



2024 Generic Test Deck Review Guide

Validating the 2024 Elections

Vote Flips & Programming Issues

The Philadelphia Inquirer

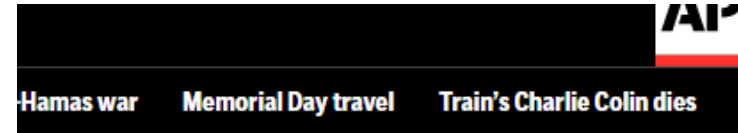
by Jonathan Lai
Published Dec. 12, 2019, 5:54 p.m. ET

When votes were tallied last month using [new voting machines](#) in Northampton County, it was quickly obvious that something had gone wrong.

The numbers were so clearly inaccurate that a judge ordered the machines impounded. Scanners were brought in to help count ballots, and voters questioned the integrity of the machines and the security of the election. [The fiasco](#) heightened concerns about the 2020 presidential election in Pennsylvania as the state looks to implement new voting machines in all 67 counties before the April primary.

It turns out the machines had been set up improperly, county officials and the voting machine vendor said Thursday, a week after they began an investigation. The machines weren't prepared to read the results of the specific ballot design used in Northampton County, and dozens of machines had touchscreens that weren't properly calibrated.

<https://www.inquirer.com/politics/pennsylvania/northampton-county-pennsylvania-voting-machines-20191212.html>



BY MELISSA GOLDIN

Published 7:41 PM CDT, November 8, 2023

Voters in Northampton County were asked to decide whether two sitting judges, Pennsylvania Superior Court Judges Jack Panella, a Democrat, and Victor Stabile, a Republican, should each be retained for additional 10-year terms by marking "yes" or "no" for each candidate. Panella and Stabile were not running against each other, just vying for another term.

However, officials found that the "yes" or "no" votes for each judge [appeared to have been switched](#) on a printed summary shown to voters before they cast their ballot, Charles Dertinger, the Northampton County director of administration, said at a press conference on Tuesday. For example, if a voter marked "yes" to retain Panella and "no" on Stabile, it was reflected on the summary as "no" on Panella and "yes" on Stabile.

<https://apnews.com/article/fact-check-pennsylvania-election-vote-flip-545307248102>



Watch the
11/7/2023
Press
Conference

<https://www.youtube.com/live/H4zAV9Rpbs0?t=364s>



Programming Issues

A candidate in Georgia who appeared to get few Election Day votes was actually in first place.

The discrepancy in a race for a county-level board of commissioners seat was blamed on a series of technical errors.

Share full article



“I hope that this never happens to another candidate, in another race ever again,” Ms. Spears said. “It has been a nightmare.”



By Neil Vigdor

June 6, 2022

A candidate for a county office near Atlanta was vaulted into first place after a series of technical errors made it appear that she had not mustered a single Election Day vote in a vast majority of precincts in last month’s Democratic primary, election officials determined.

The candidate, Michelle Long Spears, was shortchanged by 3,792 votes in the District 2 primary for the Board of Commissioners in DeKalb County, Ga., that was held on May 24, according to newly-certified results released on Friday.

In all but four of the district’s nearly 40 precincts, no Election Day votes were recorded for Ms. Spears, who had received more than 2,000 early votes. She said that she immediately alerted state and county election authorities.

<https://www.nytimes.com/2022/06/06/us/politics/michelle-long-spears-georgia.html>



No Votes Counted for a Candidate

https://www.youtube.com/watch?v=MECS_OXfoH0



Let's Review - Dodge County WI, 2024

- Actual worksheets by the City Clerk
- No Guidance by the US Election Assistance Commission (EAC)
- No Guidance by the Board of Elections (WI)
- No Guidance by vendor (ES&S)
- No Guidance by the County Auditor



WI – 2024 Logic & Accuracy Totals Sheet - Dems

Wards Districts	20 ballots 17, 18 9 & 5	20 ballots 21, 22, 24 13, 9	10 ballots 25 13	
PRESIDENTIAL PREF				
DEMOCRAT	✓		✓	16 + 4
REPUBLICAN	✓	✓		19 + 4
OVER VOTE				0
UNDER VOTE	✓	✓	✓	6 + 2
DEMOCRATIC PARTY				
BIDEN			✓	8 + 3
PHILLIPS			✓	3 + 1
UNINSTRUCTED			✓	2
WRITE IN			✓	4
OVER VOTE				
UNDER VOTE			✓	2 + 1

