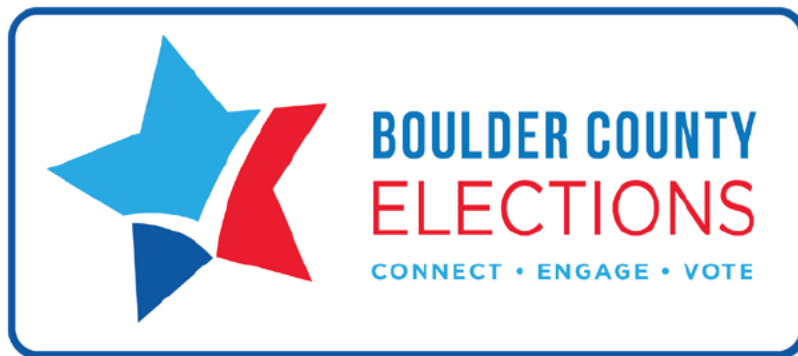


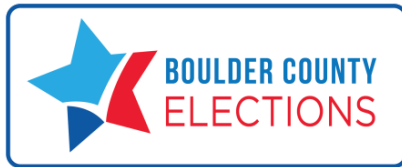


Logic and Accuracy Test Information Packet 2018 General Election



**Boulder County Clerk & Recorder
Elections Division**

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Boulder County Elections

Boulder County Clerk and Recorder

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AGENDA

LOGIC AND ACCURACY TEST (LAT)

October 9 - October 12, 2018

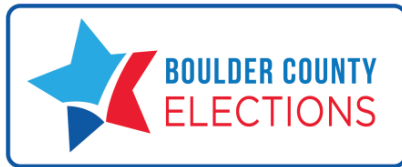
Planned Schedule:

- | | |
|-------------------------|--------------------------------------|
| • Tuesday, October 9 | 9:30am – 4:30pm (LAT Kick-Off) |
| • Wednesday, October 10 | 9:30am – 4:30pm |
| • Thursday, October 11 | 9:30am – 4:30pm (Contingency Day) |
| • Friday, October 12 | 1:00pm – 3:00pm (LAT Board Sign-Off) |
-

1. Storage of personal items (east wing lockers or designated area)
 - The following items are prohibited in the testing area:
Personal belongings, cell phones, cameras, recording devices, memory devices, laptops, food or beverages
2. Welcome
 - Sign-In
 - Obtain Information Packet
 - Introduction and Overview
 - Testing Board equipment selection review
3. Information packet contents
 - Agenda
 - Guidelines for Observers (Page 3)
 - Requirements of the LAT (Page 4)
 - Test Board Procedures (Page 6)
 - Sample Manual Verification Worksheet (Page 15)
 - Statute and Rule references (Page 16)
4. Testing Board verifies public counter set to zero on applicable devices
5. Ballot marking and tally
 - One (1) packet of 25 ballots provided to each test board member
 - One (1) packet of 10 ballots provided to each participating jurisdiction
 - Test ballots voted
 - Manual Verification Worksheet used to create a team tally (2 person process)

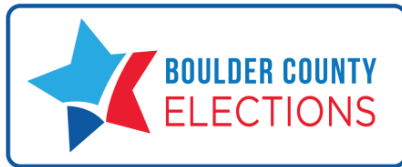


6. Image Cast X (ICX) and Image Cast Voter Activation (ICVA) Test (Ballot Marking Device)
 - Testing Board validates contest titles and content
 - Mark and print all Testing Board ballots using the ICX including at least one ballot using audio ballot playback and accessible input devices
 - Device qualification form initialed for selected ICX and ICVA, Audio and printers
 - Participating jurisdictions validate contest titles and content
 - Jurisdictions will vote one ballot in on-screen mode to verify their content and vote one ballot using Accessible mode to verify audio. These ICX ballots will be printed, initialed and kept as a test verification record, but not scanned.
7. Scanner Test (Mail and In-Person ballot counting device)
 - Take manually marked and ICX marked ballots to scanner
 - Inspect for damage or improper markings
 - Improperly marked ballots must be corrected by team prior to scan
 - Process ballots on scanner in separate batches
 - Adjudicate ballots as needed
 - Adjudication is not required on ICX ballots unless there are write-ins
 - Tabulate and verify results against team tally
 - Initial qualification form for selected scanner
8. Prepare Testing Results (optional attendance)
 - Tabulate scanned batches to create cumulative results for the LAT
 - Create cumulative result comparisons
 - Collect, organize and complete test documentation
9. Resetting and sealing of equipment
 - Reset and seal ICX and ICVA equipment
 - Reset Scan Stations
 - Reset Results Tally and Reporting (RTR)
10. Completion of testing
 - Review test information and results
 - Initial qualification form for RTR station
 - Complete Statement of Qualification
11. Secure storage of all LAT material and ballots



GUIDELINES FOR OBSERVERS AT THE LOGIC AND ACCURACY TEST

- The following items are prohibited in the testing area:
Personal belongings, cell phones, cameras, recording devices, memory devices, laptops, food and beverages
- The LAT test shall be open to representatives of the political parties, the press, and the public to the extent allowable and pursuant to section (CRS 1-7-509(2)(b)). The designated election official may limit the number of representatives from each group because of space limitations. (Rule 11.3.2(b)).
- Each major political party, minor political party, ballot issue committee that has an issue on the ballot, and coordinating entity may designate one person, who shall be allowed to witness all public tests and the counting of pretest votes. (CRS 1-7-509(2)(b))
- If an observer or designee hinders or disturbs the test process, the designated election official may remove the person from the test area. An observer or designee who has been removed from a public test may be barred from future tests. (CRS 1-7-509(2)(b))
- The absence of observers or designees shall not delay or stop the public test. (CRS 1-7-509(2)(b))
- The election official will provide name tags and a sign-in sheet (everyone participating in or observing the test must wear a name tag and must sign-in). A copy of the LAT Information Packet and the Secretary of State LAT Rules will be available for watchers and observers.
- The Logic & Accuracy Testing will take substantially all of the Elections staff time and resources today. Therefore, any questions should be directed to Justine Vigil-Tapia, Elections Coordinator or her designee. At the conclusion of testing a representative of the Clerk's testing staff will be available for questions.



Requirements of the LAT

Preparation:

- ✓ The county has prepared a test deck that includes every ballot style and precinct in the election
- ✓ The county test deck includes a mark for every voting position for every contest candidate, situations where a voter may choose two or more options, and overvotes and undervotes for each contest (there are three write-in candidates for the General Election)
- ✓ Testing board is comprised of one registered elector from each major political party
- ✓ Test board members are registered in Boulder County
- ✓ 25 test ballots have been provided to each test board member
- ✓ All ballots are marked "TEST"
- ✓ Test ballots are marked using the instructions printed on the ballot
- ✓ Testing Board has retained a record of the tally (Manual Verification Worksheet)
- ✓ Each type of voting device and each type of ballot is represented in testing
- ✓ Appropriate number of devices were made available for the test
- ✓ Test board members have randomly selected the machines to test

ICX and ICVA Test (Ballot Marking Device)*:

Test Board members completed the following:

- ✓ Verified that the ICX public counter was set to zero and that the View Session Report on the ICVA had no cards activated
- ✓ Used at least one ICX to mark and print 25 ballots in the same manner he/she manually marked the test ballots (aside from overvotes)
- ✓ Marked at least one ballot using audio ballot playback and accessible input devices

Scanner Test (Mail and In-Person Paper Ballot counting device)*:

Test Board members completed the following:

- ✓ Verified the zero report generated from the scanner
- ✓ Observed the separate counting of county and member's test ballots on at least one scanner

Tabulation:

Test Board members completed the following:

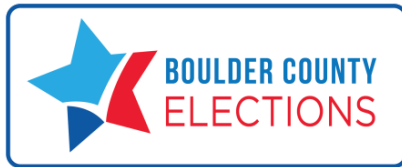
- ✓ Verified the zero report generated from RTR before tabulating
- ✓ Observed the separate tabulation of all manually marked and ICX marked test ballots
- ✓ Obtained results report and verified that the machine results exactly matched his/her predetermined tally.

Comparison:

Test Board members completed the following:

- ✓ Verified that the results report generated exactly corresponded to the Testing Board member's predetermined tally of the votes.

**Scanner and ICX testing may be done in parallel, when applicable.*



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Storage of test material:

- ✓ All test materials were secured in a sealed metal cage when not in use
- ✓ Each Test Board member verified the seals and initialed the chain-of-custody log
- ✓ If records were opened for inspection, at least two election officials verified the newly attached seals and initialed the chain-of-custody log

Cumulative Results of LAT:

- ✓ All ICX, In-Person, and Mail Ballot results were tabulated together to create cumulative results
- ✓ Tabulation results have been saved for ENR (Election Night Reporting) testing

Resetting and sealing of equipment at the end of the test:

- ✓ Testing Board watched the county reset and seal each voting device
- ✓ Testing Board and Clerk verified the documented seal number attached to each voting device

Statement of Qualification:

Testing Board and Clerk signed a written statement attesting to:

- ✓ The qualification of each device successfully tested
- ✓ The serial number of the seal attached to the voting device at the end of the test
- ✓ Any problems discovered, and
- ✓ Any other documentation necessary to provide a full and accurate account of the condition of a given device



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Logic and Accuracy Test (LAT) Test Board Procedures

Common acronyms:

- **CVR:** Cast Vote Record
- **ICC:** Image Cast Central (Scan Station also referred to as Tabulator)
- **ICVA:** Image Cast Voter Activation laptop
- **ICX:** Image Cast X Ballot Marking Device (BMD)
- **MVW:** Manual Verification Worksheet (To create your record of tally)
- **RTR:** Results Tally and Reporting (Tabulates results and generates voting reports)

Purpose of LAT (CRS 1-7-509 and Rule 11):

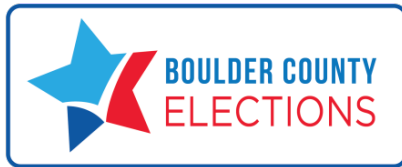
The purpose of the LAT is to test the compatibility of the election ballots through the scanning and tabulation equipment to confirm that every voting position on the ballot is accurately counted where a properly marked selection is made. It also includes testing the ballot marking devices (ICX).

