



Mn/DOT Name: BEACH

NGS Name: BEACH

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0826](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492201.62	945539.79		

<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>
	1913	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	NGS

**Description:** STATION BEACH IS IN ONTARIO CANADA, IN LAKE OF THE WOODS, ON EAGLE ISLAND.

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.798 12B = -97.762 09 = -97.664 03 = -97.782



Mn/DOT Name: BEAR

NGS Name: BEAR

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0827](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491313.89	944652.97		

<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>
	1925	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	NGS

**Description:** **Stamping:**  
 IN LAKE OF THE WOODS, STATION BEAR IS ON THE NORTH END OF BEAR ISLAND IN CANADA.

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.136 12B = -98.153 09 = -98.084 03 = -98.038



Mn/DOT Name: BIG POINT

NGS Name: BIG POINT

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0764](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094332/  
 USGS Quad: GARDEN ISLAND EAST OE S

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				490725.73	944611.44		

<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>
1912	1912	GOOD	Horz=YES Vert=YES	NO		RECESSED 24 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
OBJECT DRIVEN INTO THE GROUND	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

30.0 MILES NORTHEAST OF WARROAD, 30.0 MILES NORTHWEST OF RAINY RIVER, ON BIG ISLAND IN LAKE OF THE WOODS, ON THE NORTHWEST POINT OF THE SMALL PENINSULA SOUTHWEST OF SUGAR POINT, ON THE HIGHEST PART OF THE POINT, 600.0 FEET SOUTHEAST OF BOUNDARY REF MON 45 (WHICH IS ON A SMALL ISLAND). A PIECE OF DRILL STEEL 2.0 FEET BELOW SURFACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.677    12B = -97.729    09 = -97.651    03 = -97.559



Mn/DOT Name: BIGSBY

NGS Name: BIGSBY

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0761](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094323/  
 USGS Quad: UNKNOWN10 LAKE OF THE WOOD

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				490135.82	943751.01		

<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>
1912	1912	GOOD	Horz=YES Vert=YES	NO		RECESSED 24 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
OBJECT DRIVEN INTO THE GROUND	SEE DESCRIPTION	NGS

Description: (1912)                      Stamping:

23.0 MILES NORTHWEST OF RAINY RIVER, ON BIGSBY ISLAND, 2.5 MILES EAST OF THE THREE SISTERS ISLAND, ON THE SOUTHWEST END OF THE SOUTHWEST POINT OF THE ISLAND IN A PIECE OF A DRILLED STEEL.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.726    12B = -97.785    09 = -97.654    03 = -97.569



Mn/DOT Name: BLAZE

NGS Name: BLAZE

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0840](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491937.95	944832.49		

<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>
	1912	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	NGS

**Description:** IN LAKE OF THE WOODS, ON THE SOUTH SIDE OF BLAZE ISLAND.  
**Stamping:**

**Station Notes**  
 MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.277 12B = -98.215 09 = -98.149 03 = -98.261



Mn/DOT Name: BOUCHER ISLAND GUYED MAST

NGS Name: BOUCHER ISLAND GUYED MAST

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1261](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492200.50	950143.83		

<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>
	1913	UNKNOWN	Horz=NO Vert=NO	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	NGS

**Description:** STATION BOUCHER ISLAND GUYED MAST IS IN ONTARIO CANADA.  
**Stamping:**

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.355 12B = -97.339 09 = -97.241 03 = -97.336



Mn/DOT Name: BOUNDARY REF MON 1

NGS Name: BOUNDARY REF MON 1

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1001](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095214/  
 USGS Quad: ANGLE INLET SW OE N

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492304.13	950849.21		

<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>
1913	1957	GOOD	Horz=YES Vert=YES	NO		PROJECTS 60 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1913)                      **Stamping:** REFERENCE MARK

40.0 MILES SOUTHWEST OF KENORA, 34.0 MILES NORTH OF WARROAD, 7.0 MILES WEST OF MAGNUSSON ISLAND, 1.5 MILES NORTH OF THE ENTRANCE TO HARRISON CREEK, AT THE EDGE OF THE POPLAR GROWTH ON THE EAST SIDE OF THE MEADOW, 1526.0 FEET EAST OF THE NORTH TERMINUS OF THE MERIDIONAL BOUNDARY BETWEEN MANITOBA AND MINNESOTA, IRON OBELISK, 5.0 FEET HIGH, MARKED REFERENCE MARK ON THE EAST FACE, SET IN A SQUARE CONCRETE BASE.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft): GEOID18 = -96.801    12B = -96.814    09 = -96.657    03 = -96.788**



Mn/DOT Name: BOUNDARY REF MON 11

NGS Name: BOUNDARY REF MON 11

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0778](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

				<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>
NW	21	168 N	34 W	492134.21	950227.43		2

<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>
1912	1989	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	IBWC

Description: (1989)                      Stamping:

THE MONUMENT IS LOCATED ON THE HIGHEST POINT OF A SMALL ROCK ISLAND ABOUT 196.8 FEET IN DIAMETER, THIS ISLAND IS LOCATED APPROXIMATELY 886.0 FEET EAST OF LITTLE MC COY ISLAND IN THE NORTHWEST ANGLE INLET OF LAKE OF THE WOODS.

