

SENT VIA ELECTRONIC COMMUNICATIONS

December 2, 2021

Mr. Elliott Russell
Environmental Protection Specialist
Colorado Department of Natural Resources
Division of Reclamation, Mining and Safety
Office of Mined Land Reclamation
1313 Sherman Street, Room 215
Denver, Colorado 80203

Re: Permit No. M-1980-244; Cripple Creek & Victor Gold Mining Company; Cresson Project; Technical Revision 129 – Proposed Numeric Protection Levels, and site Compliance Well Identification

Dear Mr. Russell

Newmont Mining Company's Cripple Creek and Victor Gold Mining Company (CC&V) hereby submits the following Technical Revision (TR) #129 proposing compliance monitoring well locations at the Cripple Creek & Victor (CC&V) mine site. However, CC&V believes that establishing points of compliance, standing on their own, does not constitute appropriate permit conditions pursuant to Rule 3.1.7(2). Therefore, as previously discussed CC&V will supplement this TR application with proposed numeric protection levels (NPLs) for these points of compliance in the future. Also, pursuant to Rule 3.1.7(3)(b)(ii)(A), CC&V requests that the Colorado Division of Reclamation Mining & Safety (Division) negotiate appropriate permit conditions with CC&V to meet the requirements of Rule 3.1.7(2). As an alternative, CC&V requests that the Division allow the Water Quality Control Commission to consider and set site-specific use classifications and standards.

Background:

On February 17, 2021, the Colorado Division of Reclamation Mining & Safety (Division) requested that CC&V perform follow-up actions as part of a Technical Revision (TR) to the currently approved M-1980-244 permit. Then, in the June 4, 2021, second adequacy response for the Q4, 2020 Ground and Surface water report, CC&V committed to providing a technical revision to address these inquiries by the end of July 2021. Subsequent to the June 4, 2021, CC&V commitment and conversations with the Division, CC&V determined that it would not be feasible to submit proposed points of compliance by the end of July. As a result, the Division sent a notice of pre-enforcement procedures on September 3, 2021, requesting CC&V submit a Technical Revision to the permit. This notice specified that the Technical Revision shall designate Points of Compliance within Grassy Valley, Poverty Gulch, Squaw Gulch, Vindicator Valley, Wilson Creek, and Arequa Gulch. The following information includes the necessary information to address the Division's request.

Responses to 2016 and 2018 Division Requests and Proposed Numeric Protection Levels for M-1980-244 Cripple Creek & Victor mine site:

In December of 2016, DRMS issued a request to CC&V for Demonstration of Compliance with WQCC Regulation No. 41 – The Basic Standards for Groundwater. The request required that CC&V provide a review of the currently approved groundwater monitoring plan and available site groundwater monitoring data compared against the

WQCC Regulation 41 Interim Narrative Standard requirements. CC&V provided a monitoring plan review and data to DRMS on June 22, 2017. Subsequently, DRMS issued a request in August 2018 for additional information to demonstrate compliance with the parameters not included within the June 22, 2017, submission. This second demonstration of compliance with Colorado Regulation No. 41 was submitted to the Division on November 15, 2018. CC&V has incorporated its June 22, 2017, and November 15, 2018, responses to the Division into this letter by reference.

In discussion of numeric protection levels as they are developed, CC&V presents below the requirements presented within Colorado Regulation No. 41 for the application of the Interim Narrative Standards.

In its August 2019 request, DRMS indicated that:

"The 'Interim Narrative Standard' in 41.5(C)(6)(b)(i) below [in the letter] is applicable to all groundwater, to which standards have not already been assigned in the state... Until such time as use classifications and numerical standards are adopted for the groundwater on a site-specific basis throughout the state, and subject to the provisions of subsection (ii) below [in the letter], groundwater quality shall be maintained for each parameter at whichever of the following is less restrictive:

(A) Existing ambient quality as of January 31, 1994, or

(B) That quality which meets the most stringent criteria set forth in Tables 1 through 4 of 'The Basic Standards for Ground Water'"

In Regulation 41, Section 41.5 (c)(6)(b)(iii) the WQCC stated its intent regarding the application of the Interim Narrative Standard by implementing agencies including the DRMS:

"In applying this narrative standard, the Commission intends that agencies with authority to implement this standard will exercise their best professional judgment as to what constitutes adequate information to determine or estimate existing ambient quality, taking into account the location, sampling date, and quality of all available data. Data generated subsequent to January 31, 1994, shall be presumed to be representative of existing quality as of January 31, 1994, if the available information indicates that there have been no new or increased sources of groundwater contamination initiated in the area in question subsequent to that date. If available information is not adequate to otherwise determine or estimate existing ambient quality as of January 31, 1994, such groundwater quality for each parameter shall be assumed to be no worse than the most stringent level provided for in Tables 1 through 4 of 'The Basic Standards for Ground Water,' unless the Commission has adopted alternative numerical standards for a given specific area."

In essence, if CC&V has sufficient water quality data to determine or estimate the existing ambient water quality as of January 31, 1994 these data must be used to establish the NPLs. If data are not adequate to determine or estimate the water quality as of 31 January 1994, item B above applies.

DRMS asserted in its December 2016 letter:

"If an operator wishes to propose a groundwater standard less restrictive than those contained in 'The Basic Standards for Ground Water' tables, it will be the operator's burden to sufficiently demonstrate to DRMS that their circumstances meet at least one of the two conditions outlined below [in the letter], thereby allowing DRMS to apply a less restrictive standard, and still fully implement the requirements of Regulation No. 41."