Testing Board member responsibilities:

- You will be participating in all parts of the LAT, ensuring all requirements are met.
- You will attest to this at the end of the process and document the successful completion of testing.
- No process shall be delayed due to the absence of a test board member.

Participating Jurisdiction (Participant) responsibilities:

- You will be participating in the LAT, and attesting to the qualification of the scanners and tally.
- You will be verifying the ICX screen and audio content, and attesting to the accuracy of the printed ballot



Ballot Marking:

The county has provided a packet of test ballots to each test board member and participating jurisdiction. Test Board member packets include 25 unique precinct district style ballots. Participating Jurisdiction packets include 10 ballots, applicable to their jurisdiction. This is in addition to the ballots prepared to fulfill the county test deck requirements.

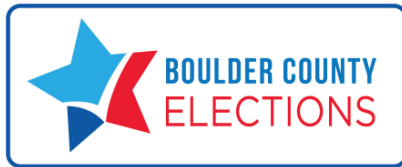
1. Confirm the number of ballots, verify they are all labeled “TEST” and are numbered at the top, 1 through 25 for the Testing Board, and 1 through 10 for participating jurisdictions.
2. When two representatives are sent to participate in the LAT, separate the ballots in half so both participants can mark ballots.
3. Mark your ballots following the instructions printed on the ballots.
 - Use black or blue ink pen and fill in the oval completely; no X or V.
 - Voting for more than the maximum number of allowed choices is considered an Overvote and will not be counted.
 - Voting for less than the maximum number of allowed choices is considered an Undervote.

4. How to correct a mistake:

NOTE: Ballots that are damaged or improperly marked will be reviewed and/or rejected in the scanner portion of testing. Catching and correcting a mistake immediately prevents delays in testing later.

(Vote for one)	
CHOICE A	<input type="radio"/> (Fill in the oval to the right of your choice)
CHOICE B	<input checked="" type="radio"/> (Draw a line through the choice you did not mean to choose)

- If a mistake (wrong choice, stray mark, hesitant mark) is made in a contest that you did not intend to vote, make a written note in the contest area to clarify your voting intent and/or request a replacement ballot from staff.
5. Write-In votes:
 - Certified write-in candidate names are included on the MVW (page 15).
 - Uncertified candidates are counted as an undervote if no other choice is marked.
 - A write-in vote will be counted if you:
 - ✓ Completely fill in the oval provided to the right of the words “Write-in”
 - ✓ Write at least the last name of the certified candidate.
 - ✓ Do not vote for more than the maximum number of allowed choices.
 6. Overvotes on ICX:
 - Hand marked ballots are used for the ICX portion of voting, which does not allow for overvotes. Overvoted contests on the hand marked ballot will be left blank on the ICX and show as “blank contest” on the printed ICX ballot.
 7. When finished marking your paper ballots, verify the ballots are in sequential order (1-25 or 1-10 in upper right corner)
 8. Notify staff that you are ready to create your tally.



Creating the tally:

The county will pair up each member with another individual, provide you with a Manual Verification Worksheet (MVW), and assign you a team number.

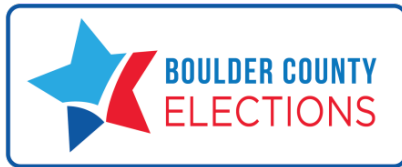
Test Board members are then provided a set of MVWs.

- Sheet 1 will include columns to capture votes for ballots 1 through 12, totals for Sheet 1, totals for Sheet 2, and the Grand Total (tally) for each contest option.
- Sheet 2 will include columns to capture votes for ballots 13 through 25, and totals for Sheet 2.

Participating Jurisdictions are provided one MVW set that includes columns to capture votes for ten ballots, and the Grand Total (tally) for each contest option.

For each Sheet of ballots, use the following procedure to create a tally for your test ballots:

1. Print both participant names on the first page of your MVW and initial subsequent pages.
 - This document will be available to the public so please do not add your signature.
2. Collect and organize the ballots in sequential order, confirm you have the appropriate number of ballots.
3. Starting with ballot #1, Person A reads aloud the ballot number recorded in the top right corner while Person B verifies this on the MVW.
4. Person A reads aloud each contest name and contest selection made, indicating any voting marks that are outside the prescribed voting instructions.
5. Person B will record the selections read aloud by Person A on the manual verification worksheet by making a slash mark for the appropriate contest option read, and will make notation of any abnormal markings as indicated.
 - If a contest has not been voted, a slash mark must be recorded in the “Undervote” row for that contest.
 - For contests that allow more than one selection, you can have more than one undervote.
 - ✓ You can vote for 3, but only mark one selection; you then need to record 2 undervotes for that ballot contest.
 - For contests not included on the current ballot, a slash mark must be recorded in the “Not on ballot” row for that contest.
6. When all ballots have been recorded, team members trade roles to verify the accuracy of the MVW, noting and resolving any discrepancies found.
7. For each MVW set, the team then adds up the selections for each contest option and records this number in the applicable Total field.
 - It is extremely important to validate each other’s calculations.
8. Testing Board Sheet 2 Totals are then transferred to the first Sheet in the column labeled “Sheet 2 Total”, and the team adds the totals from Sheet 1 and Sheet 2 to create the Grand Total (team tally). Calculators are provided.
9. After verification has been completed, teams will give their MVW to an election support staff member.
10. A copy of the MVW is made by support staff, initialed by team members, and then entered into the electronic cumulative manual verification spreadsheet.
 - By initialing the first page of the MVW, teams are confirming they have verified it to be accurate and that all resolution issues have been identified and recorded.



ICX and ICVA Test (Ballot Marking Device):

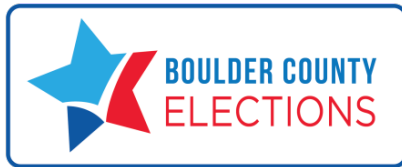
The ICX is a Ballot Marking Device (BMD) that visually displays or audibly presents ballots and allows voters to print a paper ballot. An ICX BMD also provides voting accessibility to voters who may be otherwise unable to mark a paper ballot privately and independently. It includes an audio ballot playback feature with headphones, and can accept adaptive devices for voters with mobility impairments.

You cannot OVERVOTE on an ICX BMD. For ballots containing an OVERVOTE, the team should confirm that no OVERVOTE is possible, and then change the contest to a BLANK CONTEST for reconciliation purposes.

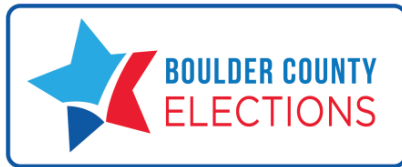
1. Before the start of ICX testing, a “zero” count is witnessed by the Testing Board for verification that the device has been reset and the public counter is at zero. The Testing Board will also confirm there are no voter activation cards reported in the View Session Report on the ICVA.
2. Ballots are organized in numeric order, matching the MVW. This helps members quickly resolve any discrepancies in reconciliation, if necessary.
3. Test ballots are then brought to the selected ICX where participants will:
 - Record the ICX number in the upper right-hand corner of the team MVW
 - Mark and validate the ICX audio and screen content for at least one manually marked test ballot pertaining to their district.
 - Confirm that contests and selections on the ICX Review screen match the paper ballot prior to printing (overvotes reflecting as a blank/unvoted contest).
 - Verify that contests and selections printed from the ICX match the paper ballot (overvotes reflecting as a blank contest).

Additionally, Testing Board members and party participants will:

- Mark and print 25 ballots in the same manner he/she manually marked the test ballots.
- Mark at least one ballot using the audio ballot playback and accessible input device.
- Confirm the accuracy of audio, screen, and printed content for each applicable district style in his/her test packet.



4. Marking while verifying audio and screen content:
 - Person A
 - ✓ Compares audio against the manually marked test ballot to confirm accuracy of titles, choices, and text
 - ✓ Makes the selection on ICX that matches the manually marked ballot selection once audio is verified
 - Person B
 - ✓ Compares audio against the ICX screen to confirm accuracy of titles, choices, and text
 - ✓ Verifies that the ICX selection made matches the manually marked ballot selection
5. Marking a ballot using the audio ballot playback and accessible input device:
 - Person A
 - ✓ Listens to audio instruction and uses accessible input device (paddles) to make ballot selections
 - Person B
 - ✓ Verifies that the ICX selection made matches the manually marked ballot selection
6. Before printing the ballot, the team verifies that the titles and choices displayed on the ICX Review Screen match the manually marked ballot selections and MVW.
7. Once printed, the team verifies the titles and selections of the ICX printed ballot and then initials the manually marked ballot, attesting that the ICX ballot matches the manually marked test ballot and MVW.
8. Team then, in the upper right hand corner of the ICX ballot, writes in the ballot number that coincides with the manually marked ballot used for testing (1, 2, 3).
9. When all test ballots have been marked and printed on the ICX, the team initials the qualification form confirming that the screen, audio, and printed content is accurate, and that the selected ballot marking device functioned properly during testing.



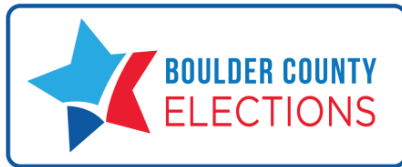
Scanner Test (Mail and In-Person paper ballot counting device):

An ICC scan station is designed to capture an image of a voter's paper ballot, process the image of that ballot and capture the voter's choices. These are referred to as Cast Vote Records (CVRs).

This test ensures properly marked choices are being accurately captured and recorded; we want to make sure that a choice for Candidate A is being recorded as a vote for Candidate A, and not Candidate B and that there is compatibility between the ballots (proper printing and alignment), and the equipment.

An adjudication station provides for the resolution of voter intent as prescribed by the Colorado Secretary of State. Ballots that have been over voted will be flagged and adjudicated per state guidelines.

