

Permit Number: EA/EPR/BK36381F/V002

Operator: Hydro Aluminium Limited

Facility: Wrexham Aluminium Works

Form Number: Water1



Reporting of emissions to water (other than to sewer) and land for the period from 01/07/2013 to 30/09/2013

| Emission Point | Substance / Parameter | Emission Limit Value | Reference Period | Result | Test Method  | Sample Date and Times | Uncertainty |
|----------------|-----------------------|----------------------|------------------|--------|--|-----------------------|-------------|
| W1             | BOD                   | 10 mg/l              | Single sample    | <1     | TM045: MENVAM BOD5 2nd Ed, HMSO 1988 / Method 5210B, AWWA/APHA, 20th ed, 1999; SCA Blue Book 130   | 08/08/2013, 09:00     | ±6.9%       |
| W1             | Suspended Solids      | 35 mg/l              | Single sample    | 2.5    | TM022: Method 2540D, AWWA/APHA, 20th ed, 1999 / BS2690 Part 120 1981; BS EN 872  | 08/08/2013, 09:00     | ±3%         |
| W1             | pH                    | 6 - 9                | Single sample    | 8.12   | TM256: determination of pH in water using the GLPH Meter   | 08/08/2013, 09:00     | ±0.02%      |
| W1             | COD                   | 125 mg/l             | Single sample    | 23.2   | TM107: ISO6060:1989  | 08/08/2013, 09:00     | ±1.2%       |
| W1             | Ammoniacal Nitrogen   | 5 mg /l              | Single sample    | 0.768  | TM099: BS2690 Part 7, 1968 / BSS068 Part 2.11, 1984  | 08/08/2013, 09:00     | ±3.8%       |
| W1             | Aluminium             | 0.5 mg/l             | Single sample    | 0.084  | TM152: Method 3125B, AWWA/APHA, 20th ed, 1999  | 08/08/2013, 09:00     | ±3.8%       |
| W1             | Total Hydrocarbon Oil | 2 mg/l               | Single sample    | 0.071  | TM172: Analysis of petroleum hydrocarbons in environmental media   | 08/08/2013, 09:00     | ±10.5%      |
| W1             | Temperature           | 25 °C                | Single sample    | 21     | Mercury thermometer  | 08/08/2013, 09:00     | Not known   |
| W1             | Flow                  | N/A                  |                  |        | Not measured - agreed that water emission volumes can be calculated from cooling water bleed-off and casting pit emptying (CAR I/110329/BK3638). |                       |             |

Signed .....Joel Priest.....  
 (Authorised to sign as representative of Operator)

Date .....05/09/2013.....

Results have been corrected as per condition 3.1.4.

**WORKING RETURNS N. WALLS**

DESIGNED BY: ALMORRISON  
 DRAWING NO: 10913  
 DATE: 10.9.13

ISSUED BY: [Signature]  
 DATE: 10.9.13

CHIEF ENGINEER: [Signature]  
 DATE: 10.9.13

WORKING RETURNS N. WALLS