# MISALIGNMENT/BUCKLE REPORT

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| 1. | CORRIDOR |       | 2. | ARTC TRACK BASE CODE |       | 3. | DATE |       |
| 4. | LINE  |       | BETWEEN |       | AND |       |
| 5. | KILOMETRAGE |       | 16 | SLEEPER CONDITION |
| 6. | TRACK | [ ]  Single | [ ]  Up Main | [ ]  Dn Main |  | [ ]  Good for 5 years | [ ]  Split | [ ]  Broken or Rotten | [ ]  Other [ ]  N/A |
|  | [ ]  Up Sub | [ ]  Dn Sub | [ ]  Crossing Loop | 17 | ANCHOR PATTERN | [ ]  1:1 | [ ]  1:2 | [ ]  1:3 | [ ]  1:4 | [ ]  Other[ ]  N/A |
|  | [ ]  Up Local/Relief | [ ]  Dn Local/Relief | [ ]  Siding or Refuge | 18 | AMBIENT AIR TEMPERATURE at time of buckle |
| 7. | METHOD OF DETECTION  | [ ]  Team Manager/WGL/Track worker |  | [ ]  Act | [ ]  Est. | Temperature |       °C |
|  | [ ]  Loco Crew | [ ]  Track Patrol | [ ]  OtherPlease outline       | 19 | RAIL TEMPERATURE |       °C |
| 8. | TIME DETECTED |       | 20 | TRACK DISTURBANCE |
| 9. | REPORTED TO | [ ]  Team Manager/WGL/Track worker |  | [ ]  Ballast Cleaning | [ ]  Manual Resleepering | [ ]  Surfacing |
|  | [ ]  Station Master | [ ]  Track Inspector/Engineer | [ ]  Other |  | [ ]  Tie and Surfacing | [ ]  Other Please outline       |
| 10 | MISALIGNMENT DESCRIPTION |  | LAST OCCASION |
|  | LENGTH |       m | Length of misalignment in metres (Multiple of 5m) |  | [ ]  0-1Mth | [ ]  1-2Mths | [ ]  2-3Mths | [ ]  Over 3Mths |
|  | DISPLACEMENT |       mm | Lateral displacement in mm Photos of misaligned track to be attached.  | 21 | BALLAST |  |
|  |  |  |  |  | Shoulder Deficiency  |  |
|  |  |  |  |  | Crib Deficiency  |  |
|  |  |  |  |  | Ballast clean |  |
| 11 | RADIUS | [ ]  0 - 400m | [ ]  401 - 800m | [ ]  801 - 1600m | 22 | **RAIL ADJUSTMENT** Is rail out of adjustment? |  |
|  | [ ]  Over 1600m | [ ]  Straight | 22 | **RAIL CREEP** Have rails crept? |  |
| 12 | RAIL SECTION (kg/m) |       | 23 | **ANCHORS** Were any anchors ineffective? |  |
| 13 | LENGTH OF RAIL | [ ]  Less than 13.7m | [ ]  13.7 - 55m | 25 | **FASTENINGS** Were any fastenings ineffective? |  |
|  | [ ]  56 - 110m | [ ]  111 - 220m | [ ]  221 - 500m | [ ]  CWR |  |  |  |
| 14 | SLEEPER TYPE | 26 | ALIGNMENT | Was track off its correct alignment prior to the misalignment? |  |
|  | [ ]  Timber | [ ]  Steel | [ ]  Concrete | [ ]  Low Profile Concrete |  |  |  |  |
|  | [ ]  Timber/Steel interspersed | [ ]  Timber/Concrete Interspersed | 27 | PAST HISTORY – Has this location been subject to previous misalignments/buckles in the past 3 years?  |
| 15 | FASTENINGS  | [ ]  Dogspikes, Sleeper Plates No Lockspikes |  | If so, please list details and dates:      |
|  | [ ]  Dogspikes, Sleeper Plates Lockspikes | [ ]  Dogspikes, No Plates |  |  |
|  | [ ]  Pandrol Clips | [ ]  Other Resilient Fastenings. Name……….. | 28 | LAST TRAIN ID |       |

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| APPARENT CAUSES |
|       |
| CORRECTIVE ACTION TAKEN (TO RESTORE TRAFFIC) |
|       |
| STEEL REMOVED: | UP RAIL |       **mm** |  | DN RAIL |       mm | RAIL TEMPERATURE |       °C |
| SPEED RESTRICTION IMPOSED |       **km/h** |  | TRAIN DELAYS |       |
| FURTHER CORRECTIVE ACTION PROPOSED |  |
|       |
| COMMENTS |
|       |
| TEAM MANAGER |       | DATE |       |
| DELIVERY MANAGER OR NOMINATED REP |       | DATE |       |
| CONCRETE SLEEPERED TRACKWhere WTSA is not applied as per ETM-06-08 Managing Track Stability, the following information should be attached (for the section of track affected):Current Track Stability Management Plan (TSMP) for the site – mandatory requirement.Outcomes from TSMP implementation e.g. measured SFT as determined by VERSE, RailFrame, etc – important requirement, if available.Any evidence or measurements of rail or sleeper movement. Note: Creep measurements are not mandatory under ETM–06–08.Any evidence of lack of effectiveness of fastenings – if relevant.Track alignment information – this may be available from the most recent AK Car run. Very desirable information.Any other factors that may have contributed to the buckle/misalignment.Any suggested methods of preventing a re-occurrence.  |
| NON-CONCRETE SLEEPERED TRACKWhere WTSA still applies as per ETM-06-09 Welded Track Stability Analysis: |
| TRACK STABILITY ANALYSIS -  |
|  | Calculations (%) |
|  | Pre Summer | Time of Misalignment | After Repairs |
| Ballast |       |       |       |
| Anchors |       |       |       |
| Up Rail Adjust |       |       |       |
| Dn Rail Adjust |       |       |       |
| Track Disturbance |       |       |       |
| Track Condition |       |       |       |
| Location Factor |       |       |       |
| Final Stability Loss |       |       |       |
| Last TCI |       |       |       |