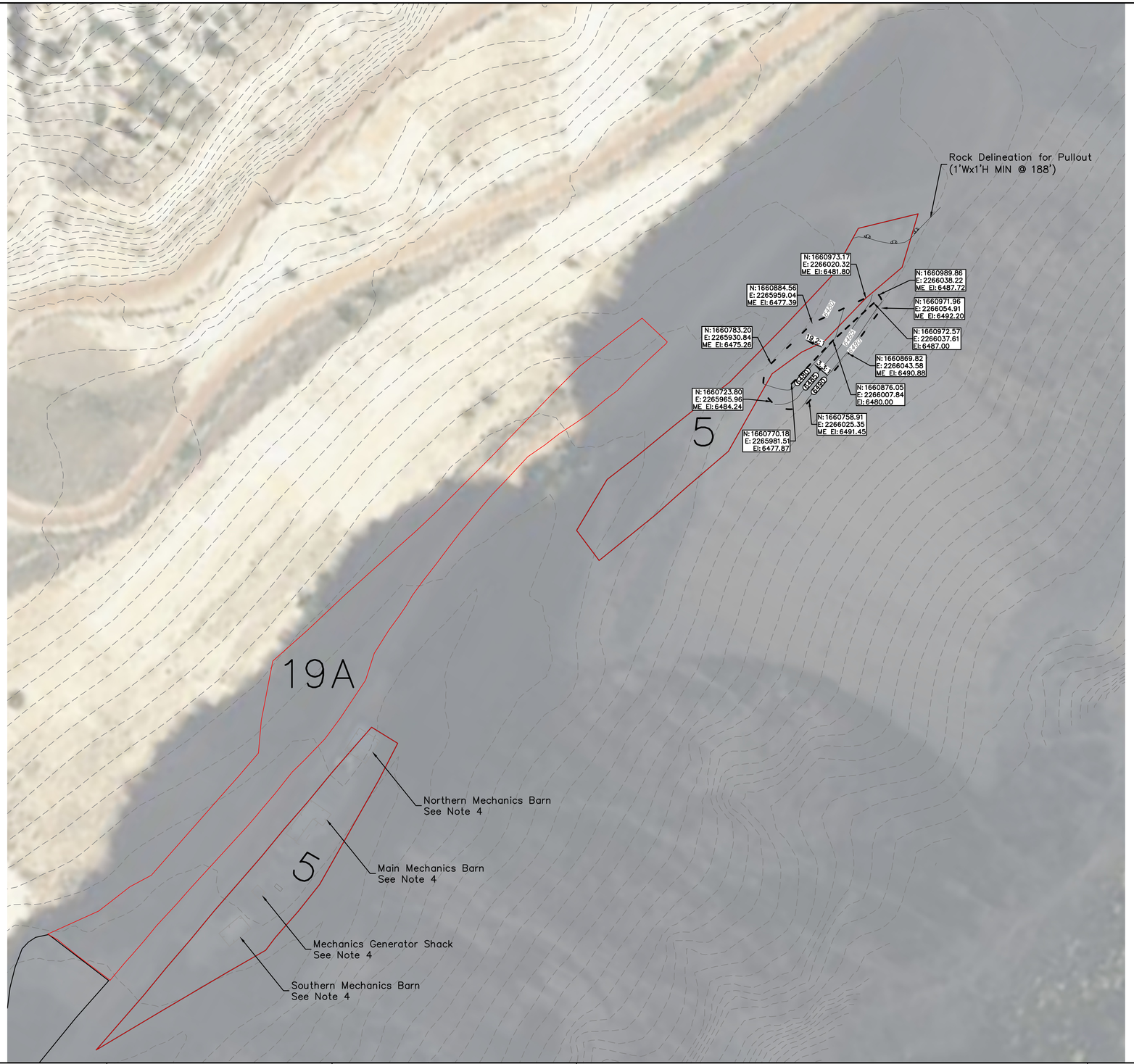
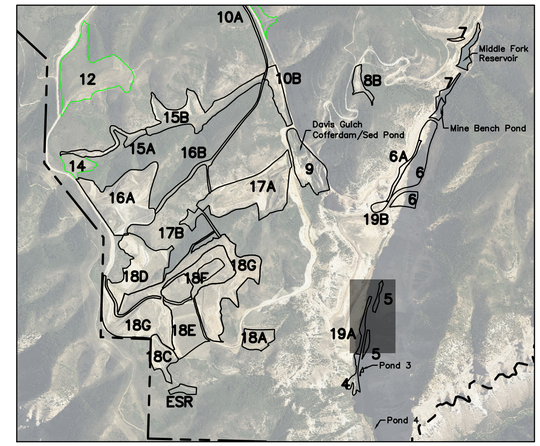
QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
4 and Pond 3

C11





Vicinity Map
(1:2000)

Area 19A Reclamation Activities:

1. All reclamation activities have been completed in this area. All existing electrical infrastructure has been removed.
2. Future Land Use – Rangeland

Area 5 Reclamation Activities:

1. Southern portion of area 5 will remain as–is, no reclamation required in this area as it is all in use and all buildings are permitted.
2. Northern portion of area 5 will require contouring resulting in ~892 CY of material moved.
3. Northern portion will not be seeded as it is directly below a rock scree. Any effort in seeding will fail long term due to the continuation of the rock scree covering all potential vegetation.
4. Northern portion of area 5 has a pullout for maintenance vehicles and shall remain. This pullout should be delineated with 1'Wx1'T rocks or boulders to prevent vehicular access from entering area behind the pullout. This delineation requires ~188 feet of delineation or ~7 CY of rocks or boulders.
5. Future Land Use – Industrial/Rangeland

Volume Table			
Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
4. All access to buildings shall remain as is. All electric services to buildings shall be removed and disposed of.

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Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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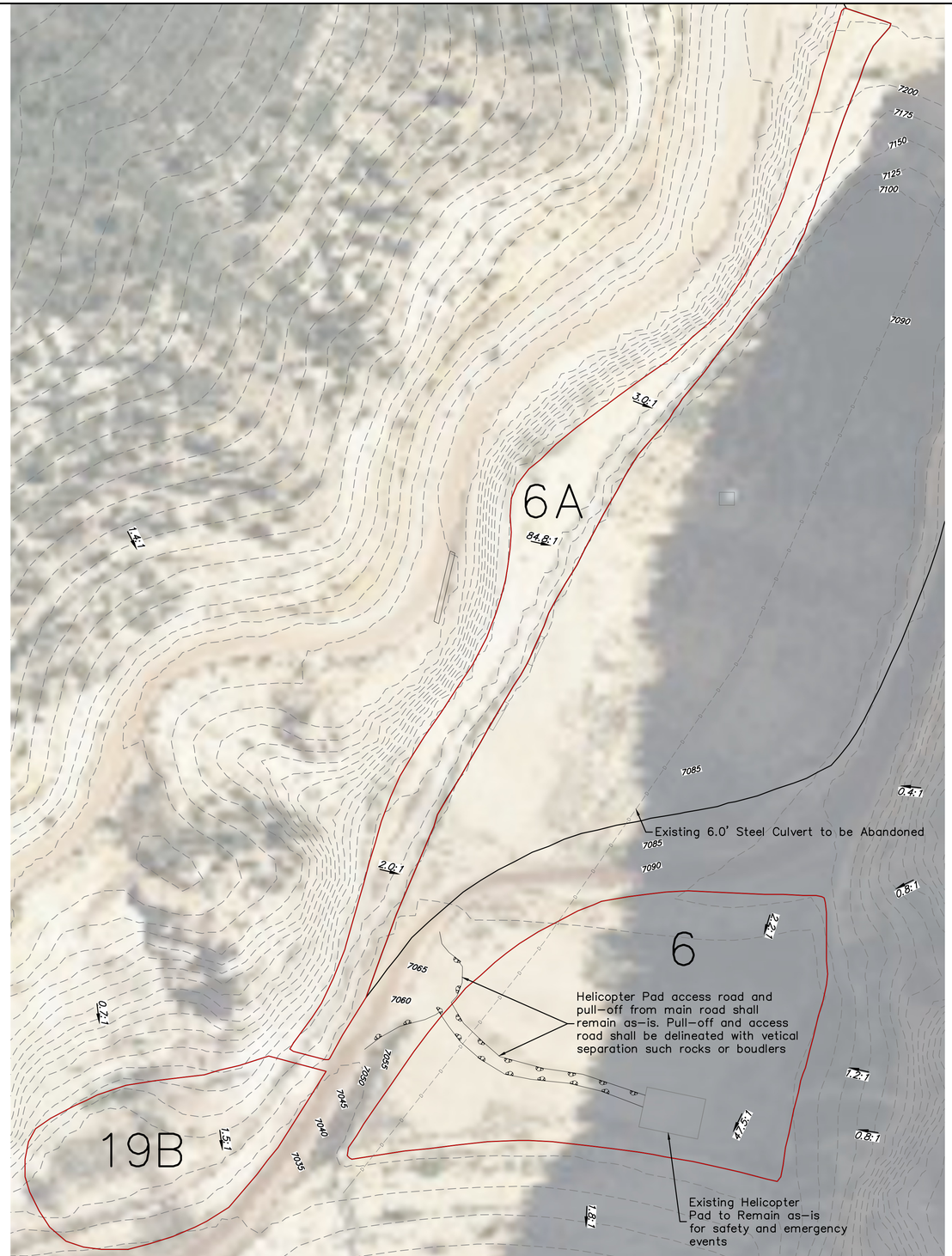
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
19A and 5

C12



Area 19B Reclamation Activities:

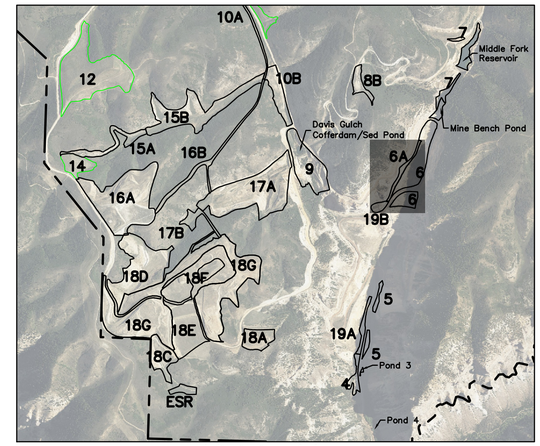
1. Remove 14 jersey barriers and repurpose for oil and gas operations.
2. Future Land Use – Industrial/Rangeland

Area 6A Reclamation Activities:

1. No reclamation in this area shall occur. This area is designated as an emergency/alternate access if the main access road is ever impassible. This will allow oil and gas operations to continue. Any effort towards reclamation may be disturbed if attempted.
2. Future Land Use – Industrial/Rangeland

Area 6 (Lower Area)Reclamation Activities:

1. Remove (4) electrical poles that are ~4.0' in height.
2. Cut electrical conduit at minimum 2.0' under ground and remove wire and conduit. This shall be disposed of at the Garfield County Landfill.
3. The helicopter pad and wind sock shall remain for safety purposes.
4. The existing road and pullout area shall remain as well. Both of which shall be delineated with a 1'Wx1'T rock/boulder delineation. This results in ~960' of delineation or ~36 CY od rocks/boulders.
5. Decompaction efforts to be completed on ~2.9 acres. Soil amendments should be added and drill seeding should commence once decompaction efforts are completed, following the General Seeding Requirements.
6. Future Land Use – Industrial/Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour
- Existing Minor Contour
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

CERTIFICATION

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Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary — DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

S:\PROJECTS\1770 Coerus Oil & Gas\032 Colony Technical Revision\Design\DWG\05-Sheet\1770-031 Grading Plan.dwg [19B 6A and 6] 09-Jun-25 12:53:01

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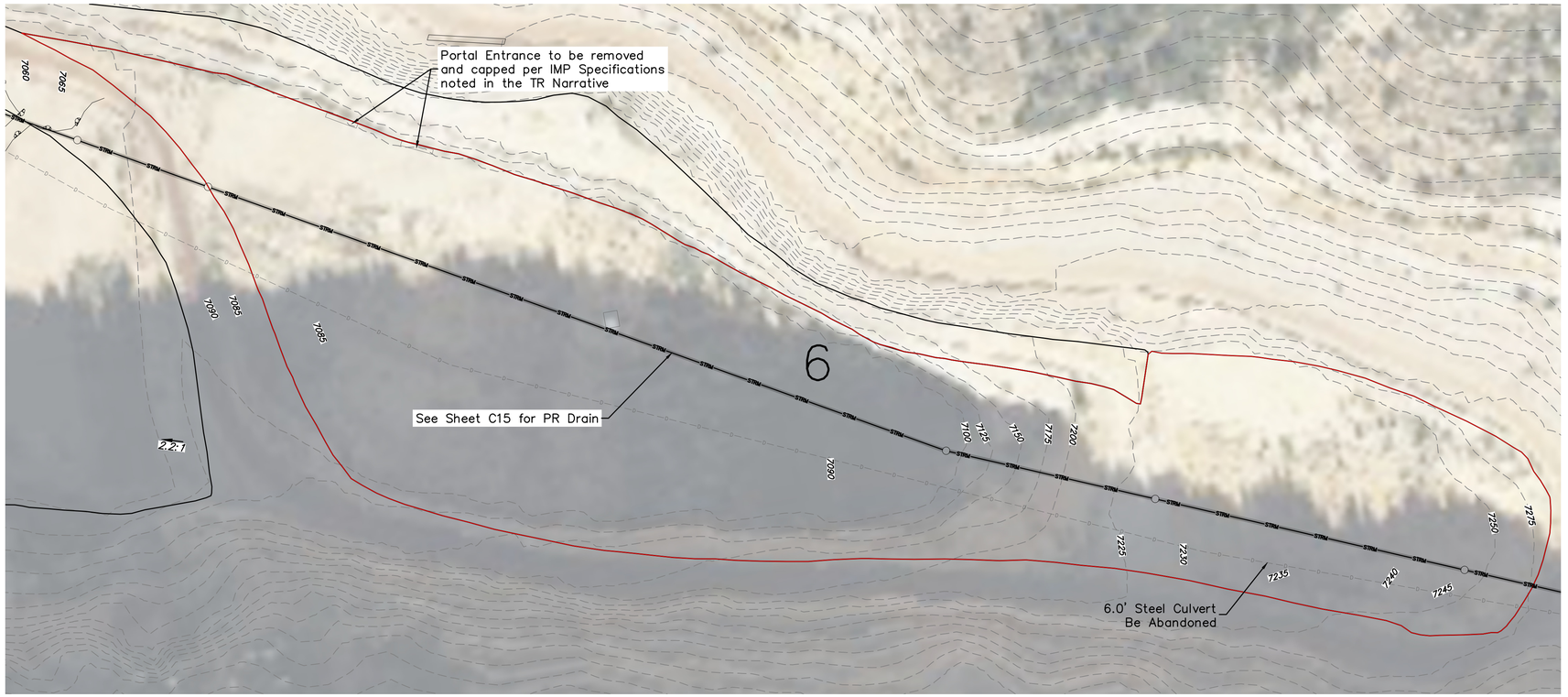
ORIGINAL SHEET SIZE: 22 x 34

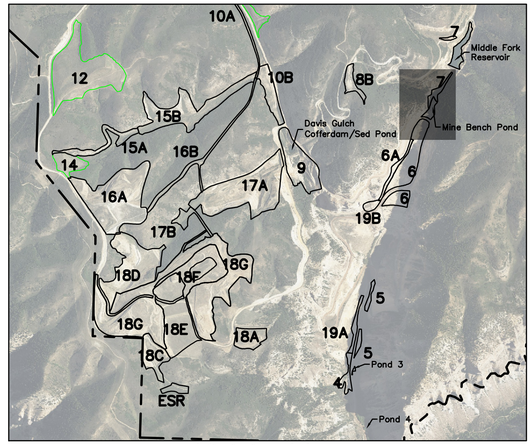
QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
19B 6A and 6

C13





Vicinity Map
(1:2000)

Area 6 (Upper Area) Reclamation Activitees:

1. Complete 2 portal closures following the the guidelines in Section 15, Concrete Masonry Unit Bulkhead Seal Closure and standard drawing No. 12 of the Inactive Mine Reclamation Program (IMP).
2. Complete secondary access portal closure following the Hollow Core Shaft Closure details and specifications shown in Section 5 and standard drawing No. 2 of the IMP specifications.
3. Remove and dispose of 15'x20' Metal Building.
4. Remove and repurpose 15 jersey barriers.
5. Remove and cap 4 monitoring pins.
6. Future Land Use – Rangeland

Area 7 (Lower Area) Reclamation Activitees:

1. Expose existing standpipe at minimum 4.0' under existing grade, cut off and install concrete cap at minimum 2.0' thick over the end of the existing 72" pipe. This results in ~2.75 CY of concrete and ~19CY of material moved.
2. Begin install of proposed drain, which is outlined on sheet C15. This consists of 2,518 feet of RCP pipe, 310 feet of CMP, and 5–120" manholes.
3. The southern end of this pipe shall connect to the existing outlet structure where the current 72" pipe discharges. This will require removal of existing pipe as necessary until new pipe can properly be installed.
4. Future Land Use – Rangeland

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

1. ME = Match Existing
2. Disturbed areas shall be seeded in accordance to the TR Report.
3. This sheet contains color and may not be accurately reflected if reproduced in greyscale.
4. Several Monitoring pins are located on the mine bench and shall be removed in accordance to the TR narrative.

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DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary
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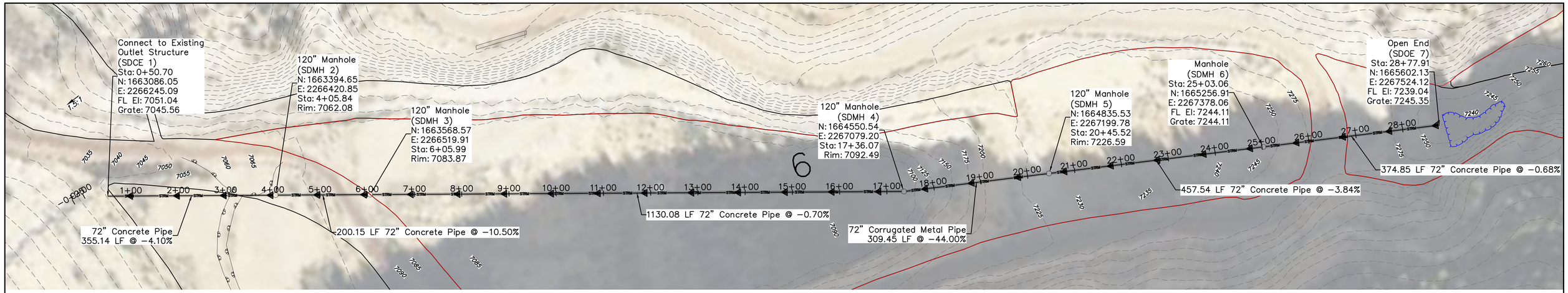
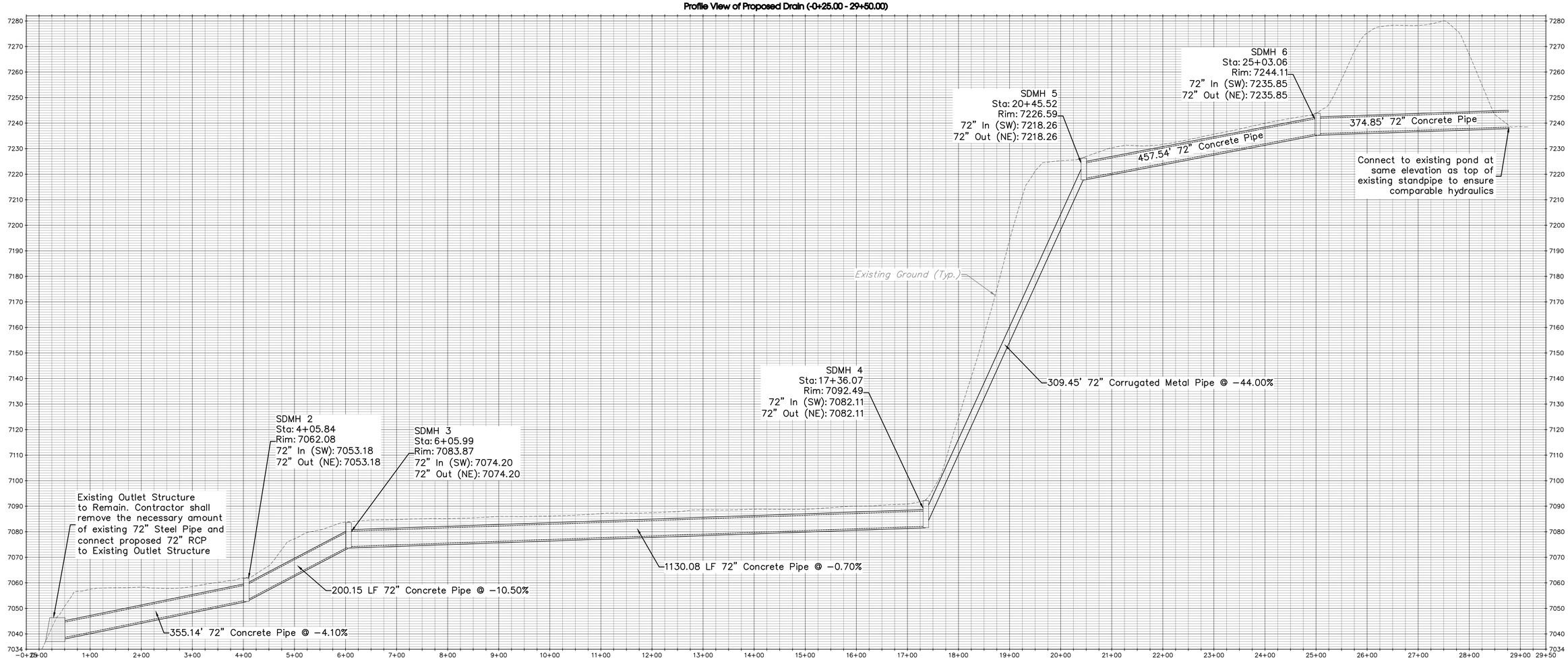
Reclamation Plan
6 and 7

C14



Profile View of Proposed Drain (-0+25.00 - 29+50.00)



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TBD

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EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: 1" = 20'

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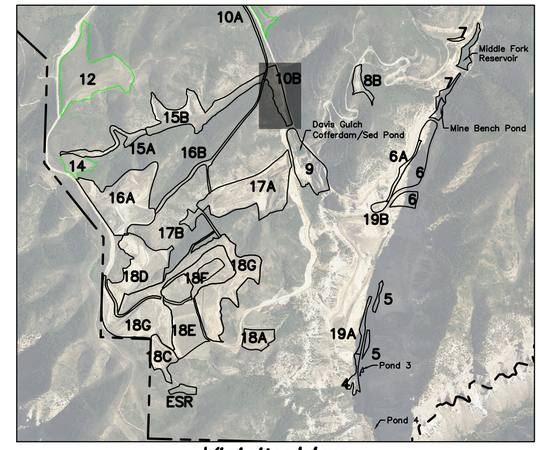
Reclamation Plan
6 and 7 Proposed Drain

