



Mn/DOT Name: FROHN 15

NGS Name: FROHN 15

County: BELTRAMI, MN (Sheet 2)

NGS ACRN: [DK2920](#) [Get Map](#)
 NGS Quad / Sta Num : 47094314/
 USGS Quad: ANDRUSIA LAKE

				<u>Reference</u>	<u>Reference</u>	<u>Vert</u>	<u>Horz</u>
<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Latitude</u>	<u>Longitude</u>	<u>Order</u>	<u>Order</u>
SE	15	146 N	32 W	472713.12	944309.09		C

<u>Year Set</u>	<u>Last Recovery</u>	<u>Condition</u>	<u>Geodetic Usability</u>	<u>Photos</u>	<u>Bridge Num</u>	<u>F/P/R</u>	<u>Magnetic Properties</u>
2006	2020	GOOD	Horz=YES Vert=YES	YES		RECESSED 2 IN.	MARKER W/BAR MAGNET

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ALUMINUM ALLOY ROD (NO SLEEVE) (DEPTH 40 FT)	SURVEY DISK	MN-007

Description: (2006) Stamping: FROHN 15 2006

7.0 MILES EAST OF BEMIDJI, 6.8 MILES EAST ALONG COUNTY STATE HIGHWAY 8 (ROOSEVELT ROAD) FROM THE JUNCTION OF TRUNK HIGHWAY 197 AND COUNTY STATE HIGHWAY 8 (ROOSEVELT ROAD) IN BEMIDJI, 248.0 FEET WEST OF WOLF LAKE DRIVE (COUNTY STATE HIGHWAY 25), 65.0 FEET NORTH OF ROOSEVELT ROAD, 36.0 FEET WEST OF DRIVEWAY NUMBER 10929, 3.0 FEET SOUTH OF A WITNESS POST.

* No Leveling-Derived Orthometric Heights in the Database *

Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)

NAVD88

<u>Orthometric Height</u>			<u>Ellipsoid (NAD83)</u>				<u>Project Info</u>	
<u>Height</u>	<u>Acc</u>	<u>Order (/Class)</u>	<u>Height</u>	<u>Acc</u>	<u>Adj</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
1333.951	.262		1241.451	.197	2011	GPS - OPUS	2020	GPSBM
1333.970	.262		1241.471	.197	2011	GPS - OPUS	2020	GPSBM
1333.872	.262		1241.375	.197	2011	GPS - RTRN	2020	RTRN2020
			1241.418	.019	2011	HORIZONTAL ADJUSTMENT	2012	GPS2800
			1241.500	.066	2007	HORIZONTAL ADJUSTMENT	2009	GPS2401-B
1333.888	.131		1241.576	.066	1996	HORIZONTAL ADJUSTMENT	2008	GPS2401
1333.888	.131		1241.576	.066	1996	GPS - STATIC	2007	HBELT

Geoid Separations(ft): GEOID18 = -92.500 12B = -92.497 09 = -92.408 03 = -92.332

Lat/Lon and County Coordinates (Feet)

NAD83(2011)

<u>Geodetic Position</u>		<u>Beltrami County - South Zone</u>				<u>Project Info</u>		
<u>Latitude</u>	<u>Longitude</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
47 27 13.12099	94 43 09.08742	532365.258	115036.340	.131	3	GPS - OPUS	2020	GPSBM
47 27 13.12103	94 43 09.08731	532365.266	115036.344	.131	3	GPS - OPUS	2020	GPSBM
47 27 13.12126	94 43 09.09096	532365.015	115036.367	.131	3	GPS - RTRN	2020	RTRN2020
47 27 13.12152	94 43 09.08764	532365.243	115036.394	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

<u>Geodetic Position</u>		<u>Beltrami County - South Zone</u>				<u>Project Info</u>		
<u>Latitude</u>	<u>Longitude</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
47 27 13.12160	94 43 09.08862	532365.176	115036.402	.033	C	ADJUSTMENT	2009	GPS2401-B

NAD83(1996)

<u>Geodetic Position</u>		<u>Beltrami County - South Zone</u>				<u>Project Info</u>		
<u>Latitude</u>	<u>Longitude</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
47 27 13.12133	94 43 09.08855	532365.181	115036.375	.033	C	ADJUSTMENT	2008	GPS2401
47 27 13.12133	94 43 09.08855	532365.181	115036.375	.033	C	GPS - STATIC	2007	HBELT

State Plane and UTM Coordinates (Feet)

NAD83(2011)

MN State Plane - North Zone		UTM - Zone 15				Project Info		
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
2224126.571	680111.686	1215251.984	17247375.538	.131	3	GPS - OPUS	2020	GPSBM
2224126.578	680111.690	1215251.991	17247375.542	.131	3	GPS - OPUS	2020	GPSBM
2224126.328	680111.719	1215251.741	17247375.571	.131	3	GPS - RTRN	2020	RTRN2020
2224126.557	680111.740	1215251.970	17247375.592	.013		ADJUSTMENT	2012	GPS2800

NAD83(2007)

MN State Plane - North Zone		UTM - Zone 15				Project Info		
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
2224126.490	680111.750	1215251.903	17247375.602	.033	C	ADJUSTMENT	2009	GPS2401-B

NAD83(1996)

MN State Plane - North Zone		UTM - Zone 15				Project Info		
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
2224126.494	680111.722	1215251.907	17247375.574	.033	C	ADJUSTMENT	2008	GPS2401
2224126.494	680111.722	1215251.907	17247375.574	.033	C	GPS - STATIC	2007	HBELT

Station Photos

<u>Type</u>	<u>File Name</u>	<u>Dir</u>	<u>Date</u>
Location:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/beltrami/FROHN_15-DK2920-3N-25AUG2006.jpg	N	Aug 25, 2006
Monument:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/beltrami/FROHN_15-DK2920-2-25AUG2006.jpg		Aug 25, 2006
Disk:	https://www.olmweb.dot.state.mn.us/geod/StationPhotos/beltrami/FROHN_15-DK2920-1-05FEB2020.jpg		Feb 5, 2020

** All station images can be viewed at: <ftp://ftp.olmweb.dot.state.mn.us/geod/StationPhotos> **