

Project Title:*Newport Transporter Bridge***WARNER SURVEYS**

Land and Engineering Surveying Since 1979

Project Description:*Target and Vibration Monitoring***Client:***John Perkins
Unit 22 Dragon Court,
Crofts End Road,
St George, Bristol
BS5 7XX***Prepared By:****Warner Surveys
G3, Bedford House
69-79 Fulham High St
London
SW6 3JW****Job No:***LM2220008*

Tel: +44 (0)203 651 7549

Installation Date:*12-Oct-22*

info@warnersurveys.com

www.warnersurveys.com

Document No:**Revision: 8**

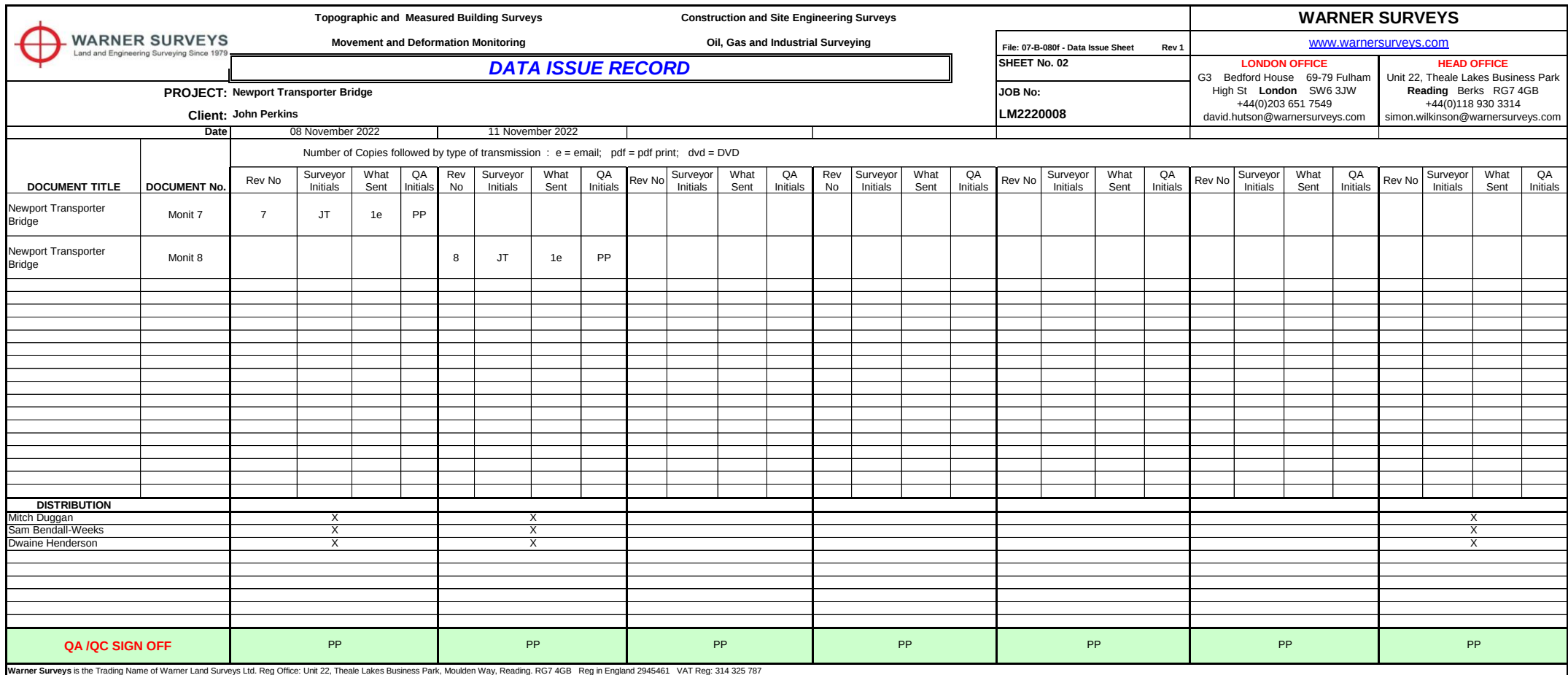
Survey Staff:

