

Water Framework Directive Groundwater Monitoring Programme

Site Information **Kilcommon/Rearcross**



Kilcommon/Rearcross is a borehole used as a public supply. The abstraction rate is 540 m³/d.

SITE INFORMATION					
Site Name:	Kilcommon/Rearcross		County:	Tipperary North	
RBD:	Shannon IRBD		EU Reporting Code:	---	
Easting:	218500		GWB Name:	Slieve Phelim	
Northing:	170700		GWB Code:	IE_SH_G_213	
Site Use:	Drinking Water (PWS)		Drinking Water Code:	2800PUB1015	
Hydrometric Area:	25		Water Level Monitoring Network:	Level	Flow
Townland:	LISDALLEEN AND DRUMMIN			N	N
Ownership:	North Tipperary County Council				
Water Quality Monitoring Network:	Surveillance		Operational (Point)		Operational (Diffuse)
	N		N		N
Site Comments:	---				
SITE DIRECTIONS					
Location and Access Information:	Located 7.2 km east of Rearcross and 1.2km east of Kilcommon. The site is located of the main road running east of Kilcommon village.				
Additional Comments:	---				
WELL INFORMATION					
Monitoring Point Type:	BH	Abstraction Rate (m³/d):	540	Ground Elevation (m OD):	228
Borehole Log Available:	N	Total Drilled Depth (m bgl):	---	Depth to Bedrock (m bgl):	---
Top of Casing (m agl):	---	Upper Casing Diameter (mm):	---	Lower Casing Diameter (mm):	---
Final Borehole Depth (m):	---	Upper Casing Bottom Depth (m bgl) :	---	Lower Casing Bottom Depth (m bgl):	---
Screen Interval (m bgl):	---	Screen Type (PVC,Steel,other):	---	Screen Slot Size (mm):	---
Grout Type (cement,bentonite):	---	Grouted above (m bgl):	---	Grout Volume Injected (m³):	---
Gravel Pack Interval (m bgl):	---	Gravel Pack Volume (m³):	---	Open Hole Interval (m bgl):	---
Potential Yield (m³/day):	---	Comments on Monitoring Site:	---		
Specific Capacity (m³/d/m):	---				
Static Water Level (m bgl):	---				
Scheme Name:	Kilcommon/Rearcross	Number of Abstraction Points in the Scheme:	1	Source Report Available	N
Source Report Info:	---				
Scheme Summary:	The scheme comprises one borehole. It was bored to in 1983 by a Group Scheme to replace another well which is still housed beside the pump house. North Tipperary County Council have since taken over the scheme.				

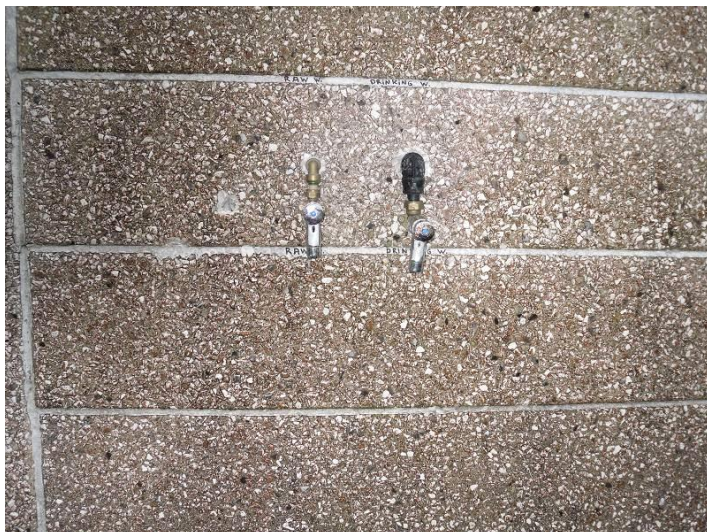
HYDROGEOLOGY								
GEOLOGY	Soil:	Deep poorly drained mineral (AminPD)				Subsoil Permeability:	n/a	
	Subsoil:	Tills (diamictons) (TLPSSs)						
	Bedrock:	Silurian Metasediments and Volcanics						
HYDROGEOLOGY	Aquifer Category:	PI	Vulnerability at Monitoring site:	Extreme	Flow Regime:	Poorly productive		
ZONE OF CONTRIBUTION	Estimated ZOC Size (km ²):	2.16	ZOC Delineated By:	OCM (DC)	Recharge Estimate (mm/yr):	100		
	ZOC Delineation Comments:	The ZOC was delineated based on abstraction, recharge and mainly topography. The entire hydrogeological catchment was used.						
Groundwater Vulnerability within ZOC (% area):	Extreme (X)	Extreme (E)	High	Moderate	Low	High to Low	Unclassified	
	15.42	84.58	0	0	0	0	0	
HYDROCHEMISTRY								
Hydrochemical Signature:	Ca-HCO ₃		Additional Water Chemistry Information:	Few data available.				
Alkalinity (mg/l HCO ₃):	Average:	Range:						
	---	---						
Hardness (mg/l CaCO ₃):	Average:	Range:						
	---	---						
Conductivity (uS/cm):	Average:	Range:						
	818	718-896						
Monitoring Record Period:	From:	To:						
	2001	2006						
RISK ASSESSMENT								
Pressure (e.g., Nitrates, Phosphates, Abstractions):	---		Typical Contaminants:	---				
Risk Category:	At risk, low confidence		GWB Status:	Good				
Impact Potential within ZOC (% area):	Extreme:	High:	Moderate:	Low:	Negligible:			
	0.00	80.32	0.00	0.00	19.68			
OTHER INFORMATION								
<p>The borehole is pumped in response to demand. The water is chlorinated at the pumphouse before distribution.</p>								