The first narrow circumstance and authority for DRMS to apply a groundwater quality standard that is less restrictive than the Table Value Standards at a Point of Compliance exists when a mine operator provides DRMS with adequate documentation and data to determine, to the satisfaction of DRMS, that the existing ambient groundwater quality on January 31, 1994, was above the Table Value Standard."

Only two of the drainages under review have analytical data prior to January 31, 1994: Arequa Gulch (two samples) and Wilson Creek (thirty samples). In this situation, the DRMS letter asserted:

"The second narrow circumstance and authority for DRMS to apply a groundwater quality standard less restrictive than the Table Value Standard is when an operator provides DRMS with data generated after January 31, 1994 which exceeds Table Value Standards and can also demonstrate that no new or increased sources of groundwater contamination in the area in question have been initiated since January 31, 1994, and therefore ambient conditions exceeded Table Value Standards prior to January 31, 1994."

DRMS's December 2016 letter is inconsistent with the language of Regulation 41. Section 41.5(C)(6)(b)(iii) which requires the DRMS to exercise its best professional judgment to determine what constitutes adequate information to determine or estimate existing ambient quality in consideration of all data. The regulation then creates a presumption that data after January 31, 1994 are representative of existing quality as of January 31, 1994, if the available information indicates that there have been no new or increased sources of groundwater contamination initiated in the area in question after that date. The regulation does not create a "narrow circumstance" for consideration of data after January 31, 1994; instead, it directs DRMS to weigh all the data but to apply a presumption that the data are representative of conditions before January 31, 1994, if the required conditions are met.

Finally, the December 2016 DRMS letter asserted:

"[F]or any NPL for a monitored analyte exceeding the applicable Table Value Standards to be valid, it will be the operator's burden to provide sufficient data and rationale to demonstrate to the satisfaction of DRMS and WQCC that at least one of the two conditions previously listed which would allow DRMS to apply a less restrictive standard have been met. "

NPLs previously determined by the DRMS were based on data and information provided by CC&V at the time of approval and are presumptively still valid. CC&V believes that it should not be the burden of the operator to demonstrate the validity of previously established NPLs. Instead, as stated in the letter from DRMS to CC&V dated October 7, 1996, establishing numeric protection levels for the Cresson Project, the NPLs apply to all monitoring wells unless CC&V makes a written request for a change of the standards. Therefore, CC&V will be making the demonstration only for newly proposed NPLs.

Response to Notice of Pre-Enforcement Procedure:

On September 3, 2021, DRMS provided a "Notice of Pre-Enforcement Procedure" to CC&V "pursuant to Rule 3.1.7(3)(b)(ii)(A), which says:

When the Office has reason to believe, based on evidence, that there is or may be a reasonable potential for degradation of groundwater quality that adversely affects uses, the Office shall notify the Operator of the evidence and of the possible need to modify the permit or NOI to include permit or NOI conditions that comply with Rule 3.1.7(2), necessary information, and shall allow a minimum of ninety (90) days for the Operator to respond. Following a response from an Operator provided with notice under this Rule 3.1, the Office shall allow

a reasonable period to negotiate appropriate permit or NOI conditions with the Operator pursuant to Rule 3.1.7(2).

The Notice also stated, "The Act and Rules require CC&V to establish Points of Compliance for the Permit and the Division is requiring CC&V to submit a technical revision to the Permit within 90 days of the date of this letter."

As previously indicated, CC&V does not believe it is feasible to set points of compliance without corresponding numeric protection levels. Section 3.1.7(2) requires points of compliance to be associated with appropriate numeric protection levels determined by DRMS. Therefore:

- 1) CC&V requests that DRMS review and approve the proposed numeric protection levels (NPLs) once the site has had time to establish them for each of the proposed points of compliance pursuant to Rule 3.1.7(3)(b)(ii)(A). This will require a determination of the existing ambient quality as of January 31, 1994, for each of the points of compliance in order to implement the Water Quality Control Commission's Interim Narrative Standards.
- 2) As an alternative, CC&V requests that DRMS allows for WQCC to determine appropriate site-specific groundwater standards for all specified points of compliance.

Rule 3.1.7(2) defines "permit, or notice of intent to conduct prospecting (NOI), conditions, including numeric protection levels, protective of unclassified groundwater uses." This section applies because the groundwater at and near CC&V has not yet been classified by the Colorado Water Quality Control Commission. Section 3.1.7(2)(a) provides that DRMS shall establish permit conditions for each operation that may have a reasonable potential to adversely affect the quality of an area that has not been classified. Those conditions may be in the form of numeric protection levels (NPLs), practice-based permit conditions, or both.

If the DRMS sets NPLs, then Rule 3.1.7(2)(b) requires DRMS to set points of compliance pursuant to Rule 3.1.7(6). Rule 3.1.7(2)(c) requires permit conditions to protect existing and reasonably potential future uses of the groundwater using the WQCC's table value standards as a guide in establishing permit conditions. However, Rule 3.1.7(2)(c)(ii) also includes:

Where ambient groundwater quality exceeds values for protection of existing and reasonably potential future uses of groundwater, such as groundwater table values or other numeric criteria, permit or NOI conditions shall be established to protect those uses against further lowering of groundwater quality.