C15

Area 10B Reclamation Activities:

1. Contour ~.1 acres resulting in ~85 CY of material moved. These contours are to blend with existing grade and create a 3:1 slope.
2. Once contouring is complete, soil amendments should be added and hand broadcast seeding shall commence following the General Seeding Requirements.
3. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

1. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

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ELEVATION: –
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SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary — DATE ISSUED: 09.Jun.2025

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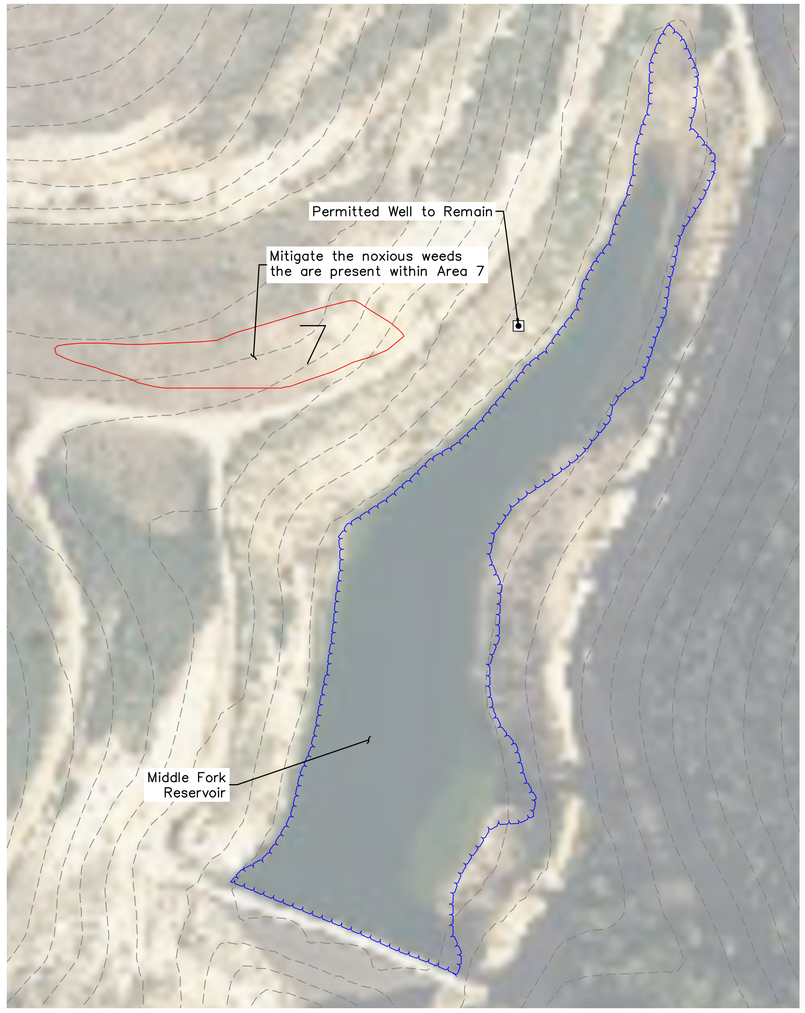
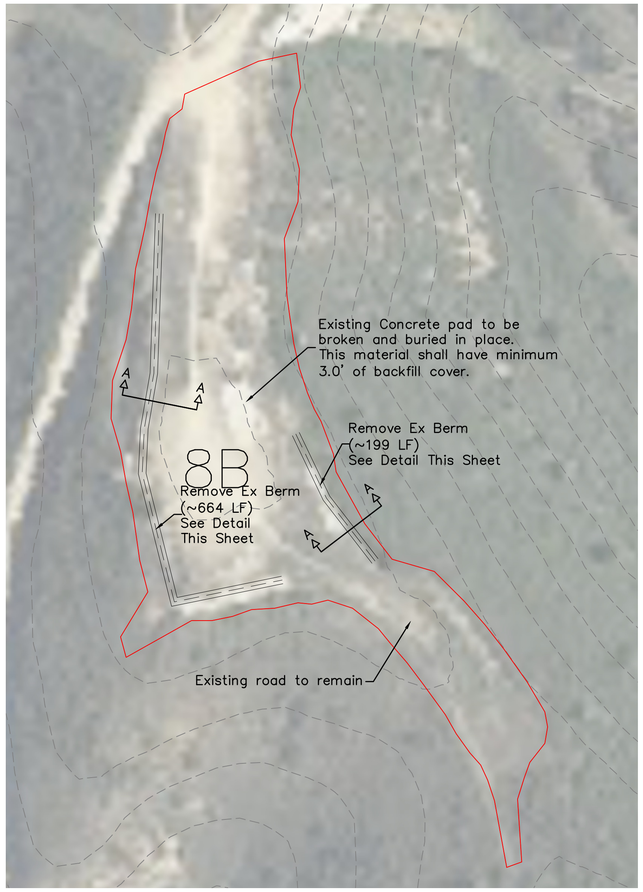
Reclamation Plan
10B

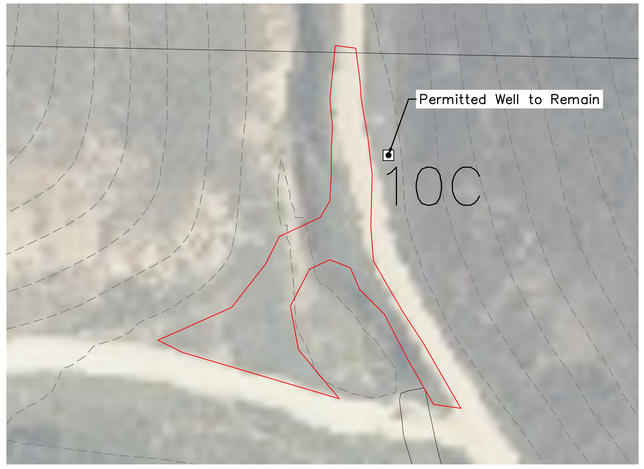
C16



Area 7 (Upper Area) Reclamation Activities:

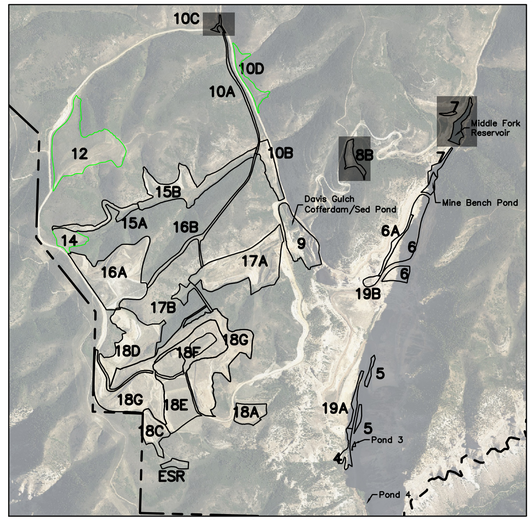
1. This area self reclaimed. There are noxious weeds within this area and mitigation of these weeds should be treated in the spring, summer, and fall.
2. Future Land Use – Rangeland



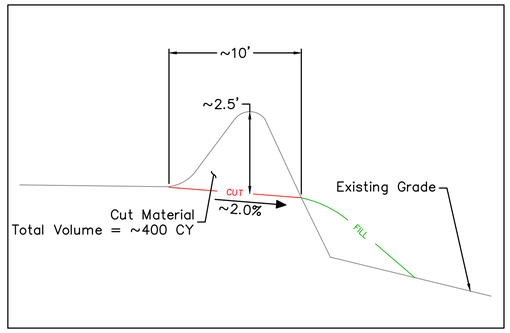


Area 8B Reclamation Activities:

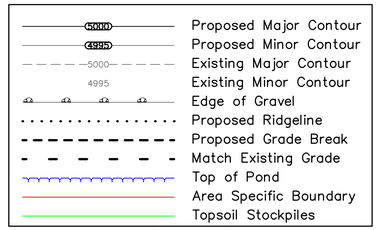
1. Break and bury two existing foundations with minimum cover of 3.0'. Both foundations account for approximately 105 CY of concrete to be buried.
2. Contour existing berms on edge of pads following detail provided on this page. This results in ~400 CY of material moved.
3. Once contouring is complete, soil amendments and drill seeding shall commence following the General Seeding Requirements. The area of disturbance and seeding area is ~0.42 acres.
4. Future Land Use – Rangeland



Vicinity Map
(1:2000)



Section A-A



Legend

Area 7 (Upper Area) Reclamation Activities:

1. This area self reclaimed. No additional reclamation activities are required.
2. Future Land Use – Rangeland

NOTE:

1. Disturbed areas shall be seeded in accordance to the TR Report.
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Project Benchmark
TBD
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EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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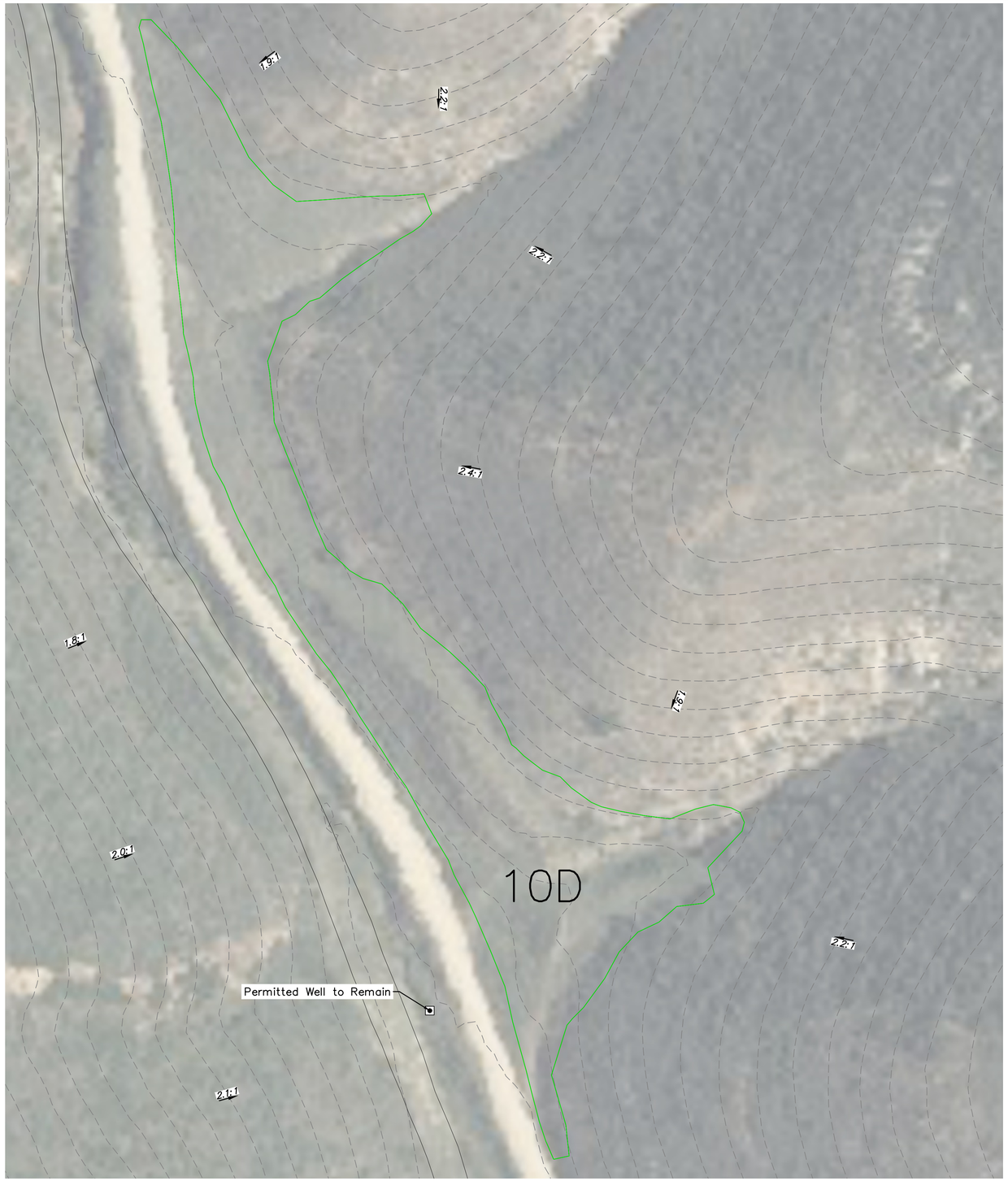
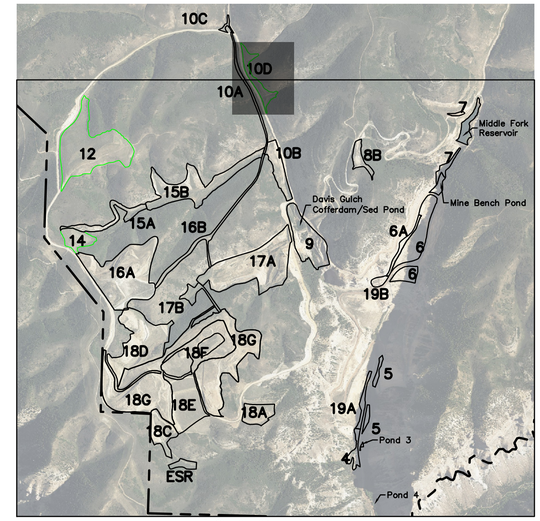
Reclamation Plan
7 8B and 10C

C17



Area 10D Reclamation Activities:

1. No reclamation activities required in this area as it is the topsoil stockpile and consists of well vegetated slopes that blend well with surrounding topography.
2. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

NOTE:

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Project Benchmark
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ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

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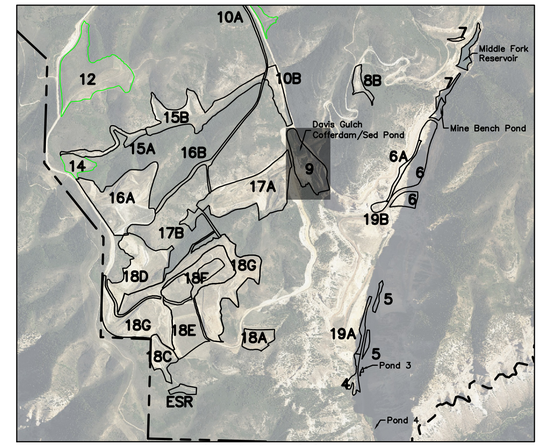
Reclamation Plan
10D

C18

Area 9 Reclamation Activities:

1. No reclamation activity to occur in this area.
2. Future Land Use – Industrial/Rangeland



Vicinity Map
(1:2000)

5000	Proposed Major Contour
4995	Proposed Minor Contour
5000	Existing Major Contour
4995	Existing Minor Contour
	Edge of Gravel
	Proposed Ridgeline
	Proposed Grade Break
	Match Existing Grade
	Top of Pond
	Area Specific Boundary
	Topsoil Stockpiles

Legend

NOTE:

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Project Benchmark
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EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A

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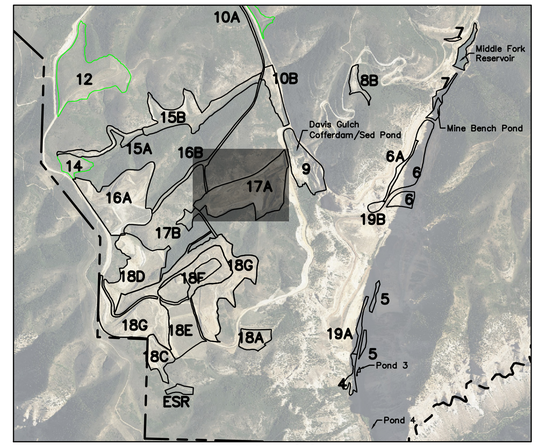
Reclamation Plan
9

C19



Vicinity Map
(1:2000)

- Proposed Major Contour
- Proposed Minor Contour
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

Area 17A Reclamation Activities:

1. Complete contouring of ~1.97 acres moving ~50 CY of material.
2. Once contouring is completed, soil amendments should be added and drill seeding should occur following the General Seeding Requirements.
3. Future Land Use – Rangeland

NOTE:

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ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

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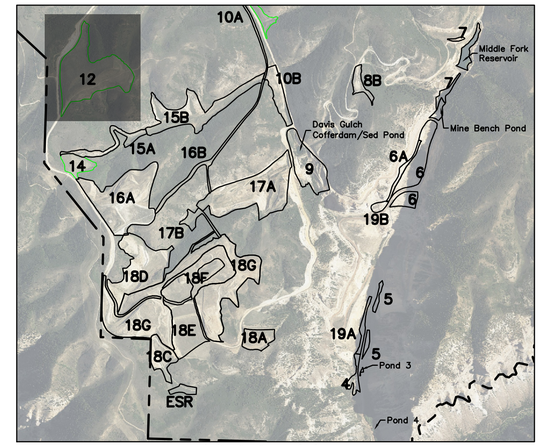
Reclamation Plan
17A

C20



Vicinity Map
(1:2000)

Area 12 Reclamation Activitee:

1. No reclamation activities required in this area as this is the existing topsoil stockpile. This area is well vegetated and blends well with existing adjacent topography.

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

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3. Future Land Use – Rangeland

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SCALE (FEET)
0 150 300
HORIZONTAL
VERTICAL: N/A

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Reclamation Plan
12

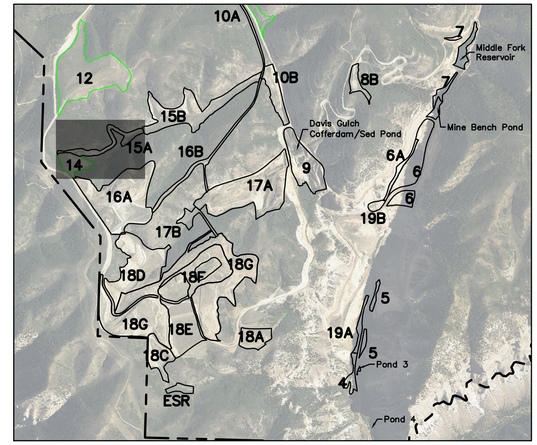
C21

Area 14 Reclamation Activities:

1. No reclamation activities required in this area is this is the existing topsoil stockpile. This area is well vegetated and blends well with the surrounding topography.
2. Future Land Use – Rangeland

Area 15A Reclamation Activities:

1. No reclamation activities required in this area. There is an existing road through this area that will remain post reclamation.
2. Future Land Use – Rangeland/Agricultural



Vicinity Map
(1:2000)

5000	Proposed Major Contour
4995	Proposed Minor Contour
5000	Existing Major Contour
4995	Existing Minor Contour
	Edge of Gravel
	Proposed Ridgeline
	Proposed Grade Break
	Match Existing Grade
	Top of Pond
	Area Specific Boundary
	Topsoil Stockpiles

Legend

NOTE:

1. Disturbed areas shall be seeded in accordance to the TR Report.
2. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

CERTIFICATION

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 1 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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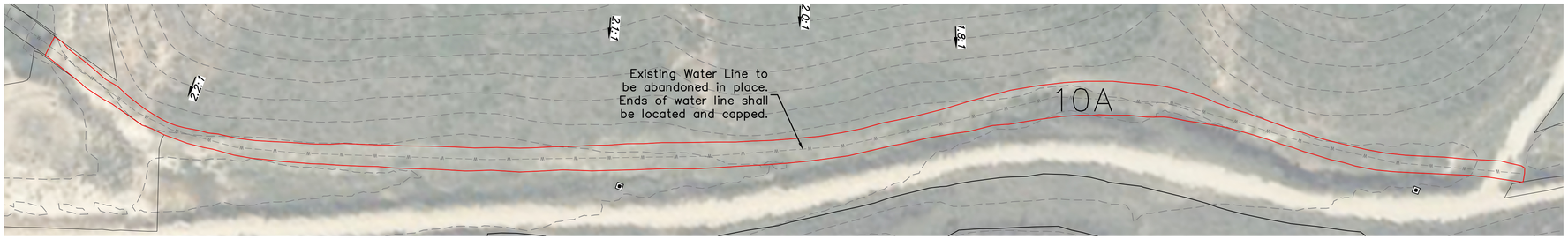
DRAWN BY: lcf | PROJECT: 1770-031
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

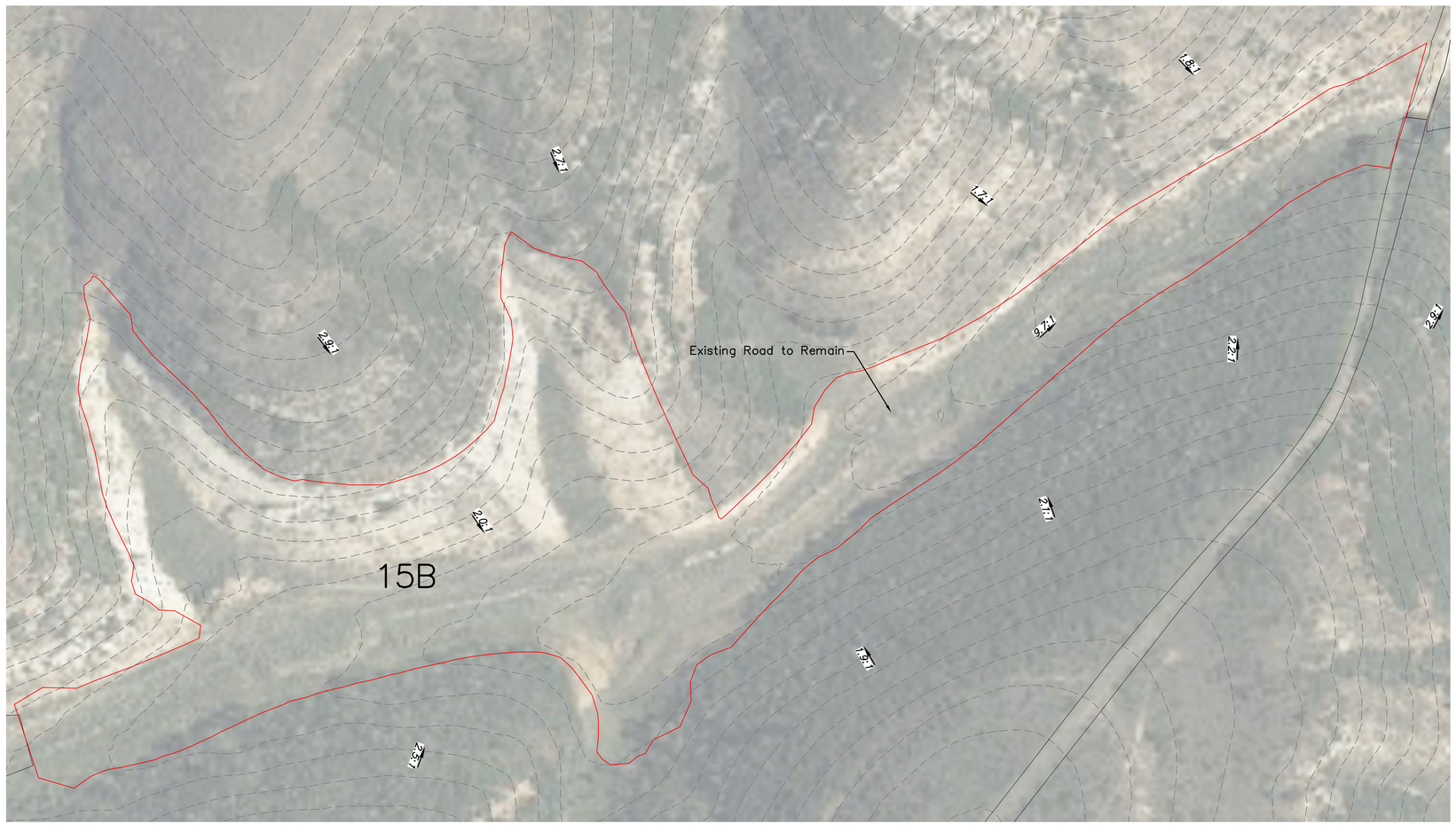
Reclamation Plan
14 and 15A

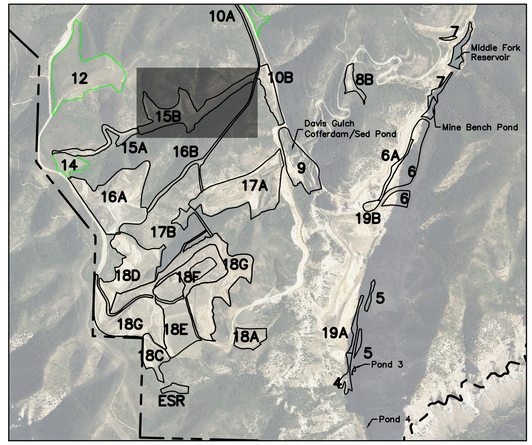
C22



Area 10A Reclamation Activities:

1. Cap existing waterline with 2'x2'x2' concrete cap which results in ~0.3 CY of concrete.
2. Remove PVC delineators by hand to eliminate the possibility of additional disturbance.
3. Future Land Use – Rangeland





Vicinity Map
(1:2000)

5000	Proposed Major Contour
4995	Proposed Minor Contour
5000	Existing Major Contour
4995	Existing Minor Contour
	Edge of Gravel
	Proposed Ridgeline
	Proposed Grade Break
	Match Existing Grade
	Top of Pond
	Area Specific Boundary
	Topsoil Stockpiles

Legend

NOTE:

1. Disturbed areas shall be seeded in accordance to the TR Report.
2. This sheet contains color and may not be accurately reflected if reproduced in greyscale.

