

## OPUS-RS solution : 018773\_14\_249\_A1.14O OP1410559033911

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Fri 9/12/2014 4:02 PM

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## 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: 0187249x.14oDATE: September 12, 2014  
TIME: 22:01:41 UTCSOFTWARE: rsgps 1.37 RS53.prl 1.99.2      START: 2014/09/06 23:28:30  
EPHEMERIS: igr18086.eph [rapid]      STOP: 2014/09/07 00:52:15  
NAV FILE: brdc2490.14n      OBS USED: 4240 / 4395 : 96%  
ANT NAME: CHCX90D-OPUS    NONE      QUALITY IND. 4.36/ 2.74  
ARP HEIGHT: 1.8000      NORMALIZED RMS: 0.255

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)      IGS08 (EPOCH:2014.68221)

X: -1384464.699(m) 0.024(m)      -1384465.561(m) 0.024(m)  
Y: -4243424.865(m) 0.060(m)      -4243423.617(m) 0.060(m)  
Z: 4542176.268(m) 0.070(m)      4542176.232(m) 0.070(m)LAT: 45 41 32.94847 0.008(m)      45 41 32.96895 0.008(m)  
E LON: 251 55 49.82505 0.007(m)      251 55 49.76929 0.007(m)  
W LON: 108 4 10.17495 0.007(m)      108 4 10.23071 0.007(m)  
EL HGT: 1031.030(m) 0.094(m)      1030.362(m) 0.094(m)  
ORTHO HGT: 1044.802(m) 0.095(m) [NAVD88 (Computed using GEOID12A)]

## UTM COORDINATES    STATE PLANE COORDINATES

UTM (Zone 13)      SPC (2500 MT )

Northing (Y) [meters]    5064464.664      161329.166  
Easting (X) [meters]    261011.444      711379.420  
Convergence [degrees]    -2.19756840      1.04642185  
Point Scale      1.00030225      0.99965498  
Combined Factor      1.00014059      0.99949342

US NATIONAL GRID DESIGNATOR: 13TBL6101164464(NAD 83)

## BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	120100.9
DM7161	WYSH SHERIDAN CORS ARP	N4444801.769	W1070035.715	129428.9
DJ8992	P033 TENSLEEPTRWY2005 CORS ARP	N435710.415	W1072315.121	200728.7
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	203653.7
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	220390.2

## NEAREST NGS PUBLISHED CONTROL POINT

QW0513	HALEY	N454233.185	W1080857.784	6484.5
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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.