In addition, Section 3.1.7(4) provides specific procedures for establishing compliance with standards promulgated by the WQCC. These procedures apply to either the interim narrative standards or state-wide standards. Section 3.1.7(4)(c) says that permit conditions can include NPLs, practice-based permit conditions, or both, and shall include a reasonable schedule of compliance.

The Division's Notice of Pre-Enforcement Procedure asserted that CC&V has reported exceedances of the interim narrative standards. CC&V believes that the Division cannot make this determination without establishing NPLs, because the WQCC's interim narrative standard in Regulation 41.5(C)(6) provides that ground-water quality shall be maintained for each parameter at whichever of the following levels is less restrictive:

- a) Existing ambient quality as of January 31, 1994, or;
- b) That quality which meets the most stringent criteria set forth in Tables 1-4 of the Ground Water Basic Standards

The agency with authority to implement the standard, in this case DRMS, is to exercise its best professional judgment in determining what is adequate information to determine or estimate existing ambient quality, considering location, sampling date, and quality of all available data. Section 41.5(C)(6)(iii).

Based on these regulations, NPLs must be set for each of the points of compliance based on the interim narrative standard. To apply the interim narrative standard, DRMS must use its best professional judgment to determine whether the standards in Tables 1–4 of the Basic Standards for Groundwater, or the existing ambient quality as of January 31, 1994, should apply.

In its June 22, 2017, and November 15, 2018, responses, CC&V previously provided data and information to support development of NPLs for all of the proposed points of compliance. CC&V is currently updating its analysis and as previously discussed, will submit a modification to this TR to include proposed NPLs for all proposed points of compliance. Consistent with Rule 3.1.7(3)(b)(ii)(A), CC&V requests that the DRMS allow time to negotiate appropriate NPLs for the POCs consistent with the Interim Narrative Standard. As an alternative approach, CC&V requests that DRMS allow time for the WQCC to determine site-specific groundwater standards.

Specific points of compliance:

As noted above, CC&V believes that points of compliance cannot be defined without accompanying NPLs. In addition, CC&V does not believe it is consistent with Rule 3.1.7(3)(b)(ii)(A) for the Division to require a TR to define points of compliance without first engaging in negotiations with CC&V about the appropriate permit conditions. However, in order to respond to the Division's request, CC&V is providing specific points of compliance within this Technical Revision. CC&V will submit a modification to this TR with proposed NPLs for all points of compliance upon undue delay.

Within the second adequacy letter from the Division regarding CC&Vs submitted Q4, 2020 Ground and Surface Water monitoring report received by CC&V on February 17, 2021, the Division states:

"3. It does not appear, from review of the permit record, that any of the DRMS compliance monitoring well locations were identified as specific points of compliance to satisfy the conditions of Rule 3.7.1. The Division requests the operator propose a specific point of compliance for each basin."

Within the Mineral Rules and Regulations of the Colorado Mined Land Reclamation Board for Hard Rock, Metal, and Designated Mining operations, Rule 3.1.7 (6) Points of Compliance, the following is stated:

(6) Points of Compliance:

(a) In order to evaluate protection afforded groundwater quality, comply with groundwater standards, or to demonstrate compliance with permit or NOI conditions established by the Office to protect groundwater quality, one or more points of compliance shall be established. Through incorporation into a permit or NOI and on a schedule approved by the Office, an Operator shall comply with groundwater quality standards established by the Water Quality Control Commission at points of compliance.

(i) Where the Water Quality Control Commission has not established standards, then any permit or NOI condition established by the Board of Office to protect groundwater quality shall be demonstrated to be met at points of compliance or as specified in the issued NOI or approved permit.

(b) Where groundwater quality standards have been established, the point of compliance shall be established according to the following criteria:

(i) For existing facilities at which an adverse impact to groundwater quality could occur, the point of compliance will be set as follows:

(A) At some distance hydrologically down-gradient from the facility or activity that is causing, or which has the potential to cause, the contamination, and selecting that distance closest to the facility or activity, considering the technological feasibility of meeting the requirements for protecting water quality:

- (I) A specified distance, as determined by Rule 3.1.7(6)(i)(B) below;
- (II) The hydrologically down-gradient limit of the area in which contamination has been identified or
- (III) The facility permit boundary.

(B) In determining a specified distance the Office shall take into consideration the following factors;

- (I) The classified use, established by the Water Quality Control Commission, for any groundwater or surface water which could be impacted by contamination from the facility;
- (II) The geologic and hydrologic characteristics of the site, such as depth to groundwater, groundwater flow direction and velocity, soil types, surface water impacts, and climate;
- (III) The toxicity, mobility, and persistence in the environment of the contaminants used or stored at the facility and which could reasonably be expected to be discharged from the facility;
- (IV) The potential of the site as an aquifer recharge area; and
- (V) Recommendations submitted by the facility owner or Operator, including technical and economic feasibility.

Therefore, CC&V presents the following locations as potential points of compliance consistent with the specifications within the rules for the Cripple Creek & Victor (CC&V) mine site permit M-1980-244:

Basin	Well ID
Grassy Valley	GVMW-22B
Vindicator Valley	VIN-2B
Wilson Creek	WCMW-6
Arequa Gulch	CRMW-5B
Squaw Gulch	SGMW-8
Poverty Gulch	PGMW-5

Monitoring wells GVMW-22B, VIN-2B, WCMW-6, and CRMW-5B are wells which are currently constructed, installed, and monitored as part of CC&V's quarterly groundwater compliance monitoring program. CC&V proposes that two new wells be constructed, SGMW-8A, and PGMW-5. These wells are to be constructed at the affected lands boundary within each drainage to obtain groundwater quality samples on a quarterly basis. Exact locations of these wells are not currently known, as test drilling is necessary to ensure that the well location will be able to provide a water sample consistently over time. The figures contained in Attachment A include the current proposed locations to initiate drilling for these new wells to be completed.