1. Before the start of any scanner testing, the Testing Board will verify the zero report at each ICC, confirm that the Total Ballots Accepted on the scan screen is set to zero, and verify that there are no batches listed in the Batch Reporting section of the ICC Status screen. They will also verify the zero report and zero count on the RTR tabulation system at this time.
2. The ballots are reviewed by staff to look for damaged and improperly marked ballots that would require manual review or duplication during the election cycle.
 - Damaged ballot: A ballot that is torn, bent, or otherwise mutilated or rendered unreadable, so that it cannot be processed by the ballot scanner. (Rule 1.1.14)
Damaged ballots include:
 - ✓ All ballots that contain a foreign substance that could interfere with the ballot scanner (e.g. food, drink, etc.)
 - ✓ Ballots that are marked in a medium or manner that cannot be detected by a ballot scanner
 - Improper markings include: X's or V's as well as obvious stray marks, hesitant marks, incomplete marks or parts of written notes that are within the target area of a contest option where no other choice has been made.
3. Team ballots (manually marked and ICX marked) are brought to a selected ICC scan station where team records the ICC station ID in the upper right-hand corner of the team MVW and checks that the Batch Size on the scan screen is zero.
4. Team ballots are then processed on the scanner and votes captured.
 - Each set of test ballots are scanned in and saved, to capture and process ballot images
 - Scan count is validated by the team
 - Applicable ballots are adjudicated if needed following state rule and guidelines



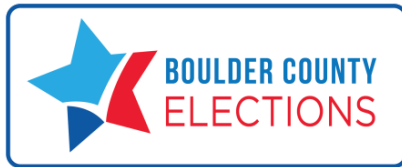
Scanner results tabulated and verified:

The RTR application in the Tally Room tabulates vote records to produce combined election results. This process confirms that votes are accurately tabulated and aggregated by the scanner and tabulation system.

1. Before starting the scanner test, the RTR Election Summary Report showing “0” votes cast is presented to the Testing Board for verification that the system has been set to zero. They also verify that no batch results have been received in RTR.
 - Both team members print their name and date the report, documenting that it has been verified.
2. After tabulation, an Election Summary Report by Tabulator (ICC) will be generated for the isolated tabulation of the team’s test ballots.
 - Separate Election Summary Report is generated for manually marked and ICX marked ballots.
3. The team compares the results report to their team tally (MVW) validating that the results produced by the scanner exactly correspond to the team’s predetermined tally of the manually marked and ICX marked test ballots.
4. When the team concludes the counts to be accurate, both team members print their name and date the results report, attesting to the accuracy of the count and machine.
5. Team members then initial the qualification form for the ICC, attesting to the successful completion of testing for the scanner device.

Discrepancy resolution (in order of escalation):

1. Review for entry and recording errors
 - Review MVW for too few or too many votes captured
 - Review ballots with MVW for incorrect recording and recount if needed
 - Review Adjudication and Audit Marks for resolution differences (if applicable)
 - Review comparison and recount if needed
2. If error is identified as a hardware or software error on single device
 - Validate other tested equipment was not impacted
 - Mark device unsatisfactory, replace and test alternative/new device
3. If error is identified on more than one device and devices are failing in similar fashion
 - Test multiple devices that could reasonably have same error
 - Mark devices unsatisfactory, replace and test alternative/new devices
 - If enough resources are not available for replacement, error shall be corrected and retesting will be completed
4. If error is identified as a software or ballot programming error
 - Alert LAT DEO for correction
 - Correct software or ballot programming error and restart testing from beginning



County Test Deck on Scanners:

The county is required to prepare a test deck of ballots that includes every ballot style and, where applicable, precinct. The county test deck must include a sufficient number of ballots to:

- Mark every vote position for every contest
- Allow for situations where a contest permits an elector to vote for two or more positions
- Include overvotes and undervotes for each contest

In addition to the packets provided to the Testing Board, the county has prepared a deck and tally (MVW) that meets the above requirement.

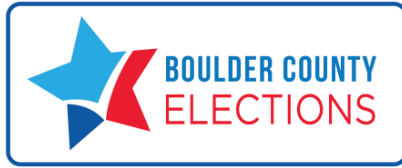
As is required for the Test Board member ballots, the county ballots are counted on one or more scanners, and then tabulated for comparison against the county tally (MVW). The Test Board will oversee this process, and verify the results for accuracy and completeness.

1. The County Test Deck is scanned into one or more ICC scanners, after participant testing is complete.
2. After tabulation, an Election Summary Report by Tabulator (ICC) is generated for the isolated tabulation of the County Test Deck.
3. Results are verified against the predetermined County Test Deck tally.

Prepare Results (optional attendance):

When all individual results have been verified, the county will generate a Cumulative Election Summary Report that includes all tested ballots. The reports will be reviewed with the Testing Board at the end of the LAT.

1. All team MVW and machine count data is entered into the Cumulative Results Comparison spreadsheet.
2. Cumulative Election Summary Report is generated and total ballot count verified.
3. Statement of Vote Report is generated and inspected to ensure all precincts are included in testing.
4. Cumulative result information is entered and validated in the Cumulative Results Comparison spreadsheet.
5. Testing documentation is collected and organized.
6. Statement of Qualification document is drafted.



Resetting and sealing of equipment:

After testing, the Testing Board must watch the county reset and seal each voting device, as applicable. As part of the Statement of Qualification, the Testing Board and Clerk must attest to the seal number attached to the voting device at the end of testing.

1. Testing Board witnesses the resetting of scan stations and Results Tally and Reporting, verifying that the Total Ballots Accepted on the ICCs is "0" and that the Election Summary Report is regenerated and shows "0" votes cast.
2. Testing Board witnesses the resetting and sealing of the ICX and ICVA equipment, verifying the seals number attached to each device.

Completion of Testing:

After the devices are reset and sealed, the results of all testing is reviewed with the Clerk and Testing Board, along with testing documentation. The Testing Board and the county clerk must sign a written statement attesting to the qualification of each device successfully tested, the number of the seal attached to the voting device at the end of the test, any problems discovered, and any other documentation necessary to provide a full and accurate account of the condition of a given device.

1. Test information and results are reviewed with the Clerk and Testing Board
2. Cumulative results are verified by the Testing Board
3. Testing Board initials the qualification form for the RTR station
4. Testing Board and Clerk completes the Statement of Qualification

Secure storage of all LAT materials and ballots:

The county must keep all test materials, when not in use, in a durable, secure box. Each member of the Testing Board must verify the seals and initial the chain-of-custody log maintained by the county clerk. If the records are opened for inspection, at least two election officials must verify the seals and initial the chain-of-custody log.

2018 General Election Logic and Accuracy Test:
Manual Verification Worksheet

Team #: 1
Member Names (Print-Initial) : Micky Mouse
Donald Duck

MM
DD

ICC: A

ICX: 1

Jurisdiction Name

Contests	Ballot 1	Ballot 2	Ballot 3	Ballot 4	Ballot 5	Ballot 6	Ballot 7	Ballot 8	Ballot 9	Ballot 10	Ballot 11	Ballot 12	Sheet 1	Sheet 2	Grand Total (tally)
Representative 116th Congress - District 2															
Undervote	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
Overvote	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2
Joe Neguse	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
Peter Yu	1	1	1	1	1	1	1	1	1	1	1	1	3	2	5
Roger Barris	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
Nick Thomas	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3
Kevin Alumbaugh (Write-in)	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
Not On Ballot	1	1	1	1	1	1	1	1	1	1	1	1	0	2	2
Representative 116th Congress - District 4															
Undervote	1	1	1	1	1	1	1	1	1	1	1	1	0	2	2
Overvote	1	1	1	1	1	1	1	1	1	1	1	1	1	2	3
Karen McCormick	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
Ken Buck	1	1	1	1	1	1	1	1	1	1	1	1	3	3	6
Richard Lyons Weil (Write-in)	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
John B. Vigil (Write-in)	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3
Not On Ballot	1	1	1	1	1	1	1	1	1	1	1	1	1	0	1
Superior - Trustee (Vote for 3)															
Undervote	2	1	1				2		1	2	2	2	13	0	13
Overvote	1	1	1	1	1	1	1	1	1	1	1	1	2	0	2
Ken Lish	1	1	1	1	1	1	1	1	1	1	1	1	5	1	6
Dalton Valette	1	1	1	1	1	1	1	1	1	1	1	1	2	3	5
Theresa A. Clark	1	1	1	1	1	1	1	1	1	1	1	1	3	2	5
Neal S. Shah	1	1	1	1	1	1	1	1	1	1	1	1	2	2	4
Anthony L. Stewart	1	1	1	1	1	1	1	1	1	1	1	1	3	2	5
Laura Skladzinski	1	1	1	1	1	1	1	1	1	1	1	1	2	1	3
Not On Ballot	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0

COLORADO REVISED STATUTES – TITLE 1

1-7-509. Electronic and electromechanical vote counting - testing of equipment required - definition.

(1) (a) An electronic or electromechanical voting system shall be tested at the conclusion of maintenance and testing. The tests shall be sufficient to determine that the voting system is properly programmed, the election is correctly defined on the voting system, and all of the voting system's input, output, and communication devices are working properly.

(b) The designated election official shall conduct at least three tests on all electronic and electromagnetic voting equipment, including a hardware test, a public logic and accuracy test conducted in accordance with subsection (2) of this section, and a postelection test or audit conducted in accordance with rules promulgated by the secretary of state. Each type of ballot, including mail, provisional, and audio ballots, shall be tested in accordance with rules promulgated by the secretary of state. The tests must ensure that the equipment will correctly count the votes cast for all offices and on all ballot questions and ballot issues and that the voting system will accurately count ballots of all types.

(c) (I) For all partisan elections, the designated election official shall select a testing board comprising at least two persons, one from each major political party, from the list provided by the major political parties pursuant to section 1-6-102.

(II) For all nonpartisan elections, the designated election official or coordinated election official, as applicable, shall select a testing board comprising at least two persons who are registered electors.

(III) Repealed.

(2) (a) A public test of voting equipment shall be conducted prior to the commencement of voting in accordance with this section by processing a preaudited group of ballots produced so as to record a predetermined number of valid votes for each candidate and on each ballot question or ballot issue. The test shall ensure that the system accurately records votes when the elector has the option of voting for more than one candidate in a race. The test shall ensure that the voting system properly rejects and does not count overvotes and undervotes.

(b) The public test shall be open to representatives of the political parties, the press, and the public, subject to the rules promulgated by the secretary of state pursuant to subsection (6) of this section. Each major political party, minor political party, ballot issue committee that has an issue on the ballot, and coordinating entity may designate one person, who shall be allowed to witness all public tests and the counting of pretest votes. If an observer or designee hinders or disturbs the test process, the designated election official may remove the person from the test area. An observer or designee who has been removed from a public test may be barred from future tests. The absence of observers or designees shall not delay or stop the public test.