Circulated to:

Name	Company	Format & address, fax or email details
<i>Mitch Duggan</i>	<i>John Perkins</i>	mduggan@johnperkins.co.uk
<i>Sam Bendall-Weeks</i>	<i>John Perkins</i>	mduggan@johnperkins.co.uk
<i>Dwaine Henderson</i>	<i>John Perkins</i>	dhenderson@johnperkins.co.uk

NOTE: If viewing this spreadsheet on screen, please navigate through the tabs below.

07-C-165f rev 01 11/10/2017



Job No: LM2220008
Project: Newport Transporter Bridge
Client: John Perkins
Monitoring of 3D Targets

G3, Bedford House, 69-79 Fulham
 High Street, **LONDON**, SW6 3JW
 +44(0) 203 651 7549
info@warnersurveys.com
www.warnersurveys.com

Point Ref:	Base Readings - 1		
	12th October 2022		
	Easting (x)	Northing (y)	Level (z)
WS01	483.631	530.532	50.076
WS02	483.747	529.756	48.590
WS03	483.905	529.767	47.526
WS04	482.656	536.967	50.925
WS05	482.781	536.906	49.480
WS06	482.824	536.880	47.800
WS07	487.591	534.935	50.852
WS08	487.449	535.040	49.661

Point Ref:	Base Readings - 2		
	17th October 2022		
	Easting (x)	Northing (y)	Level (z)
WS01	483.633	530.533	50.075
WS02	483.749	529.756	48.589
WS03	483.907	529.767	47.525
WS04	482.658	536.967	50.925
WS05	482.783	536.907	49.480
WS06	482.825	536.881	47.800
WS07	487.592	534.935	50.852
WS08	487.451	535.040	49.660

Point Ref:	Averaged		
	Easting (x)	Northing (y)	Level (z)
WS01	483.632	530.532	50.076
WS02	483.748	529.756	48.590
WS03	483.906	529.767	47.526
WS04	482.657	536.967	50.925
WS05	482.782	536.907	49.480
WS06	482.825	536.881	47.800
WS07	487.592	534.935	50.852
WS08	487.450	535.040	49.661

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Target Locations and Trigger Values



Vibration Monit Alerts

Alarm Level	PPV	Action
Green	Piers < 3.0 mm/s Walls <12.5 mm/s	OK, Continue Work. Maintain twice daily visual inspections of pier and surrounding structure. Attention is required to areas identified from visual survey as sensitive. Additional inspections may be required of sensitive areas.
Amber	Piers Between 3 mm/s & 8 mm/s Walls Between 12.5 mm/s & 15 mm/s	Continue work but within 24 hours working practices to determine issues causing vibrations to see if they can be reduced. Increase visual inspections of pier and surrounding structure to hourly
Red	Piers > 8 mm/s Walls > 15 mm/s	Stop Work. Review working practices to determine issues causing vibrations to see if they can be reduced. Carry out visual inspection of pier and surrounding structure to determine if there have been any detrimental effects on the structure and condition. Convene site meeting to discuss findings and develop strategy for ongoing methodology, ongoing monitoring and inspections of the of pier and surrounding structure.

Target Monit Alerts

Alarm Level	Movement	Action
Green	Piers < 5 mm Walls < 10 mm	OK, Continue Work. Maintain twice daily visual inspections of pier and surrounding structure. Attention is required to areas identified from visual survey as sensitive. Additional inspections may be required of sensitive areas.
Amber	Piers Between 5 mm & 10 mm Walls Between 10 mm & 15 mm	Continue work but within 24 hours working practices to determine issues causing vibrations to see if they can be reduced. Increase visual inspections of pier and surrounding structure to hourly
Red	Piers > 10 mm Walls > 15 mm	Stop Work. Review working practices to determine issues causing vibrations to see if they can be reduced. Carry out visual inspection of pier and surrounding structure to determine if there have been any detrimental effects on the structure and condition. Convene site meeting to discuss findings and develop strategy for ongoing methodology, ongoing monitoring and inspections of the of pier and surrounding structure.