Conclusion

CC&V has presented proposed points of compliance consistent with the specifications within the rules for the site's mine permit. In addition, CC&V will submit a modification to this TR application with proposed NPLs for each point of compliance for review and approval as soon as feasible. In addition, pursuant to Rule 3.1.7(3)(b)(ii)(A), CC&V requests that the Division negotiate appropriate permit conditions with CC&V to meet the requirements of Rule 3.1.7(2). These conditions should include numeric protection levels based on the Interim Narrative Standard. As an alternative, CC&V requests that the Division allow for the Water Quality Control Commission to address the appropriate use classifications and groundwater standards for the site.

If you require additional information and/or clarifications, please do not hesitate to contact the undersigned.

Sincerely,

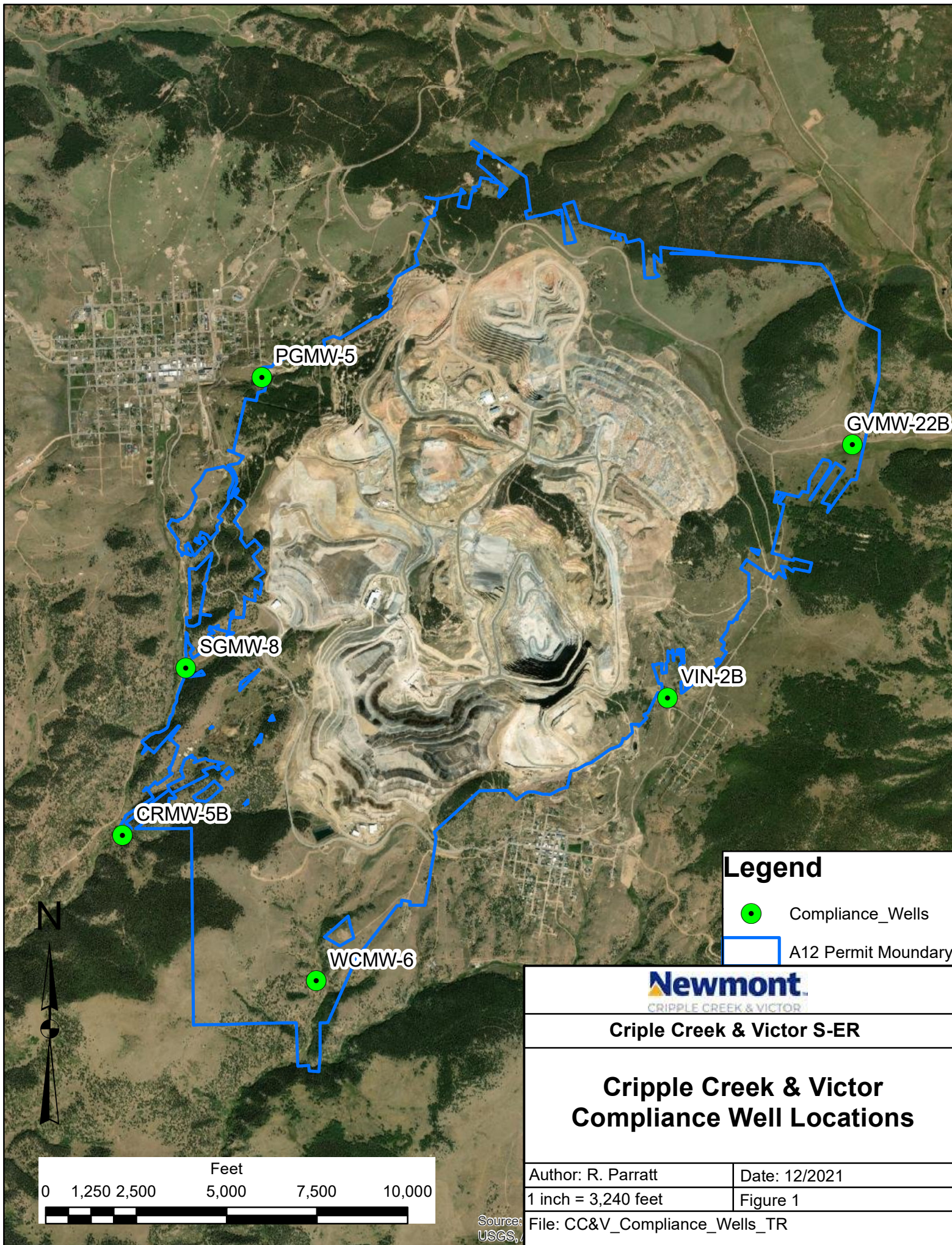


Justin Raglin
Sustainability and External Relations Manager
Cripple Creek & Victor Mine



EC: T. Cazier – DRMS
M. Cunningham – DRMS
E. Russell – DRMS
P. Lennberg
D. Williams – Teller County
J. Raglin – CC&V
R. Parratt – CC&V
K. Blake – CC&V