(c) The testing board shall convene and designate at least one member to represent the board during the testing, sign the necessary reports, and report to the board. The programs and ballots used for testing shall be attested to and sealed by the board and retained in the custody of the designated election official. The absence of a member of the testing board shall not delay or stop the test.

(d) (d) Upon completion of the testing conducted pursuant to this section, the testing board or its representative and the representatives of the political parties, ballot issue committees, and coordinating entities who attended the test may witness the resetting of each device that passed the test to a preelection state of readiness and the sealing of each such device in order to secure its state of readiness.

(e) The testing board or its representative shall sign a written statement indicating the devices tested, the results of the testing, the protective counter numbers of each device, if applicable, the number of the seal attached to each device upon completion of the testing, any problems reported to the designated election official as a result of the testing, and whether each device tested is satisfactory or unsatisfactory.

(3) Notice of the fact that the public test will take place shall be posted in the designated public place for posting notices in the county for at least seven days before the public test. The notice shall indicate the general time frame during which the test may take place and the manner in which members of the public may obtain specific information about the time and place of the test. Nothing in this subsection (3) shall preclude the use of additional methods of providing information about the public test to members of the public.

(4) (a) If any tested device is found to have an error in tabulation, it shall be deemed unsatisfactory. For each device deemed unsatisfactory, the testing board shall attempt to determine the cause of the error, attempt to identify and test other devices that could reasonably be expected to have the same error, and test a number of additional devices sufficient to determine that all other devices are satisfactory. The cause of any error detected shall be corrected, and an errorless count shall be made before the voting equipment is approved. The test shall be repeated and errorless results achieved before official ballots are counted.

(b) If an error is detected in the operation or output of an electronic voting device, including an error in spelling or in the order of candidates on a ballot, the problem shall be reported to the testing board and the designated election official. The designated election official shall correct the error.

(c) A voting device deemed unsatisfactory shall be recoded, repaired, or replaced and shall be made available for retesting unless a sufficient number of tested backup devices is available to replace the unsatisfactory device. The backup device may not be used in the election unless the testing board or its representative determines that the device is satisfactory. The designated election official shall announce at the conclusion of the first testing the date, place, and time that an unsatisfactory device will be retested, or, at the option of the testing board, the designated election official shall notify by telephone each person who was present at the first testing of the date, place, and time of the retesting.

(5) The designated election official shall keep records of all previous testing of electronic and electromechanical tabulation devices used in any election. Such records shall be available for inspection and reference during public testing by any person in attendance. The need of the testing board for access to such records during the testing shall take precedence over the need of other attendees for access so that the work of the testing board will not be hindered. Records of testing shall include, for each device, the name of the person who tested the device and the date, place, time, and results of each test. Records of testing shall be retained as part of the official records of the election in which the device is used.

(6) The secretary of state shall promulgate rules in accordance with article 4 of title 24, C.R.S., prescribing the manner of performing the logic and accuracy testing required by this section.

11.3.2 Logic and Accuracy Test

- (a) The county clerk must conduct the public Logic and Accuracy Test no later than the 18th day before election day.
- (b) The county must ensure that the Logic and Accuracy Test is open to the extent allowable in accordance with section 1-7-509(2)(b), C.R.S. The county clerk may limit the number of representatives from each group because of space limitations.
- (c) Preparing for the Logic and Accuracy Test
 - (1) The county must prepare a test deck of ballots that includes every ballot style and, where applicable, precinct. The county test deck must include a sufficient number of ballots to mark every vote position for every contest including write-in candidates, allow for situations where a contest permits an elector to vote for two or more positions, and include overvotes and undervotes for each contest. The county test deck must include at least one write-in vote for each qualified write-in candidate so that all qualified write-in candidate names will appear in the LAT result uploaded to ENR as required by Rule 11.9.3.
 - (2) The county must convene a Testing Board of one registered elector from each of the major political parties. Testing Board members must be registered to vote in the county and be sworn in as election judges.
 - (3) The county must provide at least 25 ballots that are clearly marked as test ballots to each Testing Board member.
 - (4) Testing Board members must mark their test ballots following the instructions printed on the ballots and retain a record of the tally.
 - (5) The Testing Board must test the ballots on each type of voting device used in the election and each type of ballot including audio ballots.
- (d) Conducting the Test
 - (1) The county and Testing Board must observe the tabulation of all test ballots, compare the tabulation with the previously retained records of the test vote count, and correct any discrepancies before the device is used in the election.

- (2) The county must reset the public counter to zero on all devices and present zero tapes or summary report to the Testing Board for verification.
- (3) The county must make an appropriate number of voting devices available and the Testing Board may witness the programming of devices necessary for the test.
- (4) The Testing Board and designated election official must count the test ballots as follows, as applicable:
 - (A) Ballot Scanners:
 - (i) The Testing Board must test at least one central count ballot scanner and at least one ballot scanner used at a voter service and polling center, if applicable.
 - (ii) The Testing Board must randomly select the machines to test.
 - (iii) The Testing Board must count the board and county's test ballot batches separately and generate reports to verify that the machine count is identical to the predetermined tally.
 - (B) DREs:
 - (i) The Testing Board must test at least one DRE.
 - (ii) The Testing Board must randomly select the machines to test.
 - (iii) Each member of the Testing Board must separately cast his or her test ballots on the selected DREs. Each Testing Board member must cast at least one of his or her test ballots using the audio ballot playback and accessible input devices.
 - (iv) Each Testing Board member must examine the tabulation tape or report and verify that the DRE results match what the Testing Board member manually marked on his or her test ballots.
 - (C) Ballot Marking Devices (BMDs):
 - (i) The Testing Board must randomly select and test at least one BMD.
 - (ii) At least two members of the Testing Board must use the selected BMD to mark and print at least 25 ballots in the same manner that the testing board member manually marked his or her test ballots. At least two members of the Testing Board must mark at least one of his or her test ballots using the audio ballot playback and accessible input devices.

- (iii) A Testing Board member or county election official must separately scan and tabulate the test ballots marked with and printed from the BMD on one central count or polling location scanner, and generate a results report.
 - (iv) Each Testing Board member must verify that the results report generated from the scanner exactly corresponds to the testing board member's tally of the votes on the manually marked paper ballots comprising his or her test ballots.
- (e) Completing the test
 - (1) The county must keep all test materials, when not in use, in a durable, secure box. Each member of the Testing Board must verify the seals and initial the chain-of-custody log maintained by the county clerk. If the records are opened for inspection, at least two election officials must verify the seals and initial the chain-of-custody log.
 - (2) The county must upload the results from all tested scanners and DREs to the tabulation software, export, and save the tabulation results for the ENR test required under Rule 11.9.3.
 - (3) After testing, the Testing Board must watch the county reset and seal each voting device, if applicable.
 - (4) The Testing Board and the county clerk must sign a written statement attesting to the qualification of each device successfully tested, the number of the seal attached to the voting device at the end of the test, if applicable, any problems discovered, and any other documentation necessary to provide a full and accurate account of the condition of a given device.
 - (5) The county may not change the programming of any voting device after completing the logic and accuracy test for an election, except as required to conduct a recount or as authorized by the Secretary of State.

Rule 18. Uniform Counting Standards for Paper Ballots

- 18.1 In any election where a multiple page printed ballot is used, a voter must vote and return all pages of the ballot at the same time. Any voter who returns at least one page of a multiple page printed ballot will be considered to have voted and the county clerk or designated election official must count the votes on the submitted pages. The county clerk must not count votes on additional pages returned at a later time. The county clerk must appropriately mark, set aside, and preserve the ballots as election records in accordance with section 1-7-802, C.R.S.
- 18.2 Standards for hand counting paper ballots
- 18.2.1 In accordance with section 1-7-309, C.R.S., and Rule 18.5, judges counting ballots must consider the intent of the voter.
- 18.2.2 If a race or ballot measure is overvoted, the judges must not count any vote for that race or ballot measure.
- 18.2.3 If a race or ballot measure contains no markings by the voter, no tally will be made for that race or ballot measure. But all other candidate races or ballot measures properly marked by the voter on the ballot must be counted.
- 18.2.4 A ballot which has no markings for any candidate races or ballot measures must be tallied as a blank ballot.
- 18.3 Standards for counting paper ballots on ballot scanners
- 18.3.1 Procedures for counting paper ballots on ballot scanners at polling locations
- (a) To the extent permitted by its voting system, the county must program ballot scanners to sort ballots with write-in votes to a segregated bin of the ballot box or digital media and to initially reject blank ballots and ballots with overvotes.
 - (b) Voters whose ballots are initially rejected by a ballot scanner as a blank or overvoted ballot must be given the opportunity to review and correct their ballot. If after review, a voter requests to submit the blank or overvoted ballot as originally marked, an election judge must assist the voter by overriding the initial rejection setting on the ballot scanner.
 - (c) At the conclusion of voting, ballots with write-in votes must be delivered to the central count location in a secure container for resolution in accordance with Rule 18.5.3.
- 18.3.2 Procedures for counting paper ballots on ballot scanners at central count locations
- (a) Before tabulation, a resolution board must duplicate damaged ballots, and may duplicate ballots with marks that may identify the voter, in accordance with Rule 18.4. Election judges may visually inspect every ballot for the limited purpose of segregating damaged ballots and ballots with marks that may identify the voter.
 - (b) A county must sort ballots requiring resolution according to the capabilities of its voting system.
 - (1) If a county's voting system supports digital ballot resolution, the county must program the voting system to digitally queue for resolution blank

ballots, ballots with write-in votes, and ballots with overvotes. Ballots with marginal or ambiguous markings must be sorted according to the system provider's specifications, or, if different, the applicable Conditions of Use issued by the Secretary of State. The digitally queued ballots must be resolved by election judges in accordance with Rule 18.5.

