# **United States Department of the Interior**

National Park Service

# **National Register of Historic Places Registration Form**

This form is for use in nominating or requesting determinations for individual properties and districts. See instructions in National Register Bulletin, How to Complete the National Register of Historic Places Registration Form. If any item does not apply to the property being documented, enter "N/A" for "not applicable." For functions, architectural classification, materials, and areas of significance, enter only categories and subcategories from the instructions.

1. Name of Property	
Historic name: West-Virginia-Pennsylvania Sincl	
Other name/site number: Pennsylvania Southwest	t Cornerstone
Name of related multiple property listing:	
N/A (Enter "N/A" if property is not part of a multiple p	aronarty listing
(Enter 19/A if property is not part of a multiple p	property listing
2. Location	
Street & number: 10 off County Road	
City or town: Georgetown State: WV	
New Freeport PA/Greene County Littleton WV/	Wetzel County
Not For Publication: Vicinity:	
3. State/Federal Agency Certification	
As the designated authority under the National Hi I hereby certify that this X nomination request documentation standards for registering properties in meets the procedural and professional requirements seems.	st for determination of eligibility meets the the National Register of Historic Places and
In my opinion, the property _X_ meets does recommend that this property be considered significance: nationalxstatewide Applicable National Register Criteria:	
<u>X</u> A <u>B</u> <u>C</u> <u>D</u>	
Mendett Trevolats Deputy State Histo	ric Preservation Officer 7/22/2025
Signature of certifying official/Title:	Date
West Virginia State Historic Preservation Office	
State or Federal agency/bureau or Tribal Gov	vernment
In my opinion, the property X meets doe	s not meet the National Register criteria.
anchea At a Donald	6/16/2025
Signature of commenting official:	Date
PA Historical & Museum Commission / PA State Hist	oric Preservation Office
Title: Deputy State Historic Preservation Officer	State or Federal agency/bureau or Tribal Government

West Virginia-Pennsylvania Sinclair Cornerstone Marshall, WV / Wetzel, WV / Greene, PA Name of Property County and State 4. National Park Service Certification I hereby certify that this property is: \_\_\_ entered in the National Register \_\_\_ determined eligible for the National Register \_\_\_ determined not eligible for the National Register \_\_\_ removed from the National Register \_\_ other (explain:) Signature of the Keeper Date of Action 5. Classification **Ownership of Property** (Check as many boxes as apply.) Private: Public – Local Public – State Public – Federal **Category of Property** (Check only **one** box.) Building(s) District Site Structure Object

Vest Virginia-Pennsylvania Sinclair Co	ornerstone	Marshall, WV / Wetzel, WV / Greene, PA
ame of Property		WV / Greene, PA County and State
Number of Resources within 1		
(Do not include previously liste	d resources in the count)	
Contributing	Noncontributing	
8	8	
0	0	buildings
0	0	sites
0	0	structures
1	0	objects
1	0	Total
6. Function or Use Historic Functions (Enter categories from instruction)	ons.)	
Other/Boundary Marker		
Current Functions (Enter categories from instruction	ons.)	
Other/Boundary Marker		

West Virginia-Pennsylvania Sinclair Cornerstone	Marshall, WV / Wetzel, WV / Greene, PA		
Name of Property	County and State		
7. Description			
Architectural Classification (Enter categories from instructions.) N/A			
<u>IV/A</u>			

Materials: (enter categories from instructions.) sandstone

# **Narrative Description**

(Describe the historic and current physical appearance and condition of the property. Describe method of construction, setting, size, and significant features. Indicate whether the property has historic integrity.)

## **Summary Paragraph**

The West Virginia-Pennsylvania Sinclair Cornerstone is set along the incline of a steep ravine in densely wooded vacant private land owned by the Bilinovich family. The monument remains set in its original position from 1883. It touches three parcels of land in three counties across two states. The corner of West Virginia and Pennsylvania is accessible only on foot by following overgrown trails that were utilized for logging purposes several years ago. The cornerstone is in a remote and rural spot which is best reached during ideal weather conditions because of the difficult terrain surrounding its location.

The West Virginia-Pennsylvania Sinclair Cornerstone is an obelisk monument, true to definition in form and purpose. It is a two-section pillar of hard sandstone in a uniform dark blue gray color, which tapers into a decisive point at the top. The normal oxidation process has altered hues of blue to appear light gray on the east and west sides where sun exposure is concentrated. The cornerstone is cut Berea sandstone from Ohio with a composition of approximately 93% silica. The high presence of silica accounts for its impressive durability. The dense mineral properties have allowed the cornerstone to resist harsh weathering remarkably well. Slightly over three feet of the six-foot monument emerges from the soil. One half visible, and one half out of sight to provide a secure foundation. Despite being set amongst towering oaks, the West Virginia-Pennsylvania Sinclair Cornerstone stands tall in the forest with commemorative engraved features adorning all four sides. It exists not out of place but rather in place, memorializing a

<sup>&</sup>lt;sup>1</sup> J.A. Bownecker, Geological Survey Of Ohio. (Columbus: Springfield Publishing Company 1915), 74.

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great event. America's Mason and Dixon Line does not extend one step further westward beyond the parameters permanently set by this single stone.

The dressed stone monument touches Greene County, Pennsylvania to the north and east, Marshall County, West Virginia to the north and west, and Wetzel County, West Virginia to the south. The combined acreage of these three parcels of land spanning the three counties is 156.84 acres. The area has maintained the integrity of a natural unforgiving landscape for centuries. The physical descriptions and challenges faced by the surveyors while running the lines of 1782-1785 and 1883-1885 appear to be unchanged. Surveyor, Andrew Ellicott, provides details about the terrain and conditions he encountered while enroute to Pennsylvania's southwest corner in 1785. His first-hand centuries-old account describes the wilderness as if it had been written today.

"...In our way to the Corner we roused some fine Deer-this part of the Country is not only a Wilderness at present but must ever continue so- the Vallies are too small for Cultivation and the hills too steep and high, and in short they are only separated by Crevices- their Tops are so narrow that frequently two Waggons would reach across-...Poison-Vine is in great abundance-my Hands are completely blistered as if I had applied a plaster of cantherides- I cannot see anything in this Wilderness that can make it tolerably agreeable-..."-Andrew Ellicott June 7th, 17852

The remote and undeveloped location has contributed to the physical preservation of the West Virginia-Pennsylvania Sinclair Cornerstone.

# **Narrative Description**

The West Virginia-Pennsylvania Sinclair Cornerstone is an obelisk dressed monument made from two solid pieces of sandstone quarried in Cleveland Ohio.<sup>3</sup> The first piece is completely set below the ground and not visible. It is a 15-inch square cube that serves as a base for the visible above ground section. The second piece is set upon the first piece where it meets the ground. The mounted second piece gradually narrows over the total 3.5 feet in length to form a 12-inch square. A small pyramid capped apex completes the second piece at its top. The two pieces, buried cube base and exposed dressed top, are securely cemented together presenting the appearance and strength of one continuous single stone.

The cornerstone is predominately dark gray in color. It is exceptionally dense with a hardness that is comparable to granite. The two pieced monument is a combined six feet in total length. Together the base and top weigh an estimated 600 pounds.

<sup>&</sup>lt;sup>2</sup> Catherine Van Cortland Matthews, Andrew Ellicott-His Life and Letters. (New York: Grafton Press, 1908), 40-41.

<sup>&</sup>lt;sup>3</sup> J. Simpson Africa, *Report of the Secretary of Internal Affairs of the Commonwealth of Pennsylvania*. (Harrisburg: Edwin K. Meyers State Printer, 1887), 454.

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The bottom half of the cornerstone is submerged two- and one- half feet underground and secured to the dressed stone top with a cement collar to create an immovable monument.<sup>4</sup> The intent was for the importance of the southwest corner of Pennsylvania to be permanently marked and clearly visible. The top three-and one-half feet are above ground. The monument is standing straight, however, an optical illusion created by the incline of the ridge that it is set into can make the cornerstone appear as though it is slightly leaning.

The monument has sustained weathering from 14 decades of exposure to the outdoor elements. As a result, some insignificant yet visible chipping is present along all the edges. In addition, slight deterioration and fading of the engraved features is noticeable. Lichen growth is present throughout the surface of the entire monument. Overall, the West Virginia-Pennsylvania Sinclair Cornerstone is in notably good condition with physical integrity well preserved considering its age of 142 years. Being located on private remote land has contributed to the monument's longevity. Authorization is required to access the property, which has helped to protect the stone from harm. The cornerstone is set into the side of a mountaintop ridge surrounded by a forest of well established oak trees and a thicket of natural vegetation. Throughout time, the descriptions of the area have remarkably remained the same as if no time has passed since Ellicott, Rittenhouse, and Sinclair made history in this reoccurring space. The southwest corner of Pennsylvania coexists with West Virginia in agreeable solitude.

The very top of the cornerstone has a distinct surveyor's cut cross marking. Each façade references the state boundary that is marks. The north façade also identifies the survey and set year of 1883.

#### NORTH FAÇADE

Marked with the number 1883, representative of the survey and set year. Below 1883 is a single letter P for Pennsylvania/Greene County. A separation line follows the P to indicate where the State Line divides the two states. To the west of the boundary line engraving are the letters, W.V. representing West Virginia/Wetzel County.

#### SOUTH FAÇADE

Marked with the letters W.V. representing West Virginia/Wetzel County

# EAST FAÇADE

Marked with vertical letters W.V. representing West Virginia/Wetzel County. A horizontal P representing Pennsylvania/Greene County is next to the W.V.

<sup>&</sup>lt;sup>4</sup> Henry Houck. Report of the Secretary of Internal Affairs. (Harrisburg: Wm. Stanley Ray State Printer, 1916), 70b.

West V	irginia-Pe	nnsylvania	Sinclair	Cornerstone
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Name of Property

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# WEST FAÇADE

Marked with the letters W.V. representing West Virginia/Marshall and Wetzel County.

The 15-inch base of the monument straddles the states of West Virginia and Pennsylvania and is broken down accordingly:

- A total of 1/4<sup>th</sup> of the entire cornerstone is set in Pennsylvania within Greene County. This is the most northeastern quadrant of the base.
- A total of 3/4<sup>th</sup> of the entire cornerstone is set in West Virginia. Half of the entire cornerstone is set in Wetzel County. These are the two southern quadrants. The remaining 1/4<sup>th</sup> of the cornerstone is the northwestern quadrant of the base. It is set in Marshall County.

The West Virginia-Pennsylvania Sinclair Cornerstone is physically distinct from the other monuments set during this survey. It is the most prominent in size and significance. The four marked facades of the cornerstone are unique to this monument alone. Between 1883-1885, Sinclair established two categories of stones to collectively mark the boundary lines he had surveyed: 47 Sinclair State Lines stones and 40 Sinclair Parallel Line stones. These 87 monuments share the same physical features. The Sinclair State Line stones and the Sinclair Parallel Line stones are smaller in size compared to the commanding cornerstone. Their individual distance in miles is calculated from the cornerstone and engraved into the façade which faces the southwest corner of Pennsylvania. On each south façade of every Sinclair State Line stone and each west façade of every Sinclair Parallel Line stone are the number of miles which lead back to the southwest corner of Pennsylvania. For every stone to identify its independent location relevant to one common place, it solidifies the West Virginia-Pennsylvania Sinclair Cornerstone as the visibly clear monument of utmost importance.

Sinclair set three stand-alone principal stones in addition to the 87 boundary stones. The principal stones, in survey and set date order are the Initial Sinclair Stone of 1883, the West Virginia-Pennsylvania Cornerstone of 1883, and the Sinclair Stone of 1885. Each Principal Sinclair stone represents completion as either a point of beginning or a terminus point for the lines drawn and traced by Sinclair. The sole monument to satisfy the alpha and omega of the 1883-1885 survey is the West Virginia-Pennsylvania Sinclair Cornerstone. It is a monument which marks a beginning and ending as one.

Five Sinclair Meridian Line stones were also set, bringing the combined inventory for all four collections of Sinclair stones to 95 in total. However, the Meridian Line stones are set completely within the state of Pennsylvania, therefore, they do not mark any boundary lines. These five stones act as surveyor reference points in conjunction with positions relevant to the State Line.

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The physical and symbolic significance of the cornerstone along with its relativity to all other Sinclair stones are the primary reasons which account for why the cornerstone stands with the most compelling importance. It is grand in both presence and purpose. The cornerstone is the representative of all 95 Sinclair stones. By using the cornerstone as a reference, we can locate all 87 Sinclair boundary monuments. No other Sinclair stone can map out the others. Without determination of Pennsylvania's southwest corner, the Ellicott Line and State Line are absent of a beginning and the Mason and Dixon Line is left without an ending. The West Virginia-Pennsylvania Sinclair Cornerstone is the astronomical consummation of 39° 43'18".19N 80° 31'08.20"W.