Handwritten red numbers in circles pointing to deficiencies:

- 2 (under PHILLIPS in column 1)
- 2 (under PHILLIPS in column 2)
- 1 (under UNINSTRUCTED in column 3)
- 2 (under UNINSTRUCTED in column 3)
- 1 (under WRITE IN in column 3)
- 2 (under WRITE IN in column 3)
- 3 (under OVER VOTE in column 1)
- 3 (under OVER VOTE in column 2)
- 3 (under OVER VOTE in column 3)
- 4 (under UNDER VOTE in column 2)

Here are items to review:

- 1) Does each option have a vote selected for them?
- 2) Does each option have a unique number assigned from any other option in the contest?
- 3) Are Over Votes tested?
- 4) Are Under Votes tested?

With unique numbers we can determine if votes are flipped.

*** Red numbers are pointing to deficiencies present in the test**



WI – 2024 Logic & Accuracy Totals Sheet - Reps

REPUBLICAN PARTY						
CHRISTIE		✓ 2		✓ 2		1 2 2
RAMASWAMY		✓ 2		✓ 2		1 2 3
DESANTIS		✓ 2		✓ 2		1 2 2
HALEY		✓ 2		✓ 2		✓ 3+1
TRUMP		✓		✓		✓ 7+3
UNINSTRUCTED		✓ 2		✓ 2		1 2 2
WRITE IN		✓ 2		1		1 2 1
OVER VOTE		3		3		3
UNDER VOTE		✓		✓		✓ 2+1

Here are items to review:

- 1) Does each option have a vote selected for them?
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WI – 2024 Logic & Accuracy Totals Sheet – 2 Races

DEMOCRATIC PARTY							
BIDEN		5			✓	5	8+3
PHILLIPS		5		✓	5	5	3+1
UNINSTRUCTED		5		✓	5	5	2
WRITE IN		5		✓	5	5	4
OVER VOTE							
UNDER VOTE		✓			✓		2+1

REPUBLICAN PARTY							
CHRISTIE		5		✓	5	5	2
RAMASWAMY		5		✓	5	5	3
DESANTIS		5		✓	5	5	2
HALEY		5		✓	5	5	3+1
TRUMP		5		✓	5	5	7+3
UNINSTRUCTED		5		✓	5	5	2
WRITE IN		5				5	1
OVER VOTE							
UNDER VOTE		✓			✓		2+1

Here are items to review:
 5) Does each option have a unique number assigned from any other option on the ballot

With unique numbers we can determine if votes are flipped.

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Question - Over Vote & Under Vote

- **Over Vote** – is when a voter votes for more options than is allowed for that race. Most races you can only select one option. Some races like Legislative House, Commissioners, City Council and School Boards, you can select two, three or more candidates in that race, an over vote occurs, when the voter exceeds the number of choices allowed. All of those votes for that race are discarded and not counted in the candidate buckets for final tabulation, the rest of the ballot is counted.
- **Under Vote** – is when a voter decided to either vote for no options in a two option race. In multi-option races, if the voter decided to only vote for one option, event though they could vote for more, the vote for the one option is still counted, and is typically not flagged as an under vote in the reporting software.



Not all states are the same.

- Please review your state law and rules and compare with what we have in South Dakota.
- Next slides show South Dakota Laws and Rules.

Test Decks – SD Current Laws

The front line in catching programming issues and establishing confidence.

12-17B-5. Testing system before election--Certification of errorless machine--Promulgation of rules--Public notice--Independent candidate and ballot committee contact information.

Not more than ten days prior to an election, the person in charge of the election shall conduct a test of the automatic tabulating equipment to ascertain that the equipment will correctly count the votes cast for all offices and on all measures. The test must be open to the public. The person in charge of the election shall notify the county chair of each political party with a candidate on the ballot, any independent candidate or candidate without party affiliation on the ballot, and the ballot question committees for or against an initiated or referred measure or initiated constitutional amendment of the testing of the automatic tabulating equipment one week before the test is conducted. The person in charge of the election shall post notice of the time and place of the test in the same manner as a public meeting agenda, pursuant to § [1-25-1.1](#).

If an errorless count by an automatic tabulating machine is achieved by the test, the person in charge of the election shall certify the machine. The State Board of Elections shall promulgate rules, pursuant to chapter [1-26](#), prescribing the certification of properly functioning automatic tabulating equipment under this section.

If an error is detected, the cause of the error shall be determined and corrected. Once the error is corrected, the person in charge of the election shall conduct a new test of the automatic tabulating equipment. The person in charge of the election may not approve the automatic tabulating equipment until an errorless count is made.