Area 15B Reclamation Activities:

1. No reclamation activity required in this area. Existing road to remain.
2. Future Land Use – Rangeland

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE
(FEET)
0 150 300
HORIZONTAL
VERTICAL: N/A

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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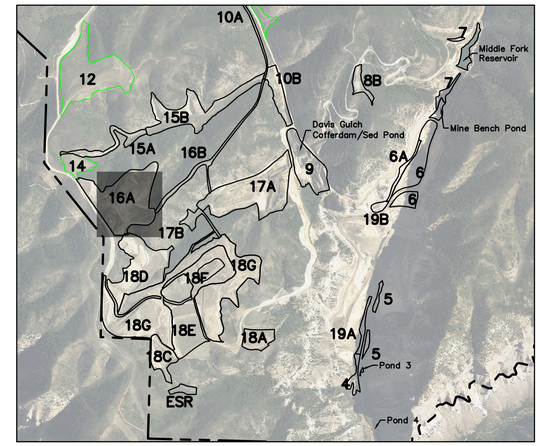
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
15B & 10A

C23



Vicinity Map
(1:2000)

Legend

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Area 16A Reclamation Activities:

1. Contour ~15.74 acres of area following the grading plan shown on this sheet.
2. Remove 49 jersey barriers and repurpose for oil and gas operations.
3. Remove two foundations, resulting in ~108 CY of concrete. The broken concrete shall be buried onsite with a minimum cover of 3.0'.
4. Future Land Use – Rangeland/Agricultural

NOTE:

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Volume Table

Area	Cut (Cu. Yd.)	Fill (Cu. Yd.)	Net (Cu.Yd.)
5	892	351	541
8B	400	400	0
10B	85	85	0
16A	95321	94602	719
17A	50	50	0
18A	948	948	0
18D	41330	42467	1137
18E	126954	134941	7987
18F	112699	113702	1003
18G(1)	245512	245710	198
18G(2)	121943	122220	278
Total	746134	755476	9342

*** This table does not include compaction factors, therefore, the remaining **NET** shall be field adjusted to meet the intent of the reclamation grading/recontouring.

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SIGN:

DATE:

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 100 200
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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DRAWN BY: lcf PROJECT: 1770-031
CHECKED BY: idg
ORIGINAL SHEET SIZE: 22 x 34

QB Energy Operating, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
16A

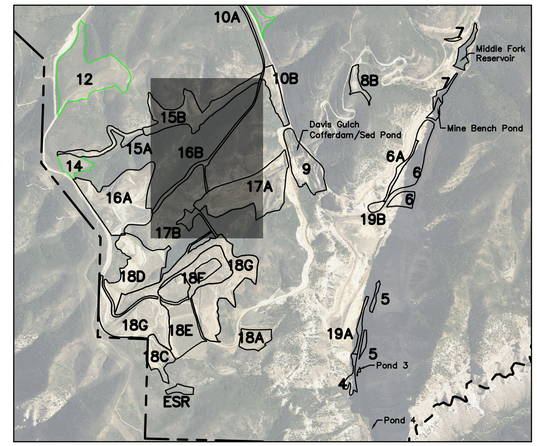
C24

Area 17B Reclamation Activities:

1. No reclamation efforts required in this area as it is well vegetated and blends well with existing adjacent topography.
2. Future Land Use – Rangeland

Area 17B Reclamation Activities:

1. Cap end of existing waterline with 2'x2'x2' concrete cap resulting in ~0.3 CY of concrete.
2. Remove delineators by hand to eliminate the possibility of additional disturbance.
3. Future Land Use – Rangeland



Vicinity Map
(1:2000)

- Proposed Major Contour (5000)
- Proposed Minor Contour (4995)
- Existing Major Contour (5000)
- Existing Minor Contour (4995)
- Edge of Gravel
- Proposed Ridgeline
- Proposed Grade Break
- Match Existing Grade
- Top of Pond
- Area Specific Boundary
- Topsoil Stockpiles

Legend

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SIGN:

DATE:

UNCC UTILITY NOTIFICATION CENTER OF COLORADO 800.922.1987 www.UNCC.org — 811 Know what's below. Call before you dig.
CALL 2 BUSINESS DAYS IN ADVANCE BEFORE YOU DIG, GRADE, OR EXCAVATE FOR THE MARKING OF UNDERGROUND MEMBER UTILITIES.

Project Benchmark
TBD

NORTHING: –
EASTING: –
ELEVATION: –
DATUM SOURCE: MCLCS Zone "GVA" (NAVD 88)

SCALE (FEET)
0 200 400
HORIZONTAL
VERTICAL: N/A
CONTOUR INTERVAL: 5 FT

PROJECT PHASE: Preliminary
DATE ISSUED: 09.Jun.2025

NO.	DATE	REVISION	BY

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QB ENERGY OPERATING, LLC

Colony Mine Technical Revision - Exhibit E

Reclamation Plan
16B and 17B

C25

Exhibit E
Colony Mine Reclamation Plan

June 9, 2025

RIVER CITY CONSULTANTS, INC. ■ 215 PITKIN AVENUE UNIT 201 ■ GRAND JUNCTION, COLORADO 81501 ■ 970.241.4722

Introduction:

The Colony Mine began in 1964 and is located approximately 13.3 miles north of Parachute, Colorado**.** The Colony Mine was an oil shale mine that was intended to extract oil from the shale using TOSCO II retorting technology, developed by Tosco Corporation. Multiple different companies have bought/sold this project where it eventually ended up in the hands of EXXON Mobile. In 1982, EXXON terminated the project due to low oil prices and increased expenses.

Since 1982 EXXON has developed multiple different reclamation plans and implemented some tactics with some success. In 2021, Caerus Operating, LLC acquired the Colony Mine through a buy-out and has since began creating a new reclamation plan aimed at reclaiming with more specific guidelines given the existing conditions that have been created over the past 42 years. Some areas within the project have self-reclaimed and others need attention. This reclamation plan addresses the remaining concerns and are listed below.

Overview:

The overall reclamation goal is to return all disturbed land from previous mining operations to a proposed use that will blend with surrounding landscape as well as benefit the current owner. The proposed use throughout the entirety of the area within the existing Colony Mine permit will vary in uses ranging from returning to native, agriculture activities, rangeland/wildlife establishment, and industrial operations. All lands within the permit area are zoned as Resource Lands per Article 3 of the Garfield County Land Use Development Code. Further, all lands within a 12-mile radius of the permit area either zoned as Resource Lands or a Public Lands per the code. Resource Lands per the code allow for most types of agriculture, forestry, and oil and gas extraction as a “right of use”.

Currently, there have been measures of reclamation completed with some success and challenges, this report will outline areas that have already undergone this work. Many of the areas within the permit boundary have not experienced any activity regarding mining, oil/gas, or construction which has resulted in areas naturally re-vegetating and naturally blending into the surrounding landscape. Water storage ponds with secure water rights for agricultural and wildlife uses are in many of these areas.

For ease of understanding location, given the large site, Exhibit F represents an overall map delineating each area in specific within the original boundary. Each area is then separated into individual sheets to clearly show what reclamation activities will occur, and where within the area boundary. There are several existing monitoring wells that are located within the mine boundary; these wells are listed in the Colony Water Well List. This list shows the future use whether that is to re-permit to a new use, keep using as-is, or plug and abandon.

Alternate Access Road Area:

This area is located at the entrance to the Colony Mine and encompasses two ponds (Ponds 4 and 5) and a portion of the existing alternative entry road. The ponds have not experienced any development or construction activity for years, this results in the ponds having diverse and well-established vegetation. Although the slopes of the pond exceed a 3:1 slope, they are well established and blend naturally with the surrounding topography.

The alternate access road is currently in good condition with natural vegetation and smooth topography that blends well with adjacent slopes. There was a gate, jersey barriers, and PVC delineators at the entrance that have already been removed and disposed of. This was completed with extremely minimal disturbance which allows the area to remain as-is.

Area 4:

This area consists of 6 separate buildings, and each are labelled in Exhibit F and represented in Existing Building Summary below. Buildings 1-7 were permitted through Garfield County under permit number 10656. Buildings 1-3 are located within Area 4, and there are two other buildings located in this area that are sheds and will remain as-is for storage purposes. The weather station and the shed covering the weather station equipment will be removed. The 8'x3' shed is built on a skid made up of a combination of wood and steel and will be hauled off and repurposed for QB's oil and gas operations. There was an existing 8'x3' concrete pad, 6-inches thick that was under the weather station/shed that shall be broken apart and buried onsite with a minimum of 3.0-feet of cover. There were also 28 railroad ties, 4-feet in length, used as steps to access the weather station that were removed and repurposed for ranch property improvements. The disturbance to complete this work is 0.02 acres and should be reseeded using the hand broadcast seeding method outline in the General Seeding Requirements below.

There are also existing electrical poles, lines, and wire throughout this area that have been completely removed and disposed of. There is no remaining electrical infrastructure in this area. The existing electrical infrastructure is not connected to the grid and is privately owned. There was approximately 2,840' of overhead aluminum electric line that will be hauled off to Pacific Steel and Recycling in Grand Junction, CO. There was approximately 2,500' of communication wire that will be disposed of at the QB Energy Waste Facility located at the QB Middle Fork Facility. There are 17 utility poles located within areas 4, 5, and 19A. All these poles have been removed completely, and the poles will be repurposed for ranch property improvement. There are also 9 transformers located on these poles. All transformers are removed and disposed of.

A fuel barrel and containment are located near the generator shed and will remain. Continued maintenance will be performed to check and ensure there is no standing water or possible spill opportunities regarding the containment and fuel barrel throughout the year.

This area also includes Pond 3 to the east of Area 4. This pond has not experienced any development or construction for years resulting in well-established and diverse vegetation. Although the pond has slopes greater than 3:1, the banks are stable and impacts to this pond would create unnecessary disturbance. In addition, this pond is utilized for the overall stormwater management for the area and should remain as-is. The dam on Pond 3 is armored with concrete and rip rap that will remain as it protects the dam and functionality of the pond. Pond 3 has a short access road that will remain for the purpose of road maintenance and filling water trucks. Although there are other sources to fill water trucks, this is a convenient location that is highly accessible. Therefore, leaving the area open for water access is the preferred option.

Area 5:

The southern delineated portion of area 5 consists of 4 buildings, 3 larger buildings and one smaller building. The smaller building is for a generator and the larger buildings are currently used as road maintenance storage of equipment, mechanical projects, tools, and materials. All buildings will remain, and each building is labelled in Exhibit F for area 5. See Existing Building Summary below for all information regarding buildings within the permit boundary. No reclamation activities to be completed in the southern portion of Area 5.

The northern delineated portion of area 5 is a pullout with a large water storage tank that will has been removed from the area. The tank was a 17-foot-tall tank with a diameter of 11-feet and was recycled at Pacific steel in Grand Junction, Colorado. There are also three jersey barriers that will be removed and repurposed for oil and gas operations. The pullout portion of this area will remain as this provides additional space for maneuvering trucks and trailers as well as a turnaround location for equipment while completing routine road maintenance. This pullout will be delineated with rocks or boulders to deter vehicles from entering non-designated vehicular areas. The rock delineation is 188-feet long and the rocks or boulders should create at minimum a 1’Wx1’T separation. The remaining portion of this area is located at the bottom of a rock scree, this area is a suitable location to collect any rock falls or sluffing before entering the creek. The area will be graded in a manner to maintain positive drainage toward the creek but keep the bench configuration. The total amount of grading completed in this area is 892 CY. Once grading is complete, the area will remain as-is due to the adjacency of the rock scree. Efforts towards seeding this area will likely fail due to rocks falling and the continuation of the scree long term.

Area 19A/B:

Given the existing topography and current vegetation, any additional work performed would cause more disturbance to this area that would be difficult to restore or create a more effective solution. This area is currently well vegetated with a few trees, sage brush, and some grasses. There were 14 existing jersey barriers present within this area that have been removed and repurposed for oil and gas operations. Area 19A has existing electrical infrastructure that has been removed per means and methods stated in Area 4 above. Overall, neither 19A or 19B will require any recontouring as all slopes are stable and vegetated.

Area 6:

The lower bench of area 6 consists of a pull-off/parking area, helicopter pad with windsock, existing well, and electrical infrastructure. The electrical infrastructure is associated with the mine bench and the portals and consists of approximately 490' of underground line encased in poly conduit. There are 4 poles approximately 4-feet in height that will be removed. The electrical conduit and line will be cut and capped at minimum 2.0' under existing ground and backfilled. The pull-off/parking area and road to helicopter pad will remain as-is but will be delineated with rock boulders to limit vehicular access to the remaining portion of the bench. The rock delineation is 960-feet long and the rocks or boulders should create at minimum a 1'Wx1'T separation. The helicopter pad will also remain as well as the windsock. Access from the pull-off/parking area will be provided and will consist of the same delineation as the parking area. This portion of area 6 has decent vegetation coverage in areas but predominately shrubs, additional seeding will be completed allowing grasses to grow. To accomplish this, surface alleviation will need to be completed. Given this area has not been altered for a long period of time, a single ripper behind a dozer shall be used to reduce compaction for a minimum of 15"-18", which will promote growth in this area. This area has previously been seeded with little success; therefore, this decompaction effort will increase potential growth. Once ripped, drill seeding method with soil conditioners shall be used as outlined in the General Seeding Requirements below. Although this area has been previously seeded, the method outlined in the requirements below was not utilized and the use of ripping, soil conditioners, and drill seeding, this area should see successful growth.

The upper bench of area 6 is considered the main mine bench where the portal entrances is located as well as the secondary escape access. Both the portal entrances and the secondary escape will need to be closed off per Colorado Inactive Mine Reclamation Program (IMP) – General Bid Specifications. The portal entrances shall be closed following the guidelines in Section 15, Concrete Masonry Unit Bulkhead Seal Closure. The details of this are shown in Standard Drawing No. 12 of the IMP Specifications. There is already an existing masonry wall for the entrance into the portals, however the operator shall ensure the existing walls meet the specifications within the IMP Spec Book. Any modifications that need to be made to meet the specifications shall be completed. The north portal opening dimensions are approximately 12'x24.5' and the south portal opening is approximately 12'x23'. The Secondary Escape, a 48"-inch CMP pipe, shall also be closed per the Hollow Core Shaft Closure details and specifications shown in Section 5 and Standard Drawing No. 2. The access shall be a locking grated cover. The building and all excess materials removed while completing the closures shall be removed and disposed of. The secondary escape includes a ventilation shaft house that is a 15'x20' metal building that will be torn down, removed, and disposed of at the Garfield County Landfill approximately 27.75 miles away. There is no foundation associated with the building. There are also 15 jersey barriers that will be removed and repurposed for oil and gas operations.

The Portal Entrance also has water seepage that has been sampled and tested with no concern. Please see the *'Colony Mine Portal Water Samples'* attachment for reference. Therefore, the grated closure will allow for seepage to continue, and no mitigation or

grading is needed for the water. The drainage currently seeps from the entrance and runs along the bottom of the high wall within a small ditch. There is not enough flow to necessitate a new flow path for drainage from the mine to leave the mine bench; it percolates into the soils before leaving the bench with minimal ponding.

The mine bench also has 4 different monitoring pin locations which consist of a PVC pipe sticking out of the ground with a piece of rebar located inside the pipe. All these monitoring locations need removed. PVC pipe and rebar shall be cut off at minimum 2.0' below the existing grade, capped, and backfilled. Any disturbance made from this activity shall be replaced with new seed per techniques listed below.

The vegetation covering the upper portion of Area 6 has predominantly shrubs with areas of grass and a few trees. Given the location of this area and the current vegetation cover, no additional surface reclamation beyond repairing disturbed areas while completing portal closures, building removals, and monitoring pin removals will be necessary.

The existing highwall located in the upper portion of Area 6 currently has rock scaling and bolting and has been there for nearly 50 years. Given the lack of activity and stabilization of rock over the years, no additional rock scaling or bolting is required. The highwall will also remain post-reclamation. Given this area has been stable with no visible signs of erosion, sluffing, or rock falls, any work completed to disturb this ground could cause instability and further disturbance. Although the highwall is nearly vertical, existing adjacent topography is as steep as 1.4:1, and to blend with existing topography would be very difficult to construct and maintain while the ground becomes stable over the years. Vegetation would be difficult to plant and maintain without erosion or washing seeding efforts to the bottom of the slope.

Area 6A:

This area is located at the top of the existing high wall directly above the main Mine Bench. This area consists of an alternate access road for the operator. Although this road is not under routine maintenance, it is intended to remain as-is for the purpose of secondary access. If the current main access road is ever compromised from debris, crashes, rockslides, or weather, this road can easily be the designated route for access to pads and infrastructure which is crucial to maintain. This is also crucial for any emergency access where the main road gets blocked and needs to be rerouted.

Area 7:

Area 7 is a small area located west and south of Middle Fork Reservoir as well as just south of the reservoir directly below the dam. The west area is self-reclaimed and vegetated. Although this area is well vegetated, there are noxious weeds located within the area. Weeds shall be mitigated following the Weed Management Plan outlined below and treatments will be completed three times a year; spring, summer, and fall. This should not require equipment but if any ground is disturbed during the process of removing the noxious weeds, it shall be reseeded. The south area below the dam is well vegetated and no work is necessary to be completed. The existing road that runs through this area shall remain as-is for maintenance on the reservoir and dam.

The southern portion of 7 includes what is called the Mine Bench Pond. This pond was formed and incorporated a standpipe as an outlet which is made of 6.0' steel pipe. This is used as a stormwater management tool for the area within the mine and a mitigation control for Middle Fork Reservoir. This pipe is functioning well in its current condition with no reason for concern but it is reaching the end of its life expectancy. Therefore, a new proposed drain will be installed from the Mine Bench Pond to the existing Outlet Structure below area 7. See sheet C15 of Exhibit E for a plan and profile of the new pipe. The new pipe will consist of 2,518 feet of RCP pipe, 310 feet of CMP pipe, and 5-120" Manholes to help with grade differentials and keeping the pipe to a minimum cover. The manholes will also provide ease of opportunity for routine inspections to analyze the pipe characteristics and ensure the system is safe and operable. The existing standpipe in the Mine Bench Pond shall be cutoff 4.0' below existing ground level and capped with 2-feet of concrete and backfilled to existing grade. This results in approximately 2.75 CY of concrete and 19 CY of material to be dug in preparation. The remaining portion of the pond shall remain as-is for a sediment trap which is consistent with the stormwater Management Plan.

Area 8B:

This area has two existing concrete foundations, both of which the buildings were removed. The first pad is 62'x42' at 8" thick with a thickened footer of 2'x2' resulting in 86 cubic yards of concrete to be broken apart. The second pad is a monolithic slab that is 30'x25' at 8" thick resulting in 19 cubic yards of concrete to be broken apart. Both pads are assumed to be steel reinforced. Once pads are broken apart, all concrete shall be buried with a minimum of 3-feet of cover over the concrete. Once foundations are backfilled, grading will be completed to maintain a level pad/surface. This area will then be used as an agricultural stockyard where temporary corral panels will be placed and utilized for moving cattle up and down the mountain.

There is also a weather station, and solar panels located on the southern portion of this area. Both the weather station and the solar panels are mounted on skids; the solar panels have been removed and disposed of while the weather station has been removed and repurposed for oil and gas operations.

The existing road that was used to access the weather station and solar panels will remain as-is for agricultural and guiding purposes. Along the edge of the existing pad where the foundations are located, there was a berm with steeper slopes that need to be pulled back, contoured, and seeded. This includes approximately 400 CY of material to be graded creating about 0.42 acres of disturbance that will need to be seeded following the Seeding Requirements noted below.

Area 9:

Area 9 is surrounded by the main loop road and contains the Davis Gulch Cofferdam/Sediment Pond. This area also has a road that is used for access to the Pond and is currently in use for water trucks during road maintenance activities. The remaining portions of this area were disturbed years ago by building the dam and roads but are currently stable and blended with natural surrounding topography. Although

some of the existing disturbed areas do not have vegetation growing, any alteration to this area would create more disturbance and it is impractical to attempt applying topsoil or seeding of any sort. The natural vegetation in this area is consistent with what the existing disturbed areas currently encompass. Therefore, given the future use and current condition of the area, this meets the criteria for release.