Pump House



Well Head



Sampling Point

Data Summary Sheet - July 2011

Disclaimer: The data in this document are based on the best available information and understanding at time of writing. Neither the Environmental Protection Agency, nor the individual bodies supplying data for this document and accompanying maps will be responsible for any loss or damage from the use or interpretation of these data.

Rock Unit Geology Map: GSI, 2009

Aquifer Type Map: GSI, 2009

Groundwater Vulnerability Map: GSI, 2009

Soils & Subsoils Type: Teagasc, 2007

Recharge Map: GSI, 2009

Impact Potential Map: EPA, 2009

Risk Assessment Map: EPA WFD Risk Assessment, 2006

Groundwater Body Status: EPA WFD Status Assessment, 2008

Water Quality Data: EPA WFD Monitoring, 2008

Groundwater Threshold Values

Groundwater threshold values for selected parameters:

Nitrate - General Chemical Test/ Drinking Water Test (37.5 mg/l N03)

Ammonium - Drinking Water Test (0.175 mg/l N) / Surface Water Test (0.065 mg/l N)

Molybdate Reactive Phosphorus (MRP) - Surface Water Test (0.035 mg/l P)

Chloride -Saline/Intrusive Test (24 mg/l) / Drinking Water Test (175 mg/l Cl)

Electrical Conductivity -Saline/Intrusive Test (800 µS/cm) / Drinking Water Test (1,875 µS/cm)

Further information on groundwater threshold values is contained in the Groundwater Regulations (S.I. No.9 of 2010).