Any additional testing required to achieve an errorless count must be open to the public. The person in charge of the election shall post notice of the time and place of an additional test in the same manner as a public meeting agenda, pursuant to § [1-25-1.1](#). The person in charge of the election shall notify the county chair of each political party with a candidate on the ballot, any independent candidate or candidate without party affiliation on the ballot, and the ballot question committees for or against an initiated or referred measure or initiated constitutional amendment of the testing of the automatic tabulating equipment twenty-four hours prior to the test.

The secretary of state shall provide each county auditor with the contact information for any independent candidate, candidate without party affiliation appearing on the ballot, and the ballot question committees for or against an initiated or referred measure or initiated constitutional amendment in the auditor's county.

12-17B-12. Test of system repeated prior to counting ballots.

The test required by § 12-17B-5 shall be repeated immediately before the start of the official count of the ballots.



SD SOS Administrative Rules

The front line in catching programming issues and establishing confidence.

- **5:02:09:01.02. Test of tabulating equipment.** The person in charge of the election shall conduct tests of the automatic tabulating equipment as required in SDCL [12-17B-5](#) and [12-17B-12](#). The test must be conducted by processing a preaudited group of ballots in a test deck marked to record a predetermined number of valid votes for each candidate and each measure. A tally sheet must be created prior to the machine count to show how the sample of ballots is marked and what the machine vote totals must be to prove an errorless count. If more than one ballot is used in the election, a test deck must be made for each ballot that is unique in any way. For each office and ballot question, the test deck must include:
 - (1) One or more ballots with a vote for each candidate and each side of a ballot question;
 - (2) One or more ballots with votes in excess of the number allowed by law for each office and question; and
 - (3) One or more ballots with an undervote;
 - (4) One or more ballots completely blank to verify that the machine is correctly configured pursuant to SDCL [12-17B-13.1](#); and
 - (5) One or more ballots that do not have a ballot stamp.
- At least twenty-five test ballots must be included in the total of all test decks. Individual test decks for individual ballots must be of sufficient size to prove the accuracy of the system. If absentee ballots are to be received folded, at least ten percent of the test ballots in any individual test deck must be similarly folded. The person conducting the test of the tabulating equipment shall date and sign the printout, verifying that the results of the machine's printed paper vote totals exactly match the tally sheet from which the sample of ballots was marked. Any test deck, tally sheet, and signed printout must be secured and retained with the official ballots.
- If more than one tabulating machine is to be used in the election, each machine must be fully tested on any ballot which each machine will be used to count in the election.
- In addition to these tests, any test deck may be processed any time before or after completion of the official count.



SD - 2022 Minnehaha County, SD L&A Test Reports

Detail Results		Minnehaha County, SD State General 11/08/2022	
Machine ID: B	Machine #: 8513090103		
11/28/2022 10:09:47		Total Sheets Processed:	95
First Ballot Date Time:	11/28/2022 10:08:50	Total Ballots Cast:	95
Last Ballot Date Time:	11/28/2022 10:09:29	Blank Sheets Cast:	0 5
Contest		Votes	
			0
	Over Votes		12
	Under Votes		24
	Total		36
For State Representative, D25			16
	(Vote For 2)		0
	DEM Dan Ahlers	1 2	0
	DEM David Kills A Hundred	1 2	0
	REP Jon Hansen	1 2	0
	REP Randy Gross	3	0
	Over Votes		16
	Under Votes		32
	Total		48

Here are items to review:

- 1) Does each option have a vote selected for them?
- 2) Does each option have a unique number assigned from any other option in the contest?
- 3) Are Over Votes tested?
- 4) Are Under Votes tested?
- 5) Were blank sheets cast?

With unique numbers we can determine if votes are flipped.

*** Red numbers are pointing to deficiencies present in the test**



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Last Ballot Date Time:	11/28/2022 10:09:29	Blank Sheets Cast:	0	⑤
Contest		Votes		
			0	
	Over Votes		12	
	Under Votes		24	
	Total			
For County Commissioner At Large				
(Vote For 3)			94	
DEM Nichole Cauwels			0	
DEM Tom Holmes			0	
REP Joe Kippley			0	
REP Jen Bleyenbergh			1	
REP Gerald Beninga			0	
	Over Votes		190	
	Under Votes		285	
	Total			

Here are items to review:

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- 2) Does each option have a unique number assigned from any other option in the contest?
- 3) Are Over Votes tested?
- 4) Are Under Votes tested?
- 5) Were blank sheets cast?
- 6) Does each option have a unique number assigned from any other option on the ballot

With unique numbers we can determine if votes are flipped.