- (2) If a county's voting system does not support digital ballot resolution, the county must program the central count ballot scanners to reject or sort blank ballots and ballots with overvotes, and to sort ballots with write-in votes. The resolution board must resolve all ballots initially rejected and sorted by the central count ballot scanners in accordance with Rule 18.5.
- (c) A resolution board must resolve ballots sorted or rejected for resolution.
 - (1) In partisan elections, a resolution board must consist of at least two election judges affiliated with different major political parties.
 - (2) In nonpartisan elections, a resolution board must consist of at least two election judges.
 - (3) In counties with a voting system that does not support digital resolution, the county must have at least one resolution board.
 - (4) In counties with a voting system that supports digital resolution, a resolution board must work at each resolution workstation.
 - (5) The members of a resolution board for an election may change, but all members of the resolution board at any particular time must satisfy the eligibility requirements specified in this Rule 18.3.2(c).

18.4 Ballot Duplication

- 18.4.1 A resolution board must duplicate a voter's choices or selections on a damaged ballot onto a blank ballot of the same ballot style in accordance with Rule 18.4. During the duplication process, and to the extent necessary, the resolution board must also resolve overvotes, write-in votes, and ambiguous markings in accordance with Rule 18.5. During ballot duplication, two additional election judges must observe or review the work of each resolution board. In a partisan election, the observing election judges must be representatives of each major political party.
- 18.4.2 A resolution board must review the original ballot and the duplicated ballot, and consult the Voter Intent Guide if necessary, to ensure that each damaged ballot has been properly and accurately duplicated.
- 18.4.3 In order to match each damaged ballot to its corresponding duplicated ballot, the resolution board must identify and mark each damaged and duplicated ballot with the type of ballot and a unique number, similar to the following example: mark the damaged ballot "Orig 0001," and the counterpart duplicated ballot "Dupe 0001."
- 18.4.4 The resolution board must maintain a written log itemizing all damaged ballots that it duplicates. The duplication log must include at least each damaged and duplicated ballot's unique number, the date on which it was duplicated, the reason for duplication, and the printed names and signatures of the members of the resolution board.

- 18.4.5 A county clerk must count duplicated ballots in the same manner as all other paper ballots.
- 18.4.6 Before retention for storage, the resolution board must deposit all duplicated ballots and duplication logs in a sealable container that is clearly marked to identify its contents (e.g., "damaged ballots"). The county must maintain chain-of-custody and seal logs for the damaged ballot container at all times during the statutory election records retention period.

18.5 Ballot Resolution

- 18.5.1 A resolution board must resolve all blank ballots and ballots with overvotes, write-in votes, and ambiguous markings in accordance with the Secretary of State's Voter Intent Guide.
- 18.5.2 Resolution of blank ballots. A resolution board must examine blank ballots to determine if the ballot is a true blank ballot or one that has been marked in a manner or medium that was not detected by the voting system.
- (a) Counties without digital resolution capability. If the ballot is truly blank, the resolution board must re-scan the ballot and override the initial rejection setting. If the ballot is marked in a manner or medium that can be discerned by the resolution board but cannot be tabulated by the voting system, the resolution board must duplicate the ballot in accordance with Rule 18.4 and, to the extent necessary, resolve the ballot in accordance with Rule 18.5.
 - (b) Counties with digital resolution capability. If the ballot is truly blank, the resolution board must record the ballot as a blank ballot in the voting system's resolution application. If the ballot is marked in a manner or medium that can be discerned by the resolution board but cannot be tabulated by the voting system, the resolution board must resolve the ballot in the voting system's resolution application in accordance with Rules 18.5.2(b) and 18.5.3.
- 18.5.3 Resolution of write-in votes
- (a) A resolution board must resolve all write-in votes in accordance with the Secretary of State's Voter Intent Guide.
 - (b) In counties using voting systems featuring digital resolution capable of detecting voter markings on or in a write-in line or area, and if the voter does not mark any of the target areas in a particular contest, the resolution board must resolve during initial adjudication the written name of an eligible write-in candidate as a valid vote for that candidate even if the voter fails to mark the corresponding target area.
 - (c) In counties using voting systems that do not have digital resolution capability, or the digital resolution feature is not capable of detecting voter markings on or in a write-in line or area if the corresponding target area is not also marked, and if the voter does not mark any other target area in a particular contest, the resolution board must count as valid votes for eligible write-in candidates those instances in which the voter both marks the applicable target area and writes in the name of a certified write-in candidate. During any recount, if the number of undervotes in a ballot contest could change the outcome if attributed to an eligible write-in candidate, votes for that candidate must be counted whether or not the target area designating the selection of a write-in candidate has been marked, provided that the number of candidates chosen does not exceed the number permitted in that office.



Logic and Accuracy Test Documentation

Election Date: November 6, 2018

Logic and Accuracy Test Dates: 9 October – 12 October, 2018

Election Title:	
2018 Boulder County General Election – November 6, 2018	
Dominion Database Project Creation Date:	
September 10, 2018	
Test Date(s):	Test Location:
October 9 – October 12, 2018	1750 33 rd St. Boulder, CO



Boulder County Elections Boulder County Clerk and Recorder

1750 33rd Street, Suite 200 • Boulder, CO 80301
www.BoulderCountyVotes.org • Phone: (303) 413-7740

Team #	Entity	Participant Name
10	Rocky Mountain Fire Protection District Participant	Susan Femmer
12	Mountain View Fire Rescue District Participant	Jody Miller
12	Mountain View Fire Rescue District Participant	Martha Dexter
10	Berthoud Fire Protection District Participant	Karen Rogers
9	Berthoud Fire Protection District Participant	Wes Jones
13	Lefthand Fire Protection District Participant	Rik Henrikson
9	Knollwood Metropolitan District Participant	Magda Schoenhals
13	Urban Drainage and Flood Control District Participant	Micki Mills
2A	Boulder County Support	Ann Hansen
1B	Boulder County Support	James Collins
2B	Boulder County Support	Bill Sassani
1A	Boulder County Support	Dave Robertson
11	Boulder County Support	Alex Frank
3	Boulder County Support	Kayla Malcy
N/A	Boulder County Support	Crystal Christman
N/A	Boulder County Support	Luke Belant
N/A	Boulder County Support	Patty Stahl



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DEVICE DOCUMENTATION – ICVA and ICX							
Device ID	Type of Device	Members Testing Device	Satisfactory / Unsatisfactory	Initials	Seal # (Where applicable)	Seal # (Where applicable)	Seal # (Where applicable)
ICVA - 018 Serial #6E0PBS1	Voter Activation Card Writer						
ICX - 021 Serial # RF2GB01VYMK	Ballot Marking Device (BMD)	Susan Femmer	Hard to understand oral instructions (even slowed down)	On File	On File	On File	On File
		Karen Rogers	SATISFACTORY	On File	On File	On File	On File
Image Cast Printer #021	Ballot Printer	William Hyde	SATISFACTORY	On File	On File		
		Dave Robertson	SATISFACTORY	On File			
ICX - 027 Serial # RF2GB01VXQL	Ballot Marking Device (BMD)	Peter Richards (TB)	SATISFACTORY	On File	On File	On File	On File
		James Collins	SATISFACTORY	On File	On File	On File	On File
Image Cast Printer #027	Ballot Printer				On File		
ICVA - 015 Serial #4KSP2R1	Voter Activation Card Writer						
ICX - 001 Serial # RF2GB01VY5E	Ballot Marking Device (BMD)	Ted Bainbridge	SATISFACTORY	On File	On File	On File	On File
		William Sassani	SATISFACTORY	On File	On File	On File	On File
		Amy Teetzel	SATISFACTORY	On File	On File	On File	On File
		Jessica Koenig	SATISFACTORY	On File	On File	On File	On File
Image Cast Printer #001	Ballot Printer	Magda Schoenhals	SATISFACTORY	On File	On File		
		Wes Jones	SATISFACTORY	On File			
ICX - 035 Serial # RF2GB01V32V	Ballot Marking Device (BMD)	Catherine Jarrett (TB)	U (Audio Review)	On File	On File	On File	On File
		Ann Hansen	SATISFACTORY	On File	On File	On File	On File
		Martha Dexter	SATISFACTORY	On File	On File	On File	On File
		Jody Miller	SATISFACTORY	On File	On File	On File	On File
Image Cast Printer #035	Ballot Printer	Kayla Malcy	SATISFACTORY	On File	On File		
		Michelle Krezek	SATISFACTORY	On File			



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DEVICE DOCUMENTATION – ICVA and ICX							
Device ID	Type of Device	Members Testing Device	Satisfactory / Unsatisfactory	Initials	Seal # (Where applicable)	Seal # (Where applicable)	Seal # (Where applicable)
ICVA - 016 Serial #2GB22Q1	Voter Activation Card Writer						
ICX - 016 Serial # RF2GA06S4AW	Ballot Marking Device (BMD)	Susan Barker Emily Richardson	SATISFACTORY SATISFACTORY	On File On File	On File	On File	On File
					On File	On File	On File
					On File		
Image Cast Printer #016	Ballot Printer						
ICX - 005 Serial # RF2GA070SYF	Ballot Marking Device (BMD)	Dianne Marshall Susan Koster	SATISFACTORY SATISFACTORY	On File On File	On File	On File	On File
					On File	On File	On File
					On File		
Image Cast Printer #005	Voter Activation Card Writer						



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DEVICE DOCUMENTATION – ICC

Device ID	Type of Device	Members Testing Device	Satisfactory / Unsatisfactory	Initials
Scan Station D Serial #224BHD2	Central Count Scanner			
		Pamela Owens	SATISFACTORY	On File
		Alex Frank	SATISFACTORY	On File
		Cathy Jarrett	SATISFACTORY	On File
		Peter Richards	SATISFACTORY	On File
Scan Station E Serial #21N5HD2	Central Count Scanner			
		Peter Richards (TB)	SATISFACTORY	On File
		Ann Hansen	SATISFACTORY	On File
		Karen Rogers	SATISFACTORY	On File
		Susan Femmer	SATISFACTORY	On File
Scan Station F Serial #20Y3HD2	Central Count Scanner			
		Jessica Koenig	SATISFACTORY	On File
		Amy Teetzel	SATISFACTORY	On File
		N/A	N/A	N/A
		N/A	N/A	N/A



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DEVICE DOCUMENTATION – ICC				
Device ID	Type of Device	Members Testing Device	Satisfactory / Unsatisfactory	Initials
Scan Station J Serial #2354HD2	Central Count Scanner			
		Dianne Marshall	SATISFACTORY	On File
		Susan Koster	SATISFACTORY	On File
		Magda Schoenhals	SATISFACTORY	On File
		Wes Jones	SATISFACTORY	On File
		Cathy Jarrett	SATISFACTORY	On File
		Peter Richards	SATISFACTORY	On File



Boulder County Clerk & Recorder Elections Division Statement of Qualification of Election Devices

I attest that, to the best of my knowledge, each election device used in the Logic and Accuracy Test (LAT) passed the requirements of the LAT and accurately tabulated all properly marked LAT ballots.