According to the very accomplished and leading authority on geodesy, retired chief geodetic surveyor and director of the National Geodetic Survey (NGS), Mr. David Doyle, the difference between astronomic and geodetic values can reflect a range of 330-500 feet. Our present-day Global Positioning System takes into consideration deflection of vertical.<sup>5</sup> On March 1, 2025, a survey was conducted under the supervision of Kaden C. Statler, assistant professor of Surveying and Geomatics Engineering Technology at Fairmont State University, for the benefit of this nomination. The data analysis identified the 2025 GPS coordinates for the West Virginia-Pennsylvania Sinclair Cornerstone monument as: 39° 43' 16.65"N 80° 31' 09.11"W.<sup>6</sup>

<sup>5</sup> David Doyle, telephone interview by Andrea Witwer, January 6, 2025.

<sup>&</sup>lt;sup>6</sup> Kaden Statler, telephone interview by Andrea Witwer, March 18, 2025.

West Virginia-Pennsylvania Sinclair Cornerstone	Marshall, WV / Wetzel WV / Greene, PA
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8. Statement of Significance	
Applicable National Register Criteria (Mark "x" in one or more boxes for the criteria qualisting.)	alifying the property for National Register
A. is associated with events that have ma patterns of our history.	de a significant contribution to the broad
B. Property is associated with the lives of	persons significant in our past.
C. Property embodies the distinctive char construction or represents the work of or represents a significant and distinguindividual distinction.	a master, or possesses high artistic values,
D. Property has yielded, or is likely to yie history.	eld, information important in prehistory or
Criteria Considerations (Mark "x" in all the boxes that apply.)	
A. Owned by a religious institution or use	ed for religious purposes
B. Removed from its original location	
C. A birthplace or grave	
D. A cemetery	
E. A reconstructed building, object, or str	ructure
F. A commemorative property	
G. Less than 50 years old or achieving sig	gnificance within the past 50 years

West Virginia-Pennsylvania Sinclair Cornerstone Marshall, WV / Wetzel, WV / Greene, PA Name of Property County and State Areas of Significance (Enter categories from instructions.) Politics/Government Engineering **Period of Significance** 1883 **Significant Dates Significant Person** (Complete only if Criterion B is marked above.) **Cultural Affiliation** Architect/Builder Cephas Hempstone Sinclair

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**Statement of Significance Summary Paragraph** (Provide a summary paragraph that includes level of significance, applicable criteria, justification for the period of significance, and any applicable criteria considerations.)

The West Virginia-Pennsylvania Sinclair Cornerstone is eligible for inclusion in the National Register of Historic Places under Criterion A with contributing significance in Engineering and Politics/Government. The period of significance is 1883, the year the stone was put in place. The cornerstone monument is significant at a state level for reestablishing and permanently marking the terminus point of the extension of America's most famous boundary, the Mason and Dixon Line. Its placement in 1883 completed the Mason and Dixon Line. The state borders of West Virginia and Pennsylvania converge at this location, forming a strategic corner set in stone. The West Virginia-Pennsylvania Sinclair Cornerstone is a monument of elevated importance among the entire collection of stones Sinclair set upon lines he traced between 1883-1885. This monument stands alone and is identified by name instead of as an assigned number in an inventory category. This is the only Sinclair Survey stone which bridges 1883 with 1885. Direction and distance for the entire 1883-1885 Sinclair Survey are relevant to one monument, the West Virginia-Pennsylvania Sinclair Cornerstone.

For the past 142 years, the West Virginia-Pennsylvania Sinclair Cornerstone has stood as a tangible connection to the collective history which has politically shaped and physically formed two entire states. This sandstone monument commemorates a collision point for three independent episodes of our past united by destination, the southwest corner of Pennsylvania. These defining moments are the conception of Pennsylvania through a charter granted by the crown in 1681; a resolution reached in 1779 to the colonial Pennsylvania-Virginia Boundary Controversy; and lastly, by the bounds of Virginia relinquished in 1863 to create the Union's 35<sup>th</sup> state, West Virginia. The significance of the political compromise from these events, separated by decades and consequential wars, is responsible for defining the present-day demarcation of West Virginia from Pennsylvania. This feat was accomplished through the 1784 engineering genius of astronomical evaluation that converted increments of time out of degrees of longitude to produce miles of distance. By appointment of a joint West Virginia-Pennsylvania state boundary commission established in 1879, with an objective to resurvey shared borders gained by West Virginia through statehood in 1863, engineer Cephas Sinclair retraced the invisible 21.1-mile extension segment of the distinguished parallel, 39° 43'18"N, and cemented its terminus point in history with the permanent and visible West Virginia-Pennsylvania Sinclair Cornerstone in 1883.

The West Virginia-Pennsylvania Cornerstone monument brings 344 years of our nation's past forward. This 19<sup>th</sup> century stone marks the location of full circle history with a 17<sup>th</sup> century beginning and an 18<sup>th</sup> century ending.

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Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

#### INTRODUCTION

The West Virginia-Pennsylvania Sinclair Cornerstone marks the conclusion of an east to west segment of latitude which extends America's most prominent boundary, the Mason and Dixon Line. This final segment stretches the masterful Mason and Dixon parallel, 21.1 miles further west from where the two English scholars encountered the abrupt and unexpected close to their survey in America.

Before proceeding further into 1883, this nomination requires we recognize October 17, 1767. It is the date which set the future jurisdiction of Mason and Dixon's parallel for Pennsylvania and West Virginia into motion. Mason and Dixon's journal describes the pivotal Sunday when their survey ran its course despite remaining latitude to be calculated for their line. After making a final mark, the two turned back east leaving the full length of Pennsylvania for another era to solve.

"...on top of a very lofty Ridge...we set up a Post marked W on the West Side and heaped around it Earth and Stone three yards and a half diameter at the Bottom and five feet High. The figure nearly conical."-October 17, 1767-Mason and Dixon/Brown's Hill

Englishmen Charles Mason and Jeremiah Dixon were two esteemed land surveyors, skilled in astronomy. They conducted the equivalent of the first geodetic survey in British America. They were mathematical minds ahead of their time. The British proprietors of Maryland, the Calverts, and of Pennsylvania, the Penns, retained the two scientific men in London, England on August 4, 1763. Mason and Dixon signed a contract to execute a survey, in the New World, which would peacefully resolve the ongoing land boundary dispute between the two colonies caused by overlapping territory. One of the conditions of their joint agreement was for Mason and Dixon to determine and run Pennsylvania's southern boundary to its western limit. After four extraordinarily arduous years in America, Mason and Dixon were within two weeks of satisfying their contract when they crossed the Native American Catawba Warpath. The potential for encountering hostilities and political ramifications by proceeding west across southern Pennsylvania was too high of a risk to take. At this disappointing juncture, most of the survey entourage had abandoned the duo despite being so close to achieving a terminus point for their line. Their survey ended and their line was paused for years.

<sup>&</sup>lt;sup>7</sup>A. Hughlett Mason, *The Journal of Charles Mason and Jeremiah Dixon 1763-1768* (Philadelphia: American Philosophical Society 1969), 190.

<sup>&</sup>lt;sup>8</sup>Doyle, telephone interview.

<sup>&</sup>lt;sup>9</sup> A. Hughlett Mason, 8.

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One Sinclair Parallel stone preserves the historic site where Mason and Dixon stopped. This single stone is listed on the National Register of Historic Places/73001922, June 25, 1973. The "high lofty ridge," referenced by Mason and Dixon is known as Brown's Hill. The outstanding miles which complete the collaborative work of 1763-1767, are identified as the extension segment of the Mason and Dixon Line. It stretches from Brown's Hill to the southwest corner of Pennsylvania. The tandem connectivity of the Brown's Hill stone, terminus point of the Mason and Dixon Line survey and the West Virginia-Pennsylvania Sinclair Cornerstone, terminus point of Mason and Dixon Line extension, is preserved because of Cephas Hempstone Sinclair.

The West Virginia-Pennsylvania Sinclair Cornerstone equals 317 Mason and Dixon surveyed miles plus 21.1 Sinclair surveyed miles. Throughout Mason and Dixon's journal, the most repeated entry is, "continued the line", as they steadily progressed westward for four years. Sinclair, "completed the line", with his cornerstone and then proceeded east to Brown's Hill. The corner location marked by its permanent monument is the physical collective of hundreds of years in the making.

In the beginning, the end point of Pennsylvania was first imagined in degrees, not miles. Before the collaboration of great minds responsible for solving the equation of Pennsylvania's southwest limit even existed, the illusive corner was a figment of unknown longitude penned into the 1681 Charter of Pennsylvania by the founder father himself, William Penn II, and granted by King Charles II.

"...East by the Delaware River, ...The said lands to extend Westward five degrees of longitude, to bee computed from the said Eastern Bounds, ..." -Charter of Pennsylvania, March 4, 1681.<sup>11</sup>

This is the only colonial charter to describe a terminus point in degrees of longitude. Meridians, referred to as lines of longitude, calculate distance through timekeeping. Converting degrees of longitude into minutes was still a mathematical mystery in the late 17<sup>th</sup> century, therefore, William Penn II had awarded himself territory inconceivable of accurate limits. After 103 years of advancing scientific knowledge, Penn's five degrees of longitude was valued at twenty minutes of time. In 1784, Andrew Ellicott and David Rittenhouse, through astronomical evaluation, determined the western extent of Pennsylvania. Once the correct meridian was discovered, Mason and Dixon's parallel was able to be extended to its intended distance in degrees, miles and minutes. The West Virginia-Pennsylvania Sinclair Cornerstone is a lasting political testimony to the fulfillment of the Charter of Pennsylvania made possible through engineering precision.

The corner location anchors the state of West Virginia to the commonwealth of Pennsylvania. This same land was once occupied by contemptuous Virginia in the lead up to the Revolutionary

<sup>10</sup> E.L. Kemp, "Mason and Dixon Line Survey Terminal Point-Brown's Hill," National Parks Service, accessed October 17, 2024, <a href="https://npgallery.nps.gov/AsetDetail/NRIS/73001922">https://npgallery.nps.gov/AsetDetail/NRIS/73001922</a>.

<sup>&</sup>lt;sup>11</sup> "Pennsylvania Charter to William Penn-March 4,1681," Pennsylvania Historical and Museum Commission, accessed May 26, 2024, <a href="http://www.phmc.state.pa.us/portal/communities/documents/1681-1776/pennsylvania-charter.html">http://www.phmc.state.pa.us/portal/communities/documents/1681-1776/pennsylvania-charter.html</a>.

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War. The incomplete Mason and Dixon survey left Pennsylvania without a line to contain Virginia south and west. The open border fueled the ongoing Pennsylvania-Virginia Boundary Controversy. After fourteen failed attempts to negotiate a solution, the two colonies reached an agreement in 1779 on neutral ground in Baltimore. The resolution to 30 years of disagreement was straight forward, simply continue Mason and Dixon's line beyond the survey terminus point to the believed rightful end. Both parties challenged the terms, causing a series of delays. In 1782, it became necessary to put a temporary border in place as a measure of good faith and to commence the process of restoring civility to the region. Alexander McClean and Joseph Neville started where Mason and Dixon had ended fifteen years earlier. They did not perform any survey work. They followed orders and only ran 39°43 18N for 23 miles west. Their instructions were:

"...at the second crossing of Dunkard creek and extend the line twenty-three miles."-The Baltimore Agreement of 1779<sup>12</sup>

In the wake of becoming a new Republic, the once rival and former colonies of Virginia and Pennsylvania found it prudent to legally consummate their temporary 23-mile line through astronomical evaluation. The study of stars revealed that McClean and Neville exceeded five degrees of longitude from the banks of the Delaware River. They ran Pennsylvania into Virginia by 1.9 miles too far west. To fix an end point to the complicated extension segment required a new survey conducted by the most brilliant scientific minds which included Andrew Ellicott and David Rittenhouse. This survey took place during the summer of 1784. It did not involve survey work on the ground. It was dependent upon the stars in the sky to decipher time as degrees. David Rittenhouse best describes the momentous achievement:

"...and above all the Regard we ought to have to our characters with all the Gentlemen of Astronomical Knowledge in Europe, whose Eyes will be turned upon us, and who will expect from us all that Precision that can be derived from the greatest astronomical Discoveries that have yet been made; ...An anxious desire to gratify the astronomical World in the performance of the Problem which has never yet been attempted in any Country, by a Precision and Accuracy that would do no Dishonour to our Characters had induced us to suffer our names to be mentioned in the accomplishments of the Work."-David Rittenhouse to the President and Supreme Executive Council of Pennsylvania<sup>13</sup>

In another letter written by Rittenhouse to his close friend, Thomas Jefferson, he explains away the extra miles afforded to Pennsylvania in the 1779 agreement but returned to Virginia in 1784, ultimately awarded to West Virginia in 1863.