*** Red numbers are pointing to deficiencies present in the test**



SD - 2022 Minnehaha County, SD L&A Test Reports

Detail Results		3 of 9	
Machine ID: B	Machine #: 8513090103	Minnehaha County, SD	
11/28/2022 09:47:13		State General	
First Ballot Date Time:	11/28/2022 09:15:47	Total Sheets Processed:	2325
Last Ballot Date Time:	11/28/2022 09:46:28	Total Ballots Cast:	2325
		Blank Sheets Cast:	93
Contest	Votes		

For State Senator, D11			
(Vote For 1)			
DEM Sheryl L. Johnson	26		115
REP Jim Stalzer	26		115
Over Votes			10
Under Votes			10
Total			250
For State Senator, D12			
(Vote For 1)			
DEM Jessica Meyers	26		115
REP Arch Beal	26		115
Over Votes			10
Under Votes			10
Total			250

Here are items to review:

- 1) Does each option have a vote selected for them?
- 2) Does each option have a unique number assigned from any other option in the contest?
- 3) Are Over Votes tested?
- 4) Are Under Votes tested?
- 5) Were blank sheets cast?
- 6) Does each option have a unique number assigned from any other option on the ballot

With unique numbers we can determine if votes are flipped.

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2024 – Brookings, SD on the right path

Detail Results By Precinct 1 of 3

Machine ID: A Machine #: 8513090102 Brookings County, South Dakota
Absentee State Primary
06/03/2024 09:41:59 06/04/2024

First Ballot Date Time: 06/03/2024 09:05:53 Total Sheets Processed: 229
Last Ballot Date Time: 06/03/2024 09:41:40 Total Ballots Cast: 229
Blank Sheets Cast: 30

Party	Ballots Cast
Republican Party	168
Democratic Party	61
NONPARTISAN	0

Ballot Style	Sheets Processed
Seq:00001 Typ:01 Spl:01	31
Seq:00002 Typ:01 Spl:01	41
Seq:00003 Typ:01 Spl:01	31
Seq:00004 Typ:01 Spl:01	32
Seq:00005 Typ:01 Spl:01	33
Seq:00001 Typ:02 Spl:01	61

Contest	Votes
REP State Senator, District 08 (Vote For 1)	
Casey Crabtree	18
Rick Weible	33
Over Votes	15
Under Votes	30
Total	96
REP State Representative, District 07 (Vote For 2)	
Roger DeGroot	12
Jeffrey A Struwe	21
Melissa Heermann	30
Over Votes	20
Under Votes	61
Total	144
REP State Representative, District 08 (Vote For 2)	
Matt Wagner	19
Tim Walburg	34
Tim Reisch	47
Over Votes	30
Under Votes	62
Total	192

In this Election, the Republicans have a separate ballots for their races. There are 5 ballot styles. (The 6th one is the Democrat Ballot)

Here the Brookings County Auditor get high marks.

- 1) There are unique numbers for each candidate within each race.
- 2) Over votes were tested.
- 3) Under Votes (blank ballots) were tested.

Areas for Improvement

- 1) Prime Number for one candidate in each race is not consistent.
- 2) Unique Number assigned for all options for entire ballot.

It is known that there was an issue with the ExpressVote Ballots.

- 1) The county did not test, due to programming issue, their plan is to manually convert those ballots to hand marked ballots for processing.

2024 – Brookings, SD on the right path

1 of 3
South Dakota
Primary
2024

2 of 3

Detail Results By Precinct

Machine ID: A Machine #: 8513090102 Brookings County, South Dakota
Absentee State Primary
06/03/2024 09:41:59 06/04/2024

First Ballot Date Time: 06/03/2024 09:05:53 Total Sheets Processed: 229
Last Ballot Date Time: 06/03/2024 09:41:40 Total Ballots Cast: 229
Blank Sheets Cast: 30