Area 10B:

10B has been largely self-reclaimed over the years. On the north side of 10B, there is a pond with a riprap lined channel used as an overflow. The slopes on the dam shall be contoured to blend with the natural surrounding topography resulting in approximately 85 cubic yards of material moved. All this material is a combination of topsoil, overburden, and imported riprap. The riprap and topsoil will be salvaged and set aside while recontouring the overburden. Once the overburden is contoured maintain max 3:1 slope, the topsoil and riprap will be placed over the disturbed areas to maintain erosion control measures. Additional seed shall be placed in areas surrounding the riprap without the need to import topsoil as the surrounding area has performed well with reestablishing vegetation. It is estimated to hand broadcast approximately 0.1 acres once reclamation activities are completed. There is also an existing pipe sticking through the riprap in this area, this is not an existing well but rather a delineator or a cleanout/air vent for an existing pipe. If it is only a delineator, this shall be removed and disposed of. If this is an air vent for an existing pipe, it shall remain as-is for the function of the pipe.

Area 10D:

10D is comprised of a topsoil stockpile that is laid against the existing hillside. This area is well vegetated, and contours tie in with the natural surrounding slopes. Therefore, this area shall remain undisturbed and request for release.

Area 10C:

This area is completely self-reclaimed and blends well with the natural landscape. There are no wells within the boundary of Area 10C. Therefore, no additional disturbances are to be made, and this area is in adequate shape for release.

Area 10A:

This area is a delineated swath where the existing waterline runs through the site. This water line shall be capped and abandoned. The process to cap the waterline is as follows: expose the end of pipe, pour a 2’x2’x2’ concrete cap on the end of the pipe with a 1’ overlap of the end of pipe and backfill. This will result in approximately 8 CY of dirt to be removed and placement of .3 CY of concrete. The pipe shall be located by the operator and final placement of the cap can be determined once exposed. An approximate location is represented on Exhibit F. There are PVC delineators through this area will be removed. Removal of the delineators will be completed without machinery to eliminate additional disturbances. These can be removed by hand with a t-post puller. All delineators will be hand carried to the roads where they will be loaded

and repurposed for oil and gas operations. Once removal of the delineators, this area will be requested for release.

Area 12 & 14:

These two areas are described together since they are both originally topsoil stockpiles. Both areas are well vegetated with a diverse selection of grass. Both stockpiles were constructed in the 1980's and have sat for nearly 40-45 years. Since they have sat for so long, it is likely that it has degraded significantly and lost much of its valuable qualities. Over time, these piles have compacted and consolidated resulting in deterioration of soil structure which is not suitable for plant growth. The use of this material will result in usage of soil amendments anyways. Additional disturbance to these stockpiles will result in additional effort towards successful vegetation growth on the piles and in other areas that will not be needed if left as-is. The current state of vegetation on the piles is great in comparison to the adjacent undisturbed land and should be requested for release.

Area 15A/15B:

This area parallels an existing road which created a disturbance. This road will remain as-is for future agricultural and wildlife uses. The road is only a two-track road in its current condition and is ideal for checking cattle since there are no other access points into this canyon. Any disturbance made in an attempt to reclaim this road would result in a larger impact than what is already made. There is already some vegetation along the fill slope of the road which came naturally and blends well with surrounding plants/grasses. Area 15B is a continuation of this road and existing disturbance which will fall under the description above.

Area 16A:

This is a large area located on the western side of the existing mine comprised of multiple existing foundations, existing road, jersey barriers, and a highwall. The existing pad located on the western portion of this area is a 72'x72'x6" and will remain as-is. The pad will be utilized for supporting stock tanks for agricultural use. There are two other foundations in this area; one is a 20'x16' pad resulting in approximately 9 CY of concrete and the other is 40'x28' resulting in approximately 93 CY of concrete. There are also four rectangular piers, 4'x4'x6' resulting in an additional 15 CY of concrete. All the concrete will be placed at the toe of the highwall and backfilled when the area is contoured. Operator shall ensure a minimum of 3.0' of backfill over the concrete when completing the contouring. 49 jersey barriers are also located in this area and will be removed and repurposed for oil and gas operations. There is one existing well that is currently being re-permitted for a water well. The existing road through the area will remain for agricultural and guiding uses.

This area consists of a large amount of material to be moved as part of the contouring process. Since this material will be loosened and hardly compacted during this process, the operator shall use a rome disc behind a tractor to ensure no deep compaction occurs prior to drill seeding the area. See Seeding Requirements below.

Area 16B:

This area is similar to Area 10A where the existing water pipe is located. This area has naturally revegetated and blends well with surrounding area. There are delineators through this area that will be removed and the waterline shall be capped and abandoned. See Exhibit F, the waterline location is approximate, but the area to be capped is represented on the plan. The process to cap the waterline is as follows: expose the end of pipe, pour a 2'x2'x2' concrete cap on the end of the pipe with a 1' overlap of the end of pipe and backfill. This will result in approximately 8 CY of dirt to be removed and placement of .3 CY of concrete. Operator shall confirm location of pipe and where the final placement of cap will be located.

Area 17A:

This area was originally completed stripped of topsoil and relocated to stockpile locations. Although the topsoil was stripped, some vegetation has naturally reestablished, including sage brush, aspen trees, some grasses, and fur trees. This established vegetation provides cover for future plant growth. Given the topography of this area, it is not feasible to import and stabilize topsoil without washouts and channeling, therefore, this area should remain as-is and allow for more of the younger growth to finish growing. Even though the topsoil was removed, the contouring blends well with the existing topography and does not look out of place. However, historically, this specific location has been utilized for stockpiling material for road maintenance. Since material is being imported/exported, it is estimated that approximately 50 CY of material needs to be removed. Once stockpiles are removed, the existing grade shall remain as-is since it provides adequate drainage and blends well with the surrounding topography. This specific area of the site is relatively flat resulting in being able to utilize a dozer and ripper to de-compact existing soil and drill seed following the general seeding requirements below.

Area 17B:

This area appears to be a location that was prepped for a future pipeline to be installed. To RCC's knowledge and after a site visit, there are no signs of an installed pipe, just apparent preparation for a pipe. This area is well vegetated, and no grading will be required as it blends well with surrounding contours.

Area 18A:

This area was created for a switchyard which holds electrical lines/equipment. There are 12 poles at 60' tall and 2 poles at 30' to be removed. All poles will be exposed at minimum 2' underground and cut off. The pole will be hauled off and repurposed on QB's ranch properties. The remaining portion of the pole will be buried, again, with a minimum of 2' of cover. When the pad was built, a berm was placed on the outer edge surrounding most of the pad, or approximately 1,640 feet. This berm shall be pulled off the bank and placed at the toe of the original pad slope to blend the contours. This results in approximately 948 cubic yards of material. Once berm is placed, seed shall be placed using drill seed method and following the guidelines stated below in the General Seeding Requirements. The area for seeding will incorporate approximately 0.75 acres

which encompasses the disturbances from grading the berm and removal of electrical infrastructure.

Area 18C:

9.61 acres of this area was stripped of topsoil and a road was graded in through the area to access the ESR Site. Since only the topsoil was stripped and no mass grading was completed, the contours blend well with the surrounding contours. The operator shall use an excavator, given the steeper slopes, and loosen the existing ground for the expectation of growth success. Once ground is loosened, this area should be hydroseeded and application of soil amendments should be completed following the General Seeding Requirements below.

Area 18D, E, F, and G

These areas are all lumped into one description due to the same requirements for each area. Overall, these areas consisted of mass grading in preparation for the retort facility for the Colony Mine. This resulted in large pads, several high walls, and uneven grading throughout these areas. Exhibit F represents the grading that needs to be completed for final reclamation. There is one existing concrete foundation located on the west side of Area 18G and east of the haul road. This foundation is 22'x6'x6' and accounts for approximately 30 cubic yards of concrete. The foundation will be broken apart, placed along the toe of the existing highwall located adjacent to the existing foundation and backfilled with contouring efforts. Operator to ensure there is a minimum of 3' of backfill over the concrete. There are 2 monitoring pins located on these pads that were used to monitor movement of the pads when constructed. These pins are comprised of a rebar pin located within a PVC sleeve. The sleeve and rebar will be cut off at a minimum of 2.0' below finished grade, capped and buried.

Exhibit F represents to necessary grading to be completed as part of the reclamation of these areas. As contouring efforts are completed for this area, the operator shall use a rome disc behind a tractor to prevent deep compaction and prep for vegetation growth success. Since this material will be loosened as part of the contouring efforts, no deep de-compaction will be necessary. Once contouring and discing is complete, the areas shall be drill seeded following the Seeding Requirements stated below. All areas that are not with the newly disturbed ground shall remain as-is given the vegetation that has grown since the original disturbance with grasses and shrubs. The total acreage that will be disturbed and can anticipate seeding is 71.1 acres.

The existing haul road/access road is located outside the delineated areas to be reclaimed but should remain in place, as-is.

ESR Site:

The ESR site consists of multiple pieces of equipment for research purposes regarding the mine. The equipment/buildings located onsite are as follows: 10'x12' wood visitor shack, 8'x4' wood shed on a skid, 8'x6' cooler building, and (2) 1000-gallon propane tanks, (6) 9'x8' guzzlers/test plots, and a lysimeter. All the buildings have been hauled off, the propane tanks have been removed and repurposed for oil and gas operations, the guzzlers/test plots will all be removed and hauled off to Garfield County Landfill. The lysimeter scale will be hauled off and repurposed for oil, gas, and agricultural uses. All components within the lysimeter, including the soil containers, data collection systems, and gauges, making up for an approximate volume of 20 CY, shall be removed and disposed of. Any electrical components should be cut off below grade and buried with the foundation. All materials to be hauled off and disposed of will be disposed of at the Garfield County landfill approximately 31.5 Miles away.

The only foundation located onsite is the lysimeter foundation that will be broken apart and buried in place while maintaining a minimum of 3.0' of cover the concrete. Minor disturbances will be made during the reclamation efforts and given the existing vegetation onsite, the soil is conducive for repurposing as topsoil. It is estimated that 15 CY of material will be needed for backfill and can be found and utilized within the ESR Site. The ESR site is also contained within an existing ~2,400-feet of 8' tall fence constructed with a combination of wood and steel posts and welded wire fence. A machine will be used to remove this which will require spot seeding once completed. Once reclamation activities are completed, this area will be hydroseeded following the Seeding Requirements below. This area will not require soil amendments due to onsite topsoil that is conducive for planting. It is estimated that there will be 0.72 acres disturbed to complete these activities.

The road going through the ESR site shall remain as-is to allow access to the existing well located on the ESR site, which the operator is re-permitting for livestock and wildlife uses. The well will eventually be converted to solar power and a stock tank will be installed.

General Seeding Requirements

QB Energy Operating, LLC has successfully reclaimed many oil pad sites and other disturbances directly adjacent and surrounding the Colony Mine. Given the success rate other these surrounding locations, a seed mix was decided upon to achieve the most natural and native aesthetic once fully established that will blend well with existing vegetation within the area. The seed mix is as follows:

Colony Mine Seed Mix		
Plant	**Ponds Per Acre Drilled**	**Pounds Per Acre Broadcast**
Grasses		
Indian Ricegrass (native)	2	4
Mountain Brome (native)	2	4
Bluebunch Wheatgrass (native)	2	2
Western Wheatgrass (native)	2	2
Blue Grama (warm season)	2	2
Meadow Brome	2	2
Crested Wheatgrass	2	2
Perineal Ryegrass	2	2
Total Grasses	16	18
Forbs		
Western Yarrow (native)	1	4
Lewis Blue Flax (native)	1	4
Sulphur Buckwheat (native)	1	2
American Vetch (native)	1	2
Small Burnett	5	7
Cicer Milkvetch (legume)	5	7
Alfalfa, Ladak or Ranger (legume)	2	5
Sainfoin	2	5
Hairy Vetch	5	7
Total Forbs	23	35
Shrubs		
Antelope Bitter Brush	1	2
Cover Annual		
Triticale (Fall Planting) or Oats (Spring Planting)	10	15
Total Pounds Per Acre	50	70

Site Preparation:

Soil preparation is a critical first step to re-vegetation. Given the location of this site and feasibility of hauling in topsoil, it was decided upon to eliminate hauling topsoil to the site or haul from the existing topsoil piles onsite and utilize the soil conditioners outlined below. The soil conditioners provided below have been used by QB Energy Operating on many disturbances across the bookcliffs at similar elevations/terrains and has been very successful over the years. The existing top-soil piles were constructed during the 1980's. The piles currently have very good, dense vegetation growth over the piles and utilizing the topsoil would create more of a disturbance. Also, the inner portion of the topsoil has now been buried for approximately 40-45 years resulting in a deterioration of organics which would not be suitable for placing over newly disturbed areas and resulting in the use of soil conditioners, nevertheless.

The following steps should be completed prior to seeding. If the operator is reclaiming an area where no contouring is required, a single ripper behind a dozer shall be utilized for deep de-compaction promoting growth for the area. A disc will likely not alleviate compaction enough in these areas to promote growth. By loosening these soils it will promote root growth and firm enough for good seed to soil contact. It is ideal for the surface to be relatively free of rocks, debris, and dirt clods greater than 3 inches in diameter. If the operator is reclaiming an area that required re-contouring efforts, the soil will already be loosened their for deep de-compaction will not be necessary. A rome disc behind a tractor can be utilized to alleviate the surface and prep for seeding efforts. Given the existing conditions of some areas within the Colony Mine, there may be spots that are difficult to achieve all that is stated above and are not required but within good reason may be attempted.

There are several other types of implements that can be used to achieve this that can be pulled behind tractors or dozers. These implements consist of disk, chisel plow, subsoilers, and harrows. Depending on the contractor's choice, these are acceptable options to achieve soil preparation. These types of implements are typically used on slopes less than 2:1. Areas of the Colony Mine can be steeper than a 2:1 and an excavator can be used for soil preparation, which is also an acceptable choice.

Seeding:

There are many types of seeding techniques that can be used, but for the Colony Mine, two main types of seeding will be used given the past success rate of each from surrounding locations. One will be drill seeding and the other will be broadcast. The intent is to take advantage of drill seeding, which has the highest amount of success, where this can feasibly be completed. Slopes that or 2:1 or less will be drill seeded. Contractor shall verify and calibrate the seeder to achieve the intended seed mix noted above.

Where steeper slopes are encountered and prohibit the use of tractor or dozer, hydroseeding or broadcast seeding shall be completed. The Colony Mine has large areas of re-seeding which allows the use of handheld broadcast seeder. If any areas are prohibiting the use of the broadcast seeder, hand broadcast seeding can be completed. In either method, to achieve the highest amount of success, the recently

seeded area shall be harrowed or raked into the soil. This can be done by a drag behind a piece of equipment or raked in by hand. If this is also not feasible given the amount of area, seeding can be completed and may need to be re-seeded later after the amount of success is determined.

All seeding efforts shall be completed in the spring or fall as outlined in the timetable. The ideal months for seeding will be March or October of each year.

Since no topsoil import is anticipated, once seeding is complete with either drill seeding or broadcast seeding, the following actions are required to increase the probability of growth success. 3500 pounds of hydraulic growth organics, 2000 pounds of rich lawn 363, 1000-2000 sulfur flakes, and 10 gallons of lot 125 shall be applied per acre. This technique has been used in the bookcliffs, or similar locations, for oil and gas pad reclamations and has resulted in a high success rate given the elevation, anticipated yearly precipitation, and soil types.

Wildlife

The Colony Mine area has been an inactive mine for decades with reclamation activity occurring periodically over this long period of time. As a result, significant vegetation has been established, and stable consistent water impoundment facilities exist at many locations in the site. Also, there is very little traffic aside from occasional pass-through traffic to maintain oil and gas wells off the site. These elements combine to provide ideal conditions for native wildlife, and numerous species have been observed during our site visits.

Colony Mine Water Wells

The Colony Mine has 37 wells located within the permit boundary. There are three classifications for the wells: permitted, re-permitted, and plug & abandoned. All these wells are listed in the *Colony Mine Well List* provided as part of the Technical Revision. Of the 37 wells, 6 of the wells were already permitted with the uses consistent with the future land use post-reclamation. 6 of the wells have been re-permitted to allow for livestock watering and the approved well permits can be seen in the Colony Mine Re-Permitted Wells attached with the Technical Revision. The remaining wells listed in the Colony Mine Well List table will be plugged and abandoned. The process that will be used for P&A is to remove the well head, cut casing 2.0’ below existing grade, fill well full of concrete, and bury. This will be completed on 25 wells throughout the Colony Mine.

Time Table

Estimated Schedule of Reclamation Activities			
Item	**Description**	**Start**	**End**
1	Obtain Approval for Tr-1	7/15/2025	7/20/2025
2	Apply for immediate releases	8/1/2025	8/5/2025
3	Electrical infrastructure removal	8/1/2025	10/1/2025
4	Weed Management	10/1/2025	11/1/2025
5	Portal Closures and Removal of Secondary Access	10/1/2025	11/1/2025
6	Grading and foundation removal in 8B	2/1/2026	2/15/2026
7	Grading /contouring in 10B	2/15/2026	3/1/2026
8	Cap waterline in 10A	3/1/2026	3/4/2026
9	P&A All Wells that are not being repurposed	3/1/2026	4/1/2026
10	Grading in 18A	4/1/2026	5/1/2026
11	Seeding for 2025 (All areas that require seeding)	3/1/2026	5/1/2026
12	Apply for reduction of bond per completions	5/15/2026	5/30/2026
13	Grading within 18D-G	5/15/2026	9/15/2026
14	Foundation removal in 18D-G	6/1/2026	6/3/2026
15	Cap Waterline in 16A/Grading	9/15/2026	10/1/2026
16	Seeding for 2026	10/1/2026	11/1/2026
17	Apply for reduction of bond per completions	12/15/2026	12/31/2026
18	Removal of structures from ESR Site	2/1/2027	2/20/2027
19	Surface roughening of 18C	2/21/2027	3/15/2027
20	Seeding 2027	10/1/2027	11/1/2027
21	Monitoring vegetation growth	10/1/2025	TBD
22	Release depending on vegetation	1/1/2029	TBD

Weed Management Plan

1. Introduction

QB Energy Operating LLC (QB) currently implements several integrated weed management techniques in the Colony Project. Because effective weed control is dependent upon multiple varying factors, QB strives to assess weed infestations on an individual basis, so that the best site-specific weed management techniques may be customized and executed. QB utilizes a combination of cultural, chemical, mechanical and biological controls in everyday weed management throughout the Colony Project. QB has established a systematic approach to assessing field conditions and create site-specific prescriptions. The information in this document describes the general processes and timelines of QB' Weed Management Program.

2. Define an Objective

QB will make management decisions based upon the objective of a treatment. The objective of a weed management effort is defined by the purpose(s) and the goal(s) of the site-specific treatment.

2.2 Weed Management Purposes

QB may manage weeds for the purpose(s) of:

- Supporting reclamation success
- Reducing negative impacts on the landscape, aesthetically
- Improving visibility within operational areas for the purpose of human and wildlife safety
- Reducing fire hazards for the safety of humans, wildlife and the local environment
- Maintaining regulatory compliance

2.3 Weed Management Goals

QB will manage weed infestations accordingly, based upon the expected outcome or goal of the treatment. The weed management goal is defined by the target specie(s) and the desired management level.

Target specie(s) may include:

- Annual, non-listed species
- State Listed Noxious weeds
- Native species that are not deemed desirable by the landowner/manager/regulator

The desired weed management levels that QB defines are:

- Prevention
- Eradication
- Containment
- Reduction
- Maintenance

2.31 Prevention

Prevention refers to the act of avoiding the introduction of a target species to an area that is currently free of the species.

QB attempts to utilize preventative weed control measures first to avoid the introduction of new species and to reduce the continued spread and/or vigor of existing infestations. Preventative measures include:

- washing of machinery between job-sites where isolated weed species are identified (see Section 3)
- quarantine of livestock being moved onto QB managed properties, when the risk of spreading new species is known (see Section 3)
- treatment of existing infestations prior to ground disturbance to reduce spread and vigor and (see Section 4)
- utilization of non-selective, pre-emergent herbicides to prevent the establishment of unwanted vegetation in industrial areas (see Section 4)

2.3.2 Eradication

Eradication refers to the act of completely removing an infestation of a target species from a designated area.

Eradication is often not practical or attainable. QB may aim for eradication of a target species in areas where infestations are caught very early on after introduction and are therefore relatively small in size and not widely distributed throughout the area. When treating for eradication, the field goal is to kill 100% of the plants in a given infestation.

2.3.3 Containment

Containment refers to the act of treating an established weed infestation around the boundaries, to avoid the continued spread of the infestation.

Containment is usually the best option when large landscapes or watersheds are very heavily infested to the point where regaining the lost areas would be impractical. Here, managing parties would set the goal to keep the target species from spreading beyond the current borders. When containment is the goal, resources are focused on treating the perimeter of the infested area and inward, to the distance that the target species would be expected to spread. The goal is to kill 100% of the weeds within a defined perimeter only. The infested areas within that perimeter may be left alone, or managed with another management level goal. In other words, within the confinement boundary, the infestation may be treated for reduction, maintenance or be left untreated.

2.3.4 Reduction

Reduction refers to the act of treating an established weed infestation with the goal of reducing the density and numbers of the target specie(s).
The majority of QB treatments are done with the goal of reducing infestations. Reduction efforts aim to kill 80% of the weeds within a treatment area.

2.3.5 Maintenance

Maintenance refers to the act of treating an established weed infestation with the goal of maintaining the density and size of the infestation.
In addition to reduction, QB manages for maintenance quite often. Maintenance efforts aim to kill 70% of the weeds within a treatment area.

2.4 Defining a Weed Management Objective

The following matrix may be utilized to establish, document, and communicate Weed Management Objectives:

	Weed Management Purposes						
	Resource Conservation	Reclamation Support	Aesthetics	Visibility	Fire Hazard Reduction		
bareground							
yellow toadflax							
knapweeds							
hoary cress							
biennial thistles							
houndstongue							
common mullein							
canada thistle							
misc. annuals							

Management Levels		
Legend		
P	Prevention	
E	Eradication	
C	Containment	
R	Reduction	
M	Management	

Using the matrix above, choose the purposes and target species of a defined weed management area. Blanks have been provided for other entries. Specify the desired, practical Management Level in the appropriate boxes.

3. Define A Weed Management Area

Considering the Weed Management Objective, QB will define, geographically, the Weed Management Area that would fall under the objective.

4. Prescribe a Treatment

After the Weed Management Objective and Weed Management Area are defined, QB and/or QB-hired contractors will assess and prescribe any combination of the following post-emergent weed control methods:

- Cultural (see Section 4.1)
- Chemical (see Section 4.2)
- Mechanical (see Section 4.3)
- Biological (see Section 4.4)

4.1 Cultural Weed Management

QB has modified their operating culture to consider the prevention of weed seed introduction, early detection/ rapid response (EDRR), rotation management, and grazing monitoring & livestock management.

QB encourages all Third-Party companies and contractors to clean dirt-moving equipment prior to mobilization into new areas, especially when equipment is previously used in areas known to harbor infestations that do not currently exist in the new area of disturbance.

To support rapid response, QB contracts with weed abatement contractors who are on-call throughout the spring, summer and fall months. EHS Staff also carry tools for mechanical weed removal, in the circumstance that a few, isolated weeds are approached during regular field activities.