Visit Number:-	8
Date:-	11 November 2022
Temperature:-	13°C
Surveyor:-	JT



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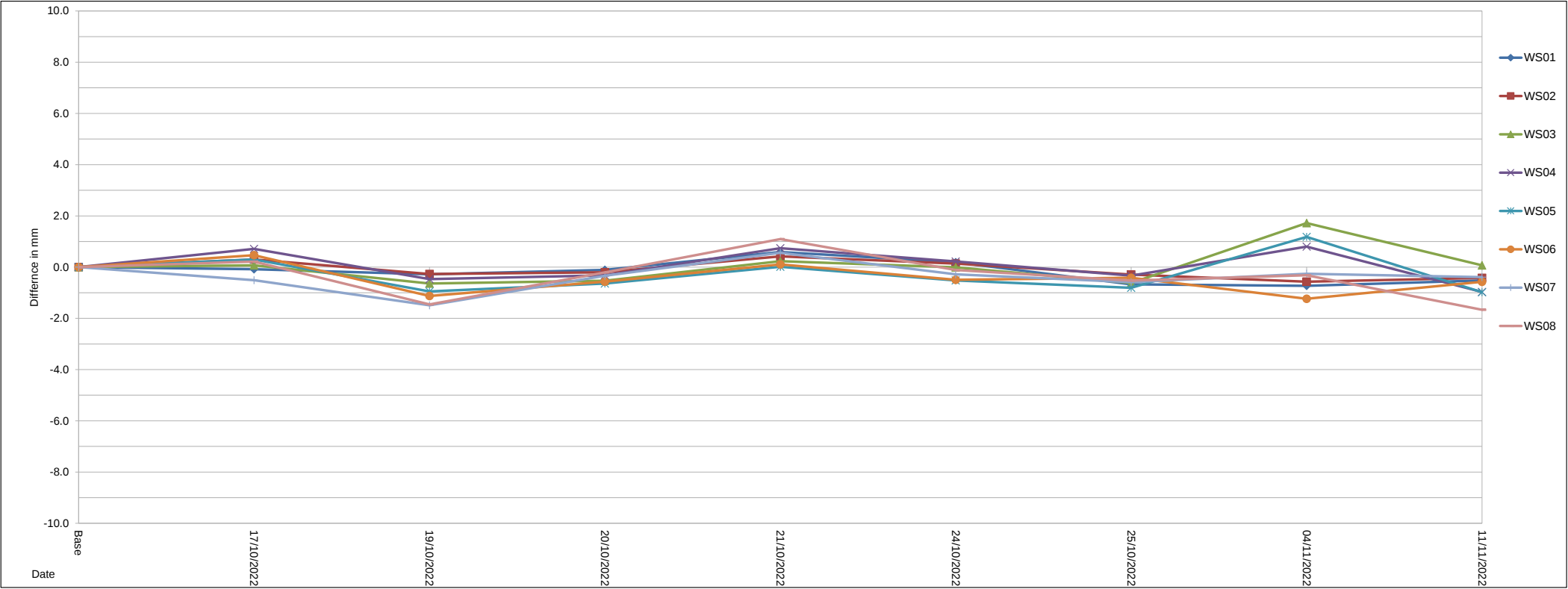
Point	Average Base Readings			11 November 2022			Difference from Base Readings (mm)			Difference from Previous (mm)			Comments
	Easting (x)	Northing (y)	Level (z)	Easting (x)	Northing (y)	Level (z)	Easting (x)	Northing (y)	Level (z)	Easting (x)	Northing (y)	Level (z)	
3D Targets													
WS01	483.632	530.532	50.076	483.632	530.532	50.076	-1	0	0	0	0	0	
WS02	483.748	529.756	48.590	483.747	529.756	48.590	0	0	0	0	1	0	
WS03	483.906	529.767	47.526	483.906	529.765	47.526	0	-2	1	-2	3	-1	
WS04	482.657	536.967	50.925	482.656	536.968	50.926	-1	1	1	-2	0	1	
WS05	482.782	536.907	49.480	482.781	536.906	49.480	-1	0	0	-2	-1	0	
WS06	482.825	536.881	47.800	482.824	536.880	47.801	-1	0	1	1	0	0	
WS07	487.592	534.935	50.852	487.591	534.934	50.853	0	0	1	0	0	0	
WS08	487.450	535.040	49.661	487.448	535.040	49.661	-2	0	1	-1	0	1	