<sup>&</sup>lt;sup>12</sup> James Veech. *The Monongahela of Old* (Pittsburgh: 1858-1892)256

<sup>&</sup>lt;sup>13</sup> Thomas Cope. *Degrees Along The West Line, The Parallel Between Maryland and Pennsylvania*. Philadelphia: American Philosophical Society, vol.93, no.2, May 1949

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Name of Property "Dear Sir,

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That I have so long delayed acknowledging your favours has been owing to my absence from home. Two summers past I have been employed in determining the Boundary of Pennsylvania. In 1784, Observations were continued for near 3 months on the Eclipses of Jupiters Satellites, on the Banks of the Delaware and Ohio. The result gave 53.225 Miles to a degree of Longitude in Latitude 39. 43'. 18.", something less than we had reason to Expect from former measurements of Degrees of Lattitude..."-David Rittenhouse, 28 September 1785 -Philadelphia<sup>14</sup>

It is important to pause here in 1784, before proceeding onto 1883, and point out that Mason and Dixon's request to measure the true value of one degree of longitude upon their calculated West Line of latitude had been denied. Therefore, the distance beyond the terminus point of their survey in 1767 was an estimated 23-mile westward extension, opposed to an exact conversion of five degrees of longitude into minutes and then miles. They emphasized the uncertainty of their value of one degree of longitude as 53.554 miles along °39 43' 18" N. They used great forethought to document their disclaimer.

"By comparing our mensuration of a Degree of the Meridian with that made under the Arctic Circle, supposing the Earth to be a Spheroid of a uniform Density: a Degree of Longitude in the Parallel of the West Line is 53.5549 Miles. But the Earth is not known to be exactly a Spheroid, nor whether it is everywhere of equal Density; and our own experiment being not yet finished: We do not give in this as accurate."-Charles Mason and Jeremiah Dixon, January 8, 1768 - Philadelphia<sup>15</sup>

David Doyle, retired chief surveyor and director of the National Geodetic Survey/NGS, provides a summary quote:

"Mason and Dixon did a great job of estimating a degree of longitude as being 53.5549 miles. Using the definition of size of reference ellipsoid used by the United States to constrain our national horizontal datum, a contemporary value is 53.2758 miles."-David Doyle, January 6, 2025, Silver Springs, Maryland<sup>16</sup>

In 1883, after the passing of yet another century, Cephas Sinclair conducted the very first on-the-ground survey of the Mason and Dixon Line extension segment. He confirmed that the correct distance had been achieved through the Ellicott and Rittenhouse astronomical methods. The 1784 survey did not run miles, nor did the surveyors mark any distance other than to plant a post and build a temporary cairn of stones at the corner site. In 1863, West Virginia inherited the ruins of symbolic Virginia-Pennsylvania peace along with never-before-marked miles of the Mason and Dixon Line. The West Virginia-Pennsylvania Sinclair Cornerstone rises above buried old dominion division and seamlessly affixes the mountain state to the state of

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<sup>&</sup>lt;sup>14</sup> David Rittenhouse, "To Thomas Jefferson from David Rittenhouse, 28 September 1785," *founders Online*, National Archives, accessed May 26, 2024, <a href="http://founders.archives.gov/documents/Jeffereson/01-08-02-0444">http://founders.archives.gov/documents/Jeffereson/01-08-02-0444</a>. Hughlett Mason, 194.

<sup>&</sup>lt;sup>16</sup> Doyle, telephone interview.

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independence. Sinclair mapped out a secure future for the astronomical coordinates of 39° 43' 19"N 80° 31'08" W, with his permanent cornerstone monument. This nomination transports us to the end of the line, where the West Virginia-Pennsylvania Sinclair Cornerstone speaks for the entire collaborative history.

## **OPEN BORDERS**

Any territory missing beginning and end points presents an unorganized area. Undefined land cannot be adequately defended nor appropriately governed. Without visibly well-established division lines, boundaries are denied the ability to carry out their limits. Open borders invite disputes. When Mason and Dixon were prohibited from going the full distance of their survey in 1767, the short distance was open for controversy to plague Pennsylvania and Virginia. It took 17 years to attain political peace and sign a compromise into law. A temporary border without lasting markings was run in 1782 then fixed by stars in 1784. However, when the short-term markings disappeared along with those who made them, the land laid undefined once again. It reverted to open borders.

The southwestern region of Pennsylvania, which encompasses the 1779 agreed upon extension of Mason and Dixon's line, had remarkably eluded satisfactory physical marking. For eight consecutive decades, the famous parallel stretched beyond the Mason and Dixon survey terminal point on Brown's Hill and ran undetected through Pennsylvania and Virginia until West Virginia took possession in 1863. Local property disagreements along the Mason and Dixon Line extension often called for legal remedy.

One of the founding fathers of West Virginia, Waitman T. Willey, was familiar firsthand with the consequences of states with lines that fail to delineate. In 1858, five years ahead of statehood for West Virginia, Mr. Waitman defended Michael White of Virginia in a case against his neighbor George Hennen of Pennsylvania which involved extensive investigation into identifying the true location of Pennsylvania's southern state line because the extraordinary achievements of 1767, 1782, and 1784, in the business of setting the controversial boundary had been extensively documented but the past surveyors had failed to visibly distinguish Pennsylvania from Virginia.<sup>17</sup> The outcome of the White v. Hennen case was dependent upon an elderly trapper witness who remembered a pile of stones last seen in 1809 or 1810. These were the perceived ruins of what Ellicott and Rittenhouse had built to mark five degrees of longitude from the banks of the Delaware River in 1784. With both the trial and Virginia long behind him, the Honorable Waitman Willey prepared and presented a geographical history of Monongalia County for the West Virginia Historical Society in 1871. As he addressed the society members, he was sure to include his advocacy for the terminus point of the extension of Mason and Dixon's Line to receive a monument. Unknowingly, he was making a compelling case for the eventual West Virginia-Pennsylvania Sinclair Cornerstone.

<sup>&</sup>lt;sup>17</sup> Unknown, *Proceedings Of The West Virginia Historical Society (Volume 1)* (Morgantown: Morgan & Hoffman Printers, 1871), 75.

<sup>&</sup>lt;sup>18</sup> Ibid., 67.

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"The suggestion is here respectfully submitted, that the proper authorities of the States of Pennsylvania and West Virginia, should, before the remains of the aforesaid stone pile entirely disappear, erect there a suitable permanent monument, so that hereafter any dispute as to the original and exact locality of said stone pile may be avoided."-Hon. Waitman T. Willey -June 14,1871 -Morgantown, West Virginia<sup>19</sup>

The newly founded West Virginia was comprised of open border sections vacated by Virginia which required closure with Pennsylvania. Willey knew that the state he had helped to fight for would be subjected to future land conflicts and questionable jurisdiction matters with Pennsylvania unless West Virginia's borders were marked in stone and appeared clearly on maps. The first opportunity for both states to come together and draw visible state lines to erase any physical uncertainty as to where West Virginia began, and Pennsylvania ended, came to be in 1883 with the Sinclair Survey.

A joint boundary commission was formed between Pennsylvania and West Virginia in 1879. Each state was represented by three commissioners.<sup>20</sup>

West Virginia
Joseph C. Gist-Chairman
John J. Chipley
Francis L. Hoge

Pennsylvania
James Worrall-Chairman
James McCullough
William Walker

The commissioners convened in Pittsburgh, Pennsylvania on April 10, 1883, to call for the resurvey of their shared state lines. At this meeting, Cephas H. Sinclair was named as the qualified engineer to facilitate the survey. Mr. C. H. Van Orden was identified as his assistant; both were from the United States Coast and Geodetic Survey.

"The States of Pennsylvania and West Virginia having provided, by appropriate legislation, for the appointment of a joint commission to examine as to the true location of monuments which marked the boundary line between them, and to replace any monuments dilapidated or missing, the commissioners appointed, met in Pittsburg, April 10, 1883. It was there decided to secure, if possible, from the U.S. Coast and Geodetic Survey the detail of two of its officers to do the actual surveying, under the supervision of the commissioners. For this work the Federal Bureau detailed Mr. C.H. Sinclair with Mr. C.H. Van Orden, as his assistant. The plan of the survey involved the re-running and location of the true meridian as the western boundary of Pennsylvania and a subsequent running and remarking of the parallel of the Mason and Dixon line."-Professor Edward B. Matthews, 1909<sup>21</sup>

<sup>&</sup>lt;sup>19</sup> Unknown, 76.

<sup>&</sup>lt;sup>20</sup> J. Simpson Africa, 387.

<sup>&</sup>lt;sup>21</sup> Henry Houck, 200.

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## REACHING THE END OF THE LINE

One reaches the end of the Mason and Dixon Line extension by taking the steps further westward that Mason and Dixon were denied in October 1767.

"... This day the Chief of the Indians which joined us on the 16<sup>th</sup> of July informed us that the above mentioned War Path was the extent of his commission from the Chiefs of the Six Nations that he should go with us, with the Line; and that he would not proceed one step farther Westward."-Charles Mason, October 9, 1767 -Catawba Warpath<sup>22</sup>

Where their survey ends, the extension of their famous parallel begins. The extension continues their West Line segment for 21.1 miles westward. It took several attempts by men of great intellect over the course of 17 years to arrive at the location where the West Virginia-Pennsylvania Sinclair Cornerstone stands today. Each attempt to go the full distance advanced the line by miles in 1782 with Alexander McClean and Joseph Neville, by degrees and minutes in 1784 with Andrew Ellicott and David Rittenhouse, and by permanence with Cephas Sinclair in 1883.

Sinclair was charged with rediscovering lines drawn before his time. His evaluation commenced with finding evidence left behind by his predecessors. For this nomination a brief synopsis of the surveys which served as Sinclair's foundation will be presented in chronological order.

■ The Mason and Dixon Survey of 1763-1767 – The Base Line

This survey had never been repeated in its entirety and gave America her most famous boundary. The line bears the names of the two Englishmen who conducted the survey, Charles Mason and Jeremiah Dixon. It resolved the 80-year Penn-Calvert Land Boundary Dispute. Mason and Dixon created a 317-mile line comprised of four segments: arc, north, tangent and west lines. The West Line begins at the northeast corner of Maryland and ends at the southwest corner of Pennsylvania. Mason and Dixon ran and marked the initial 230.228 continuous east to west miles along 39°43'18"N. They never completed the final miles due to Native American unrest in the region beyond Brown's Hill. The total cost of the Mason and Dixon Survey was \$75,000 in 1768. The 2024 equivalent value is estimated at \$3,111,523.03. The expenses were equally split between Maryland and Pennsylvania.

"There is, perhaps, no line, real or imaginary, on the surface of the earth---not even excepting the equator and the equinoctial---whose name has been oftener in men's mouths..."-J. H. B. Latrobe -address on the Mason and Dixon Line to Historical Society of Pennsylvania -1854<sup>23</sup>

<sup>&</sup>lt;sup>22</sup> A. Hughlett Mason, 187.

<sup>&</sup>lt;sup>23</sup> J.H.B Latrobe, *The History Of Mason And Dixon's Line; An Address* (Philadelphia: Lippincott, Grambo, and Co. 1855), 5.

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■ The McClean and Neville Survey of 1782 – The Temporary Line

The sole purpose of this survey was to provide a temporary line between Pennsylvania and Virginia in accordance with the 1779 Baltimore Agreement. This survey was intended to provide Pennsylvania with a southwest corner based upon the remaining distance Mason and Dixon estimated in 1767 as the miles to satisfy the 1681 Charter of Pennsylvania. No actual survey work was done by McClean and Neville. The surveyors relied upon a compass and were accompanied by a militia to safeguard them from dangerous mobs of Virginians occupying Pennsylvania who were prepared to use force to oppose the Mason and Dixon Line from extending beyond Brown's Hill.<sup>24</sup> The survey took approximately a month and was completed in November 1782. The Ellicott and Rittenhouse survey would locate the southwest corner with accuracy a year later. McClean and Neville were each paid a daily rate of \$4.67 which in 2024 is \$127.69 per day.