QB establishes treatment rotations on QB-managed properties to ensure that all known infestations that exist on undisturbed areas are controlled. By keeping weed infestations controlled on a landscape basis, the risk of spread onto disturbed areas is reduced. A rotation system ensures that high visibility areas are not the only areas treated; the more remote infestations are treated as well. Due to the high level of livestock and wildlife in many of these remote areas, this cultural practice reduces the spread of weed seed by animal vectors.

Lastly, livestock grazing plans, pasture rotations, pasture monitoring and inventory plans are implemented to assess and minimize the impacts of grazing on desirable, competitive plant communities.

4.2 Chemical Management

QB utilizes both pre-emergent and post-emergent chemical treatments for the control of non-listed and noxious weed species. Chemical means of weed control are the most commonly utilized weed management technique. The frequency of this treatment method is mostly attributed to the financial feasibility, speed and relative consistency in results associated with herbicide applications. In general, most QB sites are inventoried, monitored and sprayed a minimum of 1-4 times per year, based upon the accessibility and known infestation status of the site. With every visit, commercial pesticide applicators monitor previous treatments for effectiveness, inventory for new or surviving plants, and treat the site. Documentation of this event is recorded into QB' data management system (ACTS) as reported on contractor invoices and daily pesticide application records (PARs).

For all chemical treatments within reclamation areas, care is taken to prevent degradation of desirable plant communities. Only spot-specific herbicide

treatments are deployed, with both non-selective and selective herbicides, to treat weed species within areas where desirable broadleaf forbs and shrubs are present or have been seeded. Spot treatments using a backpack sprayer are often necessary to ensure accuracy of chemical application and prevent potential unintended impacts from overspray and vehicle travel. For early-stage reclamation areas (within growing season one and two), chemical treatments are only deployed when weed species are present that cannot be adequately treated via mechanical methods (perennial/biennial weeds, low rowing/prostrate weeds). Backpack spot treatments are used in early-stage reclamation areas to prevent damage to desirable vegetation in the germination and early establishment phases, where all plants are susceptive to chemical treatment.

Broadcast methods with selective herbicides may be used in pasturelands with established grass communities where weeds are interspersed throughout the treatment area. Any chemical treatment within actively grazed pasturelands is coordinated with the surface owner or tenant rancher. Deployed chemicals are based upon grazing restrictions and product labels.

The first site visit and herbicide application is done in the early spring of the approaching growing season or in the fall of the previous year. Non-selective, residual herbicide is applied on compacted working surfaces around equipment, at a minimum, as a safety precaution on active sites. This treatment type also prevents the prevalence and spread of annual weed infestations that are commonly observed on fresh and frequently disturbed sites. During this treatment, pesticide applicators inspect the location and surrounding areas for newly emerging weeds, or rosette “flushes” for sites treated in the fall.

The second site visit and treatment is done in spring to early summer. This post-emergent treatment is intended to target early perennials (hoary cress, Canada thistle, etc.), biennial rosettes, and annual “obnoxious weeds” such as Russian thistle and kochia. Again, pesticide applicators will inventory the area for later maturing plant species such as Russian knapweed.

During the third site visit, herbicide efficacy is monitored, and a mid-late summer inventory is conducted with intentions to spray late-bolting biennials and budding perennials; furthermore, mechanical removal of flowers and seed heads on biennial species (most commonly musk thistle) may also be done around this time

Lastly, on many sites, a late-summer to fall herbicide treatment may be applied on creeping perennials such as Canada thistle and Russian knapweed in order to best capture the opportunity to kill root systems through the use of translocated herbicides. Following this step, the non-selective, pre-emergent treatments described above will be used where applicable, and the cycle will start again.

This treatment plan is highly site-dependent; thus variations inevitably occur based upon individual site characteristics (i.e. time since seeding, elevation, soils, topography, moisture, etc.) and upon the various label requirements and recommended target growth stages of the herbicides being used.

4.3 Mechanical Weed Management

Second to chemical means of control, QB utilizes mechanical weed management on a frequent basis. Large-scale mowing or “brush-hogging” projects are primarily executed on reclaimed sites that support a desirable plant component,

but which also support a significant, spatially competitive weed community. Generally, these treatments target annual, non-listed weed types. QB makes a special effort to utilize mechanical weed management techniques in the early stages of reclamation, so as not to disturb newly establishing native and desirable plants. Additionally, QB will employ mechanical removal as a second resort when chemical weed control means are not an effective option, such as on dry roadsides or in areas where chemical resistance may be suspected. These treatments are typically goaled towards the removal of weeds when the growth stage of the target species is not compatible with chemical control (i.e. removal of thistle seed heads following bolt and flower). Additionally, in the case of fuels reduction for safety purposes, mechanical control is preferred because it not only kills the plants but removes the biomass (fuel). Generally, mechanical weed removal is conducted during the late summer and early fall.

4.4 Biological Weed Management

QB will consider the integration of biological weed control agents in highly infested landscapes that are not good candidates for chemical or mechanical control, alone, either based upon topography, infestation size, spatial relativity to potentially impacted wildlife habitat or a combination of these factors. Informal monitoring will be conducted and recorded.

5. Monitor for Success

QB will continue to check and conduct ocular monitoring on all weed management projects. If deemed necessary, QB may utilize quantitative monitoring as well.

6. Continue Adaptive Management

QB will review the objectives and how goals were met with field management personnel and contractors annually. QB will take lessons learned from these reviews and adjust goals and inputs, as needed.

7. Conclusion

Due to the highly fragmented, linear structure of many of the surfaces managed by QB, successful weed management proves to be challenging and dynamic. A great deal of communication and cooperation between landowners, county representatives, and federal government agencies is necessary to effectively manage weed infestations on a local, landscape basis. QB is committed to maintaining this communication and cooperative work.

ENTRADA
CONSULTING GROUP

April 4, 2025

Mr. Dillion Foster E.I.T.
River City Consultants Inc.
215 Pitkin Ave #201
Grand Junction, CO 81501

via email

Subject: **Colony Mine Water Discharge Sampling**
Report of Work Completed
Garfield County, Colorado

Dear Mr. Foster:

River City Consultants Inc (River City) retained Entrada Consulting Group (Entrada) to collect a water sample from discharge at the Colony Project Mine Portal (Site) located 12.5 miles north of Parachute, Colorado on March 8, 2024. The Site is in the northwest quarter of the southwest quarter of section 7, township 5 south and range 95 west of the 6th principal meridian in Garfield County, Colorado. Specifically, the coordinates for the sampling point are 39.627874° north latitude and -108.103938° west longitude.

The sample was collected to provide insight into the mine water chemistry and highlight any potential impacts from previous operations.

The Site was sampled using a peristaltic pump and polyethylene tubing directly from pooled discharge water. Discharge water sampling parameters were measured using a YSI Multi-parameter meter (YSI) to characterize water quality conditions. During field parameter collection, the water quality meter had a component failure in the field making the dissolved oxygen measurement unavailable. Water samples were collected in containers appropriate to the specified analyses, sealed, labelled, and placed into an ice-filled cooler for preservation. The samples were submitted to Pace Analytical in Mt. Juliet, TN for the following analyses:

- Alkalinity (Total, Carbonate, and Bicarbonate) by EPA Method 2320 B-2011
- Ammonia as Nitrogen from EPA Method 350.1
- Bacterial presence by the BART method.
- Benzene, Toluene, Ethylbenzene and Xylenes (BTEX), by EPA Method 8260B
- Bromide, Chloride, Fluoride, Nitrite, Nitrate, and Sulfate by EPA Method 9056A
- Metals by EPA Method 6010B
- Methane, Ethane, Ethene, and Propane by EPA Method RSK175
- pH from EPA Method 9040C
- Phosphorus from EPA Method 365.4
- Specific Conductivity by EPA Method 9050A
- Sulfide from EPA Method 4500S2 D-2011

- Total Dissolved Solids (TDS) by EPA Method 2540 C-2011
- Total Petroleum Hydrocarbons – Gasoline Range Organics (TPH – GRO) by EPA Method 8015D/GRO
- Total Petroleum Hydrocarbons – Diesel Range Organics (TPH – DRO) by EPA Method 3511/8015

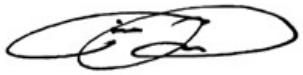
The results were compared to Colorado Department of Public Health and Environment (CDPHE) groundwater standards in **Table 1**. Organic contaminants were not detected except for Total Petroleum Carbons – Diesel Range Organics (TPH-DRO). However, TPH-DRO was also found in the associated blank, indicating a potential cross contamination issue at the laboratory. Total Dissolved Solids (TDS) was elevated above the most restrictive CDPHE water quality standard of 400 mg/L. While background values for TDS have not been established for this Site, TDS was within the expected range for Piceance Basin sedimentary bedrock aquifers 500 mg/L to 1500 mg/L (CGS, 2024). Iron related bacteria, slime forming bacteria, and sulfate reducing bacteria were all present in the sample. All other analytes tested were compliant with CDPHE Standards.

Please see the attached Location Figure, Analytical Data Summary (**Table 1**), and Field Data Summary (**Table 2**), photographic log and laboratory analytical report for additional details.

Please do not hesitate to contact me at (970) 270-2986 should you have any questions or concerns regarding this information.

Sincerely,

Entrada Consulting Group



Tim Dobransky
Principal Scientist

Attachments:
Figure 1: Site Map
Table 1: Laboratory Analytical Summary
Table 2: Field Data Summary
Photographic Log
Laboratory Analytical Report

References:

CGS, 2024, Colorado Geologic Survey, ON-010 Colorado Groundwater Atlas, Online, https://coloradogeologicalsurvey.org/water/colorado-groundwater-atlas/

FIGURES

LEGEND

- Water Sample Location

0 500 1,000 Feet

1 inch = 1,000 ft

N W E S

Project No:	024-045
Map By:	RRM
Date:	6/10/2024

Colony Mine Site Water Sampling
River City Consultants Inc.
NWSW Section 7 Township 5 South Range 95 West
Garfield County, Colorado

ENTRADA CONSULTING GROUP
330 Grand Avenue, Unit C
Grand Junction, CO 81501
970-549-1015

Figure
1

TABLES

Table 1
Water Quality Summary
NWSW Township 5S Range 95W
River City Consultants Inc.

Water Sample Summary - Laboratory Analytical Summary
Sample/Location Description: Colony Mine Portal Entrance

Compound Name	Concentrations	Standards	RDL
	20240308-NPRWP-(ST-PORTAL)	CDPHE Groundwater Standard	
Methane (mg/L)	ND	NS	0.0100
Ethane (mg/L)	ND	NS	0.0130
Ethene (mg/L)	ND	NS	0.0130
Propane (mg/L)	ND	NS	0.0190
TPH (GC/FID) LOW FRACTION	ND	NS	0.100
TPH (C10-C28) DIESEL RANGE	0.160 B	NS	0.100
BTEX			
Benzene (µg/L)	ND	5	1
Toluene (µg/L)	ND	560-1000	1
Ethylbenzene (µg/L)	ND	700	1
Total Xylenes (µg/L)	ND	1400-10000	3
Sulfate (mg/L)	198 V	250	5.00
Sulfide (mg/L)	ND	NS	0.0500
Alkalinity, Bicarbonate (mg/L)	339	NS	20.0
Alkalinity, Carbonate (mg/L)	ND	NS	20.0
Alkalinity, Total (mg/L)	339	NS	20.0
Total Dissolved Solids (mg/L)	600	BG Dependent	13.3
Conductivity @ 25°C (µmhos/cm)	1040	NS	10.0
pH (su)	8.29	6.5-8.5	NA
Bromide (mg/L)	ND	NS	1.00
Chloride (mg/L)	10.4	250	1.00
Fluoride (mg/L)	0.481	4.0	0.150
Ammonia as Nitrogen (mg/L)	ND	NS	0.250
Nitrate-Nitrite (mg/L)	0.454 B	11	0.100
Total Phosphorus	ND	NS	0.100
BART			
Iron Reducing Bacteria (cfu/mL)	PRESENT	NS	NA
Slime Forming Bacteria (cfu/mL)	PRESENT	NS	NA
Sulfate Reducing Bacteria (cfu/mL)	PRESENT	NS	NA
Dissolved Metals			
Barium (mg/L)	0.0200	2.0	0.00500
Boron (mg/L)	ND	0.75	0.200
Calcium (mg/L)	63.1	NS	1.00
Iron (mg/L)	ND	0.3	0.100
Magnesium (mg/L)	58.4	NS	1.00
Manganese (mg/L)	ND	0.2	0.0100
Potassium (mg/L)	ND	NS	2.00
Selenium (mg/L)	ND	0.05	0.0100
Sodium (mg/L)	80.7	NS	3.00
Strontium (mg/L)	1.87	NS	0.0100

Notes:
NA = Not applicable
ND = Analysis performed but analyte not detected
NS = No Standard
NBG = No Background
B = Analyte is present in associated Blank
J = Analyte is present at an estimated concentration between the MDL and Report Limit
V = The sample concentration is too high to evaluate accurate spike recoveries.
mS/cm = milliSiemens per centimeter
NTU = Nepholomeric Turbidity Units
mg/L = milligrams per liter
µmhos/cm = micromhos per centimeter
µg/L = micrograms per liter
cfu/mL = colony forming units per milliliter

Table 2
Colony Mine Portal

Groundwater Field Data Summary

Sample ID	20240308-NPRWP-(ST-PORTAL)
Date	3/8/2024
Time	1415
DTW (ft)	NA
TD (ft)	NA
Field Parameters	
Temp (°C)	5.1
Dissolved Oxygen (%)	Meter Failure
Dissolved Oxygen (mg/L)	Meter Failure
SpC (mS/cm)	1.103
TDS (mg/L)	717
Salinity (%)	0.55
pH	8.28
ORP (mV)	137.7
Field Observations	
Color	Clear
Odor	None
Sediment	None
Effervescence	None
Location Information	
Latitude (North)	39.627874°
Longitude (West)	-108.103938°

PHOTO LOG

PHOTOGRAPHIC LOG

Project Name:	Site Location:	Project Number:
Colony Mine Reclamation	Colony Mine Portal	024-045

Facility:
Colony Mine Site

Date: 2024-03-08

Description:
Water flowing from mine portal

Facility:
Colony Mine Site

Date: 2024-03-08

Description:
Water exiting puddle and flowing away from Site

Project Name: Colony Mine Reclamation	Site Location: Colony Mine Portal	Project Number: 024-045

Facility:
Colony Mine Site

Date: 2024-03-08

Description:
Mine portal puddle.
Looking east.

Facility:
Colony Mine Site

Date: 2024-03-08

Description:
Sampling location for mine portal water.

WATER ANALYTICAL REPORTS

ANALYTICAL REPORT

March 20, 2024

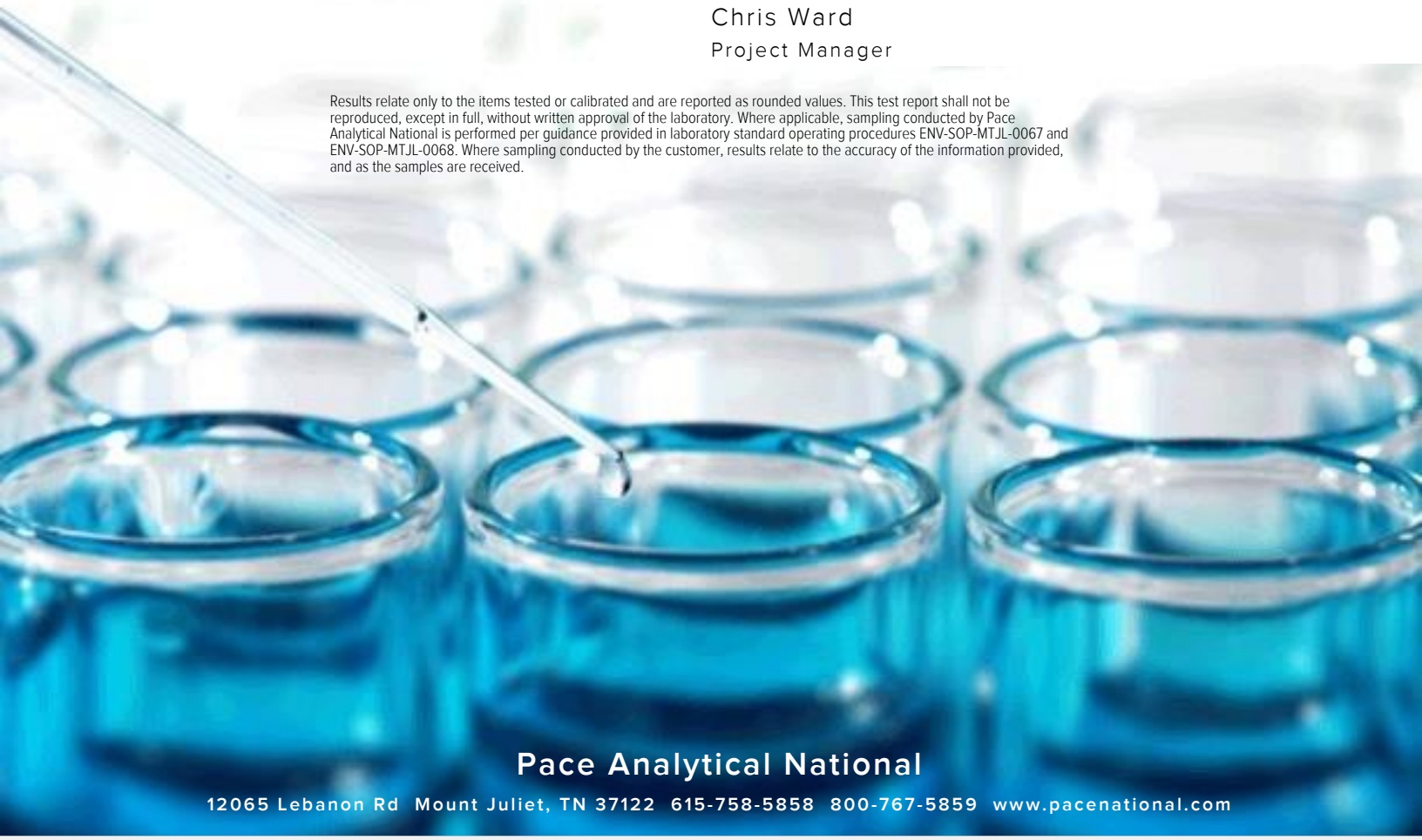
1 Cp
2 Tc
3 Ss
4 Cn
5 Sr
6 Qc
7 Gl
8 Al
9 Sc

Caerus Oil and Gas

Sample Delivery Group:	L1713685
Samples Received:	03/09/2024
Project Number:	
Description:	Colony Mine Project
Report To:	Jake J. / Brett M. / Blair R. / Andy V. 143 Diamond Avenue Parachute, CO 81635

Entire Report Reviewed By: Chris Ward

Chris Ward
Project Manager



Pace Analytical National
12065 Lebanon Rd Mount Juliet, TN 37122 615-758-5858 800-767-5859 www.pacenational.com

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SAMPLE SUMMARY

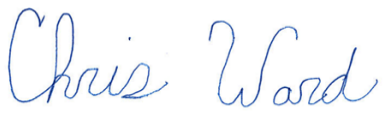
20240308-NPRWP-(ST-PORTAL) L1713685-01 GW

Collected by: Byron Abeyta
Collected date/time: 03/08/24 14:15
Received date/time: 03/09/24 09:00

Method	Batch	Dilution	Preparation date/time	Analysis date/time	Analyst	Location
Microbiology by Method BART	WG2243322	1	03/19/24 08:15	03/19/24 08:15	CAY	Mt. Juliet, TN
Gravimetric Analysis by Method 2540 C-2011	WG2246046	1	03/13/24 20:09	03/14/24 12:15	MMF	Mt. Juliet, TN
Wet Chemistry by Method 2320 B-2011	WG2246626	1	03/14/24 15:01	03/14/24 15:01	BJM	Mt. Juliet, TN
Wet Chemistry by Method 350.1	WG2245132	1	03/13/24 14:37	03/13/24 14:37	LAS	Mt. Juliet, TN
Wet Chemistry by Method 365.4	WG2249859	1	03/12/24 13:30	03/19/24 20:42	AEC	Mt. Juliet, TN
Wet Chemistry by Method 4500S2 D-2011	WG2243607	1	03/10/24 16:12	03/10/24 16:12	SDE	Mt. Juliet, TN
Wet Chemistry by Method 9040C	WG2243448	1	03/12/24 18:00	03/12/24 18:00	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9050A	WG2244894	1	03/14/24 18:20	03/14/24 18:20	KRB	Mt. Juliet, TN
Wet Chemistry by Method 9056A	WG2243232	1	03/09/24 18:04	03/09/24 18:04	GEB	Mt. Juliet, TN
Metals (ICP) by Method 6010B	WG2243590	1	03/15/24 08:24	03/15/24 16:16	DJS	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method 8015D/GRO	WG2244497	1	03/12/24 17:28	03/12/24 17:28	NCD	Mt. Juliet, TN
Volatile Organic Compounds (GC) by Method RSK175	WG2244584	1	03/13/24 11:49	03/13/24 11:49	CCM	Mt. Juliet, TN
Volatile Organic Compounds (GC/MS) by Method 8260B	WG2244648	1	03/12/24 11:08	03/12/24 11:08	WHS	Mt. Juliet, TN
Semi-Volatile Organic Compounds (GC) by Method 3511/8015	WG2245490	1	03/14/24 18:51	03/15/24 15:41	MAA	Mt. Juliet, TN

CASE NARRATIVE

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.



Chris Ward
Project Manager

Project Narrative

The following reactions were observed on one or more samples within this SDG.

BL Blackened Liquid
BR Brown Ring
CL Cloudy Growth
FO Foam
BB Blackened Base
BT Blackening around Ball
SR Slime Ring around Ball
PB Pale Blue Glow in UV Light

Sample Delivery Group (SDG) Narrative

The Laboratory is not accredited for specific analytes on the associated Sample/Method. These analytes are flagged in the Sample Results section of the report with an asterisk (*).

Lab Sample ID	Project Sample ID	Method
L1713685-01	20240308-NPRWP-(ST-PORTAL)	9056A

Microbiology by Method BART

Analyte	Result	Qualifier	Dilution	Analysis date / time	Batch
Iron Related Bacteria	Present		1	03/19/2024 08:15	WG2243322
Slime Forming Bacteria	Present		1	03/19/2024 08:15	WG2243322
Sulfate Reducing Bacteria	Present		1	03/19/2024 08:15	WG2243322

Sample Narrative:

L1713685-01 WG2243322: IRB Approximate Population=9000 CFU/mL. Reactions=FO/BR/BL.
L1713685-01 WG2243322: SLYM Approximate Population=100 CFU/mL. Reactions=SR/PB/CL.
L1713685-01 WG2243322: SRB Approximate Population=6000 CFU/mL. Reactions=BT/BB.