**Station Notes**

THE STATION IS DIFFICULT TO REACH BY BOAT WITHOUT RESORTING TO WADING, THE STATION IS A 2.0 INCH SQUARE CAST IRON OBELISK PROJECTING APPROXIMATELY 18.0 INCH ABOVE A 16.0 INCH SQUARE 6.0 INCH HIGH CONCRETE BASE.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</u>			<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>		
1088.580	.197		991.950	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648		

Geoid Separations(ft): GEOID18 = -97.306    12B = -97.293    09 = -97.185    03 = -97.283

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>Lake of the Woods County - North 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>	
49 21 34.21195	95 02 27.42546	486267.030	176452.055	.066	2	ADJUSTMENT	1999	17648	

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>MN State Plane - North Zone</u>		<u>UTM - Zone 15</u>		<u>Project Info</u>		
<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>
2162004.674	1377025.414	1154202.808	17944270.517	.066	2	ADJUSTMENT	1999	17648







Mn/DOT Name: BOUNDARY REF MON 17  
 County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: BOUNDARY REF MON 17

NGS ACRN: [TC1086](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492210.18	945828.73		

<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>
1912	1957	GOOD	Horz=YES Vert=YES	NO		PROJECTS 12 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

36.0 MILES SOUTHWEST OF KENORA, 35.0 MILES NORTH OF WARROAD, 0.75 MILE NORTH OF MAGNUSSON ISLAND, ON THE SOUTHWEST END OF BUKETE ISLAND, AT THE ENTRANCE TO NORTHWEST ANGLE INLET OF LAKE OF THE WOODS, 100.0 FEET FROM THE SHORE, 400.0 FEET EAST OF THE END OF THE POINT, A WROUGHT IRON POST SET IN A SQUARE CONCRETE BASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.595    12B = -97.572    09 = -97.470    03 = -97.582



Mn/DOT Name: BOUNDARY REF MON 19  
 County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: BOUNDARY REF MON 19

NGS ACRN: [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492218.81	945731.20		

<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>
1912	1966	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK (1 TO 3 METERS)	METAL ROD	IBWC

Description: (1917)

Stamping:

35.0 MILES SOUTHWEST OF KENORA, 36.0 MILES NORTH OF WARROAD, ON THE SMALL ISLAND IN LAKE OF THE WOODS, 0.5 MILE NORTH OF AMERICAN POINT, 500.0 FEET EAST OF THE LONG LOW ISLAND SOUTHEAST OF BUKETE ISLAND AT THE ENTRANCE TO THE NORTHWEST ANGLE INLET OF LAKE OF THE WOODS.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.664 12B = -97.638 09 = -97.533 03 = -97.647



Mn/DOT Name: BOUNDARY REF MON 21

NGS Name: BOUNDARY REF MON 21

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1090](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492222.91	945705.76		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO		PROJECTS 12 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

35.0 MILES SOUTHWEST OF KENORA, 36.0 MILES NORTH OF WARROAD, 1.5 MILES EAST OF BUKETE ISLAND, ON THE WEST END OF THE LARGE ISLAND, NORTHEAST OF AMERICAN POINT, AT THE ENTRANCE TO THE NORTHWEST ANGLE INLET, A WROUGHT IRON POST SET IN A ROCK.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.693    12B = -97.667    09 = -97.562    03 = -97.674







Mn/DOT Name: BOUNDARY REF MON 27

NGS Name: BOUNDARY REF MON 27

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1095](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492049.64	945406.80		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912) **Stamping:**

34.0 MILES SOUTHWEST OF KENORA, 36.0 MILES NORTHEAST OF WARROAD, ON THE LOW ISLAND IN LAKE OF THE WOODS, ABOUT 300.0 FEET IN DIAMETER, 700.0 FEET OFF THE EAST SIDE OF BRUSH ISLAND, 3.0 MILES SOUTHEAST OF THE ENTRANCE TO THE NORTHWEST ANGLE INLET, THE MONUMENT IS ON THE SOUTH END OF THE ISLAND, STATION BOUNDARY REF MON 27 IS A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.913 12B = -97.864 09 = -97.772 03 = -97.903



Mn/DOT Name: BOUNDARY REF MON 28  
 County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: BOUNDARY REF MON 28

NGS ACRN: [TC1096](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492025.15	945259.17		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

ON THE LARGE ISLAND SOUTH OF WINDFALL ISLAND IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROAD, 34.0 MILES SOUTHWEST OF KENORA, AT THE SOUTHWEST END OF THE ISLAND, 2000.0 FEET NORTH OF THE WEST END OF PASSAGE ISLAND, THE PART OF THE ISLAND ON WHICH THE MONUMENT IS SITUATED IS SEPARATED FROM THE MAIN ISLAND BY A MARSH, STATION BOUNDARY REF MON 28 IS A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft): GEOID18 = -97.989    12B = -97.930    09 = -97.844    03 = -97.982**



**Mn/DOT Name:** BOUNDARY REF MON 29  
**County:** KENORA DISTRICT, ON (Sheet 1)

**NGS Name:** BOUNDARY REF MON 29

**NGS ACRN:** [TC1097](#) [Get Map](#)  
**NGS Quad / Sta Num :** 49094343/  
**USGS Quad:** FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492006.52	945243.02		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912) **Stamping:**

ON PASSAGE ISLAND IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROAD, 34.0 MILES SOUTHWEST OF KENORA, THE MONUMENT IS AT THE WEST END OF THE ISLAND (THIS IS A NARROW ISLAND NEARLY A MILE LONG IN AN EAST AND WEST DIRECTION NORTHEAST OF FLAG ISLAND), BOUNDARY REF MON 28 IS ABOUT 2200.0 FEET NORTHWEST, STATION BOUNDARY REF MON 29 IS A WROUGHT IRON POST, ABOUT 12.0 INCHES AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft): GEOID18 = -98.005 12B = -97.946 09 = -97.861 03 = -98.002**



Mn/DOT Name: BOUNDARY REF MON 3

NGS Name: BOUNDARY REF MON 3

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1098](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095214/  
 USGS Quad: ANGLE INLET SW OE N

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492248.89	950832.34		

<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>
1912	1957	NOT FOUND	Horz=NO Vert=YES	NO		PROJECTS 24 IN.	SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

40.0 MILES SOUTHWEST OF KENORA, 34.0 MILES NORTH OF WARROAD, 7.0 MILES WEST OF MAGNUSSON ISLAND, ON THE NORTH SHORE OF THE NORTHWEST ANGLE INLET OF LAKE OF THE WOODS, JUST NORTH OF THE ENTRANCE OF HARRISON CREEK, BOUNDARY REF MON 1 1900.0 FEET NORTHWEST, SET IN LOW WET GROUND, 300.0 FEET FROM THE TREE LINE, A WROUGHT IRON POST SET IN A SQUARE CONCRETE BASE.