It is the determination of the Logic and Accuracy Testing Board that all devices tested are qualified to be used in the 2018 General Election on November 6, 2018.

[Redacted Signature]

Peter Richards, Democratic Representative
LAT Testing Board

[Redacted Signature]

Catherine Jarrett, Republican Representative
LAT Testing Board

[Redacted Signature]

Hillary Hall
Boulder County Clerk & Recorder

Any problems discovered during testing are described as follows. Additionally, I am reporting any other information or attaching any additional documentation that might be necessary to provide a full and accurate account of the condition of each piece of equipment:

Peter Richards, Democratic Party Representative of LAT Testing Board:

N.A.

Catherine Jarrett, Republican Party Representative of LAT Testing Board:

ICX Audio did not say the names of the contests in the review. Other wise every-
thing was well done.

Hillary Hall, Boulder County Clerk & Recorder:

none

Election Summary Report

General Election

Boulder

November 06, 2018

Summary for: All Contests, All Districts, All Tabulators, All Counting Groups

Logic and Accuracy Test

Cumulative Results

Registered Voters: 1,544 of 244,213 (0.63%)

Ballots Cast: 2,970

Representative to the United States Congress - District 2

	Total	
Times Cast	1,100 / 178,502	0.62%
Undervotes	214	
Overvotes	43	

Candidate	Party	Total	
Joe Neguse	DEM	329	39.03%
Peter Yu	REP	214	25.39%
Roger Barris	LBR	157	18.62%
Nick Thomas	IND	95	11.27%
Write-in		48	5.69%
Total Votes		843	

	Total	
Kevin Alumbaugh	WRITE-IN	48
Unresolved Write-In	0	

Representative to the United States Congress - District 4

	Total	
Times Cast	326 / 65,711	0.50%
Undervotes	82	
Overvotes	15	

Candidate	Party	Total	
Karen McCormick	DEM	114	49.78%
Ken Buck	REP	68	29.69%
Write-in		47	20.52%
Total Votes		229	

	Total	
Richard Lyons Weil	WRITE-IN	31
John B. Vigil	WRITE-IN	16
Unresolved Write-In	0	

Governor

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		337	
Overvotes		57	
Candidate	Party	Total	
Jared Polis / Dianne Primavera	DEM	438	42.44%
Walker Stapleton / Lang Sias	REP	283	27.42%
Bill Hammons / Eric Bodenstab	UNI	192	18.60%
Scott Helker / Michele Poague	LBR	119	11.53%
Total Votes		1,032	
		Total	
Unresolved Write-In		0	

Secretary of State

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		342	
Overvotes		59	
Candidate	Party	Total	
Wayne Williams	REP	458	44.68%
Jena Griswold	DEM	259	25.27%
Amanda Campbell	ACN	193	18.83%
Blake Huber	APV	115	11.22%
Total Votes		1,025	
		Total	
Unresolved Write-In		0	

State Treasurer

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		444	
Overvotes		56	
Candidate	Party	Total	
Brian Watson	REP	460	49.68%
Dave Young	DEM	277	29.91%
Gerald F. Kilpatrick	ACN	189	20.41%
Total Votes		926	
		Total	
Unresolved Write-In		0	

Attorney General

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	439	
Overvotes	56	

Candidate	Party	Total	
Phil Weiser	DEM	444	47.69%
George Brauchler	REP	285	30.61%
William F. Robinson III	LBR	202	21.70%
Total Votes		931	

	Total	
Unresolved Write-In	0	

State Board of Education Member - Congressional District 2

	Total	
Times Cast	1,100 / 178,502	0.62%
Undervotes	479	
Overvotes	41	

Candidate	Party	Total	
Johnny Barrett	REP	359	61.90%
Angelika Schroeder	DEM	221	38.10%
Total Votes		580	

	Total	
Unresolved Write-In	0	

State Board of Education Member - Congressional District 4

	Total	
Times Cast	326 / 65,711	0.50%
Undervotes	125	
Overvotes	14	

Candidate	Party	Total	
Tim Krug	DEM	117	62.57%
Debora L. Scheffel	REP	70	37.43%
Total Votes		187	

	Total	
Unresolved Write-In	0	

Regent of the University of Colorado - At Large

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		343	
Overvotes		58	
Candidate	Party	Total	
Lesley Smith	DEM	435	42.44%
Ken Montera	REP	288	28.10%
Christopher E. Otwell	UNI	179	17.46%
James K. Treibert	LBR	123	12.00%
Total Votes		1,025	
		Total	
Unresolved Write-In		0	

State Senator - District 16

		Total	
Times Cast		136 / 10,822	1.26%
Undervotes		27	
Overvotes		6	
Candidate	Party	Total	
Tammy Story	DEM	48	46.60%
Tim Neville	REP	34	33.01%
James Gilman	LBR	21	20.39%
Total Votes		103	
		Total	
Unresolved Write-In		0	

State Representative - District 10

		Total	
Times Cast		228 / 64,095	0.36%
Undervotes		139	
Overvotes		6	
Candidate	Party	Total	
Murl S. Hendrickson IV	REP	57	68.67%
Edie Hooton	DEM	26	31.33%
Total Votes		83	
		Total	
Unresolved Write-In		0	

State Representative - District 11

	Total	
Times Cast	430 / 58,679	0.73%
Undervotes	158	
Overvotes	19	

Candidate	Party	Total	
Jonathan Singer	DEM	159	62.85%
Brian O Donahue	REP	94	37.15%
Total Votes		253	

	Total	
Unresolved Write-In	0	

State Representative - District 12

	Total	
Times Cast	297 / 62,283	0.48%
Undervotes	121	
Overvotes	12	

Candidate	Party	Total	
Sonya Jaquez Lewis	DEM	98	59.76%
Theresa Stets	UAF	66	40.24%
Total Votes		164	

	Total	
Unresolved Write-In	0	

State Representative - District 13

	Total	
Times Cast	287 / 41,109	0.70%
Undervotes	126	
Overvotes	11	

Candidate	Party	Total	
Kevin Sipple	REP	97	64.67%
K.C. Becker	DEM	53	35.33%
Total Votes		150	

	Total	
Unresolved Write-In	0	

State Representative - District 33

	Total	
Times Cast	184 / 18,047	1.02%
Undervotes	20	
Overvotes	8	

Candidate	Party	Total	
Eric Rutherford	REP	67	42.95%
Matt Gray	DEM	42	26.92%
Kim Tavendale	LBR	29	18.59%
Jay Geyer	IND	18	11.54%
Total Votes		156	

	Total	
Unresolved Write-In	0	

District Attorney - 20th Judicial District

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	914	
Overvotes	0	

Candidate	Party	Total	
Michael Dougherty	DEM	512	100.00%
Total Votes		512	

	Total	
Unresolved Write-In	0	

Regional Transportation District Director - District O

	Total	
Times Cast	956 / 159,143	0.60%
Undervotes	635	
Overvotes	0	

Candidate	Party	Total	
Lynn Guissinger		321	100.00%
Total Votes		321	

	Total	
Unresolved Write-In	0	

Boulder County Commissioner - District 3

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	441	
Overvotes	58	

Candidate	Party	Total	
Gary Cooper	REP	453	48.87%
Cliff Willmeng	GRN	286	30.85%
Matt Jones	DEM	188	20.28%
Total Votes		927	

	Total	
Unresolved Write-In	0	

Boulder County Clerk and Recorder

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	907	
Overvotes	0	

Candidate	Party	Total	
Molly Fitzpatrick	DEM	519	100.00%
Total Votes		519	

	Total	
Unresolved Write-In	0	

Boulder County Treasurer

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	920	
Overvotes	0	

Candidate	Party	Total	
Paul Weissmann	DEM	506	100.00%
Total Votes		506	

	Total	
Unresolved Write-In	0	

Boulder County Assessor

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		923	
Overvotes		0	
		Total	
Candidate	Party		
Cynthia Braddock	DEM	503	100.00%
Total Votes		503	
		Total	
Unresolved Write-In		0	

Boulder County Sheriff

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		602	
Overvotes		58	
		Total	
Candidate	Party		
Joseph K Pelle	DEM	482	62.92%
John Bedrick	REP	284	37.08%
Total Votes		766	
		Total	
Unresolved Write-In		0	

Boulder County Surveyor

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		917	
Overvotes		0	
		Total	
Candidate	Party		
Lee Stadele	DEM	509	100.00%
Total Votes		509	
		Total	
Unresolved Write-In		0	

Boulder County Coroner

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		905	
Overvotes		0	
Candidate	Party	Total	
Emma R. Hall	DEM	521	100.00%
Total Votes		521	
		Total	
Unresolved Write-In		0	

Town of Superior - Mayor

		Total	
Times Cast		53 / 9,241	0.57%
Undervotes		11	
Overvotes		2	
Candidate	Party	Total	
Gladys M. Forshee		17	42.50%
Clint Folsom		16	40.00%
Jack Chang		7	17.50%
Total Votes		40	
		Total	
Unresolved Write-In		0	

Town of Superior - Trustee

		Total	
Times Cast		53 / 9,241	0.57%
Undervotes		49	
Overvotes		3	
Candidate	Party	Total	
Ken Lish		17	16.83%
Dalton Valette		18	17.82%
Theresa A. Clark		20	19.80%
Neal S. Shah		18	17.82%
Anthony L. Stewart		14	13.86%
Laura Skladzinski		14	13.86%
Total Votes		101	
		Total	
Unresolved Write-In		0	