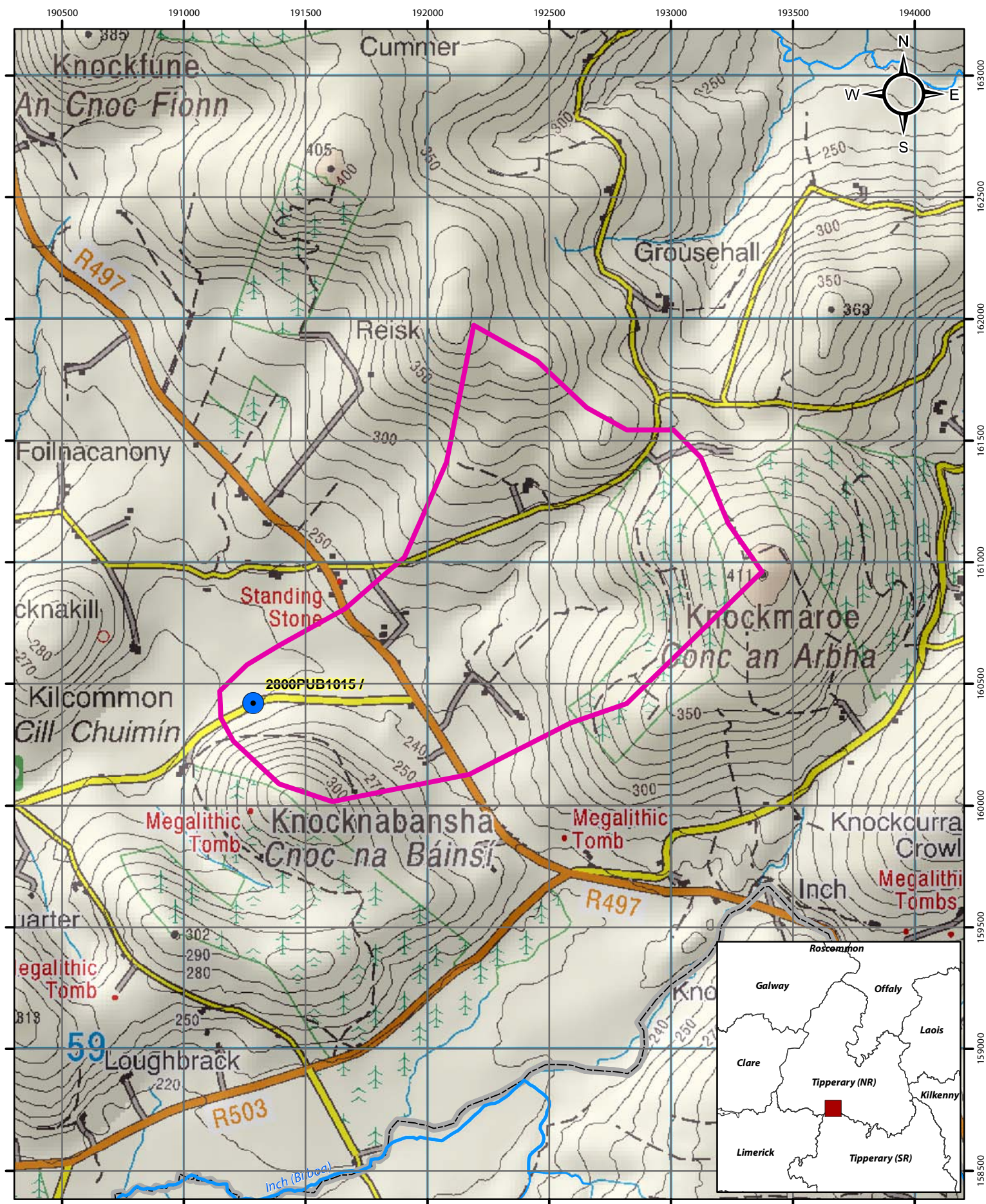
General Downgradient Distances

General Downgradient Distances (XL) applied to boreholes sourced in bedrock aquifers are constrained to estimate approximate limits based on data at the GSI. In some cases they may be higher or lower depending on local conditions.

Rk, Rkd, Lk	225 m
Lm	150 m
LI, PI	60 m

It is assumed that groundwater downgradient of a spring cannot flow back up to the spring, however a precautionary 30m buffer is generally applied which allows for instances where pumping under dry weather periods may induce a drawdown or where the ground may be sloping toward the spring from the downgradient side.

Version 0:	Prepared by		Date:	
Version 1:	Prepared by	OCM (DC)	Date:	Feb 2011
Version 2:	Prepared by		Date:	
Version 3:	Prepared by		Date:	
Version 4:	Prepared by		Date:	