Contest	Votes
REP County Commissioner At Large	
(Vote For 2)	
Dave Miller	31
Michael D. Bartley	55
Doug Post	77
Over Votes	50
Under Votes	123
Total	336
REP Precinct Committeeman Precinct-05	
(Vote For 1)	
Leon Pesall	5
Jeremiah VanOverbeke	11
Patrick Powers	15
Over Votes	5
Under Votes	5
Total	41
REP Precinct Committeeman Precinct-12	
(Vote For 1)	
Donald L. Jacobsma	5
Regg Neiger	12
Over Votes	5
Under Votes	10
Total	32
REP Precinct Committeeman Precinct-15	
(Vote For 1)	
Joshua Spilde	8
James Mitchell	10
Over Votes	5
Under Votes	10
Total	33
REP Precinct Committeewoman Precinct-05	
(Vote For 1)	
Cynthia "Cindy" Mydland	6
Nancy Stewart	10
Over Votes	5
Under Votes	20
Total	41
REP Precinct Committeewoman Precinct-15	

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- 1) The county did not test, due to programming issue, their plan is to manually convert those ballots to hand marked ballots for processing.

2024 – Brookings, SD on the right path

3 of 3

Detail Results By Precinct

Machine ID: A Machine #: 8513090102 Brookings County, South Dakota
Absentee State Primary 06/04/2024

06/03/2024 09:41:59
First Ballot Date Time: 06/03/2024 09:05:53 Total Sheets Processed: 229
Last Ballot Date Time: 06/03/2024 09:41:40 Total Ballots Cast: 229
Blank Sheets Cast: 30

Contest	Votes
(Vote For 1)	6
Sara Spilde	12
Marla Mitchell	5
Over Votes	10
Under Votes	33
Total	
DEM Presidential Candidate	
(Vote For 1)	6
Marianne Williamson	10
Joseph R Biden Jr	15
Dean Phillips	20
Armando Perez-Serrato	5
Over Votes	5
Under Votes	61
Total	

In this Election, the Democrats have a separate ballot just for the Presidential Primary.

Here the Brookings County Auditor get high marks.

- 1) There are unique numbers for each candidate for President.
- 2) Over votes were tested.
- 3) Under Votes (blank ballots) were tested.

Areas for Improvement

- 1) Prime Number for one candidate in each race is not consistent.

It is known that there was an issue with the ExpressVote Ballots

- 1) The county did not test, due to programming issue, their plan is to manually convert those ballots to hand marked ballots for processing.

Gregory County, SD

In this Election, the Democrats have a separate ballot just for the Presidential Primary, both Parties have the Initiated Ballot Measure.

Here the Gregory County Auditor correctly

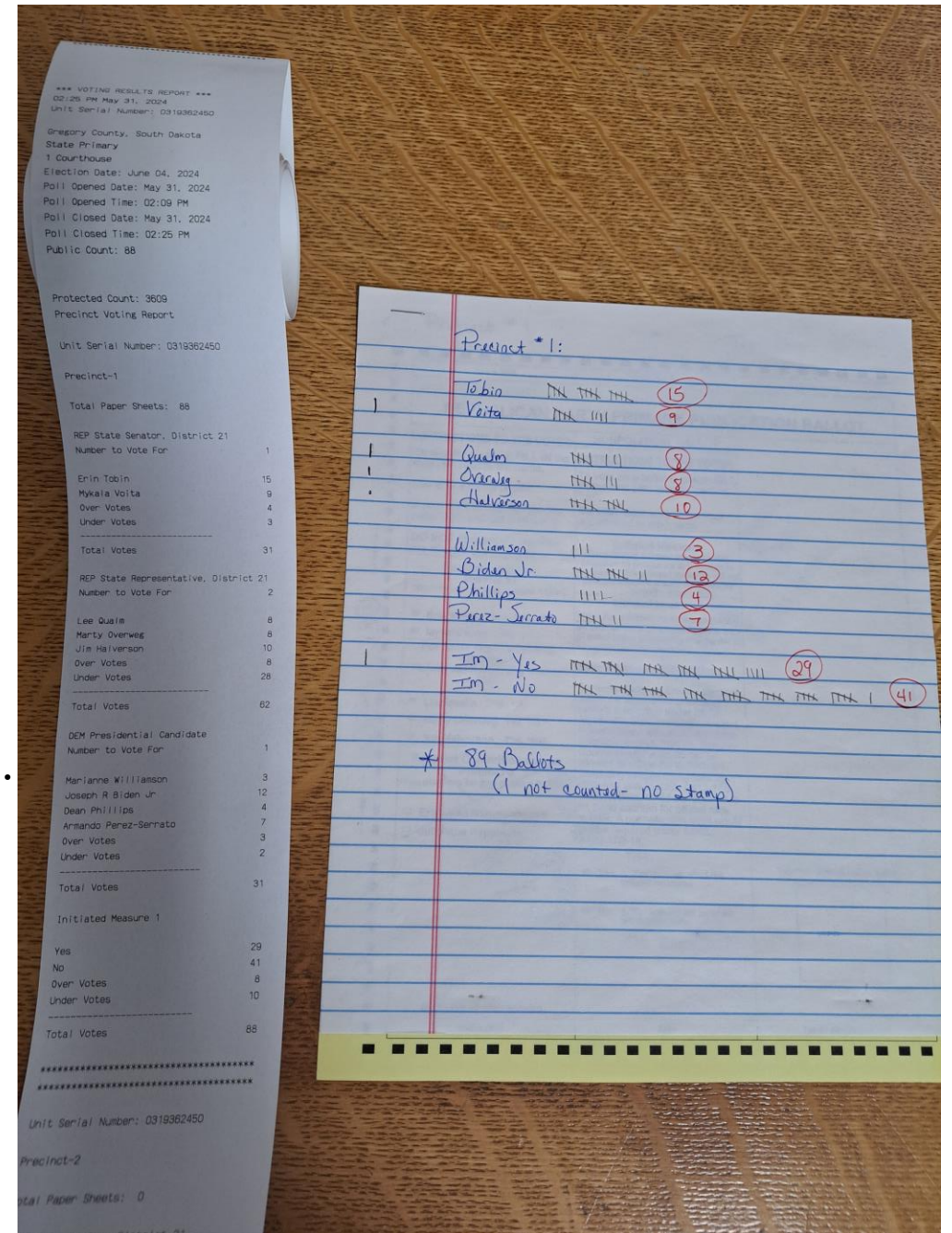
- 1) Used unique numbers for the Senate(R), President (D), IM races
- 2) Over votes were tested.
- 3) Under Votes (blank ballots) were tested.