**Station Notes**

THE STATION WAS FOUND UNDER WATER (IBC 1957).

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -96.827 12B = -96.837 09 = -96.683 03 = -96.814



Mn/DOT Name: BOUNDARY REF MON 31

NGS Name: BOUNDARY REF MON 31

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1100](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491936.54	945119.44		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

Description: (1912)                      Stamping:

36.0 MILES NORTHEAST OF WARROAD, 34.0 MILES SOUTHWEST OF KENORA, ON THE VERY SMALL ISLAND IN LAKE OF THE WOODS, 500.0 FEET FROM THE MOST SOUTHERN POINT OF CYCLONE ISLAND, 1500.0 FEET NORTH OF THE NORTHWEST OF OAK ISLAND, A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.100    12B = -98.031    09 = -97.953    03 = -98.090



Mn/DOT Name: BOUNDARY REF MON 33  
 County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: BOUNDARY REF MON 33

NGS ACRN: [TC1102](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491931.80	945041.90		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

Description: (1912)                      Stamping:

ON CENTRE ISLAND IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROAD, 34.0 MILES SOUTHWEST OF KENORA, AT THE SOUTH END OF THE ISLAND WHICH IS 1500.0 FEET IN DIAMETER AND LIES BETWEEN CYCLONE AND OAK ISLANDS, A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.140    12B = -98.071    09 = -97.995    03 = -98.130





Mn/DOT Name: BOUNDARY REF MON 37

NGS Name: BOUNDARY REF MON 37

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1106](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491831.71	944920.88		

<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>
1912	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

Description: (1912)                      Stamping:

ON SQUAW ISLAND IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROAD, 35.0 MILES SOUTHWEST OF KENORA, ON THE WEST SIDE OF THE NORTHWEST END OF THE ISLAND, BOUNDARY REF MON 36 IS 900.0 FEET WEST OF STATION BOUNDARY REF MON 37, A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.222   12B = -98.159   09 = -98.084   03 = -98.195





Mn/DOT Name: BOUNDARY REF MON 41

NGS Name: BOUNDARY REF MON 41

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1111](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491249.58	944737.08		

<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>
1913	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1913)                      **Stamping:**

ON BEAR ISLAND IN LAKE OF THE WOODS, 32.0 MILES NORTHEAST OF WARROAD, 35.0 MILES NORTHWEST OF RAINY RIVER, ONTARIO, ON THE MOST WESTERN POINT OF THE ISLAND, 0.3 MILE EAST OF BOUNDARY REF MON 40, A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft): GEOID18 = -98.041    12B = -98.061    09 = -97.992    03 = -97.949**





Mn/DOT Name: BOUNDARY REF MON 43 RESET

NGS Name: BOUNDARY REF MON 43 RESET

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1114](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491136.40	944742.21		3

<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>
1937	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	IBWC

Description: (1937)                      Stamping:

WAS FOUND TIPPED OVER ON A ROCKY SHORE. IT WAS MOVED EAST ABOUT 35.0 FEET AND RESET IN EARTH 12.0 FEET BACK FROM THE TOP OF THE BANK AND ABOUT 10.0 FEET ABOVE THE WATER LEVEL OF THE LAKE. ITS GEOGRAPHIC POSITION WAS DETERMINED BY TRIANGULATION FROM BOUNDARY REF MON 40.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</u>			<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>	
1069.552	.262		972.242	.197	1996	HORIZONTAL ADJUSTMENT		1999	17648	

Geoid Separations(ft): GEOID18 = -97.930    12B = -97.962    09 = -97.887    03 = -97.834

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 11 36.39728	94 47 42.20569					.131	3	ADJUSTMENT	1999	17648

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>				<u>Year</u>	<u>Reference</u>
		1211340.436	17882219.125	.131	3	ADJUSTMENT	1999	17648





Mn/DOT Name: BOUNDARY REF MON 47  
 County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: BOUNDARY REF MON 47

NGS ACRN: [TC1119](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094323/  
 USGS Quad: UNKNOWN10 LAKE OF THE WOOD

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				490606.26	944436.84		

<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>
1913	1968	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1913)                      **Stamping:**

ON BIG ISLAND IN LAKE OF THE WOODS, 29.0 MILES NORTHEAST OF WARROAD, 27.0 MILES NORTHWEST OF RAINY RIVER, NEAR THE SOUTH END OF THE POINT OF BIG ISLAND THAT IS MIDWAY BETWEEN THE SOUTH END OF BIG ISLAND AND SUGAR POINT, A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN CONCRETE IN A ROCK IN PLACE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.690    12B = -97.743    09 = -97.654    03 = -97.546



Mn/DOT Name: BOUNDARY REF MON 49

NGS Name: BOUNDARY REF MON 49

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1120](#) [Get Map](#)  
 NGS Quad / Sta Num : 48094414/  
 USGS Quad: WHEELERS POINT OE N

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				485323.50	944031.57		

<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>
1913	1968	DESTROYED	Horz=NO Vert=NO	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	METAL ROD	NGS

**Description:** (1913)                      **Stamping:**

ON AN ISLAND IN LAKE OF THE WOODS, 13.5 MILES NORTHWEST OF BAUDETTE, AND RAINY RIVER, 3.0 MILES NORTH OF THE MOUTH OF THE RAINY RIVER, ON THE HIGH KNOLL NEAR THE MIDDLE OF THE ISLAND 0.5 MILE NORTHEAST OF THE TWO LIGHTHOUSES, A WROUGHT IRON POST, ABOUT 12.0 INCH DIAMETER HIGH AND 2.0 INCH DIAMETER SQUARE, SET IN A CONCRETE BASE.

