

## OPUS-RS solution : 018773\_14\_246\_A1.14O OP1410212345017

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Mon 9/8/2014 3:44 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: 0187246s.14oDATE: September 08, 2014  
TIME: 21:44:10 UTCSOFTWARE: rsgps 1.37 RS93.prl 1.99.2      START: 2014/09/03 18:35:25  
EPHEMERIS: igr18083.eph [rapid]      STOP: 2014/09/03 19:48:40  
NAV FILE: brdc2460.14n      OBS USED: 3320 / 3925 : 85%  
ANT NAME: CHCX90D-OPUS    NONE      QUALITY IND. 6.01/ 54.40  
ARP HEIGHT: 1.800      NORMALIZED RMS: 0.374

REF FRAME: NAD\_83(2011)(EPOCH:2010.0000)      IGS08 (EPOCH:2014.67342)

X: -1362213.700(m) 0.012(m)      -1362214.559(m) 0.012(m)  
Y: -4293893.102(m) 0.027(m)      -4293891.848(m) 0.027(m)  
Z: 4501860.798(m) 0.032(m)      4501860.756(m) 0.032(m)LAT: 45 10 25.47881 0.005(m)      45 10 25.49934 0.005(m)  
E LON: 252 23 55.17404 0.008(m)      252 23 55.11919 0.008(m)  
W LON: 107 36 4.82596 0.008(m)      107 36 4.88081 0.008(m)  
EL HGT: 1240.381(m) 0.042(m)      1239.692(m) 0.042(m)  
ORTHO HGT: 1253.453(m) 0.043(m) [NAVD88 (Computed using GEOID12A)]

## UTM COORDINATES    STATE PLANE COORDINATES

UTM (Zone 13)      SPC (2500 MT )

Northing (Y) [meters]    5005543.637      104480.869  
Easting (X) [meters]    295595.486      749220.644  
Convergence [degrees]    -1.84563145      1.38887737  
Point Scale      1.00011376      0.99990016  
Combined Factor      0.99991930      0.99970575

US NATIONAL GRID DESIGNATOR: 13TBL9559505543(NAD 83)

## BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	62430.0
DI3062	BIL5 BILLINGS 5 CORS ARP	N455816.237	W1075947.298	93857.6
DG9745	MTEI ENGINC CORS ARP	N454447.035	W1083600.736	100783.1
DL7758	P722 YNPBASSRCHMT2005 CORS ARP	N452725.985	W1093415.586	157652.0
AI5647	MAWY MAMMOTH WYOMING CORS ARP	N445824.319	W1104121.433	244209.2

## NEAREST NGS PUBLISHED CONTROL POINT

Information on nearest mark is not available due to database connectivity issues or has restrictions on when or how it can be published.

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.