Colorado Supreme Court Justice - Gabriel

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	600	
Overvotes	56	

Candidate	Party	Total	
YES		478	62.08%
NO		292	37.92%
Total Votes		770	

	Total	
Unresolved Write-In	0	

Colorado Court of Appeals Judge - Dailey

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	605	
Overvotes	56	

Candidate	Party	Total	
YES		473	61.83%
NO		292	38.17%
Total Votes		765	

	Total	
Unresolved Write-In	0	

Colorado Court of Appeals Judge - Freyre

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	610	
Overvotes	56	

Candidate	Party	Total	
YES		475	62.50%
NO		285	37.50%
Total Votes		760	

	Total	
Unresolved Write-In	0	

Colorado Court of Appeals Judge - Harris

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	605	
Overvotes	57	

Candidate	Party	Total	
YES		477	62.43%
NO		287	37.57%
Total Votes		764	

	Total	
Unresolved Write-In	0	

Colorado Court of Appeals Judge - Richman

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	608	
Overvotes	56	

Candidate	Party	Total	
YES		466	61.15%
NO		296	38.85%
Total Votes		762	

	Total	
Unresolved Write-In	0	

District Court Judge - 20th Judicial District - Mulvahill

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	606	
Overvotes	56	

Candidate	Party	Total	
YES		485	63.48%
NO		279	36.52%
Total Votes		764	

	Total	
Unresolved Write-In	0	

District Court Judge - 20th Judicial District - Sierra

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	609	
Overvotes	57	

Candidate	Party	Total	
YES		476	62.63%
NO		284	37.37%
Total Votes		760	

	Total
Unresolved Write-In	0

Boulder County Court Judge - Archuleta

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	604	
Overvotes	56	

Candidate	Party	Total	
YES		475	62.01%
NO		291	37.99%
Total Votes		766	

	Total
Unresolved Write-In	0

Boulder County Court Judge - Brodsky

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	611	
Overvotes	56	

Candidate	Party	Total	
YES		473	62.32%
NO		286	37.68%
Total Votes		759	

	Total
Unresolved Write-In	0

Amendment V (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	593	
Overvotes	57	

Candidate	Party	Total	
YES/FOR		480	61.86%
NO/AGAINST		296	38.14%
Total Votes		776	

	Total	
Unresolved Write-In	0	

Amendment W (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	602	
Overvotes	57	

Candidate	Party	Total	
YES/FOR		478	62.32%
NO/AGAINST		289	37.68%
Total Votes		767	

	Total	
Unresolved Write-In	0	

Amendment X (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	597	
Overvotes	56	

Candidate	Party	Total	
YES/FOR		473	61.19%
NO/AGAINST		300	38.81%
Total Votes		773	

	Total	
Unresolved Write-In	0	

Amendment Y (Constitutional)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		587	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		490	62.58%
NO/AGAINST		293	37.42%
Total Votes		783	
		Total	
Unresolved Write-In		0	

Amendment Z (Constitutional)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		597	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		472	61.06%
NO/AGAINST		301	38.94%
Total Votes		773	
		Total	
Unresolved Write-In		0	

Amendment A (Constitutional)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		605	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		481	62.88%
NO/AGAINST		284	37.12%
Total Votes		765	
		Total	
Unresolved Write-In		0	

Amendment 73 (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	591	
Overvotes	56	

Candidate	Party	Total	
YES/FOR		471	60.46%
NO/AGAINST		308	39.54%
Total Votes		779	

	Total
Unresolved Write-In	0

Amendment 74 (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	601	
Overvotes	56	

Candidate	Party	Total	
YES/FOR		484	62.94%
NO/AGAINST		285	37.06%
Total Votes		769	

	Total
Unresolved Write-In	0

Amendment 75 (Constitutional)

	Total	
Times Cast	1,426 / 244,213	0.58%
Undervotes	602	
Overvotes	56	

Candidate	Party	Total	
YES/FOR		469	61.07%
NO/AGAINST		299	38.93%
Total Votes		768	

	Total
Unresolved Write-In	0

Proposition 109 (Statutory)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		601	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		474	61.64%
NO/AGAINST		295	38.36%
Total Votes		769	
		Total	
Unresolved Write-In		0	

Proposition 110 (Statutory)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		600	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		464	60.26%
NO/AGAINST		306	39.74%
Total Votes		770	
		Total	
Unresolved Write-In		0	

Proposition 111 (Statutory)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		602	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		482	62.76%
NO/AGAINST		286	37.24%
Total Votes		768	
		Total	
Unresolved Write-In		0	

Proposition 112 (Statutory)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		594	
Overvotes		56	
Candidate	Party	Total	
YES/FOR		472	60.82%
NO/AGAINST		304	39.18%
Total Votes		776	
		Total	
Unresolved Write-In		0	

Boulder County Ballot Issue 1A - (Alternative Sentencing Facility and Jail Modernization Countywide Sales and Use Tax Extension)

		Total	
Times Cast		1,426 / 244,213	0.58%
Undervotes		591	
Overvotes		57	
Candidate	Party	Total	
YES/FOR		478	61.44%
NO/AGAINST		300	38.56%
Total Votes		778	
		Total	
Unresolved Write-In		0	

City of Boulder Ballot Issue 2C - Imposition of Oil and Gas Pollution Tax

		Total	
Times Cast		182 / 84,117	0.22%
Undervotes		138	
Overvotes		2	
Candidate	Party	Total	
FOR THE MEASURE		25	59.52%
AGAINST THE MEASURE		17	40.48%
Total Votes		42	
		Total	
Unresolved Write-In		0	

City of Boulder Ballot Issue 2D - Authorize Retention of All Sugar-Sweetened Beverages Tax Revenue

	Total	
Times Cast	182 / 84,117	0.22%
Undervotes	140	
Overvotes	2	

Candidate	Party	Total	
FOR THE MEASURE		25	62.50%
AGAINST THE MEASURE		15	37.50%
Total Votes		40	

	Total	
Unresolved Write-In	0	

City of Boulder Ballot Question 2E - Charter Amendments for Initiative, Referendum and Recall Processes

	Total	
Times Cast	182 / 84,117	0.22%
Undervotes	138	
Overvotes	2	

Candidate	Party	Total	
FOR THE MEASURE		27	64.29%
AGAINST THE MEASURE		15	35.71%
Total Votes		42	

	Total	
Unresolved Write-In	0	

City of Boulder Ballot Question 2F - Charter Amendment for Initiative Petition Signature Verification

	Total	
Times Cast	182 / 84,117	0.22%
Undervotes	138	
Overvotes	2	

Candidate	Party	Total	
FOR THE MEASURE		29	69.05%
AGAINST THE MEASURE		13	30.95%
Total Votes		42	

	Total	
Unresolved Write-In	0	

City of Boulder Ballot Question 2G - Charter Amendment Related to Electronic and Online Petitions

		Total	
Times Cast		182 / 84,117	0.22%
Undervotes		138	
Overvotes		2	
Candidate	Party	Total	
FOR THE MEASURE		25	59.52%
AGAINST THE MEASURE		17	40.48%
Total Votes		42	
		Total	
Unresolved Write-In		0	

City of Boulder Ballot Question 2H - Charter Amendment Related to Advisory Commissions

		Total	
Times Cast		182 / 84,117	0.22%
Undervotes		138	
Overvotes		2	
Candidate	Party	Total	
FOR THE MEASURE		25	59.52%
AGAINST THE MEASURE		17	40.48%
Total Votes		42	
		Total	
Unresolved Write-In		0	

City of Boulder Ballot Question 2I - Charter Amendment for Planning Department Budget Recommendations

		Total	
Times Cast		182 / 84,117	0.22%
Undervotes		138	
Overvotes		2	
Candidate	Party	Total	
FOR THE MEASURE		25	59.52%
AGAINST THE MEASURE		17	40.48%
Total Votes		42	
		Total	
Unresolved Write-In		0	

City of Lafayette Ballot Issue 2A - Oil and Gas Pollution Tax

		Total	
Times Cast		41 / 21,044	0.19%
Undervotes		18	
Overvotes		1	
Candidate	Party	Total	
YES/FOR		13	59.09%
NO/AGAINST		9	40.91%
Total Votes		22	
		Total	
Unresolved Write-In		0	

Town of Jamestown Ballot Question 2B

		Total	
Times Cast		21 / 220	9.55%
Undervotes		7	
Overvotes		1	
Candidate	Party	Total	
YES/FOR		7	53.85%
NO/AGAINST		6	46.15%
Total Votes		13	
		Total	
Unresolved Write-In		0	

City of Longmont Ballot Issue 3A

		Total	
Times Cast		179 / 63,683	0.28%
Undervotes		94	
Overvotes		6	
Candidate	Party	Total	
YES/FOR		54	68.35%
NO/AGAINST		25	31.65%
Total Votes		79	
		Total	
Unresolved Write-In		0	

City of Longmont Ballot Issue 3B

		Total	
Times Cast		179 / 63,683	0.28%
Undervotes		94	
Overvotes		6	
Candidate	Party	Total	
YES/FOR		55	69.62%
NO/AGAINST		24	30.38%
Total Votes		79	
		Total	
Unresolved Write-In		0	

City of Longmont Ballot Issue 3C

		Total	
Times Cast		179 / 63,683	0.28%
Undervotes		96	
Overvotes		6	
Candidate	Party	Total	
YES/FOR		48	62.34%
NO/AGAINST		29	37.66%
Total Votes		77	
		Total	
Unresolved Write-In		0	

Town of Erie Ballot Question 3D

		Total	
Times Cast		70 / 7,843	0.89%
Undervotes		21	
Overvotes		3	
Candidate	Party	Total	
YES/FOR		26	56.52%
NO/AGAINST		20	43.48%
Total Votes		46	
		Total	
Unresolved Write-In		0	

Thompson R2-J School District Ballot Issue 5A

		Total	
Times Cast		88 / 176	50.00%
Undervotes		22	
Overvotes		4	
Candidate	Party	Total	
YES/FOR		37	59.68%
NO/AGAINST		25	40.32%
Total Votes		62	
		Total	
Unresolved Write-In		0	

Thompson R2-J School District Ballot Issue 5B

		Total	
Times Cast		88 / 176	50.00%
Undervotes		22	
Overvotes		4	
Candidate	Party	Total	
YES/FOR		35	56.45%
NO/AGAINST		27	43.55%
Total Votes		62	
		Total	
Unresolved Write-In		0	

Lefthand Fire Protection District Ballot Issue 6B - Gallagher Revenue Stabilization

		Total	
Times Cast		106 / 1,361	7.79%
Undervotes		28	
Overvotes		8	
Candidate	Party	Total	
YES/FOR		52	74.29%
NO/AGAINST		18	25.71%
Total Votes		70	
		Total	
Unresolved Write-In		0	