**Station Notes**

BOUNDARY REF MON 49 WAS REPORTED BY MR. PAT O'CONNOR, A COMMERCIAL FISHERMAN FROM A NEARBY PLACE ON THE MAINLAND, TO BE PRESENTLY UNDER SEVERAL FEET OF WATER, ABOUT 100 FEET FROM SHORE. THE NORTHWESTERN SIDE OF SABLE ISLAND WAS ERODED AWAY BY ACTION OF THE WIND AND WAVES ON LAKE OF THE WOODS. THE LOSS OF REF MON 49 WAS CONFIRMED BY A MEASUREMENT FROM REF MON 48. A REPLACEMENT WILL BE MADE FOR BOUNDARY REF MON 49 AT A LATER DATE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -96.578    12B = -96.604    09 = -96.466    03 = -96.345







Mn/DOT Name: BOUNDARY REF MON 7

NGS Name: BOUNDARY REF MON 7

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1152](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492206.78	950632.97		

<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>
1912	1957	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

Description: (1912) Stamping:

39.0 MILES SOUTHWEST OF KENORA, 33.0 MILES NORTH OF WARROAD, ON THE NORTH SHORE OF NORTHWEST ANGLE INLET OF LAKE OF THE WOODS, 5.0 MILES WEST OF MAGNUSSON ISLANDS, OPPOSITE THE ENTRANCE TO POPLAR CREEK, THE MONUMENT IS IN LOW WET GROUND CLOSE TO THE TREE LINE ABOUT ON LINE WITH THE GENERAL DIRECTION IN WHICH POPLAR CREEK FLOWS, STATION BOUNDARY REF MON 7 IS A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN A SQUARE CONCRETE BASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -96.998 12B = -96.985 09 = -96.847 03 = -96.985



Mn/DOT Name: BOUNDARY REF MON 9

NGS Name: BOUNDARY REF MON 9

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1183](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492203.44	950524.03		

<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>
1912	1957	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	SEE DESCRIPTION	NGS

**Description:** (1912)                      **Stamping:**

38.0 MILES SOUTHWEST OF KENORA, 33.0 MILES NORTH OF WARROAD, ON THE NORTH SIDE OF THE NORTHWEST ANGLE INLET OF LAKE OF THE WOODS, 4.0 MILES WEST OF MAGNUSSON ISLAND, DUE NORTH OF BOUNDARY REF MON 8, THE MONUMENT IS IN LOW WET GROUND CLOSE TO THE TREE LINE, STATION BOUNDARY REF MON 9 IS A WROUGHT IRON POST, ABOUT 12.0 INCHES HIGH AND 2.0 INCHES SQUARE, SET IN A SQUARE CONCRETE BASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.086    12B = -97.070    09 = -96.942    03 = -97.070



Mn/DOT Name: CAMP

NGS Name: CAMP

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0859](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491411.75	944529.73		

<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>
	1914	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	NGS

**Description:** ON AN ISLAND IN LAKE OF THE WOODS, 0.4 MILE SOUTH OF DREAM ISLAND.  
**Stamping:**

**Station Notes**  
 THE MARK WAS ADDED TO MATCH NATIONAL GEODETIC SURVEY(NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.330 12B = -98.340 09 = -98.268 03 = -98.218



Mn/DOT Name: CEDAR BIRCH ISLAND  
County: KENORA DISTRICT, ON (Sheet 1)

NGS Name: CEDAR

NGS ACRN: [TC0866](#) [Get Map](#)  
NGS Quad / Sta Num : 49094342/  
USGS Quad: OAK ISLAND

				<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>
NE	6	167 N	32 W	491912.32	944831.51		3

<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>
1912	2007	UNKNOWN	Horz=YES Vert=NO	YES			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	IBWC

Description: (2007)

Stamping:

7.75 EAST OF YOUNGS BAY IN NORTHWEST ANGLE INLET, 7.75 MILES EAST AROUND FLAG ISLAND AND OAK ISLAND TO THE NORTHWEST POINT ON BIRCH ISLAND, ACROSS FROM BOUNDARY REF MON 34 PID TC1103 ON OAK ISLAND IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROD, 34.0 MILES SOUTHWEST OF KENORA, ON THE NORTHWEST POINT ON THE ISLAND.

\* 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>Determination Method</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>Year</u>	<u>Reference</u>		
1079.394	.262		981.747	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648	

Geoid Separations(ft): GEOID18 = -98.281 12B = -98.218 09 = -98.149 03 = -98.258

**Lat/Lon and County Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>Lake of the Woods County - North 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>
49 19 12.32239	94 48 31.50506	541643.790	162112.766	.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 19 12.28840	94 48 31.44177			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

**NAD83(1996)**

<u>MN State Plane - North Zone</u>		<u>UTM - Zone 15</u>				<u>Project Info</u>		
<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>
2217026.309	1361337.273	1209172.312	17928485.352	.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>X</u>	<u>Y</u>	<u>UTM - Zone 15</u>				<u>Project Info</u>		
		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
		1209176.421	17928481.808	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: CENTER

NGS Name: CENTER

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0867](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491939.37	945036.79		

<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>
1912	1912	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK (0 TO 1 METERS)	DRILL HOLE	NGS

Description: (1912)                      Stamping:

ON THE HIGHEST PART OF CENTRE ISLAND, IN LAKE OF THE WOODS, 36.0 MILES NORTHEAST OF WARROAD, 35.0 MILES  
 SOUTHWEST OF KENORA, BOUNDARY REF MON 33 IS 800.0 FEET SOUTH ON THE SAME ISLAND, A DRILL HOLE IN A ROCK.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.146    12B = -98.077    09 = -97.998    03 = -98.136



Mn/DOT Name: CENTER 2

NGS Name: CENTER 2

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0868](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491805.75	944918.47		

<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>
	1912	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
UNKNOWN	UNMONUMENTED	NGS

Description: Stamping:

IN LAKE OF THE WOODS, STATION CENTER 2 IS ON A SMALL ISLAND SOUTHWEST OF LAKE OF THE WOODS INDIAN RESERVE NO.37B, STATION CENTER 2 IS ON A SMALL ISLAND WEST OF SQUAW ISLAND.