Gravimetric Analysis by Method 2540 C-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Dissolved Solids	600		13.3	1	03/14/2024 12:15	WG2246046

Wet Chemistry by Method 2320 B-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Alkalinity	339		20.0	1	03/14/2024 15:01	WG2246626
Alkalinity,Bicarbonate	339		20.0	1	03/14/2024 15:01	WG2246626
Alkalinity,Carbonate	ND		20.0	1	03/14/2024 15:01	WG2246626

Sample Narrative:

L1713685-01 WG2246626: Endpoint pH 4.5 Headspace

Wet Chemistry by Method 350.1

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Ammonia Nitrogen	ND		0.250	1	03/13/2024 14:37	WG2245132

Wet Chemistry by Method 365.4

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Phosphorus,Total	ND		0.100	1	03/19/2024 20:42	WG2249859

Wet Chemistry by Method 4500S2 D-2011

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
Sulfide	ND		0.0500	1	03/10/2024 16:12	WG2243607

Wet Chemistry by Method 9040C

Analyte	Result pH	Qualifier	Dilution	Analysis date / time	Batch
pH	8.29	T8	1	03/12/2024 18:00	WG2243448

Sample Narrative:

L1713685-01 WG2243448: 8.29 at 18.8C

Wet Chemistry by Method 9050A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	umhos/cm		umhos/cm		date / time	
Specific Conductance	1040		10.0	1	03/14/2024 18:20	WG2244894

Sample Narrative:
L1713685-01 WG2244894: at 25C

Wet Chemistry by Method 9056A

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
*Bromide	ND		1.00	1	03/09/2024 18:04	WG2243232
Chloride	10.4		1.00	1	03/09/2024 18:04	WG2243232
Fluoride	0.481		0.150	1	03/09/2024 18:04	WG2243232
Nitrate as (N)	0.352	B J3	0.100	1	03/09/2024 18:04	WG2243232
Nitrite as (N)	0.102	P1	0.100	1	03/09/2024 18:04	WG2243232
Sulfate	198	V	5.00	1	03/09/2024 18:04	WG2243232

Metals (ICP) by Method 6010B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Barium,Dissolved	0.0200		0.00500	1	03/15/2024 16:16	WG2243590
Boron,Dissolved	ND		0.200	1	03/15/2024 16:16	WG2243590
Calcium,Dissolved	63.1		1.00	1	03/15/2024 16:16	WG2243590
Iron,Dissolved	ND		0.100	1	03/15/2024 16:16	WG2243590
Magnesium,Dissolved	58.4		1.00	1	03/15/2024 16:16	WG2243590
Manganese,Dissolved	ND		0.0100	1	03/15/2024 16:16	WG2243590
Potassium,Dissolved	ND		2.00	1	03/15/2024 16:16	WG2243590
Selenium,Dissolved	ND		0.0100	1	03/15/2024 16:16	WG2243590
Sodium,Dissolved	80.7		3.00	1	03/15/2024 16:16	WG2243590
Strontium,Dissolved	1.87		0.0100	1	03/15/2024 16:16	WG2243590

Volatile Organic Compounds (GC) by Method 8015D/GRO

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
TPH (GC/FID) Low Fraction	ND		0.100	1	03/12/2024 17:28	WG2244497
(S) a,a,a-Trifluorotoluene(FID)	*101*		*78.0-120*		*03/12/2024 17:28*	WG2244497

Volatile Organic Compounds (GC) by Method RSK175

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Methane	ND		0.0100	1	03/13/2024 11:49	WG2244584
Ethane	ND		0.0130	1	03/13/2024 11:49	WG2244584
Ethene	ND		0.0130	1	03/13/2024 11:49	WG2244584
Propane	ND		0.0190	1	03/13/2024 11:49	WG2244584

Volatile Organic Compounds (GC/MS) by Method 8260B

Analyte	Result	Qualifier	RDL	Dilution	Analysis	Batch
	mg/l		mg/l		date / time	
Benzene	ND		0.00100	1	03/12/2024 11:08	WG2244648
Toluene	ND		0.00100	1	03/12/2024 11:08	WG2244648
Ethylbenzene	ND		0.00100	1	03/12/2024 11:08	WG2244648
Total Xylenes	ND		0.00300	1	03/12/2024 11:08	WG2244648
(S) Toluene-d8	*92.2*		*80.0-120*		*03/12/2024 11:08*	WG2244648
(S) 4-Bromofluorobenzene	*94.4*		*77.0-126*		*03/12/2024 11:08*	WG2244648
(S) 1,2-Dichloroethane-d4	*122*		*70.0-130*		*03/12/2024 11:08*	WG2244648

Semi-Volatile Organic Compounds (GC) by Method 3511/8015

Analyte	Result mg/l	Qualifier	RDL mg/l	Dilution	Analysis date / time	Batch
TPH (GC/FID) High Fraction	0.160	B	0.100	1	03/15/2024 15:41	WG2245490
(S) o-Terphenyl	*88.9*		*52.0-156*		*03/15/2024 15:41*	WG2245490

Method Blank (MB)

(MB) R4046269-1 03/14/24 12:15

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Dissolved Solids	U		10.0	10.0

L1713696-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1713696-02 03/14/24 12:15 • (DUP) R4046269-3 03/14/24 12:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	248	250	1	0.803		10

L1713696-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1713696-03 03/14/24 12:15 • (DUP) R4046269-4 03/14/24 12:15

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Dissolved Solids	301	310	1	2.95		10

Laboratory Control Sample (LCS)

(LCS) R4046269-2 03/14/24 12:15

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Dissolved Solids	8800	8350	94.9	85.0-115	

Method Blank (MB)

(MB) R4045803-2 03/14/24 13:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Alkalinity	U		8.45	20.0
Alkalinity,Bicarbonate	U		8.45	20.0
Alkalinity,Carbonate	U		8.45	20.0

Sample Narrative:

BLANK: Endpoint pH 4.5

L1713679-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713679-01 03/14/24 13:36 • (DUP) R4045803-4 03/14/24 13:40

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	127	126	1	0.789		20
Alkalinity,Bicarbonate	127	126	1	0.789		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

L1713679-04 Original Sample (OS) • Duplicate (DUP)

(OS) L1713679-04 03/14/24 15:47 • (DUP) R4045803-6 03/14/24 15:51

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Alkalinity	181	182	1	0.798		20
Alkalinity,Bicarbonate	173	174	1	0.519		20
Alkalinity,Carbonate	ND	ND	1	0.000		20

Sample Narrative:

OS: Endpoint pH 4.5 Headspace

DUP: Endpoint pH 4.5

Laboratory Control Sample (LCS)

(LCS) R4045803-1 03/14/24 13:06

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Alkalinity	100	99.4	99.4	90.0-110	

Sample Narrative:

LCS: Endpoint pH 4.5

Method Blank (MB)

(MB) R4045200-1 03/13/24 13:48

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Ammonia Nitrogen	U		0.117	0.250

L1713165-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713165-01 03/13/24 13:51 • (DUP) R4045200-3 03/13/24 13:53

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	ND	ND	1	0.000		10

L1713165-03 Original Sample (OS) • Duplicate (DUP)

(OS) L1713165-03 03/13/24 13:56 • (DUP) R4045200-4 03/13/24 13:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Ammonia Nitrogen	5.25	5.25	1	0.0191		10

Laboratory Control Sample (LCS)

(LCS) R4045200-2 03/13/24 13:50

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Ammonia Nitrogen	7.50	7.64	102	90.0-110	

L1713165-05 Original Sample (OS) • Matrix Spike (MS)

(OS) L1713165-05 03/13/24 14:00 • (MS) R4045200-5 03/13/24 14:02

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MS Rec. %	Dilution	Rec. Limits %	MS Qualifier
Ammonia Nitrogen	5.00	ND	5.20	104	1	90.0-110	

L1713165-07 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713165-07 03/13/24 14:47 • (MS) R4045200-8 03/13/24 14:49 • (MSD) R4045200-9 03/13/24 14:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Ammonia Nitrogen	1000	1030	2040	2030	101	101	200	90.0-110	E	E	0.127	10

Method Blank (MB)

(MB) R4047541-1 03/19/24 20:40

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Phosphorus,Total	U		0.0350	0.100

L1713685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713685-01 03/19/24 20:42 • (DUP) R4047541-3 03/19/24 20:43

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus,Total	ND	ND	1	0.000		20

L1714044-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1714044-01 03/19/24 20:47 • (DUP) R4047541-4 03/19/24 20:49

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Phosphorus,Total	ND	ND	1	14.5		20

Laboratory Control Sample (LCS)

(LCS) R4047541-2 03/19/24 20:41

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Phosphorus,Total	1.81	1.69	93.6	85.0-115	

L1714044-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1714044-01 03/19/24 20:47 • (MS) R4047541-5 03/19/24 20:50 • (MSD) R4047541-6 03/19/24 20:51

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Phosphorus,Total	2.50	ND	1.07	1.01	40.7	38.3	1	90.0-110	J6	J6	5.77	20

Sample Narrative:

MS: Spike failure due to matrix interference

MSD: Spike failure due to matrix interference

Method Blank (MB)

(MB) R4043732-1 03/10/24 16:12

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Sulfide	U		0.00650	0.0500

L1713685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713685-01 03/10/24 16:12 • (DUP) R4043732-3 03/10/24 16:13

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfide	ND	ND	1	0.000		20

L1713729-02 Original Sample (OS) • Duplicate (DUP)

(OS) L1713729-02 03/10/24 16:14 • (DUP) R4043732-4 03/10/24 16:14

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Sulfide	ND	ND	1	0.000		20

Laboratory Control Sample (LCS)

(LCS) R4043732-2 03/10/24 16:12

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Sulfide	0.500	0.532	106	85.0-115	

L1713735-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713735-01 03/10/24 16:15 • (MS) R4043732-5 03/10/24 16:16 • (MSD) R4043732-6 03/10/24 16:16

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Sulfide	0.500	ND	0.515	0.515	103	103	1	80.0-120			0.000	20

L1713533-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713533-01 03/12/24 18:00 • (DUP) R4044688-2 03/12/24 18:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	su	su		%		%
pH	7.43	7.44	1	0.134		1

Sample Narrative:

OS: 7.43 at 19.6C

DUP: 7.44 at 19.5C

L1713717-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713717-01 03/12/24 18:00 • (DUP) R4044688-3 03/12/24 18:00

Analyte	Original Result	DUP Result	Dilution	DUP RPD	DUP Qualifier	DUP RPD Limits
	SU	su		%		%
pH	7.97	8.00	1	0.376		1

Sample Narrative:

OS: 7.97 at 18.7C

DUP: 8 at 19C

Laboratory Control Sample (LCS)

(LCS) R4044688-1 03/12/24 18:00

Analyte	Spike Amount	LCS Result	LCS Rec.	Rec. Limits	LCS Qualifier
	su	su	%	%	
pH	10.0	10.0	100	99.0-101	

Sample Narrative:

LCS: 10.02 at 20.1C

Method Blank (MB)

(MB) R4045830-1 03/14/24 18:20

Analyte	MB Result umhos/cm	MB Qualifier	MB MDL umhos/cm	MB RDL umhos/cm
Specific Conductance	U		10.0	10.0

Sample Narrative:
BLANK: at 25C

L1713231-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713231-01 03/14/24 18:20 • (DUP) R4045830-3 03/14/24 18:20

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	49000	48500	1	1.03		20

Sample Narrative:
OS: at 25C
DUP: at 25C

L1713845-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713845-01 03/14/24 18:20 • (DUP) R4045830-4 03/14/24 18:20

Analyte	Original Result umhos/cm	DUP Result umhos/cm	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Specific Conductance	179000	179000	1	0.0560		20

Sample Narrative:
OS: at 25C
DUP: at 25C

Laboratory Control Sample (LCS)

(LCS) R4045830-2 03/14/24 18:20

Analyte	Spike Amount umhos/cm	LCS Result umhos/cm	LCS Rec. %	Rec. Limits %	LCS Qualifier
Specific Conductance	327	333	102	85.0-115	

Sample Narrative:
LCS: at 25C

Method Blank (MB)

(MB) R4046887-1 03/09/24 12:19

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Bromide	U		0.353	1.00
Chloride	0.439	J	0.379	1.00
Fluoride	U		0.0640	0.150
Nitrate as (N)	0.0887	J	0.0480	0.100
Nitrite as (N)	U		0.0420	0.100
Sulfate	U		0.594	5.00

L1713685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713685-01 03/09/24 18:04 • (DUP) R4046887-3 03/09/24 18:20

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Bromide	ND	ND	1	0.000		15
Chloride	10.4	10.2	1	2.01		15
Fluoride	0.481	0.462	1	3.97		15
Nitrate as (N)	0.352	0.589	1	50.4	J3	15
Nitrite as (N)	0.102	ND	1	200	P1	15
Sulfate	198	200	1	0.824	E	15

Laboratory Control Sample (LCS)

(LCS) R4046887-2 03/09/24 12:35

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Bromide	40.0	38.1	95.3	80.0-120	
Chloride	40.0	39.3	98.2	80.0-120	
Fluoride	8.00	8.17	102	80.0-120	
Nitrate as (N)	8.00	7.40	92.5	80.0-120	
Nitrite as (N)	8.00	7.80	97.4	80.0-120	
Sulfate	40.0	38.1	95.4	80.0-120	

L1713685-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713685-01 03/09/24 18:04 • (MS) R4046887-4 03/09/24 18:36 • (MSD) R4046887-5 03/09/24 18:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Bromide	40.0	ND	32.4	33.3	81.0	83.3	1	80.0-120			2.78	15
Chloride	40.0	10.4	48.7	48.0	95.5	94.0	1	80.0-120			1.29	15

L1713685-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713685-01 03/09/24 18:04 • (MS) R4046887-4 03/09/24 18:36 • (MSD) R4046887-5 03/09/24 18:52

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Fluoride	8.00	0.481	8.44	8.38	99.5	98.7	1	80.0-120			0.741	15
Nitrate as (N)	8.00	0.352	7.94	7.88	94.9	94.2	1	80.0-120			0.713	15
Nitrite as (N)	8.00	0.102	7.75	7.72	95.6	95.3	1	80.0-120			0.345	15
Sulfate	40.0	198	ND	ND	0.000	0.000	1	80.0-120	V	V	0.000	15

Method Blank (MB)

(MB) R4046332-1 03/15/24 15:36

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Barium,Dissolved	U		0.000736	0.00500
Boron,Dissolved	U		0.0200	0.200
Calcium,Dissolved	0.0882	J	0.0793	1.00
Iron,Dissolved	U		0.0180	0.100
Magnesium,Dissolved	U		0.0853	1.00
Manganese,Dissolved	U		0.000934	0.0100
Potassium,Dissolved	U		0.261	2.00
Selenium,Dissolved	U		0.00735	0.0100
Sodium,Dissolved	U		0.504	3.00
Strontium,Dissolved	U		0.000640	0.0100

Laboratory Control Sample (LCS)

(LCS) R4046332-2 03/15/24 15:38

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Barium,Dissolved	1.00	1.01	101	80.0-120	
Boron,Dissolved	1.00	0.963	96.3	80.0-120	
Calcium,Dissolved	10.0	9.69	96.9	80.0-120	
Iron,Dissolved	10.0	10.0	100	80.0-120	
Magnesium,Dissolved	10.0	9.75	97.5	80.0-120	
Manganese,Dissolved	1.00	1.02	102	80.0-120	
Potassium,Dissolved	10.0	9.30	93.0	80.0-120	
Selenium,Dissolved	1.00	0.918	91.8	80.0-120	
Sodium,Dissolved	10.0	9.60	96.0	80.0-120	
Strontium,Dissolved	1.00	0.990	99.0	80.0-120	

L1713735-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713735-01 03/15/24 15:41 • (MS) R4046332-4 03/15/24 15:47 • (MSD) R4046332-5 03/15/24 15:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Barium,Dissolved	1.00	0.234	1.22	1.22	98.9	98.9	1	75.0-125			0.0520	20
Boron,Dissolved	1.00	ND	1.01	1.01	97.0	97.0	1	75.0-125			0.0357	20
Calcium,Dissolved	10.0	155	162	162	72.1	70.6	1	75.0-125	V	V	0.0941	20
Iron,Dissolved	10.0	ND	9.72	9.82	97.2	98.2	1	75.0-125			0.994	20
Magnesium,Dissolved	10.0	19.9	29.0	29.2	90.8	92.5	1	75.0-125			0.606	20
Manganese,Dissolved	1.00	0.0171	1.01	1.01	99.4	99.5	1	75.0-125			0.0795	20
Potassium,Dissolved	10.0	2.58	11.8	11.9	92.3	93.5	1	75.0-125			1.01	20

L1713735-01 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713735-01 03/15/24 15:41 • (MS) R4046332-4 03/15/24 15:47 • (MSD) R4046332-5 03/15/24 15:50

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Selenium,Dissolved	1.00	ND	0.950	0.952	95.0	95.2	1	75.0-125			0.230	20
Sodium,Dissolved	10.0	9.92	19.5	19.7	96.0	98.0	1	75.0-125			1.00	20
Strontium,Dissolved	1.00	1.96	2.89	2.92	93.5	96.6	1	75.0-125			1.06	20

Method Blank (MB)

(MB) R4045856-3 03/12/24 13:29

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) Low Fraction	U		0.0314	0.100
(S) a,a,a-Trifluorotoluene(FID)	*100*			*78.0-120*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4045856-1 03/12/24 12:08 • (LCSD) R4045856-2 03/12/24 12:30

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) Low Fraction	5.50	5.21	5.92	94.7	108	72.0-127			12.8	20
(S) a,a,a-Trifluorotoluene(FID)				*103*	*105*	*78.0-120*				

Method Blank (MB)

(MB) R4044954-2 03/13/24 09:31

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Methane	U		0.00291	0.0100
Ethane	U		0.00407	0.0130
Ethene	U		0.00426	0.0130
Propane	U		0.00548	0.0190

L1713287-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713287-01 03/13/24 09:35 • (DUP) R4044954-3 03/13/24 10:57

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Propane	ND	ND	1	0.000		20

L1713685-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1713685-01 03/13/24 11:49 • (DUP) R4044954-4 03/13/24 12:04

Analyte	Original Result mg/l	DUP Result mg/l	Dilution	DUP RPD %	DUP Qualifier	DUP RPD Limits %
Methane	ND	ND	1	0.000		20
Ethane	ND	ND	1	0.000		20
Ethene	ND	ND	1	0.000		20
Propane	ND	ND	1	0.000		20

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4044954-1 03/13/24 09:27 • (LCSD) R4044954-5 03/13/24 12:08

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
Methane	0.0678	0.0646	0.0692	95.3	102	85.0-115			6.88	20
Ethane	0.129	0.122	0.122	94.6	94.6	85.0-115			0.000	20
Ethene	0.127	0.122	0.123	96.1	96.9	85.0-115			0.816	20
Propane	0.186	0.173	0.173	93.0	93.0	85.0-115			0.000	20

Method Blank (MB)

(MB) R4044868-2 03/12/24 07:07

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
Benzene	U		0.0000941	0.00100
Toluene	U		0.000278	0.00100
Ethylbenzene	U		0.000137	0.00100
Total Xylenes	U		0.000174	0.00300
(S) Toluene-d8	*91.1*			*80.0-120*
(S) 4-Bromofluorobenzene	*91.0*			*77.0-126*
(S) 1,2-Dichloroethane-d4	*118*			*70.0-130*

Laboratory Control Sample (LCS)

(LCS) R4044868-1 03/12/24 06:29

Analyte	Spike Amount mg/l	LCS Result mg/l	LCS Rec. %	Rec. Limits %	LCS Qualifier
Benzene	0.00500	0.00544	109	70.0-123	
Toluene	0.00500	0.00465	93.0	79.0-120	
Ethylbenzene	0.00500	0.00457	91.4	79.0-123	
Total Xylenes	0.0150	0.0127	84.7	79.0-123	
(S) Toluene-d8			*92.6*	*80.0-120*	
(S) 4-Bromofluorobenzene			*99.8*	*77.0-126*	
(S) 1,2-Dichloroethane-d4			*111*	*70.0-130*	

L1713795-09 Original Sample (OS) • Matrix Spike (MS) • Matrix Spike Duplicate (MSD)

(OS) L1713795-09 03/12/24 15:10 • (MS) R4044868-3 03/12/24 15:47 • (MSD) R4044868-4 03/12/24 16:05

Analyte	Spike Amount mg/l	Original Result mg/l	MS Result mg/l	MSD Result mg/l	MS Rec. %	MSD Rec. %	Dilution	Rec. Limits %	MS Qualifier	MSD Qualifier	RPD %	RPD Limits %
Benzene	0.0500	4.55	4.52	4.80	0.000	500	10	17.0-158	E V	E V	6.01	27
Toluene	0.0500	0.149	0.167	0.189	36.0	80.0	10	26.0-154			12.4	28
Ethylbenzene	0.0500	0.184	0.207	0.234	46.0	100	10	30.0-155			12.2	27
Total Xylenes	0.150	1.65	1.63	1.75	0.000	66.7	10	29.0-154	V		7.10	28
(S) Toluene-d8					*90.7*	*91.1*		*80.0-120*				
(S) 4-Bromofluorobenzene					*96.6*	*96.2*		*77.0-126*				
(S) 1,2-Dichloroethane-d4					*108*	*109*		*70.0-130*				

Method Blank (MB)

(MB) R4046398-1 03/15/24 11:38

Analyte	MB Result mg/l	MB Qualifier	MB MDL mg/l	MB RDL mg/l
TPH (GC/FID) High Fraction	0.0371	J	0.0247	0.100
(S) o-Terphenyl	*84.5*			*52.0-156*

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R4046398-2 03/15/24 11:58 • (LCSD) R4046398-3 03/15/24 12:19

Analyte	Spike Amount mg/l	LCS Result mg/l	LCSD Result mg/l	LCS Rec. %	LCSD Rec. %	Rec. Limits %	LCS Qualifier	LCSD Qualifier	RPD %	RPD Limits %
TPH (GC/FID) High Fraction	1.50	1.70	1.71	113	114	50.0-150			0.587	20
(S) o-Terphenyl				*103*	*101*	*52.0-156*				

GLOSSARY OF TERMS

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

MDL	Method Detection Limit.
ND	Not detected at the Reporting Limit (or MDL where applicable).
RDL	Reported Detection Limit.
Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
(S)	Surrogate (Surrogate Standard) - Analytes added to every blank, sample, Laboratory Control Sample/Duplicate and Matrix Spike/Duplicate; used to evaluate analytical efficiency by measuring recovery. Surrogates are not expected to be detected in all environmental media.
U	Not detected at the Reporting Limit (or MDL where applicable).
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state “ND” (Not Detected) or “BDL” (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.

Qualifier	Description
B	The same analyte is found in the associated blank.
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL).
J	The identification of the analyte is acceptable; the reported value is an estimate.
J3	The associated batch QC was outside the established quality control range for precision.
J6	The sample matrix interfered with the ability to make any accurate determination; spike value is low.
P1	RPD value not applicable for sample concentrations less than 5 times the reporting limit.
T8	Sample(s) received past/too close to holding time expiration.
V	The sample concentration is too high to evaluate accurate spike recoveries.