Encl.
File

Attachment A

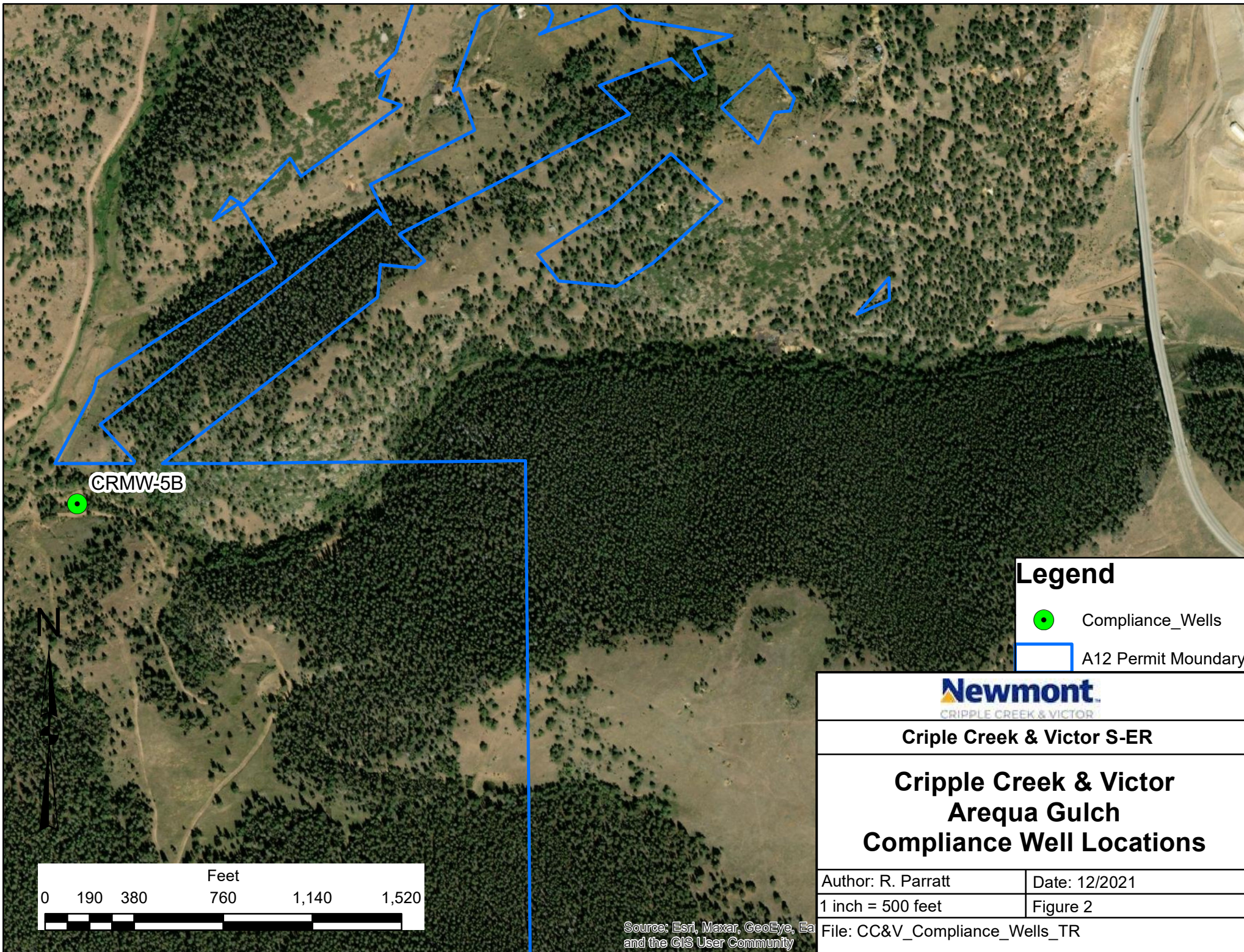


Legend



-  Compliance_Wells
-  A12 Permit Boundary

 CRIPPLE CREEK & VICTOR	
Cripple Creek & Victor S-ER	
Cripple Creek & Victor Compliance Well Locations	
Author: R. Parratt	Date: 12/2021
1 inch = 3,240 feet	Figure 1
File: CC&V_Compliance_Wells_TR	