Station Notes

THE MARK WAS ADDED TO MATCH NGS DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.215   12B = -98.159   09 = -98.084   03 = -98.182





Mn/DOT Name: CLIFF

NGS Name: CLIFF

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0876](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

				<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	18	168 N	33 W	492223.85	945651.05		3

<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>
	2007	UNKNOWN	Horz=YES Vert=NO	NO			NO MAG MATERIAL

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

Description: (2007)

Stamping:

2.1 MILES NORTHEAST OF YOUNGS BAY IN THE NORTHWEST ANGLE INLET, ON THE SOUTHEAST CORNER OF THE ISLAND, NORTH OF PENASSE ISLAND MINNESOTA AND EAST OF BUKETE ISLAND ONTARIO, IN LAKE OF THE WOODS, 36.0 MILES NORTH OF WARROAD, 35.0 MILES SOUTHWEST OF KENORA ONTARIO.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1069.552	.262		972.508	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -97.710 12B = -97.684 09 = -97.579 03 = -97.690

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Lake of the Woods County - North Zone</u>					<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 22 23.85387	94 56 51.04930	508535.027	181480.647	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>Lake of the Woods County - North Zone</u>					<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 22 23.82550	94 56 50.97416			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>				<u>Project Info</u>		
<u>MN State Plane - North Zone</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
2184393.250	1381511.037	1176590.860	17948711.499	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>				<u>Project Info</u>		
<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>
		1176595.756	17948708.497	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: COLSON

NGS Name: COLSON

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0779](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

				<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>
NW	21	168 N	34 W	492133.04	950241.93		2

<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>
1980	1989	GOOD	Horz=YES Vert=YES	NO			NO MAG MATERIAL

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK OUTCROP (OVER 3 METERS)	DRILL HOLE	IBWC

Description: (1989)

Stamping:

STATION COLSON IS LOCATED ON A LEDGE ROCK IN THE WEST CENTRAL PART OF LITTLE MC COY ISLAND IN THE NORTHWEST ANGLE INLET, SOUTH OF BOUCHER ISLAND, LOCATED ON THE SOUTH SIDE OF AN EAST-WEST NATURAL CLEARING NORTHWEST OF A 10.0 INCH DIAMETER STUNTED JACK PINE WITH A FLAT TOP, 21.6 FEET SOUTH-SOUTHEAST OF A 0.7 INCH DIAMETER IRON ROD CEMENTED INTO THE ROCK WHICH PROJECTS 39.0 INCHES.

Station Notes

LOCAL RESIDENTS CURRENTLY USE THIS ISLAND FOR PARTIES SUBJECT TO VANDALISM.

\* 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>
1092.846	.197		996.235	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -97.290 12B = -97.277 09 = -97.165 03 = -97.267

Lat/Lon and County Coordinates (Feet)

NAD83(1996)

<u>Geodetic Position</u>		<u>Lake of the Woods County - North 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>
49 21 33.03526	95 02 41.92850	485306.734	176333.541	.066	2	ADJUSTMENT	1999	17648

State Plane and UTM Coordinates (Feet)

NAD83(1996)

<u>MN State Plane - North Zone</u>		<u>UTM - Zone 15</u>			<u>Project Info</u>			
<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>
2161041.578	1376930.293	1153239.905	17944177.287	.066	2	ADJUSTMENT	1999	17648



Mn/DOT Name: CYCLONE

NGS Name: CYCLONE

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0890](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491959.69	945043.30		

<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>
	1912	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	NGS

**Description:** IN THE MIDDLE OF CYCLONE ISLAND IN LAKE OF THE WOODS.  
**Stamping:**

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.143 12B = -98.071 09 = -97.992 03 = -98.130



Mn/DOT Name: HORNET

NGS Name: HORNET

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0922](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491833.81	944908.01		

<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>
	1912	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	NGS

**Description:** ON THE NORTHWEST PART OF SQUAW ISLAND, IN LAKE OF THE WOOD.  
**Stamping:**

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -98.235 12B = -98.176 09 = -98.100 03 = -98.208



Mn/DOT Name: JONES

NGS Name: JONES

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1413](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				495935.00	940418.00		

<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>
	1989	UNKNOWN	Horz=NO Vert=NO	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	SEE DESCRIPTION	NGS

**Description:** 1.7 MILES NORTHEAST OF JONES, FROM JONES GO NORTH 2.04 MILES NORTH ALONG PROVINCIAL ROAD 671, THEN 0.49 MILE SOUTHEAST ALONG AN UNNAMED ROAD.

**Stamping:**

**Station Notes**  
 THE HORIZONTAL COORDINATES WERE SCALED FROM A TOPOGRAPHIC MAP AND HAVE AN ESTIMATED ACCURACY OF +/- 6 SECONDS.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft): GEOID18 = -101.142 12B = -101.128 09 = -101.040 03 = -101.250**



Mn/DOT Name: LIGHTHOUSE

NGS Name: LIGHTHOUSE

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0941](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

				<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	12	167 N	32 W	491741.27	944912.76		3

<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>
	2007	UNKNOWN	Horz=NO Vert=NO	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

**Description:**

**Stamping:**

11.8 MILES SOUTHEAST OF THE ANGLE INLET, ON LAKE OF THE WOODS, 0.8 MILE SOUTHEAST OF OAK ISLAND, ON THE CANADIAN SIDE OF LAKE OF THE WOODS, 2500.0 FEET EAST OF DAWSON ISLAND, THE MONUMENT AND DISK TYPE ARE UNKNOWN, AGENCY AND SET DATE UNKNOWN.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1079.394	.262		981.812	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -98.212 12B = -98.159 09 = -98.084 03 = -98.172

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 17 41.26734	94 49 12.76135					.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 17 41.23553	94 49 12.69977					.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1206217.852	17919326.437			.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1206221.855	17919323.116			.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: MASS

NGS Name: MASS

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1411](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094342/  
 USGS Quad: OAK ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				491632.70	944607.84		3

<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>
1912	1967	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK (0 TO 1 METERS)	DRILL HOLE	IBWC

**Description:**

**Stamping:**

ON THE HIGHEST PART OF MASSACRE ISLAND 36.0 MILES NORTHEAST OF WARROAD ONTARIO. STATION MARK--DRILL HOLE IN A ROCK.

