

ATTACHMENT F5 – GROUNDWATER

There are 3 No. pre-existing groundwater monitoring wells located within the application site at Calary Quarry. It is likely that these wells are currently blocked or collapsed and will need to be re-drilled prior to commencement of the proposed soil waste recovery activities. One of the three wells (GW3) will provide a water supply to the site offices and site welfare facilities.

It is envisaged that groundwater sampling and testing of the existing wells will be undertaken on a bi-annual (ie. twice yearly) basis. Groundwater levels will also be recorded on a bi-annual basis. The location of the existing groundwater monitoring wells is indicated in Drawing F5-1.

Sampling and monitoring of groundwater will continue for the duration of the proposed waste recovery activity and for a short time thereafter. Groundwater samples will be tested for a wide range of physical and chemical parameters in order to assess its quality and detect possible contamination arising from the proposed waste recovery activities.

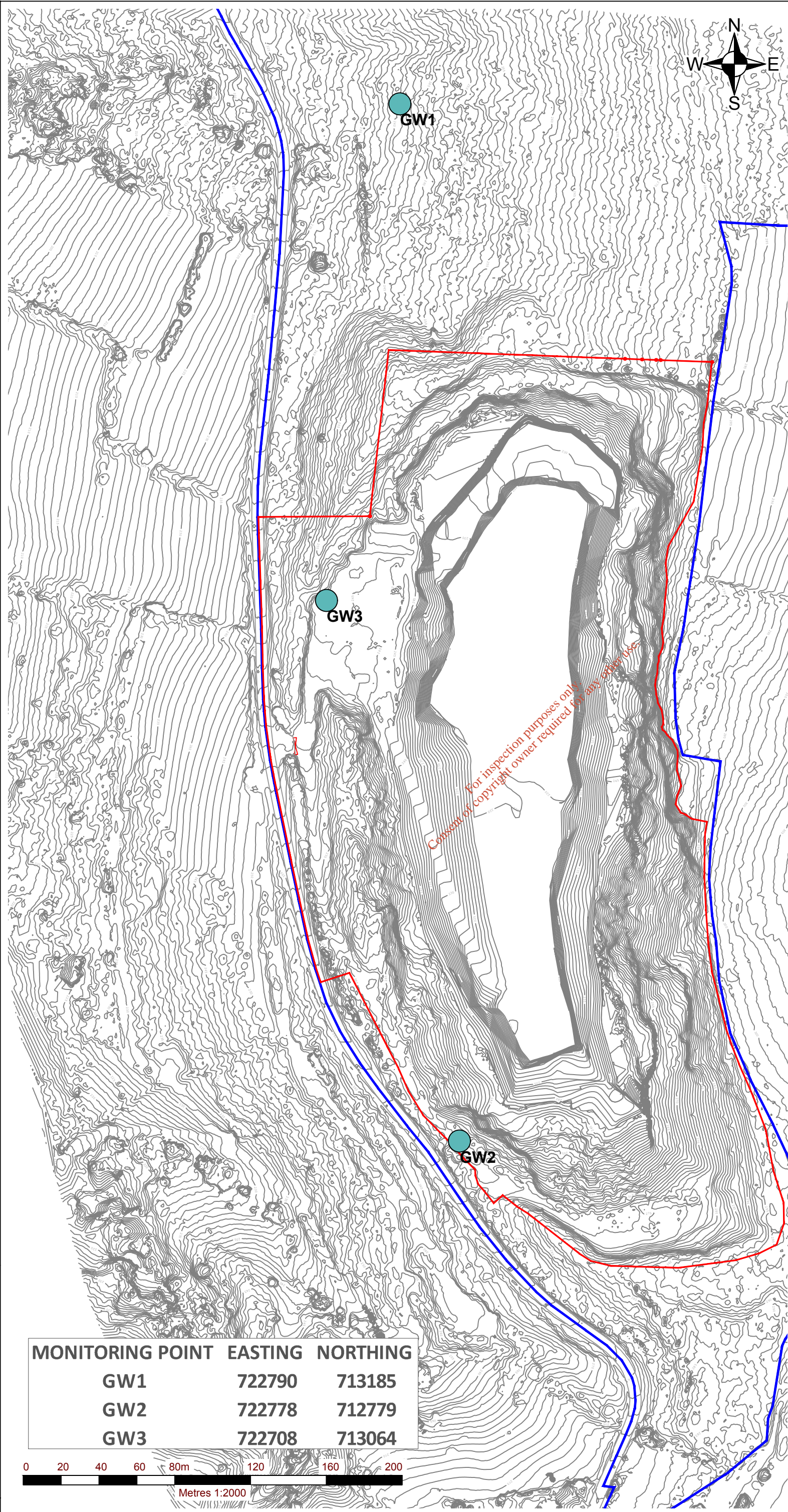
The proposed groundwater monitoring locations are identified in Table F5-1 below.

**Table F5-1
Groundwater Monitoring Points**

Monitoring Reference No.	Parameter	Monitoring Frequency	Location (Grid Co-ordinates) ¹	Accessibility of Sampling Points
GW1	Note 2	Quarterly	722747E 713327N	Effort Required- in gorse
GW2	Note 2	Quarterly	722778E 712779N	Easy – at top of quarry void
GW3	Note 2	Quarterly	722708E 713046N	Easy – along access ramp

Note 1 : ITM Co-ordinates

Note 2 : Surface water test parameters to include Temperature, pH, Dissolved Oxygen, Conductivity, Sodium, Potassium, Chloride, Ammoniacal Nitrogen, Sulphate, Dissolved Metals (Ca, Cu, Fe, Pb, Mg, Mn, Ni and Zn) and Total Alkalinity



NOTES

1. 'Orthomosaic produced from Aerial Photography flown February 2015 by SLR Consulting Ireland (IAA Permit No. 04/2015) www.slrconsulting.com Tel. +353-1-2964667. Orthomosaic produced using Ground Control Points; Related to Irish Transverse Mercator Coordinate System and OS Malin Head Level Datum.

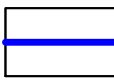
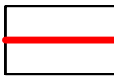

The accuracy of the orthomosaics and the digital elevation models (DEM) strongly depends on the flight height, lighting conditions, availability of textures, image quality, overlap, and type of terrain. Contours / 3D data relates to the surface model and not terrain levels. Typical accuracies: E: 0.05 m; N:0.05 m; Levels: 0.30 m.

All Dimensions and Levels are to be checked on site.

Copyright Reserved.'

2. Ordnance Survey Ireland Licence No. SU 0000716(C)
Ordnance Survey Ireland & Government of Ireland

LEGEND

-  ROADSTONE LIMITED LAND INTEREST (c.25.4 Hectares)
-  PLANNING APPLICATION AREA (c.9.1 Hectares)
-  GROUNDWATER MONITORING LOCATION

For inspection purposes only
Consent of copyright owner required for any other use

MONITORING POINT	EASTING	NORTHING
GW1	722790	713185
GW2	722778	712779
GW3	722708	713064



SLR 

SLR CONSULTING IRELAND
7 DUNDRUM BUSINESS PARK
WINDY ARBOUR
DUBLIN 14
T: +353-1-2964667
F: +353-1-2964676
www.slrconsulting.com

**ROADSTONE LIMITED
WASTE LICENCE APPLICATION**

INERT SOIL WASTE RECOVERY FACILITY
CALARY QUARRY,
KILMACANOGE, CO. WICKLOW

GROUNDWATER MONITORING LOCATIONS

DRAWING F5-1

Scale: 1:2,000 @ A3 Date: JUNE 2016

00180.00109.0.F5-1.GW Monitoring Locations.dwg