

OPUS-RS solution : 940123269S.14O OP1412016250412

opus <opus@ngs.noaa.gov>

Mon 9/29/2014 12:50 PM

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

FILE: 940123269S.14O OP1412016250412

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

DATE: September 29, 2014

RINEX FILE: 9401269s.14o

TIME: 18:49:44 UTC

SOFTWARE: rsgps 1.37 RS93.prl 1.99.2 START: 2014/09/26 18:26:20
 EPHEMERIS: igr18115.eph [rapid] STOP: 2014/09/26 19:32:45
 NAV FILE: brdc2690.14n OBS USED: 4410 / 4440 : 99%
 ANT NAME: CHCX91R NONE QUALITY IND. 3.98/ 6.61
 ARP HEIGHT: 1.8000 NORMALIZED RMS: 0.321

REF FRAME: NAD_83(2011)(EPOCH:2010.0000) IGS08 (EPOCH:2014.73641)

X:	-1407206.236(m)	0.015(m)	-1407207.097(m)	0.015(m)
Y:	-4271358.216(m)	0.034(m)	-4271356.965(m)	0.034(m)
Z:	4509675.982(m)	0.041(m)	4509675.942(m)	0.041(m)

LAT:	45 16 18.46582	0.008(m)	45 16 18.48605	0.008(m)
E LON:	251 45 55.60084	0.007(m)	251 45 55.54538	0.007(m)
W LON:	108 14 4.39916	0.007(m)	108 14 4.45462	0.007(m)
EL HGT:	1435.023(m)	0.054(m)	1434.348(m)	0.054(m)
ORTHO HGT:	1446.944(m)	0.055(m)	[NAVD88 (Computed using GEOID12A)]	

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 12) SPC (2500 MT)

Northing (Y) [meters]	5016864.945	114369.968
Easting (X) [meters]	716925.718	699284.016
Convergence [degrees]	1.96548221	0.92567810
Point Scale	1.00017862	0.99984773
Combined Factor	0.99995365	0.99962283

US NATIONAL GRID DESIGNATOR: 12TYR1692516864(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	60003.0
DI3064	BIL6 BILLINGS 6 CORS ARP	N455816.251	W1075948.499	79929.1
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	109816.1
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	161276.4
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	195995.0
DM7133	MTLW LEWISTOWN CORS ARP	N470314.929	W1092633.764	219019.7

NEAREST NGS PUBLISHED CONTROL POINT

QW0529	GRAPE	N451729.830	W1080346.244	13629.3
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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.