"Resolved, That this house do approve the said report, and confirm the said line run by Messieurs Nevil and McClean, as the boundary line between this state and that of Virginia, until the final settlement thereof be obtained."-Pennsylvania General Assembly Minutes -March 22, 1783<sup>25</sup>

■ The Ellicott and Rittenhouse Survey of 1784 – The Astronomical Line

This survey corrected the temporary line run by McClean and Neville in 1782 by subtracting 1.9 east miles. They shortened the 1782 segment by providing astronomical evidence collected between two temporary observatories constructed on Mason and Dixon's line of latitude. The eastern observatory was situated in Wilmington Delaware, 1.4 miles west of the banks of the Delaware River. It was under the direction of David Rittenhouse, representing Pennsylvania. The western observatory was set up in the remote vicinity of the southwest corner of Pennsylvania under the direction of Andrew Ellicott representing Virginia. The two observatories combined took over 100 observations of the eclipses of the moons of Jupiter between June and September 1784. They solved Penn's mystery of five degrees of longitude westward from the banks of the Delaware River. The total cost of this survey was \$4000 not including the additional \$6.00 per day that the surveyors received. In 2024, \$4000 is valued at \$123,647.45 and \$6.00 would be equivalent to \$185.47.

"...they have compleated their Observations with so much accuracy and certainty as to remove from their Minds every degree of doubt concerning their final determination of the South Western Corner of the State."-Pennsylvania Commissioner's Report/Boundary with Virginia - 1784<sup>26</sup>

<sup>&</sup>lt;sup>24</sup> J. Simpson Africa, 314.

<sup>&</sup>lt;sup>25</sup> J. Simpson Africa, 315-316.

<sup>&</sup>lt;sup>26</sup> Ibid., 324.

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In 1964, the West Virginia Historic Commission had a Mason and Dixon historical sign erected in Blacksville, West Virginia, along State Route 218 which condenses the surveys leading up to the Sinclair Survey to three sentences. The sign inscription reads as follows:

"Mason-Dixon Line. Made famous as line between free and slave states before War Between the States. The survey establishing Maryland-Pennsylvania boundary began, 1763; halted by Indian wars, 1767; continued to southwest corner, 1782; marked, 1784."

#### THREE LINES: 1883

Equipped with limited records, Sinclair and his team set out on May 1, 1883, to find where the lines that Virginia had relinquished to West Virginia would lead them. The objective of this survey centered around relocating Pennsylvania's southwest corner to retrace the western and southern limits of Pennsylvania which included the extended prized parallel of Mason and Dixon.

The joint boundary commission had assumed that Sinclair would begin at the southwest corner of Pennsylvania, as it is from this crucial point which both past and future, run their lines the full distance. Instead, Sinclair elected to get his survey underway at Smith's Ferry, Pennsylvania. The survey prior had not performed any groundwork on the extended Mason and Dixon Line section of the parallel. It was often vulnerable to local property owners' interpretation. Uncertainty had reclaimed the five degrees of longitude once found in 1784. Sinclair was tasked with putting the northeastern borders of West Virginia on the USA map for the first time. His reconnaissance mission commenced in the opposite direction presumed by the commissioners.

"As I had been informed that the Pennsylvania and Ohio boundary, for a distance of thirty miles north of the Ohio river, was a true meridian, and that the first stone south of the Ohio, marking the north end of the Pan Handle of West Virginia, was in the same meridian, it seemed to me more advisable to prolong this meridian to the south-west corner of Pennsylvania, that to start at the south-west corner, itself a point not marked with great precision, and run to the Ohio. To this plan the Executive Committee assented, …"-Cephas Sinclair, 1886<sup>27</sup>

Sinclair reported his progress to the joint commission in Pittsburgh on July 3, 1883. His findings were surprising. The 1785-1786 Ellicott Line, or perceived true meridian, which had been determined by the southwest corner of Pennsylvania was broken, crooked and not a meridian line. A total of 24 local stone monuments etched with P and V initials, believed to have been from 1785, were salvaged. However, their original locations could not be confirmed. The survey team learned of various accounts of stones that had been easily relocated out of convenience. The true north and south meridian line marked at the Ohio River where Sinclair had started two months prior, when run straight was a line of longitude terminating at a point on the extension of the Mason and Dixon Line, found to be 54 feet 5 ½ inches east of the southwest corner of Pennsylvania. The commissioners expected to learn about the condition of a single line of

<sup>&</sup>lt;sup>27</sup> J. Simpson Africa, 387-388.

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longitude running due north from the southwest corner of Pennsylvania. They took a vote as to where to draw the state line between Pennsylvania and West Virginia.<sup>28</sup> The agreed upon resolution was as follows:

"The line adopted at the Pittsburgh meeting of the joint commission on July 3d, and marked with substantial stone monuments, may be defined thus defined: that portion between the Ohio and Pennsylvania granite monument and the stone south of the Ohio river marking the north end of the West Virginia boundary, lie in the meridian passing through the apex of the granite monument. From the first monument south of the Ohio river to the south-west corner of Pennsylvania, a distance of nearly sixty-four miles, the boundary is a straight line, deflecting from the meridian at the rate of about ten inches (or 33" of arc) per mile. Not only is the boundary marked but the meridian also, with five additional monuments which will be of great service to local surveyors in the testing their compasses, besides being a means of preserving the boundary itself, as the distances of all the monuments on the boundary are known from the meridian."-Cephas Sinclair, 1886<sup>29</sup>

The present day north to south state line shared between the states of West Virginia and Pennsylvania differs from the 1785 Pennsylvania-Virginia boundary line drawn by Andrew Ellicott which had been referred to as the Meridian Line. The deflection error was in the Ellicott Line's intersection with the Ohio River. The National Landmark Point of Beginning original stake of 1785 was driven into the north bank of the Ohio River 54 feet 5 ½ inches too far east. The Point of Beginning longitude was intended and believed to be shared with the southwest corner of Pennsylvania. In 1883, Sinclair made the discovery that a constant meridian of 80° 31'08"W was not the case. Acres of Pennsylvania had been deemed Virginia. It was a gain for West Virginia to retain. The three misunderstood lines, commonly confused as one line, are correctly identified as follows:

#### The State Line/1883

The State Line is 64 miles long. It was drawn north to south by Sinclair in 1883. It begins in the north at the Ohio River where Ohio meets Pennsylvania and West Virginia at a tripoint in the water. It is a short meridian until it meets the Initial Sinclair Stone monument. This monument is where the State Line and Meridian Line intersect. These two lines then run as one until the tripoint location in the Ohio River. The Initial Sinclair Stone is set .07 miles south of the south bank of the Ohio River. The marked portion of the State Line starts at the Initial Sinclair Stone, and it ends at the southwest corner of Pennsylvania, set by the 1883 West Virginia-Pennsylvania Sinclair Cornerstone. The State Line travels as a straight line which angles to the south and west from the Initial Sinclair Stone monument at a rate 10 ½ inches per mile until it intersects with the Mason and Dixon Line extension terminus point at a distance of 54 feet 5 ½ inches west of the Meridian Line. A total of 47 Sinclair State Line Stones were set upon the State Line by

<sup>&</sup>lt;sup>28</sup> Ibid., 386

<sup>&</sup>lt;sup>29</sup> J. Simpson Africa, 382.

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August 10, 1883. The south façade of each monument in the Sinclair State Line Stone collection records each independent distance from the West Virginia-Pennsylvania Sinclair Cornerstone. The total number of Sinclair monuments set on the State Line is 49.

Initial Sinclair Stone = 1 Sinclair State Line Stones = 47 West Virginia-Virginia-Pennsylvania Sinclair Cornerstone = 1

When Sinclair's 1883 State Line was legally accepted as the western limit of Pennsylvania with West Virginia and the eastern bounds of West Virginia's panhandle neighboring Pennsylvania, a gain of nearly 10 acres was afforded to Pennsylvania.<sup>30</sup> The meandering 1785 Ellicott Line had wandered outside the boundary of Virginia absorbing an estimated 10 acres of Pennsylvania without notice. West Virginia returned the lost acres in 1883.

# The Ellicott Line (initial 64 miles)/1785

The most southern 64 miles of the Ellicott Line were run in 1785 from the southwest corner of Pennsylvania marked with a post and heap of stones to the terminus point of Virginia with Pennsylvania on the northern bank of the Ohio River marked with a stake in 1785 set by Thomas Hutchinson. Today, the Ellicott Line, commonly referred to as the Old Line, begins at the southwest corner of Pennsylvania, marked with the West Virginia-Pennsylvania Sinclair Cornerstone set in 1883. It continues in a north to east direction as a crooked line, slightly disconnected in sections for 64 miles, until it reaches the tripoint location of Ohio, Pennsylvania, and West Virginia in the waters of the Ohio River where the original 1785 stake for the Point of Beginning once existed. It closely follows the course of the State Line. It lies just 8 inches west of the State Line and Meridian Line when it passes but does not touch the Initial Sinclair Stone set just south of the southern banks of the Ohio River. Originally, it was marked with local stones at random distances with etched P and V initials. In 1883, Van Orden found 24 Ellicott Line stones set in 1785 and he left them in their places. They share an undeniable physical resemblance to the original Mason and Dixon line monuments shipped from England. The Ellicott Line once divided Pennsylvania and Virginia. The Ellicott Line was believed to be a true meridian until Sinclair discovered otherwise in 1883. It no longer serves as a boundary line between Pennsylvania and West Virginia but it does continue to divide Ohio from Pennsylvania. Where the Ellicott Line, Meridian Line and State Line intersect in the Ohio River is at a point which is 54 feet 5 ½ inches too far to the east of where it was intended to be in 1785. The Point of Beginning stake was to mark where Pennsylvania struck the Ohio River along the same longitude determined by the southwest corner of Pennsylvania.

<sup>&</sup>lt;sup>30</sup> "Work Of The State Line Survey," *The Wheeling Daily Intelligencer*, August 16, 1883, accessed January 30, 2025, <a href="http://www.chroniclingamerica.loc.gov/">http://www.chroniclingamerica.loc.gov/</a>.

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The Meridian Line/1883

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■ The Meridian Line is 64 miles of constant longitude upon, 80° 31'07" W, beginning with the Initial Sinclair Stone monument and ending at its intersection point upon the extension of Mason and Dixon's line which lies 54 feet and 5½ inches east of the West Virginia-Pennsylvania Sinclair Cornerstone. The Meridian Line is marked with five 1883 Sinclair Meridian Stone monuments at random intervals. All five monuments are marked with the inscription, Meridian, on their north façade. This line is a true meridian through Pennsylvania, only touching West Virginia in two locations, in the north at its point of beginning marked with the Initial Sinclair Stone and at its terminus, an unmarked imaginary intersection point on the Mason and Dixon Line extension. The State Line is to the west of the Meridian Line. The Meridian Line is a reference line for surveyors and a corresponding line for the State Line. It is not a boundary line.

The five Sinclair Meridian Stones are not numbered but rather named after nearby locations. They are listed from north to south with their Sinclair State Line Stone reference and available corresponding recovered Ellicott Stone.

- Sinclair Meridian Stone Gardner = 19.18 miles south of Initial Sinclair Stone (reference for Sinclair State Line stone #18) / Ellicott Stone #15 of 24
- Sinclair Meridian Stone Independence = 26.28 miles south of Initial Sinclair Stone (reference for Sinclair State Line stone #22) /Ellicott Stone #18 of 24
- Sinclair Meridian Stone Rice = 35.75 miles south of Initial Sinclair Stone (reference for Sinclair State Line stone #27) /Ellicott Stone N/A
- Sinclair Meridian Stone Haneytown = 42.73 miles south of Initial Sinclair Stone (reference for Sinclair State Line stone #31) /Ellicott Stone #22 of 24
- Sinclair Meridian Stone Poland = 53.66 miles south of Initial Sinclair Stone (reference for Sinclair State Line stone #39) /Ellicott Stone # N/A

All three lines share commonality which accounts for why they are incorrectly interchanged at times. They appear side by side on a map in the following sequence from east to west: Meridian Line, State Line, and Ellicott Line. The State Line and Meridian Line intersect at the initial Sinclair Survey Stone monument at astronomical coordinates, 40° 38' 00"N 80° 31' 07"W with the Ellicott Line in extremely close proximity of just eight inches west. An original 1785 Ellicott Line stone is set next to the 1883 Initial Sinclair Stone. The State Line and Meridian Line were drawn by Sinclair in 1883, and both were run north to south. The Ellicott Line was run in the opposite direction, south to north, and was drawn in 1785-1786 as a collective survey with Ellicott as the primary surveyor. He represented Virginia from the southwest corner of Pennsylvania until the Ohio River and then Pennsylvania from the Ohio River until the terminus point of his line. The Ellicott Line and State Line begin/end points are interchangeable. The State Line is a fixed or improved upon version of the Ellicott Line. The Sinclair Survey placed the Ellicott Line mostly in West Virginia when the Sinclair State Line was drawn. The Ellicott Line runs away from its point of beginning at the West Virginia-Pennsylvania Sinclair Cornerstone monument decisively within Greene County of Pennsylvania. As Washington

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County begins in Pennsylvania, the Ellicott Line weaves its way into Ohio County of West Virgina. It maintains a West Virginia presence through Hancock and Brooke Counties, contained within West Virginia, almost shadowing Sinclair's straight line of division. At times, the Ellicott Line is flirtatious inches from Beaver County of Pennsylvania. At the two key intersection points of the Ellicott Line, the West Virginia-Pennsylvania Sinclair Cornerstone and tripoint location in the Ohio River, the State Line and Ellicott Line are one in the same. All three lines are 64 miles long. Today, only the State Line is the official boundary line between Pennsylvania and West Virginia.