Areas for Improvement

- 1) The House(R) race failed to have unique numbers for each option.
- 2) Prime Number for one candidate in each race is not consistent.

It is not noted if the ExpressVote Systems were properly tested here.

***A Hand Recount of the House race of this precinct is recommended due to improper test deck.**



Gregory County, SD

In this Election, the Democrats have a separate ballot just for the Presidential Primary, both Parties have the Initiated Ballot Measure.

Here the Gregory County Auditor correctly

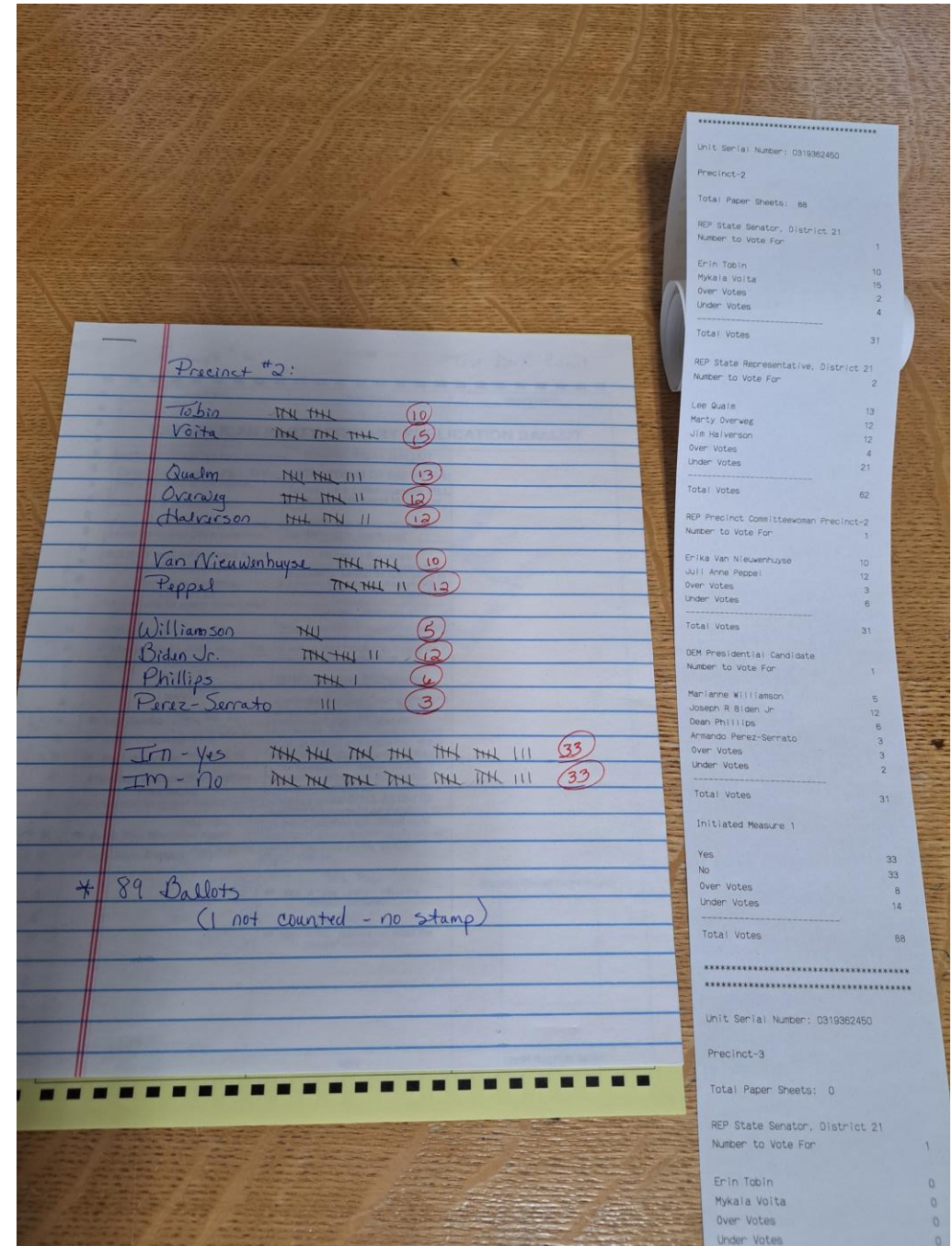
- 1) Used unique numbers for the Senate(R), President (D), and the Precinct Committee Race(R).
- 2) Over votes were tested.
- 3) Under Votes (blank ballots) were tested.