Source:
USGS



Legend

-  Compliance_Wells
-  A12 Permit Boundary



Cripple Creek & Victor S-ER

Cripple Creek & Victor Arequa Gulch Compliance Well Locations

Author: R. Parratt

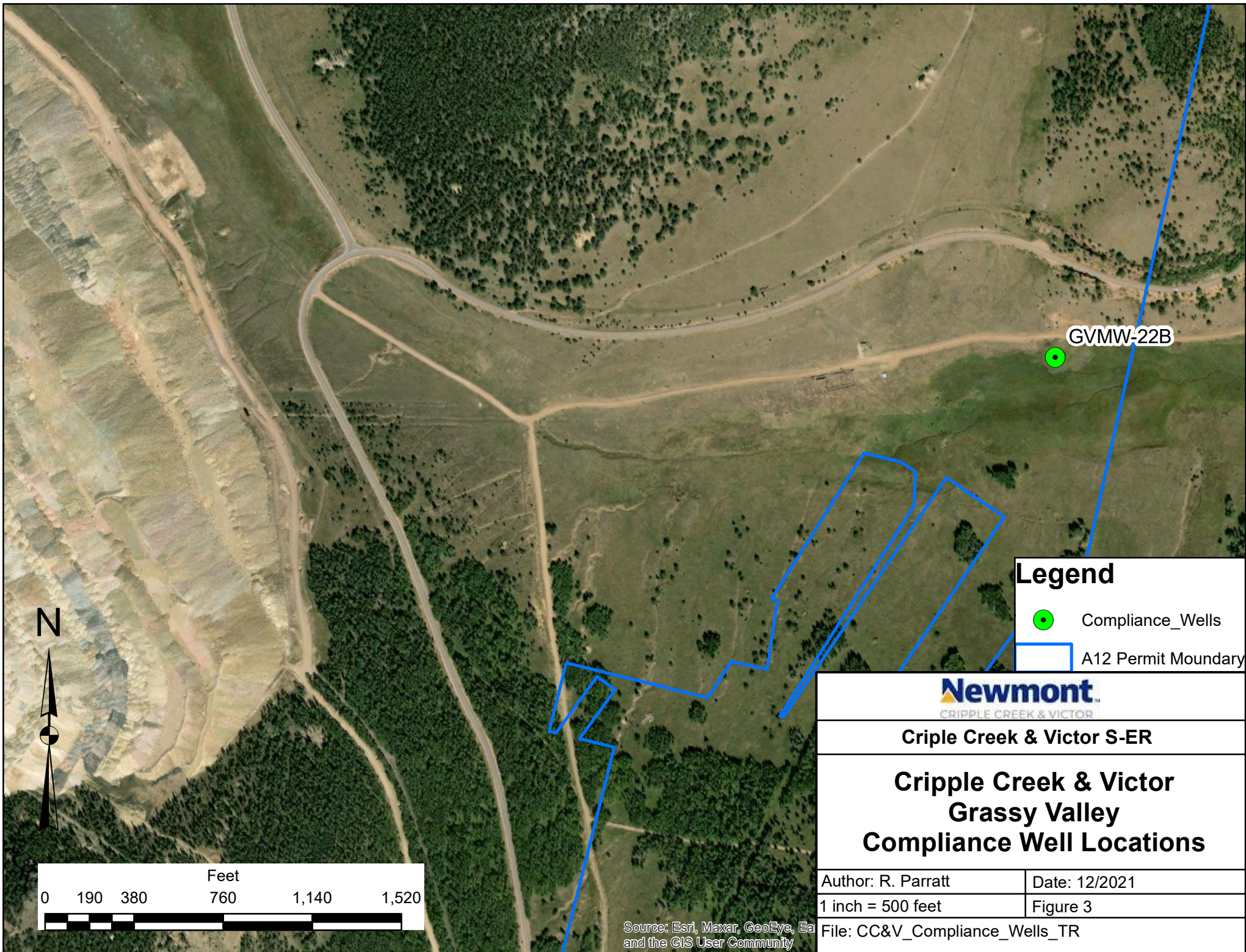
Date: 12/2021

1 inch = 500 feet

Figure 2

File: CC&V_Compliance_Wells_TR

Source: Esri, Maxar, GeoEye, Earthstar, etc.
and the GIS User Community



GVMW-22B

Legend

● Compliance_Wells

□ A12 Permit Moundary

Newmont
CRIPPLE CREEK & VICTOR

Cripple Creek & Victor S-ER

Cripple Creek & Victor Grassy Valley Compliance Well Locations