#### **RUNNING PARALLEL: 1883**

With the location of the southwest corner of Pennsylvania equipped with a confirmed set of astronomically found coordinates for the first time in its long-sorted history of existence, and a defined north to south state line for the two states achieved, Sinclair began the next phase in his survey which involved running Mason and Dixon's parallel. In 1767, the southwest corner was out of reach. In 1783, the southwest corner was a temporary 23 miles west of Brown's Hill. In 1784, the southwest corner was put into context as the limit of five degrees of longitude west from the eastern banks of the Delaware River and the value of 20 minutes of time. However, by July 26, 1883, Sinclair had provided the southwest corner with a new identity determined by a set of astronomical coordinates: 39°43' 18"N 80° 31'08"W. 31 With exact coordinates, the southwest corner of Pennsylvania was ready to be marked permanently. A few weeks later, in August 1883, the cornerstone monument was set into place. Sinclair had replaced temporary elements of the past with permanent lasting means of the present and for the future. What was invisible was made visible. With the West Virginia-Pennsylvania Sinclair Cornerstone standing in place, the terminus of east with west and south to north for the two states of Pennsylvania and West Virginia will never be lost to time again.

Sinclair began his west to east survey at the cornerstone with the intent of ending at the yet to be agreed upon Maryland northwest corner. This direction was in reverse of Mason and Dixon as well as Ellicott and Neville. Different surveys in opposite directions upon the same latitude have resulted in two different monument counting systems. The joint commission gave the authority to proceed at the conclusion of the July 3, 1883 meeting in Pittsburg.<sup>32</sup>

"At the meeting of the Boundary Commission, in Pittsburgh, on July 3<sup>rd</sup>, I was authorized to make the latitude observations necessary for tracing out the parallel of latitude between Pennsylvania and West Virginia, beginning at the south-west corner of Pennsylvania, and running eastward to the Maryland corner, a distance of about fifty-five miles; and the Executive Committee was instructed to undertake the tracing of the line, if sufficient funds should remain on hand to justify it."-Cephas Sinclair, 1886<sup>33</sup>

<sup>&</sup>lt;sup>31</sup> J. Simpson Africa, 394.

<sup>&</sup>lt;sup>32</sup> Ibid., 385.

<sup>&</sup>lt;sup>33</sup> Ibid., 396.

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Immediately following the meeting, the commissioners were tasked with setting the permanent monuments upon the Meridian Line, State Line and at the corner of West Virginia and Pennsylvania. Sinclair's team began to prepare for the parallel survey. All Meridian Line and State Line monuments were set in place by August 10, 1883, awaiting further inspection. The West Virginia-Pennsylvania Sinclair Cornerstone was also set at the southwest corner of Pennsylvania, replacing the ruins from 1784.

Like the terrain conditions found during the north to south phase of the survey, Sinclair's team faced much of the same challenges with determining the parallel. Nature had reclaimed what man had failed to protect against the passage of time in the west to east phase. The blazed trees, cairn of stones and cut vista which had served to briefly identify the 21.1-mile extension of 39° 43'18"N were now indistinguishable and scarce. The temporary markings from 100 years ago where Virginia had once cut into southern Pennsylvania appeared as faint scars upon the terrain inspected by Sinclair and Van Orden.

"From Lantz's hill to Brown's hill, a distance of 9.6 miles, there were no trustworthy old marks..."-C.H. Sinclair, 1883<sup>35</sup>

"The pile of stones has the appearance of great age, as they are more or less covered with earth and vegetable growth, and is not a freak of nature, but was put there. It is said that sixty-six feet south of here another corner once existed, but after subsequent and careful examination I was convinced that no such corner ever existed, as not the slightest trace of it could be found. This pile stones has been accepted by all I saw as the true corner."-C.H Van Orden -1883<sup>36</sup>

Evidence of more than one interpretation of the 1782 McClean and Neville line was discovered, and they demonstrate the challenges associated with deciphering the unmarked extension of Mason and Dixon's line.

"After a fruitless search I sent for an old gentleman to show me the place. He pointed out the more southern one as the place where the original post stood, which was 16 feet 5 ½ inches north of tangent. While occupying this point two old gentlemen (brothers) from the other side of the line, came by and said the other post hole was the one supposed to be the original one. Both authorities seemed equally familiar with the country, respectable and intelligent. Just here for many years a bitter quarrel existed as to the line. As the adjusted line passed a little north of the more northerly one, I incline to it as the original." -Van Orden, February 1884<sup>37</sup>

Van Orden was in the vicinity of property owned by Thomas White when he made note of how witness testimony contributed to their evaluation of the extension segment. Mr. White was a descendant of the same Michael White who Waitman T. Willey had successfully defended in the *White v. Hennen* case of 1858. The ghosts of Virginia past still haunted this great line.

<sup>36</sup> Ibid., 398.

<sup>&</sup>lt;sup>34</sup> J. Simpson Africa, 386.

<sup>&</sup>lt;sup>35</sup> Ibid., 398.

<sup>&</sup>lt;sup>37</sup> Ibid., 412.

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The ability to simply set out and follow in the footsteps of McClean and Neville from 1783 or reproduce the celestial footprint of Ellicott and Rittenhouse from 1784 was proving to be impossible. Sinclair approached the parallel by breaking the entire distance into four sections. Five astronomical observation stations were built. Over 250 observations were made from the southwest corner of Pennsylvania to the northwest corner of Maryland. Sinclair spent numerous sleepless nights in Pennsylvania, Maryland and West Virginia.

The Talcott Method was used for measuring this line. This was a survey method which determined latitude by using pairs of stars. It was originally invented by a Danish astronomer, named Peder Horrebow, but rediscovered and improved upon by an American engineer, Andrew Talcott, in 1833. Sinclair took his observations between August 16, 1883, and September 6, 1883. A Zenith telescope No. 6 designed by Wurdeman was used for taking star sightings during the evaluation of the Mason and Dixon Line and its extended segment.<sup>38</sup> The Wurderman telescope alone weighed close to 100 pounds when fully assembled and would have been packed in special heavy wooden boxes for transport in the field. This speaks to some of the physical demands placed upon the 1883-1885 survey team.<sup>39</sup> The importance of the corner location is emphasized by Sinclair.

"As the corner was of special importance, I observed latitude on four nights, making seventythree observations."-Sinclair, 1883<sup>40</sup>

The instruments and supplies were transported to designated places by a two-horse spring wagon. Among the instruments used in 1883 for the survey were found to be:<sup>41</sup>

- 10-inch repeating transit theodolite No. 82
- Vertical circle
- Mirror
- Lamp
- Diagonal eyepiece
- 6-in Brunner repeating theodolite No. 67
- Zenith telescope No. 6
- Graduated rod
- Gunter's chain and pins
- Steel tape
- Pocket heliotropes
- Field glasses
- Draw telescope of high power
- Parkinson and Frodsham chronometer

<sup>&</sup>lt;sup>38</sup> J. Simpson Africa, 396.

<sup>&</sup>lt;sup>39</sup> Doyle, telephone interview.

<sup>&</sup>lt;sup>40</sup> J. Simpson Africa, 397.

<sup>&</sup>lt;sup>41</sup> Ibid., 388.

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The survey team advanced in the field with a team of axe men to clear areas leading the way. Sinclair was next in the procession, followed by Van Orden.<sup>42</sup> A West Virginia newspaper featured an article about the survey as the team was preparing to begin eastward from the cornerstone.

"The work of running the east and west line is very different, and much more difficult from that of running a north and south line. The corps will begin this work about next week. It is necessary to have latitude stations at convenient intervals along the line, for taking observations, and Mr. Isaac Hardesty, of this city, son of Dr. J. R. L. Hardesty, and a member of the surveying corps, has been prior several weeks engaged in locating and arranging these, making about six of them. Mr. Sinclair and his assistants will leave this city in wagons, with tents, instruments and all the paraphernalia of the camp and survey, and after starting the work of surveying will drive along the line, moving their camp from station to station as the work progresses."-The Wheeling Daily Intelligencer, Wheeling, West Virginia, August 16, 1883<sup>43</sup>

Even though astronomical observations for the entire distance of 55 miles were completed in September of 1883, the running of the Mason and Dixon Line extension segment and retracing of Mason and Dixon's line from Brown's Hill to Maryland, did not proceed beyond mile 35 east of the West Virginia-Pennsylvania Sinclair Cornerstone. Sinclair began to record unexplained deviations east of Brown's Hill. The mounds of stones built during the survey of Mason and Dixon were easily found. They had survived more than a century and were a testament to meticulous execution of the Mason and Dixon survey. The marked Mason and Dixon mounds were decisive and deliberate, yet the boundary they created deviated from the parallel of 39° 43' 18" N. Mason and Dixon's line was running too far south away from Pennsylvania into West Virginia. Sinclair consulted with the joint commission regarding the anomalies he was encountering.

"Owing to the development of the bend in the line east of Brown's hill, I deemed it advisable to recommend that only the first part should be marked permanently with stones, and have the crooked portion only temporarily marked until the rest of the line should be traced to the Maryland corner."-Cephas Sinclair, 1883<sup>44</sup>

The commissioners concluded that Sinclair's findings warranted further investigation and comparison with the Mason and Dixon survey notes. The joint commission suspended the survey in late 1883. It was concluded that neither state budget could allocate appropriate monies to finish. A complete stop to progress was not well received by Sinclair. In a closing letter to the commissioners, he expressed disappointment regarding the unfinished survey. The Sinclair

<sup>&</sup>lt;sup>42</sup> Ibid., 389.

<sup>&</sup>lt;sup>43</sup> "Work On The State Line," *The Wheeling Daily Intelligencer*. August 16, 1883, accessed January 30, 2025, <a href="http://www.chroniclingamerica.loc.gov/">http://www.chroniclingamerica.loc.gov/</a>.

<sup>&</sup>lt;sup>44</sup> J. Simpson Africa, 400.

<sup>&</sup>lt;sup>45</sup> Ibid., 420.

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Survey was within 20 miles of Maryland by October 1883. Mason and Dixon were 21.1 miles from Virginia in October 1767.<sup>46</sup>

"It was a source of great regret to me that the funds were too low for us to complete the parallel boundary, within two weeks or less of the end of the work. It could have been finished with far greater economy at that time, with the party in the field, fully organized and well trained, than at any subsequent period."-Cephas Sinclair, 1883<sup>47</sup>

From May through November 1883, the Sinclair survey had nearly achieved all the objectives which the joint boundary commission had set forth during the April 10, 1883, meeting in Pittsburg. Among the biggest survey accomplishments from 1883 was the certification and permanent marking of the terminus point for the Mason and Dixon Line and its 21.1-mile extension segment. This had been the ultimate quest since 1681.

"By reference to our report made in 1883, it will be seen that the Meridian Boundary (about 64 miles in length) and the Parallel boundary for a distance of 21 miles from the S.W. corner of Pennsylvania, have been surveyed and permanently marked;"-Joint Commission Final Report filed July 10, 1886;"48

With 12 Sinclair Parallel Stones plus the one West Virginia-Pennsylvania Sinclair Cornerstone set in place, America's most famous boundary line, the Mason and Dixon Line, was made whole in 1883. Every mile had been accounted for and marked. No other boundary in our nation runs the full distance from monarch to president, as it maps the conversion of colonies into states, while drawing lines of peace in every direction and passes through more than three centuries in the most impressive sketch of latitudes and longitudes. From its point of beginning, at the Mid-Point Stone in Delaware and Maryland to its terminus point, at the West Virginia-Pennsylvania Sinclair Cornerstone in Pennsylvania and West Virginia, 338 miles of history lie visible through the collection of hundreds of stones quarried in England, Maryland and Ohio. This nomination continues the preservation of these thematic historical American boundary artifacts.