Areas for Improvement

- 1) The House(R) and Initiated Ballot Measure races failed to have unique numbers for each option.
- 2) Prime Number for one candidate in each race is not consistent.

It is not noted if the ExpressVote Systems were properly tested here.

***A Hand Recount of the House and IM races of this precinct is recommended due to improper test deck.**



Gregory County, SD

In this Election, the Democrats have a separate ballot just for the Presidential Primary, both Parties have the Initiated Ballot Measure.

Here the Gregory County Auditor correctly

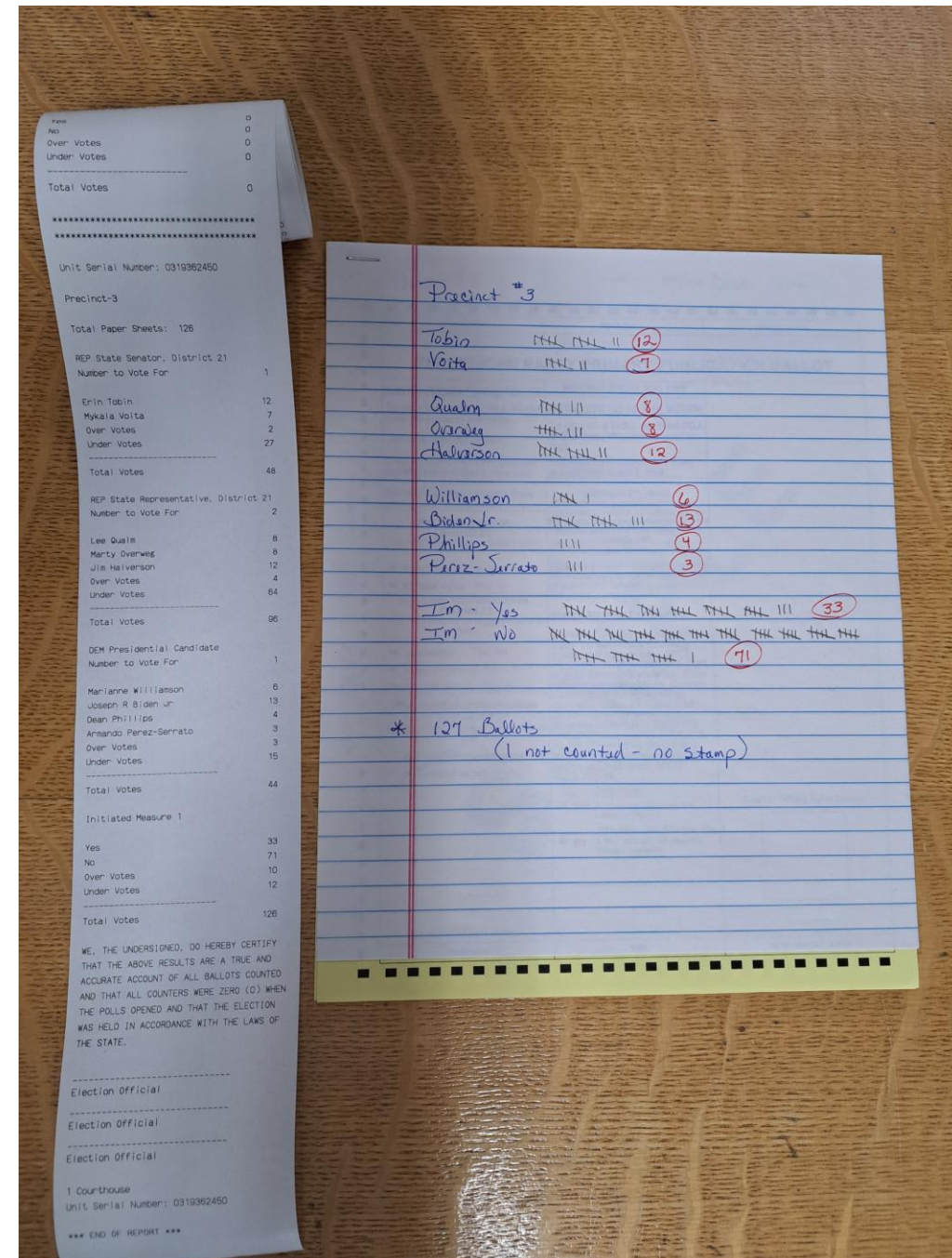
- 1) Used unique numbers for the Senate(R), President (D), IM races
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Areas for Improvement