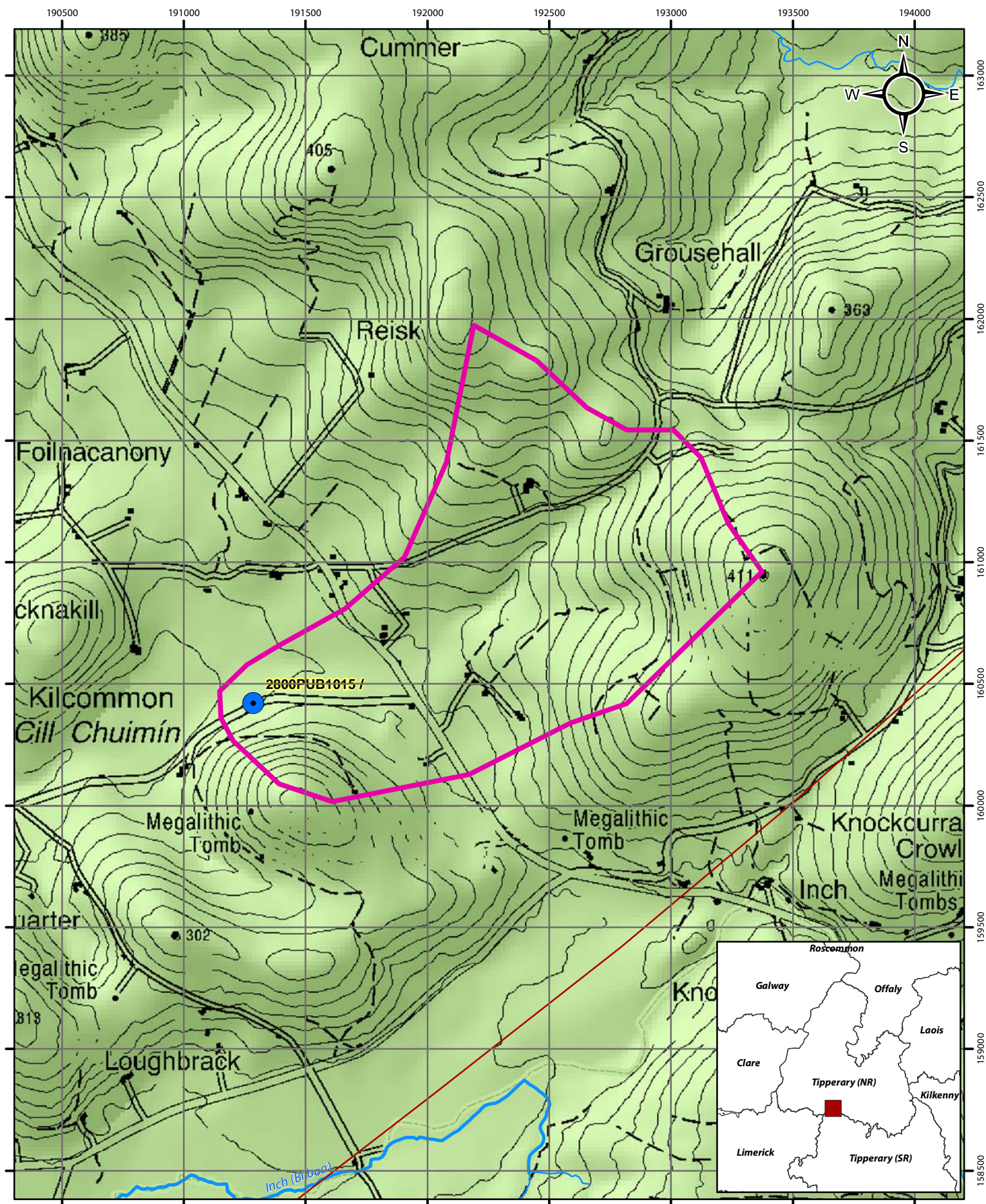


Location Map for Kilcommon/Rearcross






- Abstractions
- Zone of Contribution
- River

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0 0.25 0.5 1 km

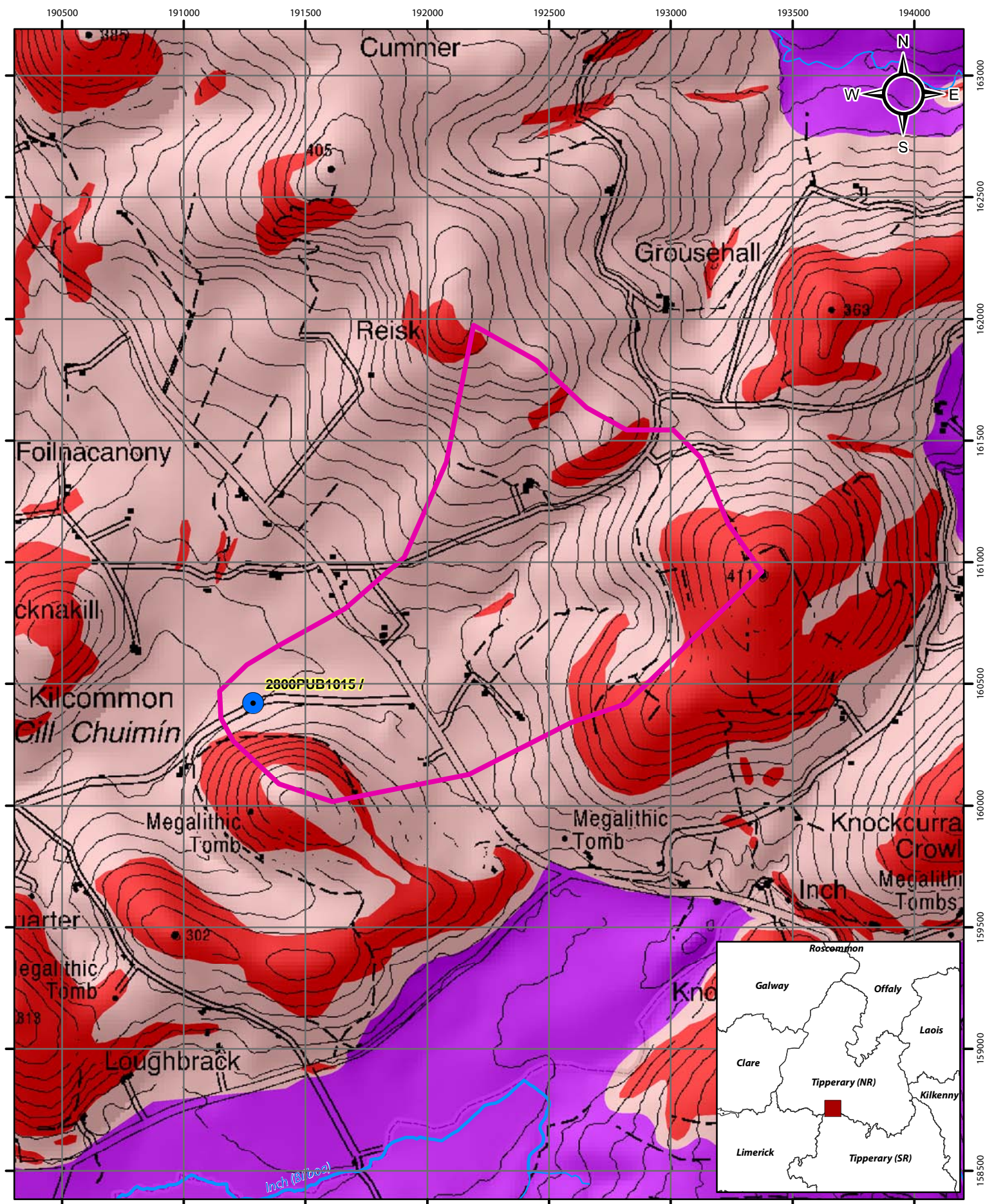


Bedrock Map for Kilcommon/Rearcross

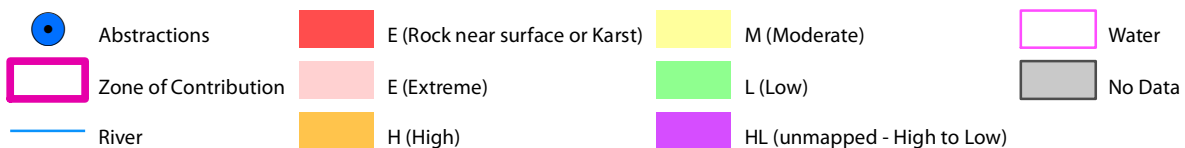
-  Abstractions
-  Zone of Contribution
-  Fault
-  Silurian Metasediments and Volcanics
-  River

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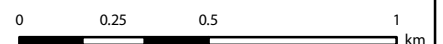
0 0.25 0.5 1 km

