

OPUS solution : 018506_14_268_A0.14O OP1412000641550

opus <opus@ngs.noaa.gov>

Mon 9/29/2014 8:27 AM

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

FILE: 018506_14_268_A0.14O OP1412000641550

NGS OPUS SOLUTION REPORT

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All computed coordinate accuracies are listed as peak-to-peak values.

For additional information: <http://www.ngs.noaa.gov/OPUS/about.jsp#accuracy>

USER: john.freetly@neciusa.com

DATE: September 29, 2014

RINEX FILE: 0185268q.14o

TIME: 14:27:24 UTC

SOFTWARE: page5 1209.04 master53.pl 022814 START: 2014/09/25 16:20:00
 EPHEMERIS: igr18114.eph [rapid] STOP: 2014/09/25 21:52:00
 NAV FILE: brdc2680.14n OBS USED: 12233 / 12819 : 95%
 ANT NAME: CHCX90D-OPUS NONE # FIXED AMB: 58 / 60 : 97%
 ARP HEIGHT: 1.8000 OVERALL RMS: 0.012(m)

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

IGS08 (EPOCH:2014.7337)

X:	-1337412.632(m)	0.004(m)	-1337413.496(m)	0.004(m)
Y:	-4229014.092(m)	0.002(m)	-4229012.846(m)	0.002(m)
Z:	4569222.609(m)	0.011(m)	4569222.575(m)	0.011(m)

LAT:	46 2 36.23845	0.006(m)	46 2 36.25931	0.006(m)
E LON:	252 27 2.16836	0.003(m)	252 27 2.11258	0.003(m)
W LON:	107 32 57.83164	0.003(m)	107 32 57.88742	0.003(m)
EL HGT:	868.765(m)	0.009(m)	868.097(m)	0.009(m)
ORTHO HGT:	883.528(m)	0.018(m)	[NAVD88 (Computed using GEOID12A)]	

UTM COORDINATES STATE PLANE COORDINATES

UTM (Zone 13) SPC (2500 MT)

Northing (Y) [meters]	5102029.543	201178.782
Easting (X) [meters]	302750.923	750896.008
Convergence [degrees]	-1.83581345	1.42687380
Point Scale	1.00007832	0.99953434
Combined Factor	0.99994213	0.99939823

US NATIONAL GRID DESIGNATOR: 13TCM0275002029(NAD 83)

BASE STATIONS USED

PID	DESIGNATION	LATITUDE	LONGITUDE	DISTANCE(m)
DM7161	WYSH SHERIDAN CORS ARP	N444801.769	W1070035.715	144465.6
DL7728	P051 BILLINGSAPMT2005 CORS ARP	N454823.741	W1083246.070	81683.5
DI3425	P052 LRRNCHJRDNMT2006 CORS ARP	N472229.026	W1070107.185	153477.2

NEAREST NGS PUBLISHED CONTROL POINT

RU0359	H 394	N460631.	W1073644.	8731.2
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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.