Author: R. Parratt

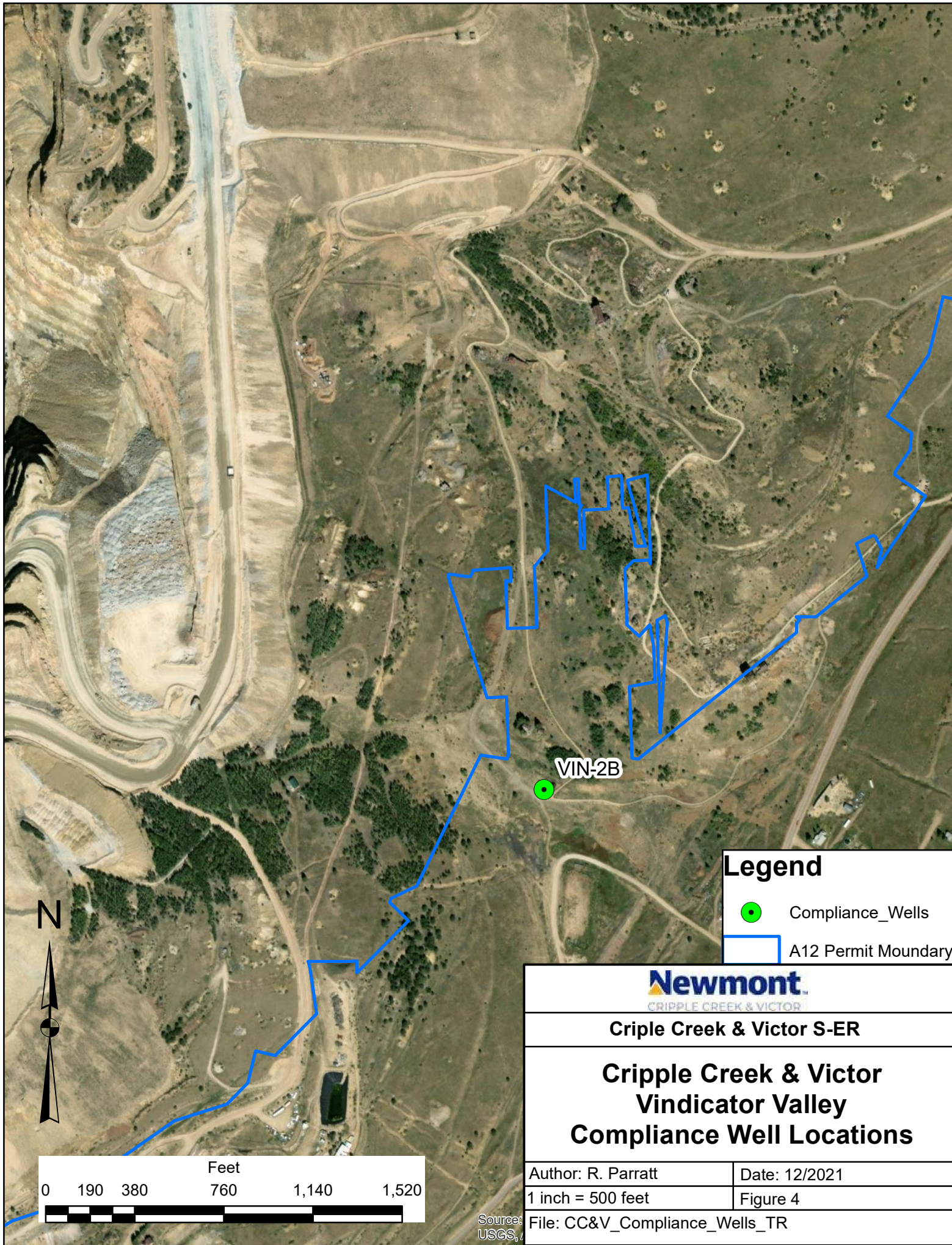
Date: 12/2021

1 inch = 500 feet



Figure 3

File: CC&V_Compliance_Wells_TR

Source: Esri, Maxar, GeoEye, Ea
and the GIS User Community

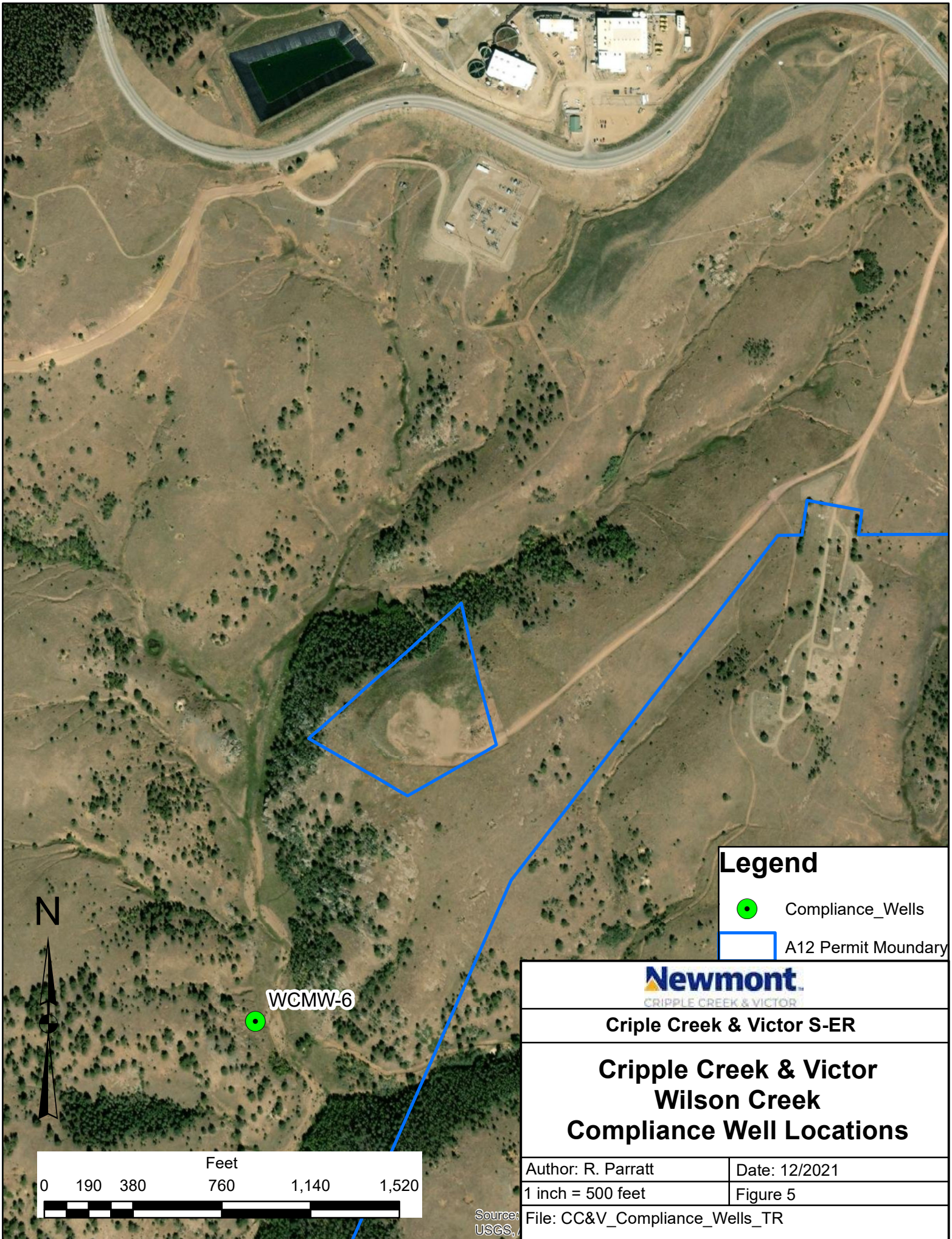


Legend


-  Compliance_Wells
-  A12 Permit Boundary


 CRIPPLE CREEK & VICTOR	
Cripple Creek & Victor S-ER	
Cripple Creek & Victor Vindicator Valley Compliance Well Locations	
Author: R. Parratt	Date: 12/2021
1 inch = 500 feet	Figure 4
File: CC&V_Compliance_Wells_TR	