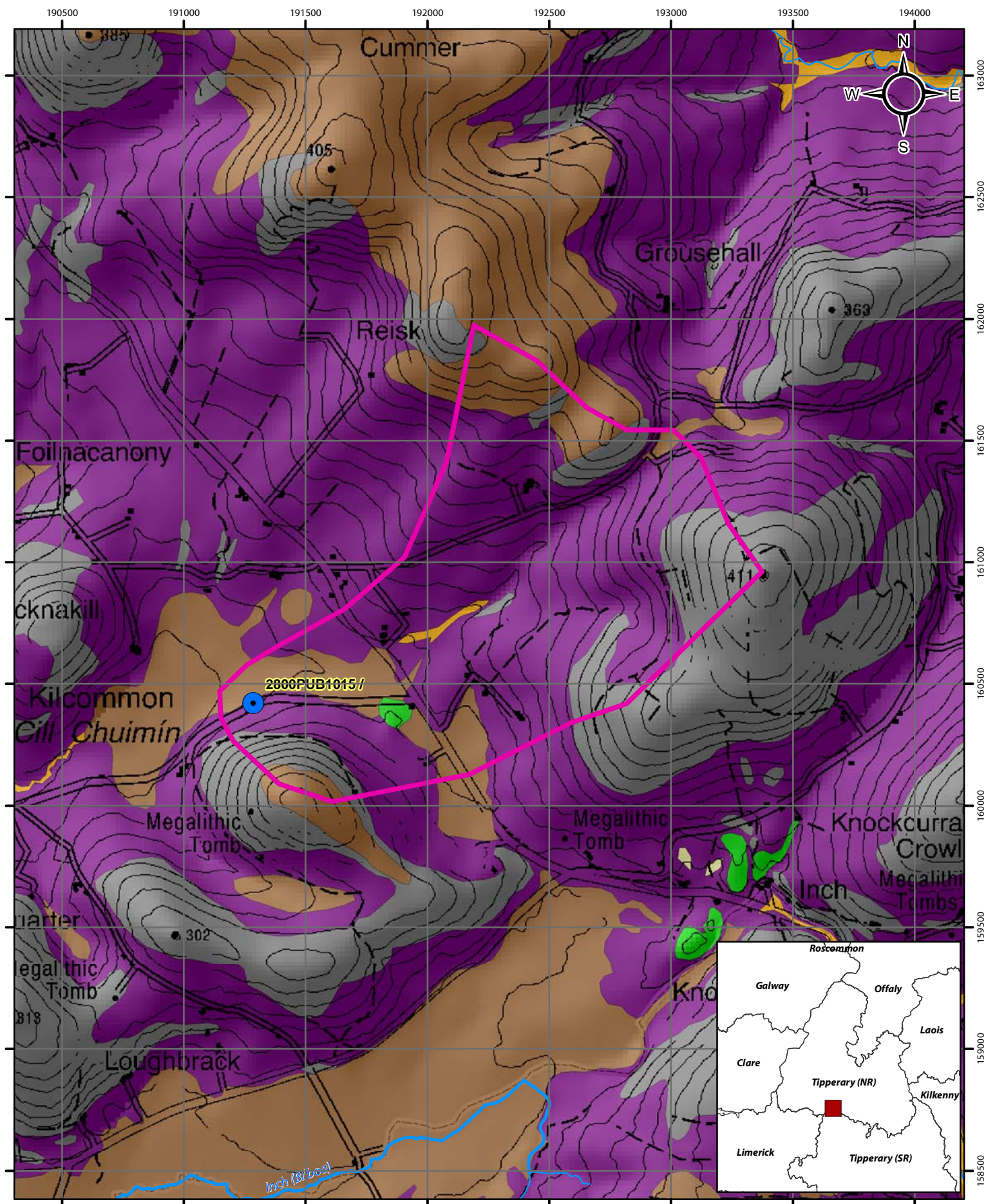


Bedrock Map for Kilcommon/Rearcross



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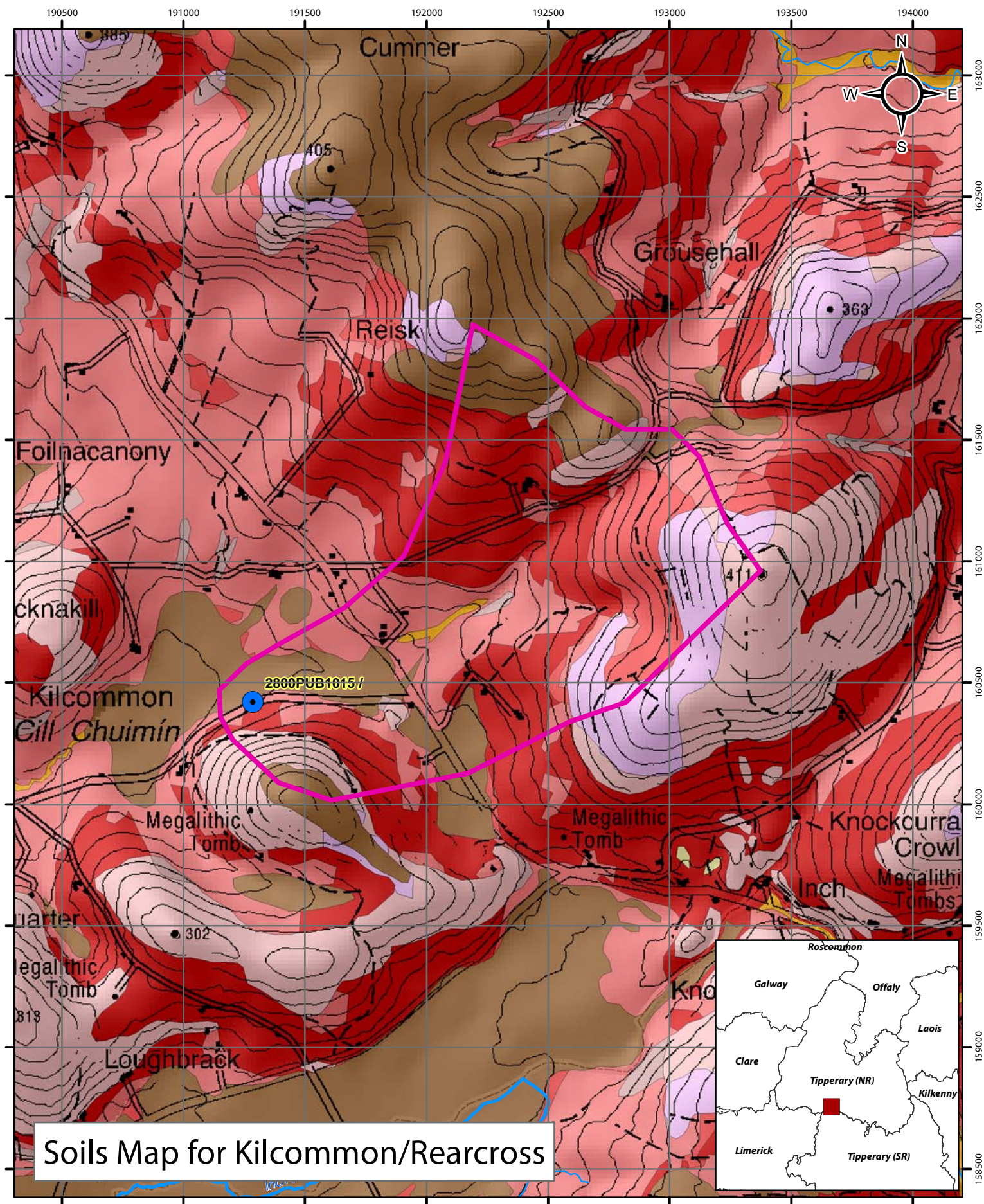


Subsoils Map for Kilcommon/Rearcross

- | | | | | | |
|--|----------------------|--|----------------------|--|---|
| | Abstractions | | Alluvium | | Gravels derived from Lower Palaeozoic sandstones and shales |
| | Zone of Contribution | | Blanket peat | | Bedrock outcrop or subcrop |
| | River | | Lacustrine sediments | | Till derived from Lower Palaeozoic sandstones and shales |

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0 0.25 0.5 1
km



Soils Map for Kilcommon/Rearcross