Pace Analytical National 12065 Lebanon Rd Mount Juliet, TN 37122

Alabama	40660	Nebraska	NE-OS-15-05
Alaska	17-026	Nevada	TN000032021-1
Arizona	AZ0612	New Hampshire	2975
Arkansas	88-0469	New Jersey–NELAP	TN002
California	2932	New Mexico [1]	TN00003
Colorado	TN00003	New York	11742
Connecticut	PH-0197	North Carolina	Env375
Florida	E87487	North Carolina [1]	DW21704
Georgia	NELAP	North Carolina [3]	41
Georgia [1]	923	North Dakota	R-140
Idaho	TN00003	Ohio–VAP	CL0069
Illinois	200008	Oklahoma	9915
Indiana	C-TN-01	Oregon	TN200002
Iowa	364	Pennsylvania	68-02979
Kansas	E-10277	Rhode Island	LA000356
Kentucky [1 6]	KY90010	South Carolina	84004002
Kentucky [2]	16	South Dakota	n/a
Louisiana	AI30792	Tennessee [1 4]	2006
Louisiana	LA018	Texas	T104704245-20-18
Maine	TN00003	Texas [5]	LAB0152
Maryland	324	Utah	TN000032021-11
Massachusetts	M-TN003	Vermont	VT2006
Michigan	9958	Virginia	110033
Minnesota	047-999-395	Washington	C847
Mississippi	TN00003	West Virginia	233
Missouri	340	Wisconsin	998093910
Montana	CERT0086	Wyoming	A2LA
A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 [5]	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA–Crypto	TN00003		

[1] Drinking Water [2] Underground Storage Tanks [3] Aquatic Toxicity [4] Chemical/Microbiological [5] Mold [6] Wastewater n/a Accreditation not applicable

* Not all certifications held by the laboratory are applicable to the results reported in the attached report.

* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace Analytical.

Chain of Custody Page 1 of 2

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Company Name/Address:	Caerus Oil & Gas 143 Diamond Ave Parachute,CO 81635
Billing Information:	Same as left.
Report to:	Blair Rollins
Email To:	brollins@caerusoilandgas.com
Project Description:	~~NPR Mine Portal~~ Colony Mine Project
City/State Collected:	Parachute, CO
Please Circle:	PT MT CT ET
Phone:	(970) 640-6919
Client Project #	
Lab Project #	
Collected by (print):	Byron Abeyta
Site/Facility ID #	NPRWP
P.O. #	
Collected by (signature):	
Immediately Packed on Ice N ___ Y X	
Rush? (Lab MUST Be Notified)	___ Same Day X Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #	
Date Results Needed	
SDG #	L1713685
	G133
Acctnum:	
Template:	
Prelogin:	
PM:	
PB:	
Shipped Via:	

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	ALK, ALKBI, ALKCA 250mlHDPE-NoPres	BART Microbiological	Br, Cl, F, SO4, NO2, NO3 125mlHDPE-NoPres	DROLVI 40mlAmb-HCl-BT	Diss. Metals 250mlHDPE-H2SO4	GRO 40mlAmb HCl	NH3, PT 250mlHDPE-H2SO4	RSK175 40mlAmb HCl	SPCON 250mlHDPE-NoPres	Sulfide 250mlAmb-S-NaOH+ZnAc	Remarks	Sample # (lab only)
20240308-NPRWP-(ST-PORTAL)	Grab	GW	-	2024-03-08	1415	18	X	X	X	X	X	X	X	X	X	X		-01

Analysis / Container / Preservative

* Matrix:
SS - Soil AIR - Air F - Filter
GW - Groundwater B - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Metals: Ba, B, Ca, Fe, Mg, Mn, K, Se, Na, Sr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 5882 7564 8371

Sample Receipt Checklist

COC Seal Present/Intact:	NP	Y N
COC Signed/Accurate:		Y N
Bottles arrive intact:		Y N
Correct bottles used:		Y N
Sufficient volume sent:		Y N
If Applicable		
VOA Zero Headspace:		Y N
Preservation Correct/Checked:		Y N
RAD Screen <0.5 mR/hr:		Y N

Relinquished by : (Signature)	Date: 3/8/24	Time: 1545	Received by: (Signature)	Trip Blank Received: Yes / No HCL / MeoH TBR
Relinquished by : (Signature)	Date: 3/8/24	Time: 1630	Received by: (Signature)	Temp: MSA°C 1.0+0=1.0 Bottles Received: 18
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3-9-24 Time: 900

If preservation required by Login: Date/Time
PH-10BDH6021 TRC-2352362
CR6-20221V

Condition: NCF / OK

Chain of Custody Page 2 of 2

Pace
PEOPLE ADVANCING SCIENCE

12065 Lebanon Rd Mount Juliet, TN 37122
Phone: 615-758-5858 Alt: 800-767-5859

Submitting a sample via this chain of custody constitutes acknowledgment and acceptance of the Pace Terms and Conditions found at: https://info.pacelabs.com/hubfs/pas-standard-terms.pdf

Company Name/Address:	Caerus Oil & Gas 143 Diamond Ave Parachute, CO 81635
Billing Information:	Same as left.
Report to:	Blair Rollins
Email To:	brollins@caerusoilandgas.com
Project Description:	~~NPR Mine Portal~~ Colony Mine Project
City/State Collected:	Parachute, CO
Please Circle:	PT MT CT ET
Phone:	(970) 640-6919
Client Project #	
Lab Project #	
Collected by (print):	Byron Abeyta
Site/Facility ID #	NPRWP
P.O. #	
Collected by (signature):	
Immediately Packed on Ice N ___ Y X	
Rush? (Lab MUST Be Notified)	___ Same Day X Five Day ___ Next Day ___ 5 Day (Rad Only) ___ Two Day ___ 10 Day (Rad Only) ___ Three Day
Quote #	
Date Results Needed	
SDG #	L1713685
Table #	
Acctnum:	
Template:	
Prelogin:	
PM:	
PB:	
Shipped Via:	

Sample ID	Comp/Grab	Matrix*	Depth	Date	Time	No. of Cntrs	Pres Chk	TDS 1L-HDPE-NoPres	V8260BTEX 40mlAmb-HCl	pH 125mlHDPE-NoPres	Remarks	Sample # (lab only)
20240308-NPRWP-(ST-PORTAL)	Grab	GW	-	2024-03-08		1~~3~~		X	X	X		-01

* Matrix:
SS - Soil **AIR** - Air **F** - Filter
GW - Groundwater **B** - Bioassay
WW - WasteWater
DW - Drinking Water
OT - Other_____

Remarks:
Metals: Ba, B, Ca, Fe, Mg, Mn, K, Se, Na, Sr

pH _____ Temp _____
Flow _____ Other _____

Samples returned via:
__ UPS __ FedEx __ Courier __ _____

Tracking # 5882 7564 8371

Sample Receipt Checklist
COC Seal Present/Intact: ✓NP __Y __N
COC Signed/Accurate: ✓Y __N
Bottles arrive intact: ✓Y __N
Correct bottles used: ✓Y __N
Sufficient volume sent: ✓Y __N
If Applicable
VOA Zero Headspace: ✓Y __N
Preservation Correct/Checked: ✓Y __N
RAD Screen <0.5 mR/hr: ✓Y __N

Relinquished by : (Signature)	Date: 3/8/24	Time: 1545	Received by: (Signature)	Trip Blank Received: Yes / ~~No~~ HCL / MeoH TBR	
Relinquished by : (Signature)	Date: 3824	Time: 1630	Received by: (Signature)	Temp: MSA °C 1.0+0=1.0	Bottles Received: 18
Relinquished by : (Signature)	Date:	Time:	Received for lab by: (Signature)	Date: 3-9-24	Time: 900

If preservation required by Login: Date/Time

Hold:

Condition: NCF / OK

Colony Water Wells

Status	Permit #	Hyperlik to DWR	WDID	Constructed	Gallon Per Minute	Casing Size In.	Pump	Generator	Water Depth in ft.	Well Depth	Decreed Use	Notes
Permitted	18150-F-R	https://dwr.state.co.us/Tools/WellPermits/0209312	3905087	1981	400	8 5/8	Submersible	45KW 30HP	19.6'	240	Industrial, Commercial, Domestic, Livestock, Irrigation, Municipal, other beneficial uses	replacement well for 18150-F. Replaced well is no longer there.
P&A	121357-	https://dwr.state.co.us/Tools/WellPermits/0215078N	N/A	1982	not tested	4.33	Grunfos SP-2-10	1/2 HP	73	520	Monitoring	ww-4c
P&A	123561-	https://dwr.state.co.us/Tools/WellPermits/0215992O	N/A	1982	not tested	4.33	n/a	n/a	unkown	715	Monitoring	
P&A	121355-	https://dwr.state.co.us/Tools/WellPermits/0215078L	N/A	1982	not tested	4.33	Grunfos SP-2-10	1/2 HP	107	700	Monitoring	
P&A	121358-	https://dwr.state.co.us/Tools/WellPermits/0215078O	N/A	1982	not tested	4.33	Grunfos SP-2-10	1/2 HP	70	415	Monitoring	ww-4d
Re-permitted	121356-	https://dwr.state.co.us/Tools/WellPermits/0215078M	N/A	1982	not tested	4.33	Grunfos SP-2-10	1/2 HP	75	600	Monitoring	ww-4b
P&A	123565-	https://dwr.state.co.us/Tools/WellPermits/0215992T	N/A	1982	not tested	4.33	n/a	n/a	105	690	Monitoring	
P&A	123567-	https://dwr.state.co.us/Tools/WellPermits/0215992V	N/A	1982	not tested	4.33	n/a	n/a	unkown	511	Monitoring	
P&A	121360-	https://dwr.state.co.us/Tools/WellPermits/0215078Q	N/A	1982	not tested	4.33	n/a	n/a	unkown	70	Monitoring	
P&A	123563-	https://dwr.state.co.us/Tools/WellPermits/0215992Q	N/A	1982	not tested	4.33	n/a	n/a	unkown	536	Monitoring	
P&A	123568-	https://dwr.state.co.us/Tools/WellPermits/0215992W	N/A	1982	not tested	4.33	n/a	n/a	unknown	700	Monitoring	
P&A	123570-	https://dwr.state.co.us/Tools/WellPermits/0215992Y	N/A	1982	not tested	4.33	n/a	n/a	unkown	525	Monitoring	
Permitted	10358-F	https://dwr.state.co.us/Tools/WellPermits/9113567	3905064	1964	40	3	Artesian Flow	N/A	302	568	Industrial, Domestic, Agricultural, Livestock	Not aware of any Artesian flow well at this location and unsure of original permittee. I am guessing this is lost or abandoned or may now be a spring
P&A	123572-	https://dwr.state.co.us/Tools/WellPermits/0006699	N/A	1982	not tested	6.75	n/a	n/a	555	700	Monitoring	
P&A	123571-	https://dwr.state.co.us/Tools/WellPermits/0908206	N/A	1982	not tested	6.4	Grunfros SP2-46	3	551	1045	Monitoring	
Permitted	18153-F	https://dwr.state.co.us/Tools/WellPermits/0916528	3905086	1974	200	8 5/8	Submersible	n/a	58	460	Industrial, Commercial, Domestic, Livestock, Irrigation	See DWR for extensive conditions of approval. Needs onsite for locating if its still physically available
P&A	121344-	https://dwr.state.co.us/Tools/WellPermits/0215078A	N/A	1982	not tested	9'	Grunfros SP2-46	3hp	760'	1085	Monitoring	
Permitted	18151-F	https://dwr.state.co.us/Tools/WellPermits/9113692	3905088	1974	200	8 5/8	submersible	n/a	196	680	Industrial, Commercial, Domestic, Livestock, Irrigation	annual max of 323 acre feet. Needs onsite to see if its physically available
Re-permitted	121351-	https://dwr.state.co.us/Tools/WellPermits/0215078H	n/a	1982	not tested	6.4	Grunfros SP2-46	3hp	476	975	Monitoring	ww-8a
P&A	121352-	https://dwr.state.co.us/Tools/WellPermits/0215078I	N/A	1982	not tested	4.33	Grunfos SP2-34	2hp	469	740	Monitoring	ww-8b
P&A	121353-	https://dwr.state.co.us/Tools/WellPermits/0215078J	N/A	1982	not tested	4.33	grunfros SP2-26	1.5 hp	527	580	Monitoring	ww-8c
Permitted	10359-F	https://dwr.state.co.us/Tools/WellPermits/9113568	3905065	1965	66	5	Reda	1.5	unkown	86	Industrial, domestic, Agricultural, Livestock	Permited for "operations of industrial plants, mines, roads, dams, and related facitilites, including offices. Also for sundry purposes such as for drinking water, toilet facilites, dust control, and irrigation of revegetation projects
Permitted	10359-F-R	https://dwr.state.co.us/Tools/WellPermits/0209311	3905065	1965	66	5"	230v	Portable	65'	86'	Industrial, Commercial, Domestic, Livestock, Irrigation, Municipal, other beneficial uses	Replacement well for 10359-f
P&A	121345-	https://dwr.state.co.us/Tools/WellPermits/0215078B	N/A	1982	not tested	4.33	Grundfos SP2-46	3 hp	unkown	890	Monitoring	

Re-permitted	121348-	https://dwr.state.co.us/Tools/WellPermits/0215078E	N/A	1982	not tested	4.33	n/a	n/a	560	600	Monitoring	ww-18f
P&A	121349-	https://dwr.state.co.us/Tools/WellPermits/0215078F	N/A	1982	not tested	4.33	n/a	n/a	unknown	450	Monitoring	dry well
P&A	121347-	https://dwr.state.co.us/Tools/WellPermits/0215078D	N/a	1982	Not Tested	6.4	Granfos sp2-46	3hp	695	1020	Monitoring	
P&A	286069-	https://dwr.state.co.us/Tools/WellPermits/3650359	n/a	2010	not tested	4.5	unkown	n/a	unkown	175	Monitoring	Replaces existing well? Appears to be on exhisting gas pad
P&A	286070-	https://dwr.state.co.us/Tools/WellPermits/3650360	N/A	2010	Not Tested	4.5	Unkown	n/a	unkown	179	Monitoring	appears to be on exhisting gas pad
P&A	286071-	https://dwr.state.co.us/Tools/WellPermits/3650361	N/a	2010	not tested	4.5	unknown	n/a	unkown	175	Monitoring	appears to be on exhisting gas pad
P&A	275876-	https://dwr.state.co.us/Tools/WellPermits/3622865	N/A	2007	144	4.5	Grundfos	n/a	uknown	340	Monitoring	appears to be on exhisting gas pad
P&A	74924-F	https://dwr.state.co.us/Tools/WellPermits/1505104	N/A	2007	not tested	unkown	unknown	n/a	unkown	unkown	Unknown	permit says required by COGCC
P&A	286068-	https://dwr.state.co.us/Tools/WellPermits/3650358	n/a	n/a	not tested	unkown	unknown	n/a	unkown	unkown	unknown	Link goes to permit number 286071 (duplicate) not sure if its an error or replacement well
Re-permitted	164914-	https://dwr.state.co.us/Tools/WellPermits/0339460B	n/a	1992	15	6"	unkown	n/a	103	132	Monitoring	Just above pond 4
Re-permitted	164780-	https://dwr.state.co.us/Tools/WellPermits/0339460A	N/A	1992	48	6"	unknown	n/a	98	140	Monitoring	Just above pond 4
Re-permitted	121346-	https://dwr.state.co.us/Tools/WellPermits/0215078C	n/a	1982	not tested	9'	Grunfos SP2-34	2 hp	321	615	Monitoring	Water well just below spent shale research site
P&A	121359-	https://dwr.state.co.us/Tools/WellPermits/0215078P	N/A	1982	not tested	4.33	Grundfos sp2-34	2	70	220	Monitoring	ww-4e

Form No. GWS-44 5/2024 Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City	State	Zip Code
Englewood	Colorado	80110

Telephone # (area code & number)	E-mail (online filing required)
303-806-8952	nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ■ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ■ Other: Repermit to a production well

3. Refer To (if applicable)

Well permit #	Water Court case #
121346	
Designated Basin Determination #	**Well name or #**

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ■ No
(see instruction for information)

County: Garfield

NW 1/4 of the SW 1/4	Section	Township N or S	Range E or W	P.M.
	13	5 ☐ ■	96 ☐ ■	6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.

■ Zone 12 or ☐ Zone 13.

Easting: 747007.721

Northing: 4388580.291

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ■ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel	C. Are you the owner of this parcel? If no, list owner.
40	■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ■ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate	Annual amount to be withdrawn
15 GPM	
Total Depth	**Aquifer**
615 ft.	All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ■ NO

If yes, provide name of supplier:_____

9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ■ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application	Date (mm/dd/yyyy)
	12/10/2024

If signing print name
Ed Seymour

Title

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

The form must be typed or printed in **DARK INK**. **A current deed for the subject parcel must be attached.** All changes on the form must be initialed and dated. **Attach additional sheets if more space is required. INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED. Applications are evaluated in chronological order. Please allow approximately seven weeks for processing.**

To submit the application you will need to save the completed PDF form and email the PDF to: dwrpermitsonline@state.co.us Once the email is received you will receive an email, in addition to the response, with an attached invoice containing a link to submit payment online via eCheck or credit/debit card. Refer to the "Form Submittal, Payment Options and Fee Schedule" instructions, found under "Important Links" on the Well Permitting page (https://dwr.colorado.gov/services/well-permitting) **for further information.** Once the PDF form has been submitted you will receive an email with an attached invoice containing a link to submit payment online. This form will not be processed until the fee has been received. **Fees are nonrefundable.**

FEES: The filing fee for this application is **$100.** Exceptions are as follows:

1. An application to replace or deepen an existing permitted well, which does not have a "-F" or "-R" suffix after the original permit number, into the same source (aquifer) for the same uses is **$60**.
2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

B. **Ordinary household use in 1 to 3 single-family dwellings, irrigation of up to one acre of home garden and lawn, and watering of domestic animals and poultry:** Generally, permits can be approved with residential outside uses in addition to use inside the single family dwelling(s) on parcels of land of 35 or more acres, in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers. The allowed residential uses will vary based on the property size, property location and the proposed aquifer.

C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

   When a point location is required it is recommended the well location be provided using GPS coordinates. The Location Converter tool (available on the DWR website at: https://dwr.state.co.us/Tools/LocationConverter) can be used to convert between Latitude/Longitude and UTM coordinates. If a UTM format location is not provided and the well does not qualify under Rule 6.2.3 you must provide the distances from section lines. The required GPS unit settings must be as indicated on this form. Colorado contains two UTM zones. Zone 13 covers most of Colorado. The boundary between Zone 12 and Zone 13 is the 108th Meridian (longitude). West of the 108th Meridian is UTM Zone 12 and east of the 108th Meridian is UTM Zone 13. The 108th Meridian is approximately 57 miles east of the Colorado-Utah state line. On most GPS units, the UTM zone is given as part of the Easting measurement, e.g. 12T0123456. Check the appropriate box. **When a point location is required, and GPS coordinates are not provided, you must specify the Distances of the well from the Section lines.**

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
6. **(Use of Well)** See above comments under USES to determine those uses for which you may qualify, and then check the applicable box or boxes.
7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
10. Wells must be constructed by a Colorado licensed well driller, or under the "private driller" provision as defined in CRS 37-91-102(12). A listing of licensed well drillers/pump installers is available at https://dwr.colorado.gov/services/well-construction-inspection
11. **The well owner must sign or enter their name on the form in the signature block**. If **signing as a representative of a company** who owns the well, then your title must also be included in the title block. An authorized agent may also sign or enter their name on the application if a letter signed by the applicant or their attorney is submitted with the application authorizing that agent to sign or enter their name on the applicant's behalf. Put the date the application was signed (or name entered) in the date block. Wet or electronic signatures are acceptable. If providing a wet signature type or print the name in the print name block.

If you have questions, contact the Denver Office or the Division Office where the well is located or submit a question at: AskDWR - Residential Well for assistance. Contact information is available from our website at: https://dwr.colorado.gov/about-us/contact-us

Form No. GWS-44 5/2024 Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City	State	Zip Code
Englewood	Colorado	80110

Telephone # (area code & number)	E-mail (online filing required)
303-806-8952	nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ■ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ■ Other:Repermit to a production well

3. Refer To (if applicable)

Well permit #	Water Court case #
121348	

Designated Basin Determination #	Well name or #

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ■ No
(see instruction for information)

County: Garfield

SE 1/4 of the SE 1/4	Section	Township	N or S	Range	E or W	P.M.
SE / SE	11	5	☐ ■	96	☐ ■	6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.

■ Zone 12 or ☐ Zone 13.

Easting: 746443.868

Northing: 4389951.585

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ■ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel	C. Are you the owner of this parcel? If no, list owner.
40	■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ■ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate	Annual amount to be withdrawn
15 GPM	

Total Depth	Aquifer
600 ft.	All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ■ NO

If yes, provide name of supplier:_____

9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ■ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application	Date (mm/dd/yyyy)
	12/10/2024

If signing print name
Ed Seymour

Title

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

The form must be typed or printed in **DARK INK**. **A current deed for the subject parcel must be attached.** All changes on the form must be initialed and dated. **Attach additional sheets if more space is required. INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED. Applications are evaluated in chronological order. Please allow approximately seven weeks for processing.**

To submit the application you will need to save the completed PDF form and email the PDF to: dwrpermitsonline@state.co.us Once the email is received you will receive an email, in addition to the response, with an attached invoice containing a link to submit payment online via eCheck or credit/debit card. Refer to the "Form Submittal, Payment Options and Fee Schedule" instructions, found under "Important Links" on the Well Permitting page (https://dwr.colorado.gov/services/well-permitting) **for further information.** Once the PDF form has been submitted you will receive an email with an attached invoice containing a link to submit payment online. This form will not be processed until the fee has been received. **Fees are nonrefundable.**

FEES: The filing fee for this application is **$100.** Exceptions are as follows:

1. An application to replace or deepen an existing permitted well, which does not have a "-F" or "-R" suffix after the original permit number, into the same source (aquifer) for the same uses is **$60**.
2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

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C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

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RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
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7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
10. Wells must be constructed by a Colorado licensed well driller, or under the "private driller" provision as defined in CRS 37-91-102(12). A listing of licensed well drillers/pump installers is available at https://dwr.colorado.gov/services/well-construction-inspection
11. **The well owner must sign or enter their name on the form in the signature block**. If **signing as a representative of a company** who owns the well, then your title must also be included in the title block. An authorized agent may also sign or enter their name on the application if a letter signed by the applicant or their attorney is submitted with the application authorizing that agent to sign or enter their name on the applicant's behalf. Put the date the application was signed (or name entered) in the date block. Wet or electronic signatures are acceptable. If providing a wet signature type or print the name in the print name block.

If you have questions, contact the Denver Office or the Division Office where the well is located or submit a question at: AskDWR - Residential Well for assistance. Contact information is available from our website at: https://dwr.colorado.gov/about-us/contact-us

Form No. GWS-44
5/2024
Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City	State	Zip Code
Englewood	Colorado	80110

Telephone # (area code & number)	E-mail (online filing required)
303-806-8952	nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ■ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ■ Other: Repermit to a production well

3. Refer To (if applicable)

Well permit #	Water Court case #
121351	
Designated Basin Determination #	**Well name or #**

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ■ No
(see instruction for information)

County: Garfield

NE 1/4 of the NW 1/4	Section	Township	N or S	Range	E or W	P.M.
	11	5	☐ ■	96	☐ ■	6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.