The words of James Veech written in 1800 continue to pay tribute to our glorious line.

"It is more than two hundred years since the seeds of the strife were sown, of which the Line is the harvest; and nearly a century has run since those periods what great events have transpired. Civilizations, science, freedom, religion and population have rolled their resistless tides over this continent. Empires have risen and fallen; dynasties have sunk into nothingness. Yet this Line stands; and its story increases in interest as time grows older. Nor is its history yet ended."-James Veech, 1800<sup>49</sup>

<sup>&</sup>lt;sup>46</sup> A. Hughlett Mason, 187.

<sup>&</sup>lt;sup>47</sup> J. Simpson Africa, 402.

<sup>&</sup>lt;sup>48</sup> Ibid., 420.

<sup>&</sup>lt;sup>49</sup> James Veech, 248.

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#### ONWARD TO MARYLAND: 1885

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In September 1885, Sinclair was notified that the joint boundary commission of Pennsylvania and West Virginia had secured enough funds to resume their boundary survey. The funding was limited with provisions for just one engineer. Sinclair would survey the final miles to Maryland on his own.

"As no assistant could be spared from the Coast and Geodetic Survey, it was necessary for me to both range out the line, and afterward measure it and locate all the old mounds and line marks."- Cephas Sinclair, 1885<sup>50</sup>

During the suspension of the 1883 survey, Sinclair took advantage of the opportunity to review Mason and Dixon's notes in Washington, D.C. From his research, Sinclair concluded that the mountainous terrain with dramatic elevation variations as well as 1767 scientific unknowns accounted for why Mason and Dixon's line travelled south between Brown's Hill and the presumed meeting point of Maryland with Pennsylvania and West Virginia. Density, gravity and the correct shape of the earth were not exacting when Mason and Dixon were drawing their line of latitude across the peaks and valleys of western Pennsylvania. Sinclair, being familiar with the challenging region, believed the 18<sup>th</sup> century surveyors elected to run the most practical boundary possible. Furthermore, to make adjustments in 1885 would take years, cause property litigation and be of great expense. The decision was made by the commission, with full support from Sinclair to trace Mason and Dixon's parallel, maintain the boundary that had been declared English law on January 11, 1769, by King George III, and replace the stone mounds from 1767 with permanent 1885 monuments.<sup>51</sup>

In December 1885, Sinclair completed his survey of the boundaries between Pennsylvania and West Virginia. In all, he had run nearly 110 miles for the two states. Twenty-eight 1885 Sinclair Parallel Stones were added to the Mason and Dixon Line. They were set in the mounds left behind by Mason and Dixon.<sup>52</sup> On April 1, 1886, the final monument in the 1883-1885 Sinclair survey was set as the Maryland northwest corner, by the authority of the West Virginia-Pennsylvania joint boundary commission with Sinclair present for the unveiling. Maryland was absent from the agreement.<sup>53</sup> This most eastern 1885 monument is known as the Sinclair Stone. It marked a tristate point for 25 years. It no longer touches West Virginia.<sup>54</sup> In May 1910, the Supreme Court ruled in the case of *Maryland v. West Virginia*, to relocate the northwest corner of Maryland 0.2 miles west of the Sinclair Stone.<sup>55</sup>

<sup>&</sup>lt;sup>50</sup> J. Simpson Africa, 419.

<sup>&</sup>lt;sup>51</sup> William Bayliff, *The Maryland-Pennsylvania and The Maryland-Delaware Boundaries*. (Annapolis: Board of Natural Resources 1959), 25.

<sup>&</sup>lt;sup>52</sup> J. Simpson Africa, 428.

<sup>&</sup>lt;sup>53</sup> Ibid., 421.

<sup>&</sup>lt;sup>54</sup> Ibid., 421.

<sup>55</sup> William Bayliff, 31-35.

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On July 10, 1886, the total cost for the two-year Sinclair survey was recorded as \$9,689.75. Today, \$9,622.83 would be equivalent to \$325,394.17.<sup>56</sup>

## **SET IN STONE**

The best testimony for setting lasting marks upon survey lines was Sinclair himself. Not long after the start of his 1883-1885 survey, Sinclair stated that the biggest mistake made by the surveyors before him was found in their use of temporary markings. They did not preserve what they had accomplished. Methods were not documented with ample detail and strategic locations found had become lost. Mason and Dixon were instructed to mark every mile and maintain a daily record of their work. The impressive monuments outlasted British rule in America. These monuments from England continue to mark the state lines, faithful in their guard of the limits of Delaware, Maryland and Pennsylvania. Had Ellicott and Rittenhouse been able to duplicate permanent efforts like Mason and Dixon, Sinclair's survey would have been a retracing and replacing endeavor.

"When the date of tracing the first line and the imperfect instruments are considered, this agreement between two lines shows very satisfactory work done nearly one hundred years ago. I have seen no record that describes the instruments and the methods used by these early surveyors, but we know that they represented the best skill of the day. Their gravest mistake consisted in the not marking the line in a permanent manner."-Cephas Sinclair -1883<sup>57</sup>

The well-defined boundaries of Pennsylvania and West Virginia have remained lawfully intact as visible lines because of the 1883-1885 Sinclair Survey monuments. Each monument is reliant upon the West Virginia-Pennsylvania Sinclair cornerstone. Sinclair set a total of 95 monuments during his survey which are all marked with distances that lead back to the monument of most importance, the West Virginia-Pennsylvania Sinclair Cornerstone. All the monuments were cut and quarried at the North Amherst Quarry in Cleveland Ohio through the Ohio Building Stone Company and transported by rail to designated locations. 58 The commissioners responsible for ordering and setting all the monuments were Chipley, Hoge and McCullough. <sup>59</sup> Three different collections of stones mark the three different lines drawn by Sinclair between 1883-1885. To mark the start and finish of his survey are two principal stones which are independently unique. Neither of the principal stones are included in the collection inventories. The single most significant stone is the West Virginia-Pennsylvania Cornerstone. It differs from all the other stones and belongs to a category on its own as a single monument. The cornerstone anchors all the stones found by stars with the sets of surveyors and their lines together. It is the collision point of 1883 with Pennsylvania and West Virginia. It bears cumulative history. It is the conclusion of Mason and Dixon, one step further than 1767.

<sup>&</sup>lt;sup>56</sup> J. Simpson Africa, 421.

<sup>&</sup>lt;sup>57</sup> Ibid., 391.

<sup>&</sup>lt;sup>58</sup> J. Simpson Africa, 454.

<sup>&</sup>lt;sup>59</sup> Ibid., 409, 414, 420.

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For reference, the stone collections and each single monument are categorized below:

#### WEST VIRGINIA-PENNSYLVANIA SINCLAIR CORNERSTONE (1)

- The key Sinclair survey boundary monument
- Set in 1883
- Replaces the 1784 stone pile at the southwest corner of Pennsylvania
- Marks the southwest corner of Pennsylvania
- Marks the terminus point of the Mason and Dixon Line extension segment
- Marks the terminus point of the north to south State Line of Pennsylvania/West Virginia
- Marks the point of beginning of the Ellicott Line
- Marks mile 338 of the entire Mason and Dixon Line
- Marks mile 0 of the Ellicott Line
- Marks mile 64 of the Stateline
- Marks 5 degrees of longitude along Mason and Dixon's line of latitude from the banks of the Delaware River

## Inscriptions are:

North façade = 1883 P W.V South façade = W.V East façade = P W.V West façade = W.V

Reference distances from key locations to the cornerstone:

- Western bank of the Delaware River at latitude 39 43 18N:
  - a.) 266.38 miles west
- b.) 5 degrees of longitude west
- c.) minus 20 minutes of time

- Brown's Hill = 21.1 miles west
- Northwest Corner of Maryland = 55 miles west
- Sinclair Stone:
  - a) 55.2 miles west
- b.) approximately 1 degree of longitude west
- c.) approximately minus 4 minutes of time
- Sinclair Initial Stone = 63.7 miles northeast
- 1785 Point of Beginning Stake location in the Ohio River = 64 miles northeast
- Terminus point of the Meridian Line = 54 feet 5  $\frac{1}{2}$  inches east

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## THE INITIAL SINCLAIR STONE (1)

- Set in 1883
- Marks the initial point on land of beginning for the State Line and the Meridian Line
- Astronomical coordinates are: 40° 38′ 00"N 80° 08′ 07"W
- Inscriptions are:

North façade = Meridian 1883 South façade = 63 M 4544 FT East façade = W.V. West façade = PA

# THE SINCLAIR STONE (1)

- Set in 1885
- Marks mile 196.46 on the Mason and Dixon Line west of the Maryland northeast corner and mile 55.2 on the Mason and Dixon Line east of the Pennsylvania southwest corner
- Inscriptions are:

North façade = PA 1885 55 2/10 M South façade = W.V. MD East façade = PA MD West façade = PA W.V.

# THE SINCLAIR STATE LINE STONE COLLECTION (47)

- All 47 were set in 1883
- Collectively mark the Pennsylvania/West Virginia north to south State Line
- Inscriptions on each monument:

North façade = 1883 South façade = Distance in miles from the West Virginia-Pennsylvania Sinclair Cornerstone East façade = PA West façade = W.V.

## THE SINCLAIR MERIDIAN STONE COLLECTION (5)

- All 5 set in 1883
- Serve as a survey reference line and as a means to easily identify monument locations set upon the State Line
- Inscriptions:

North façade = Meridian 1883

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South façade = no inscription

West façade = Distance to State Line in feet

East façade = no inscription

#### THE SINCLAIR PARALLEL STONE COLLECTION (40)

• Stones 1-12 set in 1883

(Collectively mark the 21.1-mile extension segment of the Mason and Dixon Line). During the 1883-1885 Sinclair survey, the monuments corresponded with the property owner's last names. The first 12 stones which mark the Mason and Dixon Line extension segment are listed by original name along with their distance in rounded number of miles east of the cornerstone:

1=Keiffer	0 mile	5=Renner	5 mile	9=Yeager	13 mile
2=Gump	1 mile	6=Woodruff	8 mile	10=Lantz	15 mile
3=Plant	3 mile	7=White	9 mile	11=Chaflan	18 mile
4=Moffit	5 mile	8=Lantz	11 mile	12=Brown	21 mile

- Stone 12 is Brown's Hill (Marks the terminus point of the Mason and Dixon survey NRHP #73001922 added June 25, 1973)
- Stone 12/Brown's Hill is slightly larger in size compared to the other 39 stones in the collection. It is a smaller version in shape of the West Virginia-Pennsylvania Sinclair Cornerstone. The Brown's Hill monument retains the same inscriptions as the other 39 stones in the Sinclair Parallel Stone collection.
- Stones 13-40 set in 1885 (Collectively mark the Pennsylvania/West Virginia section of the Mason and Dixon Line from Brown's Hill to the Maryland northwest corner)
- Stones are set in original 1767 Mason and Dixon mounds
- Inscriptions:

North façade = P.A.

South façade = W.V.

East façade = 1883/1-12 1885/13-40

West façade = Distance to West Virginia-Pennsylvania Sinclair Cornerstone

# TIME CHANGE ON THE MASON AND DIXON LINE

The invisible north to south lines which run between earth's poles are known as meridians or longitude. They calculate east or west distances. These vertical lines come together at the poles and gradually widen to reach their furthest distance apart at the equator. As the earth rotates, the passage of four minutes of time represents the distance of one degree of longitude. Upon the

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equator, at the earth's widest circumference, every four minutes is a distance of 69 miles. At the poles, where all lines of longitude meet, it is zero degrees, and every four minutes you remain in place and travel a distance of zero miles. The closer we travel to the poles the shorter the distance is between each degree of longitude. One hour, or 60 minutes of time, is comprised of 15 degrees of longitude. This equation demonstrates how we determine a time zone.