\* 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>
1164.696	.262		1066.950	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -98.402 12B = -98.379 09 = -98.310 03 = -98.313

**Lat/Lon and County Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 16 32.69898	94 46 07.83884			.131	3	ADJUSTMENT	1999	17648

**State Plane and UTM Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>UTM - Zone 15</u>		<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>				<u>Year</u>	<u>Reference</u>
		1218307.993	17912088.932	.131	3	ADJUSTMENT	1999	17648



Mn/DOT Name: MOOSE

NGS Name: MOOSE

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0960](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095213/  
 USGS Quad: ANGLE INLET

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492149.62	950337.20		3

<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>
	2022	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	UNK

**Description:**

**Stamping:**

1.4 MILES NORTH OF THE ANGLE INLET, HIKE THEN BOAT 1.4 MILES NORTH ACROSS ANGLE INLET FROM THE JUNCTION OF COUNTY ROAD 333 AND COUNTY ROAD 332 IN THE ANGLE INLET, STATION MOOSE IS ON AN ISLAND 0.3 MILES WEST OF BOUCHER ISLAND. THE MONUMENT AND DISK TYPE ARE UNKNOWN.

**Station Notes**

ALL INFORMATION IS NOT CERTAIN.

\* 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>Determination Method</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>Year</u>	<u>Reference</u>		
1079.394	.262		982.852	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648	

Geoid Separations(ft): GEOID18 = -97.221 12B = -97.205 09 = -97.086 03 = -97.201

**Lat/Lon and County Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 21 49.61676	95 03 37.20093			.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 21 49.59479	95 03 37.12030			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>UTM - Zone 15</u>		<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>				<u>Year</u>	<u>Reference</u>
		1149628.337	17945956.563	.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>Geodetic Position</u>		<u>UTM - Zone 15</u>		<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>				<u>Year</u>	<u>Reference</u>
		1149633.611	17945954.192	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: MOUTH

NGS Name: MOUTH

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0604](#) [Get Map](#)  
 NGS Quad / Sta Num : 48094414/  
 USGS Quad: WHEELERS POINT OE N

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				485324.16	944030.55		3

<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>
	1913	UNKNOWN	Horz=? Vert=?	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

**Description:**

**Stamping:**

12.4 MILES NORTHWEST OF RAINY RIVER, 3.1 MILES NORTH ON PROVINCIAL ROAD 600 FROM THE JUNCTION OF PROVINCIAL ROAD 600 AND TRUNK HIGHWAY 11 IN RAINY RIVER, THEN 9.7 MILES WEST AND NORTH ON RIVER ROAD, THEN HIKE AND BOAT 2.9 MILES NORTH ON LAKE OF THE WOODS, STATION MOUTH IS ON AN ISLAND 0.1 MILE EAST OF PINE ISLAND. THE MONUMENT AND DISK TYPE IS UNKNOWN.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</u>			<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>		
1069.552	.262		973.522	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648		

Geoid Separations(ft): GEOID18 = -96.581 12B = -96.607 09 = -96.470 03 = -96.348

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
48 53 24.15703	94 40 30.54868					.131	3	ADJUSTMENT	1999	17648

  

<u>NAD83(1986)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
48 53 24.13214	94 40 30.52608					.131	3	ADJUSTMENT	1986	17289

  

<u>NAD27</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
48 53 24.16000	94 40 29.77000					.100	3	CLASSICAL SURVEY	1982	17020

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1237556.538	17770913.323			.131	3	ADJUSTMENT	1999	17648

  

<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1237557.992	17770910.768			.131	3	ADJUSTMENT	1986	17289

  

<u>NAD27</u>		<u>X</u>	<u>Y</u>	<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
									<u>Year</u>	<u>Reference</u>
						.100	3	CLASSICAL SURVEY	1982	17020



Mn/DOT Name: NEW RICE

NGS Name: NEW RICE

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0967](#) [Get Map](#)  
 NGS Quad / Sta Num : 49095214/  
 USGS Quad: ANGLE INLET SW OE N

				<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>
NW	15	168 N	35 W	492316.04	950903.90		3

<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>
	1913	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

**Description:** **Stamping:**  
 LOCATED IN ONTARIO, CANADA; 5.0 MILES NORTHWEST OF THE ANGLE INLET, MINNESOTA.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1069.552	.262		973.479	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -96.781 12B = -96.791 09 = -96.637 03 = -96.765

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>				<u>Project Info</u>				
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 23 16.04360	95 09 03.90430			.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>				<u>Project Info</u>				
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 23 16.01668	95 09 03.76985			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>				<u>Project Info</u>				
<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
		1128261.831	17955315.204	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>				<u>Project Info</u>				
<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
		1128270.645	17955312.223	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: POINT KENORA

NGS Name: POINT

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0992](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492121.29	945349.84		3

<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>
1913	1913	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

Description: Stamping:  
 LOCATED IN KENORA DISTRICT ON POWDER ISLAND, RAINY LAKE, CANADA.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1069.552	.262		972.275	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -97.930 12B = -97.877 09 = -97.785 03 = -97.920