Project: *Newport Transporter*
Client: *JOHN PERKINS*
Job No: *LM2220008*
Movement Graphs

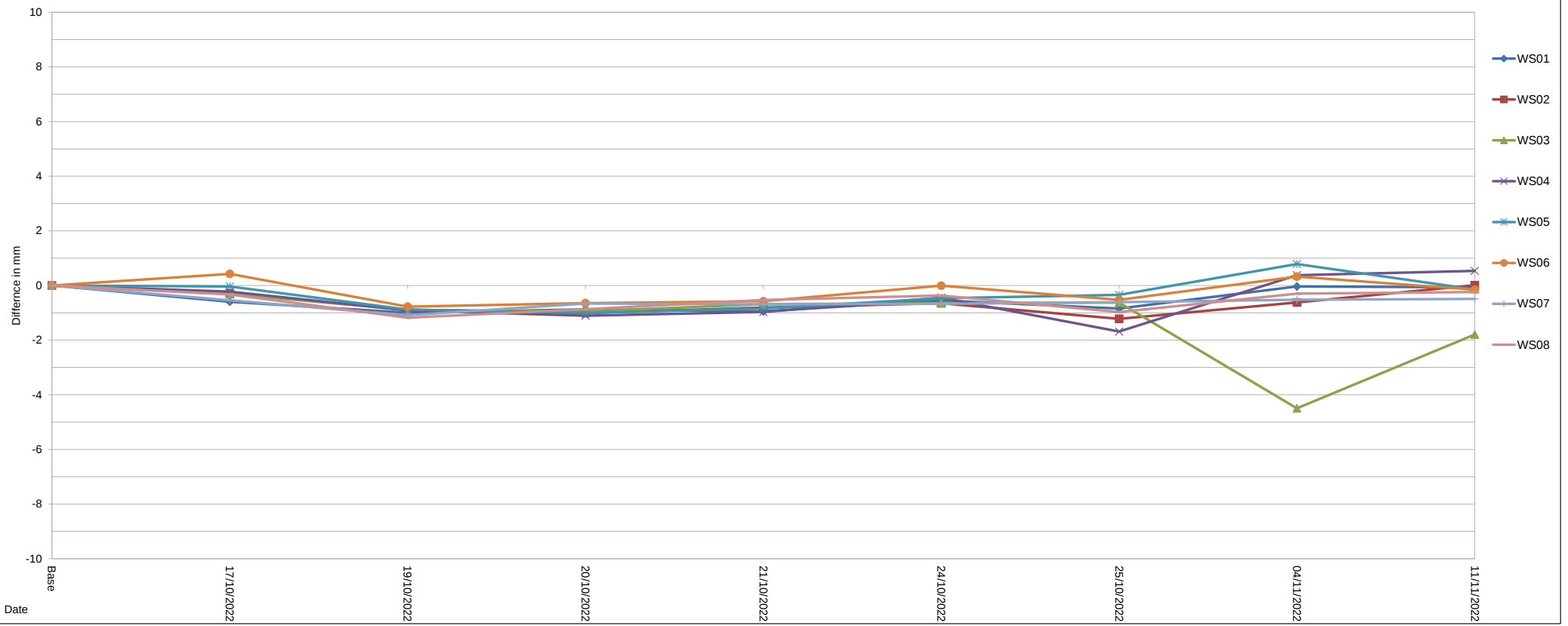


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Newport Transporter Bridge - Eastings mm



Newport Transporter Bridge - Northings mm



Newport Transporter Bridge - Heights mm

