

OPUS-RS solution : 018697_14_258_A0.14O OP1411067733847

opus <opus@ngs.noaa.gov>

Thu 9/18/2014 1:30 PM

To:John Freetly <John.Freetly@neciusa.com>;

FILE: 018697_14_258_A0.14O OP1411067733847

NGS OPUS-RS SOLUTION REPORT

=====

All computed coordinate accuracies are listed as 1-sigma RMS values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>USER: john.freetly@neciusa.com
RINEX FILE: 0186258s.14oDATE: September 18, 2014
TIME: 19:30:02 UTCSOFTWARE: rsgps 1.37 RS93.prl 1.99.2 START: 2014/09/15 18:32:55
EPHEMERIS: igr18101.eph [rapid] STOP: 2014/09/15 20:27:00
NAV FILE: brdc2580.14n OBS USED: 10917 / 11736 : 93%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 26.99/102.24
ARP HEIGHT: 1.800 NORMALIZED RMS: 0.267

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.70634)

X: -1419202.891(m) 0.008(m) -1419203.753(m) 0.008(m)
Y: -4255193.574(m) 0.014(m) -4255192.326(m) 0.014(m)
Z: 4520921.748(m) 0.019(m) 4520921.710(m) 0.019(m)LAT: 45 25 0.94954 0.007(m) 45 25 0.96970 0.007(m)
E LON: 251 33 19.06562 0.005(m) 251 33 19.00987 0.005(m)
W LON: 108 26 40.93438 0.005(m) 108 26 40.99013 0.005(m)
EL HGT: 1303.502(m) 0.024(m) 1302.835(m) 0.024(m)
ORTHO HGT: 1316.018(m) 0.025(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5032444.159 130251.211
Easting (X) [meters] 699929.579 682580.035
Convergence [degrees] 1.82056800 0.77195347
Point Scale 1.00009148 0.99977532
Combined Factor 0.99988714 0.99957105

US NATIONAL GRID DESIGNATOR: 12TXR9992932444(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	38585.1
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	132091.9
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	70820.0
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	70807.6
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	183038.3
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	183166.2
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	197625.0
DK7547	MTSU BOZEMAN CORS ARP	N453940.376	W1110242.008	204927.2
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	243717.1

NEAREST NGS PUBLISHED CONTROL POINT

QW0682	26 DHW	N452421.	W1082624.	1288.9
--------	--------	----------	-----------	--------

This position and the above vector components were computed without any knowledge by the National Geodetic Survey regarding the equipment or field operating procedures used.