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>							<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 21 21.28889	94 53 49.83956			.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>							<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 21 21.25748	94 53 49.76695			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>							<u>Project Info</u>	
<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
		1188419.048	17942067.817	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>							<u>Project Info</u>	
<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
		1188423.773	17942064.514	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: REF MON 43 37 ECC

NGS Name: REF MON 43 37 ECC

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1115](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

				<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	17	166 N	32 W	491136.39	944742.79		3

<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>
	1937	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

**Description:** **Stamping:**  
 LOCATED IN KENORA DISTRICT, ONTARIO, CANADA, ON THE NORTHWESTERN POINT ON THE BIG ISLAND.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1069.552	.262		972.245	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -97.930 12B = -97.962 09 = -97.887 03 = -97.834

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>UTM - Zone 15</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>
49 11 36.39171	94 47 42.78895			.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>Geodetic Position</u>		<u>UTM - Zone 15</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>
49 11 36.36382	94 47 42.73836			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>Project Info</u>				
<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>
		1211301.697	17882219.480	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>		<u>Project Info</u>				
<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>
		1211304.989	17882216.574	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: REFERENCE MON 19 IBC

NGS Name: BOUNDARY REF MON 19

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0775](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/1028  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492218.81	945732.10		2

<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>
1966	1989	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
CONCRETE MONUMENT (CAST-IN-PLACE)	METAL ROD	IBWC

Description: (1966)

Stamping:

36.0 MILES NORTHEAST OF WARROAD, ON AN ISLAND, 0.5 MILE NORTH OF THE PENASSE POST OFFICE, 100.27 FEET NORTH-NORTHEAST OF STATION WINDSOCK.

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1072.832	.197		975.838	.131	1996	HORIZONTAL ADJUSTMENT	1999	17648

<u>NGVD29</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>
1151.999						RECIPROCAL VERTICAL ANGLE	1966	HORZ

Geoid Separations(ft): GEOID18 = -97.664 12B = -97.638 09 = -97.533 03 = -97.647

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>							<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 22 18.80925	94 57 32.09860			.066	2	ADJUSTMENT	1999	17648

<u>NAD27</u>							<u>Project Info</u>	
<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>Latitude</u>	<u>Longitude</u>							
49 22 18.79067	94 57 31.17636			.100		CLASSICAL SURVEY	1950	UNK

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>							<u>Project Info</u>	
<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
		1173862.079	17948270.729	.066	2	ADJUSTMENT	1999	17648

<u>NAD27</u>							<u>Project Info</u>	
<u>MN State Plane - North Zone</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Year</u>	<u>Reference</u>
<u>X</u>	<u>Y</u>							
1557044.170	1052975.980			.100		CLASSICAL SURVEY	1950	UNK



Mn/DOT Name: STUMP

NGS Name: STUMP

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1227](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492055.61	945421.06		3

<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>
	1999	UNKNOWN	Horz=YES Vert=YES	YES			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	IBWC

**Description:** **Stamping:**  
 LOCATED ON THE SMALL ISLAND (CANADA) NORTHWEST-WEST OF BRUSH ISLAND (MINNESOTA).

\* No Leveling-Derived Orthometric Heights in the Database \*

**Non Leveling-Derived Orthometric and Ellipsoid Heights (Feet)**

<u>NAVD88</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>
1069.552	.262		972.304	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -97.894 12B = -97.848 09 = -97.756 03 = -97.887

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>UTM - Zone 15</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>
49 20 55.61495	94 54 21.06499			.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>Geodetic Position</u>		<u>UTM - Zone 15</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>
49 20 55.58418	94 54 20.99305			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>Project Info</u>				
<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>
		1186287.001	17939518.911	.131	3	ADJUSTMENT	1999	17648

<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>		<u>Project Info</u>				
<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>
		1186291.684	17939515.673	.131	3	ADJUSTMENT	1989	17085



Mn/DOT Name: WANAGAN

NGS Name: WANAGAN

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1250](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094331/  
 USGS Quad: GARDEN ISLAND EAST

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				490730.44	944604.35		

<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>
	1914	UNKNOWN	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	NGS

**Description:** ON THE SUGAR POINT OF BIG ISLAND, IN LAKE OF THE WOODS, 670.2 FEET NORTHEAST OF BIG POINT (TC0764).  
**Stamping:**

**Station Notes**  
 THE MARK WAS ADDED TO MATCH THE NATIONAL GEODETIC SURVEY (NGS) DATABASE.

\* No Horizontal or Vertical Positions in the Database \*

Geoid Separations(ft): GEOID18 = -97.697 12B = -97.746 09 = -97.667 03 = -97.579



Mn/DOT Name: WIND

NGS Name: WIND

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1256](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492032.07	945241.75		3

<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>
	1989	GOOD	Horz=YES Vert=YES	YES			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
SEE DESCRIPTIVE TEXT	UNMONUMENTED	NGS

Description: (1989)

Stamping:

LOCATED ON THE CANADIAN SIDE OF THE BOUNDARY, IN THE LAKE OF THE WOODS ON BURNT ROCK ISLAND.

\* 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>
1069.552	.262		972.177	.197	1996	HORIZONTAL ADJUSTMENT	1999	17648

Geoid Separations(ft): GEOID18 = -98.008 12B = -97.946 09 = -97.861 03 = -98.002

**Lat/Lon and County Coordinates (Feet)**

**NAD83(1996)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 20 32.06530	94 52 41.75412			.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>						<u>Year</u>	<u>Reference</u>
49 20 32.03332	94 52 41.68398			.131	3	ADJUSTMENT	1989	17085

**State Plane and UTM Coordinates (Feet)**

**NAD83(1996)**

<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1192800.615	17936968.415	.131	3	ADJUSTMENT	1999	17648

**NAD83(1986)**

<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>						<u>Year</u>	<u>Reference</u>
		1192805.177	17936965.059	.131	3	ADJUSTMENT	1989	17085





Mn/DOT Name: WINDSOCK

NGS Name: WINDSOCK

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC0776](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/1027  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492217.85	945732.49		2

<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>
1966	1966	GOOD	Horz=YES Vert=YES	NO			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK OUTCROP (OVER 3 METERS)	SURVEY DISK	NGS

**Description:** (1966)                      **Stamping:** WINDSOCK 1966

36.0 MILES NORTHEAST OF WARROAD, ON AN ISLAND, 0.5 MILE NORTH OF THE PENASSE POST OFFICE, 48.0 FEET NORTH OF THE EDGE OF THE LAKE, 29.0 FEET SOUTHWEST OF A 4.0 INCH DIAMETER COTTONWOOD TREE, 20.0 FEET SOUTH OF AN 8.0 INCH DIAMETER PINE TREE, 35.56 FEET EAST-NORTHEAST OF WINDSOCK RM 1, 100.27 FEET SOUTH-SOUTHWEST OF WINDSOCK RM 2.

