

# The NGS Data Sheet

See file [dsdata.pdf](#) for more information about the datasheet.

PROGRAM = datasheet95, VERSION = 8.12.5.4

1 National Geodetic Survey, Retrieval Date = NOVEMBER 5, 2019

AA9908 \*\*\*\*\*

AA9908 DESIGNATION - CAPA

AA9908 PID - AA9908

AA9908 STATE/COUNTY- MN/ST LOUIS

AA9908 COUNTRY - US

AA9908 USGS QUAD - DULUTH (1993)

AA9908

AA9908 \*CURRENT SURVEY CONTROL

AA9908

AA9908\* NAD 83(2011) POSITION- 46 46 51.38543(N) 092 05 17.97567(W) ADJUSTED

AA9908\* NAD 83(2011) ELLIP HT- 159.217 (meters) (06/27/12) ADJUSTED

AA9908\* NAD 83(2011) EPOCH - 2010.00

AA9908\* [NAVD 88](#) ORTHO HEIGHT - 187.4 (meters) 615. (feet) GPS OBS

AA9908

AA9908 NAVD 88 orthometric height was determined with geoid model GEOID93

AA9908 GEOID HEIGHT - -27.611 (meters) GEOID93

AA9908 GEOID HEIGHT - -28.267 (meters) GEOID18

AA9908 NAD 83(2011) X - -159,446.423 (meters) COMP

AA9908 NAD 83(2011) Y - -4,372,669.203 (meters) COMP

AA9908 NAD 83(2011) Z - 4,625,238.396 (meters) COMP

AA9908 LAPLACE CORR - -3.14 (seconds) DEFLEC18

AA9908

AA9908 Network accuracy estimates per FGDC Geospatial Positioning Accuracy

AA9908 Standards:

AA9908 FGDC (95% conf, cm) Standard deviation (cm) CorrNE

AA9908 Horiz Ellip SD\_N SD\_E SD\_h (unitless)

AA9908 -----

AA9908 NETWORK 0.79 1.33 0.35 0.29 0.68 0.11900497

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AA9908 Click [here](#) for local accuracies and other accuracy information.

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AA9908.The horizontal coordinates were established by GPS observations

AA9908.and adjusted by the National Geodetic Survey in June 2012.

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AA9908.NAD 83(2011) refers to NAD 83 coordinates where the reference frame has

AA9908.been affixed to the stable North American tectonic plate. See

AA9908.[NA2011](#) for more information.

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AA9908.The horizontal coordinates are valid at the epoch date displayed above

AA9908.which is a decimal equivalence of Year/Month/Day.

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AA9908.The orthometric height was determined by GPS observations and a

AA9908.high-resolution geoid model.

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AA9908.Significant digits in the geoid height do not necessarily reflect accuracy.

AA9908.GEOID18 height accuracy estimate available [here](#).

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AA9908.Click [here](#) to see if photographs exist for this station.

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AA9908.The X, Y, and Z were computed from the position and the ellipsoidal ht.

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AA9908.The Laplace correction was computed from DEFLEC18 derived deflections.

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AA9908.The ellipsoidal height was determined by GPS observations  
AA9908.and is referenced to NAD 83.

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AA9908. The following values were computed from the NAD 83(2011) position.

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AA9908;		North	East	Units	Scale Factor	Converg.
AA9908;SPC MN N	-	131,739.718	877,260.992	MT	1.00007052	+0 44 59.5
AA9908;SPC MN N	-	432,216.06	2,878,147.10	sFT	1.00007052	+0 44 59.5
AA9908;UTM 15	-	5,181,224.779	569,593.093	MT	0.99965953	+0 39 51.8

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AA9908! - Elev Factor x Scale Factor = Combined Factor

AA9908!SPC MN N - 0.99997504 x 1.00007052 = 1.00004556

AA9908!UTM 15 - 0.99997504 x 0.99965953 = 0.99963458

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AA9908\_U.S. NATIONAL GRID SPATIAL ADDRESS: 15TWM6959381224(NAD 83)

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#### SUPERSEDED SURVEY CONTROL

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AA9908	NAD 83(2007)-	46 46 51.38564(N)	092 05 17.97664(W)	AD(2002.00)	0
AA9908	ELLIP H (02/10/07)	159.245 (m)		GP(2002.00)	
AA9908	NAD 83(1996)-	46 46 51.38518(N)	092 05 17.97687(W)	AD( )	1
AA9908	ELLIP H (03/16/99)	159.297 (m)		GP( )	4 1
AA9908	NAD 83(1986)-	46 46 51.38053(N)	092 05 17.97534(W)	AD( )	1
AA9908	NAD 83(1991)-	46 46 51.38560(N)	092 05 17.97633(W)	AD( )	1

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AA9908.Superseded values are not recommended for survey control.

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AA9908.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

AA9908.See file [dsdata.pdf](#) to determine how the superseded data were derived.

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AA9908\_MARKER: DH = HORIZONTAL CONTROL DISK

AA9908\_SETTING: 36 = SET IN A MASSIVE STRUCTURE

AA9908\_STAMPING: CAPA 1991

AA9908\_MARK LOGO: MNDT

AA9908\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

AA9908\_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL

AA9908\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

AA9908+SATELLITE: SATELLITE OBSERVATIONS - July 25, 2012

AA9908

AA9908	HISTORY	- Date	Condition	Report By
AA9908	HISTORY	- 1991	MONUMENTED	MNDT
AA9908	HISTORY	- 20120725	GOOD	GEOCAC

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#### STATION DESCRIPTION

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AA9908'DESCRIBED BY MN DEPT OF TRANSP 1991 (DKH)

AA9908'DULUTH, MINNESOTA POINT, AT EAST END OF NORTH PIER OF SHIP CANAL UNDER

AA9908'LIFT BRIDGE, 5.2 FT (1.6 M) EAST FENCE COR RAILING, 2.3 FT (0.7 M)

AA9908'SOUTH SOUTH EDGE NORTH CONCERT WALL, 5.7 FT (1.7 M) EAST EAST EDGE

AA9908'WEST CONCERT WALL, 14 FT (4.3 M) NW EDGE LIGHTHOUSE.

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#### STATION RECOVERY (2012)

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AA9908'RECOVERY NOTE BY GEOCACHING 2012 (LPC)

AA9908'RECOVERED IN GOOD CONDITION.

\*\*\* retrieval complete.

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