• 4 (minutes) x 15 (degrees of longitude) =60 minutes/a one hour time change

Mason and Dixon's line of latitude is set at 39° 43' 18"N with the distance of one degree of longitude valued at 53.277. The equation to explain what Ellicott and Rittenhouse determined in 1784:

■ 4 (minutes) x 5 (degrees of longitude) =20 minutes

The time change between the banks of the Delaware River by Wilmington Delaware and the West Virginia-Pennsylvania Sinclair Cornerstone is 20 minutes:

Time at the banks of the Delaware River at  $39^{\circ} 43'$  18"N = 12:00 pm Time at the West Virginia-Pennsylvania Sinclair Cornerstone = 11:40 am

Along the Mason and Dixon Line, every 53.277 miles to the east, time is four minutes ahead. On the equator, every 69 miles increment to the east represents a four minute passage of time. The Sinclair Stone is approximately four minutes of time ahead of the West Virginia-Pennsylvania Sinclair Cornerstone. The two Sinclair principal monuments are 55.2 miles apart, just two miles beyond the value of one degree of longitude on Mason and Dixon's parallel.

Time at the Sinclair Stone = 12:00 pm Time at the West Virginia-Pennsylvania Sinclair Cornerstone = 11:56 am

#### FROM CROWNSTONE TO CORNERSTONE

A beginning can exist without an ending; however, an ending cannot be absent of a beginning. The Middle Point Stone, sometimes known as the Mid-Point Stone, is the counterpart of the West Virginia-Pennsylvania Sinclair Cornerstone. The Middle Point Stone is the beginning of the Mason and Dixon Line, and the West Virginia-Pennsylvania Cornerstone is the end of the line. The Middle Point Stone and the West Virginia-Pennsylvania Sinclair Cornerstone are the alpha and omega monuments for America's most famous boundary, the Mason and Dixon Line.

The two prominent monuments link four states together through one line, Delaware, Maryland, Pennsylvania and West-Virginia. The first monument, the Middle Point Stone, marks the southwest corner of Delaware where it meets Maryland, and the last monument, the West Virginia-Pennsylvania Cornerstone, marks the southwest corner of Pennsylvania where it meets

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West Virginia. Their age difference is 115 years. One arrived in Delaware by boat from England. The other was shipped to West Virginia by rail from Ohio. The first monument is cut limestone. The last monument is cut sandstone. Together, they are the survey pillars, marking the evolution of our entire Mason and Dixon Line.

The cornerstone and crownstone, reign over opposite lands. In the east, towards the sea, the Middle Point Stone, is situated upon flat terrain where you can see for miles. It divides up two bays and an ocean for Delaware and Maryland. To the west, towards the sky, the West Virginia-Pennsylvania Sinclair Cornerstone, sits on the incline of a steep ridge, with sweeping views. It keeps guard in the deep woods of Pennsylvania and majestic mountains of West Virginia.

There are three Mason and Dixon Line boundary monument nominations listed on the National Register:

Delaware Boundary Markers -75002101 Mason and Dixon Survey Terminal Point -73001922 Mason and Dixon West Line Milemarkers 76 and 77 -100002789

Over the past five decades, these three National Register listings have individually progressed the Mason and Dixon Line westward towards its rightful place. This nomination is the restless end. It places the last stone where it belongs.

#### THE MAN NAMED ROCK – Cephas Hempstone Sinclair, December 4, 1847-May 16, 1920

The meaning of the name, Cephas, is rock. The legacy left by a good name is considered immeasurable. Cephas Sinclair lived up to his name without question.

Eighty years had passed since the conclusion of Mason and Dixon's survey when Cephas Hempstone Sinclair entered this life. Cephas was born on December 4, 1847, in Charlottesville, Virginia. At the time of his birth, West Virginia had yet to be conceived. He was just a boy when West Virginia was in her infancy. The lines between his native state and Pennsylvania had disappeared by the time Cephas had reached age 16. The new lines of West Virginia remained undetected on maps for 20 years until Sinclair set them in stone. He was 36 years old when he began to draw over old Virginia, retraced Pennsylvania and permanently marked West Virginia.

After the Union admitted West Virginia as the 35<sup>th</sup> state, Private Sinclair served as a Confederate soldier. He was assigned to the Charlottesville Artillery unit. Following the war between the states, Sinclair attended the University of Virginia. He graduated in 1873 with degrees in engineering and science. Upon graduation, Cephas Sinclair, began his accomplished career with the United States Coast and Geodetic Survey, which spanned over four decades. He surveyed several boundaries and was well published. Mount Sinclair in Alaska is named in his honor. From stone monuments to a rocky mountain peak, Cephas Hempstone Sinclair left his mark for generations to come.

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During the summer of 1879, Cephas married Julia Stockton Farrish. They had a son and daughter by late 1882. While he was surveying the Pennsylvania and West Virginia boundary lines, the Sinclairs lost both children. Their infant daughter, Rosalie, died on August 2, 1883, as Sinclair was preparing to survey the Mason and Dixon Line extension segment. On November 13, 1885, at the conclusion of Sinclair's survey, their four-year-old son, Howard, died. Success continued professionally for Sinclair, but sadness was always present in his personal life. His wife was taken from him too soon as well. By 1895, Cephas was without a family, childless and a widower. He lived out the rest of his life devoted to his work. Cephas Hempstone Sinclair departed this world on May 16, 1920, in Washington DC.<sup>60</sup>

A row of four Sinclair tombstones is at Maplewood Cemetery in the heart of Charlottesville, Virginia. They line up like monuments, made of stone, marking a boundary crossed between life and death.

#### A CONCLUSION

On June 6, 1887, the Commonwealth of Pennsylvania confirmed a legislative act which was passed by the State of West Virginia. Under section one, the following is declared:

"Be it enacted, &c., The said boundary lines so run and marked by the above- named (joint commission) commissioners on the part of this Commonwealth and the States of Ohio and West Virginia, and described in their reports, maps and accompanying documents, now remaining on file in the department of internal affairs, are hereby accepted and declared to be the true and just lines of boundary and jurisdiction between this commonwealth and the states of Ohio and West Virginia, as aforesaid." - 71 Pa. Stat. 1839/1887, June 6, P.L. 353, No. 245<sup>61</sup>

The Act concludes:

"APPROVED: The 6th day of June, A.D. 1887."

<sup>&</sup>lt;sup>60</sup> "Cephas H. Sinclair Dies In Washington." *The Daily Progress*. May 17, 1920,accessed January 30, 2025, <a href="http://www.chronicalingamerica.loc.gov/">http://www.chronicalingamerica.loc.gov/</a>.

<sup>&</sup>lt;sup>61</sup> "Act of June 6, 1887 (Pa.Laws 353, 245), 1-2," *Local Geohistory Project*, accessed March 20, 2025, <a href="http://www.localgeohistory.project.pro">http://www.localgeohistory.project.pro</a>.

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West Virginia-Pennsylvania Sinclair Cornerstone		Marshall, WV / Wetzel, WV / Greene, PA
Name of Property  Secession. El Dorado Hills, 2020.		County and State
Previous documentation on file (NPS)	<b>):</b>	
preliminary determination of indiversity previously listed in the National Respressionsly determined eligible by designated a National Historic Language recorded by Historic American Burecorded by Historic American Engrecorded by Historic American Language Precorded by Historic American Language Previously 100 previousl	the National Register admark aildings Survey # agineering Record #	en requested
Primary location of add  X State Historic Preservation Office X Other State agency X Federal agency Local government University Other Name of repository:		
Historic Resources Survey Number (i	f assigned):	
10. Geographical Data		
Acreage of Property less than one acr	<u>re</u>	
Use either the UTM system or latitude/l	ongitude coordinates	
Latitude/Longitude Coordinates Datum if other than WGS84: NAD 83 (enter coordinates to 6 decimal places) 1. Latitude: 39° 43' 16.65" N	Longitude: 80° 31' 09.11" W	
2. Latitude:	Longitude:	
3. Latitude:	Longitude:	
4. Latitude:	Longitude:	

United States Department of the Interior
National Park Service / National Register of Historic Places Registration Form
NPS Form 10-900
OMB Control No. 1024-0018

Vest Virginia-Pennsylvania Sinclair Cornerstone		Marshall, WV / Wetzel, WV / Greene, PA	
lame of Property			County and State
Or			
UTM References			
Datum (indicated on	USGS map):		
× NAD 1927 o	r NAD 1983		
1. Zone:	Easting:	Northing:	
2. Zone:	Easting:	Northing:	
3. Zone:	Easting:	Northing:	
4. Zone:	Easting:	Northing:	

Verbal Boundary Description (Describe the boundaries of the property.)

The boundaries of the West Virginia-Pennsylvania Sinclair Cornerstone are defined by the 15-inch square physical footprint of the monument itself.

## Boundary Justification (Explain why the boundaries were selected.)

The nominated property represents the full extent of the property historically associated with the cornerstone. The West Virginia-Pennsylvania Sinclair Cornerstone monument is located within a parcel of 156.84 acres of mountainous land privately owned by the Thomas F. Bilinovich family.

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#### 11. Form Prepared By

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street & number: 1865 Highland Drive

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email: <u>witwer777@gmail.com</u> telephone: <u>717 515 5642</u> date: May 26, 2025

#### **Additional Documentation**

Submit the following items with the completed form:

- Maps: A USGS map or equivalent (7.5 or 15 minute series) indicating the property's location.
- **Sketch map** for historic districts and properties having large acreage or numerous resources. Key all photographs to this map.
- Additional items: (Check with the SHPO, TPO, or FPO for any additional items.)

Map 1 of 7=Google Earth map in 3D

Map 2 of 7=USGS topo map

Map 3 of 7=West Virginia Wetzel County Property Viewer tax topo and satellite map

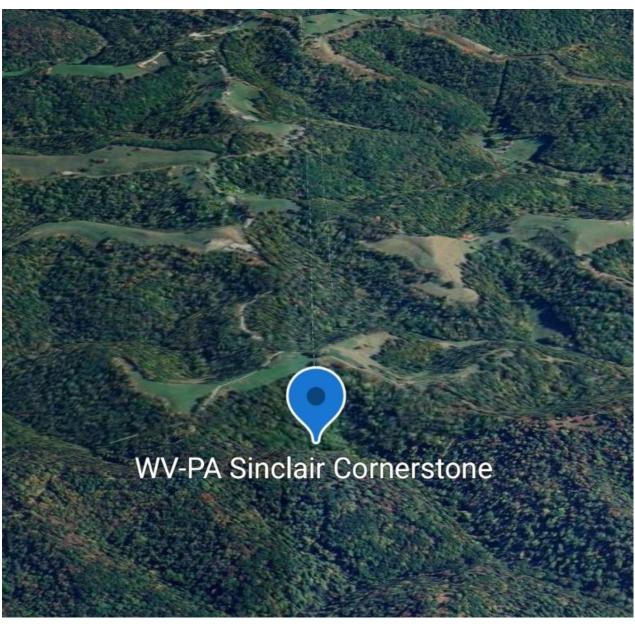
Map 4 of 7=West Virginia Marshal County Property Viewer tax topo and satellite map

Map 5 of 7=USGS topo map

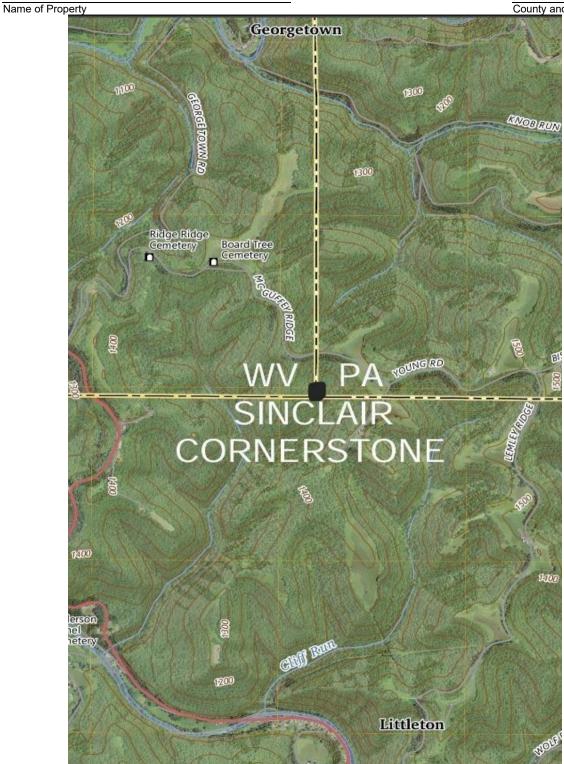
Map 6 of 7=West Virginia Wetzel County Property Viewer tax map