\* No Leveling-Derived Orthometric Heights in the Database \*

Geoid Separations(ft): GEOID18 = -97.664    12B = -97.638    09 = -97.533    03 = -97.647

**Lat/Lon and County Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 22 17.85402	94 57 32.49295					.066	2	ADJUSTMENT	1999	17648
<u>NAD83(1986)</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 22 17.82676	94 57 32.41764					3.281		CLASSICAL SURVEY	1991	H1991
<u>NAD27</u>		<u>Geodetic Position</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>Latitude</u>	<u>Longitude</u>								<u>Year</u>	<u>Reference</u>
49 22 17.83543	94 57 31.57067					.100		CLASSICAL SURVEY	1950	UNK

**State Plane and UTM Coordinates (Feet)**

<u>NAD83(1996)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>								<u>Year</u>	<u>Reference</u>
		1173833.479	17948174.634			.066	2	ADJUSTMENT	1999	17648
<u>NAD83(1986)</u>		<u>UTM - Zone 15</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>								<u>Year</u>	<u>Reference</u>
		1173838.389	17948171.743			3.281		CLASSICAL SURVEY	1991	H1991
<u>NAD27</u>		<u>MN State Plane - North Zone</u>		<u>X</u>	<u>Y</u>	<u>Acc</u>	<u>Order</u>	<u>Determination Method</u>	<u>Project Info</u>	
<u>X</u>	<u>Y</u>								<u>Year</u>	<u>Reference</u>
1557015.740	1052879.790					.100		CLASSICAL SURVEY	1950	UNK



Mn/DOT Name: WINDSOCK RM 1

NGS Name: WINDSOCK RM 1

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [TC1282](#) [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492217.00	945732.00		

<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>
1966	2010	GOOD	Horz=YES Vert=YES	YES			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK OUTCROP (OVER 3 METERS)	REFERENCE MARK DISK	CGS

**Description:** (2007)                      **Stamping:** WINDSOCK NO 1 1966

36.0 MILES NORTHEAST OF WARROAD, 5.5 MILES NORTHWEST OF THE OAK ISLAND POST OFFICE, 0.5 MILE NORTH OF THE PENASSE POST OFFICE AND ON THE NORTH SIDE OF THE ENTRANCE TO THE NORTHWEST ANGLE INLET ON A SMALL ROCK ISLAND, 61.0 FEET EAST OF THE WATER'S EDGE, 52.0 FEET NORTH OF THE WATER'S EDGE, 36.0 FEET SOUTHWEST OF AN 8.0-INCH DIAMETER PINE TREE, 36.6 FEET WEST OF STATION WINDSOCK.

\* No Horizontal or Vertical Positions in the Database \*

**Geoid Separations(ft):** GEOID18 = -97.664    12B = -97.638    09 = -97.533    03 = -97.647

<u>Type</u>	<u>Station Photos</u>		<u>Dir</u>	<u>Date</u>
	<u>File Name</u>			
<b>Location:</b>				
<b>Monument:</b>				
<b>Disk:</b>	<a href="https://www.olmweb.dot.state.mn.us/geod/StationPhotos/ontario/kenora_district/WINDSOCK_RM_1-TC1282-1-24JUN2010.jpg">https://www.olmweb.dot.state.mn.us/geod/StationPhotos/ontario/kenora_district/WINDSOCK_RM_1-TC1282-1-24JUN2010.jpg</a>			Jun 24, 2010

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



Mn/DOT Name: WINDSOCK RM 2

NGS Name: WINDSOCK RM 2

County: KENORA DISTRICT, ON (Sheet 1)

NGS ACRN: [Get Map](#)  
 NGS Quad / Sta Num : 49094343/  
 USGS Quad: FLAG ISLAND

<u>1/4</u>	<u>Sec</u>	<u>Twp</u>	<u>Rng</u>	<u>Reference</u> <u>Latitude</u>	<u>Reference</u> <u>Longitude</u>	<u>Vert</u> <u>Order</u>	<u>Horz</u> <u>Order</u>
				492217.00	945732.00		

<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>
1966	2010	GOOD	Horz=YES Vert=?	YES			SEE DESCRIPTION

<u>Monument Type</u>	<u>Disk Type</u>	<u>Mon. Agency</u>
ROCK OUTCROP (OVER 3 METERS)	REFERENCE MARK DISK	CGS

**Description:** **Stamping:** WINDSOCK NO 2 1966

36.0 MILES NORTHEAST OF WARROAD, 5.5 MILES NORTHWEST OF THE OAK ISLAND POST OFFICE, 0.5 MILE NORTH OF THE PENASSE POST OFFICE AND ON THE NORTH SIDE OF THE ENTRANCE TO THE NORTHWEST ANGLE INLET ON A SMALL ROCK ISLAND, 61.0 FEET EAST OF THE WATER'S EDGE, 52.0 FEET NORTH OF THE WATER'S EDGE, 100.27 FEET NORTH-NORTHEAST OF STATION WINDSOCK.

\* No Horizontal or Vertical Positions in the Database \*

No Geoid Separations Available