Rocky Mountain Fire Protection District Ballot Issue 6A - Gallagher Revenue Stabilization

		Total	
Times Cast		238 / 14,208	1.68%
Undervotes		68	
Overvotes		14	
Candidate	Party	Total	
YES/FOR		99	63.46%
NO/AGAINST		57	36.54%
Total Votes		156	
		Total	
Unresolved Write-In		0	

Knollwood Metropolitan District Ballot Issue 6C - Bond Question

		Total	
Times Cast		53 / 109	48.62%
Undervotes		10	
Overvotes		4	
Candidate	Party	Total	
YES/FOR		27	69.23%
NO/AGAINST		12	30.77%
Total Votes		39	
		Total	
Unresolved Write-In		0	

Berthoud Fire Protection District Ballot Issue 7B

		Total	
Times Cast		95 / 215	44.19%
Undervotes		18	
Overvotes		6	
Candidate	Party	Total	
YES/FOR		45	63.38%
NO/AGAINST		26	36.62%
Total Votes		71	
		Total	
Unresolved Write-In		0	

Mountain View Fire Rescue District Ballot Issue 7J

	Total	
Times Cast	376 / 16,606	2.26%
Undervotes	105	
Overvotes	21	

Candidate	Party	Total	
YES/FOR		175	70.00%
NO/AGAINST		75	30.00%
Total Votes		250	

	Total	
Unresolved Write-In	0	

Urban Drainage and Flood Control District Ballot Issue 7G

	Total	
Times Cast	759 / 159,270	0.48%
Undervotes	349	
Overvotes	26	

Candidate	Party	Total	
YES/FOR		237	61.72%
NO/AGAINST		147	38.28%
Total Votes		384	

	Total	
Unresolved Write-In	0	

Peter Richards

Catherine Jarrett

12 October 2018

10-12-2018

2018 General Election Logic Accuracy Test
Cumulative Results Comparison

All Test Ballots (1,544)
October 12, 2018

Catherine Jarrett
Peter Richards

cg
PWR

Contests	Cumulative Results				
	MVW Total	User Error Adjustment	Adjusted Expected Total	Machine total	Difference
Representative 116th Congress - District 2					
Undervote	214		214	214	0
Overvote	43		43	43	0
Joe Neguse	329		329	329	0
Peter Yu	214		214	214	0
Roger Barris	157		157	157	0
Nick Thomas	95		95	95	0
Kevin Alumbaugh (Write-in)	48		48	48	0
Representative 116th Congress - District 4					
Undervote	82		82	82	0
Overvote	15		15	15	0
Karen McCormick	114		114	114	0
Ken Buck	68		68	68	0
Richard Lyons Weil (Write-in)	31		31	31	0
John B. Vigil (Write-in)	16		16	16	0
Governor					
Undervote	337		337	337	0
Overvote	57		57	57	0
Jared Polis / Dianne Primavera	438		438	438	0
Walker Stapleton / Lang Sias	283		283	283	0
Bill Hammons / Eric Bodenstab	192		192	192	0
Scott Helker / Michele Poague	119		119	119	0
Secretary of State					
Undervote	342		342	342	0
Overvote	59		59	59	0
Wayne Williams	458		458	458	0
Jena Griswold	259		259	259	0
Amanda Campbell	193		193	193	0
Blake Huber	115		115	115	0
State Treasurer					
Undervote	444		444	444	0
Overvote	56		56	56	0
Brian Watson	460		460	460	0
Dave Young	277		277	277	0
Gerald F. Kilpatrick	189		189	189	0
Attorney General					
Undervote	439		439	439	0
Overvote	56		56	56	0
Phil Weiser	444		444	444	0
George Brauchler	285		285	285	0
William F. Robinson III	202		202	202	0

C. J.
PWR

Contests	Cumulative Results				
	MVW Total	User Error Adjustment	Adjusted Expected Total	Machine total	Difference
State Representative - District 33					
Undervote	20		20	20	0
Overvote	8		8	8	0
Eric Rutherford	67		67	67	0
Matt Gray	42		42	42	0
Kim Tavendale	29		29	29	0
Jay Geyer	18		18	18	0
District Attorney - 20th Judicial					
Undervote	914		914	914	0
Michael Dougherty	512		512	512	0
Regional Transportation - O					
Undervote	635		635	635	0
Lynn Guissinger	321		321	321	0
County Commissioner - District 3					
Undervote	441		441	441	0
Overvote	58		58	58	0
Gary Cooper	453		453	453	0
Cliff Willmeng	286		286	286	0
Matt Jones	188		188	188	0
County Clerk and Recorder					
Undervote	907		907	907	0
Molly Fitzpatrick	519		519	519	0
County Treasurer					
Undervote	920		920	920	0
Paul Weissmann	506		506	506	0
County Assessor					
Undervote	923		923	923	0
Cynthia Braddock	503		503	503	0
County Sheriff					
Undervote	602		602	602	0
Overvote	58		58	58	0
Joseph K Pelle	482		482	482	0
John Bedrick	284		284	284	0
County Surveyor					
Undervote	917		917	917	0
Lee Stadele	509		509	509	0
County Coroner					
Undervote	905		905	905	0
Emma R. Hall	521		521	521	0

2018 General Election Logic Accuracy Test
Cumulative Results Comparison

All Test Ballots (1,544)
October 12, 2018

2.9
PWT

Contests	Cumulative Results				
	MVW Total	User Error Adjustment	Adjusted Expected Total	Machine total	Difference
20th Judicial District - Mulvahill					
Undervote	606		606	606	0
Overvote	56		56	56	0
YES	485		485	485	0
NO	279		279	279	0
20th Judicial District - Sierra					
Undervote	609		609	609	0
Overvote	57		57	57	0
YES	476		476	476	0
NO	284		284	284	0
County Court Judge - Archuleta					
Undervote	604		604	604	0
Overvote	56		56	56	0
YES	475		475	475	0
NO	291		291	291	0
County Court Judge - Brodsky					
Undervote	610	1	611	611	0
Overvote	56		56	56	0
YES	473		473	473	0
NO	287	-1	286	286	0
Amendment V (Constitutional)					
Undervote	592	1	593	593	0
Overvote	57		57	57	0
YES/FOR	480		480	480	0
NO/AGAINST	297	-1	296	296	0
Amendment W (Constitutional)					
Undervote	602		602	602	0
Overvote	57		57	57	0
YES/FOR	478		478	478	0
NO/AGAINST	289		289	289	0
Amendment X (Constitutional)					
Undervote	597		597	597	0
Overvote	56		56	56	0
YES/FOR	473		473	473	0
NO/AGAINST	300		300	300	0
Amendment Y (Constitutional)					
Undervote	587		587	587	0
Overvote	56		56	56	0
YES/FOR	490		490	490	0
NO/AGAINST	293		293	293	0

*CTD: Judge Brodsky Adjudication error on ballot 4-2-35. Deviated from vote plan: NO vote adjudicated as an Undervote.

*CTD: Amendment V Adjudication error on ballot 2-4-143. Deviated from vote plan: NO vote adjudicated as an Undervote.

2018 General Election Logic Accuracy Test
Cumulative Results Comparison

All Test Ballots (1,544)
October 12, 2018

DSA

Contests	Cumulative Results				
	MVW Total	User Error Adjustment	Adjusted Expected Total	Machine total	Difference
Proposition 112 (Statutory)					
Undervote	594		594	594	0
Overvote	56		56	56	0
YES/FOR	472		472	472	0
NO/AGAINST	304		304	304	0
County Issue 1A					
Undervote	591		591	591	0
Overvote	57		57	57	0
YES/FOR	478		478	478	0
NO/AGAINST	300		300	300	0
Boulder 2C					
Undervote	138		138	138	0
Overvote	2		2	2	0
FOR THE MEASURE	25		25	25	0
AGAINST THE MEASURE	17		17	17	0
Boulder 2D					
Undervote	140		140	140	0
Overvote	2		2	2	0
FOR THE MEASURE	25		25	25	0
AGAINST THE MEASURE	15		15	15	0
Boulder 2E					
Undervote	138		138	138	0
Overvote	2		2	2	0
FOR THE MEASURE	27		27	27	0
AGAINST THE MEASURE	15		15	15	0
Boulder 2F					
Undervote	138		138	138	0
Overvote	2		2	2	0
FOR THE MEASURE	29		29	29	0
AGAINST THE MEASURE	13		13	13	0
Boulder 2G					
Undervote	138		138	138	0
Overvote	2		2	2	0
FOR THE MEASURE	25		25	25	0
AGAINST THE MEASURE	17		17	17	0
Boulder 2H					
Undervote	138		138	138	0
Overvote	2		2	2	0
FOR THE MEASURE	25		25	25	0
AGAINST THE MEASURE	17		17	17	0

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Contests	Cumulative Results				
	MVW Total	User Error Adjustment	Adjusted Expected Total	Machine total	Difference
Thompson School 5B					
Undervote	22		22	22	0
Overvote	4		4	4	0
YES/FOR	35		35	35	0
NO/AGAINST	27		27	27	0
Lefthand Fire 6B					
Undervote	28		28	28	0
Overvote	8		8	8	0
YES/FOR	52		52	52	0
NO/AGAINST	18		18	18	0
Rocky Mountain Fire 6A					
Undervote	68		68	68	0
Overvote	14		14	14	0
YES/FOR	99		99	99	0
NO/AGAINST	57		57	57	0
Knollwood 6C					
Undervote	10		10	10	0
Overvote	4		4	4	0
YES/FOR	27		27	27	0
NO/AGAINST	12		12	12	0
Berthoud Fire 7B					
Undervote	18		18	18	0
Overvote	6		6	6	0
YES/FOR	45		45	45	0
NO/AGAINST	26		26	26	0
Mountain View Fire 7J					
Undervote	105		105	105	0
Overvote	22	-1	21	21	0
YES/FOR	175		175	175	0
NO/AGAINST	74	1	75	75	0
Urban Drainage 7G					
Undervote	349		349	349	0
Overvote	26		26	26	0
YES/FOR	237		237	237	0
NO/AGAINST	147		147	147	0

*CTD: Adjudication error on ballot 3-2-1. Deviated from vote plan;
Overvote adjudicated as a NO vote.