Map 7 of 7=Google Maps satellite imagery map

Name of Property

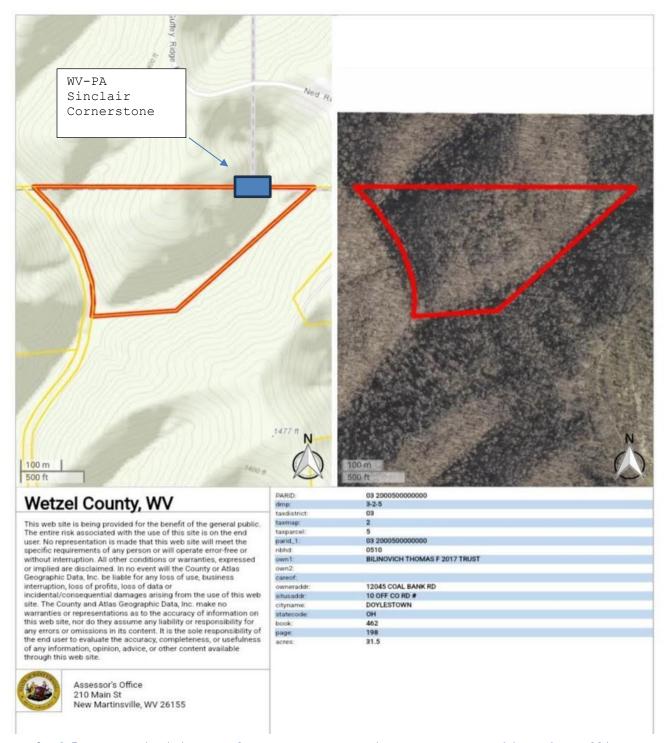


1 Map 1 of 7 - Google Earth Map in 3D

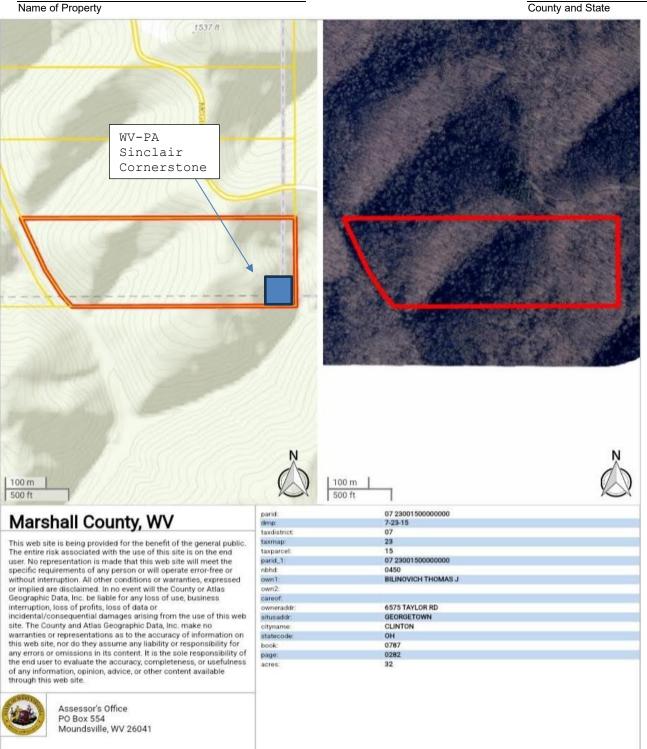


Map 2 of 7 - USGS Topographic Map

Name of Property



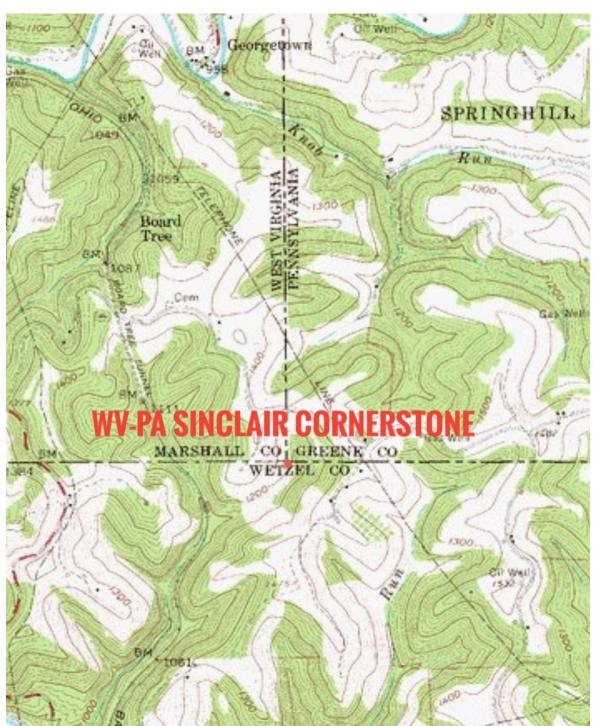
Map 3 of 7 - West Virginia Wetzel County Property Viewer Map Topographic and Satellite



Map 4 of 7 - Marshall County Property Viewer Map in Topographic and Satellite

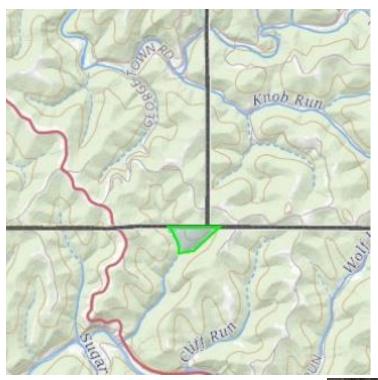
Marshall, WV / Wetzel, WV / Greene, PA County and State

Name of Property

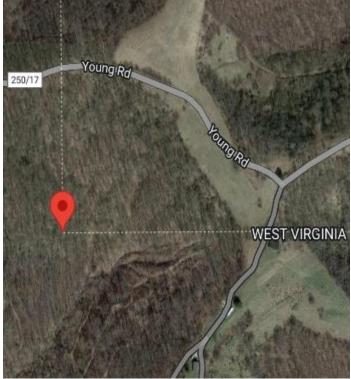


Map 5 of 7 - USGS Topographic Map

Name of Property



Map 6 of 7 - Wetzel County Property Viewer Topographic Map



Map 7 of 7 - Google Maps Satellite Map

Name of Property

Marshall, WV / Wetzel, WV / Greene, PA
County and State

## **Photographs**

Submit clear and descriptive photographs. The size of each image must be 1600x1200 pixels (minimum), 3000x2000 preferred, at 300 ppi (pixels per inch) or larger. Key all photographs to the sketch map. Each photograph must be numbered and that number must correspond to the photograph number on the photo log. For simplicity, the name of the photographer, photo date, etc. may be listed once on the photograph log and doesn't need to be labeled on every photograph.

## Photo Log

Name of Property: West Virginia-Pennsylvania Sinclair Cornerstone

City or Vicinity: Georgetown

County: Greene/Marshall/Wetzel State: Pennsylvania/West Virginia

Photographer: Steven E. Witwer

Date Photographed: October 23, 2023

Description of Photograph(s) and number, include description of view indicating direction of camera:

Photo 1 of 10 -Top of cornerstone monument. Direction of camera is overhead taken in all three counties, Greene/PA (top), Marshall/WV(top and left), Wetzel/WV (bottom and right).

Photo 2 of 10 -Cornerstone monument surrounding of mountainous wooded terrain on private Bilinovich family property. Direction of camera is northwest taken in Wetzel County/WV.

Photo 3 of 10 -North façade of cornerstone monument. Direction of camera is south taken in Greene County/PA.

Photo 4 of 10 -North façade of cornerstone monument. Direction of camera is south taken in Greene County/PA.

Photo 5 of 10 -South façade of cornerstone monument. Direction of camera is north taken in Wetzel County/WV.

Photo 6 of 10 -West and south facades of cornerstone monument. Direction of camera is northeast taken in Wetzel County/WV.

United States Department of the Interior
National Park Service / National Register of Historic Places Registration Form
NPS Form 10-900
OMB Control No. 1024-0018

West Virginia-Pennsylvania Sinclair Cornerstone

Marshall, WV / Wetzel, WV / Greene, PA

Name of Property

County and State

Photo 7 of 10 -West façade of cornerstone monument. Direction of camera is east taken in Marshall County/WV.

Photo 8 of 10 -North and west façade of cornerstone monument. Direction of camera is southeast taken in Marshall County/WV.

Photo 9 of 10 -East façade of cornerstone monument. Direction of camera is west taken in Greene County/PA.

Photo 10 of 10 -East and south façade of cornerstone monument. Direction of camera is northwest taken in Wetzel County/WV.

Name of Property



Photo 1 of 10 -Top view of cornerstone with all facades facing in corresponding true north direction. Top is north. Bottom is south. Left is west. Right is east. Camera position is overhead.

Name of Property

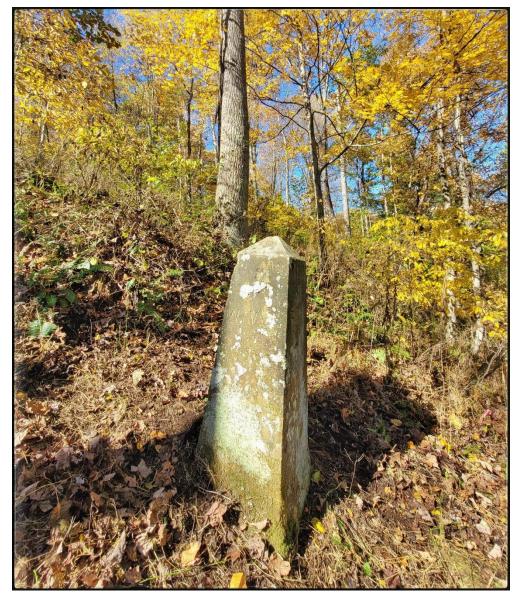


Photo 2 of 10 -Cornerstone in mountainous and wooded location with south(left) and east (right) façade featured. Camera position facing northwest.

Name of Property



Photo 3 of 10 -North façade. Camera position facing south



Photo 4 of 10 -North façade. Camera position facing south.

Name of Property



Photo 5 of 10 -South façade. Camera facing north.



Photo 6 of 10 -South (right) and west (left) facades. Camera is facing northeast.

Name of Property



Photo 7 of 10 -West façade. Camera facing east.



Photo 8 of 10 -North (left) and west (right) facades featured. Camera facing southeast.

Name of Property



Photo 9 of 10 -East façade. Camera facing west.



Photo 10 of 10 -East (right) and south (left) façades featured. Camera facing northwest.

Name of Property

Marshall, WV / Wetzel, WV / Greene, PA County and State

# Photo log sketch of camera facing position for 1-10 photographs:

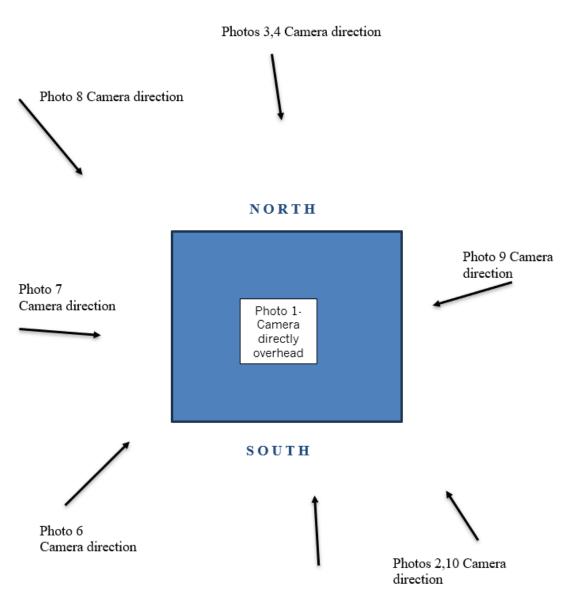


Photo 5 Camera direction

United States Department of the Interior National Park Service / National Register of Historic Places Registration Form NPS Form 10-900 OMB Control No. 1024-0018

#### West Virginia-Pennsylvania Sinclair Cornerstone

Marshall, WV / Wetzel. WV / Greene, PA County and State

Name of Property

Paperwork Reduction Act Statement: This information is being collected for nominations to the National Register of Historic Places to nominate properties for listing or determine eligibility for listing, to list properties, and to amend existing listings. Response to this request is required to obtain a benefit in accordance with the National Historic Preservation Act, as amended (16 U.S.C.460 et seq.). We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.

Estimated Burden Statement: Public reporting burden for each response using this form is estimated to be between the Tier 1 and Tier 4 levels with the estimate of the time for each tier as follows:

> Tier 1 - 60-100 hours Tier 2 - 120 hours

Tier 3 – 230 hours Tier 4 – 280 hours

The above estimates include time for reviewing instructions, gathering and maintaining data, and preparing and transmitting nominations. Send comments regarding these estimates or any other aspect of the requirement(s) to the Service Information Collection Clearance Officer, National Park Service, 1201 Oakridge Drive Fort Collins, CO 80525.