■ Zone 12 or ☐ Zone 13.

Easting: 745691.790

Northing: 4391064.099

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ■ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel	C. Are you the owner of this parcel? If no, list owner.
40	■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ■ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate	Annual amount to be withdrawn
15 GPM	
Total Depth	**Aquifer**
975 ft.	All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ■ NO

If yes, provide name of supplier:_____

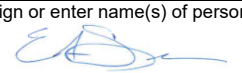
9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ■ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application	Date (mm/dd/yyyy)
	12/10/2024

If signing print name
Ed Seymour

Title

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

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FEES: The filing fee for this application is **$100.** Exceptions are as follows:

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2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

B. **Ordinary household use in 1 to 3 single-family dwellings, irrigation of up to one acre of home garden and lawn, and watering of domestic animals and poultry:** Generally, permits can be approved with residential outside uses in addition to use inside the single family dwelling(s) on parcels of land of 35 or more acres, in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers. The allowed residential uses will vary based on the property size, property location and the proposed aquifer.

C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

   When a point location is required it is recommended the well location be provided using GPS coordinates. The Location Converter tool (available on the DWR website at: https://dwr.state.co.us/Tools/LocationConverter) can be used to convert between Latitude/Longitude and UTM coordinates. If a UTM format location is not provided and the well does not qualify under Rule 6.2.3 you must provide the distances from section lines. The required GPS unit settings must be as indicated on this form. Colorado contains two UTM zones. Zone 13 covers most of Colorado. The boundary between Zone 12 and Zone 13 is the 108th Meridian (longitude). West of the 108th Meridian is UTM Zone 12 and east of the 108th Meridian is UTM Zone 13. The 108th Meridian is approximately 57 miles east of the Colorado-Utah state line. On most GPS units, the UTM zone is given as part of the Easting measurement, e.g. 12T0123456. Check the appropriate box. **When a point location is required, and GPS coordinates are not provided, you must specify the Distances of the well from the Section lines.**

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
6. **(Use of Well)** See above comments under USES to determine those uses for which you may qualify, and then check the applicable box or boxes.
7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
10. Wells must be constructed by a Colorado licensed well driller, or under the "private driller" provision as defined in CRS 37-91-102(12). A listing of licensed well drillers/pump installers is available at https://dwr.colorado.gov/services/well-construction-inspection
11. **The well owner must sign or enter their name on the form in the signature block**. If **signing as a representative of a company** who owns the well, then your title must also be included in the title block. An authorized agent may also sign or enter their name on the application if a letter signed by the applicant or their attorney is submitted with the application authorizing that agent to sign or enter their name on the applicant's behalf. Put the date the application was signed (or name entered) in the date block. Wet or electronic signatures are acceptable. If providing a wet signature type or print the name in the print name block.

If you have questions, contact the Denver Office or the Division Office where the well is located or submit a question at: AskDWR - Residential Well for assistance. Contact information is available from our website at: https://dwr.colorado.gov/about-us/contact-us

Form No. GWS-44
5/2024
Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City: Englewood | State: Colorado | Zip Code: 80110

Telephone # (area code & number): 303-806-8952
E-mail (online filing required): nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ■ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ■ Other: Repermit to a production well

3. Refer To (if applicable)

Well permit #: 121356
Water Court case #:
Designated Basin Determination #:
Well name or #:

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ■ No
(see instruction for information)

County: Garfield

NE 1/4 of the SE 1/4 | Section: 2 | Township: 5 N or S ☐ ■ | Range: 96 E or W ☐ ■ | P.M.: 6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.

■ Zone 12 or ☐ Zone 13.

Easting: 746512.320

Northing: 4392029.046

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ■ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel: 40

C. Are you the owner of this parcel? If no, list owner.
■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ■ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate: 15 GPM
Annual amount to be withdrawn:
Total Depth: 600 ft.
Aquifer: All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ■ NO
If yes, provide name of supplier:_____

9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ■ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application: [signature]
Date (mm/dd/yyyy): 12/10/2024

If signing print name: Ed Seymour

Title:

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

The form must be typed or printed in **DARK INK**. **A current deed for the subject parcel must be attached.** All changes on the form must be initialed and dated. **Attach additional sheets if more space is required. INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED. Applications are evaluated in chronological order. Please allow approximately seven weeks for processing.**

To submit the application you will need to save the completed PDF form and email the PDF to: dwrpermitsonline@state.co.us Once the email is received you will receive an email, in addition to the response, with an attached invoice containing a link to submit payment online via eCheck or credit/debit card. Refer to the "Form Submittal, Payment Options and Fee Schedule" instructions, found under "Important Links" on the Well Permitting page (https://dwr.colorado.gov/services/well-permitting) **for further information.** Once the PDF form has been submitted you will receive an email with an attached invoice containing a link to submit payment online. This form will not be processed until the fee has been received. **Fees are nonrefundable.**

FEES: The filing fee for this application is **$100.** Exceptions are as follows:

1. An application to replace or deepen an existing permitted well, which does not have a "-F" or "-R" suffix after the original permit number, into the same source (aquifer) for the same uses is **$60**.
2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

B. **Ordinary household use in 1 to 3 single-family dwellings, irrigation of up to one acre of home garden and lawn, and watering of domestic animals and poultry:** Generally, permits can be approved with residential outside uses in addition to use inside the single family dwelling(s) on parcels of land of 35 or more acres, in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers. The allowed residential uses will vary based on the property size, property location and the proposed aquifer.

C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

   When a point location is required it is recommended the well location be provided using GPS coordinates. The Location Converter tool (available on the DWR website at: https://dwr.state.co.us/Tools/LocationConverter) can be used to convert between Latitude/Longitude and UTM coordinates. If a UTM format location is not provided and the well does not qualify under Rule 6.2.3 you must provide the distances from section lines. The required GPS unit settings must be as indicated on this form. Colorado contains two UTM zones. Zone 13 covers most of Colorado. The boundary between Zone 12 and Zone 13 is the 108th Meridian (longitude). West of the 108th Meridian is UTM Zone 12 and east of the 108th Meridian is UTM Zone 13. The 108th Meridian is approximately 57 miles east of the Colorado-Utah state line. On most GPS units, the UTM zone is given as part of the Easting measurement, e.g. 12T0123456. Check the appropriate box. **When a point location is required, and GPS coordinates are not provided, you must specify the Distances of the well from the Section lines.**

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
6. **(Use of Well)** See above comments under USES to determine those uses for which you may qualify, and then check the applicable box or boxes.
7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
10. Wells must be constructed by a Colorado licensed well driller, or under the "private driller" provision as defined in CRS 37-91-102(12). A listing of licensed well drillers/pump installers is available at https://dwr.colorado.gov/services/well-construction-inspection
11. **The well owner must sign or enter their name on the form in the signature block**. If **signing as a representative of a company** who owns the well, then your title must also be included in the title block. An authorized agent may also sign or enter their name on the application if a letter signed by the applicant or their attorney is submitted with the application authorizing that agent to sign or enter their name on the applicant's behalf. Put the date the application was signed (or name entered) in the date block. Wet or electronic signatures are acceptable. If providing a wet signature type or print the name in the print name block.

If you have questions, contact the Denver Office or the Division Office where the well is located or submit a question at: AskDWR - Residential Well for assistance. Contact information is available from our website at: https://dwr.colorado.gov/about-us/contact-us

Form No. GWS-44
5/2024
Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City: Englewood | State: Colorado | Zip Code: 80110

Telephone # (area code & number): 303-806-8952
E-mail (online filing required): nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ■ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ■ Other: Repermit to a production well

3. Refer To (if applicable)

Well permit #: 164780
Water Court case #:
Designated Basin Determination #:
Well name or #:

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ■ No
(see instruction for information)

County: Garfield

SW 1/4 of the SW 1/4 | Section: 18 | Township: 5 N or S ☐ ■ | Range: 95 E or W ☐ ■ | P.M.: 6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.

■ Zone 12 or ☐ Zone 13.

Easting: 748396.302

Northing: 4388335.988

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ☐ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ■ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ☐ Other: (attach metes & bounds description or survey)

B. # of acres in parcel

C. Are you the owner of this parcel? **If** no, list owner.
■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ■ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate: 15 GPM
Annual amount to be withdrawn:
Total Depth: 170 ft.
Aquifer: All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ■ NO
If yes, provide name of supplier:_____

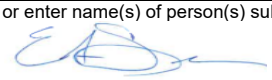
9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ■ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application: 
Date (mm/dd/yyyy): 12/10/2024

If signing print name: Ed Seymour

Title:

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

The form must be typed or printed in **DARK INK**. **A current deed for the subject parcel must be attached.** All changes on the form must be initialed and dated. **Attach additional sheets if more space is required. INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED. Applications are evaluated in chronological order. Please allow approximately seven weeks for processing.**

To submit the application you will need to save the completed PDF form and email the PDF to: dwrpermitsonline@state.co.us Once the email is received you will receive an email, in addition to the response, with an attached invoice containing a link to submit payment online via eCheck or credit/debit card. Refer to the "Form Submittal, Payment Options and Fee Schedule" instructions, found under "Important Links" on the Well Permitting page (https://dwr.colorado.gov/services/well-permitting) **for further information.** Once the PDF form has been submitted you will receive an email with an attached invoice containing a link to submit payment online. This form will not be processed until the fee has been received. **Fees are nonrefundable.**

FEES: The filing fee for this application is **$100.** Exceptions are as follows:

1. An application to replace or deepen an existing permitted well, which does not have a "-F" or "-R" suffix after the original permit number, into the same source (aquifer) for the same uses is **$60**.
2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

B. **Ordinary household use in 1 to 3 single-family dwellings, irrigation of up to one acre of home garden and lawn, and watering of domestic animals and poultry:** Generally, permits can be approved with residential outside uses in addition to use inside the single family dwelling(s) on parcels of land of 35 or more acres, in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers. The allowed residential uses will vary based on the property size, property location and the proposed aquifer.

C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

   When a point location is required it is recommended the well location be provided using GPS coordinates. The Location Converter tool (available on the DWR website at: https://dwr.state.co.us/Tools/LocationConverter) can be used to convert between Latitude/Longitude and UTM coordinates. If a UTM format location is not provided and the well does not qualify under Rule 6.2.3 you must provide the distances from section lines. The required GPS unit settings must be as indicated on this form. Colorado contains two UTM zones. Zone 13 covers most of Colorado. The boundary between Zone 12 and Zone 13 is the 108th Meridian (longitude). West of the 108th Meridian is UTM Zone 12 and east of the 108th Meridian is UTM Zone 13. The 108th Meridian is approximately 57 miles east of the Colorado-Utah state line. On most GPS units, the UTM zone is given as part of the Easting measurement, e.g. 12T0123456. Check the appropriate box. **When a point location is required, and GPS coordinates are not provided, you must specify the Distances of the well from the Section lines.**

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
6. **(Use of Well)** See above comments under USES to determine those uses for which you may qualify, and then check the applicable box or boxes.
7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
10. Wells must be constructed by a Colorado licensed well driller, or under the "private driller" provision as defined in CRS 37-91-102(12). A listing of licensed well drillers/pump installers is available at https://dwr.colorado.gov/services/well-construction-inspection
11. **The well owner must sign or enter their name on the form in the signature block**. If **signing as a representative of a company** who owns the well, then your title must also be included in the title block. An authorized agent may also sign or enter their name on the application if a letter signed by the applicant or their attorney is submitted with the application authorizing that agent to sign or enter their name on the applicant's behalf. Put the date the application was signed (or name entered) in the date block. Wet or electronic signatures are acceptable. If providing a wet signature type or print the name in the print name block.

If you have questions, contact the Denver Office or the Division Office where the well is located or submit a question at: AskDWR - Residential Well for assistance. Contact information is available from our website at: https://dwr.colorado.gov/about-us/contact-us

Form No. GWS-44 5/2024 Page 1 of 3

STATE OF COLORADO
OFFICE OF THE STATE ENGINEER
1313 Sherman St., Room 821, Denver, CO 80203
Phone: (303) 866-3581 Website:https://dwr.colorado.gov/
Email to: dwrpermitsonline@state.co.us

Office Use Only

RESIDENTIAL Water Well Permit Application

Note: Also use this form to apply for **livestock watering**
Review form instructions prior to completing form.

1. Applicant Information

Name of Applicant(s)
Caerus Oil and Gas c/o BBA Water Consultants, Inc.

Mailing address
333 W. Hampden Ave., Ste. 1050

City	State	Zip Code
Englewood	Colorado	80110

Telephone # (area code & number)	E-mail (online filing required)
303-806-8952	nhoch@bbawater.com

2. Type Of Application (check applicable boxes)

- ☐ Construct new well
- ☐ Replace existing well
- ☐ Use existing well
- ☐ Change or increase use
- ☐ Change source (aquifer)
- ☐ Reapplication (expired permit)
- ☐ Rooftop precipitation collection
- ☐ Other: Repermit to a production well

3. Refer To (if applicable)

Well permit #	Water Court case #
164914	
Designated Basin Determination #	**Well name or #**

4. Location Of Proposed Well (SEE INSTRUCTIONS)

Property address (Include City, State, Zip) ☐ Check if well address is same as Item 1

Rule 6.2.3 ☐ Yes ☐ No
(see instruction for information)

County: Garfield

SW 1/4 of the SW 1/4	Section	Township	N or S	Range	E or W	P.M.
	18	5	☐ ☐	95	☐ ☐	6th

Preferred location format: GPS well location information in UTM format. The following GPS settings are **required**: Format must be **UTM**. Units must be in **meters**. Datum must be **NAD83**. Unit must be set to **true north**.
☐ Zone 12 or ☐ Zone 13.

Easting: 748408.476

Northing: 4388380.522

Optional Location Information **(must be provided if GPS location is not provided above and Rule 6.2.3 does not apply):** distances from section lines:

_____ feet from the ☐ N. or ☐ S. Line,

_____ feet from the ☐ E. or ☐ W. Line

5. Parcel On Which Well Will Be Located

(You must attach a current deed for the subject parcel)

A. You must check and complete *one* of the following:

- ☐ Subdivision: Name _____
  Lot _____ Block _____ Filing/Unit_____
- ☐ County exemption (attach copy of county approval & survey)
  Name/#_____ Lot #_____
- ☐ Parcel less than 35 acres, not in a subdivision attach a deed with metes & bounds description recorded prior to June 1, 1972, and current deed
- ☐ Mining claim (attach copy of deed or survey) Name/#: _____
- ☐ Square 40 acre parcel as described in Item 4 (1/4 of the 1/4 is required)
- ☐ Parcel of 35 or more acres (attach metes & bounds description or survey)
- ■ Other: (attach metes & bounds description or survey)

B. # of acres in parcel	C. Are you the owner of this parcel? If no, list owner.
	■ YES ☐ NO _____

D. Will this be the only well on this parcel? ■ YES ☐ NO (if no – list other wells)

E. Parcel ID# (optional):

6. Use Of Well (check applicable boxes)

See instructions to determine use(s) for which you may qualify

- ☐ A. Ordinary household use in one single-family dwelling (no outside use)
- ☐ B. Ordinary household use in 1 to 3 single-family dwellings: Number of dwellings: _____
  - ☐ Home garden/lawn irrigation, not to exceed one acre: area irrigated _____ ☐ sq. ft. ☐ acre
  - ☐ Domestic animal and poultry watering (non-commercial)
- ☐ C. Livestock watering (on farm/ranch/range/pasture)

7. Well Data (proposed)

Maximum pumping rate	Annual amount to be withdrawn
15 GPM	
Total Depth	**Aquifer**
145 ft.	All unnamed aquifers

8. Water Supplier

Is this parcel within boundaries of a water service area? ☐ YES ☐ NO
If yes, provide name of supplier:_____

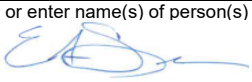
9. Type Of Sewage System

- ☐ Septic tank / absorption leach field
- ☐ Central system: District name _____
- ☐ Vault: Location sewage to be hauled to:_____
- ☐ Other (explain) Use of well will produce no sewage

10. Proposed Well Driller License # (optional):

11. Sign or Enter Name of Applicant(s) or Authorized Agent

The making of false statements herein constitutes perjury in the second degree, which is punishable as a class 1 misdemeanor pursuant to C.R.S. 24-4-104 (13)(a). I have read the statements herein, know the contents thereof and state that they are true to my knowledge.

Sign or enter name(s) of person(s) submitting application	Date (mm/dd/yyyy)
	12/10/2024

If signing print name
Ed Seymour

Title

Office Use Only

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 2 of 3)

The form must be typed or printed in **DARK INK**. **A current deed for the subject parcel must be attached.** All changes on the form must be initialed and dated. **Attach additional sheets if more space is required. INCOMPLETE, POOR QUALITY, OR ILLEGIBLE FORMS CANNOT BE PROCESSED AND WILL BE RETURNED. Applications are evaluated in chronological order. Please allow approximately seven weeks for processing.**

To submit the application you will need to save the completed PDF form and email the PDF to: dwrpermitsonline@state.co.us Once the email is received you will receive an email, in addition to the response, with an attached invoice containing a link to submit payment online via eCheck or credit/debit card. Refer to the "Form Submittal, Payment Options and Fee Schedule" instructions, found under "Important Links" on the Well Permitting page (https://dwr.colorado.gov/services/well-permitting) **for further information.** Once the PDF form has been submitted you will receive an email with an attached invoice containing a link to submit payment online. This form will not be processed until the fee has been received. **Fees are nonrefundable.**

FEES: The filing fee for this application is **$100.** Exceptions are as follows:

1. An application to replace or deepen an existing permitted well, which does not have a "-F" or "-R" suffix after the original permit number, into the same source (aquifer) for the same uses is **$60**.
2. Applications to register an existing well and replace or deepen the well into the same source (aquifer) for the same uses is **$100 if submitted together. U**se Form GWS-12 for the registration and Form GWS-44 for the replacement. If the intent is only to register an existing well use Form GWS-12. The forms are available from the eForms Dashboard.

USES: This form (GWS-44) is to be used when applying for a permit for the following types of uses:

A. **Ordinary household use inside one single-family dwelling (NO outside water use allowed):** Generally, this is all that can be approved on parcels less than 35 acres, except in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers.

B. **Ordinary household use in 1 to 3 single-family dwellings, irrigation of up to one acre of home garden and lawn, and watering of domestic animals and poultry:** Generally, permits can be approved with residential outside uses in addition to use inside the single family dwelling(s) on parcels of land of 35 or more acres, in areas inside the Designated Basins, limited areas on the Western Slope where the stream system is not overappropriated, for subdivisions under a court approved plan for augmentation that allow outside uses, and for wells constructed into certain Denver Basin aquifers. The allowed residential uses will vary based on the property size, property location and the proposed aquifer.

C. **Livestock watering on farm, ranch, range, or pasture** (on parcels of 35 or more acres).

ITEM INSTRUCTIONS: (numbers correspond with those on the front of this form)

1. **(Applicant Information)** The applicant is the entity for whom the permit is to be issued. Since the well owner is ultimately responsible for the use of the well, their name should be in this area. The mailing address is where the applicant currently receives mail. For wells in a Denver Basin aquifer the Applicant must be the property owner.
2. **(Type of Application)** Check all boxes that apply. **If you check the box for Rooftop precipitation collection, you must also complete and submit Form No. GWS-78.** The form is available from the eForms Dashboard.
3. **(Refer To)** Complete all boxes that apply.
4. **(Location of Proposed Well)** Provide the property address for the parcel on which the well is to be located. If it is the same as the mailing address, check the box that indicates that it is the same. **You must provide the county, ¼ of the ¼, section, township, range and principal meridian (P.M.)** in which the well will be located. You must also provide a point location unless the well qualifies under Rule 6.2.3 of the Water Well Construction Rules (Rule 6.2.3 requires that the point location be provided to the Division of Water Resources by the well driller once the well is drilled). Rule 6.2.3 does not apply in the following circumstances:
   a. The location is decreed by a water court;
   b. The well will be drilled in a Denver Basin aquifer;
   c. Your application is for a permit to use an existing well.

   When a point location is required it is recommended the well location be provided using GPS coordinates. The Location Converter tool (available on the DWR website at: https://dwr.state.co.us/Tools/LocationConverter) can be used to convert between Latitude/Longitude and UTM coordinates. If a UTM format location is not provided and the well does not qualify under Rule 6.2.3 you must provide the distances from section lines. The required GPS unit settings must be as indicated on this form. Colorado contains two UTM zones. Zone 13 covers most of Colorado. The boundary between Zone 12 and Zone 13 is the 108th Meridian (longitude). West of the 108th Meridian is UTM Zone 12 and east of the 108th Meridian is UTM Zone 13. The 108th Meridian is approximately 57 miles east of the Colorado-Utah state line. On most GPS units, the UTM zone is given as part of the Easting measurement, e.g. 12T0123456. Check the appropriate box. **When a point location is required, and GPS coordinates are not provided, you must specify the Distances of the well from the Section lines.**

RESIDENTIAL WELL PERMIT APPLICATION INSTRUCTIONS (Page 3 of 3)

5. **(Parcel on Which Well Will Be Located) A current deed for the subject parcel must be attached.** If the subject parcel is 35 or more acres, a complete metes and bounds type legal description or surveyor's plat map that references a section point is required to enable us to plot the parcel in our mapping system. If the parcel is less than 35 acres and not in a subdivision, a deed with metes and bounds legal description, **recorded prior to June 1, 1972** is required. Complete Items 5A through 5E (5E is optional). If you answered NO to Item 5C please indicate who the landowner is. If you are under a contract to purchase the subject property, please state this as well. If the parcel is inside the Denver Basin, the application must be in the name of and signed by, or their name entered by, the current landowner.
6. **(Use of Well)** See above comments under USES to determine those uses for which you may qualify, and then check the applicable box or boxes.
7. **(Well Data)** The **maximum pumping rate** is limited to 15 gpm for most residential type well permits. The **annual amount of water to be withdrawn** is a volume measured in acre-feet. One acre-foot equals 325,851 gallons. For ordinary household use inside one single-family dwelling and no outside use, the annual amount will be about 1/3 acre-foot. For ordinary household use in three single-family dwellings, one acre of home garden/ lawn irrigation, and watering of domestic animals, the annual amount will be about 3 acre-feet. For 100 head of livestock, the annual amount will be about 1.35 acre-feet. Please indicate the estimated **depth** of the proposed well. The proposed **aquifer** for the well must be indicated if the well is to be located within the Denver Basin (see Denver Basin Map), the San Luis Valley or in areas where it is believed the well will penetrate a confining layer. Aquifer information should be provided if known, for well locations outside of these areas.
8. The issuance of exempt well permits may depend on the availability of another source of water, pursuant to CRS 37-92-602(6), such as water from a municipality or water district. (Statutes can be accessed through the CDWR web site.) See Guideline 2003-5 for additional information.
9. Check the applicable box, and complete or attach any additional information as requested in this item.
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