Source:
USGS



Legend

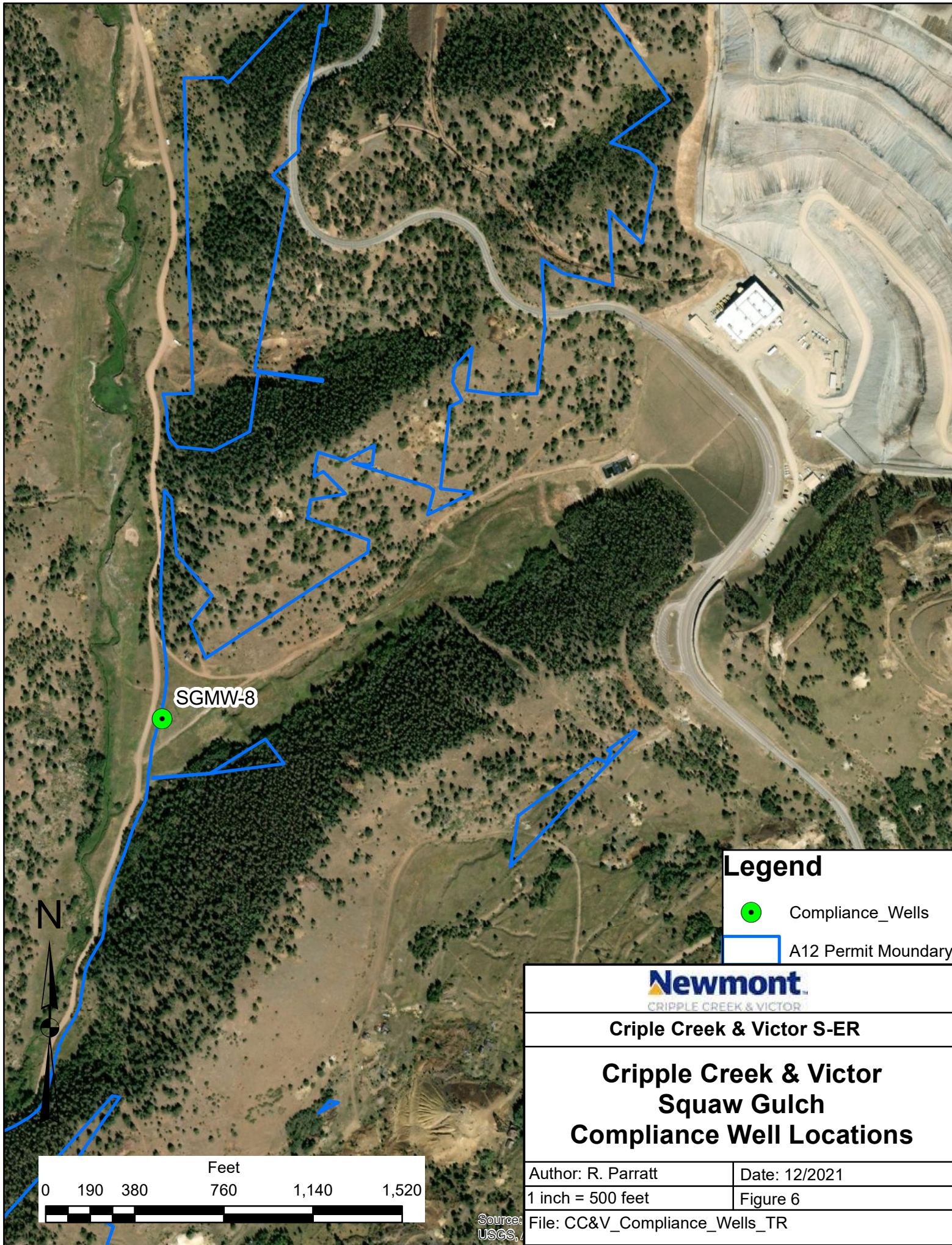
 Compliance_Wells

 A12 Permit Boundary

 CRIPPLE CREEK & VICTOR	
Cripple Creek & Victor S-ER	
Cripple Creek & Victor Wilson Creek Compliance Well Locations	
Author: R. Parratt	Date: 12/2021
1 inch = 500 feet	Figure 5
File: CC&V_Compliance_Wells_TR	





Source:
USGS,





PGMW-5

Legend

-  Compliance_Wells
-  A12 Permit Boundary



Cripple Creek & Victor S-ER

**Cripple Creek & Victor
Poverty Gulch
Compliance Well Locations**

Author: R. Parratt	Date: 12/2021
1 inch = 500 feet	Figure 7
File: CC&V_Compliance_Wells_TR	

Source:
USGS,