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***A Hand Recount of the House Race of this precinct is recommended due to improper test deck.**



What next?

- This is crucial evidence for voters and candidates.
- If we find any issues:
 - Could require retesting
 - Could compel a hand count of the elections for those races where the test decks did not properly test the equipment
 - Could require a 100% Post Election Audit
 - Could require discovery of the cast vote records and ballot images
 - Could point to incompetence and termination of election officials
 - Could result in lawsuits
 - Could result in Civil Rights Investigations
- Take good notes, consider writing an affidavit if you believe the issues you witness may impact the election.



Logic & Accuracy Testing – Questions to Ask.

- 1) Does each option have a vote selected for them?
- 2) Does each option have a unique number assigned from any other option in the contest?
- 3) Are Over Votes tested?
- 4) Are Under Votes tested?
- 5) Were Blank Ballots cast?, If so how many? (at least 10)
- 6) Does each option have a unique number assigned from any other option on the ballot?
- 7) Is a prime number assigned to each contest?
- 8) Did they test with folded ballots? If, so how many. (at least 10%)
- 9) Did they test with a sharpie to see if any bleed through the other side?
- 10) Did they run 10 copies of the ballot, through the copier? Do the copies show any indication of bleed through from the other side on the copies?

Questions to Ask & Building the Evidence

- 1) Get the sample ballots from every precinct for each unique ballot design.
- 2) Ask if they fold the absentee ballots when mailing them out?
- 3) Ask if they tested the ExpressVote machines separately, ask for copies of reports?
- 4) Ask how many ExpressVote ballots they used for each precinct.
- 5) Evaluate if they tested enough ballots with folds, 10% is required (SD Rule - [5:02:09:01.02](#))
- 6) Ensure all tabulators are tested, get Test Deck Report(s) for each tabulator.
- 7) Ask for the Cast Vote Records (Minnehaha, Lincoln, Pennington and Davison only) *
- 8) Get the Ballot Images (Minnehaha, Lincoln, Pennington and Davison only) *

If they can not provide this, they have not proven they know how to use the election equipment, nor have they proven the systems are secure and ready for the election.

***NOTE: During Public Accuracy Tests, ask for Ballot Images and CVRs, since there is no identifying information of a voter issue here...so privacy is not an issue at all. (Voters do not fill out ballots for the test decks)**



Questions for the Auditors

- Do you have the EAC Certificate?
- When was the last time you scanned the equipment for viruses?
- When was the battery replaced? Is it older than 3 years?
- When was the last time ES&S did maintenance?
- Did you backup the tabulator before maintenance was done?
- Do you have a logbook for the storage of tabulators, that notes who had access to the systems?

