

OPUS-RS solution : 018697_14_259_A0.14O OP1411071238103

opus <opus@ngs.noaa.gov>

Thu 9/18/2014 2:18 PM

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

FILE: 018697_14_259_A0.14O OP1411071238103

NGS OPUS-RS SOLUTION REPORT

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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: 0186259a.14oDATE: September 18, 2014
TIME: 20:17:50 UTCSOFTWARE: rsgps 1.37 RS51.prl 1.99.2 START: 2014/09/16 00:43:55
EPHEMERIS: igr18102.eph [rapid] STOP: 2014/09/16 01:49:50
NAV FILE: brdc2590.14n OBS USED: 3840 / 4398 : 87%
ANT NAME: CHCX90D-OPUS NONE QUALITY IND. 26.17/ 54.87
ARP HEIGHT: 1.800 NORMALIZED RMS: 0.250

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.70700)

X: -1415437.551(m) 0.004(m) -1415438.413(m) 0.004(m)
Y: -4255244.358(m) 0.017(m) -4255243.109(m) 0.017(m)
Z: 4522065.775(m) 0.016(m) 4522065.737(m) 0.016(m)LAT: 45 25 53.28996 0.006(m) 45 25 53.31016 0.006(m)
E LON: 251 36 4.09567 0.003(m) 251 36 4.03991 0.003(m)
W LON: 108 23 55.90433 0.003(m) 108 23 55.96009 0.003(m)
EL HGT: 1317.111(m) 0.023(m) 1316.444(m) 0.023(m)
ORTHO HGT: 1329.678(m) 0.024(m) [NAVD88 (Computed using GEOID12A)]

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters] 5034174.385 131915.929
Easting (X) [meters] 703463.988 686144.340
Convergence [degrees] 1.85371397 0.80548685
Point Scale 1.00010901 0.99976841
Combined Factor 0.99990254 0.99956201

US NATIONAL GRID DESIGNATOR: 12TYR0346334174(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	67679.4
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	129874.7
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	182849.7
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	187049.4
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	197548.1
DK7547	MTSU BOZEMAN CORS ARP	N453940.376	W1110242.008	208245.9

NEAREST NGS PUBLISHED CONTROL POINT

QW0682	26 DHW	N452421.	W1082624.	4298.4
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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.